

# Nationwide House Energy Rating Scheme\* Certificate



Certificate number: **0004167748**

Certificate Date: **29 Aug 2019**

★ Star rating: **5.1**

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: **20390**  
Name: **Fadi Sweis**  
Organisation: **Energy Ratings Australia Pty Ltd**  
Email: **fsweis@eraservices.com.au**  
Phone: **1800 372 669**  
Declaration of interest: **None**  
Software: **BERS Pro v4.3.0.2d (3.13)**  
AAO: **ABSA**

## Overview

### Dwelling details

Street: **71 George Street**  
Suburb: **Avalon Beach**  
State: **NSW** Postcode: **2107**  
Type: **New Dwelling** NCC Class: **1A**  
NatHERS climate zone: **56**  
Lot/DP number: **A/161572** Exposure: **Suburban**

### Key construction and insulation materials

(see following pages for details)

Construction: **Brick Veneer**  
**Roof Tiles**  
**Waffle pod slab 300 mm**  
Insulation: **R2.5 wall insulation**  
**R4.1 ceiling insulation**  
**No floor insulation**  
Glazing: **ALM-002-01 A Aluminium B SG Clear**

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

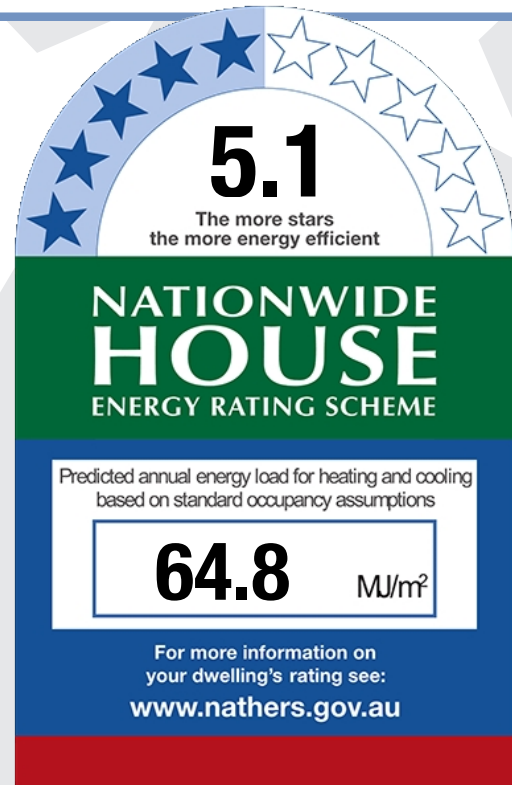
Conditioned: **179.0**  
Unconditioned: **63.0**  
Garage: **50.0**  
TOTAL: **242.0**

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

Heating: **39.3**  
Cooling: **25.6**  
TOTAL: **64.8**

### Plan documents

Plan ref/date: **A009118**  
Prepared by: **DTT**



### Ceiling penetrations

(see following pages for details)

Sealed: **3**  
Unsealed: **0**  
TOTAL:\*\* **3**

\*\*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.

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.



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## Building features

### Window type and performance value

Window ID	Window type	U-value	SHGC
ALM-002-01 A	ALM-002-01 A Aluminium B SG Clear	6.7	0.70
ALM-001-01 A	ALM-001-01 A Aluminium A SG Clear	6.7	0.57
BRD-063-07 A	BRD-063-07 A SIG Fixed Lite (67mm) SG 4ET	4.1	0.66
BRD-001-13 A	BRD-001-13 A ESS Sliding Window (52mm) SG 4EA	4.6	0.63

### Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Study/Lounge	ALM-002-01 A	n/a	2300	2400	SW	No Shading
Study/Lounge	ALM-001-01 A	n/a	2300	700	NW	No Shading
Study/Lounge	ALM-002-01 A	n/a	2300	2600	NW	No Shading
PDR	ALM-002-01 A	n/a	400	1500	NW	No Shading
Ldry	ALM-002-01 A	n/a	2300	1500	NW	No Shading
Kitchen/Living	BRD-063-07 A	n/a	2300	1200	NE	No Shading
Kitchen/Living	BRD-001-13 A	n/a	2300	2800	NE	No Shading
Kitchen/Living	BRD-001-13 A	n/a	2300	2800	SE	No Shading
Kitchen/Living	BRD-063-07 A	n/a	772	2410	SE	No Shading
Entry	BRD-063-07 A	n/a	1300	1200	NW	No Shading
Bedroom 1	ALM-002-01 A	n/a	400	2400	SE	No Shading
Bedroom 1	ALM-001-01 A	n/a	2000	700	SW	No Shading
Bedroom 1	ALM-001-01 A	n/a	1200	2700	SW	No Shading
ENS	ALM-001-01 A	n/a	300	800	SW	No Shading
ENS	ALM-002-01 A	n/a	380	2370	SW	No Shading
Bedroom 2	ALM-002-01 A	n/a	400	1800	SE	No Shading
Bedroom 2	ALM-002-01 A	n/a	400	1800	NE	No Shading
Bedroom 2	ALM-002-01 A	n/a	400	1800	NE	No Shading
Bedroom 3	ALM-002-01 A	n/a	400	2600	NW	No Shading
WC	ALM-002-01 A	n/a	600	600	NW	No Shading
Bath	ALM-002-01 A	n/a	400	1500	NE	No Shading
Bath	ALM-002-01 A	n/a	400	1500	NE	No Shading
Bedroom 4	ALM-002-01 A	n/a	400	2800	SE	No Shading
Hall/Stairs	ALM-002-01 A	n/a	400	2100	NE	No Shading

