Nationwide House Energy Rating Scheme
NatHERS Certificate No. 0009780008-01

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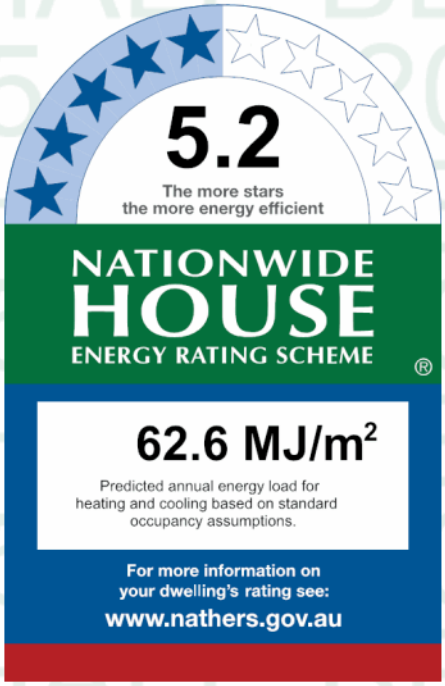

Property

Address	168 Whale Beach Road, Whale Beach , NSW , 2107
Lot/DP	1/749530
NCC Class*	1A
Type	New Dwelling

Plans

Main plan	Job No.200731 11/07/2025 I
Prepared by	Watershed Design

Construction and environment

Assessed floor area (m^2)*	
Conditioned*	494.0
Unconditioned*	103.0
Total	597.0
Garage	75.0

Exposure type

Open

NatHERS climate zone

56

Thermal performance

Heating	Cooling
38.5	**24.1**
MJ/m^2	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.

Accredited assessor

Name	Krzysztof Kwiatkowski
Business name	Building Sustainability Assessments
Email	enquiries@buildingsustainability.net.au
Phone	02 4962 3439
Accreditation No.	DMN/24/2214
Assessor Accrediting Organisation	Design Matters National
Declaration of interest	None (BSA16803) - Important - read Additional Notes on second page

Verification

To verify this certificate, scan the QR code or visit hstar.com.au/QR/Generate?p=mfQPHjcDT.
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

Important information about this certificate. This certificate is not a building specification. Specifications
used for the assessment are attached to the stamped plans.
Information in this certificate may appear to be incorrect and should be interpreted by an accredited assessor.
Conditioned and un-conditioned areas stated are not calculated in accordance with the BASIX definition.
Glazing tolerances in this certificate vary to the BASIX tolerances. For BASIX the SHGC can be +/- 10%.
I have modeled the shading in accordance with NatHERS principles

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
ATB-004-03 B	ATB-004-03 B Al Thermally Broken B DG Air Fill High Solar Gain low-E -Clear	3.1	0.49	0.47	0.51
ALM-006-01 A	ALM-006-01 A Aluminium B DG Argon Fill Clear-Clear	4.5	0.61	0.58	0.64

Custom* windows

Window ID	Window Description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				SHGC lower limit	SHGC upper limit
ALS-070-04 A	ALS-070-04 A ThermAFrame 101.6 CP 50 Comm Door DG 638ComPlsClr-12-6mmClr	2.5	0.38	0.36	0.40

Window and glazed door *schedule*

Location	Window ID	Window no.	Height (mm)	Width (mm)	Window type	Opening %	Orientation	Window shading device*
Entry	ATB-004-03 B	n/a	2700	2380	n/a	00	E	No
Entry	ALM-006-01 A	n/a	2700	1900	n/a	90	E	No
Bedroom 4	ATB-004-03 B	n/a	2700	2700	n/a	44	E	No
Bedroom 4	ALM-006-01 A	n/a	2700	950	n/a	90	E	No
Bedroom 4	ALM-006-01 A	n/a	2700	750	n/a	90	S	No
Bedroom 2	ATB-004-03 B	n/a	2700	2700	n/a	44	E	No
Bedroom 2	ALM-006-01 A	n/a	2700	700	n/a	90	E	No
Bedroom 3	ATB-004-03 B	n/a	2700	2700	n/a	44	E	No
Bedroom 3	ALM-006-01 A	n/a	2700	700	n/a	90	E	No
LDRY	ALM-006-01 A	n/a	1800	900	n/a	90	S	No
Living 1	ATB-004-03 B	n/a	2700	4280	n/a	66	E	No
Bedroom 1	ATB-004-03 B	n/a	2700	4405	n/a	66	E	No
Bedroom 1	ALM-006-01 A	n/a	2700	700	n/a	90	E	No
Bedroom 1	ATB-004-03 B	n/a	2700	1485	n/a	00	W	No
Bedroom 1	ATB-004-03 B	n/a	2700	3000	n/a	45	N	No
Ens 1	ALM-006-01 A	n/a	2700	300	n/a	90	N	Yes
Ens 1	ATB-004-03 B	n/a	2700	2000	n/a	00	N	Yes
Ens 1	ATB-004-03 B	n/a	2700	3075	n/a	00	E	Yes
STUDY	ATB-004-03 B	n/a	2700	2200	n/a	45	W	No
Guest Bed	ALS-070-04 A	n/a	2700	1500	n/a	90	N	No
Guest Bed	ATB-004-03 B	n/a	2700	4300	n/a	00	E	No
Guest Bed	ALM-006-01 A	n/a	2700	940	n/a	90	S	No
Ens 03	ALM-006-01 A	n/a	2700	900	n/a	90	S	No

