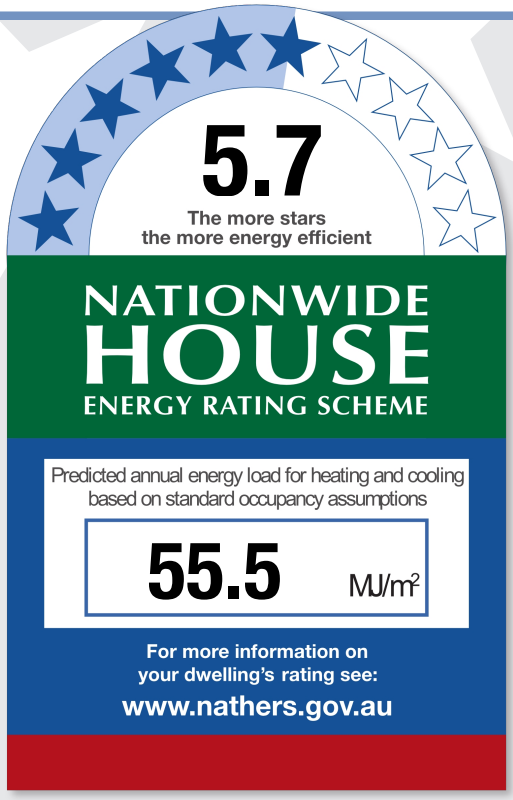
Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0003344124** Certificate Date: **13 Nov 2018** ★Star rating: **5.7**

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:	**20039**
Name:	**David Howard**
Organisation:	**Partners Energy Management**
Email:	**david@partnersenergy.com.au**
Phone:	**0421381005**
Declaration of interest:	**The Assessor has provided design advice to the Applicant**
Software:	**BERS Pro v4.3.0.2c (3.13)**
AAO:	**ABSA**



Overview

Dwelling details

Street:	**Unit 1.01, 25-27 Warriewood rd**		
Suburb:	**Warriewood**		
State:	**NSW**	Postcode:	**2102**
Type:	**New Dwelling**	NCC Class:	**1A**
		NatHERS climate zone:	**56**
Lot/DP number:	**5464**	Exposure:	**Suburban**

Key construction and insulation materials

(see following pages for details)

Construction:	**Brick Veneer** **Concrete, Plasterboard** **Concrete Slab, Unit Below**
Insulation:	**R2.5 wall insulation** **No ceiling insulation** **No floor insulation**
Glazing:	**ALM-002-01 A Aluminium B SG Clear**

Ceiling penetrations

(see following pages for details)

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

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

Net floor area (m²)

Conditioned:	**88.0**
Unconditioned:	**0.0**
Garage:	**0.0**
TOTAL:	**88.0**

Annual thermal performance loads (MJ/m²)

Heating:	**30.2**
Cooling:	**25.3**
TOTAL:	**55.5**

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.

Plan documents

Plan ref/date:	**Warriewood Residential Development**
Prepared by:	**VIA Architects**

* Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

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

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Bedroom Master	ALM-002-01 A	n/a	2800	2000	SE	No Shading
Bedroom Master	ALM-002-01 A	n/a	2800	1000	SE	No Shading
Bedroom Master	ALM-002-01 A	n/a	2800	2100	SW	No Shading
Bedroom 2	ALM-002-01 A	n/a	2800	2000	SE	No Shading
Kitchen/Living	ALM-002-01 A	n/a	2800	4200	SW	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 (m²)	Orientation	Outdoor shade	Indoor shade/diffuser
None Present						

External wall type

ID	Wall type	Insulation	Wall wrap or foil
EW-1	Brick Veneer	Anti-glare foil with bulk no gap R2.5	Yes

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Bedroom Master	EW-1	6795	2800	SE	No	0
Bedroom Master	EW-1	3300	2800	SW	No	600
Bedroom Master	EW-1	1200	2800	NW	No	8600
Bedroom 2	EW-1	3595	2800	SE	No	0
Kitchen/Living	EW-1	1890	2800	NE	No	2700
Kitchen/Living	EW-1	6195	2800	SW	No	1800

Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Cavity wall, direct fix plasterboard, single gap	76.0	No insulation	No
IW-2 - Concrete Panel/Blocks filled, plasterboard	50.0	No Insulation	No

Floors

Building features continued

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Bedroom Master	Concrete Slab, Unit Below 150mm	15.7	None	No Insulation	Carpet 10mm
Ens	Concrete Slab, Unit Below 150mm	4.2	None	No Insulation	Carpet 10mm
Bedroom 2	Concrete Slab, Unit Below 150mm	11.6	None	No Insulation	Carpet 10mm
Bath	Concrete Slab, Unit Below 150mm	6.5	None	No Insulation	Carpet 10mm
Ldry	Concrete Slab, Unit Below 150mm	3.9	None	No Insulation	Carpet 10mm
Kitchen/Living	Concrete Slab, Unit Below 150mm	46.1	None	No Insulation	Carpet 10mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Bedroom Master	Concrete, Plasterboard	No insulation	No
Ens	Concrete, Plasterboard	No insulation	No
Bedroom 2	Concrete, Plasterboard	No insulation	No
Bath	Concrete, Plasterboard	No insulation	No
Ldry	Concrete, Plasterboard	No insulation	No
Kitchen/Living	Concrete, Plasterboard	No insulation	No

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
None Present				

Ceiling fans

Location	Number	Diameter (mm)
None Present		

Roof type

Construction	Added insulation	Roof colour
None Present		

Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0003344124 **Certificate Date:** 13 Nov 2018 ★Star rating: 5.7

Additional information

If carpet noted as floor covering it may be replaced with any type.

Due to non current Window Library the glazing descriptiosn may not match actual products. Only the U and SHGC values should be considered NOT the glazing descriptions.

Explanatory notes

About this report

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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.

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Accredited Assessors

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Disclaimer

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Contact

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Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0003344140** Certificate Date: **13 Nov 2018** ★Star rating: **6.9**

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Assessor details

Accreditation number:	**20039**
Name:	**David Howard**
Organisation:	**Partners Energy Management**
Email:	**david@partnersenergy.com.au**
Phone:	**0421381005**
Declaration of interest:	**The Assessor has provided design advice to the Applicant**
Software:	**BERS Pro v4.3.0.2c (3.13)**
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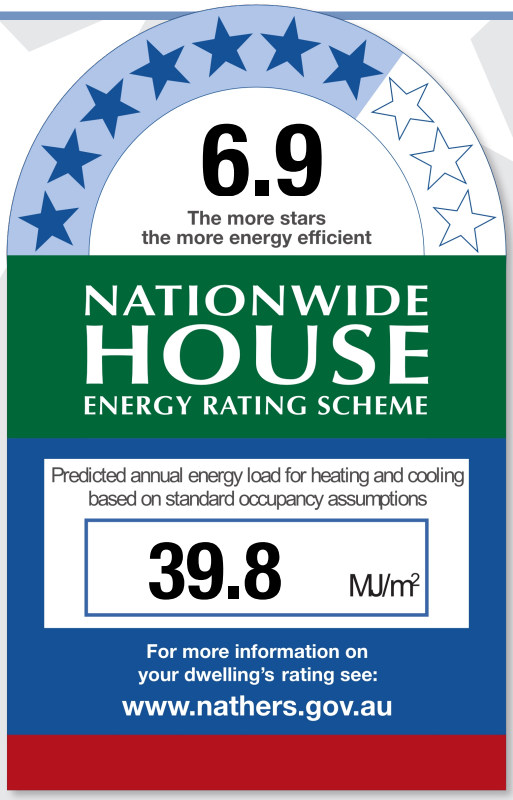

Overview

Dwelling details

Street:	**Unit 1.02, 25-27 Warriewood rd**		
Suburb:	**Warriewood**		
State:	**NSW**	Postcode:	**2102**
Type:	**New Dwelling**	NCC Class:	**1A**
		NatHERS climate zone:	**56**
Lot/DP number:	**5464**	Exposure:	**Suburban**

Key construction and insulation materials

(see following pages for details)

Construction:	**Brick Veneer** **Concrete, Plasterboard** **Concrete Slab, Unit Below**
Insulation:	**R2.5 wall insulation** **No ceiling insulation** **No floor insulation**
Glazing:	**ALM-002-01 A Aluminium B SG Clear**

Net floor area (m²)

Conditioned:	**113.0**
Unconditioned:	**0.0**
Garage:	**0.0**
TOTAL:	**113.0**

Annual thermal performance loads (MJ/m²)

Heating:	**19.9**
Cooling:	**19.8**
TOTAL:	**39.8**

Plan documents

Plan ref/date:	**Warriewood Residential Development**
Prepared by:	**VIA Architects**

Ceiling penetrations

(see following pages for details)

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

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

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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

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Bedroom Master	ALM-002-01 A	n/a	2800	2400	SW	No Shading
Kitchen/Living	ALM-002-01 A	n/a	2800	3600	SW	No Shading
Bedroom 2	ALM-002-01 A	n/a	2800	1800	SW	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 (m²)	Orientation	Outdoor shade	Indoor shade/diffuser
None Present						

External wall type

ID	Wall type	Insulation	Wall wrap or foil
EW-1	Brick Veneer	Anti-glare foil with bulk no gap R2.5	Yes

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Bedroom Master	EW-1	3795	2800	SW	No	1075
Bedroom Master	EW-1	700	2800	SE	No	0
Kitchen/Living	EW-1	2590	2800	NE	No	2650
Kitchen/Living	EW-1	5195	2800	SW	No	2125
Bedroom 2	EW-1	3095	2800	SW	No	1050
Bedroom 2	EW-1	1100	2800	NW	No	7100

Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Cavity wall, direct fix plasterboard, single gap	108.0	No insulation	No
IW-2 - Concrete Panel/Blocks filled, plasterboard	81.0	No Insulation	No

Floors

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Bedroom Master	Concrete Slab, Unit Below	23.7	None	No Insulation	Carpet 10mm

Building features continued

	150mm				
Ens	Concrete Slab, Unit Below 150mm	10.3	None	No Insulation	Carpet 10mm
Kitchen/Living	Concrete Slab, Unit Below 150mm	11.1	None	No Insulation	Carpet 10mm
Bath	Concrete Slab, Unit Below 150mm	10.1	None	No Insulation	Carpet 10mm
Kitchen/Living	Concrete Slab, Unit Below 150mm	35.3	None	No Insulation	Carpet 10mm
Ldry	Concrete Slab, Unit Below 150mm	6.9	None	No Insulation	Carpet 10mm
Bedroom 2	Concrete Slab, Unit Below 150mm	15.5	None	No Insulation	Carpet 10mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Bedroom Master	Concrete, Plasterboard	No insulation	No
Ens	Concrete, Plasterboard	No insulation	No
Kitchen/Living	Concrete, Plasterboard	No insulation	No
Bath	Concrete, Plasterboard	No insulation	No
Kitchen/Living	Concrete, Plasterboard	No insulation	No
Ldry	Concrete, Plasterboard	No insulation	No
Bedroom 2	Concrete, Plasterboard	No insulation	No

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
None Present				

Ceiling fans

Location	Number	Diameter (mm)
None Present		

Roof type

Construction	Added insulation	Roof colour
None Present		

Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0003344140 **Certificate Date:** 13 Nov 2018 ★Star rating: 6.9

Additional information

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Explanatory notes

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Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0003344157** Certificate Date: **13 Nov 2018** ★Star rating: **6.3**

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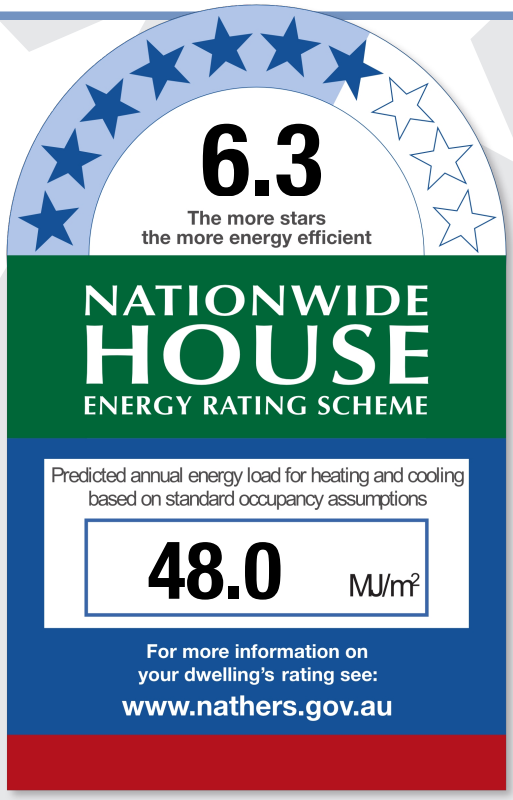
Assessor details

Accreditation number:	**20039**
Name:	**David Howard**
Organisation:	**Partners Energy Management**
Email:	**david@partnersenergy.com.au**
Phone:	**0421381005**
Declaration of interest:	**The Assessor has provided design advice to the Applicant**
Software:	**BERS Pro v4.3.0.2c (3.13)**
AAO:	**ABSA**



Overview

Dwelling details

Street:	**Unit 1.03, 25-27 Warriewood rd**		
Suburb:	**Warriewood**		
State:	**NSW**	Postcode:	**2102**
Type:	**New Dwelling**	NCC Class:	**1A**
		NatHERS climate zone:	**56**
Lot/DP number:	**5464**	Exposure:	**Suburban**

Key construction and insulation materials

(see following pages for details)

Construction:	**Brick Veneer** **Concrete, Plasterboard** **Concrete Slab, Unit Below**
Insulation:	**R2.5 wall insulation** **No ceiling insulation** **No floor insulation**
Glazing:	**ALM-002-01 A Aluminium B SG Clear**

Ceiling penetrations

(see following pages for details)

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

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

Net floor area (m²)

Conditioned:	**88.0**
Unconditioned:	**0.0**
Garage:	**0.0**
TOTAL:	**88.0**

Annual thermal performance loads (MJ/m²)

Heating:	**19.6**
Cooling:	**28.4**
TOTAL:	**48.0**

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.

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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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Plan documents

Plan ref/date:	**Warriewood Residential Development**
Prepared by:	**VIA Architects**

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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

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Bedroom Master	ALM-002-01 A	n/a	2800	2400	SW	No Shading
Bedroom Master	ALM-002-01 A	n/a	2800	2000	NW	No Shading
Bedroom Master	ALM-002-01 A	n/a	2800	1000	NW	No Shading
Bedroom 2	ALM-002-01 A	n/a	2800	1800	NW	No Shading
Kitchen/Living	ALM-002-01 A	n/a	2800	5000	SW	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 (m²)	Orientation	Outdoor shade	Indoor shade/diffuser
None Present						

External wall type

ID	Wall type	Insulation	Wall wrap or foil
EW-1	Brick Veneer	Anti-glare foil with bulk no gap R2.5	Yes

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Bedroom Master	EW-1	1200	2800	SE	No	8600
Bedroom Master	EW-1	3300	2800	SW	No	600
Bedroom Master	EW-1	6795	2800	NW	No	0
Bedroom 2	EW-1	3595	2800	NW	No	0
Kitchen/Living	EW-1	6195	2800	SW	No	1800
Kitchen/Living	EW-1	1890	2800	NE	No	2700

Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Cavity wall, direct fix plasterboard, single gap	76.0	No insulation	No
IW-2 - Concrete Panel/Blocks filled, plasterboard	50.0	No Insulation	No

Floors

Building features continued

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Bedroom Master	Concrete Slab, Unit Below 150mm	15.7	None	No Insulation	Carpet 10mm
Ens	Concrete Slab, Unit Below 150mm	4.2	None	No Insulation	Carpet 10mm
Bedroom 2	Concrete Slab, Unit Below 150mm	11.6	None	No Insulation	Carpet 10mm
Bath	Concrete Slab, Unit Below 150mm	6.5	None	No Insulation	Carpet 10mm
Ldry	Concrete Slab, Unit Below 150mm	3.9	None	No Insulation	Carpet 10mm
Kitchen/Living	Concrete Slab, Unit Below 150mm	46.1	None	No Insulation	Carpet 10mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Bedroom Master	Concrete, Plasterboard	No insulation	No
Ens	Concrete, Plasterboard	No insulation	No
Bedroom 2	Concrete, Plasterboard	No insulation	No
Bath	Concrete, Plasterboard	No insulation	No
Ldry	Concrete, Plasterboard	No insulation	No
Kitchen/Living	Concrete, Plasterboard	No insulation	No

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
None Present				

Ceiling fans

Location	Number	Diameter (mm)
None Present		

Roof type

Construction	Added insulation	Roof colour
None Present		

Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0003344157 **Certificate Date:** 13 Nov 2018 ★Star rating: 6.3

Additional information

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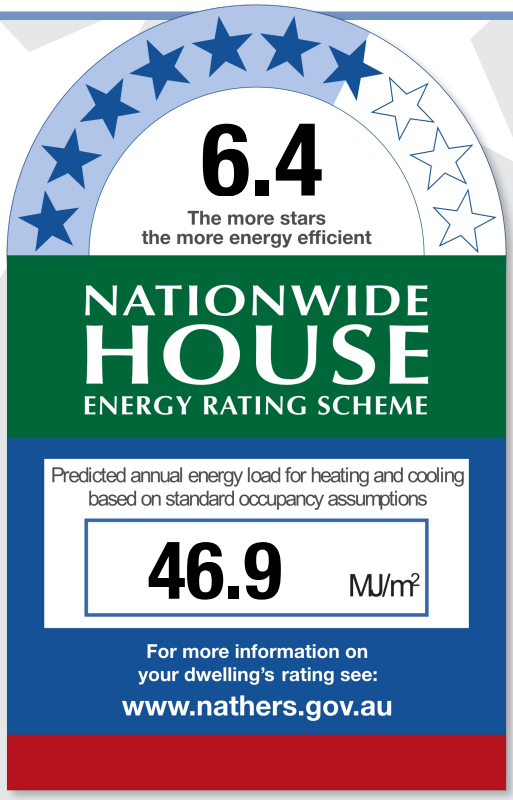
Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0003344132** Certificate Date: **13 Nov 2018** ★Star rating: **6.4**

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:	**20039**
Name:	**David Howard**
Organisation:	**Partners Energy Management**
Email:	**david@partnersenergy.com.au**
Phone:	**0421381005**
Declaration of interest:	**The Assessor has provided design advice to the Applicant**
Software:	**BERS Pro v4.3.0.2c (3.13)**
AAO:	**ABSA**



Overview

Dwelling details

Street:	**Unit 1.04, 25-27 Warriewood rd**		
Suburb:	**Warriewood**		
State:	**NSW**	Postcode:	**2102**
Type:	**New Dwelling**	NCC Class:	**1A**
		NatHERS climate zone:	**56**
Lot/DP number:	**5464**	Exposure:	**Suburban**

Key construction and insulation materials

(see following pages for details)

Construction:	**Brick Veneer** **Concrete, Plasterboard** **Concrete Slab, Unit Below**
Insulation:	**R2.5 wall insulation** **No ceiling insulation** **No floor insulation**
Glazing:	**ALM-002-01 A Aluminium B SG Clear**

Ceiling penetrations

(see following pages for details)

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

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

Net floor area (m²)

Conditioned:	**85.0**
Unconditioned:	**0.0**
Garage:	**0.0**
TOTAL:	**85.0**

Annual thermal performance loads (MJ/m²)

Heating:	**21.7**
Cooling:	**25.1**
TOTAL:	**46.9**

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.

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Plan documents

Plan ref/date:	**Warriewood Residential Development**
Prepared by:	**VIA Architects**

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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

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Bedroom Master	ALM-002-01 A	n/a	2800	1000	NW	No Shading
Bedroom Master	ALM-002-01 A	n/a	2800	1800	NW	No Shading
Kitchen/Living	ALM-002-01 A	n/a	2800	4000	NW	No Shading
Kitchen/Living	ALM-002-01 A	n/a	2800	1800	NW	No Shading
Kitchen/Living	ALM-002-01 A	n/a	2800	3200	NE	No Shading
Bedroom 2	ALM-002-01 A	n/a	2800	1000	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 (m²)	Orientation	Outdoor shade	Indoor shade/diffuser
None Present						

External wall type

ID	Wall type	Insulation	Wall wrap or foil
EW-1	Brick Veneer	Anti-glare foil with bulk no gap R2.5	Yes

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Bedroom Master	EW-1	5195	2800	NW	No	1675
Entry	EW-1	2195	2800	SW	No	4900
Kitchen/Living	EW-1	7895	2800	NW	No	1650
Kitchen/Living	EW-1	3995	2800	NE	No	1875
Bedroom 2	EW-1	3095	2800	NE	No	1850

Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Concrete Panel/Blocks filled, plasterboard	50.0	No Insulation	No
IW-2 - Cavity wall, direct fix plasterboard, single gap	66.0	No insulation	No

Floors

Building features continued

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Ens	Concrete Slab, Unit Below 150mm	4.7	None	No Insulation	Carpet 10mm
Bedroom Master	Concrete Slab, Unit Below 150mm	15.2	None	No Insulation	Carpet 10mm
Bath	Concrete Slab, Unit Below 150mm	4.5	None	No Insulation	Carpet 10mm
Entry	Concrete Slab, Unit Below 150mm	4.9	None	No Insulation	Carpet 10mm
Kitchen/Living	Concrete Slab, Unit Below 150mm	43.7	None	No Insulation	Carpet 10mm
Bedroom 2	Concrete Slab, Unit Below 150mm	11.5	None	No Insulation	Carpet 10mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Ens	Concrete, Plasterboard	No insulation	No
Bedroom Master	Concrete, Plasterboard	No insulation	No
Bath	Concrete, Plasterboard	No insulation	No
Entry	Concrete, Plasterboard	No insulation	No
Kitchen/Living	Concrete, Plasterboard	No insulation	No
Bedroom 2	Concrete, Plasterboard	No insulation	No

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
None Present				

Ceiling fans

Location	Number	Diameter (mm)
None Present		

Roof type

Construction	Added insulation	Roof colour
None Present		

Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0003344132 **Certificate Date:** 13 Nov 2018 ★Star rating: 6.4

Additional information

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Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0003344181** Certificate Date: **13 Nov 2018** ★Star rating: **8.4**

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Assessor details

Accreditation number:	**20039**
Name:	**David Howard**
Organisation:	**Partners Energy Management**
Email:	**david@partnersenergy.com.au**
Phone:	**0421381005**
Declaration of interest:	**The Assessor has provided design advice to the Applicant**
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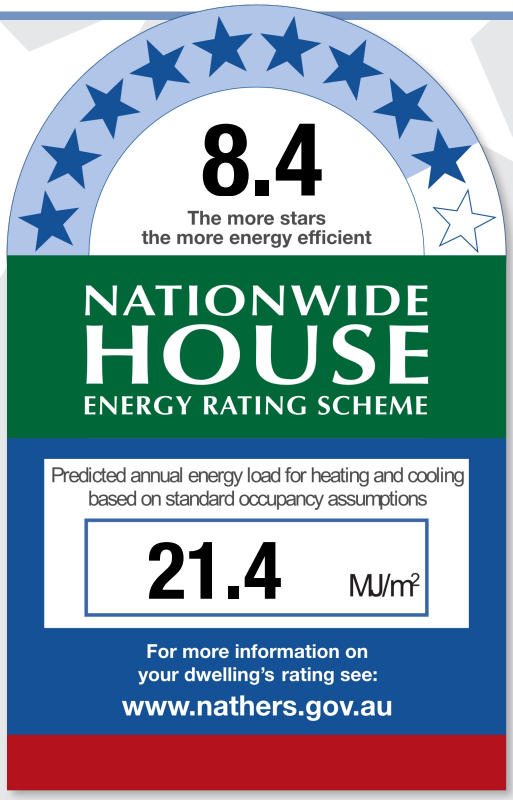

Overview

Dwelling details

Street:	**Unit 1.05, 25-27 Warriewood rd**		
Suburb:	**Warriewood**		
State:	**NSW**	Postcode:	**2102**
Type:	**New Dwelling**	NCC Class:	**1A**
		NatHERS climate zone:	**56**
Lot/DP number:	**5464**	Exposure:	**Suburban**

Key construction and insulation materials

(see following pages for details)

Construction:	**Brick Veneer** **Concrete, Plasterboard** **Concrete Slab, Unit Below**
Insulation:	**R2.5 wall insulation** **No ceiling insulation** **No floor insulation**
Glazing:	**ALM-002-01 A Aluminium B SG Clear**

Ceiling penetrations

(see following pages for details)

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

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

Net floor area (m²)

Conditioned:	**67.0**
Unconditioned:	**0.0**
Garage:	**0.0**
TOTAL:	**67.0**

Annual thermal performance loads (MJ/m²)

Heating:	**1.4**
Cooling:	**20.0**
TOTAL:	**21.4**

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.

