Nationwide House Energy Rating Scheme* — Class 2 summary

Certificate number: **0004412590** Certificate Date: **03 Dec 2019** ★Average Star rating: **6.4**

Assessor details

Accreditation number:	**20884**
Name:	**Zoltan Lipovski**
Organisation:	**EcoMode Design**
Email:	**zoltan@ecomode.com.au**
Phone:	**0410605614**
Declaration of interest:	**None**
Software:	**BERS Pro v4.3.0.2f (3.13)**
AAO:	**ABSA**

Dwelling details

Street:	**28 Lockwood Avenue**
Suburb:	**Belrose**
State:	**NSW**
Postcode:	**2085**

Scan to access this certificate online and confirm this is valid.

Summary of all dwellings

Certificate Details

Certificate number	Unit number	Heating load	Cooling load	Total load	Star Rating
0004411500	G.01	18.9	15.6	34.5	7.4
0004411708	LG.01	17.8	16.3	34.1	7.4
0004411518	G.02	12.0	20.9	32.9	7.4
0004411732	LG.02	11.1	21.0	32.1	7.4
0004411534	G.03	19.2	12.0	31.2	7.6
0004411773	LG.03	18.1	13.1	31.2	7.6
0004411575	G.04	20.5	10.9	31.3	7.6
0004411716	LG.04	31.8	12.1	43.9	6.6
0004411609	G.05	39.8	19.9	59.7	5.4
0004411740	LG.05	39.3	21.1	60.4	5.4
0004411583	G.06	39.8	23.3	63.1	5.2
0004411781	LG.06	39.3	23.9	63.2	5.2
0004411617	G.07	17.4	18.8	36.2	7.2
0004411765	LG.07	19.4	25.7	45.2	6.4
0004411567	G.08	27.7	21.5	49.2	6.2

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

Summary of all dwellings continued

Certificate Details

Certificate number	Unit number	Heating load	Cooling load	Total load	Star Rating
0004411799	LG.08	21.7	24.5	46.2	6.4
0004411591	G.09	27.6	23.4	51.0	6
0004411823	LG.09	21.7	24.5	46.2	6.4
0004411633	G.10	15.3	17.2	32.5	7.4
0004411864	LG.10	25.1	20.3	45.5	6.4
0004411682	G.11	10.2	19.5	29.6	7.7
0004411906	LG.11	26.6	21.4	48.0	6.3
0004411641	G.12	13.6	11.4	25.0	8.1
0004411922	LG.12	27.3	22.6	49.9	6.1
0004411674	G.13	17.8	19.2	37.0	7.2
0004411849	LG.13	23.7	21.2	44.9	6.5
0004411690	G.14	43.9	27.0	71.0	4.8
0004411856	LG.14	16.9	13.8	30.7	7.7
0004411625	G.15	39.6	28.0	67.6	4.9
0004411880	LG.15	14.1	12.0	26.1	7.9
0004411658	G.16	42.6	25.7	68.3	4.9
0004411831	LG.16	22.1	21.0	43.0	6.7
0004411872	LG.17	42.6	26.4	69.0	4.9
0004411898	LG.18	45.1	29.5	74.6	4.5
0004411930	LG.19	37.8	24.2	62.0	5.3
0004411369	1.01	24.3	23.8	48.0	6.3
0004411377	1.02	18.4	18.8	37.2	7.2
0004411385	1.03	28.0	11.6	39.6	6.9
0004411393	1.04	30.7	10.1	40.9	6.9
0004411435	1.05	39.1	22.7	61.8	5.3
0004411419	1.06	25.9	17.8	43.7	6.7
0004411427	1.07	17.0	25.9	42.9	6.7
0004411401	1.08	26.4	25.7	52.1	5.9
0004411443	1.09	21.5	25.9	47.3	6.4
0004411476	1.10	25.8	29.0	54.8	5.8
0004411492	1.11	22.1	25.2	47.3	6.4
0004411468	2.01	35.1	22.1	57.2	5.6
0004411484	2.02	37.4	16.0	53.4	5.9
0004411450	2.03	30.9	25.8	56.7	5.6
0004411526	2.04	39.2	12.6	51.8	5.9
0004411542	2.05	27.9	17.3	45.2	6.4