### Roof window and skylight type and performance value

ID	Window type	U-value	SHGC
None Present			

### Roof window and skylight schedule

Location	ID	Roof window/skylight no.	Area (m <sup>2</sup> )	Orientation	Outdoor shade	Indoor shade/diffuser
None Present						

### External wall type

ID	Wall type	Insulation	Wall wrap or foil
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## Building features continued

EW-1	Brick Veneer	No insulation	No
EW-2	Cavity Brick	No insulation	No
EW-3	Brick Veneer	Bulk Insulation R2.5	No
EW-4	Weatherboard Cavity Panel Direct Fix	Bulk Insulation R2.5	No

## External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Garage 1	EW-1	1750	3100	NE	No	650
Garage 1	EW-2	6700	3100	SE	No	600
Garage 1	EW-1	8345	3100	SW	No	650
Study/Lounge	EW-3	2945	2600	SW	No	650
Study/Lounge	EW-3	6645	2600	NW	No	50
PDR	EW-3	1840	2600	NW	No	50
Ldry	EW-3	2590	2600	NW	No	50
WIP	EW-3	1590	2600	SE	No	50
Kitchen/Living	EW-3	1400	2600	NW	No	2400
Kitchen/Living	EW-3	7750	2600	NE	No	2750
Kitchen/Living	EW-3	7145	2600	SE	No	3050
Entry	EW-3	2945	2600	NW	No	600
Entry	EW-3	1795	2600	NE	No	2050
Bedroom 1	EW-4	4445	2450	SE	No	600
Bedroom 1	EW-4	5895	2450	SW	No	650
ENS	EW-4	3645	2450	SW	No	650
ENS	EW-3	1545	2450	NW	No	650
WC (Ens)	EW-3	1490	2450	NW	No	650
Bedroom 2	EW-4	3295	2450	SE	No	600
Bedroom 2	EW-4	850	2450	NW	No	5900
Bedroom 2	EW-4	4300	2450	NE	No	650
Bedroom 3	EW-3	3090	2450	NW	No	650
WC	EW-3	1140	2450	NW	No	650
Bath	EW-3	3245	2450	NW	No	650
Bath	EW-4	2295	2450	NE	No	650
Bedroom 4	EW-4	3640	2450	SE	No	600
Hall/Stairs	EW-4	2940	2450	NE	No	650

## Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Cavity wall, direct fix plasterboard, single gap	35.0	Bulk Insulation, No Air Gap R2.5	No
IW-2 - Cavity wall, direct fix plasterboard, single gap	184.0	No insulation	No

## Floors

Location	Construction	Area (m²)	Sub floor	Added	Covering
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## Building features continued