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Plan documents

Plan ref/date:	**Warriewood Residential Development**
Prepared by:	**VIA Architects**

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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

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Bedroom 1	ALM-002-01 A	n/a	2800	1100	NE	No Shading
Kitchen/Living	ALM-002-01 A	n/a	2800	3100	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 (m²)	Orientation	Outdoor shade	Indoor shade/diffuser
None Present						

External wall type

ID	Wall type	Insulation	Wall wrap or foil
EW-1	Brick Veneer	Anti-glare foil with bulk no gap R2.5	Yes

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Bedroom 1	EW-1	1300	2800	NW	No	6300
Bedroom 1	EW-1	3500	2800	NE	No	0
Kitchen/Living	EW-1	1900	2800	SW	No	2000
Kitchen/Living	EW-1	4295	2800	NE	No	1325

Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Concrete Panel/Blocks filled, plasterboard	77.0	No Insulation	No
IW-2 - Cavity wall, direct fix plasterboard, single gap	41.0	No insulation	No

Floors

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Bedroom 1	Concrete Slab, Unit Below 150mm	16.5	None	No Insulation	Carpet 10mm
WC	Concrete Slab, Unit Below 150mm	2.3	None	No Insulation	Carpet 10mm

Building features continued

Bath	Concrete Slab, Unit Below 150mm	9.9	None	No Insulation	Carpet 10mm
Kitchen/Living	Concrete Slab, Unit Below 150mm	38.1	None	No Insulation	Carpet 10mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Bedroom 1	Concrete, Plasterboard	No insulation	No
WC	Concrete, Plasterboard	No insulation	No
Bath	Concrete, Plasterboard	No insulation	No
Kitchen/Living	Concrete, Plasterboard	No insulation	No

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
None Present				

Ceiling fans

Location	Number	Diameter (mm)
None Present		

Roof type

Construction	Added insulation	Roof colour
None Present		

Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0003344181 **Certificate Date:** 13 Nov 2018 ★Star rating: 8.4

Additional information

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Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0003344173** Certificate Date: **13 Nov 2018** ★Star rating: **8.4**

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Assessor details

Accreditation number:	**20039**
Name:	**David Howard**
Organisation:	**Partners Energy Management**
Email:	**david@partnersenergy.com.au**
Phone:	**0421381005**
Declaration of interest:	**The Assessor has provided design advice to the Applicant**
Software:	**BERS Pro v4.3.0.2c (3.13)**
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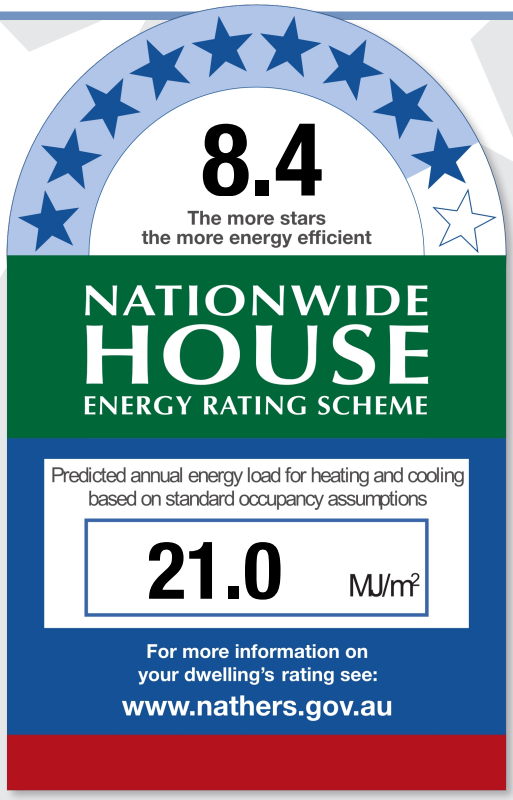

Overview

Dwelling details

Street:	**Unit 1.06, 25-27 Warriewood rd**		
Suburb:	**Warriewood**		
State:	**NSW**	Postcode:	**2102**
Type:	**New Dwelling**	NCC Class:	**1A**
		NatHERS climate zone:	**56**
Lot/DP number:	**5464**	Exposure:	**Suburban**

Key construction and insulation materials

(see following pages for details)

Construction:	**Brick Veneer** **Concrete, Plasterboard** **Concrete Slab, Unit Below**
Insulation:	**R2.5 wall insulation** **No ceiling insulation** **No floor insulation**
Glazing:	**ALM-002-01 A Aluminium B SG Clear**

Ceiling penetrations

(see following pages for details)

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

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

Net floor area (m²)

Conditioned:	**77.0**
Unconditioned:	**0.0**
Garage:	**0.0**
TOTAL:	**77.0**

Annual thermal performance loads (MJ/m²)

Heating:	**1.4**
Cooling:	**19.7**
TOTAL:	**21.0**

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.

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Plan ref/date:	**Warriewood Residential Development**
Prepared by:	**VIA Architects**

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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

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Bedroom 1	ALM-002-01 A	n/a	2800	1100	NE	No Shading
Kitchen/Living	ALM-002-01 A	n/a	2800	3100	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 (m²)	Orientation	Outdoor shade	Indoor shade/diffuser
None Present						

External wall type

ID	Wall type	Insulation	Wall wrap or foil
EW-1	Brick Veneer	Anti-glare foil with bulk no gap R2.5	Yes

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Bedroom 1	EW-1	3500	2800	NE	No	0
Bedroom 1	EW-1	1300	2800	SE	No	6300
Kitchen/Living	EW-1	4295	2800	NE	No	1325
Kitchen/Living	EW-1	1895	2800	SW	No	2000

Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Cavity wall, direct fix plasterboard, single gap	51.0	No insulation	No
IW-2 - Concrete Panel/Blocks filled, plasterboard	87.0	No Insulation	No

Floors

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Bedroom 1	Concrete Slab, Unit Below 150mm	16.5	None	No Insulation	Carpet 10mm
WC	Concrete Slab, Unit Below 150mm	2.3	None	No Insulation	Carpet 10mm

Building features continued

Bath	Concrete Slab, Unit Below 150mm	9.9	None	No Insulation	Carpet 10mm
Kitchen/Living	Concrete Slab, Unit Below 150mm	39.6	None	No Insulation	Carpet 10mm
Ldry	Concrete Slab, Unit Below 150mm	9.2	None	No Insulation	Carpet 10mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Bedroom 1	Concrete, Plasterboard	No insulation	No
WC	Concrete, Plasterboard	No insulation	No
Bath	Concrete, Plasterboard	No insulation	No
Kitchen/Living	Concrete, Plasterboard	No insulation	No
Ldry	Concrete, Plasterboard	No insulation	No

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
None Present				

Ceiling fans

Location	Number	Diameter (mm)
None Present		

Roof type

Construction	Added insulation	Roof colour
None Present		

Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0003344173 **Certificate Date:** 13 Nov 2018 ★Star rating: 8.4

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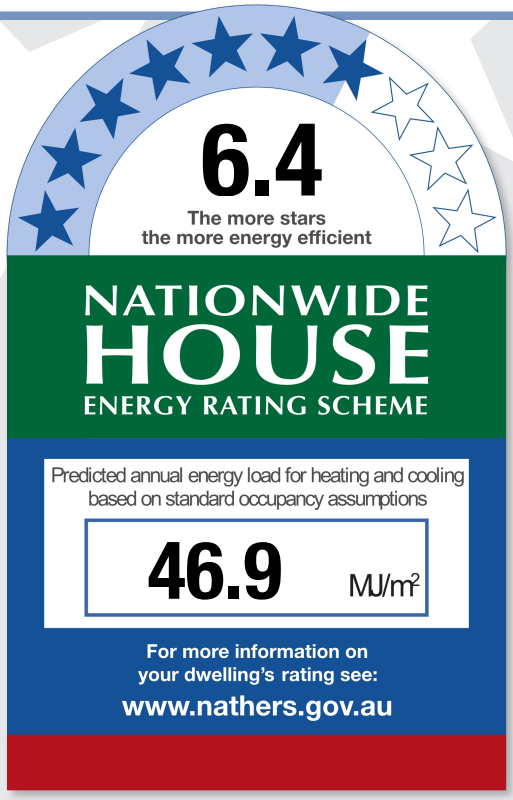
Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0003344199** Certificate Date: **13 Nov 2018** ★Star rating: **6.4**

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:	**20039**
Name:	**David Howard**
Organisation:	**Partners Energy Management**
Email:	**david@partnersenergy.com.au**
Phone:	**0421381005**
Declaration of interest:	**The Assessor has provided design advice to the Applicant**
Software:	**BERS Pro v4.3.0.2c (3.13)**
AAO:	**ABSA**



Overview

Dwelling details

Street:	**Unit 1.07, 25-27 Warriewood rd**		
Suburb:	**Warriewood**		
State:	**NSW**	Postcode:	**2102**
Type:	**New Dwelling**	NCC Class:	**1A**
		NatHERS climate zone:	**56**
Lot/DP number:	**5464**	Exposure:	**Suburban**

Key construction and insulation materials

(see following pages for details)

Construction:	**Brick Veneer** **Concrete, Plasterboard** **Concrete Slab, Unit Below**
Insulation:	**R2.5 wall insulation** **No ceiling insulation** **No floor insulation**
Glazing:	**ALM-002-01 A Aluminium B SG Clear**

Net floor area (m²)

Conditioned:	**94.0**
Unconditioned:	**0.0**
Garage:	**0.0**
TOTAL:	**94.0**

Annual thermal performance loads (MJ/m²)

Heating:	**17.8**
Cooling:	**29.1**
TOTAL:	**46.9**

Plan documents

Plan ref/date:	**Warriewood Residential Development**
Prepared by:	**VIA Architects**

Ceiling penetrations

(see following pages for details)

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

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

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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

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Kitchen/Living	ALM-002-01 A	n/a	2800	3100	NE	No Shading
Kitchen/Living	ALM-002-01 A	n/a	2800	2000	SE	No Shading
Bedroom 1	ALM-002-01 A	n/a	2800	1500	NE	No Shading
Bedroom 1	ALM-002-01 A	n/a	2800	1200	NE	No Shading
Bedroom 1	ALM-002-01 A	n/a	2800	2000	S	No Shading
Bedroom 2	ALM-002-01 A	n/a	2800	2000	SE	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 (m²)	Orientation	Outdoor shade	Indoor shade/diffuser
None Present						

External wall type

ID	Wall type	Insulation	Wall wrap or foil
EW-1	Brick Veneer	Anti-glare foil with bulk no gap R2.5	Yes

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Kitchen/Living	EW-1	1790	2800	SW	No	2700
Kitchen/Living	EW-1	4395	2800	NE	No	2200
Kitchen/Living	EW-1	3190	2800	SE	No	0
Ens	EW-1	2876	2800	S	No	25
Bedroom 1	EW-1	1400	2800	NW	No	6200
Bedroom 1	EW-1	5100	2800	NE	No	0
Bedroom 1	EW-1	3251	2800	S	No	103
Bedroom 2	EW-1	2997	2800	SE	No	50
Bedroom 2	EW-1	3500	2800	SW	No	2100
Bedroom 2	EW-1	600	2800	NW	No	6400

Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Concrete Panel/Blocks filled, plasterboard	40.0	No Insulation	No
IW-2 - Cavity wall, direct fix	86.0	No insulation	No

Building features continued

plasterboard, single gap

Floors

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Bath	Concrete Slab, Unit Below 150mm	4.6	None	No Insulation	Carpet 10mm
Ldry	Concrete Slab, Unit Below 150mm	4.7	None	No Insulation	Carpet 10mm
Kitchen/Living	Concrete Slab, Unit Below 150mm	5.0	None	No Insulation	Carpet 10mm
Kitchen/Living	Concrete Slab, Unit Below 150mm	43.2	None	No Insulation	Carpet 10mm
Ens	Concrete Slab, Unit Below 150mm	5.2	None	No Insulation	Carpet 10mm
Bedroom 1	Concrete Slab, Unit Below 150mm	21.0	None	No Insulation	Carpet 10mm
Bedroom 2	Concrete Slab, Unit Below 150mm	10.4	None	No Insulation	Carpet 10mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Bath	Concrete, Plasterboard	No insulation	No
Ldry	Concrete, Plasterboard	No insulation	No
Kitchen/Living	Concrete, Plasterboard	No insulation	No
Kitchen/Living	Concrete, Plasterboard	No insulation	No
Ens	Concrete, Plasterboard	No insulation	No
Bedroom 1	Concrete, Plasterboard	No insulation	No
Bedroom 2	Concrete, Plasterboard	No insulation	No

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
None Present				

Ceiling fans

Location	Number	Diameter (mm)
None Present		

Roof type

Construction	Added insulation	Roof colour
None Present		

Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0003344199 **Certificate Date:** 13 Nov 2018 ★Star rating: 6.4

Additional information

If carpet noted as floor covering it may be replaced with any type.

Due to non current Window Library the glazing descriptiosn may not match actual products. Only the U and SHGC values should be considered NOT the glazing descriptions.

Explanatory notes

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Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0003344207** Certificate Date: **13 Nov 2018** ★Star rating: **7.7**

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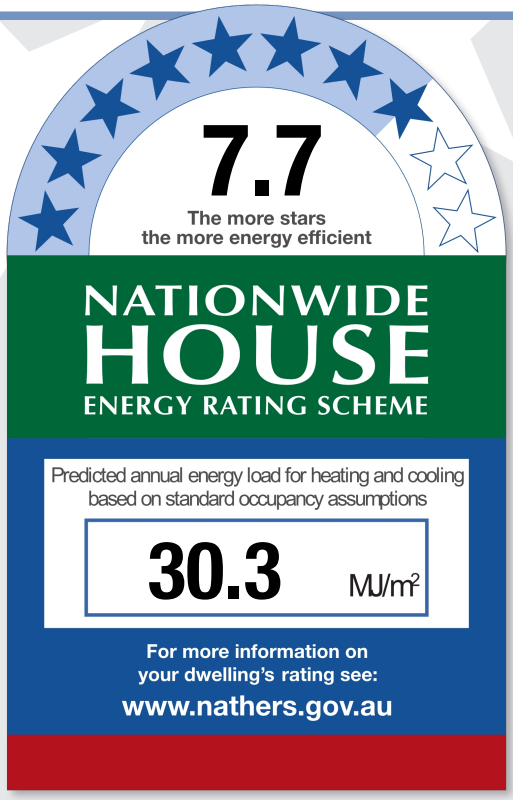
Assessor details

Accreditation number:	**20039**
Name:	**David Howard**
Organisation:	**Partners Energy Management**
Email:	**david@partnersenergy.com.au**
Phone:	**0421381005**
Declaration of interest:	**The Assessor has provided design advice to the Applicant**
Software:	**BERS Pro v4.3.0.2c (3.13)**
AAO:	**ABSA**



Overview

Dwelling details

Street:	**Unit 1.08, 25-27 Warriewood rd**		
Suburb:	**Warriewood**		
State:	**NSW**	Postcode:	**2102**
Type:	**New Dwelling**	NCC Class:	**1A**
		NatHERS climate zone:	**56**
Lot/DP number:	**5464**	Exposure:	**Suburban**

Key construction and insulation materials

(see following pages for details)

Construction:	**Brick Veneer** **Concrete, Plasterboard** **Concrete Slab, Unit Below**
Insulation:	**R2.5 wall insulation** **No ceiling insulation** **No floor insulation**
Glazing:	**ALM-002-01 A Aluminium B SG Clear**

Ceiling penetrations

(see following pages for details)

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

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

Net floor area (m²)

Conditioned:	**125.0**
Unconditioned:	**0.0**
Garage:	**0.0**
TOTAL:	**125.0**

Annual thermal performance loads (MJ/m²)

Heating:	**8.4**
Cooling:	**21.9**
TOTAL:	**30.3**

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.

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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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Plan documents

Plan ref/date:	**Warriewood Residential Development**
Prepared by:	**VIA Architects**

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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

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Kitchen/Living	ALM-002-01 A	n/a	2800	1800	NW	No Shading
Kitchen/Living	ALM-002-01 A	n/a	2800	5200	NE	No Shading
Bedroom Master	ALM-002-01 A	n/a	2800	1800	NW	No Shading
Bedroom Master	ALM-002-01 A	n/a	2800	3000	NE	No Shading
Ens	ALM-002-01 A	n/a	2800	1000	NE	No Shading
Bedroom 2	ALM-002-01 A	n/a	2800	1800	NW	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 (m²)	Orientation	Outdoor shade	Indoor shade/diffuser
None Present						

External wall type

ID	Wall type	Insulation	Wall wrap or foil
EW-1	Brick Veneer	Anti-glare foil with bulk no gap R2.5	Yes

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Kitchen/Living	EW-1	2190	2800	SW	No	3000
Kitchen/Living	EW-1	3461	2800	NW	No	0
Kitchen/Living	EW-1	6995	2800	NE	No	3100
Bedroom Master	EW-1	505	2800	NW	No	0
Bedroom Master	EW-1	4100	2800	NW	No	0
Bedroom Master	EW-1	3695	2800	NE	No	1500
Ens	EW-1	1795	2800	NE	No	1500
Ens	EW-1	1600	2800	SE	No	9600
Bedroom 2	EW-1	3761	2800	NW	No	0

Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Concrete Panel/Blocks filled, plasterboard	56.0	No Insulation	No
IW-2 - Cavity wall, direct fix plasterboard, single gap	83.0	No insulation	No

Building features continued

Floors

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Ldry	Concrete Slab, Unit Below 150mm	4.3	None	No Insulation	Carpet 10mm
Bath	Concrete Slab, Unit Below 150mm	5.0	None	No Insulation	Carpet 10mm
Kitchen/Living	Concrete Slab, Unit Below 150mm	75.9	None	No Insulation	Carpet 10mm
Bedroom Master	Concrete Slab, Unit Below 150mm	19.3	None	No Insulation	Carpet 10mm
Ens	Concrete Slab, Unit Below 150mm	5.1	None	No Insulation	Carpet 10mm
Bedroom 2	Concrete Slab, Unit Below 150mm	15.7	None	No Insulation	Carpet 10mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Ldry	Concrete, Plasterboard	No insulation	No
Bath	Concrete, Plasterboard	No insulation	No
Kitchen/Living	Concrete, Plasterboard	No insulation	No
Bedroom Master	Concrete, Plasterboard	No insulation	No
Ens	Concrete, Plasterboard	No insulation	No
Bedroom 2	Concrete, Plasterboard	No insulation	No

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
None Present				

Ceiling fans

Location	Number	Diameter (mm)
None Present		

Roof type

Construction	Added insulation	Roof colour
None Present		

Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0003344207 **Certificate Date:** 13 Nov 2018 ★Star rating: 7.7

Additional information

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Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0003344215** Certificate Date: **13 Nov 2018** ★Star rating: **7.4**

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Assessor details

Accreditation number:	**20039**
Name:	**David Howard**
Organisation:	**Partners Energy Management**
Email:	**david@partnersenergy.com.au**
Phone:	**0421381005**
Declaration of interest:	**The Assessor has provided design advice to the Applicant**
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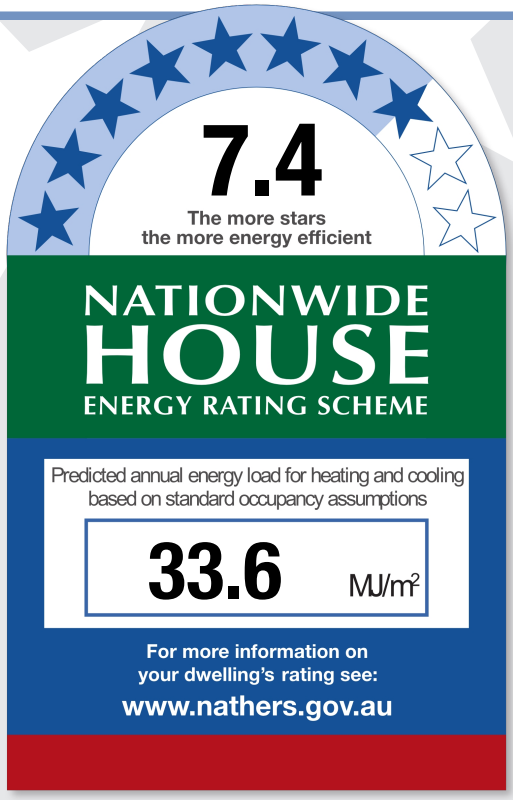

Overview

Dwelling details

Street:	**Unit 1.09, 25-27 Warriewood rd**		
Suburb:	**Warriewood**		
State:	**NSW**	Postcode:	**2102**
Type:	**New Dwelling**	NCC Class:	**1A**
		NatHERS climate zone:	**56**
Lot/DP number:	**5464**	Exposure:	**Suburban**

Key construction and insulation materials

(see following pages for details)

Construction:	**Brick Veneer** **Concrete, Plasterboard** **Concrete Slab, Unit Below**
Insulation:	**R2.5 wall insulation** **No ceiling insulation** **No floor insulation**
Glazing:	**ALM-002-01 A Aluminium B SG Clear**

Ceiling penetrations

(see following pages for details)

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

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

Net floor area (m²)

Conditioned:	**75.0**
Unconditioned:	**0.0**
Garage:	**0.0**
TOTAL:	**75.0**

Annual thermal performance loads (MJ/m²)

Heating:	**12.6**
Cooling:	**21.0**
TOTAL:	**33.6**

Window selection - default windows only

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Plan ref/date:	**Warriewood Residential Development**
Prepared by:	**VIA Architects**

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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

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Bedroom Master	ALM-002-01 A	n/a	2800	3000	NE	No Shading
Kitchen/Living	ALM-002-01 A	n/a	2800	4200	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 (m²)	Orientation	Outdoor shade	Indoor shade/diffuser
None Present						

External wall type

ID	Wall type	Insulation	Wall wrap or foil
EW-1	Brick Veneer	Anti-glare foil with bulk no gap R2.5	Yes

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Bedroom Master	EW-1	3700	2800	NE	No	900
Bedroom Master	EW-1	1600	2800	SE	No	8900
Bedroom Master	EW-1	4595	2800	NW	No	4400
Kitchen/Living	EW-1	1795	2800	SW	No	1700
Kitchen/Living	EW-1	5395	2800	NE	No	2500

Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Concrete Panel/Blocks filled, plasterboard	66.0	No Insulation	No
IW-2 - Cavity wall, direct fix plasterboard, single gap	42.0	No insulation	No

Floors

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Ldry	Concrete Slab, Unit Below 150mm	5.3	None	No Insulation	Carpet 10mm
Bath	Concrete Slab, Unit Below	10.1	None	No Insulation	Carpet 10mm

Building features continued

	150mm				
Bedroom Master	Concrete Slab, Unit Below 150mm	16.7	None	No Insulation	Carpet 10mm
Kitchen/Living	Concrete Slab, Unit Below 150mm	43.2	None	No Insulation	Carpet 10mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Ldry	Concrete, Plasterboard	No insulation	No
Bath	Concrete, Plasterboard	No insulation	No
Bedroom Master	Concrete, Plasterboard	No insulation	No
Kitchen/Living	Concrete, Plasterboard	No insulation	No

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
None Present				

Ceiling fans

Location	Number	Diameter (mm)
None Present		

Roof type

Construction	Added insulation	Roof colour
None Present		

Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0003344215 **Certificate Date:** 13 Nov 2018 ★Star rating: 7.4

Additional information

If carpet noted as floor covering it may be replaced with any type.

