

# Nationwide House Energy Rating Scheme\* Certificate

Certificate Number: QV5V2K9GTD

Date of Certificate: 12 Feb 2020

★ Star rating: 4.8



## Assessor details

Accreditation number: **VIC/BDAV/17/1795**  
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Declaration of interest: **Employed by designer of the building**  
Software: **FirstRate5: 5.2.11 (3.13)**  
AAO: **BDAV**

## Overview

### Dwelling details

Address: **4 Lewis Street**  
Suburb: **Balgowlah Heights**  
State: **NSW** Postcode: **2093**  
Type: **New Home** NCC Class: **Class 1a**  
Lot/DP number: **2/18143** NatHERS climate zone: **56**  
Exposure: **suburban**

### Key construction and insulation materials

(see following pages for details)

Construction: Wall: **Rendered Fibro clad**  
Roof: **Metal**  
Floor: **CSOG**  
Insulation: Wall: **R2.5**  
Roof: **R4.0+ R1.3 Anticon blanket**  
Floor: **R2.0**  
Glazing: **Aluminium**  
**Single glazed, Low e**

### Net floor area (m<sup>2</sup>)

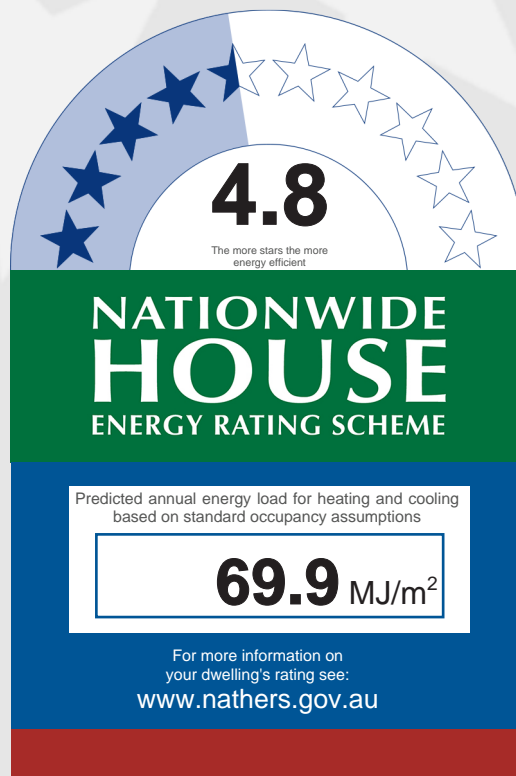
Conditioned: **142.9**  
Unconditioned: **13.4**  
Garage: **28.8**  
TOTAL: **185.1**

### Annual thermal performance loads (MJ/m<sup>2</sup>)

Heating: **43.3**  
Cooling: **26.6**  
TOTAL: **69.9**

### Plan documents

Plan ref/date: **DA-111 30/1/2020**  
Prepared by: **Novam Design**



### Ceiling penetrations

(see following pages for details)

Sealed: **32**  
Unsealed: **1**  
TOTAL:\*\* **33**

Principal downlight type: **LED**

\*\*NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. **If this number is exceeded 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.

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**If any of the windows selected are outside the 5% tolerance then this certificate is no longer valid and the dwelling will need to be rerated to confirm compliance.**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



<https://www.fr5.com.au/QRCodeLandIng?PublicId=QV5V2K9GTD>

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## Building Features

### Windows type and performance value

Window ID	Window type	U-value	SHGC
A&L-026-25 A	Al Boutique Fixed Lite Window DG 5/8Ar/5	3.1	0.65
ALM-002-03 A	Aluminium B SG High Solar Gain Low-E	5.4	0.58
ALM-002-04 A	Aluminium B SG Low Solar Gain Low-E	5.6	0.41
ALM-001-04 A	Aluminium A SG Low Solar Gain Low-E	5.6	0.36
TIM-002-04 W	Timber B SG Low Solar Gain Low-E	3.7	0.38
ALM-004-01 A	Aluminium B DG Air Fill Clear-Clear	4.8	0.59
ALM-004-04 A	Aluminium B DG Air Fill Low Solar Gain low-E -Clear	4.9	0.33
ALM-001-03 A	Aluminium A SG High Solar Gain Low-E	5.4	0.49

