Certificate number: 0002653343 Certificate Date: 17 Apr 2018 ★ Star rating: 4.9



Assessor details

Accreditation

20945 number:

Name: **Dimitrios Harakidas**

Organisation: AENEC

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Declaration No potential conflicts of interest to

of interest: declare

AccuRate Sustainability V2.3.3.13 SP3 Software:

ABSA AAO:

Overview

Dwelling details

Street: Unit 1., 14 Mooki Street

Suburb: Miranda

State: Postcode: 2228 **NSW** NCC Class: 1a New

Type:

NatHERS

climate zone: **56** Lot/DP

number: 13/24748 Exposure: Suburban

Key construction and insulation materials

(see following pages for details)

Construction: Fibre-cement sheet wall/Plasterboard

Metal roof/Metal roof

Slab

Insulation: **R2.0** wall insulation

> Ceiling (uninsulated) Floor (uninsulated)

Aluminium B DG Argon Fill Low Solar Glazing:

Gain low-E

Net floor area (m²)

Conditioned: 155.0 Unconditioned: 95.0 Garage: 54.0 250.0 TOTAL:

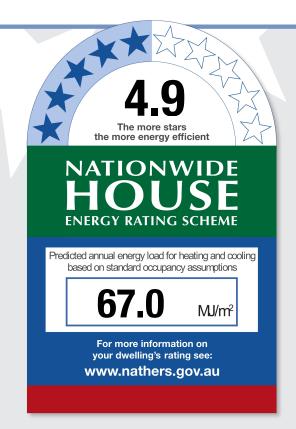
Annual thermal performance loads (MJ/m²)

Heating: 41.0 Cooling: 26.0 TOTAL: 67.0

Plan documents

17462/23.02.2018 Plan ref/date:

Prepared by: A.N.



Ceiling penetrations

(see following pages for details)

Sealed: 31 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: Light-emitting diode (LED)

31

Window selection default windows only

Note on allowable window values: With a 10% tolerance to the nominated SHGC window values shown on page 2, the following ratings are achieved:

-10% SHGC 4.9

+10% SHGC 4.9

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 the rating listed above falls below 6.0 stars or the required rating, then the window with this tolerance can NOT be selected.

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







Building features

Window type and performance value				
Window ID	Window type	U-value	SHGC	
ALM-005-04 A	DEFAULTS: Aluminium A DG Argon Fill Low Solar Gain low-E -Clear U = 4.80: SHGC = 0.34	: 4.8	0.34	
ALM-006-04 A	DEFAULTS: Aluminium B DG Argon Fill Low Solar Gain low-E -Clear U = 4.80: SHGC = 0.34	: 4.8	0.34	

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
1ENTRY	ALM-005-04 A	D1.1	2400	1400	W	None
1ENTRY	ALM-006-04 A	W1.1	2700	850	S	None
1KLD	ALM-006-04 A	W1.5	2700	850	N	None
1KLD	ALM-006-04 A	W1.6	2700	850	N	None
1KLD	ALM-006-04 A	D1.2	2400	3200	W	None
1KLD	ALM-006-04 A	W1.7	800	2170	W	None
1STUDY	ALM-006-04 A	W1.2	1200	1450	S	None
1BATH-GF	ALM-006-04 A	W1.3	600	600	E	None
1LDRY	ALM-006-04 A	W1.4	600	1210	Е	None
1BED1	ALM-006-04 A	W1.10	1200	1810	S	None
1BED2	ALM-006-04 A	W1.11b	1200	2000	W	None
1BED2	ALM-006-04 A	W1.11a	1200	1600	S	None
1BED3	ALM-006-04 A	W1.12	1800	600	W	None
1BED3	ALM-006-04 A	W1.13	1800	600	W	None
1BED3	ALM-006-04 A	W1.14	1800	600	W	None
1BATH-FF	ALM-006-04 A	W1.15	600	1450	N	None
1ENS	ALM-006-04 A	W1.20	600	850	S	None
1STAIRS-SF	ALM-006-04 A	W1.25	2400	1210	Е	None
1STAIRS-SF	ALM-006-04 A	W1.24a	600	1145	N	None
1MBED	ALM-006-04 A	W1.21	600	1810	W	None
1MBED	ALM-006-04 A	W1.22	600	1810	W	None
1MBED	ALM-006-04 A	W1.24b	600	665	N	None
1MBED	ALM-006-04 A	D1.3	2400	1810	N	None
1MBED	ALM-006-04 A	W1.23	2100	400	W	None