Location	Window ID	Window no.	Height (mm)	Width (mm)	Window type	Opening %	Orientation	Window shading device*
Hallway	ATB-004-03 B	n/a	2700	4280	n/a	66	E	No
Hallway	ATB-004-03 B	n/a	450	2700	n/a	00	E	No Shading
Hallway	ATB-004-03 B	n/a	450	3600	n/a	00	N	No Shading
Hallway	ATB-004-03 B	n/a	450	2700	n/a	00	W	No Shading
Hallway	ATB-004-03 B	n/a	450	3600	n/a	00	S	No Shading
Family	ALM-006-01 A	n/a	2250	4800	n/a	90	W	No
Family	ATB-004-03 B	n/a	3000	5200	n/a	66	N	No
Bath 03	ATB-004-03 B	n/a	2700	1740	n/a	45	W	No
Kitchen/Living	ATB-004-03 B	n/a	3000	5200	n/a	66	N	No
Kitchen/Living	ATB-004-03 B	n/a	3000	4280	n/a	00	W	No
Kitchen/Living	ATB-004-03 B	n/a	3000	2125	n/a	90	N	No
Kitchen/Living	ATB-004-03 B	n/a	3000	2125	n/a	90	N	No
Kitchen/Living	ATB-004-03 B	n/a	3000	6180	n/a	00	E	No
Kitchen/Living	ATB-004-03 B	n/a	3000	8320	n/a	00	N	No
Kitchen/Living	ALS-070-04 A	n/a	3000	1300	n/a	90	E	No
Kitchen/Living	ALS-070-04 A	n/a	3000	1390	n/a	90	E	No
Kitchen/Living	ALM-006-01 A	n/a	3000	600	n/a	90	E	No
Kitchen/Living	ALM-006-01 A	n/a	3000	1000	n/a	90	S	No
Kitchen/Living	ATB-004-03 B	n/a	3000	680	n/a	00	W	No
Kitchen/Living	ATB-004-03 B	n/a	730	7000	n/a	00	N	No Shading
Pantry	ALM-006-01 A	n/a	600	4000	n/a	90	S	No
Gym	ATB-004-03 B	n/a	2700	2700	n/a	45	S	No
Study	ATB-004-03 B	n/a	2700	3200	n/a	45	N	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
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^2)	Orientation	Outdoor shade	Diffuser	Skylight shaft reflectance
No Data Available								

External door *schedule*

Location	Height (mm)	Width (mm)	Opening %	Orientation
Garage	2400	5200	90	E
Garage	2300	720	90	W
Entry	2700	1680	90	N
Plant room	2300	1100	90	S

External wall *type*

Wall ID	Wall type	Solar absorptance	Wall shade (colour)	Bulk insulation (R-value)	Reflective wall wrap*
EW-1	Cavity Brick	0.50	Medium	No insulation	No
EW-2	Cavity Brick	0.50	Medium	Bulk Insulation R2	No

* Refer to glossary.