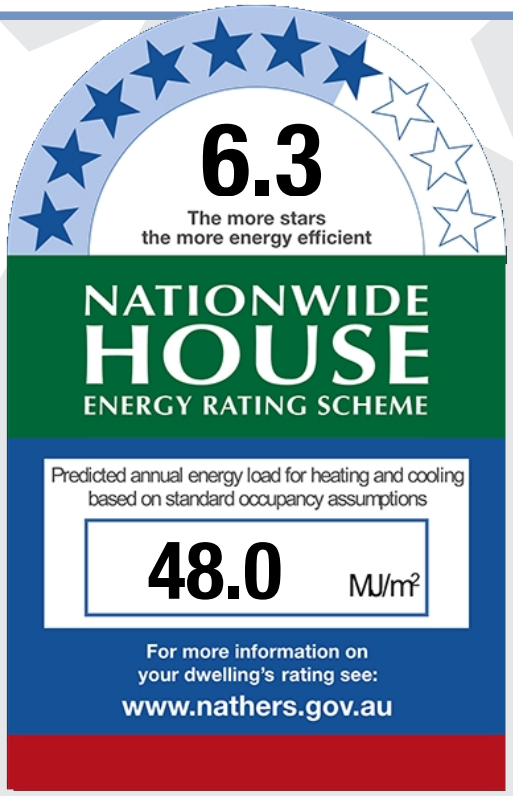
Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004411369** Certificate Date: **03 Dec 2019** ★Star rating: **6.3**

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:	**20884**
Name:	**Zoltan Lipovski**
Organisation:	**EcoMode Design**
Email:	**zoltan@ecomode.com.au**
Phone:	**0410605614**
Declaration of interest:	**None**
Software:	**BERS Pro v4.3.0.2f (3.13)**
AAO:	**ABSA**



Overview

Dwelling details

Street:	**Unit 1.01, 28 Lockwood Avenue**		
Suburb:	**Belrose**		
State:	**NSW**	Postcode:	**2085**
Type:	**New Dwelling**	NCC Class:	**2**
		NatHERS climate zone:	**56**
Lot/DP number:	**1/1199795**	Exposure:	**Suburban**

Key construction and insulation materials

(see following pages for details)

Construction:	**Brick Veneer** **Waterproofing Membrane** **Concrete Slab, Unit Below**
Insulation:	**R2.0 wall insulation** **R2.0 ceiling insulation** **No floor insulation**
Glazing:	**ALM-002-01 A Aluminium B SG Clear**

Ceiling penetrations

(see following pages for details)

Sealed:	**36**
Unsealed:	**1**
TOTAL:**	**37**

NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. **If this number is exceeded in construction then this certificate IS NOT VALID and a new certificate is required. Loss of ceiling insulation for the penetrations listed has been taken into account with the rating.

Principle downlight type: **LED**

Net floor area (m²)

Conditioned:	**104.0**
Unconditioned:	**6.0**
Garage:	**0.0**
TOTAL:	**110.0**

Annual thermal performance loads (MJ/m²)

Heating:	**24.3**
Cooling:	**23.8**
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.

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:	**Plans, Elevations Section**
Prepared by:	**DKO Architecture**

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Building features

Window type and performance value

Window ID	Window type	U-value	SHGC
ALM-002-01 A	ALM-002-01 A Aluminium B SG Clear	6.7	0.70
ALM-001-01 A	ALM-001-01 A Aluminium A SG Clear	6.7	0.57

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Kitchen/Living	ALM-002-01 A	n/a	2700	3600	NE	No Shading
Bedroom 1	ALM-002-01 A	n/a	2700	3800	SE	No Shading
Bedroom 1	ALM-002-01 A	n/a	2700	1800	NE	No Shading
Bedroom 3	ALM-002-01 A	n/a	2700	1800	NE	No Shading
Study	ALM-001-01 A	n/a	2700	1500	NE	No Shading
Bedroom 3	ALM-001-01 A	n/a	2700	1500	NE	No Shading
Bedroom 3	ALM-002-01 A	n/a	2700	2100	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	Bulk Insulation R2	No

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Kitchen/Living	EW-1	5095	2900	NE	No	2700
Bedroom 1	EW-1	4575	2900	SE	No	0
Bedroom 1	EW-1	2995	2900	NE	No	0
Bedroom 3	EW-1	3071	2900	NE	No	0
Ensuite	EW-1	1855	2900	SE	No	0
Study	EW-1	1437	2900	NW	No	3786
Study	EW-1	2076	2900	NE	No	520
Bedroom 3	EW-1	3076	2900	NE	No	500
Bedroom 3	EW-1	2576	2900	SE	No	0

Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Stud, multi plaster layers	59.0	Bulk Insulation in the centre R2	No
	110.0	No insulation	No

Building features continued

IW-2 - Cavity wall, direct fix plasterboard, single gap

Floors

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living	Concrete Slab, Unit Below 150mm	48.5	None	No Insulation	Cork Tiles or Parquetry 8mm
Bedroom 1	Concrete Slab, Unit Below 150mm	13.3	None	No Insulation	Carpet 10mm
Bedroom 3	Concrete Slab, Unit Below 150mm	10.9	None	No Insulation	Carpet 10mm
Corridor	Concrete Slab, Unit Below 150mm	6.2	None	No Insulation	Cork Tiles or Parquetry 8mm
Laundry	Concrete Slab, Unit Below 150mm	1.6	None	No Insulation	Ceramic Tiles 8mm
Ensuite	Concrete Slab, Unit Below 150mm	4.6	None	No Insulation	Ceramic Tiles 8mm
Bathroom	Concrete Slab, Unit Below 150mm	4.5	None	No Insulation	Ceramic Tiles 8mm
Study	Concrete Slab, Unit Below 150mm	5.4	None	No Insulation	Carpet 10mm
Bedroom 3	Concrete Slab, Unit Below 150mm	15.4	None	No Insulation	Carpet 10mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Kitchen/Living	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Bedroom 1	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Bedroom 3	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Corridor	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Laundry	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Ensuite	Concrete, Plasterboard	Foil Anti-glare	Yes

Building features continued

		one side and Reflective other of the Bulk Insulation R2	
Bathroom	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Study	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Bedroom 3	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
Kitchen/Living	10	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
Bedroom 1	4	Downlights - LED	150	Sealed
Bedroom 3	4	Downlights - LED	150	Sealed
Corridor	3	Downlights - LED	150	Sealed
Laundry	1	Downlights - LED	150	Sealed
Laundry	1	Exhaust Fans	300	Sealed
Ensuite	2	Downlights - LED	150	Sealed
Ensuite	1	Exhaust Fans	300	Sealed
Bathroom	2	Downlights - LED	150	Sealed
Bathroom	1	Exhaust Fans	300	Sealed
Study	1	Downlights - Halogen	450	Unsealed
Bedroom 3	6	Downlights - LED	150	Sealed

Ceiling fans

Location	Number	Diameter (mm)
None Present		

Roof type

Construction	Added insulation	Roof colour
Waterproofing Membrane	No Insulation, Only an Air Gap	Light

Nationwide House Energy Rating Scheme* Certificate

Certificate number: **Certificate Date:** ★ Star rating:

Additional information

Explanatory notes

About this report

Residential energy ratings address the quality of the building fabric i.e. walls, windows, floors and roof/ceilings. Ratings do not cover the energy or water efficiency of appliances including heating and cooling, hot water, dishwashers, ovens, fridges, TVs etc. or solar panel or water tank requirements. The efficiency or specification of these items is generally covered by other regulations, standards or guidelines.

General Information

A NatHERS House Energy Rating is a comprehensive, dynamic computer modelling evaluation of the floorplans, elevations and specifications to predict an energy load of a home. Not all of us use our homes in the same way, so ratings are generated using standard assumptions. This means homes can be compared across the country.

The actual energy consumption of your home may vary significantly from the predicted energy load figures in the report depending on issues such as the size of your household and your personal preferences, e.g. in terms of heating or cooling.

While the figures are an indicative guide to energy use, they can be used as a reliable guide for comparative purposes between different house designs and for demonstrating that the design meets the required regulatory compliance.

Homes that are energy efficient use less energy, are warmer in winter, cooler in summer and cost less to run. The higher the star rating the more energy efficient.

This NatHERS House Energy Rating report was carefully prepared by your assessor on the basis of comprehensive modelling using standard procedures to rate your home using the underlying engine developed by the Australian Commonwealth Scientific and Industrial Research Organisation (CSIRO).

All information relating to energy loads presented in this report is based on a range of standard assumptions in order to allow for comparisons with reports prepared for other homes and to demonstrate minimum regulatory compliance.

The standard assumptions include figures for occupancy, indoor air temperature and are based on a unique climate file for your region.

