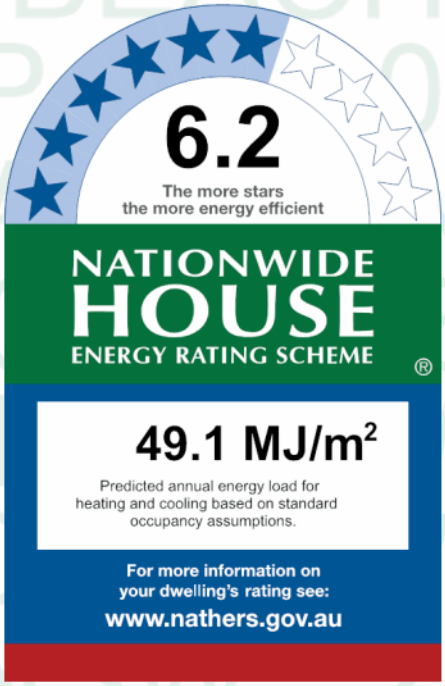
Nationwide House Energy Rating Scheme
NatHERS Certificate No. 0008947699

Generated on 26 Sep 2023 using BERS Pro v4.4.1.5 (3.21)



Property

Address	15 Ocean Road, Palm Beach , NSW , 2108
Lot/DP	2/412086
NCC Class*	1A
Type	New Dwelling

Plans

Main plan	15 Ocean Road, Palm Beach NSW 2108
Prepared by	BJB ARCHITECTS

Construction and environment

Assessed floor area (m^2)*

Conditioned*	599.0
Unconditioned*	258.0
Total	856.0
Garage	211.0

Exposure type

Open

NatHERS climate zone

56

Thermal performance

Heating	Cooling
29.5	**19.6**
MJ/m^2	MJ/m^2

Accredited assessor

Name	Martin Pinson
Business name	INTEGRECO
Email	consulting@integreco.com
Phone	0422144603
Accreditation No.	DMN/19/1921
Assessor Accrediting Organisation	Design Matters National
Declaration of interest	Declaration completed: no conflicts

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=iOVpRkIhr.
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

Simulation Notes:

- Building on site are modelled as shown (for overshadowing) but no tree preservations in place and no trees are modelled.
- Shading devices used from elevations, sections and plans (may need re-checking at CC stage).
- No RCP provided at DA but no generic insulation holes assumed for downlights (due to proposed LED light covers - recheck at CC stage)
- No RCP provided at DA so generic holes assumed for exhaust fans (must have extra checking and rerunning at CC stage)
- Floor thickness need checking at CC stage, due to complexity of the proposed construction.
- All wall types and ceiling types need checking at CC stage, due to complexity of the proposed construction.
- Window sizes used from elevations, sections and plan mark-ups (mark-ups take priority and all this needs re-checking at CC stage).
- Door sizes used from elevations, sections and plan mark-ups (this needs re-checking at CC stage).

I have modeled the shading in accordance with NatHERS principles

* Refer to glossary.

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
ATB-003-01 B	ATB-003-01 B Al Thermally Broken A DG Air Fill Clear-Clear	3.6	0.47	0.45	0.49

Custom* windows

Window ID	Window Description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				SHGC lower limit	SHGC upper limit
No Data Available					

Window and glazed door *schedule*

Location	Window ID	Window no.	Height (mm)	Width (mm)	Window type	Opening %	Orientation	Window shading device*
Kitchen/Living	ATB-004-03 B	n/a	3100	6100	n/a	45	E	Yes
Kitchen/Living	ATB-004-03 B	n/a	3100	6100	n/a	00	E	Yes
Kitchen/Living	ATB-004-03 B	n/a	3100	5600	n/a	65	S	No
Kitchen/Living	ATB-004-03 B	n/a	3100	1200	n/a	00	W	No
Kitchen/Living	ATB-004-03 B	n/a	3100	1200	n/a	00	N	No
Kitchen/Living	ATB-003-01 B	n/a	2700	1800	n/a	60	E	No
Butler Pantry	ATB-004-03 B	n/a	2100	2300	n/a	45	E	No
Living Mezz	ATB-004-03 B	n/a	3100	1200	n/a	00	N	No
Living Mezz	ATB-004-03 B	n/a	3100	1200	n/a	00	S	No
Living Mezz	ATB-003-01 B	n/a	2800	1000	n/a	75	W	No
Bedroom 1	ATB-004-03 B	n/a	2100	3000	n/a	00	N	No
Bedroom 1	ATB-004-03 B	n/a	3100	5400	n/a	65	E	No
Bedroom 2	ATB-004-03 B	n/a	3100	5400	n/a	65	E	No
Bedroom 3	ATB-004-03 B	n/a	3100	5400	n/a	65	E	No
Bedroom 3	ATB-004-03 B	n/a	2100	3000	n/a	00	S	No
Bedroom 4	ATB-004-03 B	n/a	2100	3000	n/a	00	S	No

