



## Rolf Ockert Architect Proposed Residential Development

To be built at **25 Loch Street, Freshwater NSW 2096**

Issue	File Ref	Description	Author	Date
A	18-1652	NatHERS and BASIX Assessment	HE	26/11/18
B	19-0222	NatHERS Assessment update to reflect layout changes	AM	21/03/19

*This report has been prepared by Efficient Living Pty Ltd on behalf of our client Rolf Ockert Architect. Efficient Living prepares all reports in accordance with the BASIX Thermal Comfort Protocol and is backed by professional indemnity insurance. This report takes into account our client's instructions and preferred building inclusions.*



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**Assessor:** Haylea Edwards  
*Email:* [haylea@efficientliving.com.au](mailto:haylea@efficientliving.com.au)

**License Holder:** Tracey Cools  
*Accreditation Number:* VIC/BDV/12/1473

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## BASIX Details

NatHERS Certificate Number: 0003350691-02

BASIX adjusted conditioned area: 532m<sup>2</sup>

Area adjusted heating load: 38.7MJ/m<sup>2</sup>/pa

BASIX adjusted un-conditioned area: 24m<sup>2</sup>

Area adjusted cooling load: 18.4MJ/m<sup>2</sup>/pa

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## Specification

Heating and cooling loads for the development have been determined using BERS Pro Plus 4.3 thermal comfort simulation software, and assess under the thermal simulation method of the BASIX Protocol.

The following specification was used to achieve the thermal performance values. Modelling proxies are used at times and if the buildings element details vary the thermal performance specifications below shall take precedence.

If there is a change to this specification during design or construction phases please contact Efficient Living for advice and if required an updated certificate will be issued.

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## Floors

Concrete slab on ground, no insulation

Suspended concrete with a minimum R0.9 insulation (insulation only value).

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## External Walls

Cavity brick with reflective cavity board insulation total system R-Value of Rt2.1

Cavity brick and concrete block with reflective cavity board insulation total system R-Value of Rt2.1

(Note: no insulation is required to garage walls)

## External Colour

Medium ( $0.475 < SA < 0.7$ )

## Walls within dwellings

Plasterboard on studs with a R1.5 to internal garage walls.

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## Windows

*Aluminium framed clear performance glazing:*

*U-Value: 4.80 (equal to or lower than) SHGC: 0.59 ( $\pm 10\%$ )*

*Given values are AFRC, total window system values (glass and frame)*

*NOTE: Openability modelled as per BASIX Thermal Protocol - 4.14.2 and NatHERS Technical Note 1.2 - 10.11 with regard to restricted openings.*

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## Skylights

*Double glazed*

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## Ceilings

*Plasterboard ceiling, with an R2.5 insulation (insulation value only) where metal roof above*

*Plasterboard ceiling, with an R2.5 soffit insulation where concrete roof exposed to air above*

## Ceiling penetrations

*Ceiling penetrations not to exceed NatHERS certificate*

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## Roof

*Metal roof with a foil backed blanket (R1.3 up and R1.3 down)*

*Concrete roof with waterproof membrane*

*R2.0 insulation to garage ceiling where rooms above*

## External Colour

*Medium ( $0.475 < SA < 0.7$ )*

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## Floor coverings

*Timber to halls, bedrooms, WIR and study. Tiles elsewhere*

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## External Shading

*Fixed exterior vertical screens as per plans and elevations which provide 60% shading.*

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21 March 2019

**Rolf Ockert**  
25 Loch Street, Freshwater NSW 2096

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## Ventilation

*All external doors have weather seals, all exhaust fans and chimneys have dampers, any down lights proposed will have capped fittings.*

# Nationwide House Energy Rating Scheme\* Certificate



Certificate number: 0003350691-02

Certificate Date: 21 Mar 2019

★ Star rating: 5.6

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/12/1473**  
Name: **Tracey Cools**  
Organisation: **Efficient Living**  
Email: **admin@efficientliving.com.au**  
Phone: **(02) 9970 6181**  
Declaration of interest: **None**  
Software: **BERS Pro v4.3.0.2d (3.13)**  
AAO: **BDAV**

## Overview

### Dwelling details

Street: **25 Loch Street**  
Suburb: **Freshwater**  
State: **NSW** Postcode: **2096**  
Type: **New Dwelling** NCC Class: **1A**  
NatHERS climate zone: **56**  
Lot/DP number: **3/1245692** Exposure: **Suburban**

