Certificate number: 0004226577 Certificate Date: 24 Sep 2019 ★ Star rating: **5.4**



BERS Pro v4.3.0.0 (3.13) cannot be used to model 'roof windows'. Roof windows are 'openable or fixed windows in a roof' and do not have a shaft, as distinct from skylights which incorporate a built-in shaft and are not ventilated. BERS Pro v4.3 can only model skylights. If a roof window is present on the floor plan then this certificate is not valid

Assessor details

Accreditation

number: 101182

Name: Daniel.Warda

Organisation: Energi Thermal Assessors Pty Ltd

Email: daniel.warda@hotmail.com

Phone: 0452504125

Declaration None

of interest:

BERS Pro v4.3.0.2d (3.13) Software:

ABSA AAO:

Overview

Dwelling details

Street: **Bubalo Street** Suburb: Warriewood

State: Postcode: 2102 **NSW** NCC Class: **New Dwelling 1A** Type:

NatHERS

climate zone: 56 Lot/DP

number: 26/271139 Exposure: Suburban

Key construction and insulation materials

(see following pages for details)

Construction: Fibro Cavity Panel Direct Fix

Corrugated Iron

Waffle pod slab 300 mm

Insulation: **R2.5** wall insulation

> **R5.0** ceiling insulation No floor insulation

ALM-002-01 A Aluminium B SG Clear Glazing:

Net floor area (m²)

Conditioned: 186.0 Unconditioned: 37.0 Garage: 23.0 TOTAL: 223.0

Annual thermal performance loads (MJ/m²)

Heating: 39.9 Cooling: 20.1 TOTAL: 59.9

Plan documents

Plan ref/date: 17295

Prepared by: Wincrest - EB

the more energy efficient NATIONWIDE Predicted annual energy load for heating and cooling based on standard occupancy assumptions MJ/m² For more information on your dwelling's rating see: www.nathers.gov.au

Ceiling penetrations

(see following pages for details)

Sealed:

Unsealed: 0 TOTAL:**

**NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. If this number is exceded in construction then this certificate IS NOT VALID and a new certificate is required. Loss of ceiling insulation for the penetrations listed has been taken into account with the rating.

Principle downlight type: Unknown

Window selection default windows only

Note on allowable window values: Only a 5% tolerance to the nominated SHGC window values shown on page 2 can be used with this rating.

Note: Only a +/- 5% SHGC tolerance is allowed with this rating.

NB: This tolerance ONLY applies to SHGC, the U-value can always be lower but not higher than the values stated on page 2.

If any of windows selected are outside the 5% tolerance then this certificate is no longer valid and the dwelling will need to be rerated to confirm compliance.

Scan to access this certificate online and confirm this is valid.



Certificate number: 0004226577 Certificate Date: 24 Sep 2019 ★ Star rating: 5



Building features

Window ID	Window type	U-value	SHGC
ALM-001-01 A	ALM-001-01 A Aluminium A SG Clear	6.7	0.57
ALM-002-01 A	ALM-002-01 A Aluminium B SG Clear	6.7	0.70
ALM-002-03 A	ALM-002-03 A Aluminium B SG High Solar Gain Low-E	5.4	0.58

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Study	ALM-001-01 A	n/a	2100	1450	E	No Shading
Media	ALM-002-01 A	n/a	1800	1210	S	No Shading
Laundry	ALM-002-01 A	n/a	600	1210	S	No Shading
Kitchen/Dining	ALM-002-03 A	n/a	700	3900	S	No Shading
Kitchen/Dining	ALM-002-03 A	n/a	2400	2350	W	No Shading
Kitchen/Dining	ALM-002-03 A	n/a	2400	2350	S	No Shading
Kitchen/Dining	ALM-002-03 A	n/a	2400	2350	W	No Shading
Kitchen/Dining	ALM-002-03 A	n/a	1460	2650	N	No Shading
Bedroom 1	ALM-002-01 A	n/a	1200	1450	W	No Shading
Bedroom 1	ALM-002-01 A	n/a	600	2170	S	No Shading
WIR	ALM-001-01 A	n/a	1457	610	W	No Shading
Ensuite	ALM-002-01 A	n/a	574	1810	N	No Shading
Living	ALM-002-01 A	n/a	1800	1810	N	No Shading
Living	ALM-002-01 A	n/a	857	2410	S	No Shading
Bedroom 2	ALM-002-01 A	n/a	1030	1810	N	No Shading
Bedroom 3	ALM-001-01 A	n/a	1460	1810	Е	No Shading
Bedroom 4	ALM-001-01 A	n/a	1200	2170	Е	No Shading
Bath	ALM-002-01 A	n/a	994	610	S	No Shading
Bath	ALM-002-01 A	n/a	994	610	S	No Shading

ID	Window	type		U-value	SHGC
None Presen	t				
Roof windo	w and skyligh	nt schedule			
				Outdoor shade	

ID	Wall type		Insulation		Wa	II wrap or foi
EW-1	Fibro Cavity	Panel Direct Fix	Anti-glare foil	with bulk no gap	R2.5 Ye	S
EW-2	Fibro Cavity	Panel Direct Fix	No insulation		No	ı
EW-3	Single Skin	Panel	Bulk Insulation	n R3.1	No	
External wa	all schedule					
Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves

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Certificate number: 0004226577 Certificate Date: 24 Sep 2019 ★ Star rating: 5.4



Building featur	es continue	ed				
Study	EW-1	800	2750	N	No	1800
Study	EW-1	3200	2750	Е	No	1400
Study	EW-1	3095	2750	S	No	100
Media	EW-1	2795	2750	S	No	100
Media	EW-1	700	2750	W	No	17100
Media	EW-1	2295	2750	S	No	600
Garage	EW-2	7200	2825	N	No	100
Garage	EW-2	3295	2825	Е	No	100
Garage	EW-2	400	2825	W	No	100
Laundry	EW-1	2090	2750	S	No	600
Kitchen/Dining	EW-1	7095	2750	S	No	600
Kitchen/Dining	EW-1	2600	2750	W	No	5600
Kitchen/Dining	EW-1	2600	2750	S	No	3200
Kitchen/Dining	EW-1	4300	2750	W	No	3000
Kitchen/Dining	EW-1	9500	2750	N	No	600
Kitchen/Dining	EW-1	400	2750	Е	No	600
Kitchen/Dining	EW-1	2495	2750	N	No	100
Entry	EW-1	1090	2750	Е	No	2200
Bedroom 1	EW-3	3795	400	W	No	0
Bedroom 1	EW-1	3795	2050	W	No	600
Bedroom 1	EW-1	3895	2450	S	No	600
WIR	EW-3	2095	350	W	No	0
WIR	EW-1	2095	2100	W	No	600
WIR	EW-1	3395	2450	N	No	600
Ensuite	EW-1	3390	2450	N	No	600
Living	EW-1	2590	2450	N	No	600
Living	EW-1	4890	2450	S	No	600
Bedroom 2	EW-1	400	2450	W	No	10000
Bedroom 2	EW-1	3095	2450	N	No	600
Bedroom 3	EW-1	4095	2450	N	No	600
Bedroom 3	EW-1	3295	2450	Е	No	600
Bedroom 4	EW-1	800	2450	N	No	3900
Bedroom 4	EW-3	3000	250	Е	No	0
Bedroom 4	EW-1	3000	2200	Е	No	600
Bedroom 4	EW-1	3895	2450	S	No	600
Bath	EW-1	4690	2450	S	No	600

Internal wall type					
Wall type	Area (m²)	Insulation	Wall wrap or foil		
IW-1 - Cavity wall, direct fix plasterboard, single gap	160.0	No insulation	No		
IW-2 - Cavity wall, direct fix plasterboard, single gap	28.0	Bulk Insulation, No Air Gap R2.5	No		

Floors

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Certificate number: 0004226577 Certificate Date: 24 Sep 2019 ★ Star rating:



Building features continued

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Study	Waffle pod slab 300 mm 100mm	9.7	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Media	Waffle pod slab 300 mm 100mm	14.2	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Garage	Waffle pod slab 225 mm 100mm	23.3	None	Waffle Pod 225mm	Bare
PR	Waffle pod slab 300 mm 100mm	2.2	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Laundry	Waffle pod slab 300 mm 100mm	4.9	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Kitchen/Dining	Waffle pod slab 300 mm 100mm	66.2	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Entry	Waffle pod slab 300 mm 100mm	7.2	None	Waffle Pod 300mm	Ceramic Tiles 8mm
Bedroom 1/Kitchen/Dining	AAC Above Plasterboard 19mm	14.5		No Insulation	Carpet 10mm
WIR/Kitchen/Dining	AAC Above Plasterboard 19mm	6.9		No Insulation	Carpet 10mm
Ensuite/Kitchen/Di ning	AAC Above Plasterboard 19mm	6.2		No Insulation	Ceramic Tiles 8mm
Living/PR	AAC Above Plasterboard 19mm	2.4		No Insulation	Carpet 10mm
Living/Laundry	AAC Above Plasterboard 19mm	3.1		No Insulation	Carpet 10mm
Living/Kitchen/Dining	AAC Above Plasterboard 19mm	19.3		No Insulation	Carpet 10mm
Living/Entry	AAC Above Plasterboard 19mm	5.1		No Insulation	Carpet 10mm
Bedroom 2/Garage	AAC Above Plasterboard 19mm	10.8		Bulk Insulation R5	Carpet 10mm
Bedroom 3/Garage	AAC Above Plasterboard 19mm	12.2		Bulk Insulation R5	Carpet 10mm
Bedroom 4/Study	AAC Above Plasterboard 19mm	5.7		No Insulation	Carpet 10mm
Bedroom 4/Media	AAC Above Plasterboard 19mm	1.5		No Insulation	Carpet 10mm
Bedroom 4/Entry	AAC Above Plasterboard 19mm	2.6		No Insulation	Carpet 10mm
Bedroom 4	Suspended Timber Floor 19mm	0.9	Totally Open	Bulk Insulation in Contact with Floor R5	Carpet 10mm
Bath/Media	AAC Above Plasterboard 19mm	7.8		No Insulation	Ceramic Tiles 8mm
Bath/Laundry	AAC Above Plasterboard 19mm	0.7		No Insulation	Ceramic Tiles 8mm

