Certificate number: **0003945383-02**

Certificate Date: 19 Jun 2019

★ Star rating: 5.2



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:	lan 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)

BDAV AAO:

Overview

Dwelling details

	Laurel Chase Forestville		
State:	NSW	Postcode:	2087
Type:	New Dwelling	NCC Class:	1A
Lot/DP		NatHERS climate zone:	56
number:	33/24593	Exposure:	Suburban

Key construction and insulation materials

(see following pages for details)

Construction:	Brick Veneer Roof Tiles
	Waffle pod slab 225 mm
Insulation:	R2.2 wall insulation
	R4.0 ceiling insulation
	No floor insulation
Glazing:	STG-002-01 A Aluminium Awning
U U	Window SG 3CIr

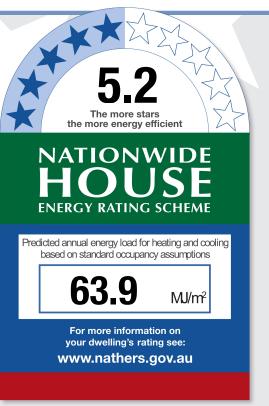
Net floor area (m²)

	/		
Conditioned: Unconditioned:	236.0 51.0	performanc (MJ/m ²)	e loads
Garage:	37.0	Heating:	38.0
TOTAL:	287.0	Cooling:	25.9
		TOTAL:	63.9

Annual thermal

Plan documents

Plan ref/date: Martin 29913633 Prepared by: PG MD



Ceiling penetration (see following pages for deta	s m ails) p	naxii ene	TE: This total is the num number of ceiling trations allowed to a g (under a roof) for this
Unsealed:	2 Ca e: 0 th 2 a La p	ertifi xce nis c nd a oss ene	g (under a root) for this cate. If this number is ded in construction then certificate IS NOT VALID a new certificate is required. of ceiling insulation for the trations listed has been i into account with the rating.
Principle downlight type: Window selection - default windows only		ION	Scan to access this certificate online and
			confirm this is valid
Only a 5% tolerance to the nominat SHGC window values shown on pa			confirm this is valid.
Note on allowable window values: Only a 5% tolerance to the nominat SHGC window values shown on pa can be used with this rating. Note: Only a +/- 5% SHGC toleranc allowed with this rating.	ge 2		confirm this is valid.

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.



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Building features

Window type and performance value

Window ID	Window type	U-value	SHGC
STG-002-01 A	STG-002-01 A Aluminium Awning Window SG 3Clr	6.5	0.65
STG-007-01 A	STG-007-01 A Aluminium Sliding Window SG 3Clr	6.3	0.73
STG-005-02 A	STG-005-02 A Aluminium Sliding Door SG 5Clr	6.3	0.72

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Living	STG-002-01 A	n/a	1800	800	N	No Shading
Living	STG-002-01 A	n/a	1800	800	Ν	No Shading
Living	STG-002-01 A	n/a	1800	800	W	No Shading
Living	STG-002-01 A	n/a	1800	800	W	No Shading
Home Theatre	STG-002-01 A	n/a	1800	800	W	No Shading
Home Theatre	STG-002-01 A	n/a	1800	800	W	No Shading
Kitchen/Rumpus	STG-007-01 A	n/a	2000	2400	S	No Shading
Kitchen/Rumpus	STG-007-01 A	n/a	2000	2400	S	No Shading
Kitchen/Rumpus	STG-005-02 A	n/a	2400	3200	W	No Shading
Kitchen/Rumpus	STG-005-02 A	n/a	2400	3200	S	No Shading
Kitchen/Rumpus	STG-002-01 A	n/a	2000	800	W	No Shading
Kitchen/Rumpus	STG-002-01 A	n/a	2000	800	W	No Shading
Bedroom 1	STG-002-01 A	n/a	1200	2600	Ν	No Shading
Ensuite 1	STG-007-01 A	n/a	1200	1500	W	No Shading
Bedroom 2	STG-002-01 A	n/a	1200	2100	Ν	No Shading
Bath	STG-007-01 A	n/a	1000	800	E	No Shading
Bedroom 3	STG-007-01 A	n/a	1200	1800	E	No Shading
Bedroom 4	STG-007-01 A	n/a	1200	1800	W	No Shading
Leisure/Stairs	STG-007-01 A	n/a	1200	2600	W	No Shading

Window type				U-value	SHGC
nd skylight sch	edule				
ID	Roof window/skylight	Area (m²)	Orientation	Outdoor shade	Indoor shade/diffuser
	nd skylight sch	nd skylight schedule ID Roof	nd skylight schedule ID Roof Area (m²)	nd skylight schedule ID Roof Area (m ²) Orientation	nd skylight schedule ID Roof Area (m ²) Orientation Outdoor shade