### Key construction and insulation materials

(see following pages for details)

Construction: **Cavity Brick**  
**Waterproofing Membrane**  
**Suspended Concrete Slab**  
Insulation: **R1.1 wall insulation**  
**R2.5 ceiling insulation**  
**No floor insulation**  
Glazing: **ALM-004-01 A Aluminium B DG Air Fill**  
**Clear-Clear**

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

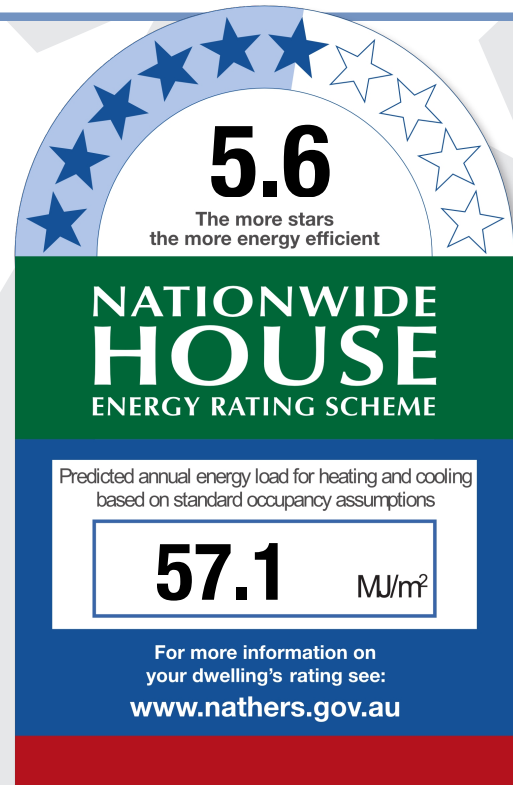
Conditioned: **532.0**  
Unconditioned: **102.0**  
Garage: **78.0**  
TOTAL: **634.0**

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

Heating: **38.7**  
Cooling: **18.4**  
TOTAL: **57.1**

### Plan documents

Plan ref/date: **18-1652**  
Prepared by: **Rolf Ockert Architect**



### Ceiling penetrations

(see following pages for details)

Sealed: **89**  
Unsealed: **0**  
TOTAL:\*\* **89**

\*\*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: **LED**

### Window selection - default windows only

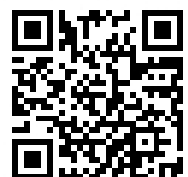
Note on allowable window values:  
Only a 5% tolerance to the nominated SHGC window values shown on page 2 can be used with this rating.

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

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## Building features

### Window type and performance value

Window ID	Window type	U-value	SHGC
ALM-004-01 A	ALM-004-01 A Aluminium B DG Air Fill Clear-Clear	4.8	0.59

### Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Rumpus	ALM-004-01 A	n/a	3000	3300	E	No Shading
Rumpus	ALM-004-01 A	n/a	3000	3300	E	No Shading
Gym	ALM-004-01 A	n/a	3000	3300	E	No Shading
Gym	ALM-004-01 A	n/a	500	7600	S	No Shading
Hallway 1	ALM-004-01 A	n/a	900	2800	N	No Shading
Hallway 1	ALM-004-01 A	n/a	1200	2900	N	No Shading
Ldry	ALM-004-01 A	n/a	900	2000	N	No Shading
Bedroom 3	ALM-004-01 A	n/a	2600	3000	E	No Shading
Bedroom 2	ALM-004-01 A	n/a	2600	3000	E	No Shading
Bedroom 4	ALM-004-01 A	n/a	2600	3300	E	No Shading
Bedroom 4	ALM-004-01 A	n/a	500	6200	S	No Shading
Ens 4	ALM-004-01 A	n/a	500	1800	S	No Shading
WIR 4	ALM-004-01 A	n/a	500	1600	S	No Shading
Kitchen/Living	ALM-004-01 A	n/a	2000	10000	N	Vertical Louvres, Horizontal Blades
Kitchen/Living	ALM-004-01 A	n/a	2100	2400	E	No Shading
Kitchen/Living	ALM-004-01 A	n/a	2000	8700	N	No Shading
Kitchen/Living	ALM-004-01 A	n/a	2950	8000	E	No Shading
Kitchen/Living	ALM-004-01 A	n/a	2950	4800	S	No Shading
Kitchen/Living	ALM-004-01 A	n/a	500	10000	S	No Shading
Pantry	ALM-004-01 A	n/a	500	4500	S	No Shading
Pantry	ALM-004-01 A	n/a	500	2700	W	No Shading
Entry	ALM-004-01 A	n/a	3900	300	W	No Shading
Entry	ALM-004-01 A	n/a	3900	300	W	No Shading
Entry	ALM-004-01 A	n/a	3900	300	W	No Shading
Entry	ALM-004-01 A	n/a	3900	300	W	No Shading
Entry	ALM-004-01 A	n/a	3900	300	W	No Shading
WIR master	ALM-004-01 A	n/a	1900	500	S	No Shading
WIR master	ALM-004-01 A	n/a	300	2500	S	No Shading
WIR master	ALM-004-01 A	n/a	300	5000	W	No Shading
Ens master	ALM-004-01 A	n/a	300	4200	W	No Shading
Ens master	ALM-004-01 A	n/a	2400	3200	N	Vertical Louvres, Vertical Blades
Ens master	ALM-004-01 A	n/a	300	300	N	No Shading
Ens master	ALM-004-01 A	n/a	1500	800	E	No Shading
Master	ALM-004-01 A	n/a	1500	4900	N	No Shading
Master	ALM-004-01 A	n/a	1500	6800	E	No Shading
Master	ALM-004-01 A	n/a	1500	3500	S	No Shading
Study	ALM-004-01 A	n/a	1500	1500	E	No Shading
Study	ALM-004-01 A	n/a	1300	4450	S	No Shading
Study	ALM-004-01 A	n/a	1500	400	S	No Shading
Study	ALM-004-01 A	n/a	300	700	S	No Shading
Day Time 10	ALM-004-01 A	n/a	1600	2900	N	No Shading

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## Building features continued

Day Time 10	ALM-004-01 A	n/a	3000	2100	E	No Shading
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## Roof window and skylight type and performance value

ID	Window type	U-value	SHGC
GEN-04-008a	Double-glazed clear, Timber and Aluminium Frame	0.0	0.00

## Roof window and skylight schedule

Location	ID	Roof window/skylight no.	Area (m <sup>2</sup> )	Orientation	Outdoor shade	Indoor shade/diffuser
Hall/stairs mas	GEN-04-008a	1	14.6	N	None	No

## External wall type

ID	Wall type	Insulation	Wall wrap or foil
EW-1	Cavity Brick	Foil Anti-glare one side and Reflective other of the Bulk Insulation R1.1	Yes
EW-2	Cavity Brick	No insulation	No

## External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Rumpus	EW-1	5345	3000	N	No	0
Rumpus	EW-1	6545	3000	E	No	1000
Rumpus	EW-1	500	3000	S	No	3600
Rumpus	EW-1	4245	3000	S	No	100
Gym	EW-1	3545	3000	E	No	300
Gym	EW-1	9445	3000	S	No	0
Gym store	EW-1	2745	3000	S	No	0
Gym store	EW-1	7545	3000	W	No	0
Wine cellar	EW-1	3845	3000	W	No	0
Wine cellar	EW-1	1745	3000	N	No	200
Lift	EW-1	1645	3000	S	No	100
Lift	EW-1	1300	3000	W	No	0
Lift	EW-1	1645	3000	N	No	0
Garage 1	EW-2	2745	3400	N	No	0
Garage 1	EW-2	11245	3400	S	No	0
Garage 1	EW-2	8900	3400	W	No	0
Hallway 1	EW-1	3145	2600	N	No	0
Hallway 1	EW-1	5945	2600	N	No	0
Hallway 1	EW-1	900	2600	W	No	8100
Hallway 1	EW-1	3200	2600	N	No	25
Hallway 1	EW-1	2545	2600	E	No	6100
Ldry	EW-1	3845	2600	W	No	100
Ldry	EW-1	1500	2600	N	No	0
Ldry	EW-1	900	2600	E	No	8100
Ldry	EW-1	2045	2600	N	No	0
Bedroom 3	EW-1	345	2600	E	No	1300