ID	Window type				U-value	SHGC
None Present						
Roof window	and skylight sch	nedule				
Location	ID	Roof	Area (m²)	Orientation	Outdoor shade	Indoor shade/diffuser

External wa	all type		
ID	Wall type	Insulation	Wall wrap or foil
EW-001	Double Brick		No

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Building features continued

EW-002	Double Brick		No
EW-003	Brick Veneer	Glass fibre batt: R2.0	Yes
EW-004	Fibre-cement sheet wall/Plasterboard	Glass fibre batt: R2.0	No

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
1GARAGE	EW-001	8220	2700	N	No	
1GARAGE	EW-001	7550	2700	W	No	
1GARAGE	EW-002	6950	2700	S	Yes	5500
1STAIRS-BS	EW-002	1160	2700	S	Yes	5500
1STORAGE-BS	EW-001	3725	2700	N	No	
1ENTRY	EW-003	1850	2700	W	Yes	2910
1ENTRY	EW-003	2080	2700	S	No	
1KLD	EW-003	5320	2700	N	No	
1KLD	EW-003	5960	2700	W	Yes	2000
1STUDY	EW-003	3000	2700	S	No	
1STUDY	EW-003	2300	2700	Е	No	
1BATH-GF	EW-003	1170	2700	Е	No	
1STAIRS-GF	EW-003	3620	2700	Е	No	
1WIP	EW-003	1500	2700	W	Yes	2000
1WIP	EW-003	2250	2700	S	Yes	2510
1LDRY	EW-003	2290	2700	E	No	
1LDRY	EW-003	2260	2700	N	No	
1STAIRS-FF	EW-004	3620	2400	Е	No	
1BED1	EW-004	3780	2400	S	Yes	500
1BED1	EW-004	3560	2400	Е	No	
1BED2	EW-004	4780	2400	W	Yes	500
1BED2	EW-004	3800	2400	S	Yes	500
1BED3	EW-004	3800	2400	N	No	
1BED3	EW-004	4780	2400	W	Yes	500
1BATH-FF	EW-004	2290	2400	Е	No	
1BATH-FF	EW-004	3780	2400	N	No	
1ENS	EW-004	2510	2400	S	No	
1ENS	EW-004	1600	2400	Е	No	
1WIR	EW-004	1960	2400	Е	No	
1STAIRS-SF	EW-004	2530	2400	Е	No	
1STAIRS-SF	EW-004	2510	2400	N	No	
1MBED	EW-004	5325	2400	W	No	
1MBED	EW-004	4070	2400	S	No	
1MBED	EW-004	1179	2400	N	No	
1MBED	EW-004	2891	2400	N	Yes	1470
1MBED	EW-004	945	2400	W	Yes	1300
1RSPACE	EW-004	6670	240	S	No	
1RSPACE	EW-004	6270	10	Е	No	
1RSPACE	EW-004	6670	240	N	No	
1RSPACE	EW-004	6270	480	W	No	

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Internal wall type				
ID	Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-001	Brick	21.6		No
IW-002	Concrete: standard (2400 kg/m³)	48.8		No
IW-003	Brick	29.6		No
IW-004	Plasterboard	133.0		No