Wall ID	Wall type	Solar absorptance	Wall shade (colour)	Bulk insulation (R-value)	Reflective wall wrap*
EW-3	Cavity Brick	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	2700	8800	N	500	NO
Garage	EW-1	2700	5900	E	1300	NO
Garage	EW-1	2700	2200	S	13900	YES
Garage	EW-1	2700	1800	E	3500	YES
Garage	EW-1	2700	1745	E	3500	YES
Garage	EW-1	2700	9445	W	4500	NO
Entry	EW-2	2700	2200	N	10000	YES
Entry	EW-2	2700	6000	E	1300	NO
Entry	EW-2	2700	8800	S	4300	NO
Entry	EW-2	2700	5945	W	3600	NO
Bedroom 4	EW-3	2700	4445	E	1500	NO
Bedroom 4	EW-3	2700	3695	S	200	NO
Bedroom 2	EW-3	2700	3700	N	1100	NO
Bedroom 2	EW-3	2700	4195	E	1500	NO
Bedroom 2	EW-3	2700	1200	W	8925	YES
Bedroom 3	EW-3	2700	4190	E	1500	NO
LDRY	EW-3	2700	2495	S	200	NO
LDRY	EW-3	2700	1000	S	200	NO
LDRY	EW-3	2700	2400	W	9250	NO
Living 1	EW-3	2700	4440	E	1500	NO
Living 1	EW-3	2700	595	W	8900	YES
Living 1	EW-3	2700	1600	S	3200	YES
Living 1	EW-3	2700	9695	W	6025	NO
Bedroom 1	EW-3	2700	5195	E	700	NO
Bedroom 1	EW-3	2700	5140	W	200	NO

Location	Wall ID	Height (mm)	Width (mm)	Orientation	Horizontal shading feature* maximum projection (mm)	Vertical shading feature (yes/no)
Bedroom 1	EW-3	2700	3300	N	600	YES
Ens 1	EW-3	2700	3295	W	200	NO
Ens 1	EW-3	2700	4600	N	500	NO
Ens 1	EW-3	2700	3295	E	600	YES
STUDY	EW-3	2700	2840	W	200	YES
Plant room	EW-3	2700	3045	S	100	NO
Plant room	EW-3	2700	4445	W	2700	NO
Guest Bed	EW-3	2700	1900	N	600	YES
Guest Bed	EW-3	2700	4400	E	700	NO
Guest Bed	EW-3	2700	4295	S	100	NO
Ens 03	EW-3	2700	2640	S	100	NO
Hallway	EW-3	2700	4540	E	700	YES
Hallway	EW-3	2700	1545	W	2700	NO
Hallway	EW-3	2700	4800	N	200	YES
Family	EW-3	3000	4800	W	700	NO
Family	EW-3	3000	5895	N	4700	NO
Family	EW-3	3000	2400	S	200	YES
Bath 03	EW-3	3000	3495	S	200	YES
Bath 03	EW-3	3000	1845	W	200	YES
Kitchen/Living	EW-2	3000	5995	N	400	YES
Kitchen/Living	EW-3	3000	4600	W	300	YES
Kitchen/Living	EW-3	3000	4100	N	1200	NO
Kitchen/Living	EW-3	3000	2200	N	1200	NO
Kitchen/Living	EW-3	3000	6300	E	600	YES
Kitchen/Living	EW-3	3000	9300	N	300	YES
Kitchen/Living	EW-3	3000	3100	E	550	NO
Kitchen/Living	EW-3	3000	9300	S	400	YES
Kitchen/Living	EW-3	3000	2900	E	800	YES
Kitchen/Living	EW-3	3000	7045	S	300	NO
Kitchen/Living	EW-3	3000	1145	S	300	NO

* Refer to glossary.

Location	Wall ID	Height (mm)	Width (mm)	Orientation	Horizontal shading feature* maximum projection (mm)	Vertical shading feature (yes/no)
Kitchen/Living	EW-3	3000	1000	W	800	YES
Pantry	EW-2	3000	3890	S	300	NO
Gym	EW-2	2700	4390	S	100	NO
Study	EW-2	2700	3495	W	4400	NO
Study	EW-2	2700	5045	N	2300	YES

Internal wall *type*

Wall ID	Wall type	Area (m^2)	Bulk insulation
IW-1 - Cavity Brick		18.00	Bulk Insulation, No Air Gap R2
IW-2 - Cavity wall, direct fix plasterboard, single gap		111.00	No insulation
IW-3 - Single Skin Brick		158.00	No insulation