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Bedroom 3	EW-1	200	2600	N	No	6250
Bedroom 3	EW-1	3000	2600	E	No	1100
Bedroom 3	EW-1	1100	2600	S	No	3600
Bedroom 2	EW-1	2600	2600	N	No	2650
Bedroom 2	EW-1	3200	2600	E	No	200
Bedroom 2	EW-1	1100	2600	S	No	5700
Bedroom 4	EW-1	3545	2600	E	No	2200
Bedroom 4	EW-1	6145	2600	S	No	0
Ens 4	EW-1	1790	2600	S	No	0
WIR 4	EW-1	1590	2600	S	No	0
lift 1	EW-1	1590	2600	N	No	0
Kitchen/Living	EW-1	10145	2950	N	No	1000
Kitchen/Living	EW-1	2600	2950	E	No	10100
Kitchen/Living	EW-1	8800	2950	N	No	1600
Kitchen/Living	EW-1	8100	2950	E	No	1350
Kitchen/Living	EW-1	4800	2950	S	No	800
Kitchen/Living	EW-1	300	2950	W	No	16250
Kitchen/Living	EW-1	9945	2950	S	No	1100
Pantry	EW-1	4545	2950	S	No	1100
Pantry	EW-1	2945	2950	W	No	2600
Entry	EW-1	4290	3900	W	No	2600
WC/shower 0	EW-1	1500	2950	S	No	8500
WC/shower 0	EW-1	3000	2950	W	No	1100
WC/shower 0	EW-1	1845	2950	N	No	1000
WIR master	EW-1	2545	2400	S	No	600
WIR master	EW-1	4945	2400	W	No	1000
Ens master	EW-1	4145	2400	W	No	1000
Ens master	EW-1	3600	2400	N	No	600
Ens master	EW-1	900	2400	E	No	10400
Ens master	EW-1	4345	2600	N	No	1500
Master	EW-1	4845	2600	N	No	1500
Master	EW-1	6800	2600	E	No	1100
Master	EW-1	3545	2600	S	No	2100
Study	EW-1	1500	2600	E	No	4700
Study	EW-1	6645	2600	S	No	600
Day Time 10	EW-1	9845	3000	N	No	200
Day Time 10	EW-1	2545	3000	E	No	5300

## Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Single Skin Brick	452.0	No insulation	No
IW-2 - Single Skin Brick	55.0	Bulk Insulation, No Air Gap R1.5	No

## Floors



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## Building features continued

Location	Construction	Area (m <sup>2</sup> )	Sub floor ventilation	Added insulation	Covering
Rumpus	Concrete Slab on Ground 100mm	62.5	None	No Insulation	Ceramic Tiles 8mm
Bathroom	Concrete Slab on Ground 100mm	7.8	None	No Insulation	Ceramic Tiles 8mm
Gym	Concrete Slab on Ground 100mm	33.5	None	No Insulation	Ceramic Tiles 8mm
Gym store	Concrete Slab on Ground 100mm	20.7	None	No Insulation	Ceramic Tiles 8mm
Wine cellar	Concrete Slab on Ground 100mm	6.7	None	No Insulation	Ceramic Tiles 8mm
Lift	Concrete Slab on Ground 100mm	2.1	None	No Insulation	Ceramic Tiles 8mm
Garage 1/Gym store	Concrete Above Plasterboard 150mm	15.1		No Insulation	Ceramic Tiles 8mm
Garage 1	Suspended Concrete Slab 150mm	63.3	Totally Open	Bulk Insulation in Contact with Floor R0.9	Bare
Hallway 1/Rumpus	Concrete Above Plasterboard 150mm	12.6		No Insulation	Cork Tiles or Parquetry 8mm
Hallway 1/Bathroom	Concrete Above Plasterboard 150mm	3.3		No Insulation	Cork Tiles or Parquetry 8mm
Hallway 1/Gym store	Concrete Above Plasterboard 150mm	4.3		No Insulation	Cork Tiles or Parquetry 8mm
Hallway 1/Wine cellar	Concrete Above Plasterboard 150mm	1.2		No Insulation	Cork Tiles or Parquetry 8mm
Hallway 1/Day Time 10	Concrete Above Plasterboard 150mm	19.6		No Insulation	Cork Tiles or Parquetry 8mm
Hallway 1	Suspended Concrete Slab 150mm	6.2	Totally Open	Bulk Insulation in Contact with Floor R0.9	Cork Tiles or Parquetry 8mm
Ldry/Wine cellar	Concrete Above Plasterboard 150mm	4.1		No Insulation	Ceramic Tiles 8mm
Ldry	Suspended Concrete Slab 150mm	7.7	Totally Open	Bulk Insulation in Contact with Floor R0.9	Ceramic Tiles 8mm
Bedroom 3/Rumpus	Concrete Above Plasterboard 150mm	19.9		No Insulation	Cork Tiles or Parquetry 8mm
Bedroom 3	Suspended Concrete Slab 150mm	1.9	Totally Open	Bulk Insulation in Contact with Floor R0.9	Cork Tiles or Parquetry 8mm
Bedroom 2/Rumpus	Concrete Above Plasterboard 150mm	15.0		No Insulation	Cork Tiles or Parquetry 8mm
Bedroom 2	Suspended Concrete Slab 150mm	4.6	Totally Open	Bulk Insulation in Contact with Floor R0.9	Cork Tiles or Parquetry 8mm
Ens 2/Rumpus	Concrete Above Plasterboard 150mm	3.7		No Insulation	Ceramic Tiles 8mm
WIR 2/Rumpus	Concrete Above Plasterboard 150mm	3.9		No Insulation	Cork Tiles or Parquetry 8mm
Ens 3/Rumpus	Concrete Above Plasterboard 150mm	3.9		No Insulation	Ceramic Tiles 8mm
WIR 3/Rumpus	Concrete Above Plasterboard 150mm	1.5		No Insulation	Cork Tiles or Parquetry 8mm
WIR 3/Bathroom	Concrete Above Plasterboard 150mm	2.8		No Insulation	Cork Tiles or Parquetry 8mm