* Refer to glossary.
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Location	Window ID	Window no.	Height (mm)	Width (mm)	Window type	Opening %	Orientation	Window shading device*
Bedroom 4	ATB-004-03 B	n/a	3100	5400	n/a	65	W	No
Bedroom 5	ATB-004-03 B	n/a	3100	5100	n/a	65	W	No
Night Time 6	ATB-004-03 B	n/a	3100	1200	n/a	00	N	No
Night Time 6	ATB-004-03 B	n/a	3100	2799	n/a	65	E	Yes
Bedroom Master	ATB-004-03 B	n/a	3100	1000	n/a	00	W	No
Bedroom Master	ATB-004-03 B	n/a	3100	7000	n/a	65	E	Yes
Bedroom Master	ATB-004-03 B	n/a	3100	1000	n/a	00	W	No
Ensuite master	ATB-004-03 B	n/a	3100	4799	n/a	65	E	Yes

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-011-02 W	Glass	2.7	0.24	0.23	0.25

Roof window *schedule*

Location	Window ID	Window no.	Opening %	Height (mm)	Width (mm)	Orientation	Outdoor shade	Indoor shade
Night Time 6	VEL-011-02 W	n/a	0	1650	1650	N	No	No
WIR	VEL-011-02 W	n/a	0	4100	1100	N	No	No
WIR 2	VEL-011-02 W	n/a	0	4100	1100	N	No	No

Skylight *type and performance*

Skylight ID	Skylight description
No Data Available	

Skylight *schedule*

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

External door *schedule*

Location	Height (mm)	Width (mm)	Opening %	Orientation
Garage 1	2700	3500	90	E
Kitchen/Living	3000	1000	90	W

External wall *type*

Wall ID	Wall type	Solar absorptance	Wall shade (colour)	Bulk insulation (R-value)	Reflective wall wrap*
EW-1	Tilt up Concrete	0.50	Medium	No insulation	No
EW-2	Single Skin Panel	0.50	Medium	No insulation	No
EW-3	Tilt up concrete, lined	0.50	Medium	Bulk Insulation R2.5	No
EW-4	Tilt up concrete, lined	0.30	Light	Bulk Insulation R2.5	No
EW-5	Tilt up concrete, lined	0.30	Light	Bulk Insulation R2.5	No
EW-6	Weatherboard Cavity Panel Direct Fix	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)
Garage 1	EW-1	3100	2200	N	5800	YES
Garage 1	EW-2	3100	10800	E	1200	NO
Garage 1	EW-1	3100	11200	S	0	NO
Garage 1	EW-1	3100	7200	S	0	NO
Garage 1	EW-1	3100	11550	W	3200	NO
Garage 1	EW-1	3100	750	E	3400	YES
Cinema	EW-3	3100	4395	N	0	YES
Cinema	EW-3	3100	4950	E	3400	NO

* Refer to glossary.