Accredited Assessors

To ensure you get a high-quality, professional NatHERS House Energy Rating report, you should always use an accredited assessor, accredited assessors are members of a professional body called an Assessor Accrediting Organisation (AAO).

AAOs have specific quality assurance processes in place and continuing professional development requirements to maintain a high and consistent standard of assessments across the country. Non-accredited assessors do not have this level of quality assurance or any on-going training requirements.

If you have any questions or concerns about this report, please direct them to your assessor in the first instance.

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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

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Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004411377** Certificate Date: **03 Dec 2019** ★Star rating: **7.2**

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:	**20884**
Name:	**Zoltan Lipovski**
Organisation:	**EcoMode Design**
Email:	**zoltan@ecomode.com.au**
Phone:	**0410605614**
Declaration of interest:	**None**
Software:	**BERS Pro v4.3.0.2f (3.13)**
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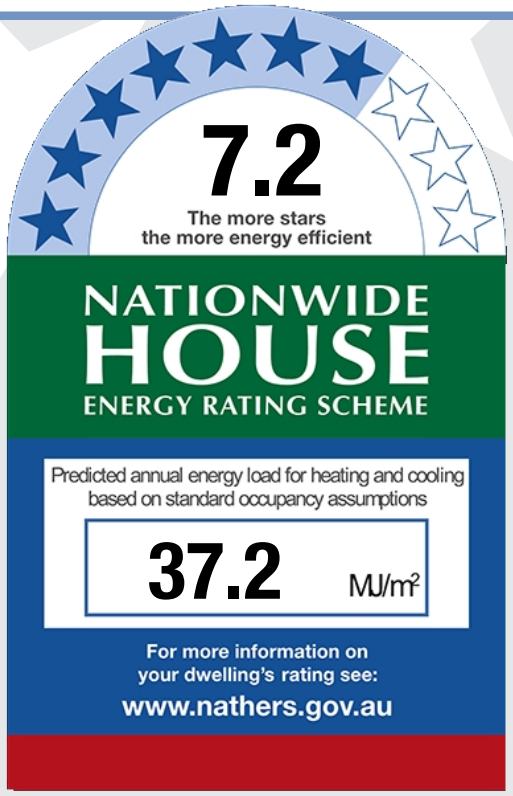

Overview

Dwelling details

Street:	**Unit 1.02, 28 Lockwood Avenue**		
Suburb:	**Belrose**		
State:	**NSW**	Postcode:	**2085**
Type:	**New Dwelling**	NCC Class:	**2**
		NatHERS climate zone:	**56**
Lot/DP number:	**1/1199795**	Exposure:	**Suburban**

Key construction and insulation materials

(see following pages for details)

Construction:	**Brick Veneer** **Waterproofing Membrane** **Concrete Slab, Unit Below**
Insulation:	**R2.0 wall insulation** **R2.0 ceiling insulation** **No floor insulation**
Glazing:	**ALM-001-01 A Aluminium A SG Clear**

Net floor area (m²)

Conditioned:	**64.0**
Unconditioned:	**6.0**
Garage:	**0.0**
TOTAL:	**70.0**

Annual thermal performance loads (MJ/m²)

Heating:	**18.4**
Cooling:	**18.8**
TOTAL:	**37.2**

Plan documents

Plan ref/date:	**Plans, Elevations Section**
Prepared by:	**DKO Architecture**

Ceiling penetrations

(see following pages for details)

Sealed:	**27**
Unsealed:	**0**
TOTAL:**	**27**

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: **LED**

Window selection - default windows only

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

Note: Only a +/- 5% SHGC tolerance is allowed with this rating.

NB: This tolerance ONLY applies to SHGC, the U-value can always be lower but not higher than the values stated on page 2.

If any of windows selected are outside the 5% tolerance then this certificate is no longer valid and the dwelling will need to be rerated to confirm compliance.