Ceiling type					
Location	Construction	Added insulation	Roof space above		
Study	Plasterboard	Bulk Insulation R5	Yes		
Study	AAC Above Plasterboard	No Insulation	No		
Media	Plasterboard	Bulk Insulation R5	Yes		
Media	AAC Above Plasterboard	No Insulation	No		
Garage	AAC Above Plasterboard	Bulk Insulation R5	No		

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Certificate number: 0004226577 Certificate Date: 24 Sep 2019 ★ Star rating: 5.4



Building features continued

PR	AAC Above Plasterboard	No Insulation	No
Laundry	Plasterboard	Bulk Insulation R5	Yes
Laundry	AAC Above Plasterboard	No Insulation	No
Kitchen/Dining	Plasterboard	Bulk Insulation R5	Yes
Kitchen/Dining	AAC Above Plasterboard	No Insulation	No
Entry	AAC Above Plasterboard	No Insulation	No
Bedroom 1	Plasterboard	Bulk Insulation R5	Yes
WIR	Plasterboard	Bulk Insulation R5	Yes
Ensuite	Plasterboard	Bulk Insulation R5	Yes
Living	Plasterboard	Bulk Insulation R5	Yes
Bedroom 2	Plasterboard	Bulk Insulation R5	Yes
Bedroom 3	Plasterboard	Bulk Insulation R5	Yes
Bedroom 4	Plasterboard	Bulk Insulation R5	Yes
Bath	Plasterboard	Bulk Insulation R5	Yes

Ceiling penetrations

Number	Туре	Diameter (mm)	Sealed/unsealed
1	Exhaust Fans	300	Sealed
1	Exhaust Fans	300	Sealed
1	Exhaust Fans	300	Sealed
1	Exhaust Fans	300	Sealed
	Number 1 1 1 1 1	1 Exhaust Fans 1 Exhaust Fans 1 Exhaust Fans	1 Exhaust Fans 300 1 Exhaust Fans 300 1 Exhaust Fans 300

Ceiling fans

Location	Number	Diameter (mm)	
Bedroom 1	1	1200	
Bedroom 2	1	1200	
Bedroom 3	1	1200	
Bedroom 4	1	1200	

R	O	of	f t	V	ne
	$\mathbf{\mathbf{\mathcal{U}}}$	•		V 1	\mathbf{v}

Construction	Added Roof color insulation
Corrugated Iron	Bulk, Reflective Dark Side Down, No Air Gap Above R1.3



Additional information	

Explanatory notes

About this report

Residential energy ratings address the quality of the building fabric i.e. walls, windows, floors and roof/ceilings. Ratings do not cover the energy or water efficiency of appliances including heating and cooling, hot water, dishwashers, ovens, fridges, TVs etc. or solar panel or water tank requirements. The efficiency or specification of these items is generally covered by other regulations, standards or guidelines.

General Information

A NatHERS House Energy Rating is a comprehensive, dynamic computer modelling evaluation of the floorplans, elevations and specifications to predict an energy load of a home. Not all of us use our homes in the same way, so ratings are generated using standard assumptions. This means homes can be compared across the country.

The actual energy consumption of your home may vary significantly from the predicted energy load figures in the report depending on issues such as the size of your household and your personal preferences, e.g. in terms of heating or cooling.

While the figures are an indicative guide to energy use, they can be used as a reliable guide for comparative purposes between different house designs and for demonstrating that the design meets the required regulatory compliance.

Homes that are energy efficient use less energy, are warmer in winter, cooler in summer and cost less to run. The higher the star rating the more energy efficient.

This NatHERS House Energy Rating report was carefully prepared by your assessor on the basis of comprehensive modelling using standard procedures to rate your home using the underlying engine developed by the Australian Commonwealth Scientific and Industrial Research Organisation (CSIRO).

All information relating to energy loads presented in this report is based on a range of standard assumptions in order to allow for comparisons with reports prepared for other homes and to demonstrate minimum regulatory compliance.

The standard assumptions include figures for occupancy, indoor air temperature and are based on a unique climate file for your region.

Accredited Assessors

To ensure you get a high-quality, professional NatHERS House Energy Rating report, you should always use an accredited assessor, accredited assessors are members of a professional body called an Assessor Accrediting Organisation (AAO).

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 on-going training requirements.

If you have any questions or concerns about this report, please direct them to your assessor in the first instance.

If your assessor is unable to address your questions or concerns, please contact their AAO listed under 'assessor details'. You can also find a range of information about accredited assessors on the AAO websites.

Disclaimer

The energy values quoted are for comparison purposes only; they are not a prediction of actual energy use. This rating only applies to the floor plan, construction details, orientation and climate as submitted and included in the attached drawing set that bears a stamp with the same number as this certificate. Changes to any of these details could affect the rating.

Contact

For more information on the Nationwide House Energy Rating Scheme (NatHERS), visit www.nathers.gov.au For more information on energy efficient design and insulation visit www.yourhome.gov.au

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