### Windows schedule

Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Zone name	Outdoor shade
A&L-026-25 A	Glass brick window garage	2400	780	SSW	Garage	No
ALM-002-03 A	W5	2400	780	SSW	Toilet	No
ALM-002-04 A	W13	1020	600	ESE	Laundry	No
ALM-001-04 A	D3 - Laundry door	2170	1030	ESE	Laundry	No
ALM-002-04 A	W4	2400	600	NNE	Kitchen/Living	No
ALM-002-04 A	W3	2400	600	NNE	Kitchen/Living	No
TIM-002-04 W	Entry door fixed window	2300	250	WNW	Entry/Stairs	No
ALM-004-01 A	W2a	3270	1140	NNW	Entry/Stairs	No
ALM-002-04 A	W1	2400	600	NNE	Entry/Stairs	No
ALM-004-04 A	D2	2720	5180	ESE	Living	No
ALM-004-04 A	D6	2700	2100	WNW	Bedroom 1	No
ALM-001-04 A	W6	2400	900	NNE	Bedroom 1	No
ALM-001-04 A	W7	2400	1200	NNE	Bedroom 3	No
ALM-004-04 A	D7	2700	2600	ESE	Master Bedroom	No
ALM-001-04 A	W8	2400	1200	NNE	Master Bedroom	No
ALM-002-03 A	W9	2700	1200	ESE	Ensuite	No
ALM-002-03 A	W10	2400	780	SSW	Bathroom - level 1	No
ALM-004-04 A	D5	2700	2100	WNW	Bedroom 2	No
ALM-001-03 A	W12	2400	900	SSW	Bedroom 2	No
ALM-001-03 A	W11	2400	600	SSW	Bedroom 2	No
A&L-026-25 A	Glass Brick window 1 - storage	2400	900	SSW	Storage	No

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ALM-004-01 A W2b 2400 1140 NNW Stairs and hallway - level 1 No

### Roof windows and skylight type and performance value

ID	Window type	U-value	SHGC
Velux:VEL-011-02 W	VELUX FS - Fixed Skylight DG 3mm LoE 366 / 10.5mm Argon Gap / 3mm Clear	2.66	0.24

### Roof window and skylight schedule

ID	Roof window/ skylight no.	Area (m <sup>2</sup> )	Orientation	Zone name	Outdoor shade	Indoor shade/diffuser
Velux:VEL-011-02 W	Skylight 1	2.6	S	Stairs and hallway - level 1	None	None

### External wall type

Type	Insulation	Wall wrap
1 : BW - AluminiumR2.5	Glass fibre batt: R2.5 (R2.5)	No
2 : BW - Rendered Fibro Cement R2.5	Glass fibre batt: R2.5 (R2.5)	No

### External wall schedule

Wall type	Area (m <sup>2</sup> )	Orientation	Zone name	Fixed shade	Eaves
1 : BW - AluminiumR2.5	13.9	WNW	Garage	No	Yes
1 : BW - AluminiumR2.5	14	SSW	Garage	No	No
1 : BW - AluminiumR2.5	6.5	SSW	Toilet	No	No
1 : BW - AluminiumR2.5	6.9	SSW	Laundry	Yes	No
1 : BW - AluminiumR2.5	4.4	ESE	Laundry	Yes	Yes
1 : BW - AluminiumR2.5	11.8	NNE	Kitchen/Living	Yes	No
1 : BW - AluminiumR2.5	6.5	WNW	Entry/Stairs	No	Yes
1 : BW - AluminiumR2.5	5.3	NE	Entry/Stairs	Yes	No
1 : BW - AluminiumR2.5	4.5	NNW	Entry/Stairs	Yes	No
1 : BW - AluminiumR2.5	11.6	NNE	Entry/Stairs	Yes	No
1 : BW - AluminiumR2.5	12	SSW	Living	Yes	Yes
1 : BW - AluminiumR2.5	19.6	ESE	Living	Yes	Yes
1 : BW - AluminiumR2.5	12.9	NNE	Living	Yes	No
2 : BW - Rendered Fibro Cement R2.5	8.1	WNW	Bedroom 1	Yes	Yes
2 : BW - Rendered Fibro Cement R2.5	7.4	NNE	Bedroom 1	Yes	No
2 : BW - Rendered Fibro Cement R2.5	1.2	NNE	Bedroom 1	Yes	No