Floor *type*

Location	Construction	Area (m^2)	Sub-floor ventilation	Added insulation (R-value)	Covering
Garage	Concrete Slab on Ground 200mm	75.30	None	No Insulation	Bare
Entry	Concrete Slab on Ground 200mm	52.40	None	No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 4/Entry	Concrete Above Plasterboard 200mm	5.40		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 4	Suspended Concrete Slab 200mm	10.80	Totally Open	No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 2/Garage	Concrete Above Plasterboard 200mm	15.20		Bulk Insulation R1	Carpet+Rubber Underlay 18mm
Bedroom 3/Garage	Concrete Above Plasterboard 200mm	7.30		Bulk Insulation R1	Carpet+Rubber Underlay 18mm
Bedroom 3	Concrete Slab, Unit Below 200mm	3.60	None	No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 3	Suspended Concrete Slab 200mm	4.00	Totally Open	No Insulation	Carpet+Rubber Underlay 18mm
LDRY	Suspended Concrete Slab 200mm	8.10	Totally Open	No Insulation	Ceramic Tiles 8mm
Living 1/Garage	Concrete Above Plasterboard 200mm	18.60		Bulk Insulation R1	60/40 Carpet 10mm/Ceramic
Living 1/Entry	Concrete Above Plasterboard 200mm	46.50		No Insulation	60/40 Carpet 10mm/Ceramic

* Refer to glossary.

Location	Construction	Area (m^2)	Sub-floor ventilation	Added insulation (R-value)	Covering
Living 1	Concrete Slab on Ground 200mm	2.10	None	No Insulation	60/40 Carpet 10mm/Ceramic
Bedroom 1/Living 1	Concrete Above Plasterboard 200mm	17.90		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 1/Study	Concrete Above Plasterboard 200mm	7.20		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 1	Concrete Slab on Ground 200mm	15.40	None	No Insulation	Carpet+Rubber Underlay 18mm
Ens 1/Study	Concrete Above Plasterboard 200mm	3.20		No Insulation	Ceramic Tiles 8mm
Ens 1	Concrete Slab on Ground 200mm	11.80	None	No Insulation	Ceramic Tiles 8mm
STUDY	Concrete Slab on Ground 200mm	7.70	None	No Insulation	Ceramic Tiles 8mm
Plant room	Concrete Slab on Ground 200mm	13.50	None	No Insulation	Ceramic Tiles 8mm
Guest Bed/Bedroom 4	Concrete Above Plasterboard 200mm	7.30		No Insulation	Carpet+Rubber Underlay 18mm
Guest Bed/LDRY	Concrete Above Plasterboard 200mm	6.10		No Insulation	Carpet+Rubber Underlay 18mm
Guest Bed/Living 1	Concrete Above Plasterboard 200mm	6.30		No Insulation	Carpet+Rubber Underlay 18mm
Ens 03/LDRY	Concrete Above Plasterboard 200mm	2.00		No Insulation	Carpet+Rubber Underlay 18mm
Ens 03	Concrete Slab on Ground 200mm	4.60	None	No Insulation	Ceramic Tiles 8mm
Hallway/Living 1	Concrete Above Plasterboard 200mm	24.20		No Insulation	Carpet+Rubber Underlay 18mm
Hallway	Concrete Slab on Ground 200mm	13.40	None	No Insulation	Carpet+Rubber Underlay 18mm
Family	Concrete Slab on Ground 200mm	27.90	None	No Insulation	Carpet+Rubber Underlay 18mm
Bath 03	Concrete Slab on Ground 200mm	6.40	None	No Insulation	Ceramic Tiles 8mm
Kitchen/Living/Plant room	Concrete Above Plasterboard 200mm	4.60		No Insulation	40/60 Carpet 10mm/Ceramic
Kitchen/Living/Hallway	Concrete Above Plasterboard 200mm	17.30		No Insulation	40/60 Carpet 10mm/Ceramic
Kitchen/Living/Gym	Concrete Above Plasterboard 200mm	6.70		No Insulation	40/60 Carpet 10mm/Ceramic
Kitchen/Living	Concrete Slab on Ground 200mm	111.80	None	No Insulation	40/60 Carpet 10mm/Ceramic
Pantry	Concrete Slab on Ground 200mm	10.70	None	No Insulation	Ceramic Tiles 8mm
Gym	Concrete Slab on Ground 200mm	19.50	None	No Insulation	Carpet+Rubber Underlay 18mm