Location	Wall ID	Height (mm)	Width (mm)	Orientation	Horizontal shading feature* maximum projection (mm)	Vertical shading feature (yes/no)
Hall	EW-3	3100	1275	W	3200	NO
Gym	EW-3	3100	2035	N	2574	NO
Gym	EW-3	3100	1612	N	2521	NO
Gym	EW-3	3100	2600	E	1600	YES
Lift 1	EW-3	3100	1850	W	3200	NO
Bath	EW-3	2700	1195	N	2700	YES
Bath	EW-3	3100	1839	N	2687	YES
Plant room	EW-3	3100	2325	W	3200	NO
Plant room	EW-3	3100	5256	N	2606	NO
Lift 2	EW-3	3100	1925	W	0	NO
Lift 2	EW-3	3100	1725	N	600	YES
Lift 3	EW-3	3100	1925	W	200	NO
Lift 3	EW-3	3100	1725	N	600	YES
Lift 4	EW-4	3100	1725	N	600	YES
Lift 4	EW-5	3100	1925	W	0	NO
Kitchen/Living	EW-3	3100	1920	W	0	NO
Kitchen/Living	EW-3	3100	1000	W	1800	YES
Kitchen/Living	EW-3	3100	4600	N	0	YES
Kitchen/Living	EW-3	3100	4400	N	200	YES
Kitchen/Living	EW-3	3100	13200	E	2400	NO
Kitchen/Living	EW-3	3100	6400	S	3200	YES
Kitchen/Living	EW-3	3100	2195	W	2200	YES
Kitchen/Living	EW-3	3100	1342	N	202	NO
Kitchen/Living	EW-3	3100	2608	N	0	NO
Kitchen/Living	EW-6	3100	2595	E	1600	YES
Powder	EW-3	3100	3590	W	0	NO
Butler Pantry	EW-3	3100	2595	E	8800	YES
Butler Pantry	EW-3	3100	5995	S	600	NO
Store cellar	EW-3	3100	4390	W	0	NO
Living Mezz	EW-3	3100	600	W	2000	YES

* Refer to glossary.

Location	Wall ID	Height (mm)	Width (mm)	Orientation	Horizontal shading feature* maximum projection (mm)	Vertical shading feature (yes/no)
Living Mezz	EW-3	3100	4600	N	0	NO
Living Mezz	EW-3	3100	1395	N	0	YES
Living Mezz	EW-3	3100	1390	S	0	YES
Living Mezz	EW-3	3100	800	S	11000	YES
Living Mezz	EW-3	3100	2125	W	200	NO
Ens 1	EW-3	3100	1000	W	0	YES
Ens 1	EW-3	3100	1795	N	0	NO
Ens 3	EW-3	3100	1795	S	0	NO
Ens 3	EW-3	3100	400	W	1800	YES
Ens 4	EW-3	3100	400	E	5600	YES
Ens 4	EW-3	3100	1995	S	0	NO
Bedroom 1	EW-3	3100	3395	N	0	NO
Bedroom 1	EW-3	3100	5595	E	2400	NO
Bedroom 2	EW-3	3100	5590	E	2400	NO
Bedroom 3	EW-3	3100	5595	E	2400	NO
Bedroom 3	EW-3	3100	3395	S	0	NO
Bedroom 4	EW-3	3100	3595	S	0	NO
Bedroom 4	EW-3	3100	5595	W	1000	NO
Bedroom 5	EW-3	3100	5390	W	1000	YES
Night Time 6	EW-5	3100	600	W	1800	YES
Night Time 6	EW-5	3100	9200	N	0	NO
Night Time 6	EW-5	3100	2795	E	200	NO
WIR	EW-5	3100	4590	W	0	NO
Bedroom Master	EW-5	3100	1520	W	0	NO
Bedroom Master	EW-5	3100	7190	E	200	NO
Bedroom Master	EW-5	3100	1190	W	0	NO
Ensuite master	EW-5	3100	4795	E	200	NO
Ensuite master	EW-5	3100	6995	S	0	NO
Cool room	EW-3	3100	2195	S	600	NO
Cool room	EW-3	3100	2395	W	0	NO

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Location	Wall ID	Height (mm)	Width (mm)	Orientation	Horizontal shading feature* maximum projection (mm)	Vertical shading feature (yes/no)
WIR 2	EW-5	3100	3995	S	0	NO
WIR 2	EW-5	3100	4795	W	0	NO

Internal wall *type*

Wall ID	Wall type	Area (m^2)	Bulk insulation
IW-1 - Tilt Concrete		50.00	Bulk Insulation, No Air Gap R2.5
IW-2 - Cavity wall, direct fix plasterboard, single gap		591.00	No insulation
IW-3 - Tilt Concrete		53.00	No insulation