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2 : BW - Rendered Fibro Cement R2.5	0.3	NNE	Bedroom 1	No	No
2 : BW - Rendered Fibro Cement R2.5	2.1	NNE	Bedroom 1	Yes	Yes
2 : BW - Rendered Fibro Cement R2.5	0.5	NNE	Bedroom 3	No	No
2 : BW - Rendered Fibro Cement R2.5	0.5	NNE	Bedroom 3	No	No
2 : BW - Rendered Fibro Cement R2.5	0.4	NNE	Bedroom 3	Yes	No
2 : BW - Rendered Fibro Cement R2.5	3.3	NNE	Bedroom 3	Yes	No
2 : BW - Rendered Fibro Cement R2.5	3	NNE	Bedroom 3	Yes	Yes
2 : BW - Rendered Fibro Cement R2.5	2.3	NNE	Bedroom 3	Yes	No
2 : BW - Rendered Fibro Cement R2.5	0.5	NNE	Master Bedroom	No	No
2 : BW - Rendered Fibro Cement R2.5	0.2	NNE	Master Bedroom	No	No
2 : BW - Rendered Fibro Cement R2.5	11.2	ESE	Master Bedroom	Yes	Yes
2 : BW - Rendered Fibro Cement R2.5	7.6	NNE	Master Bedroom	Yes	No
2 : BW - Rendered Fibro Cement R2.5	3	NNE	Master Bedroom	Yes	Yes
2 : BW - Rendered Fibro Cement R2.5	1.6	NNE	Master Bedroom	Yes	No
2 : BW - Rendered Fibro Cement R2.5	10.7	SSW	Ensuite	No	No
2 : BW - Rendered Fibro Cement R2.5	4.8	ESE	Ensuite	Yes	Yes
2 : BW - Rendered Fibro Cement R2.5	4.2	SSW	WIR	No	No
2 : BW - Rendered Fibro Cement R2.5	5.2	SSW	Bathroom - level 1	Yes	No
2 : BW - Rendered Fibro Cement R2.5	0.9	SSW	Bathroom - level 1	No	No
2 : BW - Rendered Fibro Cement R2.5	0.3	SSW	Bathroom - level 1	No	No
2 : BW - Rendered Fibro Cement R2.5	1.8	SSW	Bathroom - level 1	Yes	Yes
2 : BW - Rendered Fibro Cement R2.5	8.1	WNW	Bedroom 2	Yes	Yes
2 : BW - Rendered Fibro Cement R2.5	2.2	SSW	Bedroom 2	Yes	Yes
2 : BW - Rendered Fibro Cement R2.5	0.4	SSW	Bedroom 2	No	No
2 : BW - Rendered Fibro Cement R2.5	4	SSW	Bedroom 2	Yes	No
2 : BW - Rendered Fibro Cement R2.5	0.7	SSW	Bedroom 2	No	No
2 : BW - Rendered Fibro Cement R2.5	1.6	SSW	Bedroom 2	Yes	Yes
2 : BW - Rendered Fibro Cement R2.5	0.3	SSW	Bedroom 2	No	No
2 : BW - Rendered Fibro Cement R2.5	1.8	SSW	Bedroom 2	Yes	No
2 : BW - Rendered Fibro Cement R2.5	5.9	SSW	Storage	No	No
2 : BW - Rendered Fibro Cement R2.5	4.3	NE	Stairs and hallway - level 1	Yes	No
2 : BW - Rendered Fibro Cement R2.5	3.9	NNW	Stairs and hallway - level 1	Yes	No

### Internal wall type

Type	Area (m <sup>2</sup> )	Insulation
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1 : Int - Internal Plasterboard Stud Wall - thick	27.2	Glass fibre batt: R2.5 (R2.5)
2 : BW - IntR2.5	135.6	Glass fibre batt: R2.5 (R2.5)
3 : FR5 - Internal Plasterboard Stud Wall	9.4	
4 : BW - AluminiumR2.5	2.4	Glass fibre batt: R2.5 (R2.5)

## Floors

Location	Construction	Area (m <sup>2</sup> )	Sub floor ventilation	Added insulation	Covering
Garage	FR5 - 300mm concrete slab Lined	10.1	Enclosed	R0.0	none
Garage	FR5 - 300mm concrete slab Lined	18.6	Enclosed	R0.0	none
Toilet	FR5 - 300mm concrete slab Lined	2.3	Enclosed Disconnected	R0.0	Tiles
Laundry	FR5 - 300mm concrete slab Lined	5.9	Enclosed Disconnected	R0.0	Tiles
Kitchen/Living	FR5 - 300mm concrete slab Lined	1.7	Enclosed Disconnected	R0.0	Timber
Kitchen/Living	FR5 - 300mm concrete slab Lined	29.4	Enclosed Disconnected	R0.0	Timber
Entry/Stairs	FR5 - 300mm concrete slab Lined	3.1	Enclosed Disconnected	R0.0	Timber
Entry/Stairs	FR5 - 300mm concrete slab Lined	13	Enclosed	R0.0	Timber
Living	FR5 - 300mm concrete slab Lined	22.9	Enclosed Disconnected	R0.0	Timber
Bedroom 1	Basic Floors - TimberR2.0R	11.4	Enclosed	R2.0	Carpet
Bedroom 3	Basic Floors - TimberR2.0R	10.2	Enclosed	R2.0	Carpet
Master Bedroom	Basic Floors - TimberR2.0R	19.4	Enclosed	R2.0	Carpet
Ensuite	Basic Floors - TimberR2.0R	7	Enclosed	R2.0	Tiles
WIR	Basic Floors - TimberR2.0R	2.6	Enclosed	R2.0	Carpet
Bathroom - level 1	Basic Floors - TimberR2.0R	5.2	Enclosed	R2.0	Tiles
Bedroom 2	Basic Floors - TimberR2.0R	11.5	Enclosed	R2.0	Carpet
Storage	Basic Floors - TimberR2.0R	3.8	Enclosed	R2.0	Carpet
Stairs and hallway - level 1	Basic Floors - TimberR2.0R	13.4	Enclosed	R2.0	Timber