External wall type

Wall type		Insulation		Wa	I wrap or foil
Brick Veneer	Brick Veneer		No insulation		
Single Skin B	Single Skin Brick		No insulation		
Brick Veneer	Brick Veneer		Bulk Insulation R2.2		
Fibro Cavity F	Fibro Cavity Panel Direct Fix		R2.2	No	
all schedule					
ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves
	Brick Veneer Single Skin B Brick Veneer Fibro Cavity F	Brick Veneer Single Skin Brick Brick Veneer Fibro Cavity Panel Direct Fix all schedule	Brick VeneerNo insulationSingle Skin BrickNo insulationBrick VeneerBulk InsulationFibro Cavity Panel Direct FixBulk Insulationall scheduleSchedule	Brick VeneerNo insulationSingle Skin BrickNo insulationBrick VeneerBulk Insulation R2.2Fibro Cavity Panel Direct FixBulk Insulation R2.2all scheduleSchedule	Brick VeneerNo insulationNoSingle Skin BrickNo insulationNoBrick VeneerBulk Insulation R2.2NoFibro Cavity Panel Direct FixBulk Insulation R2.2No

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Building features continued

						<u>(mm)</u>
Garage 1	EW-1	5900	2675	E	No	100
Garage 1	EW-1	600	2675	S	No	100
Garage 1	EW-1	1300	2675	W	No	5900
Garage 1	EW-2	6400	2675	N	No	100
Living	EW-3	3800	2600	N	No	100
Living	EW-3	2300	2600	E	No	8500
Living	EW-3	600	2600	S	No	100
Living	EW-3	4400	2600	W	No	100
Home Theatre	EW-3	4790	2600	W	No	100
Laundry	EW-3	1790	3114	E	No	100
Pantry	EW-3	2690	3114	E	No	100
Entry	EW-3	1990	2600	Ν	No	2400
Kitchen/Rumpus	EW-3	6695	3114	E	No	100
Kitchen/Rumpus	EW-3	7300	3114	S	No	100
Kitchen/Rumpus	EW-3	4200	3114	W	No	3800
Kitchen/Rumpus	EW-3	3700	2600	S	No	4300
Kitchen/Rumpus	EW-3	4695	2600	W	No	100
Bedroom 1	EW-3	4195	1509	Ν	No	0
Bedroom 1	EW-4	4195	1091	Ν	No	700
Bedroom 1	EW-4	3100	2600	E	No	700
WIR 1	EW-3	4595	1509	W	No	0
WIR 1	EW-4	4595	1091	W	No	700
WIR 1	EW-3	1295	1509	Ν	No	0
WIR 1	EW-4	1295	1091	Ν	No	700
Ensuite 1	EW-4	400	2600	S	No	7500
Ensuite 1	EW-3	2495	1959	W	No	0
Ensuite 1	EW-4	2495	641	W	No	700
Bedroom 2	EW-4	4295	2600	Ν	No	700
Bedroom 2	EW-4	4195	2600	E	No	700
Bath	EW-4	3390	2600	E	No	700
Bedroom 3	EW-4	3195	2600	E	No	700
Bedroom 3	EW-4	4495	2600	S	No	700
WIR 4	EW-4	1890	2600	S	No	700
Bedroom 4	EW-4	3395	2600	S	No	700
Bedroom 4	EW-3	3200	1959	W	No	0
Bedroom 4	EW-4	3200	641	W	No	700
Bedroom 4	EW-4	400	2600	Ν	No	11400
Leisure/Stairs	EW-4	3590	2600	W	No	1100

Internal wall type Insulation Wall wrap or foil Wall type Area (m²) IW-1 - Cavity wall, direct fix plasterboard, single gap Bulk Insulation, No Air Gap R2.2 27.0 No No insulation IW-2 - Cavity wall, direct fix 194.0 No plasterboard, single gap 32.0 Bulk Insulation, No Air Gap R1.7 No