Floor *type*

Location	Construction	Area (m^2)	Sub-floor ventilation	Added insulation (R-value)	Covering
Garage 1	Concrete Slab on Ground 200mm	210.90	None	No Insulation	Bare
Cinema	Concrete Slab on Ground 200mm	22.70	None	Bulk Insulation in Contact with Floor R2.3	Cork Tiles or Parquetry 8mm
Hall	Concrete Slab on Ground 200mm	19.90	None	Bulk Insulation in Contact with Floor R2.3	Cork Tiles or Parquetry 8mm
Stair	Concrete Slab on Ground 200mm	5.10	None	Bulk Insulation in Contact with Floor R2.3	Cork Tiles or Parquetry 8mm
Gym	Concrete Slab on Ground 200mm	13.80	None	Bulk Insulation in Contact with Floor R2.3	Cork Tiles or Parquetry 8mm
Ldy	Concrete Slab on Ground 200mm	7.40	None	Bulk Insulation in Contact with Floor R2.3	Ceramic Tiles 8mm
Lift 1	Concrete Slab on Ground 200mm	3.20	None	Bulk Insulation in Contact with Floor R2.3	Cork Tiles or Parquetry 8mm
Bath	Concrete Slab on Ground 200mm	7.20	None	Bulk Insulation in Contact with Floor R2.3	Ceramic Tiles 8mm
Plant room	Concrete Slab on Ground 200mm	16.90	None	Bulk Insulation in Contact with Floor R2.3	Ceramic Tiles 8mm
Lift 2/Lift 1	Concrete Above Plasterboard 200mm	3.30		No Insulation	Cork Tiles or Parquetry 8mm
Lift 3/Lift 2	Concrete Above Plasterboard 200mm	3.30		No Insulation	Cork Tiles or Parquetry 8mm
Lift 4/Lift 3	Concrete Above Plasterboard 200mm	3.30		No Insulation	Carpet 10mm
Kitchen/Living /Garage 1	Concrete Above Plasterboard 200mm	79.70		Bulk Insulation R2.3	Cork Tiles or Parquetry 8mm

* Refer to glossary.

Location	Construction	Area (m^2)	Sub-floor ventilation	Added insulation (R-value)	Covering
Kitchen/Living /Cinema	Concrete Above Plasterboard 200mm	14.50		No Insulation	Cork Tiles or Parquetry 8mm
Kitchen/Living /Hall	Concrete Above Plasterboard 200mm	21.10		No Insulation	Cork Tiles or Parquetry 8mm
Kitchen/Living /Stair	Concrete Above Plasterboard 200mm	5.50		No Insulation	Cork Tiles or Parquetry 8mm
Kitchen/Living /Gym	Concrete Above Plasterboard 200mm	4.90		No Insulation	Cork Tiles or Parquetry 8mm
Kitchen/Living /Ldy	Concrete Above Plasterboard 200mm	7.80		No Insulation	Cork Tiles or Parquetry 8mm
Kitchen/Living /Bath	Concrete Above Plasterboard 200mm	0.60		No Insulation	Cork Tiles or Parquetry 8mm
Kitchen/Living /Plant room	Concrete Above Plasterboard 200mm	6.20		No Insulation	Cork Tiles or Parquetry 8mm
Kitchen/Living /Gym	Concrete Above Plasterboard 200mm	4.70		No Insulation	Cork Tiles or Parquetry 8mm
Kitchen/Living /Bath	Concrete Above Plasterboard 200mm	4.20		No Insulation	Cork Tiles or Parquetry 8mm
Kitchen/Living	Concrete Slab on Ground 200mm	0.70	None	Bulk Insulation in Contact with Floor R2.3	Cork Tiles or Parquetry 8mm
Powder/Garage 1	Concrete Above Plasterboard 200mm	8.20		Bulk Insulation R2.3	Ceramic Tiles 8mm
Butler Pantry/Garage 1	Concrete Above Plasterboard 200mm	26.80		Bulk Insulation R2.3	Cork Tiles or Parquetry 8mm
Store/Garage 1	Concrete Above Plasterboard 200mm	4.00		Bulk Insulation R2.3	Cork Tiles or Parquetry 8mm
Store cellar/Garage 1	Concrete Above Plasterboard 200mm	16.70		Bulk Insulation R2.3	Cork Tiles or Parquetry 8mm
Living Mezz/Kitchen/Living	Concrete Above Plasterboard 200mm	39.20		No Insulation	Cork Tiles or Parquetry 8mm
Living Mezz/Powder	Concrete Above Plasterboard 200mm	1.10		No Insulation	Cork Tiles or Parquetry 8mm
Living Mezz/Butler Pantry	Concrete Above Plasterboard 200mm	3.50		No Insulation	Cork Tiles or Parquetry 8mm
Living Mezz/Store	Concrete Above Plasterboard 200mm	1.50		No Insulation	Cork Tiles or Parquetry 8mm
Living Mezz	Suspended Concrete Slab 200mm	0.50	Totally Open	Bulk Insulation in Contact with Floor R2.3	Cork Tiles or Parquetry 8mm
Ens 1/Kitchen/Living	Concrete Above Plasterboard 200mm	5.20		No Insulation	Ceramic Tiles 8mm
Ens 1/Kitchen/Living	Concrete Above Plasterboard 200mm	0.60		No Insulation	Ceramic Tiles 8mm
Ens 2/Kitchen/Living	Concrete Above Plasterboard 200mm	5.70		No Insulation	Ceramic Tiles 8mm
Ens 3/Butler Pantry	Concrete Above Plasterboard 200mm	1.00		No Insulation	Cork Tiles or Parquetry 8mm