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Building features

Window type and performance value

Window ID	Window type	U-value	SHGC
ALM-001-01 A	ALM-001-01 A Aluminium A SG Clear	6.7	0.57

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Kitchen/Living	ALM-001-01 A	n/a	2700	4000	NE	No Shading
Bedroom 1	ALM-001-01 A	n/a	2700	1500	NE	No Shading
Bedroom 2	ALM-001-01 A	n/a	2700	1500	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	Bulk Insulation R2	No

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Kitchen/Living	EW-1	4295	2900	NE	No	2700
Bedroom 1	EW-1	2995	2900	NE	No	1500
Bedroom 1	EW-1	2100	2900	SE	No	0
Bedroom 2	EW-1	1200	2900	NW	No	4300
Bedroom 2	EW-1	3095	2900	NE	No	1500

Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Stud, multi plaster layers	45.0	Bulk Insulation in the centre R2	No
IW-2 - Cavity wall, direct fix plasterboard, single gap	65.0	No insulation	No
IW-3 - Concrete Panel/Blocks filled, multi plaster layers	30.0	No Insulation	No

Floors

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living	Concrete Slab, Unit Below	35.5	None	No Insulation	Cork Tiles or

Building features continued

	150mm				Parquetry 8mm
Bathroom	Concrete Slab, Unit Below 150mm	4.4	None	No Insulation	Ceramic Tiles 8mm
Ensuite	Concrete Slab, Unit Below 150mm	5.0	None	No Insulation	Ceramic Tiles 8mm
Bedroom 1	Concrete Slab, Unit Below 150mm	12.6	None	No Insulation	Carpet 10mm
Bedroom 2	Concrete Slab, Unit Below 150mm	11.4	None	No Insulation	Carpet 10mm
Laundry	Concrete Slab, Unit Below 150mm	1.4	None	No Insulation	Ceramic Tiles 8mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Kitchen/Living	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Bathroom	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Ensuite	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Bedroom 1	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Bedroom 2	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Laundry	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
Kitchen/Living	10	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
Bathroom	2	Downlights - LED	150	Sealed
Bathroom	1	Exhaust Fans	300	Sealed
Ensuite	2	Downlights - LED	150	Sealed

Building features continued

Ensuite	1	Exhaust Fans	300	Sealed
Bedroom 1	4	Downlights - LED	150	Sealed
Bedroom 2	4	Downlights - LED	150	Sealed
Laundry	1	Downlights - LED	150	Sealed
Laundry	1	Exhaust Fans	300	Sealed

Ceiling fans

Location	Number	Diameter (mm)
None Present		

Roof type

Construction	Added insulation	Roof colour
Waterproofing Membrane	No Insulation, Only an Air Gap	Light

Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0004411377 **Certificate Date:** 03 Dec 2019 ★Star rating: 7.2

Additional information

Explanatory notes

About this report

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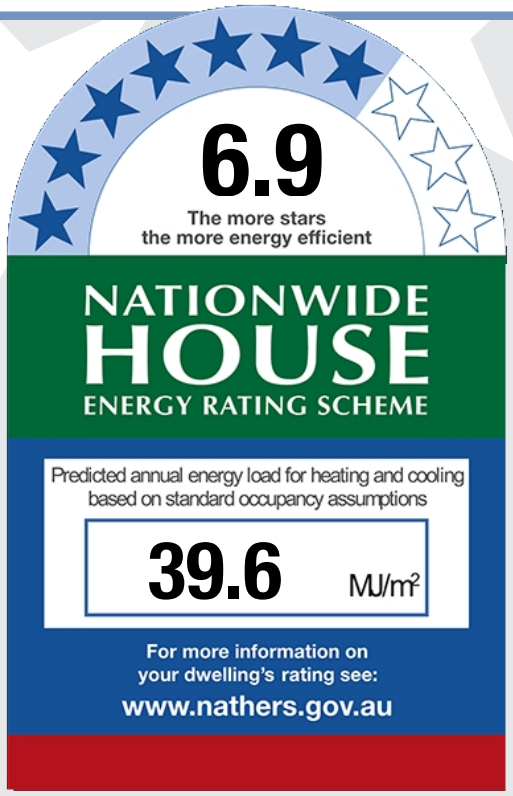
Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004411385** Certificate Date: **03 Dec 2019** ★Star rating: **6.9**

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:	**20884**
Name:	**Zoltan Lipovski**
Organisation:	**EcoMode Design**
Email:	**zoltan@ecomode.com.au**
Phone:	**0410605614**
Declaration of interest:	**None**
Software:	**BERS Pro v4.3.0.2f (3.13)**
AAO:	**ABSA**