Location	Construction	Area (m^2)	Sub-floor ventilation	Added insulation (R-value)	Covering
Study/Garage	Concrete Above Plasterboard 200mm	17.40		Bulk Insulation R1	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	Concrete Above Plasterboard	Bulk Insulation R1	No
Entry	Concrete Above Plasterboard	No Insulation	No
Bedroom 4	Plasterboard	Bulk Insulation R3	No
Bedroom 4	Concrete Above Plasterboard	No Insulation	No
Bedroom 2	Plasterboard	Bulk Insulation R3	No
Bedroom 3	Plasterboard	Bulk Insulation R3	No
LDRY	Concrete Above Plasterboard	No Insulation	No
Living 1	Plasterboard	Bulk Insulation R3	No
Living 1	Concrete Above Plasterboard	No Insulation	No
Bedroom 1	Plasterboard	Bulk Insulation R3	No
Ens 1	Plasterboard	Bulk Insulation R3	No
STUDY	Plasterboard	Bulk Insulation R3	No
Plant room	Plasterboard	Bulk Insulation R3	No
Plant room	Concrete Above Plasterboard	No Insulation	No
Guest Bed	Plasterboard	Bulk Insulation R3	No
Ens 03	Plasterboard	Bulk Insulation R3	No
Hallway	Plasterboard	Bulk Insulation R3	No
Hallway	Concrete Above Plasterboard	No Insulation	No
Family	Plasterboard	Bulk Insulation R3	No
Bath 03	Plasterboard	Bulk Insulation R3	No
Kitchen/Living	Plasterboard	Bulk Insulation R3	No
Pantry	Plasterboard	Bulk Insulation R3	No
Gym	Plasterboard	Bulk Insulation R3	No
Gym	Concrete Above Plasterboard	No Insulation	No

Location	Construction material/type	Bulk insulation R-value (may include edge batt values)	Reflective wrap*
Study	Plasterboard	Bulk Insulation R3	No
Study	Concrete Above Plasterboard	No Insulation	No

Ceiling *penetrations**

Location	Quantity	Type	Diameter (mm)	Sealed/unsealed
No Data Available				

Ceiling *fans*

Location	Quantity	Diameter (mm)
Living 1	1	1200
Kitchen/Living	1	1200

Roof *type*

Construction	Added insulation (R-value)	Solar absorptance	Roof shade
Concrete	No Added Insulation, No air Gap	0.50	Medium

Explanatory notes

About this report

A NatHERS rating is a comprehensive, dynamic computer modelling evaluation of a home, using the floorplans, elevations and specifications to estimate an energy load. It addresses the building layout, orientation and fabric (i.e. walls, windows, floors, roofs and ceilings), but does not cover the water or energy use of appliances or energy production of solar panels.

Ratings are based on a unique climate zone where the home is located and are generated using standard assumptions, including occupancy patterns and thermostat settings. The actual energy consumption of a home may vary significantly from the predicted energy load, as the assumptions used in the rating will not match actual usage patterns. For example, the number of occupants and personal heating or cooling preferences will vary.

While the figures are an indicative guide to energy use, they can be used as a reliable guide for comparing different dwelling designs and to demonstrate that the design meets the energy efficiency requirements in the National Construction Code. Homes that are energy efficient use less energy, are warmer on cool days, cooler on hot days and cost less to run. The higher the star rating the more thermally efficient the dwelling is.

Accredited assessors

To ensure the NatHERS Certificate is of a high quality, always use an accredited or licenced assessor. NatHERS accredited assessors are members of a professional body called an Assessor Accrediting Organisation (AAO).

Australian Capital Territory (ACT) licensed assessors may only produce assessments for regulatory purposes using software for which they have a licence endorsement. Licence endorsements can be confirmed on the ACT licensing register

AAOs have specific quality assurance processes in place, and continuing professional development requirements, to maintain a high and consistent standard of assessments across the country. Non-accredited assessors do not have this level of quality assurance or any ongoing training requirements.

Any questions or concerns about this report should be directed to the assessor in the first instance. If the assessor is unable to address these questions or concerns, the AAO specified on the front of this certificate should be contacted.

Disclaimer

The format of the NatHERS Certificate was developed by the NatHERS Administrator. However the content of each individual certificate is entered and created by the assessor to create a NatHERS Certificate. It is the responsibility of the assessor who prepared this certificate to use NatHERS accredited software correctly and follow the NatHERS Technical Notes to produce a NatHERS Certificate.

The predicted annual energy load in this NatHERS Certificate is an estimate based on an assessment of the building by the assessor. It is not a prediction of actual energy use, but may be used to compare how other buildings are likely to perform when used in a similar way.

Information presented in this report relies on a range of standard assumptions (both embedded in NatHERS accredited software and made by the assessor who prepared this report), including assumptions about occupancy, indoor air temperature and local climate.

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

Glossary

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