				ventilation	insulation	
Garage 1	Waffle pod slab 225 mm 100mm	49.5		None	Waffle Pod 225mm	Bare
Study/Lounge	Waffle pod slab 300 mm 100mm	21.5		None	Waffle Pod 300mm	Carpet 10mm
PDR	Waffle pod slab 300 mm 100mm	2.1		None	Waffle Pod 300mm	Ceramic Tiles 8mm
Ldry	Waffle pod slab 300 mm 100mm	5.0		None	Waffle Pod 300mm	Ceramic Tiles 8mm
Corridor	Waffle pod slab 300 mm 100mm	3.7		None	Waffle Pod 300mm	Cork Tiles or Parquetry 8mm
WIP	Waffle pod slab 300 mm 100mm	7.1		None	Waffle Pod 300mm	Cork Tiles or Parquetry 8mm
Kitchen/Living	Waffle pod slab 300 mm 100mm	44.4		None	Waffle Pod 300mm	Cork Tiles or Parquetry 8mm
Hallway/Stairs	Waffle pod slab 300 mm 100mm	14.1		None	Waffle Pod 300mm	Cork Tiles or Parquetry 8mm
Entry	Waffle pod slab 300 mm 100mm	5.1		None	Waffle Pod 300mm	Cork Tiles or Parquetry 8mm
Bedroom 1/Garage	Timber Above Plasterboard 19mm	25.1			No Insulation	Carpet 10mm
Bedroom 1/Hallway/Stairs	Timber Above Plasterboard 19mm	0.7			No Insulation	Carpet 10mm
ENS/Garage 1	Timber Above Plasterboard 19mm	1.9			No Insulation	Ceramic Tiles 8mm
ENS/Study/Lounge	Timber Above Plasterboard 19mm	7.3			No Insulation	Ceramic Tiles 8mm
WC (Ens)/Study/Lounge	Timber Above Plasterboard 19mm	1.5			No Insulation	Ceramic Tiles 8mm
Bedroom 2/Kitchen/Living	Timber Above Plasterboard 19mm	11.9			No Insulation	Carpet 10mm
Bedroom 3/Study/Lounge	Timber Above Plasterboard 19mm	10.7			No Insulation	Carpet 10mm
WC/PDR	Timber Above Plasterboard 19mm	1.3			No Insulation	Ceramic Tiles 8mm
Bath/PDR	Timber Above Plasterboard 19mm	0.8			No Insulation	Ceramic Tiles 8mm
Bath/Ldry	Timber Above Plasterboard 19mm	5.1			No Insulation	Ceramic Tiles 8mm
Bath/Corridor	Timber Above Plasterboard 19mm	1.3			No Insulation	Ceramic Tiles 8mm
Bedroom 4/Garage	Timber Above Plasterboard 19mm	5.0			No Insulation	Carpet 10mm
Bedroom 4/WIP	Timber Above Plasterboard 19mm	4.7			No Insulation	Carpet 10mm
Bedroom 4/Kitchen/Living	Timber Above Plasterboard 19mm	1.0			No Insulation	Carpet 10mm
Hall/Stairs/Garage 1	Timber Above Plasterboard 19mm	2.0			No Insulation	Carpet 10mm
Hall/Stairs/Corridor	Timber Above Plasterboard 19mm	2.4			No Insulation	Carpet 10mm
Hall/Stairs/WIP	Timber Above Plasterboard 19mm	2.6			No Insulation	Carpet 10mm
Hall/Stairs/Kitchen/Living	Timber Above Plasterboard 19mm	1.7			No Insulation	Carpet 10mm
Hall/Stairs/Hallway	Timber Above Plasterboard	13.7			No Insulation	Carpet 10mm

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## Building features continued

/Stairs 19mm

### Ceiling type

Location	Construction	Added insulation	Roof space above
Garage 1	Plasterboard	No insulation	Yes
Garage 1	Timber Above Plasterboard	No Insulation	No
Study/Lounge	Plasterboard	Bulk Insulation R4.1	Yes
Study/Lounge	Timber Above Plasterboard	No Insulation	No
PDR	Timber Above Plasterboard	No Insulation	No
Ldry	Timber Above Plasterboard	No Insulation	No
Corridor	Timber Above Plasterboard	No Insulation	No
WIP	Timber Above Plasterboard	No Insulation	No
Kitchen/Living	Plasterboard	Bulk Insulation R4.1	Yes
Kitchen/Living	Timber Above Plasterboard	No Insulation	No
Hallway/Stairs	Timber Above Plasterboard	No Insulation	No
Entry	Plasterboard	Bulk Insulation R4.1	Yes
Bedroom 1	Plasterboard	Bulk Insulation R4.1	Yes
ENS	Plasterboard	Bulk Insulation R4.1	Yes
WC (Ens)	Plasterboard	Bulk Insulation R4.1	Yes
Bedroom 2	Plasterboard	Bulk Insulation R4.1	Yes
Bedroom 3	Plasterboard	Bulk Insulation R4.1	Yes
WC	Plasterboard	Bulk Insulation R4.1	Yes
Bath	Plasterboard	Bulk Insulation R4.1	Yes
Bedroom 4	Plasterboard	Bulk Insulation R4.1	Yes
Hall/Stairs	Plasterboard	Bulk Insulation R4.1	Yes

### Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
PDR	1	Exhaust Fans	300	Sealed
ENS	1	Exhaust Fans	300	Sealed
WC (Ens)	1	Exhaust Fans	300	Sealed

### Ceiling fans

Location	Number	Diameter (mm)
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None Present

#### Roof type

Construction	Added insulation	Roof colour
Roof Tiles	Foil, Gap Above, Reflective Side Down, Anti-glare Up	Medium
Roof Tiles	Foil, Gap Above, Reflective Side Down, Anti-glare Up	Dark

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

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