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## Building features continued

Bedroom 4/Bathroom	Concrete Above Plasterboard 150mm	1.3		No Insulation	Cork Tiles or Parquetry 8mm
Bedroom 4/Gym	Concrete Above Plasterboard 150mm	24.9		No Insulation	Cork Tiles or Parquetry 8mm
Bedroom 4/Gym store	Concrete Above Plasterboard 150mm	0.8		No Insulation	Cork Tiles or Parquetry 8mm
Ens 4/Gym	Concrete Above Plasterboard 150mm	4.4		No Insulation	Ceramic Tiles 8mm
WIR 4/Gym	Concrete Above Plasterboard 150mm	3.2		No Insulation	Cork Tiles or Parquetry 8mm
WIR 4/Gym store	Concrete Above Plasterboard 150mm	0.7		No Insulation	Cork Tiles or Parquetry 8mm
lift 1/Lift	Concrete Above Plasterboard 150mm	2.0		No Insulation	Ceramic Tiles 8mm
Kitchen/Living /Garage 1	Concrete Above Plasterboard 100mm	32.3		Bulk Insulation R2	Ceramic Tiles 8mm
Kitchen/Living /Hallway 1	Concrete Above Plasterboard 100mm	28.0		No Insulation	Ceramic Tiles 8mm
Kitchen/Living /Ldry	Concrete Above Plasterboard 100mm	8.9		No Insulation	Ceramic Tiles 8mm
Kitchen/Living /Bedroom 3	Concrete Above Plasterboard 100mm	13.8		No Insulation	Ceramic Tiles 8mm
Kitchen/Living /Bedroom 2	Concrete Above Plasterboard 100mm	6.9		No Insulation	Ceramic Tiles 8mm
Kitchen/Living /Ens	Concrete Above Plasterboard 100mm	2.5		No Insulation	Ceramic Tiles 8mm
Kitchen/Living /WIR 2	Concrete Above Plasterboard 100mm	2.6		No Insulation	Ceramic Tiles 8mm
Kitchen/Living /Ens	Concrete Above Plasterboard 100mm	4.3		No Insulation	Ceramic Tiles 8mm
Kitchen/Living /WIR 3	Concrete Above Plasterboard 100mm	4.8		No Insulation	Ceramic Tiles 8mm
Kitchen/Living /Bedroom 4	Concrete Above Plasterboard 100mm	16.5		No Insulation	Ceramic Tiles 8mm
Kitchen/Living /Ens	Concrete Above Plasterboard 100mm	2.0		No Insulation	Ceramic Tiles 8mm
Kitchen/Living /WIR 4	Concrete Above Plasterboard 100mm	1.7		No Insulation	Ceramic Tiles 8mm
Kitchen/Living	Concrete Slab on Ground 100mm	21.8	None	No Insulation	Ceramic Tiles 8mm
Pantry/Garage 1	Concrete Above Plasterboard 150mm	13.4		Bulk Insulation R2	Ceramic Tiles 8mm
Lift 0/lift 1	Concrete Above Plasterboard 150mm	1.7		No Insulation	Ceramic Tiles 8mm
Entry/Garage 1	Concrete Above Plasterboard 150mm	14.9		Bulk Insulation R2	Ceramic Tiles 8mm
WC/shower 0	Concrete Slab on Ground 150mm	5.5	None	No Insulation	Ceramic Tiles 8mm
WIR master	Suspended Concrete Slab 100mm	12.6	Totally Open	Bulk Insulation in Contact with Floor R0.9	Cork Tiles or Parquetry 8mm
Ens master/Kitchen/Living	Concrete Above Plasterboard 150mm	8.3		No Insulation	Ceramic Tiles 8mm
Ens master/Entry	Concrete Above Plasterboard 150mm	2.0		No Insulation	Ceramic Tiles 8mm