Due to non current Window Library the glazing descriptiosn may not match actual products. Only the U and SHGC values should be considered NOT the glazing descriptions.

Explanatory notes

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Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0003344231** Certificate Date: **13 Nov 2018** ★Star rating: **7.3**

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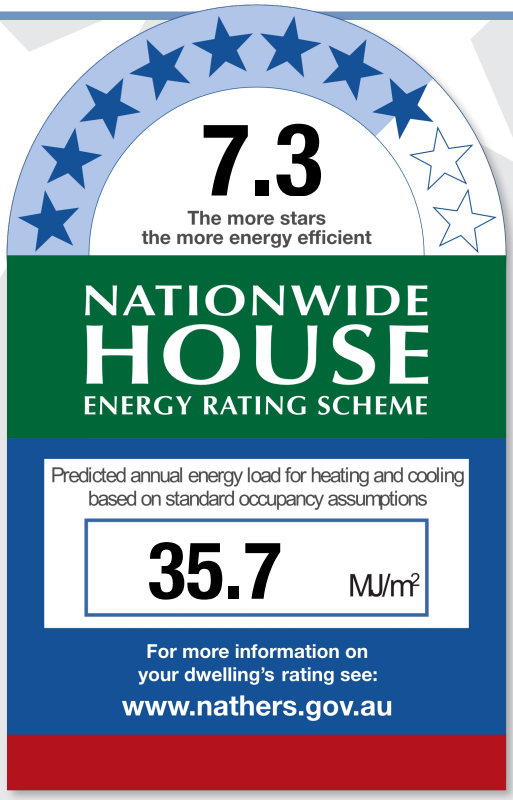
Assessor details

Accreditation number:	**20039**
Name:	**David Howard**
Organisation:	**Partners Energy Management**
Email:	**david@partnersenergy.com.au**
Phone:	**0421381005**
Declaration of interest:	**The Assessor has provided design advice to the Applicant**
Software:	**BERS Pro v4.3.0.2c (3.13)**
AAO:	**ABSA**



Overview

Dwelling details

Street:	**Unit 1.10, 25-27 Warriewood rd**		
Suburb:	**Warriewood**		
State:	**NSW**	Postcode:	**2102**
Type:	**New Dwelling**	NCC Class:	**1A**
		NatHERS climate zone:	**56**
Lot/DP number:	**5464**	Exposure:	**Suburban**

Key construction and insulation materials

(see following pages for details)

Construction:	**Brick Veneer** **Concrete, Plasterboard** **Concrete Slab, Unit Below**
Insulation:	**R2.5 wall insulation** **No ceiling insulation** **No floor insulation**
Glazing:	**ALM-004-01 A Aluminium B DG Air Fill Clear-Clear**

Net floor area (m²)

Conditioned:	**102.0**
Unconditioned:	**0.0**
Garage:	**0.0**
TOTAL:	**102.0**

Annual thermal performance loads (MJ/m²)

Heating:	**7.9**
Cooling:	**27.8**
TOTAL:	**35.7**

Plan documents

Plan ref/date:	**Warriewood Residential Development**
Prepared by:	**VIA Architects**

Ceiling penetrations

(see following pages for details)

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

NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. **If this number is exceded 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-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
Bedroom 1	ALM-004-01 A	n/a	2800	1000	NE	No Shading
Bedroom 1	ALM-004-01 A	n/a	2800	1000	NE	No Shading
Bedroom 1	ALM-004-01 A	n/a	2800	1000	SE	No Shading
Bedroom 1	ALM-004-01 A	n/a	2800	1000	SE	No Shading
Ens	ALM-004-01 A	n/a	2800	1000	NE	No Shading
Bedroom 2	ALM-004-01 A	n/a	2800	2000	SE	No Shading
Kitchen/Living	ALM-004-01 A	n/a	2800	5000	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 (m²)	Orientation	Outdoor shade	Indoor shade/diffuser
None Present						

External wall type

ID	Wall type	Insulation	Wall wrap or foil
EW-1	Brick Veneer	Anti-glare foil with bulk no gap R2.5	Yes

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Entry/Study	EW-1	2300	2800	SW	No	2200
Bedroom 1	EW-1	3895	2800	NE	No	0
Bedroom 1	EW-1	3395	2800	SE	No	1900
Ens	EW-1	3390	2800	NE	No	0
Bedroom 2	EW-1	3195	2800	SE	No	1900
Bedroom 2	EW-1	1200	2800	SW	No	1800
Kitchen/Living	EW-1	6795	2800	NE	No	1000

Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Concrete Panel/Blocks filled, plasterboard	67.0	No Insulation	No
IW-2 - Cavity wall, direct fix plasterboard, single gap	88.0	No insulation	No

Building features continued

Floors

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Entry/Study	Concrete Slab, Unit Below 150mm	12.1	None	No Insulation	Carpet 10mm
Bath	Concrete Slab, Unit Below 150mm	5.8	None	No Insulation	Carpet 10mm
Kitchen/Living	Concrete Slab, Unit Below 150mm	4.3	None	No Insulation	Carpet 10mm
Ldry	Concrete Slab, Unit Below 150mm	2.9	None	No Insulation	Carpet 10mm
Bedroom 1	Concrete Slab, Unit Below 150mm	15.0	None	No Insulation	Carpet 10mm
Ens	Concrete Slab, Unit Below 150mm	5.8	None	No Insulation	Carpet 10mm
Bedroom 2	Concrete Slab, Unit Below 150mm	12.2	None	No Insulation	Carpet 10mm
Kitchen/Living	Concrete Slab, Unit Below 150mm	44.4	None	No Insulation	Carpet 10mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Entry/Study	Concrete, Plasterboard	No insulation	No
Bath	Concrete, Plasterboard	No insulation	No
Kitchen/Living	Concrete, Plasterboard	No insulation	No
Ldry	Concrete, Plasterboard	No insulation	No
Bedroom 1	Concrete, Plasterboard	No insulation	No
Ens	Concrete, Plasterboard	No insulation	No
Bedroom 2	Concrete, Plasterboard	No insulation	No
Kitchen/Living	Concrete, Plasterboard	No insulation	No

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
None Present				

Ceiling fans

Location	Number	Diameter (mm)
None Present		

Roof type

Construction	Added insulation	Roof colour
None Present		

Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0003344231 **Certificate Date:** 13 Nov 2018 ★Star rating: 7.3

Additional information

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Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0003344249** Certificate Date: **13 Nov 2018** ★Star rating: **6.0**

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Assessor details

Accreditation number:	**20039**
Name:	**David Howard**
Organisation:	**Partners Energy Management**
Email:	**david@partnersenergy.com.au**
Phone:	**0421381005**
Declaration of interest:	**The Assessor has provided design advice to the Applicant**
Software:	**BERS Pro v4.3.0.2c (3.13)**
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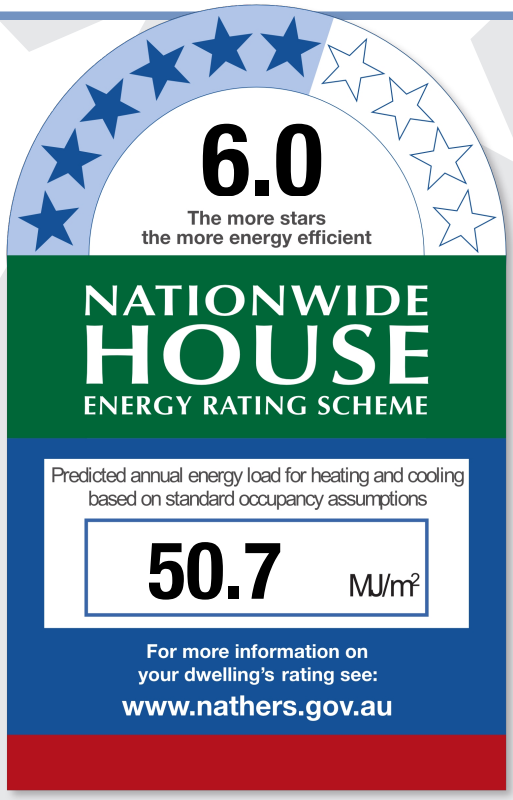

Overview

Dwelling details

Street:	**Unit 1.11, 25-27 Warriewood rd**		
Suburb:	**Warriewood**		
State:	**NSW**	Postcode:	**2102**
Type:	**New Dwelling**	NCC Class:	**1A**
		NatHERS climate zone:	**56**
Lot/DP number:	**5464**	Exposure:	**Suburban**

Key construction and insulation materials

(see following pages for details)

Construction:	**Brick Veneer** **Concrete, Plasterboard** **Concrete Slab, Unit Below**
Insulation:	**R2.5 wall insulation** **No ceiling insulation** **No floor insulation**
Glazing:	**ALM-002-01 A Aluminium B SG Clear**

Ceiling penetrations

(see following pages for details)

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

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

Net floor area (m²)

Conditioned:	**138.0**
Unconditioned:	**0.0**
Garage:	**0.0**
TOTAL:	**138.0**

Annual thermal performance loads (MJ/m²)

Heating:	**30.7**
Cooling:	**20.1**
TOTAL:	**50.7**

Window selection - default windows only

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Plan documents

Plan ref/date:	**Warriewood Residential Development**
Prepared by:	**VIA Architects**

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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

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Bedroom Master	ALM-002-01 A	n/a	2800	900	SE	No Shading
Bedroom Master	ALM-002-01 A	n/a	2800	2100	SW	No Shading
Ens	ALM-002-01 A	n/a	2800	900	SE	No Shading
Kitchen/Living	ALM-002-01 A	n/a	2700	4000	SW	No Shading
Kitchen/Living	ALM-002-01 A	n/a	2800	2000	SE	No Shading
Bedroom 2	ALM-002-01 A	n/a	2800	2000	SE	No Shading
Bedroom 3	ALM-002-01 A	n/a	2800	2000	SE	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 (m²)	Orientation	Outdoor shade	Indoor shade/diffuser
None Present						

External wall type

ID	Wall type	Insulation	Wall wrap or foil
EW-1	Brick Veneer	Anti-glare foil with bulk no gap R2.5	Yes

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Bedroom Master	EW-1	2000	2800	NW	No	6625
Bedroom Master	EW-1	695	2800	SW	No	4400
Bedroom Master	EW-1	3995	2800	SE	No	1400
Bedroom Master	EW-1	3200	2800	SW	No	2400
Ens	EW-1	3490	2800	SE	No	1400
Kitchen/Living	EW-1	5095	2800	SW	No	4400
Kitchen/Living	EW-1	2995	2800	NW	No	3275
Kitchen/Living	EW-1	3890	2800	SE	No	1400
Bedroom 2	EW-1	3690	2800	SE	No	1400
Bedroom 3	EW-1	3595	2800	SE	No	1400

Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Cavity wall, direct fix plasterboard, single gap	118.0	No insulation	No

Building features continued

IW-2 - Concrete Panel/Blocks filled, 64.0 plasterboard	No Insulation	No

Floors

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Bedroom Master	Concrete Slab, Unit Below 150mm	20.6	None	No Insulation	Carpet 10mm
Ens	Concrete Slab, Unit Below 150mm	6.3	None	No Insulation	Carpet 10mm
Kitchen/Living	Concrete Slab, Unit Below 150mm	71.8	None	No Insulation	Carpet 10mm
Ldry	Concrete Slab, Unit Below 150mm	6.0	None	No Insulation	Carpet 10mm
Bedroom 2	Concrete Slab, Unit Below 150mm	13.9	None	No Insulation	Carpet 10mm
Bedroom 3	Concrete Slab, Unit Below 150mm	11.7	None	No Insulation	Carpet 10mm
Ldry	Concrete Slab, Unit Below 150mm	3.4	None	No Insulation	Carpet 10mm
Pantry	Concrete Slab, Unit Below 150mm	4.0	None	No Insulation	Carpet 10mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Bedroom Master	Concrete, Plasterboard	No insulation	No
Ens	Concrete, Plasterboard	No insulation	No
Kitchen/Living	Concrete, Plasterboard	No insulation	No
Ldry	Concrete, Plasterboard	No insulation	No
Bedroom 2	Concrete, Plasterboard	No insulation	No
Bedroom 3	Concrete, Plasterboard	No insulation	No
Ldry	Concrete, Plasterboard	No insulation	No
Pantry	Concrete, Plasterboard	No insulation	No

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
None Present				

Ceiling fans

Location	Number	Diameter (mm)
None Present		

Building features continued

Roof type

Construction	Added insulation	Roof colour
None Present		

Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0003344249 **Certificate Date:** 13 Nov 2018 ★Star rating: 6.0

Additional information

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Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0003344223** Certificate Date: **13 Nov 2018** ★Star rating: **7.4**

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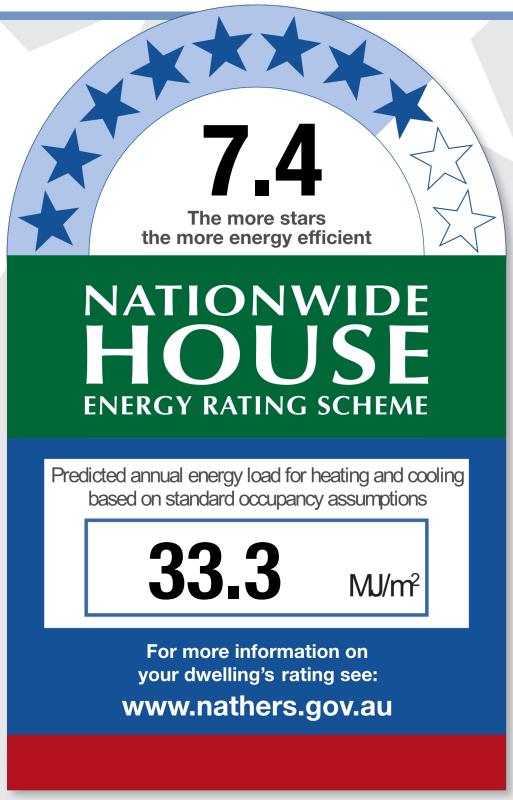
Assessor details

Accreditation number:	**20039**
Name:	**David Howard**
Organisation:	**Partners Energy Management**
Email:	**david@partnersenergy.com.au**
Phone:	**0421381005**
Declaration of interest:	**The Assessor has provided design advice to the Applicant**
Software:	**BERS Pro v4.3.0.2c (3.13)**
AAO:	**ABSA**



Overview

Dwelling details

Street:	**Unit 1.12, 25-27 Warriewood rd**		
Suburb:	**Warriewood**		
State:	**NSW**	Postcode:	**2102**
Type:	**New Dwelling**	NCC Class:	**2**
		NatHERS climate zone:	**56**
Lot/DP number:	**5464**	Exposure:	**Suburban**

Key construction and insulation materials

(see following pages for details)

Construction:	**Brick Veneer** **Concrete, Plasterboard** **Concrete Slab, Unit Below**
Insulation:	**R2.5 wall insulation** **No ceiling insulation** **No floor insulation**
Glazing:	**ALM-002-01 A Aluminium B SG Clear**

Ceiling penetrations

(see following pages for details)

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

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

Net floor area (m²)

Conditioned:	**136.0**
Unconditioned:	**0.0**
Garage:	**0.0**
TOTAL:	**136.0**

Annual thermal performance loads (MJ/m²)

Heating:	**13.0**
Cooling:	**20.3**
TOTAL:	**33.3**

Window selection - default windows only

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Plan documents

Plan ref/date:	**Warriewood Residential Development**
Prepared by:	**VIA Architects**

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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

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Bedroom Master	ALM-002-01 A	n/a	2800	2100	SW	No Shading
Kitchen/Living	ALM-002-01 A	n/a	2800	3600	SW	No Shading
Bedroom 2	ALM-002-01 A	n/a	2800	1800	SW	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 (m²)	Orientation	Outdoor shade	Indoor shade/diffuser
None Present						

External wall type

ID	Wall type	Insulation	Wall wrap or foil
EW-1	Brick Veneer	Anti-glare foil with bulk no gap R2.5	Yes

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Bedroom Master	EW-1	3795	2800	SW	No	900
Bedroom Master	EW-1	1500	2800	SE	No	2000
Kitchen/Living	EW-1	2590	2800	NE	No	2650
Kitchen/Living	EW-1	5195	2800	SW	No	2400
Bedroom 2	EW-1	3095	2800	SW	No	900
Bedroom 2	EW-1	1500	2800	NW	No	7100

Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Cavity wall, direct fix plasterboard, single gap	119.0	No insulation	No
IW-2 - Concrete Panel/Blocks filled, plasterboard	90.0	No Insulation	No

Floors

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Bedroom Master	Concrete Slab, Unit Below	31.6	None	No Insulation	Carpet 10mm

Building features continued

	150mm				
Ens	Concrete Slab, Unit Below 150mm	10.3	None	No Insulation	Carpet 10mm
Kitchen/Living	Concrete Slab, Unit Below 150mm	11.1	None	No Insulation	Carpet 10mm
Bath	Concrete Slab, Unit Below 150mm	10.1	None	No Insulation	Carpet 10mm
Kitchen/Living	Concrete Slab, Unit Below 150mm	44.1	None	No Insulation	Carpet 10mm
Ldry	Concrete Slab, Unit Below 150mm	6.9	None	No Insulation	Carpet 10mm
Bedroom 2	Concrete Slab, Unit Below 150mm	21.9	None	No Insulation	Carpet 10mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Bedroom Master	Concrete, Plasterboard	No insulation	No
Ens	Concrete, Plasterboard	No insulation	No
Kitchen/Living	Concrete, Plasterboard	No insulation	No
Bath	Concrete, Plasterboard	No insulation	No
Kitchen/Living	Concrete, Plasterboard	No insulation	No
Ldry	Concrete, Plasterboard	No insulation	No
Bedroom 2	Concrete, Plasterboard	No insulation	No

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
None Present				

Ceiling fans

Location	Number	Diameter (mm)
None Present		

Roof type

Construction	Added insulation	Roof colour
None Present		

Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0003344223 **Certificate Date:** 13 Nov 2018 ★Star rating: 7.4

Additional information

If carpet noted as floor covering it may be replaced with any type.

Due to non current Window Library the glazing descriptiosn may not match actual products. Only the U and SHGC values should be considered NOT the glazing descriptions.