Location	Construction	Area (m^2)	Sub-floor ventilation	Added insulation (R-value)	Covering
Ens 3	Suspended Concrete Slab 200mm	4.80	Totally Open	Bulk Insulation in Contact with Floor R2.3	Ceramic Tiles 8mm
Ens 4/Butler Pantry	Concrete Above Plasterboard 200mm	4.90		No Insulation	Cork Tiles or Parquetry 8mm
Ens 4	Suspended Concrete Slab 200mm	1.50	Totally Open	Bulk Insulation in Contact with Floor R2.3	Ceramic Tiles 8mm
Ens 5/Kitchen/Living	Concrete Above Plasterboard 200mm	3.20		No Insulation	Ceramic Tiles 8mm
Ens 5/Butler Pantry	Concrete Above Plasterboard 200mm	3.20		No Insulation	Ceramic Tiles 8mm
Bedroom 1/Kitchen/Living	Concrete Above Plasterboard 200mm	21.80		No Insulation	Cork Tiles or Parquetry 8mm
Bedroom 1	Suspended Concrete Slab 200mm	0.60	Totally Open	Bulk Insulation in Contact with Floor R2.3	Cork Tiles or Parquetry 8mm
Bedroom 2/Kitchen/Living	Concrete Above Plasterboard 200mm	22.30		No Insulation	Cork Tiles or Parquetry 8mm
Bedroom 3/Kitchen/Living	Concrete Above Plasterboard 200mm	11.20		No Insulation	Cork Tiles or Parquetry 8mm
Bedroom 3	Suspended Concrete Slab 200mm	11.30	Totally Open	Bulk Insulation in Contact with Floor R2.3	Cork Tiles or Parquetry 8mm
Bedroom 4/Kitchen/Living	Concrete Above Plasterboard 200mm	2.10		No Insulation	Cork Tiles or Parquetry 8mm
Bedroom 4/Butler Pantry	Concrete Above Plasterboard 200mm	9.60		No Insulation	Cork Tiles or Parquetry 8mm
Bedroom 4/Store cellar	Concrete Above Plasterboard 200mm	6.10		No Insulation	Cork Tiles or Parquetry 8mm
Bedroom 4/Cool room	Concrete Above Plasterboard 200mm	3.30		No Insulation	Cork Tiles or Parquetry 8mm
Bedroom 4	Suspended Concrete Slab 200mm	2.80	Totally Open	Bulk Insulation in Contact with Floor R2.3	Cork Tiles or Parquetry 8mm
Bedroom 5/Kitchen/Living	Concrete Above Plasterboard 200mm	3.60		No Insulation	Cork Tiles or Parquetry 8mm
Bedroom 5/Powder	Concrete Above Plasterboard 200mm	4.60		No Insulation	Cork Tiles or Parquetry 8mm
Bedroom 5/Butler Pantry	Concrete Above Plasterboard 200mm	4.50		No Insulation	Cork Tiles or Parquetry 8mm
Bedroom 5/Store	Concrete Above Plasterboard 200mm	2.70		No Insulation	Cork Tiles or Parquetry 8mm
Bedroom 5/Store cellar	Concrete Above Plasterboard 200mm	7.40		No Insulation	Cork Tiles or Parquetry 8mm
Night Time 6/Living Mezz	Concrete Above Plasterboard 200mm	16.40		No Insulation	Carpet 10mm
Night Time 6/Ens 1	Concrete Above Plasterboard 200mm	4.20		No Insulation	Carpet 10mm
Night Time 6/Bedroom 1	Concrete Above Plasterboard 200mm	4.50		No Insulation	Carpet 10mm