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Ens master/WC/shower	Concrete Above Plasterboard 150mm	4.6		No Insulation	Ceramic Tiles 8mm
Ens master	Suspended Concrete Slab 150mm	7.0	Totally Open	Bulk Insulation in Contact with Floor R0.9	Ceramic Tiles 8mm
Master/Kitchen/Living	Concrete Above Plasterboard 150mm	26.1		No Insulation	Cork Tiles or Parquetry 8mm
Study/Kitchen/Living	Concrete Above Plasterboard 150mm	4.9		No Insulation	Cork Tiles or Parquetry 8mm
Study/Pantry	Concrete Above Plasterboard 150mm	10.2		No Insulation	Cork Tiles or Parquetry 8mm
Lift master/Lift 0	Concrete Above Plasterboard 150mm	2.1		No Insulation	Ceramic Tiles 8mm
Hall/stairs mas/Kitchen/Living	Concrete Above Plasterboard 150mm	10.4		No Insulation	Cork Tiles or Parquetry 8mm
Hall/stairs mas/Entry	Concrete Above Plasterboard 150mm	12.7		No Insulation	Cork Tiles or Parquetry 8mm
Day Time 10	Concrete Slab on Ground 150mm	27.4	None	No Insulation	Cork Tiles or Parquetry 8mm

## Ceiling type

Location	Construction	Added insulation	Roof space above
Rumpus	Concrete, Plasterboard	Bulk Insulation R2.5	No
Rumpus	Concrete Above Plasterboard	No Insulation	No
Bathroom	Concrete, Plasterboard	Bulk Insulation R2.5	No
Bathroom	Concrete Above Plasterboard	No Insulation	No
Gym	Concrete, Plasterboard	Bulk Insulation R2.5	No
Gym	Concrete Above Plasterboard	No Insulation	No
Gym store	Concrete, Plasterboard	Bulk Insulation R2.5	No
Gym store	Concrete Above Plasterboard	No Insulation	No
Wine cellar	Concrete, Plasterboard	Bulk Insulation R2.5	No
Wine cellar	Concrete Above Plasterboard	No Insulation	No
Lift	Concrete, Plasterboard	Bulk Insulation R2.5	No
Lift	Concrete Above Plasterboard	No Insulation	No
Garage 1	Concrete, Plasterboard	No insulation	No
Garage 1	Concrete Above Plasterboard	Bulk Insulation R2	No
Hallway 1	Concrete, Plasterboard	Bulk Insulation R2.5	No
Hallway 1	Concrete Above Plasterboard	No Insulation	No
Ldry	Concrete, Plasterboard	Bulk Insulation R2.5	No
Ldry	Concrete Above Plasterboard	No Insulation	No
Bedroom 3	Concrete, Plasterboard	Bulk Insulation	No

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## Building features continued