Explanatory notes

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Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0003344223** Certificate Date: **13 Nov 2018** ★Star rating: **7.4**

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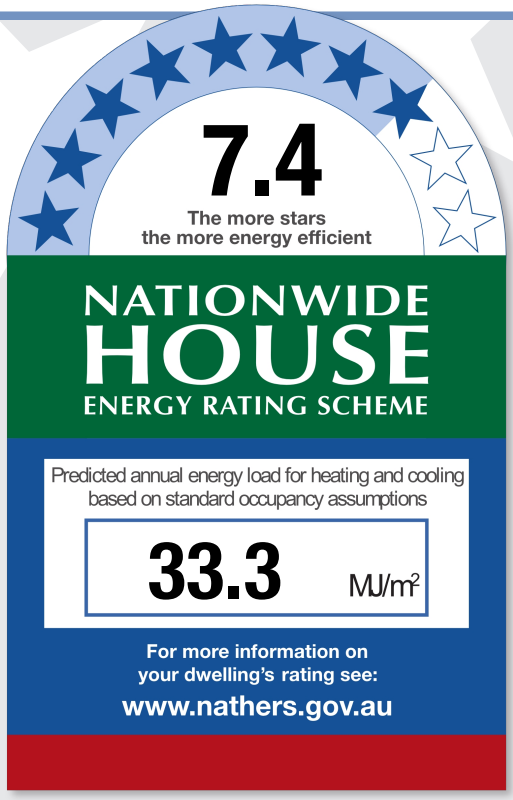
Assessor details

Accreditation number:	**20039**
Name:	**David Howard**
Organisation:	**Partners Energy Management**
Email:	**david@partnersenergy.com.au**
Phone:	**0421381005**
Declaration of interest:	**The Assessor has provided design advice to the Applicant**
Software:	**BERS Pro v4.3.0.2c (3.13)**
AAO:	**ABSA**



Overview

Dwelling details

Street:	**Unit 1.12, 25-27 Warriewood rd**		
Suburb:	**Warriewood**		
State:	**NSW**	Postcode:	**2102**
Type:	**New Dwelling**	NCC Class:	**2**
		NatHERS climate zone:	**56**
Lot/DP number:	**5464**	Exposure:	**Suburban**

Key construction and insulation materials

(see following pages for details)

Construction:	**Brick Veneer** **Concrete, Plasterboard** **Concrete Slab, Unit Below**
Insulation:	**R2.5 wall insulation** **No ceiling insulation** **No floor insulation**
Glazing:	**ALM-002-01 A Aluminium B SG Clear**

Ceiling penetrations

(see following pages for details)

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

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

Net floor area (m²)

Conditioned:	**136.0**
Unconditioned:	**0.0**
Garage:	**0.0**
TOTAL:	**136.0**

Annual thermal performance loads (MJ/m²)

Heating:	**13.0**
Cooling:	**20.3**
TOTAL:	**33.3**

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.

Plan documents

Plan ref/date:	**Warriewood Residential Development**
Prepared by:	**VIA Architects**

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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

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Bedroom Master	ALM-002-01 A	n/a	2800	2100	SW	No Shading
Kitchen/Living	ALM-002-01 A	n/a	2800	3600	SW	No Shading
Bedroom 2	ALM-002-01 A	n/a	2800	1800	SW	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 (m²)	Orientation	Outdoor shade	Indoor shade/diffuser
None Present						

External wall type

ID	Wall type	Insulation	Wall wrap or foil
EW-1	Brick Veneer	Anti-glare foil with bulk no gap R2.5	Yes

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Bedroom Master	EW-1	3795	2800	SW	No	900
Bedroom Master	EW-1	1500	2800	SE	No	2000
Kitchen/Living	EW-1	2590	2800	NE	No	2650
Kitchen/Living	EW-1	5195	2800	SW	No	2400
Bedroom 2	EW-1	3095	2800	SW	No	900
Bedroom 2	EW-1	1500	2800	NW	No	7100

Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Cavity wall, direct fix plasterboard, single gap	119.0	No insulation	No
IW-2 - Concrete Panel/Blocks filled, plasterboard	90.0	No Insulation	No

Floors

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Bedroom Master	Concrete Slab, Unit Below	31.6	None	No Insulation	Carpet 10mm

Building features continued

	150mm				
Ens	Concrete Slab, Unit Below 150mm	10.3	None	No Insulation	Carpet 10mm
Kitchen/Living	Concrete Slab, Unit Below 150mm	11.1	None	No Insulation	Carpet 10mm
Bath	Concrete Slab, Unit Below 150mm	10.1	None	No Insulation	Carpet 10mm
Kitchen/Living	Concrete Slab, Unit Below 150mm	44.1	None	No Insulation	Carpet 10mm
Ldry	Concrete Slab, Unit Below 150mm	6.9	None	No Insulation	Carpet 10mm
Bedroom 2	Concrete Slab, Unit Below 150mm	21.9	None	No Insulation	Carpet 10mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Bedroom Master	Concrete, Plasterboard	No insulation	No
Ens	Concrete, Plasterboard	No insulation	No
Kitchen/Living	Concrete, Plasterboard	No insulation	No
Bath	Concrete, Plasterboard	No insulation	No
Kitchen/Living	Concrete, Plasterboard	No insulation	No
Ldry	Concrete, Plasterboard	No insulation	No
Bedroom 2	Concrete, Plasterboard	No insulation	No

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
None Present				

Ceiling fans

Location	Number	Diameter (mm)
None Present		

Roof type

Construction	Added insulation	Roof colour
None Present		

Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0003344223 **Certificate Date:** 13 Nov 2018 ★Star rating: 7.4

Additional information

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Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0003344256** Certificate Date: **13 Nov 2018** ★Star rating: **7.4**

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Assessor details

Accreditation number:	**20039**
Name:	**David Howard**
Organisation:	**Partners Energy Management**
Email:	**david@partnersenergy.com.au**
Phone:	**0421381005**
Declaration of interest:	**The Assessor has provided design advice to the Applicant**
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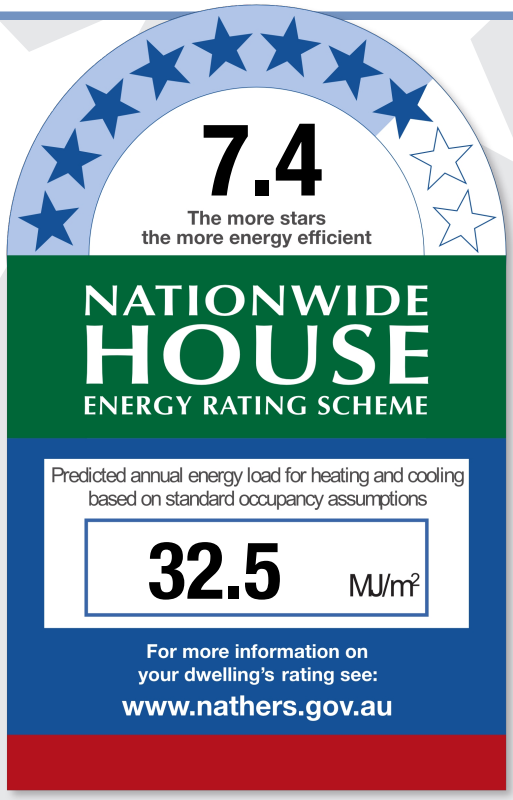

Overview

Dwelling details

Street:	**Unit 1.13, 25-27 Warriewood rd**		
Suburb:	**Warriewood**		
State:	**NSW**	Postcode:	**2102**
Type:	**New Dwelling**	NCC Class:	**1A**
		NatHERS climate zone:	**56**
Lot/DP number:	**5464**	Exposure:	**Suburban**

Key construction and insulation materials

(see following pages for details)

Construction:	**Brick Veneer** **Concrete, Plasterboard** **Concrete Slab, Unit Below**
Insulation:	**R2.5 wall insulation** **No ceiling insulation** **No floor insulation**
Glazing:	**ALM-004-01 A Aluminium B DG Air Fill Clear-Clear**

Net floor area (m²)

Conditioned:	**110.0**
Unconditioned:	**0.0**
Garage:	**0.0**
TOTAL:	**110.0**

Annual thermal performance loads (MJ/m²)

Heating:	**6.1**
Cooling:	**26.4**
TOTAL:	**32.5**

Plan documents

Plan ref/date:	**Warriewood Residential Development**
Prepared by:	**VIA Architects**

Ceiling penetrations

(see following pages for details)

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

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

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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
Bedroom Master	ALM-004-01 A	n/a	2800	2400	SW	No Shading
Bedroom Master	ALM-004-01 A	n/a	2800	1200	NW	No Shading
Bedroom Master	ALM-004-01 A	n/a	2800	900	NW	No Shading
Ens	ALM-004-01 A	n/a	2800	900	NW	No Shading
Bedroom 2	ALM-004-01 A	n/a	2800	2000	NW	No Shading
Kitchen/Living	ALM-004-01 A	n/a	2800	4000	SW	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 (m²)	Orientation	Outdoor shade	Indoor shade/diffuser
None Present						

External wall type

ID	Wall type	Insulation	Wall wrap or foil
EW-1	Brick Veneer	Anti-glare foil with bulk no gap R2.5	Yes

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Bedroom Master	EW-1	3400	2800	SW	No	0
Bedroom Master	EW-1	6595	2800	NW	No	0
Bedroom Master	EW-1	2000	2800	SE	No	8600
Ens	EW-1	2030	2800	NW	No	0
Bedroom 2	EW-1	4271	2800	NW	No	0
Kitchen/Living	EW-1	6095	2800	SW	No	2000
Kitchen/Living	EW-1	1590	2800	NE	No	3300

Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Cavity wall, direct fix plasterboard, single gap	81.0	No insulation	No
IW-2 - Concrete Panel/Blocks filled, plasterboard	59.0	No Insulation	No

Building features continued

Floors

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Bedroom Master	Concrete Slab, Unit Below 150mm	20.3	None	No Insulation	Carpet 10mm
Ens	Concrete Slab, Unit Below 150mm	6.6	None	No Insulation	Carpet 10mm
Bedroom 2	Concrete Slab, Unit Below 150mm	16.9	None	No Insulation	Carpet 10mm
Kitchen/Living	Concrete Slab, Unit Below 150mm	51.7	None	No Insulation	Carpet 10mm
Ldry	Concrete Slab, Unit Below 150mm	8.6	None	No Insulation	Carpet 10mm
Bath	Concrete Slab, Unit Below 150mm	5.6	None	No Insulation	Carpet 10mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Bedroom Master	Concrete, Plasterboard	No insulation	No
Ens	Concrete, Plasterboard	No insulation	No
Bedroom 2	Concrete, Plasterboard	No insulation	No
Kitchen/Living	Concrete, Plasterboard	No insulation	No
Ldry	Concrete, Plasterboard	No insulation	No
Bath	Concrete, Plasterboard	No insulation	No

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
None Present				

Ceiling fans

Location	Number	Diameter (mm)
None Present		

Roof type

Construction	Added insulation	Roof colour
None Present		

Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0003344256 **Certificate Date:** 13 Nov 2018 ★Star rating: 7.4

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Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0003344348** Certificate Date: **13 Nov 2018** ★Star rating: **5.9**

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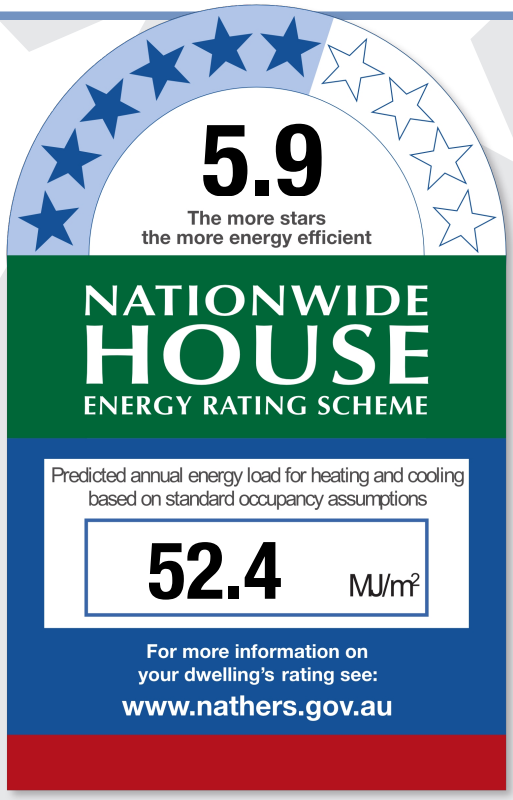
Assessor details

Accreditation number:	**20039**
Name:	**David Howard**
Organisation:	**Partners Energy Management**
Email:	**david@partnersenergy.com.au**
Phone:	**0421381005**
Declaration of interest:	**The Assessor has provided design advice to the Applicant**
Software:	**BERS Pro v4.3.0.2c (3.13)**
AAO:	**ABSA**



Overview

Dwelling details

Street:	**Unit 2.02, 25-27 Warriewood rd**		
Suburb:	**Warriewood**		
State:	**NSW**	Postcode:	**2102**
Type:	**New Dwelling**	NCC Class:	**1A**
		NatHERS climate zone:	**56**
Lot/DP number:	**5464**	Exposure:	**Suburban**

Key construction and insulation materials

(see following pages for details)

Construction:	**Fibro Cavity Panel Direct Fix** **Corrugated Iron** **Concrete Slab, Unit Below**
Insulation:	**R2.5 wall insulation** **R3.5 ceiling insulation** **No floor insulation**
Glazing:	**ALM-003-01 A Aluminium A DG Air Fill Clear-Clear**

Net floor area (m²)

Conditioned:	**95.0**
Unconditioned:	**0.0**
Garage:	**0.0**
TOTAL:	**95.0**

Annual thermal performance loads (MJ/m²)

Heating:	**23.4**
Cooling:	**29.0**
TOTAL:	**52.4**

Plan documents

Plan ref/date:	**Warriewood Residential Development**
Prepared by:	**VIA Architects**

Ceiling penetrations

(see following pages for details)

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

NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. **If this number is exceded 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-003-01 A	ALM-003-01 A Aluminium A DG Air Fill Clear-Clear	4.8	0.51

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Bedroom 1	ALM-003-01 A	n/a	2800	2400	SW	No Shading
Kitchen/Living	ALM-003-01 A	n/a	2800	5000	SW	No Shading
Bedroom 2	ALM-003-01 A	n/a	2800	2400	SW	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 (m²)	Orientation	Outdoor shade	Indoor shade/diffuser
None Present						

External wall type

ID	Wall type	Insulation	Wall wrap or foil
EW-1	Fibro Cavity Panel Direct Fix	Anti-glare foil with bulk no gap R2.5	Yes
EW-2	Tilt up concrete, lined	Anti-glare foil with bulk no gap R1.5	Yes

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Bedroom 1	EW-1	3595	2800	SW	No	1500
Kitchen/Living	EW-1	6390	2800	SW	No	1500
Bedroom 2	EW-1	3595	2800	SW	No	1500
Entry	EW-2	1695	2800	NE	No	2375

Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Cavity wall, direct fix plasterboard, single gap	72.0	No insulation	No
IW-2 - Concrete Panel/Blocks filled, plasterboard	78.0	No Insulation	No

Floors

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Bedroom 1	Concrete Slab, Unit Below 150mm	16.2	None	No Insulation	Carpet 10mm

Building features continued

Ens	Concrete Slab, Unit Below 150mm	4.2	None	No Insulation	Carpet 10mm
Ldry	Concrete Slab, Unit Below 150mm	4.6	None	No Insulation	Carpet 10mm
Kitchen/Living	Concrete Slab, Unit Below 150mm	45.3	None	No Insulation	Carpet 10mm
Bedroom 2	Concrete Slab, Unit Below 150mm	16.2	None	No Insulation	Carpet 10mm
Bath	Concrete Slab, Unit Below 150mm	5.1	None	No Insulation	Carpet 10mm
Entry	Concrete Slab, Unit Below 150mm	3.3	None	No Insulation	Carpet 10mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Bedroom 1	Plasterboard	Bulk Insulation R3.5	Yes
Ens	Plasterboard	Bulk Insulation R3.5	Yes
Ldry	Plasterboard	Bulk Insulation R3.5	Yes
Kitchen/Living	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 2	Plasterboard	Bulk Insulation R3.5	Yes
Bath	Plasterboard	Bulk Insulation R3.5	Yes
Entry	Plasterboard	Bulk Insulation R3.5	Yes

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
None Present				

Ceiling fans

Location	Number	Diameter (mm)
None Present		

Roof type

Construction	Added insulation	Roof colour
Corrugated Iron	Bulk, Reflective Side Down, Anti-glare Up R1.3	Medium

Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0003344348 **Certificate Date:** 13 Nov 2018 ★Star rating: 5.9

Additional information

If carpet noted as floor covering it may be replaced with any type.

Due to non current Window Library the glazing descriptiosn may not match actual products. Only the U and SHGC values should be considered NOT the glazing descriptions.

Explanatory notes

About this report

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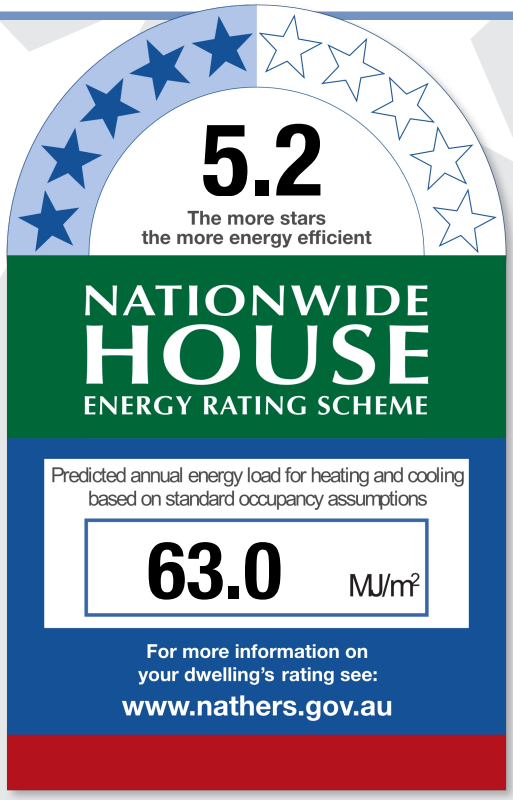
Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0003344355** Certificate Date: **13 Nov 2018** ★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:	**20039**
Name:	**David Howard**
Organisation:	**Partners Energy Management**
Email:	**david@partnersenergy.com.au**
Phone:	**0421381005**
Declaration of interest:	**The Assessor has provided design advice to the Applicant**
Software:	**BERS Pro v4.3.0.2c (3.13)**
AAO:	**ABSA**



Overview

Dwelling details

Street:	**Unit 2.03, 25-27 Warriewood rd**		
Suburb:	**Warriewood**		
State:	**NSW**	Postcode:	**2102**
Type:	**New Dwelling**	NCC Class:	**1A**
		NatHERS climate zone:	**56**
Lot/DP number:	**5464**	Exposure:	**Suburban**

Key construction and insulation materials

(see following pages for details)

Construction:	**Fibro Cavity Panel Direct Fix** **Corrugated Iron** **Concrete Slab, Unit Below**
Insulation:	**R2.5 wall insulation** **R3.5 ceiling insulation** **No floor insulation**
Glazing:	**ALM-003-01 A Aluminium A DG Air Fill Clear-Clear**

Net floor area (m²)

Conditioned:	**123.0**
Unconditioned:	**0.0**
Garage:	**0.0**
TOTAL:	**123.0**

Annual thermal performance loads (MJ/m²)

Heating:	**33.8**
Cooling:	**29.2**
TOTAL:	**63.0**

Plan documents

Plan ref/date:	**Warriewood Residential Development**
Prepared by:	**VIA Architects**

Ceiling penetrations

(see following pages for details)

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

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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.

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Building features

Window type and performance value

Window ID	Window type	U-value	SHGC
ALM-003-01 A	ALM-003-01 A Aluminium A DG Air Fill Clear-Clear	4.8	0.51

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Bedroom Master	ALM-003-01 A	n/a	2800	4800	NE	No Shading
Bedroom Master	ALM-003-01 A	n/a	2800	3200	NW	No Shading
Ens 1	ALM-003-01 A	n/a	2800	1000	NE	No Shading
Bedroom 2	ALM-003-01 A	n/a	2800	2000	NW	No Shading
Bedroom 3	ALM-003-01 A	n/a	2800	1000	NW	No Shading
Kitchen/Living	ALM-003-01 A	n/a	2800	6200	SW	No Shading
Kitchen/Living	ALM-003-01 A	n/a	2800	8000	NW	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 (m²)	Orientation	Outdoor shade	Indoor shade/diffuser
None Present						

External wall type

ID	Wall type	Insulation	Wall wrap or foil
EW-1	Fibro Cavity Panel Direct Fix	Anti-glare foil with bulk no gap R2.5	Yes
EW-2	Tilt up concrete, lined	Anti-glare foil with bulk no gap R1.5	Yes

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Bedroom Master	EW-1	4795	2800	NE	No	1600
Bedroom Master	EW-1	4195	2800	NW	No	1700
Ens 1	EW-1	1895	2800	NE	No	1600
Bedroom 2	EW-1	3190	2800	NW	No	1700
Bedroom 3	EW-1	3090	2800	NW	No	1700
Kitchen/Living	EW-2	1395	2800	SE	No	3100
Kitchen/Living	EW-1	6600	2800	SW	No	1700
Kitchen/Living	EW-1	8295	2800	NW	No	1700

Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Cavity wall, direct fix plasterboard, single gap	98.0	No insulation	No
IW-2 - Concrete Panel/Blocks filled,	51.0	No Insulation	No

Building features continued

plasterboard

Floors

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Bedroom Master	Concrete Slab, Unit Below 150mm	21.8	None	No Insulation	Carpet 10mm
Ens 1	Concrete Slab, Unit Below 150mm	8.8	None	No Insulation	Carpet 10mm
Bedroom 2	Concrete Slab, Unit Below 150mm	11.4	None	No Insulation	Carpet 10mm
Bath	Concrete Slab, Unit Below 150mm	7.1	None	No Insulation	Carpet 10mm
Ldry	Concrete Slab, Unit Below 150mm	2.6	None	No Insulation	Carpet 10mm
Bedroom 3	Concrete Slab, Unit Below 150mm	11.0	None	No Insulation	Carpet 10mm
Kitchen/Living	Concrete Slab, Unit Below 150mm	3.5	None	No Insulation	Carpet 10mm
Kitchen/Living	Concrete Slab, Unit Below 150mm	56.5	None	No Insulation	Carpet 10mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Bedroom Master	Plasterboard	Bulk Insulation R3.5	Yes
Ens 1	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 2	Plasterboard	Bulk Insulation R3.5	Yes
Bath	Plasterboard	Bulk Insulation R3.5	Yes
Ldry	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 3	Plasterboard	Bulk Insulation R3.5	Yes
Kitchen/Living	Plasterboard	Bulk Insulation R3.5	Yes
Kitchen/Living	Plasterboard	Bulk Insulation R3.5	Yes

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
None Present				

Ceiling fans

Building features continued

Location	Number	Diameter (mm)
None Present		

Roof type

Construction	Added insulation	Roof colour
Corrugated Iron	Bulk, Reflective Side Down, Anti-glare Up R1.3	Medium

Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0003344355 **Certificate Date:** 13 Nov 2018 ★Star rating: 5.2

Additional information

If carpet noted as floor covering it may be replaced with any type.

Due to non current Window Library the glazing descriptiosn may not match actual products. Only the U and SHGC values should be considered NOT the glazing descriptions.