Location	Construction	Area (m^2)	Sub-floor ventilation	Added insulation (R-value)	Covering
WIR/Living Mezz	Concrete Above Plasterboard 200mm	2.20		No Insulation	Carpet 10mm
WIR/Bedroom 5	Concrete Above Plasterboard 200mm	11.60		No Insulation	Carpet 10mm
WIR	Suspended Concrete Slab 200mm	3.10	Totally Open	Bulk Insulation in Contact with Floor R2.3	Carpet 10mm
Bedroom Master/Living Mezz	Concrete Above Plasterboard 200mm	20.40		No Insulation	Carpet 10mm
Bedroom Master/Ens 2	Concrete Above Plasterboard 200mm	5.60		No Insulation	Carpet 10mm
Bedroom Master/Ens 5	Concrete Above Plasterboard 200mm	6.50		No Insulation	Carpet 10mm
Bedroom Master/Bedroom 1	Concrete Above Plasterboard 200mm	5.60		No Insulation	Carpet 10mm
Bedroom Master/Bedroom 2	Concrete Above Plasterboard 200mm	11.20		No Insulation	Carpet 10mm
Bedroom Master/Bedroom 4	Concrete Above Plasterboard 200mm	0.90		No Insulation	Carpet 10mm
Bedroom Master/Bedroom 5	Concrete Above Plasterboard 200mm	10.50		No Insulation	Carpet 10mm
Bedroom Master	Suspended Concrete Slab 200mm	0.90	Totally Open	Bulk Insulation in Contact with Floor R2.3	Carpet 10mm
Ensuite master/Living Mezz	Concrete Above Plasterboard 200mm	6.60		No Insulation	Ceramic Tiles 8mm
Ensuite master/Ens 3	Concrete Above Plasterboard 200mm	4.20		No Insulation	Ceramic Tiles 8mm
Ensuite master/Ens 4	Concrete Above Plasterboard 200mm	4.70		No Insulation	Ceramic Tiles 8mm
Ensuite master/Bedroom 3	Concrete Above Plasterboard 200mm	10.20		No Insulation	Ceramic Tiles 8mm
Ensuite master/Bedroom 4	Concrete Above Plasterboard 200mm	5.20		No Insulation	Ceramic Tiles 8mm
Cool room/Garage 1	Concrete Above Plasterboard 200mm	5.10		Bulk Insulation R2.3	Ceramic Tiles 8mm
WIR 2/Bedroom 4	Concrete Above Plasterboard 200mm	14.40		No Insulation	Carpet 10mm
WIR 2/Bedroom 5	Concrete Above Plasterboard 200mm	0.60		No Insulation	Carpet 10mm
WIR 2	Suspended Concrete Slab 200mm	3.80	Totally Open	Bulk Insulation in Contact with Floor R2.3	Carpet 10mm

Ceiling *type*

Location	Construction material/type	Bulk insulation R-value (may include edge batt values)	Reflective wrap*
Garage 1	Plasterboard	No insulation	No
Garage 1	Concrete Above Plasterboard	Bulk Insulation R2.3	No
Cinema	Plasterboard	Bulk Insulation R4	No
Cinema	Concrete Above Plasterboard	No Insulation	No
Hall	Plasterboard	Bulk Insulation R4	No
Hall	Concrete Above Plasterboard	No Insulation	No
Stair	Plasterboard	Bulk Insulation R4	No
Stair	Concrete Above Plasterboard	No Insulation	No
Gym	Plasterboard	Bulk Insulation R4	No
Gym	Concrete Above Plasterboard	No Insulation	No
Ldy	Plasterboard	Bulk Insulation R4	No
Ldy	Concrete Above Plasterboard	No Insulation	No
Lift 1	Plasterboard	Bulk Insulation R4	No
Lift 1	Concrete Above Plasterboard	No Insulation	No
Bath	Plasterboard	Bulk Insulation R4	No
Bath	Concrete Above Plasterboard	No Insulation	No
Plant room	Plasterboard	Bulk Insulation R4	No
Plant room	Concrete Above Plasterboard	No Insulation	No
Lift 2	Plasterboard	Bulk Insulation R4	No
Lift 2	Concrete Above Plasterboard	No Insulation	No
Lift 3	Plasterboard	Bulk Insulation R4	No
Lift 3	Concrete Above Plasterboard	No Insulation	No
Lift 4	Plasterboard	Bulk Insulation R4	No
Kitchen/Living	Plasterboard	Bulk Insulation R4	No
Kitchen/Living	Concrete Above Plasterboard	No Insulation	No
Kitchen/Living	Plasterboard	Bulk Insulation R4	No
Kitchen/Living	Concrete Above Plasterboard	No Insulation	No
Powder	Plasterboard	Bulk Insulation R4	No
Powder	Concrete Above Plasterboard	No Insulation	No

