

Nationwide House Energy Rating Scheme* Certificate



Certificate number: **0004227328**

Certificate Date: **24 Sep 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: **VIC/BDAV/12/1441**
Name: **Ian Fry**
Organisation: **Frys Energywise**
Email: **comply@frysenergywise.com.au**
Phone: **02 9899 2825**
Declaration of interest: **The Assessor has provided design advice to the Applicant**
Software: **BERS Pro v4.3.0.2d (3.13)**

AAO: **BDAV**

Overview

Dwelling details

Street: **Careel Head Road**
Suburb: **Avalon Beach**
State: **NSW** Postcode: **2107**
Type: **New Dwelling** NCC Class: **1A**
NatHERS climate zone: **56**
Lot/DP number: **39/11909** Exposure: **Suburban**

Key construction and insulation materials

(see following pages for details)

Construction: **Brick Veneer**
Roof Tiles
Waffle pod slab 225 mm
Insulation: **R2.5 wall insulation**
R5.0 ceiling insulation
No floor insulation
Glazing: **TND-024-01 A Trend Al Internal offset glazed window SG 5Clr**

Net floor area (m²)

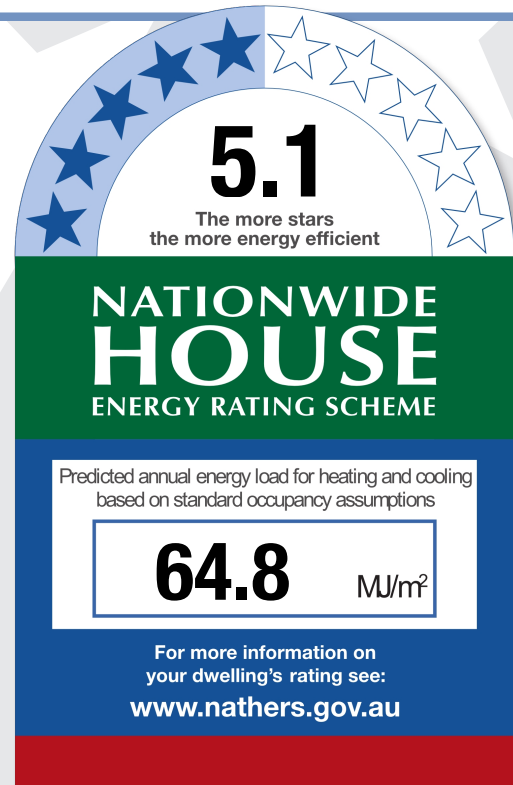
Conditioned: **298.0**
Unconditioned: **48.0**
Garage: **35.0**
TOTAL: **346.0**

Annual thermal performance loads (MJ/m²)

Heating: **39.6**
Cooling: **25.1**
TOTAL: **64.8**

Plan documents

Plan ref/date: **Carlile 180504**
Prepared by: **AES**



Ceiling penetrations

(see following pages for details)

Sealed: **5**
Unsealed: **0**
TOTAL:** **5**

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

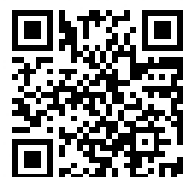
Note on allowable window values:
Only a 5% tolerance to the nominated SHGC window values shown on page 2 can be used with this rating.

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.



Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004227328**

Certificate Date:

24 Sep 2019

★ Star rating:

5.1



Building features

Window type and performance value

Window ID	Window type	U-value	SHGC
TND-071-01 A	TND-071-01 A Windsor Sliding Door SG 6Clr	6.1	0.65
TND-001-01 A	TND-001-01 A Trend Al Sliding Window SG 3Clr	6.4	0.73
TND-024-01 A	TND-024-01 A Trend Al Internal offset glazed window SG 5Clr	6.1	0.75
TND-002-01 A	TND-002-01 A Trend Al Awning Window SG 3Clr	6.5	0.66
ALM-002-01 A	ALM-002-01 A Aluminium B SG Clear	6.7	0.70
TND-001-08 A	TND-001-08 A Trend Al Sliding Window SG 6.38CP	4.6	0.44
TND-024-04 A	TND-024-04 A Trend Al Internal offset glazed window SG 6.38CP	4.1	0.46