Explanatory notes

About this report

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Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0003344389** Certificate Date: **13 Nov 2018** ★Star rating: **7.4**

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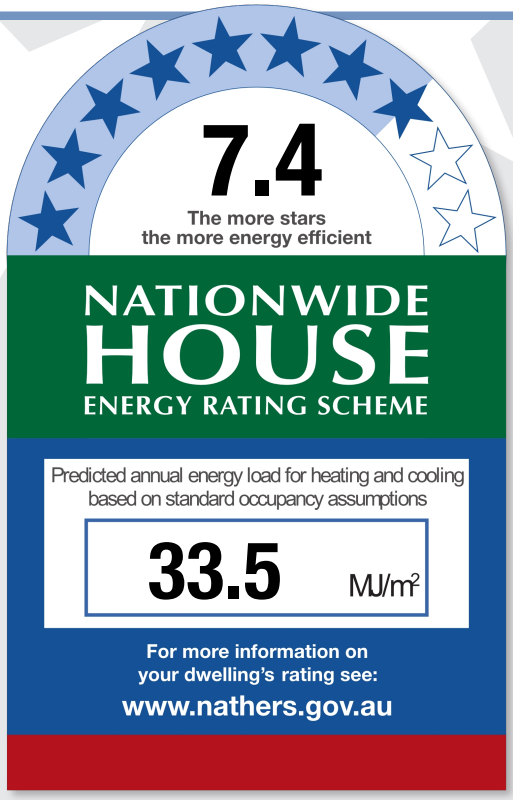
Assessor details

Accreditation number:	**20039**
Name:	**David Howard**
Organisation:	**Partners Energy Management**
Email:	**david@partnersenergy.com.au**
Phone:	**0421381005**
Declaration of interest:	**The Assessor has provided design advice to the Applicant**
Software:	**BERS Pro v4.3.0.2c (3.13)**
AAO:	**ABSA**



Overview

Dwelling details

Street:	**Unit 2.04, 25-27 Warriewood rd**		
Suburb:	**Warriewood**		
State:	**NSW**	Postcode:	**2102**
Type:	**New Dwelling**	NCC Class:	**1A**
		NatHERS climate zone:	**56**
Lot/DP number:	**5464**	Exposure:	**Suburban**

Key construction and insulation materials

(see following pages for details)

Construction:	**Fibro Cavity Panel Direct Fix** **Corrugated Iron** **Concrete Slab, Unit Below**
Insulation:	**R2.5 wall insulation** **R3.5 ceiling insulation** **No floor insulation**
Glazing:	**ALM-003-01 A Aluminium A DG Air Fill Clear-Clear**

Net floor area (m²)

Conditioned:	**89.0**
Unconditioned:	**0.0**
Garage:	**0.0**
TOTAL:	**89.0**

Annual thermal performance loads (MJ/m²)

Heating:	**9.1**
Cooling:	**24.3**
TOTAL:	**33.5**

Plan documents

Plan ref/date:	**Warriewood Residential Development**
Prepared by:	**VIA Architects**

Ceiling penetrations

(see following pages for details)

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

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Principle downlight type: **Unknown**

Window selection - default windows only

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Building features

Window type and performance value

Window ID	Window type	U-value	SHGC
ALM-003-01 A	ALM-003-01 A Aluminium A DG Air Fill Clear-Clear	4.8	0.51

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Kitchen/Living	ALM-003-01 A	n/a	2800	5000	NE	No Shading
Bedroom 1	ALM-003-01 A	n/a	2800	2400	NE	No Shading
Bedroom 2	ALM-003-01 A	n/a	2800	2400	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 (m²)	Orientation	Outdoor shade	Indoor shade/diffuser
None Present						

External wall type

ID	Wall type	Insulation	Wall wrap or foil
EW-1	Fibro Cavity Panel Direct Fix	Anti-glare foil with bulk no gap R2.5	Yes
EW-2	Tilt up concrete, lined	Anti-glare foil with bulk no gap R1.5	Yes

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Kitchen/Living	EW-1	6890	2800	NE	No	1600
Kitchen/Living	EW-2	1595	2800	SW	No	2300
Bedroom 1	EW-1	3495	2800	NE	No	1600
Bedroom 2	EW-1	3095	2800	NE	No	1600

Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Concrete Panel/Blocks filled, plasterboard	85.0	No Insulation	No
IW-2 - Cavity wall, direct fix plasterboard, single gap	63.0	No insulation	No

Floors

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Ldry	Concrete Slab, Unit Below 150mm	3.3	None	No Insulation	Carpet 10mm

Building features continued

Bath	Concrete Slab, Unit Below 150mm	5.6	None	No Insulation	Carpet 10mm
Kitchen/Living	Concrete Slab, Unit Below 150mm	50.3	None	No Insulation	Carpet 10mm
Ens	Concrete Slab, Unit Below 150mm	6.8	None	No Insulation	Carpet 10mm
Bedroom 1	Concrete Slab, Unit Below 150mm	12.3	None	No Insulation	Carpet 10mm
Bedroom 2	Concrete Slab, Unit Below 150mm	11.2	None	No Insulation	Carpet 10mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Ldry	Plasterboard	Bulk Insulation R3.5	Yes
Bath	Plasterboard	Bulk Insulation R3.5	Yes
Kitchen/Living	Plasterboard	Bulk Insulation R3.5	Yes
Ens	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 1	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 2	Plasterboard	Bulk Insulation R3.5	Yes

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
None Present				

Ceiling fans

Location	Number	Diameter (mm)
None Present		

Roof type

Construction	Added insulation	Roof colour
Corrugated Iron	Bulk, Reflective Side Down, Anti-glare Up R1.3	Medium

Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0003344389 **Certificate Date:** 13 Nov 2018 ★Star rating: 7.4

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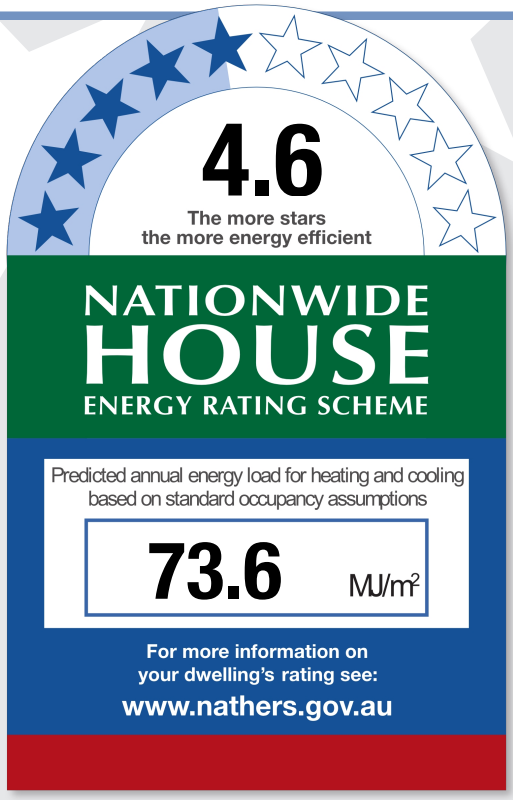
Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0003344371** Certificate Date: **13 Nov 2018** ★Star rating: **4.6**

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:	**20039**
Name:	**David Howard**
Organisation:	**Partners Energy Management**
Email:	**david@partnersenergy.com.au**
Phone:	**0421381005**
Declaration of interest:	**The Assessor has provided design advice to the Applicant**
Software:	**BERS Pro v4.3.0.2c (3.13)**
AAO:	**ABSA**



Overview

Dwelling details

Street:	**Unit 2.06, 25-27 Warriewood rd**		
Suburb:	**Warriewood**		
State:	**NSW**	Postcode:	**2102**
Type:	**New Dwelling**	NCC Class:	**1A**
		NatHERS climate zone:	**56**
Lot/DP number:	**5464**	Exposure:	**Suburban**

Key construction and insulation materials

(see following pages for details)

Construction:	**Fibro Cavity Panel Direct Fix** **Corrugated Iron** **Concrete Slab, Unit Below**
Insulation:	**R2.5 wall insulation** **R3.5 ceiling insulation** **No floor insulation**
Glazing:	**ALM-003-01 A Aluminium A DG Air Fill Clear-Clear**

Net floor area (m²)

Conditioned:	**146.0**
Unconditioned:	**0.0**
Garage:	**0.0**
TOTAL:	**146.0**

Annual thermal performance loads (MJ/m²)

Heating:	**44.2**
Cooling:	**29.3**
TOTAL:	**73.6**

Plan documents

Plan ref/date:	**Warriewood Residential Development**
Prepared by:	**VIA Architects**

Ceiling penetrations

(see following pages for details)

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

NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. **If this number is exceded 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-003-01 A	ALM-003-01 A Aluminium A DG Air Fill Clear-Clear	4.8	0.51

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Kitchen/Living	ALM-003-01 A	n/a	2800	4800	SW	No Shading
Kitchen/Living	ALM-003-01 A	n/a	2800	12000	SE	No Shading
Bedroom 1	ALM-003-01 A	n/a	2800	1000	SE	No Shading
Bedroom 2	ALM-003-01 A	n/a	2800	2400	SE	No Shading
Bedroom Master	ALM-003-01 A	n/a	2800	4400	NE	No Shading
Bedroom Master	ALM-003-01 A	n/a	2800	2400	SE	No Shading
WIR	ALM-003-01 A	n/a	2800	1000	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 (m²)	Orientation	Outdoor shade	Indoor shade/diffuser
None Present						

External wall type

ID	Wall type	Insulation	Wall wrap or foil
EW-1	Fibro Cavity Panel Direct Fix	Anti-glare foil with bulk no gap R2.5	Yes
EW-2	Tilt up concrete, lined	Anti-glare foil with bulk no gap R1.5	Yes

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Kitchen/Living	EW-1	5500	2800	SW	No	1700
Kitchen/Living	EW-2	1895	2800	NW	No	4800
Kitchen/Living	EW-1	11995	2800	SE	No	1700
Bedroom 1	EW-1	3090	2800	SE	No	1700
Bedroom 2	EW-1	3090	2800	SE	No	1700
Bedroom Master	EW-1	5495	2800	NE	No	1900
Bedroom Master	EW-1	3195	2800	SE	No	1700
WIR	EW-1	3400	2800	NE	No	1900

Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Concrete Panel/Blocks filled, plasterboard	64.0	No Insulation	No
IW-2 - Cavity wall, direct fix	117.0	No insulation	No

Building features continued

plasterboard, single gap

Floors

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living	Concrete Slab, Unit Below 150mm	64.9	None	No Insulation	Carpet 10mm
Bedroom 1	Concrete Slab, Unit Below 150mm	12.8	None	No Insulation	Carpet 10mm
Bedroom 2	Concrete Slab, Unit Below 150mm	12.8	None	No Insulation	Carpet 10mm
Bedroom Master	Concrete Slab, Unit Below 150mm	18.2	None	No Insulation	Carpet 10mm
WIR	Concrete Slab, Unit Below 150mm	10.6	None	No Insulation	Carpet 10mm
Ens	Concrete Slab, Unit Below 150mm	7.1	None	No Insulation	Carpet 10mm
Bath	Concrete Slab, Unit Below 150mm	5.5	None	No Insulation	Carpet 10mm
Ldry	Concrete Slab, Unit Below 150mm	7.3	None	No Insulation	Carpet 10mm
Hall	Concrete Slab, Unit Below 150mm	6.6	None	No Insulation	Carpet 10mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Kitchen/Living	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 1	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 2	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom Master	Plasterboard	Bulk Insulation R3.5	Yes
WIR	Plasterboard	Bulk Insulation R3.5	Yes
Ens	Plasterboard	Bulk Insulation R3.5	Yes
Bath	Plasterboard	Bulk Insulation R3.5	Yes
Ldry	Plasterboard	Bulk Insulation R3.5	Yes
Hall	Plasterboard	Bulk Insulation R3.5	Yes

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
None Present				

Building features continued

Ceiling fans

Location	Number	Diameter (mm)
None Present		

Roof type

Construction	Added insulation	Roof colour
Corrugated Iron	Bulk, Reflective Side Down, Anti-glare Up R1.3	Medium

Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0003344371 **Certificate Date:** 13 Nov 2018 ★Star rating: 4.6

Additional information

If carpet noted as floor covering it may be replaced with any type.

Due to non current Window Library the glazing descriptiosn may not match actual products. Only the U and SHGC values should be considered NOT the glazing descriptions.

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

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Disclaimer

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Contact

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Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0003344397** Certificate Date: **13 Nov 2018** ★Star rating: **6.8**

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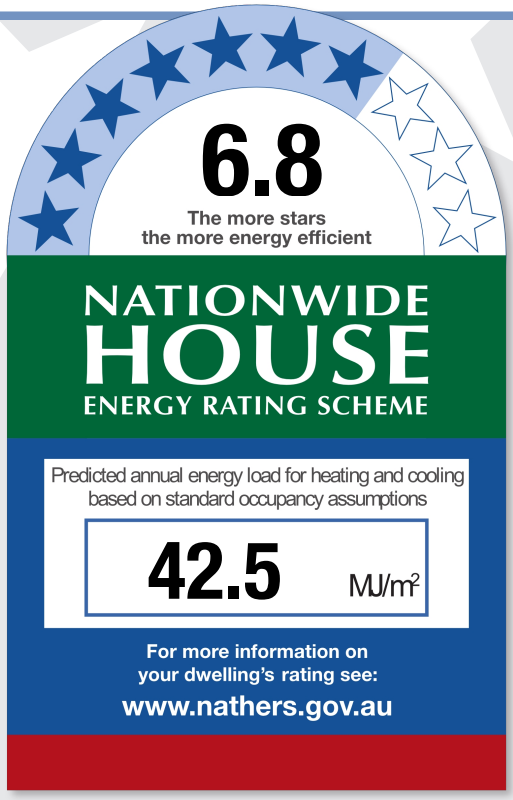
Assessor details

Accreditation number: **20039**
Name: **David Howard**
Organisation: **Partners Energy Management**
Email: **david@partnersenergy.com.au**
Phone: **0421381005**

Declaration of interest: **The Assessor has provided design advice to the Applicant**
Software: **BERS Pro v4.3.0.2c (3.13)**
AAO: **ABSA**



Overview

Dwelling details

Street: **Unit 2.07, 25-27 Warriewood rd**
Suburb: **Warriewood**
State: **NSW** Postcode: **2102**
Type: **New Dwelling** NCC Class: **1A**
NatHERS climate zone: **56**
Lot/DP number: **5464** Exposure: **Suburban**

Key construction and insulation materials

(see following pages for details)

Construction: **Fibro Cavity Panel Direct Fix**
Corrugated Iron
Concrete Slab, Unit Below
Insulation: **R2.5 wall insulation**
R3.5 ceiling insulation
No floor insulation
Glazing: **ALM-003-01 A Aluminium A DG Air Fill Clear-Clear**

Net floor area (m²)

Conditioned:	120.0
Unconditioned:	0.0
Garage:	0.0
TOTAL:	120.0

Annual thermal performance loads (MJ/m²)

Heating:	20.9
Cooling:	21.6
TOTAL:	42.5

Plan documents

Plan ref/date: **Warriewood Residential Development**
Prepared by: **VIA Architects**

Ceiling penetrations

(see following pages for details)

Sealed:	0
Unsealed:	0
TOTAL:**	0

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

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Building features

Window type and performance value

Window ID	Window type	U-value	SHGC
ALM-003-01 A	ALM-003-01 A Aluminium A DG Air Fill Clear-Clear	4.8	0.51

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Bedroom 1	ALM-003-01 A	n/a	2800	2400	SW	No Shading
Kitchen/Living	ALM-003-01 A	n/a	2800	6000	SW	No Shading
Bedroom 2	ALM-003-01 A	n/a	2800	1000	SW	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 (m²)	Orientation	Outdoor shade	Indoor shade/diffuser
None Present						

External wall type

ID	Wall type	Insulation	Wall wrap or foil
EW-1	Fibro Cavity Panel Direct Fix	Anti-glare foil with bulk no gap R2.5	Yes
EW-2	Tilt up concrete, lined	Anti-glare foil with bulk no gap R1.5	Yes

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Bedroom 1	EW-1	3595	2800	SW	No	2000
Kitchen/Living	EW-1	6690	2800	SW	No	2000
Kitchen/Living	EW-2	2395	2800	NE	No	2600
Bedroom 2	EW-1	3395	2800	SW	No	2000

Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Cavity wall, direct fix plasterboard, single gap	92.0	No insulation	No
IW-2 - Concrete Panel/Blocks filled, plasterboard	87.0	No Insulation	No

Floors

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Bedroom 1	Concrete Slab, Unit Below 150mm	20.0	None	No Insulation	Carpet 10mm

Building features continued

Ens	Concrete Slab, Unit Below 150mm	6.8	None	No Insulation	Carpet 10mm
Ldry	Concrete Slab, Unit Below 150mm	4.9	None	No Insulation	Carpet 10mm
Kitchen/Living	Concrete Slab, Unit Below 150mm	56.7	None	No Insulation	Carpet 10mm
Hall/Store	Concrete Slab, Unit Below 150mm	6.1	None	No Insulation	Carpet 10mm
Bath	Concrete Slab, Unit Below 150mm	6.6	None	No Insulation	Carpet 10mm
Bedroom 2	Concrete Slab, Unit Below 150mm	19.0	None	No Insulation	Carpet 10mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Bedroom 1	Plasterboard	Bulk Insulation R3.5	Yes
Ens	Plasterboard	Bulk Insulation R3.5	Yes
Ldry	Plasterboard	Bulk Insulation R3.5	Yes
Kitchen/Living	Plasterboard	Bulk Insulation R3.5	Yes
Hall/Store	Plasterboard	Bulk Insulation R3.5	Yes
Bath	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 2	Plasterboard	Bulk Insulation R3.5	Yes

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
None Present				

Ceiling fans

Location	Number	Diameter (mm)
None Present		

Roof type

Construction	Added insulation	Roof colour
Corrugated Iron	Bulk, Reflective Side Down, Anti-glare Up R1.3	Medium

Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0003344397 **Certificate Date:** 13 Nov 2018 ★Star rating: 6.8

Additional information

If carpet noted as floor covering it may be replaced with any type.

Due to non current Window Library the glazing descriptiosn may not match actual products. Only the U and SHGC values should be considered NOT the glazing descriptions.

Explanatory notes

About this report

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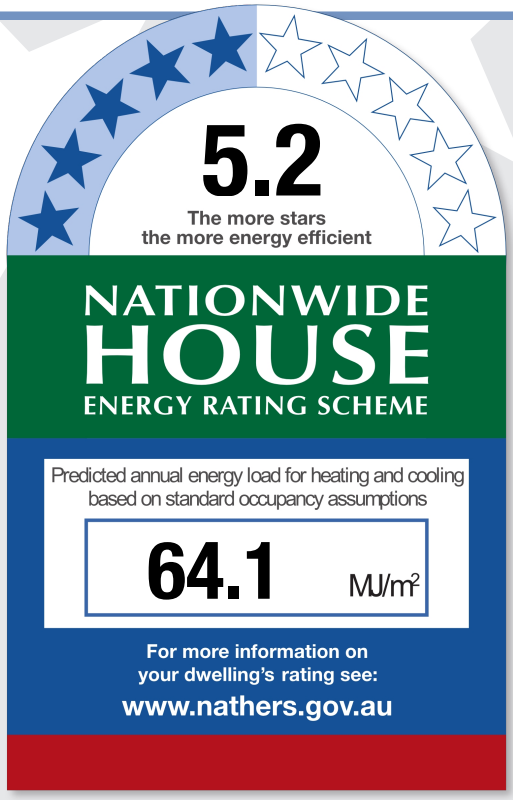
Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0003344405** Certificate Date: **13 Nov 2018** ★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:	**20039**
Name:	**David Howard**
Organisation:	**Partners Energy Management**
Email:	**david@partnersenergy.com.au**
Phone:	**0421381005**
Declaration of interest:	**The Assessor has provided design advice to the Applicant**
Software:	**BERS Pro v4.3.0.2c (3.13)**
AAO:	**ABSA**



Overview

Dwelling details

Street:	**Unit 2.08, 25-27 Warriewood rd**		
Suburb:	**Warriewood**		
State:	**NSW**	Postcode:	**2102**
Type:	**New Dwelling**	NCC Class:	**1A**
		NatHERS climate zone:	**56**
Lot/DP number:	**5464**	Exposure:	**Suburban**

Key construction and insulation materials

(see following pages for details)

Construction:	**Fibro Cavity Panel Direct Fix** **Corrugated Iron** **Concrete Slab, Unit Below**
Insulation:	**R2.5 wall insulation** **R3.5 ceiling insulation** **No floor insulation**
Glazing:	**ALM-003-01 A Aluminium A DG Air Fill Clear-Clear**

Net floor area (m²)

Conditioned:	**153.0**
Unconditioned:	**7.0**
Garage:	**0.0**
TOTAL:	**160.0**

Annual thermal performance loads (MJ/m²)

Heating:	**36.1**
Cooling:	**28.0**
TOTAL:	**64.1**

Plan documents

Plan ref/date:	**Warriewood Residential Development**
Prepared by:	**VIA Architects**

Ceiling penetrations

(see following pages for details)

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

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

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Building features

Window type and performance value

Window ID	Window type	U-value	SHGC
ALM-003-01 A	ALM-003-01 A Aluminium A DG Air Fill Clear-Clear	4.8	0.51

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Bedroom Master	ALM-003-01 A	n/a	2800	3200	NE	No Shading
Bedroom Master	ALM-003-01 A	n/a	2800	3200	NW	No Shading
Ens	ALM-003-01 A	n/a	2800	1000	NE	No Shading
Bedroom 2	ALM-003-01 A	n/a	2800	2100	NW	No Shading
Bath	ALM-003-01 A	n/a	2800	1000	NW	No Shading
Kitchen/Living	ALM-003-01 A	n/a	2800	3000	SW	No Shading
Kitchen/Living	ALM-003-01 A	n/a	2800	10500	NW	No Shading
Bedroom 3	ALM-003-01 A	n/a	2800	2100	SW	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 (m²)	Orientation	Outdoor shade	Indoor shade/diffuser
None Present						

External wall type

ID	Wall type	Insulation	Wall wrap or foil
EW-1	Fibro Cavity Panel Direct Fix	Anti-glare foil with bulk no gap R2.5	Yes
EW-2	Tilt up concrete, lined	Anti-glare foil with bulk no gap R1.5	Yes

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Bedroom Master	EW-1	4695	2800	NE	No	1800
Bedroom Master	EW-1	4074	2800	NW	No	2089
Ens	EW-1	3295	2800	NE	No	1800
Ens	EW-2	2195	2800	SE	No	5400
Bedroom 2	EW-1	3854	2800	NW	No	2059
Bath	EW-1	2030	2800	NW	No	2040
Kitchen/Living	EW-2	7590	2800	SE	No	5400
Kitchen/Living	EW-2	3400	2800	NE	No	11600
Kitchen/Living	EW-2	1400	2800	SE	No	2000
Kitchen/Living	EW-1	4495	2800	SW	No	1400
Kitchen/Living	EW-1	11625	2800	NW	No	2040
Bedroom 3	EW-1	2695	2800	SW	No	1400

Building features continued

Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Cavity wall, direct fix plasterboard, single gap	118.0	No insulation	No
IW-2 - Concrete Panel/Blocks filled, plasterboard	28.0	No Insulation	No

Floors

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Bedroom Master	Concrete Slab, Unit Below 150mm	19.6	None	No Insulation	Carpet 10mm
Ens	Concrete Slab, Unit Below 150mm	7.0	None	No Insulation	Carpet 10mm
Bedroom 2	Concrete Slab, Unit Below 150mm	15.3	None	No Insulation	Carpet 10mm
Ldry	Concrete Slab, Unit Below 150mm	4.6	None	No Insulation	Carpet 10mm
Bath	Concrete Slab, Unit Below 150mm	7.3	None	No Insulation	Carpet 10mm
Kitchen/Living	Concrete Slab, Unit Below 150mm	12.4	None	No Insulation	Carpet 10mm
Kitchen/Living	Concrete Slab, Unit Below 150mm	80.5	None	No Insulation	Carpet 10mm
Bedroom 3	Concrete Slab, Unit Below 150mm	13.7	None	No Insulation	Carpet 10mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Bedroom Master	Plasterboard	Bulk Insulation R3.5	Yes
Ens	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 2	Plasterboard	Bulk Insulation R3.5	Yes
Ldry	Plasterboard	Bulk Insulation R3.5	Yes
Bath	Plasterboard	Bulk Insulation R3.5	Yes
Kitchen/Living	Plasterboard	Bulk Insulation R3.5	Yes
Kitchen/Living	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 3	Plasterboard	Bulk Insulation R3.5	Yes

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed

Building features continued

None Present

Ceiling fans

Location	Number	Diameter (mm)
None Present		

Roof type

Construction	Added insulation	Roof colour
Corrugated Iron	Bulk, Reflective Side Down, Anti-glare Up R1.3	Medium

Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0003344405 **Certificate Date:** 13 Nov 2018 ★Star rating: 5.2

Additional information

If carpet noted as floor covering it may be replaced with any type.