Floors					
Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
1GARAGE/Ground	Concrete Slab 100 mm: bare/bare	54.0			
1STAIRS- BS/Ground	Concrete Slab 100 mm: bare/bare	5.0			
1STORAGE- BS/Ground	Concrete Slab 100 mm: bare/bare	13.4			
1LIFT-BS/Ground	Concrete Slab 100 mm: bare/bare	1.4			
1ENTRY/Outdoor Air	Concrete Slab 200 mm: ceramic tiles/R1.00	7.7		R1.0	Ceramic tile
1ENTRY/Neighbour	Concrete Slab 200 mm: ceramic tiles/R1.00	0.4		R1.0	Ceramic tile
1KLD/1GARAGE	Concrete Slab 200 mm: ceramic tiles/bare	32.2			Ceramic tile
1KLD/1STAIRS-BS	Concrete Slab 200 mm: ceramic tiles/bare	0.1			Ceramic tile
1KLD/Neighbour	Concrete Slab 200 mm: ceramic tiles/bare	0.1			Ceramic tile
1STUDY/Outdoor Air	Concrete Slab 200 mm: ceramic tiles/R1.00	6.9		R1.0	Ceramic tile
1BATH-GF/Outdoor Air	Concrete Slab 200 mm: ceramic tiles/R1.00	2.7		R1.0	Ceramic tile
1BATH- GF/Neighbour	Concrete Slab 200 mm: ceramic tiles/R1.00	0.3		R1.0	Ceramic tile
1STAIRS- GF/1STAIRS-BS	Concrete Slab 200 mm: ceramic tiles/bare	4.9			Ceramic tile
1STAIRS- GF/Neighbour	Concrete Slab 200 mm: ceramic tiles/bare	0.3			Ceramic tile
1WIP/Outdoor Air	Concrete Slab 200 mm: ceramic tiles/R1.00	3.3		R1.0	Ceramic tile
1WIP/Neighbour	Concrete Slab 200 mm: ceramic tiles/R1.00	0.4		R1.0	Ceramic tile
1LDRY/1GARAGE	Concrete Slab 200 mm: ceramic tiles/bare	5.2			Ceramic tile
1LIFT-GF/1LIFT-BS	Concrete Slab 200 mm: ceramic tiles/bare	1.4			Ceramic tile
1CORRIDOR- FF/1KLD	Timber (particleboard): carpet/air gap/plasterboard	5.8			Carpet 10 + felt underlay 10
1STAIRS- FF/1STAIRS-GF	Timber (particleboard): carpet/air gap/plasterboard	5.2			Carpet 10 + felt underlay 10
1BED1/1ENTRY	Timber (particleboard): carpet/air gap/plasterboard	3.0			Carpet 10 + felt underlay 10