## Ceiling type

Location	Material	Added insulation	Roof space above
Garage	Plasterboard	R5.3	No

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Garage	Basic Floors - TimberR2.0R	R2.0	No
Garage	Basic Floors - TimberR2.0R	R2.0	No
Garage	Basic Floors - TimberR2.0R	R2.0	No
Garage	Basic Floors - TimberR2.0R	R2.0	No
Toilet	Plasterboard	R5.3	No
Laundry	Plasterboard	R5.3	No
Kitchen/Living	Plasterboard	R5.3	No
Kitchen/Living	Basic Floors - TimberR2.0R	R2.0	No
Kitchen/Living	Basic Floors - TimberR2.0R	R2.0	No
Kitchen/Living	Basic Floors - TimberR2.0R	R2.0	No
Kitchen/Living	Basic Floors - TimberR2.0R	R2.0	No
Kitchen/Living	Basic Floors - TimberR2.0R	R2.0	No
Kitchen/Living	Basic Floors - TimberR2.0R	R2.0	No
Entry/Stairs	Basic Floors - TimberR2.0R	R2.0	No
Entry/Stairs	Basic Floors - TimberR2.0R	R2.0	No
Entry/Stairs	Basic Floors - TimberR2.0R	R2.0	No
Living	Basic Floors - TimberR2.0R	R2.0	No
Living	Basic Floors - TimberR2.0R	R2.0	No
Bedroom 1	Plasterboard	R5.3	No
Bedroom 3	Plasterboard	R5.3	No
Master Bedroom	Plasterboard	R5.3	No
Ensuite	Plasterboard	R5.3	No
WIR	Plasterboard	R5.3	No
Bathroom - level 1	Plasterboard	R5.3	No
Bedroom 2	Plasterboard	R5.3	No
Storage	Plasterboard	R5.3	No
Stairs and hallway - level 1	Plasterboard	R5.3	No

## Ceiling penetrations

Location	Number	Type	Width (mm)	Length (mm)	Seal/ unsealed
Toilet	1	Exhaust Fans	200	200	Sealed
Toilet	1	Downlights	50	50	Sealed
Laundry	1	Exhaust Fans	200	200	Sealed
Laundry	2	Downlights	50	50	Sealed
Kitchen/Living	1	Downlights	50	50	Sealed

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Entry/Stairs	2	Downlights	50	50	Sealed
Living	1	Heater Flues	0	0	Unsealed
Bedroom 1	3	Downlights	50	50	Sealed
Bedroom 3	3	Downlights	50	50	Sealed
Master Bedroom	5	Downlights	50	50	Sealed
Ensuite	1	Exhaust Fans	200	200	Sealed
Ensuite	2	Downlights	50	50	Sealed
WIR	1	Downlights	50	50	Sealed
Bathroom - level 1	1	Exhaust Fans	200	200	Sealed
Bathroom - level 1	2	Downlights	50	50	Sealed
Bedroom 2	3	Downlights	50	50	Sealed
Storage	1	Downlights	50	50	Sealed
Stairs and hallway - level 1	2	Downlights	50	50	Sealed

### Ceiling fans

Location	Number	Diameter (mm)
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### Roof type

Material	Added insulation	Roof colour
Framed:Flat - Flat Framed (Metal Deck)	0.0	dark



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## Additional information

1. Glazing note: Alternate products of the same opening type may be used if the U value is the same or lower than that specified and the SHGC is within 5% of the above figures.

## 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 this 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 an 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](http://www.nathers.gov.au)

For more information on energy efficient design and insulation visit [www.yourhome.gov.au](http://www.yourhome.gov.au)