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Explanatory notes

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Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0003344330** Certificate Date: **13 Nov 2018** ★Star rating: **4.8**

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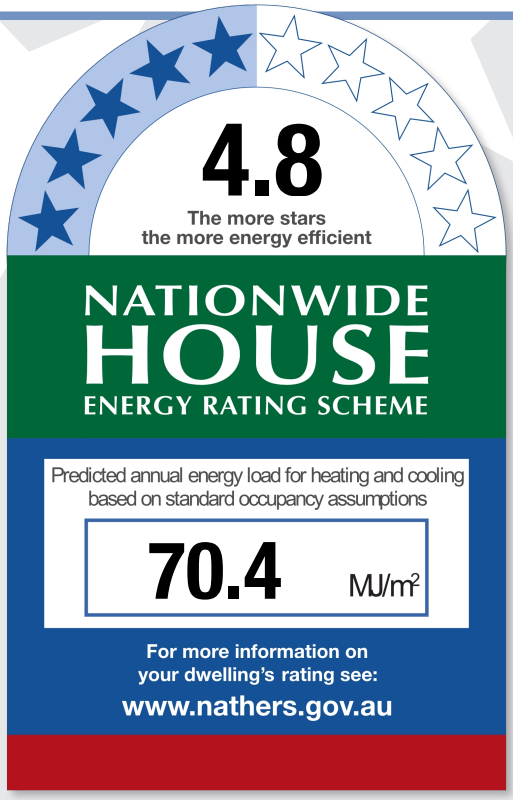
Assessor details

Accreditation number:	**20039**
Name:	**David Howard**
Organisation:	**Partners Energy Management**
Email:	**david@partnersenergy.com.au**
Phone:	**0421381005**
Declaration of interest:	**The Assessor has provided design advice to the Applicant**
Software:	**BERS Pro v4.3.0.2c (3.13)**
AAO:	**ABSA**



Overview

Dwelling details

Street:	**Unit 2.01, 25-27 Warriewood rd**		
Suburb:	**Warriewood**		
State:	**NSW**	Postcode:	**2102**
Type:	**New Dwelling**	NCC Class:	**1A**
		NatHERS climate zone:	**56**
Lot/DP number:	**5464**	Exposure:	**Suburban**

Key construction and insulation materials

(see following pages for details)

Construction:	**Fibro Cavity Panel Direct Fix** **Corrugated Iron** **Concrete Slab, Unit Below**
Insulation:	**R2.5 wall insulation** **R3.5 ceiling insulation** **No floor insulation**
Glazing:	**ALM-003-01 A Aluminium A DG Air Fill Clear-Clear**

Net floor area (m²)

Conditioned:	**120.0**
Unconditioned:	**0.0**
Garage:	**0.0**
TOTAL:	**120.0**

Annual thermal performance loads (MJ/m²)

Heating:	**43.7**
Cooling:	**26.6**
TOTAL:	**70.4**

Plan documents

Plan ref/date:	**Warriewood Residential Development**
Prepared by:	**VIA Architects**

Ceiling penetrations

(see following pages for details)

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

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

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Building features

Window type and performance value

Window ID	Window type	U-value	SHGC
ALM-003-01 A	ALM-003-01 A Aluminium A DG Air Fill Clear-Clear	4.8	0.51

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Bedroom Master	ALM-003-01 A	n/a	2800	3200	SE	No Shading
Bedroom Master	ALM-003-01 A	n/a	2800	3200	NE	No Shading
Ens 1	ALM-003-01 A	n/a	2800	1000	NE	No Shading
Bedroom 2	ALM-003-01 A	n/a	2800	2000	SE	No Shading
Bedroom 3	ALM-003-01 A	n/a	2800	1000	SE	No Shading
Kitchen/Living	ALM-003-01 A	n/a	2800	8000	SE	No Shading
Kitchen/Living	ALM-003-01 A	n/a	2800	6200	SW	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 (m²)	Orientation	Outdoor shade	Indoor shade/diffuser
None Present						

External wall type

ID	Wall type	Insulation	Wall wrap or foil
EW-1	Fibro Cavity Panel Direct Fix	Anti-glare foil with bulk no gap R2.5	Yes
EW-2	Tilt up concrete, lined	Anti-glare foil with bulk no gap R1.5	Yes

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Bedroom Master	EW-1	3995	2800	SE	No	1700
Bedroom Master	EW-1	4795	2800	NE	No	1800
Ens 1	EW-1	1795	2800	NE	No	1800
Bedroom 2	EW-1	3190	2800	SE	No	1700
Bedroom 3	EW-1	3090	2800	SE	No	1700
Kitchen/Living	EW-1	8295	2800	SE	No	1700
Kitchen/Living	EW-1	6600	2800	SW	No	1700
Kitchen/Living	EW-2	1395	2800	NW	No	3100

Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Cavity wall, direct fix plasterboard, single gap	97.0	No insulation	No
IW-2 - Concrete Panel/Blocks filled,	48.0	No Insulation	No

Building features continued

plasterboard

Floors

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Bedroom Master	Concrete Slab, Unit Below 150mm	20.8	None	No Insulation	Carpet 10mm
Ens 1	Concrete Slab, Unit Below 150mm	8.0	None	No Insulation	Carpet 10mm
Bedroom 2	Concrete Slab, Unit Below 150mm	11.4	None	No Insulation	Carpet 10mm
Bath	Concrete Slab, Unit Below 150mm	5.8	None	No Insulation	Carpet 10mm
Ldry	Concrete Slab, Unit Below 150mm	2.6	None	No Insulation	Carpet 10mm
Bedroom 3	Concrete Slab, Unit Below 150mm	11.0	None	No Insulation	Carpet 10mm
Kitchen/Living	Concrete Slab, Unit Below 150mm	3.5	None	No Insulation	Carpet 10mm
Kitchen/Living	Concrete Slab, Unit Below 150mm	56.5	None	No Insulation	Carpet 10mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Bedroom Master	Plasterboard	Bulk Insulation R3.5	Yes
Ens 1	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 2	Plasterboard	Bulk Insulation R3.5	Yes
Bath	Plasterboard	Bulk Insulation R3.5	Yes
Ldry	Plasterboard	Bulk Insulation R3.5	Yes
Bedroom 3	Plasterboard	Bulk Insulation R3.5	Yes
Kitchen/Living	Plasterboard	Bulk Insulation R3.5	Yes
Kitchen/Living	Plasterboard	Bulk Insulation R3.5	Yes

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
None Present				

Ceiling fans

Building features continued

Location	Number	Diameter (mm)
None Present		

Roof type

Construction	Added insulation	Roof colour
Corrugated Iron	Bulk, Reflective Side Down, Anti-glare Up R1.3	Medium

Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0003344330 **Certificate Date:** 13 Nov 2018 ★Star rating: 4.8

Additional information

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Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0003344421** Certificate Date: **13 Nov 2018** ★Star rating: **5.2**

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Assessor details

Accreditation number:	**20039**
Name:	**David Howard**
Organisation:	**Partners Energy Management**
Email:	**david@partnersenergy.com.au**
Phone:	**0421381005**
Declaration of interest:	**The Assessor has provided design advice to the Applicant**
Software:	**BERS Pro v4.3.0.2c (3.13)**
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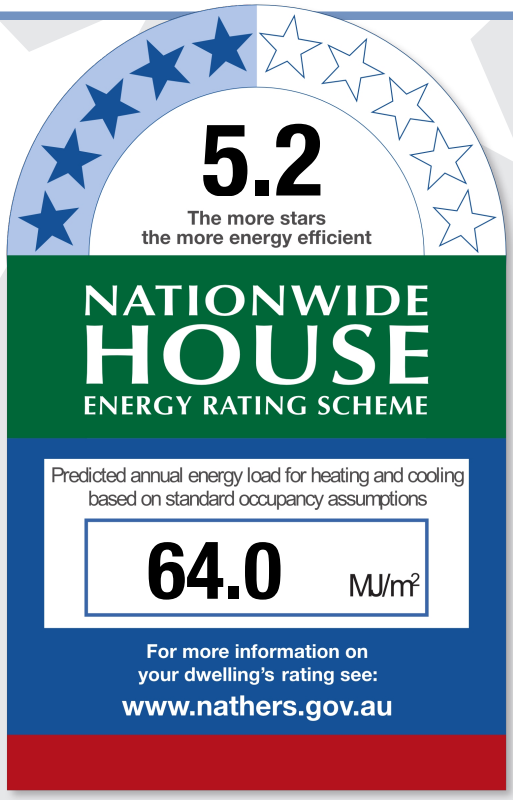

Overview

Dwelling details

Street:	**Unit G.01, 25-27 Warriewood rd**		
Suburb:	**Warriewood**		
State:	**NSW**	Postcode:	**2102**
Type:	**New Dwelling**	NCC Class:	**1A**
		NatHERS climate zone:	**56**
Lot/DP number:	**5464**	Exposure:	**Suburban**

Key construction and insulation materials

(see following pages for details)

Construction:	**Brick Veneer** **Concrete, Plasterboard** **Suspended Concrete Slab**
Insulation:	**R2.5 wall insulation** **No ceiling insulation** **R1.3 floor insulation**
Glazing:	**ALM-002-01 A Aluminium B SG Clear**

Net floor area (m²)

Conditioned:	**88.0**
Unconditioned:	**0.0**
Garage:	**0.0**
TOTAL:	**88.0**

Annual thermal performance loads (MJ/m²)

Heating:	**39.6**
Cooling:	**24.4**
TOTAL:	**64.0**

Plan documents

Plan ref/date:	**Warriewood Residential Development**
Prepared by:	**VIA Architects**

Ceiling penetrations

(see following pages for details)

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

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Principle downlight type: **Unknown**

Window selection - default windows only

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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

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Bedroom Master	ALM-002-01 A	n/a	2800	2000	SE	No Shading
Bedroom Master	ALM-002-01 A	n/a	2800	1000	SE	No Shading
Bedroom Master	ALM-002-01 A	n/a	2800	2100	SW	No Shading
Bedroom 2	ALM-002-01 A	n/a	2800	2000	SE	No Shading
Kitchen/Living	ALM-002-01 A	n/a	2800	4200	SW	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 (m²)	Orientation	Outdoor shade	Indoor shade/diffuser
None Present						

External wall type

ID	Wall type	Insulation	Wall wrap or foil
EW-1	Brick Veneer	Anti-glare foil with bulk no gap R2.5	Yes

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Bedroom Master	EW-1	6795	2800	SE	No	0
Bedroom Master	EW-1	3300	2800	SW	No	600
Bedroom Master	EW-1	1200	2800	NW	No	8600
Bedroom 2	EW-1	3595	2800	SE	No	0
Kitchen/Living	EW-1	1890	2800	NE	No	2700
Kitchen/Living	EW-1	6195	2800	SW	No	1800

Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Cavity wall, direct fix plasterboard, single gap	76.0	No insulation	No
IW-2 - Concrete Panel/Blocks filled, plasterboard	50.0	No Insulation	No

Floors

Building features continued

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Bedroom Master	Suspended Concrete Slab 150mm	15.7	Open	Bulk Insulation in Contact with Floor R1.3	Carpet 10mm
Ens	Suspended Concrete Slab 150mm	4.2	Open	Bulk Insulation in Contact with Floor R1.3	Carpet 10mm
Bedroom 2	Suspended Concrete Slab 150mm	11.6	Open	Bulk Insulation in Contact with Floor R1.3	Carpet 10mm
Bath	Suspended Concrete Slab 150mm	6.5	Open	Bulk Insulation in Contact with Floor R1.3	Carpet 10mm
Ldry	Suspended Concrete Slab 150mm	3.9	Open	Bulk Insulation in Contact with Floor R1.3	Carpet 10mm
Kitchen/Living	Suspended Concrete Slab 150mm	46.1	Open	Bulk Insulation in Contact with Floor R1.3	Carpet 10mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Bedroom Master	Concrete, Plasterboard	No insulation	No
Ens	Concrete, Plasterboard	No insulation	No
Bedroom 2	Concrete, Plasterboard	No insulation	No
Bath	Concrete, Plasterboard	No insulation	No
Ldry	Concrete, Plasterboard	No insulation	No
Kitchen/Living	Concrete, Plasterboard	No insulation	No

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
None Present				

Ceiling fans

Location	Number	Diameter (mm)
None Present		

Roof type

Construction	Added insulation	Roof colour
None Present		

Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0003344421 **Certificate Date:** 13 Nov 2018 ★Star rating: 5.2

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Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0003344413** Certificate Date: **13 Nov 2018** ★Star rating: **5.8**

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Assessor details

Accreditation number:	**20039**
Name:	**David Howard**
Organisation:	**Partners Energy Management**
Email:	**david@partnersenergy.com.au**
Phone:	**0421381005**
Declaration of interest:	**The Assessor has provided design advice to the Applicant**
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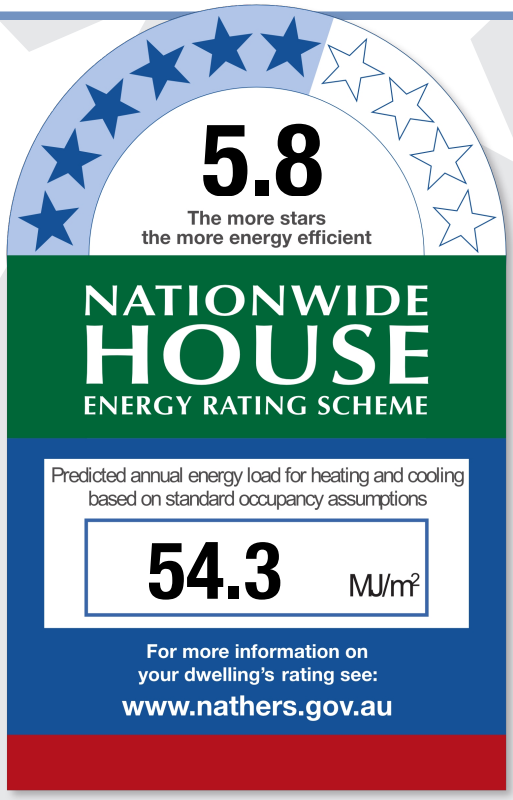

Overview

Dwelling details

Street:	**Unit G.02, 25-27 Warriewood rd**		
Suburb:	**Warriewood**		
State:	**NSW**	Postcode:	**2102**
Type:	**New Dwelling**	NCC Class:	**1A**
		NatHERS climate zone:	**56**
Lot/DP number:	**5464**	Exposure:	**Suburban**

Key construction and insulation materials

(see following pages for details)

Construction:	**Brick Veneer** **Concrete, Plasterboard** **Suspended Concrete Slab**
Insulation:	**R2.5 wall insulation** **No ceiling insulation** **R1.0 floor insulation**
Glazing:	**ALM-002-01 A Aluminium B SG Clear**

Net floor area (m²)

Conditioned:	**113.0**
Unconditioned:	**0.0**
Garage:	**0.0**
TOTAL:	**113.0**

Annual thermal performance loads (MJ/m²)

Heating:	**37.0**
Cooling:	**17.3**
TOTAL:	**54.3**

Plan documents

Plan ref/date:	**Warriewood Residential Development**
Prepared by:	**VIA Architects**

Ceiling penetrations

(see following pages for details)

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

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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

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Bedroom Master	ALM-002-01 A	n/a	2800	2400	SW	No Shading
Kitchen/Living	ALM-002-01 A	n/a	2800	3600	SW	No Shading
Bedroom 2	ALM-002-01 A	n/a	2800	1800	SW	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 (m²)	Orientation	Outdoor shade	Indoor shade/diffuser
None Present						

External wall type

ID	Wall type	Insulation	Wall wrap or foil
EW-1	Brick Veneer	Anti-glare foil with bulk no gap R2.5	Yes

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Bedroom Master	EW-1	3795	2800	SW	No	1075
Bedroom Master	EW-1	700	2800	SE	No	0
Kitchen/Living	EW-1	2590	2800	NE	No	2650
Kitchen/Living	EW-1	5195	2800	SW	No	2125
Bedroom 2	EW-1	3095	2800	SW	No	1050
Bedroom 2	EW-1	1100	2800	NW	No	7100

Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Cavity wall, direct fix plasterboard, single gap	108.0	No insulation	No
IW-2 - Concrete Panel/Blocks filled, plasterboard	81.0	No Insulation	No

Floors

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Bedroom Master	Suspended Concrete Slab	23.7	Open	Bulk Insulation	Carpet 10mm

Building features continued

	150mm			in Contact with Floor R1	
Ens	Suspended Concrete Slab 150mm	10.3	Open	Bulk Insulation in Contact with Floor R1	Carpet 10mm
Kitchen/Living	Suspended Concrete Slab 150mm	11.1	Open	Bulk Insulation in Contact with Floor R1	Carpet 10mm
Bath	Suspended Concrete Slab 150mm	10.1	Open	Bulk Insulation in Contact with Floor R1	Carpet 10mm
Kitchen/Living	Suspended Concrete Slab 150mm	35.3	Open	Bulk Insulation in Contact with Floor R1	Carpet 10mm
Ldry	Suspended Concrete Slab 150mm	6.9	Open	Bulk Insulation in Contact with Floor R1	Carpet 10mm
Bedroom 2	Suspended Concrete Slab 150mm	15.5	Open	Bulk Insulation in Contact with Floor R1	Carpet 10mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Bedroom Master	Concrete, Plasterboard	No insulation	No
Ens	Concrete, Plasterboard	No insulation	No
Kitchen/Living	Concrete, Plasterboard	No insulation	No
Bath	Concrete, Plasterboard	No insulation	No
Kitchen/Living	Concrete, Plasterboard	No insulation	No
Ldry	Concrete, Plasterboard	No insulation	No
Bedroom 2	Concrete, Plasterboard	No insulation	No

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
None Present				

Ceiling fans

Location	Number	Diameter (mm)
None Present		

Roof type

Construction	Added insulation	Roof colour
None Present		

Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0003344413 **Certificate Date:** 13 Nov 2018 ★Star rating: 5.8

Additional information

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Explanatory notes

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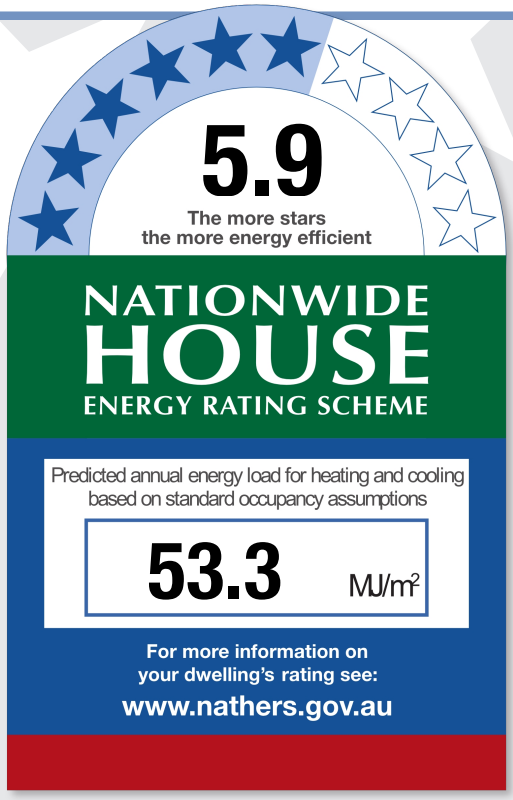
Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0003344454** Certificate Date: **13 Nov 2018** ★Star rating: **5.9**

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:	**20039**
Name:	**David Howard**
Organisation:	**Partners Energy Management**
Email:	**david@partnersenergy.com.au**
Phone:	**0421381005**
Declaration of interest:	**The Assessor has provided design advice to the Applicant**
Software:	**BERS Pro v4.3.0.2c (3.13)**
AAO:	**ABSA**



Overview

Dwelling details

Street:	**Unit G.03, 25-27 Warriewood rd**		
Suburb:	**Warriewood**		
State:	**NSW**	Postcode:	**2102**
Type:	**New Dwelling**	NCC Class:	**1A**
		NatHERS climate zone:	**56**
Lot/DP number:	**5464**	Exposure:	**Suburban**