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Building leatures	3 donunaca			
1BED1/1STUDY	Timber (particleboard): carpet/air gap/plasterboard	6.9		Carpet 10 + felt underlay 10
1BED1/1BATH-GF	Timber (particleboard): carpet/air gap/plasterboard	2.9		Carpet 10 + felt underlay 10
1BED1/Neighbour	Timber (particleboard): carpet/air gap/plasterboard	0.6		Carpet 10 + felt underlay 10
1BED2/Outdoor Air	Timber (particleboard): carpet/R2.0/Outdoor Air	4.2	R2.0	Carpet 10 + felt underlay 10
1BED2/1ENTRY	Timber (particleboard): carpet/air gap/plasterboard	4.7		Carpet 10 + felt underlay 10
1BED2/1KLD	Timber (particleboard): carpet/air gap/plasterboard	4.2		Carpet 10 + felt underlay 10
1BED2/1WIP	Timber (particleboard): carpet/air gap/plasterboard			Carpet 10 + felt underlay 10
1BED2/Neighbour	Timber (particleboard): carpet/air gap/plasterboard	1.5		Carpet 10 + felt underlay 10
1BED3/1KLD	Timber (particleboard): carpet/air gap/plasterboard	18.2		Carpet 10 + felt underlay 10
1BATH-FF/1KLD	Timber (particleboad): ceramic tiles/air gap/plasterboard	3.3		Ceramic tile
1BATH-FF/1LDRY	Timber (particleboad): ceramic tiles/air gap/plasterboard	5.2		Ceramic tile
1BATH- FF/Neighbour	Timber (particleboad): ceramic tiles/air gap/plasterboard	0.2		Ceramic tile
1LIFT-FF/1LIFT-GF	Timber (particleboard): carpet/air gap/plasterboard	1.4		Carpet 10 + felt underlay 10
1ENS/1BED1	Timber (particleboad): ceramic tiles/air gap/plasterboard	4.0		Ceramic tile
1WIR/1CORRIDO R-FF	Timber (particleboard): carpet/air gap/plasterboard	1.4		Carpet 10 + felt underlay 10
1WIR/1STAIRS-FF	Timber (particleboard): carpet/air gap/plasterboard	1.0		Carpet 10 + felt underlay 10
1WIR/1BED1	Timber (particleboard): carpet/air gap/plasterboard	2.2		Carpet 10 + felt underlay 10
1WIR/Neighbour	Timber (particleboard): carpet/air gap/plasterboard	0.3		Carpet 10 + felt underlay 10
1LIFT-SF/1LIFT-FF	Timber (particleboard): carpet/air gap/plasterboard	1.4		Carpet 10 + felt underlay 10
1STAIRS- SF/1STAIRS-FF	Timber (particleboard): carpet/air gap/plasterboard	4.1		Carpet 10 + felt underlay 10
1MBED/1CORRID OR-FF	Timber (particleboard): carpet/air gap/plasterboard	4.3		Carpet 10 + felt underlay 10
1MBED/1BED1	Timber (particleboard): carpet/air gap/plasterboard	3.0		Carpet 10 + felt underlay 10
1MBED/1BED2	Timber (particleboard): carpet/air gap/plasterboard	10.6		Carpet 10 + felt underlay 10
1MBED/1BED3	Timber (particleboard): carpet/air gap/plasterboard	6.7		Carpet 10 + felt underlay 10
1MBED/Neighbour	Timber (particleboard): carpet/air gap/plasterboard	0.9		Carpet 10 + felt underlay 10
1RSPACE/1ENS	Plasterboard 10 mm + R4.0 bulk insulation	4.0	R4.0	
1RSPACE/1WIR	Plasterboard 10 mm + R4.0 bulk insulation	4.9	R4.0	
1RSPACE/1LIFT- SF	Plasterboard 10 mm + R4.0 bulk insulation	1.4	R4.0	

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1RSPACE/1STAIR S-SF	Plasterboard 10 mm + R4.0 bulk insulation	4.1	R4.0
1RSPACE/1MBED	Plasterboard 10 mm + R4.0 bulk insulation	25.5	R4.0
1RSPACE/Neighb our	Plasterboard 10 mm + R4.0 bulk insulation	1.9	R4.0

Location	Construction	Added insulation	Roof space above
1KLD/1GARAGE	Concrete Slab 200 mm: ceramic tiles/bare	insulation	No
1LDRY/1GARAGE	Concrete Slab 200 mm: ceramic tiles/bare		No
Neighbour/1GARA GE	Concrete Slab 200 mm: ceramic tiles/bare		No
1KLD/1STAIRS-BS	Concrete Slab 200 mm: ceramic tiles/bare		No
1STAIRS- GF/1STAIRS-BS	Concrete Slab 200 mm: ceramic tiles/bare		No
Neighbour/1STAIR S-BS	Concrete Slab 200 mm: ceramic tiles/bare		No
1LIFT-GF/1LIFT-BS	S Concrete Slab 200 mm: ceramic tiles/bare		No
1BED1/1ENTRY	Timber (particleboard): carpet/air gap/plasterboard		No
1BED2/1ENTRY	Timber (particleboard): carpet/air gap/plasterboard		No
Neighbour/1ENTRY	Timber (particleboard): carpet/air gap/plasterboard		No
1CORRIDOR- FF/1KLD	Timber (particleboard): carpet/air gap/plasterboard		No
1BED2/1KLD	Timber (particleboard): carpet/air gap/plasterboard		No
1BED3/1KLD	Timber (particleboard): carpet/air gap/plasterboard		No
1BATH-FF/1KLD	Timber (particleboad): ceramic tiles/air gap/plasterboard		No
Neighbour/1KLD	Timber (particleboad): ceramic tiles/air gap/plasterboard		No
1BED1/1STUDY	Timber (particleboard): carpet/air gap/plasterboard		No
1BED1/1BATH-GF	Timber (particleboard): carpet/air gap/plasterboard		No
1STAIRS- FF/1STAIRS-GF	Timber (particleboard): carpet/air gap/plasterboard		No
1BED2/1WIP	Timber (particleboard): carpet/air gap/plasterboard		No
1BATH-FF/1LDRY	Timber (particleboad): ceramic tiles/air gap/plasterboard		No
1LIFT-FF/1LIFT-GI	Timber (particleboard): carpet/air gap/plasterboard		No
1WIR/1CORRIDO R-FF	Timber (particleboard): carpet/air gap/plasterboard		No
1MBED/1CORRID OR-FF	Timber (particleboard): carpet/air gap/plasterboard		No
Neighbour/1CORR IDOR-FF	Timber (particleboard): carpet/air gap/plasterboard		No
1WIR/1STAIRS-FF	Timber (particleboard): carpet/air gap/plasterboard		No
1STAIRS- SF/1STAIRS-FF	Timber (particleboard): carpet/air gap/plasterboard		No
Neighbour/1STAIR S-FF	Timber (particleboard): carpet/air gap/plasterboard		No
1ENS/1BED1	Timber (particleboad): ceramic tiles/air gap/plasterboard		No
1WIR/1BED1	Timber (particleboard): carpet/air gap/plasterboard		No
1MBED/1BED1	Timber (particleboard): carpet/air gap/plasterboard		No