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Laundry	TND-071-01 A	n/a	2100	1600	E	No Shading
Home Theatre	TND-001-01 A	n/a	600	3000	E	No Shading
Guest	TND-024-01 A	n/a	2000	1000	E	No Shading
Guest	TND-002-01 A	n/a	300	1500	W	No Shading
Guest	TND-024-01 A	n/a	2000	1000	N	No Shading
Guest	ALM-002-01 A	n/a	2000	600	N	No Shading
PWD	TND-002-01 A	n/a	2000	600	W	No Shading
Kitchen/Leisure	TND-001-08 A	n/a	2000	2700	E	No Shading
Kitchen/Leisure	TND-024-04 A	n/a	2300	4800	S	No Shading
Kitchen/Leisure	TND-071-01 A	n/a	2300	3600	W	No Shading
Kitchen/Leisure	TND-071-01 A	n/a	2300	3600	S	No Shading
Kitchen/Leisure	TND-001-08 A	n/a	2000	2700	W	No Shading
Kitchen/Leisure	TND-024-01 A	n/a	700	4200	W	No Shading
Bedroom 2	TND-024-01 A	n/a	1800	1000	E	No Shading
Bedroom 2	ALM-002-01 A	n/a	1800	600	N	No Shading
Bedroom 2	TND-024-01 A	n/a	1800	1000	N	No Shading
Ensuite 2	TND-024-01 A	n/a	2000	400	W	No Shading
Ensuite 3	TND-002-01 A	n/a	1200	700	E	No Shading
Bedroom 3	TND-001-01 A	n/a	1000	2200	E	No Shading
Bedroom 4	TND-001-01 A	n/a	1000	2200	E	No Shading
Ensuite 4	TND-002-01 A	n/a	1200	700	E	No Shading
Master Suite	TND-001-01 A	n/a	600	2700	S	No Shading
WIR 1	TND-024-01 A	n/a	2000	400	W	No Shading
Ensuite 1	TND-024-01 A	n/a	2000	400	W	No Shading
Ensuite 1	TND-024-01 A	n/a	1800	1800	W	No Shading
Upper Lounge	TND-071-01 A	n/a	2100	1500	N	No Shading
Upper Lounge	TND-002-01 A	n/a	1200	700	N	No Shading
Upper Lounge	TND-002-01 A	n/a	1200	700	N	No Shading
Upper Lounge	TND-002-01 A	n/a	1200	700	N	No Shading
Upper Lounge	TND-024-01 A	n/a	600	3000	E	No Shading

Roof window and skylight type and performance value

ID	Window type	U-value	SHGC
GEN-04-006a	Single-glazed clear, Timber and Aluminium Frame	0.0	0.00

Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004227328**

Certificate Date:

24 Sep 2019

★ Star rating:

5.1



Building features continued

Roof window and skylight schedule

Location	ID	Roof window/skylight no.	Area (m²)	Orientation	Outdoor shade	Indoor shade/diffuser
Upper Lounge	GEN-04-006a	1	0.8	W	None	No

External wall type

ID	Wall type	Insulation	Wall wrap or foil
EW-1	Brick Veneer	No insulation	No
EW-2	Single Skin Brick	No insulation	No
EW-3	Brick Veneer	Bulk Insulation R2.5	No
EW-4	Fibro Cavity Panel Direct Fix	Anti-glare foil with bulk no gap R2.5	Yes

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Garage	EW-1	1500	2910	S	No	100
Garage	EW-1	1200	2910	W	No	6300
Garage	EW-2	5800	2910	N	No	100
Garage	EW-1	6100	2910	E	No	100
Laundry	EW-3	1890	2740	E	No	100
Home Theatre	EW-3	3990	2910	E	No	100
Guest	EW-3	1700	2740	E	No	7900
Guest	EW-3	2695	2740	W	No	100
Guest	EW-3	1000	2740	N	No	100
Guest	EW-3	600	2740	W	No	100
Guest	EW-3	3200	2740	N	No	100
PWD	EW-3	1695	2740	W	No	100
PWD	EW-3	600	2740	N	No	100
PWD	EW-3	1095	2740	W	No	100
Entry/Foyer	EW-3	1990	2740	N	No	1800
Kitchen/Leisure	EW-3	7895	2740	E	No	600
Kitchen/Leisure	EW-3	5600	2740	S	No	600
Kitchen/Leisure	EW-3	4200	2740	W	No	5500
Kitchen/Leisure	EW-3	4900	2740	S	No	4800
Kitchen/Leisure	EW-3	3900	2740	W	No	100
Kitchen/Leisure	EW-3	600	2740	S	No	100
Kitchen/Leisure	EW-3	6195	2740	W	No	100
Bedroom 2	EW-3	1700	2590	E	No	2500
Bedroom 2	EW-4	3295	2590	W	No	600
Bedroom 2	EW-3	1000	2590	N	No	100
Bedroom 2	EW-3	600	2590	W	No	100
Bedroom 2	EW-3	3200	2590	N	No	600
Ensuite 2	EW-3	1595	2590	W	No	600
Ensuite 2	EW-3	600	2590	N	No	3900
Ensuite 2	EW-4	495	2590	W	No	1200
Ensuite 3	EW-3	1495	2590	E	No	600
Ensuite 3	EW-4	2595	2590	S	No	600

Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004227328**

Certificate Date:

24 Sep 2019

★ Star rating:

5.1



Building features continued

WIR 3	EW-4	1990	2590	S	No	600
Bedroom 3	EW-3	3290	2590	E	No	600
Bedroom 4	EW-3	3390	2590	E	No	600
Ensuite 4	EW-3	1490	2590	E	No	600
Master Suite	EW-4	1095	2590	S	No	600
Master Suite	EW-3	4800	2590	S	No	600
Master Suite	EW-3	3895	2590	W	No	600
WIR 1	EW-3	600	2590	S	No	4500
WIR 1	EW-3	1895	2590	W	No	600
Ensuite 1	EW-3	4390	2590	W	No	600
Upper Lounge	EW-3	2395	2590	N	No	2300
Upper Lounge	EW-4	900	2590	E	No	4500
Upper Lounge	EW-4	3900	2590	N	No	600
Upper Lounge	EW-4	3895	2590	E	No	600

Internal wall type

Wall type	Area (m ²)	Insulation	Wall wrap or foil
IW-1 - Cavity wall, direct fix plasterboard, single gap	65.0	Bulk Insulation, No Air Gap R2.5	No
IW-2 - Cavity wall, direct fix plasterboard, single gap	240.0	No insulation	No

Floors

Location	Construction	Area (m ²)	Sub floor ventilation	Added insulation	Covering
Garage	Waffle pod slab 175 mm 100mm	35.0	None	Waffle Pod 175mm	Bare
Laundry	Waffle pod slab 225 mm 100mm	5.7	None	Waffle Pod 225mm	Ceramic Tiles 8mm
Home Theatre	Waffle pod slab 225 mm 100mm	17.8	None	Waffle Pod 225mm	Carpet 10mm
Guest	Waffle pod slab 225 mm 100mm	13.0	None	Waffle Pod 225mm	Carpet 10mm
PWD	Waffle pod slab 225 mm 100mm	7.6	None	Waffle Pod 225mm	Ceramic Tiles 8mm
Pantry	Waffle pod slab 225 mm 100mm	3.9	None	Waffle Pod 225mm	Ceramic Tiles 8mm
Entry/Foyer	Waffle pod slab 225 mm 100mm	22.4	None	Waffle Pod 225mm	Ceramic Tiles 8mm
Kitchen/Leisure	Waffle pod slab 225 mm 100mm	91.8	None	Waffle Pod 225mm	Ceramic Tiles 8mm
Bedroom 2/Guest	Timber Above Plasterboard 19mm	13.0		No Insulation	Carpet 10mm
Bedroom 2/PWD	Timber Above Plasterboard 19mm	1.1		No Insulation	Carpet 10mm
Bedroom 2/Entry/Foyer	Timber Above Plasterboard 19mm	1.4		No Insulation	Carpet 10mm
WIR 2/Entry/Foyer	Timber Above Plasterboard	1.7		No Insulation	Carpet 10mm

Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004227328**

Certificate Date:

24 Sep 2019

★ Star rating:

5.1



Building features continued

	19mm			
Ensuite 2/PWD	Timber Above Plasterboard 19mm	5.8	No Insulation	Ceramic Tiles 8mm
Ensuite 3/Kitchen/Leisure	Timber Above Plasterboard 19mm	3.7	No Insulation	Ceramic Tiles 8mm
WIR 3/Kitchen/Leisure	Timber Above Plasterboard 19mm	2.8	No Insulation	Carpet 10mm
Bedroom 3/Home Theatre	Timber Above Plasterboard 19mm	4.5	No Insulation	Carpet 10mm
Bedroom 3/Kitchen/Leisure	Timber Above Plasterboard 19mm	9.8	No Insulation	Carpet 10mm
Bedroom 4/Laundry	Timber Above Plasterboard 19mm	1.5	No Insulation	Carpet 10mm
Bedroom 4/Home Theatre	Timber Above Plasterboard 19mm	12.0	No Insulation	Carpet 10mm
Bedroom 4/Entry/Foyer	Timber Above Plasterboard 19mm	0.5	No Insulation	Carpet 10mm
Ensuite 4/Laundry	Timber Above Plasterboard 19mm	3.4	No Insulation	Ceramic Tiles 8mm
WIR 4/Laundry	Timber Above Plasterboard 19mm	0.8	No Insulation	Carpet 10mm
WIR 4/Entry/Foyer	Timber Above Plasterboard 19mm	2.5	No Insulation	Carpet 10mm
Master Suite/Kitchen/Leisure	Timber Above Plasterboard 19mm	22.6	No Insulation	Carpet 10mm
WIR 1/Kitchen/Leisure	Timber Above Plasterboard 19mm	11.0	No Insulation	Carpet 10mm
Ensuite 1/Pantry	Timber Above Plasterboard 19mm	4.2	No Insulation	Ceramic Tiles 8mm
Ensuite 1/Kitchen/Leisure	Timber Above Plasterboard 19mm	10.2	No Insulation	Ceramic Tiles 8mm
Upper Lounge/Garage	Timber Above Plasterboard 19mm	16.8	No Insulation	Carpet 10mm
Upper Lounge/Entry/Foyer	Timber Above Plasterboard 19mm	8.5	No Insulation	Carpet 10mm
Upper Lounge/Home Theatre	Timber Above Plasterboard 19mm	1.2	No Insulation	Carpet 10mm
Upper Lounge/Entry/Foyer	Timber Above Plasterboard 19mm	7.5	No Insulation	Carpet 10mm
Upper Lounge/Kitchen/Leisure	Timber Above Plasterboard 19mm	6.3	No Insulation	Carpet 10mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Garage	Plasterboard	No insulation	Yes
Garage	Timber Above Plasterboard	No Insulation	No
Laundry	Timber Above Plasterboard	No Insulation	No
Home Theatre	Timber Above Plasterboard	No Insulation	No
Guest	Timber Above Plasterboard	No Insulation	No

Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004227328**

Certificate Date:

24 Sep 2019

★ Star rating:

5.1



Building features continued

PWD	Timber Above Plasterboard	No Insulation	No
Pantry	Timber Above Plasterboard	No Insulation	No
Entry/Foyer	Timber Above Plasterboard	No Insulation	No
Kitchen/Leisure	Plasterboard	Bulk Insulation R5	Yes
Kitchen/Leisure	Timber Above Plasterboard	No Insulation	No
Bedroom 2	Plasterboard	Bulk Insulation R5	Yes
WIR 2	Plasterboard	Bulk Insulation R5	Yes
Ensuite 2	Plasterboard	Bulk Insulation R5	Yes
Ensuite 3	Plasterboard	Bulk Insulation R5	Yes
WIR 3	Plasterboard	Bulk Insulation R5	Yes
Bedroom 3	Plasterboard	Bulk Insulation R5	Yes
Bedroom 4	Plasterboard	Bulk Insulation R5	Yes
Ensuite 4	Plasterboard	Bulk Insulation R5	Yes
WIR 4	Plasterboard	Bulk Insulation R5	Yes
Master Suite	Plasterboard	Bulk Insulation R5	Yes
WIR 1	Plasterboard	Bulk Insulation R5	Yes
Ensuite 1	Plasterboard	Bulk Insulation R5	Yes
Upper Lounge	Plasterboard	Bulk Insulation R5	Yes
Upper Lounge	Plasterboard	Bulk Insulation R5	Yes

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
PWD	1	Exhaust Fans	0	Sealed
Ensuite 2	1	Exhaust Fans	300	Sealed
Ensuite 3	1	Exhaust Fans	300	Sealed
Ensuite 4	1	Exhaust Fans	300	Sealed
Ensuite 1	1	Exhaust Fans	300	Sealed

Ceiling fans

Location	Number	Diameter (mm)
None Present		

Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004227328**

Certificate Date:

24 Sep 2019

★ Star rating:

5.1



Building features continued

Roof type

Construction	Added insulation	Roof colour
Roof Tiles	No Insulation, Only an Air Gap	Light
Corrugated Iron	Bulk, Reflective Side Down, No Air Gap Above R1.3	Light

Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0004227328

Certificate Date: 24 Sep 2019

★ Star rating: 5.1



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