* Refer to glossary.

Location	Construction material/type	Bulk insulation R-value (may include edge batt values)	Reflective wrap*
Butler Pantry	Plasterboard	Bulk Insulation R4	No
Butler Pantry	Concrete Above Plasterboard	No Insulation	No
Store	Plasterboard	Bulk Insulation R4	No
Store	Concrete Above Plasterboard	No Insulation	No
Store cellar	Plasterboard	Bulk Insulation R4	No
Store cellar	Concrete Above Plasterboard	No Insulation	No
Living Mezz	Plasterboard	Bulk Insulation R4	No
Living Mezz	Concrete Above Plasterboard	No Insulation	No
Ens 1	Plasterboard	Bulk Insulation R4	No
Ens 1	Concrete Above Plasterboard	No Insulation	No
Ens 2	Plasterboard	Bulk Insulation R4	No
Ens 2	Concrete Above Plasterboard	No Insulation	No
Ens 3	Plasterboard	Bulk Insulation R4	No
Ens 3	Concrete Above Plasterboard	No Insulation	No
Ens 4	Plasterboard	Bulk Insulation R4	No
Ens 4	Concrete Above Plasterboard	No Insulation	No
Ens 5	Plasterboard	Bulk Insulation R4	No
Ens 5	Concrete Above Plasterboard	No Insulation	No
Bedroom 1	Plasterboard	Bulk Insulation R4	No
Bedroom 1	Concrete Above Plasterboard	No Insulation	No
Bedroom 2	Plasterboard	Bulk Insulation R4	No
Bedroom 2	Concrete Above Plasterboard	No Insulation	No
Bedroom 3	Plasterboard	Bulk Insulation R4	No
Bedroom 3	Concrete Above Plasterboard	No Insulation	No
Bedroom 4	Plasterboard	Bulk Insulation R4	No
Bedroom 4	Concrete Above Plasterboard	No Insulation	No
Bedroom 5	Plasterboard	Bulk Insulation R4	No
Bedroom 5	Concrete Above Plasterboard	No Insulation	No
Night Time 6	Plasterboard	Bulk Insulation R4	No
WIR	Plasterboard	Bulk Insulation R4	No

* Refer to glossary.

Location	Construction material/type	Bulk insulation R-value (may include edge batt values)	Reflective wrap*
Bedroom Master	Plasterboard	Bulk Insulation R4	No
Ensuite master	Plasterboard	Bulk Insulation R4	No
Cool room	Plasterboard	Bulk Insulation R4	No
Cool room	Concrete Above Plasterboard	No Insulation	No
WIR 2	Plasterboard	Bulk Insulation R4	No

Ceiling *penetrations**

Location	Quantity	Type	Diameter (mm)	Sealed/unsealed
Ldy	1	Exhaust Fans	300	Sealed
Powder	1	Exhaust Fans	300	Sealed
Butler Pantry	1	Exhaust Fans	300	Sealed
Ens 1	1	Exhaust Fans	300	Sealed
Ens 2	1	Exhaust Fans	300	Sealed
Ens 3	1	Exhaust Fans	300	Sealed
Ens 4	1	Exhaust Fans	300	Sealed
Ens 5	1	Exhaust Fans	300	Sealed
Ensuite master	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
Concrete	No Insulation, Only an Air Gap	0.50	Medium
Concrete	No Insulation, Only an Air Gap	0.30	Light

* Refer to glossary.
Generated on 26 Sep 2023 using BERS Pro v4.4.1.5 (3.21) for Palm Beach , NSW , 2108

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).