Key construction and insulation materials

(see following pages for details)

Construction:	**Brick Veneer** **Concrete, Plasterboard** **Suspended Concrete Slab**
Insulation:	**R2.5 wall insulation** **No ceiling insulation** **R1.3 floor insulation**
Glazing:	**ALM-002-01 A Aluminium B SG Clear**

Net floor area (m²)

Conditioned:	**88.0**
Unconditioned:	**0.0**
Garage:	**0.0**
TOTAL:	**88.0**

Annual thermal performance loads (MJ/m²)

Heating:	**24.2**
Cooling:	**29.1**
TOTAL:	**53.3**

Plan documents

Plan ref/date:	**Warriewood Residential Development**
Prepared by:	**VIA Architects**

Ceiling penetrations

(see following pages for details)

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

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

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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

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Bedroom Master	ALM-002-01 A	n/a	2800	2400	SW	No Shading
Bedroom Master	ALM-002-01 A	n/a	2800	2000	NW	No Shading
Bedroom Master	ALM-002-01 A	n/a	2800	1000	NW	No Shading
Bedroom 2	ALM-002-01 A	n/a	2800	1800	NW	No Shading
Kitchen/Living	ALM-002-01 A	n/a	2800	5000	SW	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 (m²)	Orientation	Outdoor shade	Indoor shade/diffuser
None Present						

External wall type

ID	Wall type	Insulation	Wall wrap or foil
EW-1	Brick Veneer	Anti-glare foil with bulk no gap R2.5	Yes

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Bedroom Master	EW-1	1200	2800	SE	No	8600
Bedroom Master	EW-1	3300	2800	SW	No	600
Bedroom Master	EW-1	6795	2800	NW	No	0
Bedroom 2	EW-1	3595	2800	NW	No	0
Kitchen/Living	EW-1	6195	2800	SW	No	1800
Kitchen/Living	EW-1	1890	2800	NE	No	2700

Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Cavity wall, direct fix plasterboard, single gap	76.0	No insulation	No
IW-2 - Concrete Panel/Blocks filled, plasterboard	50.0	No Insulation	No

Floors

Building features continued

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Bedroom Master	Suspended Concrete Slab 150mm	15.7	Open	Bulk Insulation in Contact with Floor R1.3	Carpet 10mm
Ens	Suspended Concrete Slab 150mm	4.2	Open	Bulk Insulation in Contact with Floor R1.3	Carpet 10mm
Bedroom 2	Suspended Concrete Slab 150mm	11.6	Open	Bulk Insulation in Contact with Floor R1.3	Carpet 10mm
Bath	Suspended Concrete Slab 150mm	6.5	Open	Bulk Insulation in Contact with Floor R1.3	Carpet 10mm
Ldry	Suspended Concrete Slab 150mm	3.9	Open	Bulk Insulation in Contact with Floor R1.3	Carpet 10mm
Kitchen/Living	Suspended Concrete Slab 150mm	46.1	Open	Bulk Insulation in Contact with Floor R1.3	Carpet 10mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Bedroom Master	Concrete, Plasterboard	No insulation	No
Ens	Concrete, Plasterboard	No insulation	No
Bedroom 2	Concrete, Plasterboard	No insulation	No
Bath	Concrete, Plasterboard	No insulation	No
Ldry	Concrete, Plasterboard	No insulation	No
Kitchen/Living	Concrete, Plasterboard	No insulation	No

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
None Present				

Ceiling fans

Location	Number	Diameter (mm)
None Present		

Roof type

Construction	Added insulation	Roof colour
None Present		

Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0003344454 **Certificate Date:** 13 Nov 2018 ★Star rating: 5.9

Additional information

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Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0003344462** Certificate Date: **13 Nov 2018** ★Star rating: **6.1**

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Assessor details

Accreditation number:	**20039**
Name:	**David Howard**
Organisation:	**Partners Energy Management**
Email:	**david@partnersenergy.com.au**
Phone:	**0421381005**
Declaration of interest:	**The Assessor has provided design advice to the Applicant**
Software:	**BERS Pro v4.3.0.2c (3.13)**
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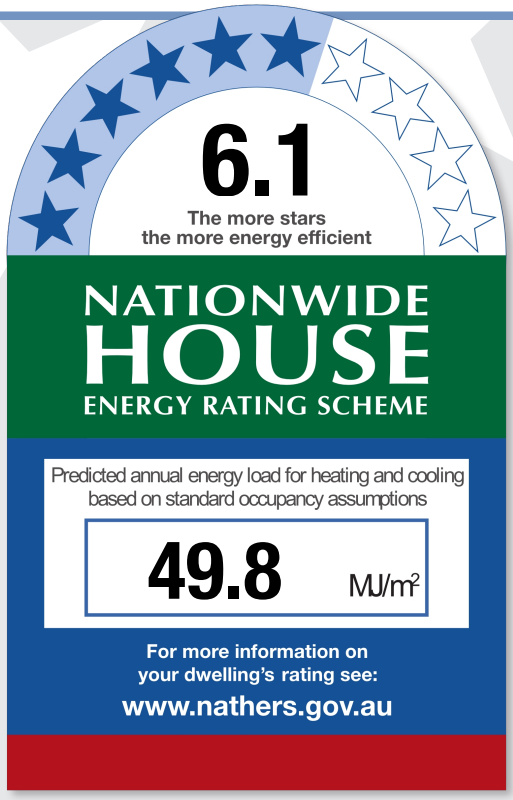

Overview

Dwelling details

Street:	**Unit G.04, 25-27 Warriewood rd**		
Suburb:	**Warriewood**		
State:	**NSW**	Postcode:	**2102**
Type:	**New Dwelling**	NCC Class:	**1A**
		NatHERS climate zone:	**56**
Lot/DP number:	**5464**	Exposure:	**Suburban**

Key construction and insulation materials

(see following pages for details)

Construction:	**Brick Veneer** **Concrete, Plasterboard** **Suspended Concrete Slab**
Insulation:	**R2.5 wall insulation** **No ceiling insulation** **R1.0 floor insulation**
Glazing:	**ALM-002-01 A Aluminium B SG Clear**

Net floor area (m²)

Conditioned:	**85.0**
Unconditioned:	**0.0**
Garage:	**0.0**
TOTAL:	**85.0**

Annual thermal performance loads (MJ/m²)

Heating:	**24.1**
Cooling:	**25.7**
TOTAL:	**49.8**

Plan documents

Plan ref/date:	**Warriewood Residential Development**
Prepared by:	**VIA Architects**

Ceiling penetrations

(see following pages for details)

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

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

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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

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Bedroom Master	ALM-002-01 A	n/a	2800	1000	NW	No Shading
Bedroom Master	ALM-002-01 A	n/a	2800	1800	NW	No Shading
Kitchen/Living	ALM-002-01 A	n/a	2800	4000	NW	No Shading
Kitchen/Living	ALM-002-01 A	n/a	2800	1800	NW	No Shading
Kitchen/Living	ALM-002-01 A	n/a	2800	3200	NE	No Shading
Bedroom 2	ALM-002-01 A	n/a	2800	1000	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 (m²)	Orientation	Outdoor shade	Indoor shade/diffuser
None Present						

External wall type

ID	Wall type	Insulation	Wall wrap or foil
EW-1	Brick Veneer	Anti-glare foil with bulk no gap R2.5	Yes

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Bedroom Master	EW-1	5195	2800	NW	No	1675
Entry	EW-1	2195	2800	SW	No	4900
Kitchen/Living	EW-1	7895	2800	NW	No	1650
Kitchen/Living	EW-1	3995	2800	NE	No	1875
Bedroom 2	EW-1	3095	2800	NE	No	1850

Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Concrete Panel/Blocks filled, plasterboard	50.0	No Insulation	No
IW-2 - Cavity wall, direct fix plasterboard, single gap	66.0	No insulation	No

Floors

Building features continued

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Ens	Suspended Concrete Slab 150mm	4.7	Open	Bulk Insulation in Contact with Floor R1	Carpet 10mm
Bedroom Master	Suspended Concrete Slab 150mm	15.2	Open	Bulk Insulation in Contact with Floor R1	Carpet 10mm
Bath	Suspended Concrete Slab 150mm	4.5	Open	Bulk Insulation in Contact with Floor R1	Carpet 10mm
Entry	Suspended Concrete Slab 150mm	4.9	Open	Bulk Insulation in Contact with Floor R1	Carpet 10mm
Kitchen/Living	Suspended Concrete Slab 150mm	43.7	Open	Bulk Insulation in Contact with Floor R1	Carpet 10mm
Bedroom 2	Suspended Concrete Slab 150mm	11.5	Open	Bulk Insulation in Contact with Floor R1	Carpet 10mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Ens	Concrete, Plasterboard	No insulation	No
Bedroom Master	Concrete, Plasterboard	No insulation	No
Bath	Concrete, Plasterboard	No insulation	No
Entry	Concrete, Plasterboard	No insulation	No
Kitchen/Living	Concrete, Plasterboard	No insulation	No
Bedroom 2	Concrete, Plasterboard	No insulation	No

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
None Present				

Ceiling fans

Location	Number	Diameter (mm)
None Present		

Roof type

Construction	Added insulation	Roof colour
None Present		

Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0003344462 **Certificate Date:** 13 Nov 2018 ★Star rating: 6.1

Additional information

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Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0003344488** Certificate Date: **13 Nov 2018** ★Star rating: **6.4**

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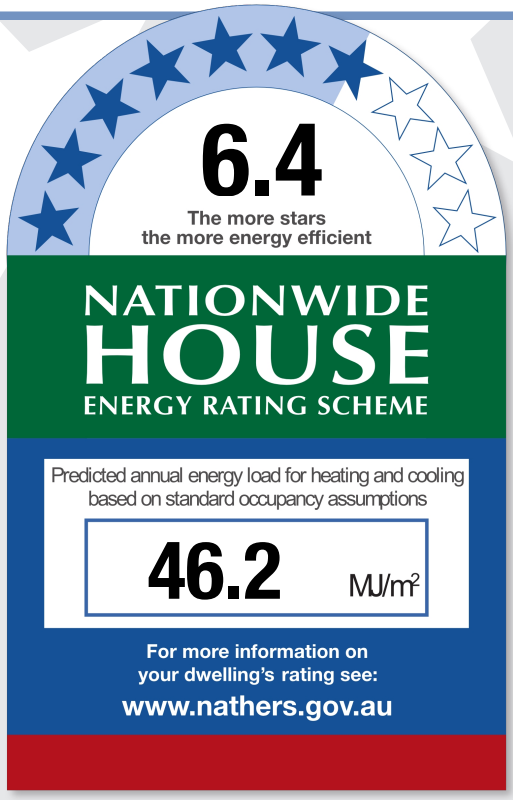
Assessor details

Accreditation number:	**20039**
Name:	**David Howard**
Organisation:	**Partners Energy Management**
Email:	**david@partnersenergy.com.au**
Phone:	**0421381005**
Declaration of interest:	**The Assessor has provided design advice to the Applicant**
Software:	**BERS Pro v4.3.0.2c (3.13)**
AAO:	**ABSA**



Overview

Dwelling details

Street:	**Unit G.06, 25-27 Warriewood rd**		
Suburb:	**Warriewood**		
State:	**NSW**	Postcode:	**2102**
Type:	**New Dwelling**	NCC Class:	**1A**
		NatHERS climate zone:	**56**
Lot/DP number:	**5464**	Exposure:	**Suburban**

Key construction and insulation materials

(see following pages for details)

Construction:	**Brick Veneer** **Concrete, Plasterboard** **Suspended Concrete Slab**
Insulation:	**R2.5 wall insulation** **No ceiling insulation** **R1.0 floor insulation**
Glazing:	**ALM-002-01 A Aluminium B SG Clear**

Net floor area (m²)

Conditioned:	**117.0**
Unconditioned:	**0.0**
Garage:	**0.0**
TOTAL:	**117.0**

Annual thermal performance loads (MJ/m²)

Heating:	**31.5**
Cooling:	**14.7**
TOTAL:	**46.2**

Plan documents

Plan ref/date:	**Warriewood Residential Development**
Prepared by:	**VIA Architects**

Ceiling penetrations

(see following pages for details)

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

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

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Kitchen/Living	ALM-002-01 A	n/a	2800	3400	NE	No Shading
Kitchen/Living	ALM-002-01 A	n/a	2800	2000	SE	No Shading
Bedroom Master	ALM-002-01 A	n/a	2800	4000	NE	No Shading
Bedroom Master	ALM-002-01 A	n/a	2800	2000	S	No Shading
Bedroom 2	ALM-002-01 A	n/a	2800	1800	SE	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 (m²)	Orientation	Outdoor shade	Indoor shade/diffuser
None Present						

External wall type

ID	Wall type	Insulation	Wall wrap or foil
EW-1	Brick Veneer	Anti-glare foil with bulk no gap R2.5	Yes

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Kitchen/Living	EW-1	6395	2800	NE	No	3300
Kitchen/Living	EW-1	3090	2800	SE	No	75
Kitchen/Living	EW-1	1990	2800	SW	No	2600
Bath 2	EW-1	3049	2800	S	No	103
Bedroom Master	EW-1	1600	2800	NW	No	9400
Bedroom Master	EW-1	5200	2800	NE	No	1700
Bedroom Master	EW-1	3391	2800	S	No	56
Bedroom 2	EW-1	3095	2800	SE	No	25

Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Concrete Panel/Blocks filled, plasterboard	57.0	No Insulation	No
IW-2 - Cavity wall, direct fix plasterboard, single gap	103.0	No insulation	No

Building features continued

Floors

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Bath 1	Suspended Concrete Slab 150mm	8.5	Open	Bulk Insulation in Contact with Floor R1	Carpet 10mm
Store	Suspended Concrete Slab 150mm	4.4	Open	Bulk Insulation in Contact with Floor R1	Carpet 10mm
Pantry	Suspended Concrete Slab 150mm	4.9	Open	Bulk Insulation in Contact with Floor R1	Carpet 10mm
Kitchen/Living	Suspended Concrete Slab 150mm	61.2	Open	Bulk Insulation in Contact with Floor R1	Carpet 10mm
Bed Hall	Suspended Concrete Slab 150mm	2.8	Open	Bulk Insulation in Contact with Floor R1	Carpet 10mm
Bath 2	Suspended Concrete Slab 150mm	5.4	Open	Bulk Insulation in Contact with Floor R1	Carpet 10mm
Bedroom Master	Suspended Concrete Slab 150mm	18.9	Open	Bulk Insulation in Contact with Floor R1	Carpet 10mm
Bedroom 2	Suspended Concrete Slab 150mm	10.9	Open	Bulk Insulation in Contact with Floor R1	Carpet 10mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Bath 1	Concrete, Plasterboard	No insulation	No
Store	Concrete, Plasterboard	No insulation	No
Pantry	Concrete, Plasterboard	No insulation	No
Kitchen/Living	Concrete, Plasterboard	No insulation	No
Bed Hall	Concrete, Plasterboard	No insulation	No
Bath 2	Concrete, Plasterboard	No insulation	No
Bedroom Master	Concrete, Plasterboard	No insulation	No
Bedroom 2	Concrete, Plasterboard	No insulation	No

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
None Present				

Ceiling fans

Location	Number	Diameter (mm)
None Present		

Building features continued

Roof type

Construction	Added insulation	Roof colour
None Present		

Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0003344488 **Certificate Date:** 13 Nov 2018 ★Star rating: 6.4

Additional information

If carpet noted as floor covering it may be replaced with any type.

Due to non current Window Library the glazing descriptiosn may not match actual products. Only the U and SHGC values should be considered NOT the glazing descriptions.

Explanatory notes

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Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0003344470** Certificate Date: **13 Nov 2018** ★Star rating: **7.4**

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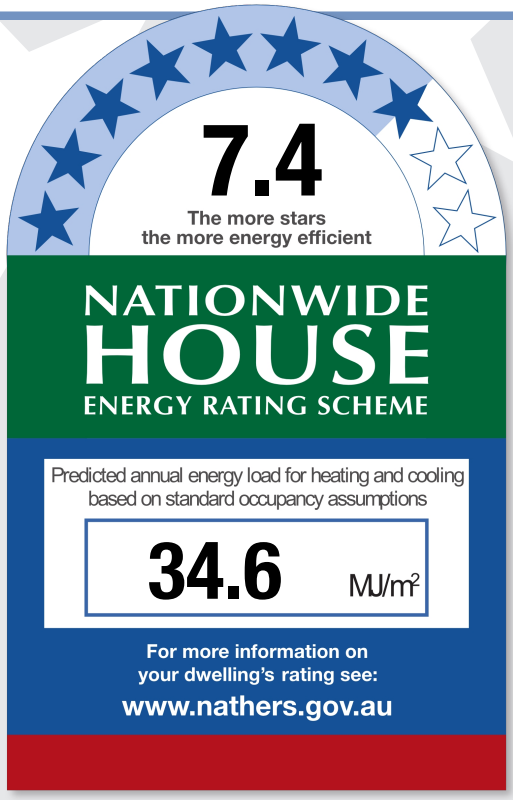
Assessor details

Accreditation number:	**20039**
Name:	**David Howard**
Organisation:	**Partners Energy Management**
Email:	**david@partnersenergy.com.au**
Phone:	**0421381005**
Declaration of interest:	**The Assessor has provided design advice to the Applicant**
Software:	**BERS Pro v4.3.0.2c (3.13)**
AAO:	**ABSA**



Overview

Dwelling details

Street:	**Unit G.07, 25-27 Warriewood rd**		
Suburb:	**Warriewood**		
State:	**NSW**	Postcode:	**2102**
Type:	**New Dwelling**	NCC Class:	**1A**
		NatHERS climate zone:	**56**
Lot/DP number:	**5464**	Exposure:	**Suburban**

Key construction and insulation materials

(see following pages for details)

Construction:	**Brick Veneer** **Concrete, Plasterboard** **Suspended Concrete Slab**
Insulation:	**R2.5 wall insulation** **No ceiling insulation** **R1.0 floor insulation**
Glazing:	**ALM-002-01 A Aluminium B SG Clear**

Net floor area (m²)

Conditioned:	**125.0**
Unconditioned:	**0.0**
Garage:	**0.0**
TOTAL:	**125.0**

Annual thermal performance loads (MJ/m²)

Heating:	**13.2**
Cooling:	**21.4**
TOTAL:	**34.6**

Plan documents

Plan ref/date:	**Warriewood Residential Development**
Prepared by:	**VIA Architects**

Ceiling penetrations

(see following pages for details)

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

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

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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

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Kitchen/Living	ALM-002-01 A	n/a	2800	1800	NW	No Shading
Kitchen/Living	ALM-002-01 A	n/a	2800	5200	NE	No Shading
Bedroom Master	ALM-002-01 A	n/a	2800	1800	NW	No Shading
Bedroom Master	ALM-002-01 A	n/a	2800	3000	NE	No Shading
Ens	ALM-002-01 A	n/a	2800	1000	NE	No Shading
Bedroom 2	ALM-002-01 A	n/a	2800	1800	NW	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 (m²)	Orientation	Outdoor shade	Indoor shade/diffuser
None Present						

External wall type

ID	Wall type	Insulation	Wall wrap or foil
EW-1	Brick Veneer	Anti-glare foil with bulk no gap R2.5	Yes

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Kitchen/Living	EW-1	2190	2800	SW	No	3000
Kitchen/Living	EW-1	3461	2800	NW	No	0
Kitchen/Living	EW-1	6995	2800	NE	No	3100
Bedroom Master	EW-1	505	2800	NW	No	0
Bedroom Master	EW-1	4100	2800	NW	No	0
Bedroom Master	EW-1	3695	2800	NE	No	1500
Ens	EW-1	1795	2800	NE	No	1500
Ens	EW-1	1600	2800	SE	No	9600
Bedroom 2	EW-1	3761	2800	NW	No	0

Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Concrete Panel/Blocks filled, plasterboard	56.0	No Insulation	No
IW-2 - Cavity wall, direct fix plasterboard, single gap	83.0	No insulation	No

Building features continued

Floors

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Ldry	Suspended Concrete Slab 150mm	4.3	Open	Bulk Insulation in Contact with Floor R1	Carpet 10mm
Bath	Suspended Concrete Slab 150mm	5.0	Open	Bulk Insulation in Contact with Floor R1	Carpet 10mm
Kitchen/Living	Suspended Concrete Slab 150mm	75.9	Open	Bulk Insulation in Contact with Floor R1	Carpet 10mm
Bedroom Master	Suspended Concrete Slab 150mm	19.3	Open	Bulk Insulation in Contact with Floor R1	Carpet 10mm
Ens	Suspended Concrete Slab 150mm	5.1	Open	Bulk Insulation in Contact with Floor R1	Carpet 10mm
Bedroom 2	Suspended Concrete Slab 150mm	15.7	Open	Bulk Insulation in Contact with Floor R1	Carpet 10mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Ldry	Concrete, Plasterboard	No insulation	No
Bath	Concrete, Plasterboard	No insulation	No
Kitchen/Living	Concrete, Plasterboard	No insulation	No
Bedroom Master	Concrete, Plasterboard	No insulation	No
Ens	Concrete, Plasterboard	No insulation	No
Bedroom 2	Concrete, Plasterboard	No insulation	No

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
None Present				

Ceiling fans

Location	Number	Diameter (mm)
None Present		

Roof type

Construction	Added insulation	Roof colour
None Present		

Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0003344470 **Certificate Date:** 13 Nov 2018 ★Star rating: 7.4

Additional information

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Due to non current Window Library the glazing descriptiosn may not match actual products. Only the U and SHGC values should be considered NOT the glazing descriptions.