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Building features continued

IW-3 - Cavity wall, direct fix plasterboard, single gap

Floors					
Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Garage 1	Waffle pod slab 175 mm 100mm	37.3	None	Waffle Pod 175mm	Bare
Living	Waffle pod slab 225 mm 100mm	16.5	None	Waffle Pod 225mm	Ceramic Tiles 8mm
Home Theatre	Waffle pod slab 225 mm 100mm	17.2	None	Waffle Pod 225mm	Carpet 10mm
Laundry	Waffle pod slab 225 mm 100mm	6.2	None	Waffle Pod 225mm	Ceramic Tiles 8mm
Pantry	Waffle pod slab 225 mm 100mm	6.4	None	Waffle Pod 225mm	Ceramic Tiles 8mm
Entry	Waffle pod slab 225 mm 100mm	18.1	None	Waffle Pod 225mm	Ceramic Tiles 8mm
PDR	Waffle pod slab 225 mm 100mm	2.9	None	Waffle Pod 225mm	Ceramic Tiles 8mm
Kitchen/Rumpus	Waffle pod slab 225 mm 100mm	70.8	None	Waffle Pod 225mm	Ceramic Tiles 8mm
Bedroom 1/Garage	Timber Above Plasterboard 100mm	1.4		No Insulation	Carpet 10mm
Bedroom 1/Living	Timber Above Plasterboard 100mm	6.6		No Insulation	Carpet 10mm
Bedroom 1/Home Theatre	Timber Above Plasterboard 100mm	0.7		No Insulation	Carpet 10mm
Bedroom 1/Entry	Timber Above Plasterboard 100mm	5.8		No Insulation	Carpet 10mm
Bedroom 1	Suspended Timber Floor 100mm	4.7	Open	No Insulation	Carpet 10mm
WIR 1/Living	Timber Above Plasterboard 19mm	7.0		No Insulation	Carpet+Rubber Underlay 18mm
Ensuite 1/Home Theatre	Timber Above Plasterboard 19mm	8.8		No Insulation	Ceramic Tiles 8mm
Bedroom 2/Garage	Timber Above Plasterboard 19mm	15.1		No Insulation	Carpet 10mm
Bedroom 2/Laundry	Timber Above Plasterboard 19mm	0.8		No Insulation	Carpet 10mm
Bath/Laundry	Timber Above Plasterboard 19mm	3.5		No Insulation	Ceramic Tiles 8mm
Bath/Pantry	Timber Above Plasterboard 19mm	3.0		No Insulation	Ceramic Tiles 8mm
Bath/Entry	Timber Above Plasterboard 19mm	0.7		No Insulation	Ceramic Tiles 8mm
Bath/PDR	Timber Above Plasterboard 19mm	0.6		No Insulation	Ceramic Tiles 8mm
Bedroom 3/Kitchen/Rumpus	Timber Above Plasterboard 19mm	11.8		No Insulation	Carpet 10mm
WIR 4/Kitchen/Rumpus	Timber Above Plasterboard 19mm	2.3		No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 4/Kitchen/Rumpus	Timber Above Plasterboard 19mm	10.6		No Insulation	Carpet 10mm
	Timber Above Plasterboard	2.1		No Insulation	Ceramic Tiles

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Building features continued

US	19mm		8mm
Linen/Kitchen/Rum pus	Timber Above Plasterboard 19mm	2.7	No Insulation Carpet+Rubber Underlay 18mm
	Timber Above Plasterboard 19mm	1.2	No Insulation Carpet 10mm
	Timber Above Plasterboard 19mm	6.7	No Insulation Carpet 10mm
Leisure/Stairs/Entry	Timber Above Plasterboard 19mm	11.6	No Insulation Carpet 10mm
	Timber Above Plasterboard 19mm	2.5	No Insulation Carpet 10mm
Leisure/Stairs/Kitc hen/Rumpus	Timber Above Plasterboard 19mm	6.0	No Insulation Carpet 10mm

Ceiling type Location Construction Added **Roof space** insulation above Plasterboard Garage 1 No insulation Yes **Timber Above Plasterboard** Garage 1 No Insulation No Plasterboard Living **Bulk Insulation** Yes R4 **Timber Above Plasterboard** Living No Insulation No Home Theatre Plasterboard **Bulk Insulation** Yes R4 Home Theatre **Timber Above Plasterboard** No Insulation No Laundry Plasterboard **Bulk Insulation** Yes **R4 Timber Above Plasterboard** Laundry No Insulation No Pantry Plasterboard **Bulk Insulation** Yes R4 Pantry Timber Above Plasterboard No Insulation No **Timber Above Plasterboard** Entry No Insulation No PDR Timber Above Plasterboard No Insulation No Plasterboard Kitchen/Rumpus **Bulk Insulation** Yes **R4** Kitchen/Rumpus **Timber Above Plasterboard** No Insulation No Bedroom 1 Plasterboard **Bulk Insulation** Yes **R4 Bulk Insulation** WIR 1 Plasterboard Yes **R4** Ensuite 1 Plasterboard **Bulk Insulation** Yes R4 Bedroom 2 Plasterboard **Bulk Insulation** Yes **R4** Plasterboard Bath **Bulk Insulation** Yes R4 Bedroom 3 Plasterboard **Bulk Insulation** Yes **R4** WIR 4 Plasterboard **Bulk Insulation** Yes R4 Bedroom 4 Plasterboard **Bulk Insulation** Yes <u>R4</u>

Nationwide House Energy Rating Scheme* Certificate						
Certificate number	: 0003945383-02	Certificate Date:	19 Jun 2019	★ Star rating:	5.2	NATIONWIDE HOUSE ENERGY RATING SCHEME
Building featur	es continued					
WC	Plasterboard			Bulk Insulation R4	Yes	
Linen	Plasterboard			Bulk Insulation R4	Yes	
Leisure/Stairs	Plasterboard			Bulk Insulation R4	Yes	

Ceiling pen	etrations			
Location	Number	Туре	Diameter (mm)	Sealed/unsealed
PDR	1	Exhaust Fans	300	Sealed
WC	1	Exhaust Fans	300	Sealed

Ceiling fans		
Location	Number	Diameter (mm)
None Present		

Construction	Added Roof color insulation	
Roof Tiles	Foil, Gap Above, Dark Reflective Side Down, Anti-glare Up	
Corrugated Iron	Foil, Gap Above, Dark Reflective Side Down, Anti-glare Up	

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Certificate Date: 19 Jun 2019

★ Star rating: 5.2



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