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Neighbour/1BED1	Timber (particleboard): carpet/air gap/plasterboard		No
1MBED/1BED2	Timber (particleboard): carpet/air gap/plasterboard		No
Neighbour/1BED2	Timber (particleboard): carpet/air gap/plasterboard		No
1MBED/1BED3	Timber (particleboard): carpet/air gap/plasterboard		No
Neighbour/1BED3	Timber (particleboard): carpet/air gap/plasterboard		No
1LIFT-SF/1LIFT-FF	Timber (particleboard): carpet/air gap/plasterboard		No
1RSPACE/1ENS	Plasterboard 10 mm + R4.0 bulk insulation	R4.0	Yes
1RSPACE/1WIR	Plasterboard 10 mm + R4.0 bulk insulation	R4.0	Yes
1RSPACE/1LIFT- SF	Plasterboard 10 mm + R4.0 bulk insulation	R4.0	Yes
1RSPACE/1STAIR S-SF	Plasterboard 10 mm + R4.0 bulk insulation	R4.0	Yes
1RSPACE/1MBED	Plasterboard 10 mm + R4.0 bulk insulation	R4.0	Yes

Ceiling penetra	ations		
Location	Number	Туре	Diameter (mm) Sealed/unsealed
1GARAGE	26	Downlight	Sealed
1STAIRS-BS	1	Downlight	Sealed
1STORAGE-BS	3	Downlight	Sealed
1ENTRY	4	Downlight	Sealed
1KLD	10	Downlight	Sealed
1STUDY	3	Downlight	Sealed
1STAIRS-GF	2	Downlight	Sealed
1WIP	1	Downlight	Sealed
1LDRY	2	Downlight	Sealed
1CORRIDOR-FF	2	Downlight	Sealed
1STAIRS-FF	1	Downlight	Sealed
1BED1	6	Downlight	Sealed
1BED2	0	Downlight	Sealed
1BED3	9	Downlight	Sealed
1BATH-FF	4	Downlight	Sealed
1ENS	2	Downlight	Sealed
1WIR	2	Downlight	Sealed
1STAIRS-SF	2	Downlight	Sealed
1MBED	8	Downlight	Sealed

Location Number Diameter (mm)	iling fans	Ceiling far
None Present	cation Number	Location
None i resent	ne Present	None Prese

Roof type		
Construction	Added insulation	Roof colour

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Concrete Roof above Garage - tile		Light
Concrete Roof above Garage - soil		Medium
Metal deck system - R4.0	R4.0	Medium
Balcony Above - Timber R2.5	R2.5	Light
Metal deck R1.5	R1.5	Medium



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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