		R2.5	
Bedroom 3	Concrete Above Plasterboard	No Insulation	No
Bedroom 2	Concrete, Plasterboard	Bulk Insulation R2.5	No
Bedroom 2	Concrete Above Plasterboard	No Insulation	No
Ens 2	Concrete, Plasterboard	Bulk Insulation R2.5	No
Ens 2	Concrete Above Plasterboard	No Insulation	No
WIR 2	Concrete, Plasterboard	Bulk Insulation R2.5	No
WIR 2	Concrete Above Plasterboard	No Insulation	No
Ens 3	Concrete, Plasterboard	Bulk Insulation R2.5	No
Ens 3	Concrete Above Plasterboard	No Insulation	No
WIR 3	Concrete, Plasterboard	Bulk Insulation R2.5	No
WIR 3	Concrete Above Plasterboard	No Insulation	No
Bedroom 4	Concrete, Plasterboard	Bulk Insulation R2.5	No
Bedroom 4	Concrete Above Plasterboard	No Insulation	No
Ens 4	Concrete, Plasterboard	Bulk Insulation R2.5	No
Ens 4	Concrete Above Plasterboard	No Insulation	No
WIR 4	Concrete, Plasterboard	Bulk Insulation R2.5	No
WIR 4	Concrete Above Plasterboard	No Insulation	No
lift 1	Concrete, Plasterboard	Bulk Insulation R2.5	No
lift 1	Concrete Above Plasterboard	No Insulation	No
Kitchen/Living	Concrete, Plasterboard	Bulk Insulation R2.5	No
Kitchen/Living	Concrete Above Plasterboard	No Insulation	No
Pantry	Concrete, Plasterboard	Bulk Insulation R2.5	No
Pantry	Concrete Above Plasterboard	No Insulation	No
Lift 0	Concrete, Plasterboard	Bulk Insulation R2.5	No
Lift 0	Concrete Above Plasterboard	No Insulation	No
Entry	Concrete, Plasterboard	Bulk Insulation R2.5	No
Entry	Concrete Above Plasterboard	No Insulation	No
WC/shower 0	Concrete, Plasterboard	Bulk Insulation R2.5	No
WC/shower 0	Concrete Above Plasterboard	No Insulation	No
WIR master	Plasterboard	Bulk Insulation R2.5	No
Ens master	Plasterboard	Bulk Insulation R2.5	No
Master	Plasterboard	Bulk Insulation R2.5	No
Study	Plasterboard	Bulk Insulation R2.5	No
Lift master	Plasterboard	Bulk Insulation R2.5	No

# Nationwide House Energy Rating Scheme\* Certificate

Certificate number: **0003350691-02**

Certificate Date:

**21 Mar 2019**

★ Star rating:

**5.6**



## Building features continued

Hall/stairs mas	Plasterboard	Bulk Insulation R2.5	No
Day Time 10	Concrete, Plasterboard	Bulk Insulation R2.5	No
Day Time 10	Concrete Above Plasterboard	No Insulation	No

## Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
Rumpus	7	Downlights - LED	150	Sealed
Bathroom	2	Downlights - LED	150	Sealed
Bathroom	1	Exhaust Fans	300	Sealed
Gym	4	Downlights - LED	150	Sealed
Wine cellar	1	Downlights - LED	150	Sealed
Hallway 1	4	Downlights - LED	150	Sealed
Ldry	2	Downlights - LED	150	Sealed
Ldry	1	Exhaust Fans	300	Sealed
Bedroom 3	4	Downlights - LED	150	Sealed
Bedroom 2	4	Downlights - LED	150	Sealed
Ens 2	1	Downlights - LED	150	Sealed
Ens 2	1	Exhaust Fans	300	Sealed
WIR 2	1	Downlights - LED	150	Sealed
Ens 3	1	Downlights - LED	150	Sealed
Ens 3	1	Exhaust Fans	300	Sealed
WIR 3	1	Downlights - LED	150	Sealed
Bedroom 4	5	Downlights - LED	150	Sealed
Ens 4	1	Downlights - LED	150	Sealed
Ens 4	1	Exhaust Fans	300	Sealed
WIR 4	1	Downlights - LED	150	Sealed
Kitchen/Living	22	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
Pantry	1	Downlights - LED	150	Sealed
WC/shower 0	1	Downlights - LED	150	Sealed
WC/shower 0	1	Exhaust Fans	300	Sealed
WIR master	2	Downlights - LED	150	Sealed
Ens master	5	Downlights - LED	150	Sealed
Ens master	1	Exhaust Fans	300	Sealed
Master	6	Downlights - LED	150	Sealed
Study	3	Downlights - LED	150	Sealed
Hall/stairs mas	2	Downlights - LED	150	Sealed

## Ceiling fans

Location	Number	Diameter (mm)
None Present		



## Nationwide House Energy Rating Scheme\* Certificate

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★ Star rating:

**5.6**



### Building features continued

#### Roof type

Construction	Added insulation	Roof colour
Waterproofing Membrane	No Insulation, Only an Air Gap	Medium
Corrugated Iron	Bulk, Reflective Side Down, Anti-glare Up R1.2	Medium

# Nationwide House Energy Rating Scheme\* Certificate

Certificate number: 0003350691-02

Certificate Date: 21 Mar 2019

★ Star rating: 5.6



## 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)