Explanatory notes

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Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0003344504** Certificate Date: **13 Nov 2018** ★Star rating: **6.7**

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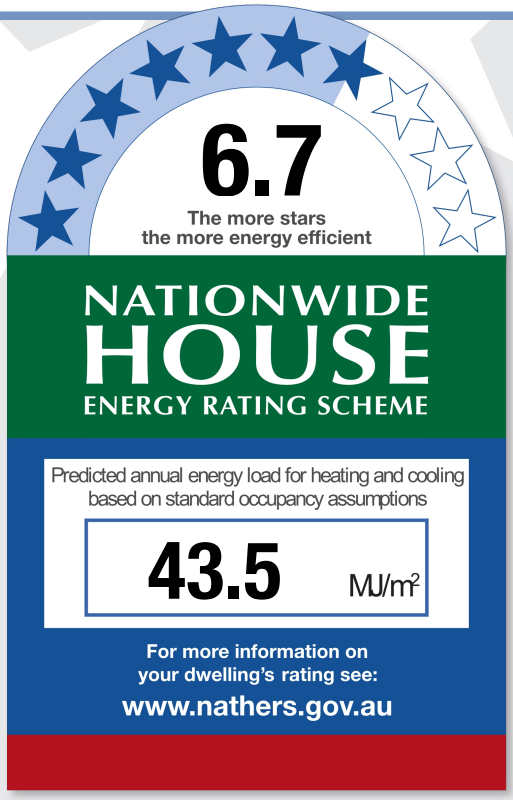
Assessor details

Accreditation number:	**20039**
Name:	**David Howard**
Organisation:	**Partners Energy Management**
Email:	**david@partnersenergy.com.au**
Phone:	**0421381005**
Declaration of interest:	**The Assessor has provided design advice to the Applicant**
Software:	**BERS Pro v4.3.0.2c (3.13)**
AAO:	**ABSA**



Overview

Dwelling details

Street:	**Unit G.08, 25-27 Warriewood rd**		
Suburb:	**Warriewood**		
State:	**NSW**	Postcode:	**2102**
Type:	**New Dwelling**	NCC Class:	**1A**
		NatHERS climate zone:	**56**
Lot/DP number:	**5464**	Exposure:	**Suburban**

Key construction and insulation materials

(see following pages for details)

Construction:	**Brick Veneer** **Concrete, Plasterboard** **Suspended Concrete Slab**
Insulation:	**R2.5 wall insulation** **No ceiling insulation** **R1.0 floor insulation**
Glazing:	**ALM-002-01 A Aluminium B SG Clear**

Ceiling penetrations

(see following pages for details)

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

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

Net floor area (m²)

Conditioned:	**83.0**
Unconditioned:	**0.0**
Garage:	**0.0**
TOTAL:	**83.0**

Annual thermal performance loads (MJ/m²)

Heating:	**24.5**
Cooling:	**19.0**
TOTAL:	**43.5**

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.

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Plan documents

Plan ref/date:	**Warriewood Residential Development**
Prepared by:	**VIA Architects**

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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

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Bedroom Master	ALM-002-01 A	n/a	2800	3000	NE	No Shading
Kitchen/Living	ALM-002-01 A	n/a	2800	4200	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 (m²)	Orientation	Outdoor shade	Indoor shade/diffuser
None Present						

External wall type

ID	Wall type	Insulation	Wall wrap or foil
EW-1	Brick Veneer	Anti-glare foil with bulk no gap R2.5	Yes

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Bedroom Master	EW-1	1400	2800	NW	No	3000
Bedroom Master	EW-1	3600	2800	NE	No	900
Bedroom Master	EW-1	1600	2800	SE	No	10400
Kitchen/Living	EW-1	1795	2800	SW	No	1800
Kitchen/Living	EW-1	6895	2800	NE	No	2500

Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Concrete Panel/Blocks filled, plasterboard	79.0	No Insulation	No
IW-2 - Cavity wall, direct fix plasterboard, single gap	41.0	No insulation	No

Floors

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Ldry	Suspended Concrete Slab 150mm	5.1	Open	Bulk Insulation in Contact with Floor R1	Carpet 10mm

Building features continued

Bath	Suspended Concrete Slab 150mm	9.7	Open	Bulk Insulation in Contact with Floor R1	Carpet 10mm
Bedroom Master	Suspended Concrete Slab 150mm	16.3	Open	Bulk Insulation in Contact with Floor R1	Carpet 10mm
Kitchen/Living	Suspended Concrete Slab 150mm	52.0	Open	Bulk Insulation in Contact with Floor R1	Carpet 10mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Ldry	Concrete, Plasterboard	No insulation	No
Bath	Concrete, Plasterboard	No insulation	No
Bedroom Master	Concrete, Plasterboard	No insulation	No
Kitchen/Living	Concrete, Plasterboard	No insulation	No

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
None Present				

Ceiling fans

Location	Number	Diameter (mm)
None Present		

Roof type

Construction	Added insulation	Roof colour
None Present		

Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0003344504 **Certificate Date:** 13 Nov 2018 ★Star rating: 6.7

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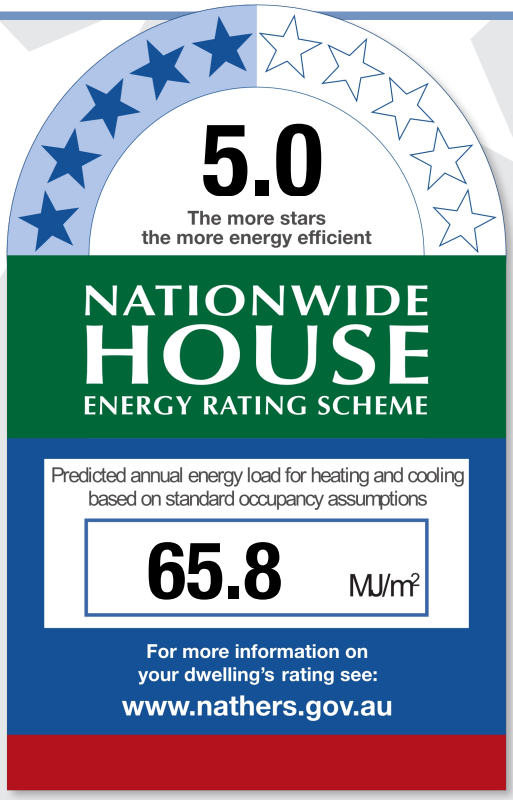
Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0003344538** Certificate Date: **13 Nov 2018** ★Star rating: **5.0**

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:	**20039**
Name:	**David Howard**
Organisation:	**Partners Energy Management**
Email:	**david@partnersenergy.com.au**
Phone:	**0421381005**
Declaration of interest:	**The Assessor has provided design advice to the Applicant**
Software:	**BERS Pro v4.3.0.2c (3.13)**
AAO:	**ABSA**



Overview

Dwelling details

Street:	**Unit G.09, 25-27 Warriewood rd**		
Suburb:	**Warriewood**		
State:	**NSW**	Postcode:	**2102**
Type:	**New Dwelling**	NCC Class:	**1A**
		NatHERS climate zone:	**56**
Lot/DP number:	**5464**	Exposure:	**Suburban**

Key construction and insulation materials

(see following pages for details)

Construction:	**Brick Veneer** **Concrete, Plasterboard** **Suspended Concrete Slab**
Insulation:	**R2.5 wall insulation** **No ceiling insulation** **R1.0 floor insulation**
Glazing:	**ALM-002-01 A Aluminium B SG Clear**

Net floor area (m²)

Conditioned:	**140.0**
Unconditioned:	**0.0**
Garage:	**0.0**
TOTAL:	**140.0**

Annual thermal performance loads (MJ/m²)

Heating:	**45.1**
Cooling:	**20.7**
TOTAL:	**65.8**

Plan documents

Plan ref/date:	**Warriewood Residential Development**
Prepared by:	**VIA Architects**

Ceiling penetrations

(see following pages for details)

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

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

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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

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Bedroom Master	ALM-002-01 A	n/a	2800	900	SE	No Shading
Bedroom Master	ALM-002-01 A	n/a	2800	2100	SW	No Shading
Ens	ALM-002-01 A	n/a	2800	900	SE	No Shading
Kitchen/Living	ALM-002-01 A	n/a	2700	4000	SW	No Shading
Kitchen/Living	ALM-002-01 A	n/a	2800	2000	SE	No Shading
Bath	ALM-002-01 A	n/a	2800	900	NE	No Shading
Ldry	ALM-002-01 A	n/a	2800	900	NE	No Shading
Bedroom 2	ALM-002-01 A	n/a	2800	2000	SE	No Shading
Bedroom 3	ALM-002-01 A	n/a	2800	1000	NE	No Shading
Bedroom 3	ALM-002-01 A	n/a	2800	2000	SE	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 (m²)	Orientation	Outdoor shade	Indoor shade/diffuser
None Present						

External wall type

ID	Wall type	Insulation	Wall wrap or foil
EW-1	Brick Veneer	Anti-glare foil with bulk no gap R2.5	Yes

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Bedroom Master	EW-1	2000	2800	NW	No	6625
Bedroom Master	EW-1	695	2800	SW	No	4400
Bedroom Master	EW-1	3995	2800	SE	No	1400
Bedroom Master	EW-1	3200	2800	SW	No	2400
Ens	EW-1	3490	2800	SE	No	1400
Kitchen/Living	EW-1	5095	2800	SW	No	4400
Kitchen/Living	EW-1	2495	2800	NW	No	2375
Kitchen/Living	EW-1	3890	2800	SE	No	1400
Bath	EW-1	1795	2800	NE	No	1300
Ldry	EW-1	1790	2800	NE	No	1300
Bedroom 2	EW-1	3690	2800	SE	No	1400
Bedroom 3	EW-1	3895	2800	NE	No	1300
Bedroom 3	EW-1	2995	2800	SE	No	1400

Building features continued

Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Cavity wall, direct fix plasterboard, single gap	102.0	No insulation	No
IW-2 - Concrete Panel/Blocks filled, plasterboard	42.0	No Insulation	No

Floors

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Bedroom Master	Suspended Concrete Slab 150mm	20.6	Open	Bulk Insulation in Contact with Floor R1	Carpet 10mm
Ens	Suspended Concrete Slab 150mm	6.3	Open	Bulk Insulation in Contact with Floor R1	Carpet 10mm
Kitchen/Living	Suspended Concrete Slab 150mm	79.7	Open	Bulk Insulation in Contact with Floor R1	Carpet 10mm
Bath	Suspended Concrete Slab 150mm	5.0	Open	Bulk Insulation in Contact with Floor R1	Carpet 10mm
Ldry	Suspended Concrete Slab 150mm	3.0	Open	Bulk Insulation in Contact with Floor R1	Carpet 10mm
Bedroom 2	Suspended Concrete Slab 150mm	13.9	Open	Bulk Insulation in Contact with Floor R1	Carpet 10mm
Bedroom 3	Suspended Concrete Slab 150mm	11.4	Open	Bulk Insulation in Contact with Floor R1	Carpet 10mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Bedroom Master	Concrete, Plasterboard	No insulation	No
Ens	Concrete, Plasterboard	No insulation	No
Kitchen/Living	Concrete, Plasterboard	No insulation	No
Bath	Concrete, Plasterboard	No insulation	No
Ldry	Concrete, Plasterboard	No insulation	No
Bedroom 2	Concrete, Plasterboard	No insulation	No
Bedroom 3	Concrete, Plasterboard	No insulation	No

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
None Present				

Building features continued

Ceiling fans

Location	Number	Diameter (mm)
None Present		

Roof type

Construction	Added insulation	Roof colour
None Present		

Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0003344538 **Certificate Date:** 13 Nov 2018 ★Star rating: 5.0

Additional information

If carpet noted as floor covering it may be replaced with any type.

Due to non current Window Library the glazing descriptiosn may not match actual products. Only the U and SHGC values should be considered NOT the glazing descriptions.

Explanatory notes

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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.

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Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0003344520** Certificate Date: **13 Nov 2018** ★Star rating: **6.3**

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Assessor details

Accreditation number:	**20039**
Name:	**David Howard**
Organisation:	**Partners Energy Management**
Email:	**david@partnersenergy.com.au**
Phone:	**0421381005**
Declaration of interest:	**The Assessor has provided design advice to the Applicant**
Software:	**BERS Pro v4.3.0.2c (3.13)**
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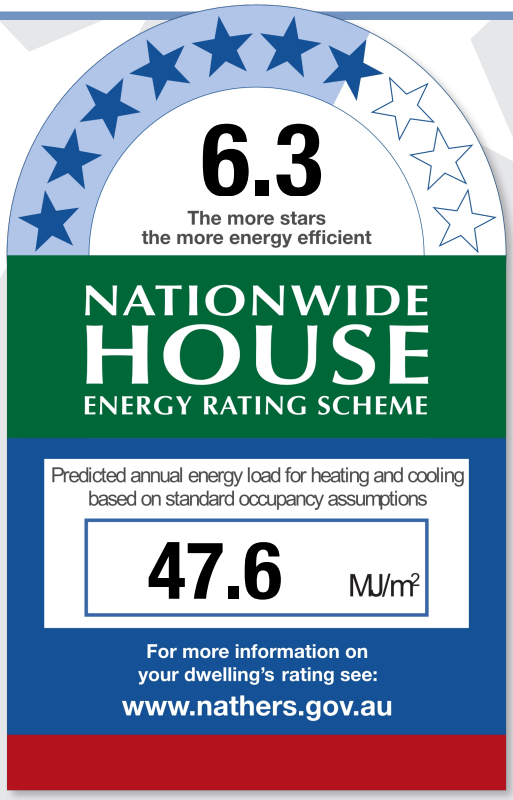

Overview

Dwelling details

Street:	**Unit G.10, 25-27 Warriewood rd**		
Suburb:	**Warriewood**		
State:	**NSW**	Postcode:	**2102**
Type:	**New Dwelling**	NCC Class:	**1A**
		NatHERS climate zone:	**56**
Lot/DP number:	**5464**	Exposure:	**Suburban**

Key construction and insulation materials

(see following pages for details)

Construction:	**Brick Veneer** **Concrete, Plasterboard** **Suspended Concrete Slab**
Insulation:	**R2.5 wall insulation** **No ceiling insulation** **R1.0 floor insulation**
Glazing:	**ALM-002-01 A Aluminium B SG Clear**

Net floor area (m²)

Conditioned:	**136.0**
Unconditioned:	**0.0**
Garage:	**0.0**
TOTAL:	**136.0**

Annual thermal performance loads (MJ/m²)

Heating:	**30.2**
Cooling:	**17.4**
TOTAL:	**47.6**

Plan documents

Plan ref/date:	**Warriewood Residential Development**
Prepared by:	**VIA Architects**

Ceiling penetrations

(see following pages for details)

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

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

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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

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Bedroom Master	ALM-002-01 A	n/a	2800	2100	SW	No Shading
Kitchen/Living	ALM-002-01 A	n/a	2800	3600	SW	No Shading
Bedroom 2	ALM-002-01 A	n/a	2800	1800	SW	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 (m²)	Orientation	Outdoor shade	Indoor shade/diffuser
None Present						

External wall type

ID	Wall type	Insulation	Wall wrap or foil
EW-1	Brick Veneer	Anti-glare foil with bulk no gap R2.5	Yes

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Bedroom Master	EW-1	3795	2800	SW	No	900
Bedroom Master	EW-1	1500	2800	SE	No	2000
Kitchen/Living	EW-1	2590	2800	NE	No	2650
Kitchen/Living	EW-1	5195	2800	SW	No	2400
Bedroom 2	EW-1	3095	2800	SW	No	900
Bedroom 2	EW-1	1500	2800	NW	No	7100

Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Cavity wall, direct fix plasterboard, single gap	119.0	No insulation	No
IW-2 - Concrete Panel/Blocks filled, plasterboard	90.0	No Insulation	No

Floors

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Bedroom Master	Suspended Concrete Slab	31.6	Open	Bulk Insulation	Carpet 10mm

Building features continued

	150mm			in Contact with Floor R1	
Ens	Suspended Concrete Slab 150mm	10.3	Open	Bulk Insulation in Contact with Floor R1	Carpet 10mm
Kitchen/Living	Suspended Concrete Slab 150mm	11.1	Open	Bulk Insulation in Contact with Floor R1	Carpet 10mm
Bath	Suspended Concrete Slab 150mm	10.1	Open	Bulk Insulation in Contact with Floor R1	Carpet 10mm
Kitchen/Living	Suspended Concrete Slab 150mm	44.1	Open	Bulk Insulation in Contact with Floor R1	Carpet 10mm
Ldry	Suspended Concrete Slab 150mm	6.9	Open	Bulk Insulation in Contact with Floor R1	Carpet 10mm
Bedroom 2	Suspended Concrete Slab 150mm	21.9	Open	Bulk Insulation in Contact with Floor R1	Carpet 10mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Bedroom Master	Concrete, Plasterboard	No insulation	No
Ens	Concrete, Plasterboard	No insulation	No
Kitchen/Living	Concrete, Plasterboard	No insulation	No
Bath	Concrete, Plasterboard	No insulation	No
Kitchen/Living	Concrete, Plasterboard	No insulation	No
Ldry	Concrete, Plasterboard	No insulation	No
Bedroom 2	Concrete, Plasterboard	No insulation	No

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
None Present				

Ceiling fans

Location	Number	Diameter (mm)
None Present		

Roof type

Construction	Added insulation	Roof colour
None Present		

Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0003344520 **Certificate Date:** 13 Nov 2018 ★Star rating: 6.3

Additional information

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Explanatory notes

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Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0003344553** Certificate Date: **13 Nov 2018** ★Star rating: **5.9**

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Assessor details

Accreditation number:	**20039**
Name:	**David Howard**
Organisation:	**Partners Energy Management**
Email:	**david@partnersenergy.com.au**
Phone:	**0421381005**
Declaration of interest:	**The Assessor has provided design advice to the Applicant**
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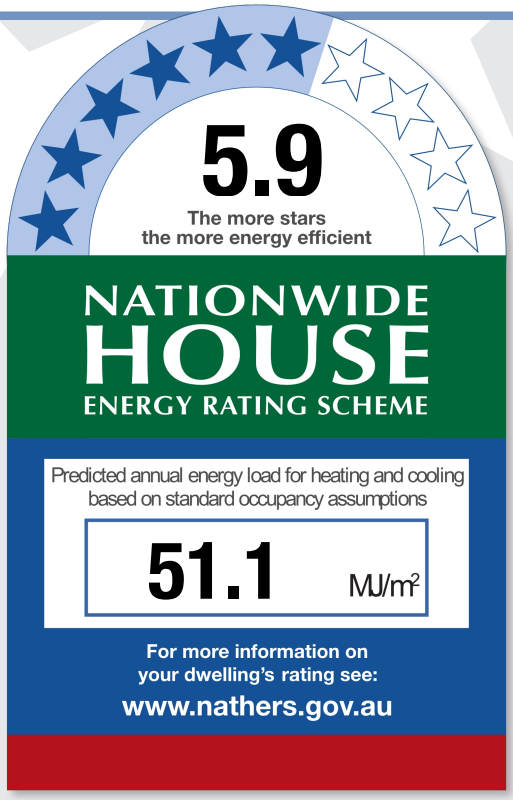

Overview

Dwelling details

Street:	**Unit G.11, 25-27 Warriewood rd**		
Suburb:	**Warriewood**		
State:	**NSW**	Postcode:	**2102**
Type:	**New Dwelling**	NCC Class:	**1A**
		NatHERS climate zone:	**56**
Lot/DP number:	**5464**	Exposure:	**Suburban**

Key construction and insulation materials

(see following pages for details)

Construction:	**Brick Veneer** **Concrete, Plasterboard** **Suspended Concrete Slab**
Insulation:	**R2.5 wall insulation** **No ceiling insulation** **R1.0 floor insulation**
Glazing:	**ALM-002-01 A Aluminium B SG Clear**

Net floor area (m²)

Conditioned:	**110.0**
Unconditioned:	**0.0**
Garage:	**0.0**
TOTAL:	**110.0**

Annual thermal performance loads (MJ/m²)

Heating:	**21.8**
Cooling:	**29.4**
TOTAL:	**51.1**

Plan documents

Plan ref/date:	**Warriewood Residential Development**
Prepared by:	**VIA Architects**

Ceiling penetrations

(see following pages for details)

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

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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.

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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

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Bedroom Master	ALM-002-01 A	n/a	2800	2400	SW	No Shading
Bedroom Master	ALM-002-01 A	n/a	2800	1200	NW	No Shading
Bedroom Master	ALM-002-01 A	n/a	2800	1000	NW	No Shading
Ens	ALM-002-01 A	n/a	2800	900	NW	No Shading
Bedroom 2	ALM-002-01 A	n/a	2800	2000	NW	No Shading
Kitchen/Living	ALM-002-01 A	n/a	2800	4000	SW	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 (m²)	Orientation	Outdoor shade	Indoor shade/diffuser
None Present						

External wall type

ID	Wall type	Insulation	Wall wrap or foil
EW-1	Brick Veneer	Anti-glare foil with bulk no gap R2.5	Yes

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Bedroom Master	EW-1	3400	2800	SW	No	0
Bedroom Master	EW-1	6595	2800	NW	No	0
Bedroom Master	EW-1	2000	2800	SE	No	8600
Ens	EW-1	2030	2800	NW	No	0
Bedroom 2	EW-1	4271	2800	NW	No	0
Kitchen/Living	EW-1	6095	2800	SW	No	2000
Kitchen/Living	EW-1	1590	2800	NE	No	3300

Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Cavity wall, direct fix plasterboard, single gap	81.0	No insulation	No
IW-2 - Concrete Panel/Blocks filled, plasterboard	59.0	No Insulation	No

Building features continued

Floors

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Bedroom Master	Suspended Concrete Slab 150mm	20.3	Open	Bulk Insulation in Contact with Floor R1	Carpet 10mm
Ens	Suspended Concrete Slab 150mm	6.6	Open	Bulk Insulation in Contact with Floor R1	Ceramic Tiles 8mm
Bedroom 2	Suspended Concrete Slab 150mm	16.9	Open	Bulk Insulation in Contact with Floor R1	Carpet 10mm
Kitchen/Living	Suspended Concrete Slab 150mm	51.7	Open	Bulk Insulation in Contact with Floor R1	Carpet 10mm
Ldry	Suspended Concrete Slab 150mm	8.6	Open	Bulk Insulation in Contact with Floor R1	Ceramic Tiles 8mm
Bath	Suspended Concrete Slab 150mm	5.6	Open	Bulk Insulation in Contact with Floor R1	Ceramic Tiles 8mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Bedroom Master	Concrete, Plasterboard	No insulation	No
Ens	Concrete, Plasterboard	No insulation	No
Bedroom 2	Concrete, Plasterboard	No insulation	No
Kitchen/Living	Concrete, Plasterboard	No insulation	No
Ldry	Concrete, Plasterboard	No insulation	No
Bath	Concrete, Plasterboard	No insulation	No

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
None Present				

Ceiling fans

Location	Number	Diameter (mm)
None Present		

Roof type

Construction	Added insulation	Roof colour
None Present		

Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0003344553 **Certificate Date:** 13 Nov 2018 ★Star rating: 5.9

Additional information

If carpet noted as floor covering it may be replaced with any type.

Due to non current Window Library the glazing descriptiosn may not match actual products. Only the U and SHGC values should be considered NOT the glazing descriptions.

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

* Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au