Overview

Dwelling details

Street:	**Unit 1.03, 28 Lockwood Avenue**		
Suburb:	**Belrose**		
State:	**NSW**	Postcode:	**2085**
Type:	**New Dwelling**	NCC Class:	**2**
		NatHERS climate zone:	**56**
Lot/DP number:	**1/1199795**	Exposure:	**Suburban**

Key construction and insulation materials

(see following pages for details)

Construction:	**Brick Veneer** **Waterproofing Membrane** **Concrete Slab, Unit Below**
Insulation:	**R2.0 wall insulation** **R2.0 ceiling insulation** **No floor insulation**
Glazing:	**ALM-001-01 A Aluminium A SG Clear**

Net floor area (m²)

Conditioned:	**75.0**
Unconditioned:	**7.0**
Garage:	**0.0**
TOTAL:	**82.0**

Annual thermal performance loads (MJ/m²)

Heating:	**28.0**
Cooling:	**11.6**
TOTAL:	**39.6**

Plan documents

Plan ref/date:	**Plans, Elevations Section**
Prepared by:	**DKO Architecture**

Ceiling penetrations

(see following pages for details)

Sealed:	**29**
Unsealed:	**0**
TOTAL:**	**29**

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: **LED**

Window selection - default windows only

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

Note: Only a +/- 5% SHGC tolerance is allowed with this rating.

NB: This tolerance ONLY applies to SHGC, the U-value can always be lower but not higher than the values stated on page 2.

If any of windows selected are outside the 5% tolerance then this certificate is no longer valid and the dwelling will need to be rerated to confirm compliance.

Scan to access this certificate online and confirm this is valid.

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Building features

Window type and performance value

Window ID	Window type	U-value	SHGC
ALM-001-01 A	ALM-001-01 A Aluminium A SG Clear	6.7	0.57

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Bedroom 2	ALM-001-01 A	n/a	2700	1500	NE	No Shading
Kitchen/Living	ALM-001-01 A	n/a	2700	3000	NW	No Shading
Kitchen/Living	ALM-001-01 A	n/a	2700	1500	NE	No Shading
Bedroom 1	ALM-001-01 A	n/a	2700	3000	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	Bulk Insulation R2	No

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Bedroom 2	EW-1	2995	2900	NE	No	1500
Bedroom 2	EW-1	1300	2900	SE	No	0
Kitchen/Living	EW-1	3500	2900	NW	No	3000
Kitchen/Living	EW-1	4095	2900	NE	No	1500
Bedroom 1	EW-1	2995	2900	NE	No	5000

Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Stud, multi plaster layers	54.0	Bulk Insulation in the centre R2	No
IW-2 - Cavity wall, direct fix plasterboard, single gap	73.0	No insulation	No
IW-3 - Concrete Panel/Blocks filled, multi plaster layers	16.0	No Insulation	No

Floors

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering

Building features continued

Bathroom	Concrete Slab, Unit Below 150mm	4.7	None	No Insulation	Ceramic Tiles 8mm
Laundry	Concrete Slab, Unit Below 150mm	2.3	None	No Insulation	Ceramic Tiles 8mm
Bedroom 2	Concrete Slab, Unit Below 150mm	13.9	None	No Insulation	Carpet 10mm
Kitchen/Living	Concrete Slab, Unit Below 150mm	44.1	None	No Insulation	Cork Tiles or Parquetry 8mm
Ensuite	Concrete Slab, Unit Below 150mm	5.5	None	No Insulation	Ceramic Tiles 8mm
Bedroom 1	Concrete Slab, Unit Below 150mm	11.7	None	No Insulation	Carpet 10mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Bathroom	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Laundry	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Bedroom 2	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Kitchen/Living	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Ensuite	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Bedroom 1	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
Bathroom	2	Downlights - LED	150	Sealed
Bathroom	1	Exhaust Fans	300	Sealed
Laundry	2	Downlights - LED	150	Sealed
Laundry	1	Exhaust Fans	300	Sealed

Building features continued

Bedroom 2	5	Downlights - LED	150	Sealed
Kitchen/Living	10	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
Ensuite	2	Downlights - LED	150	Sealed
Ensuite	1	Exhaust Fans	300	Sealed
Bedroom 1	4	Downlights - LED	150	Sealed

Ceiling fans

Location	Number	Diameter (mm)
None Present		

Roof type

Construction	Added insulation	Roof colour
Waterproofing Membrane	No Insulation, Only an Air Gap	Light

Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0004411385 **Certificate Date:** 03 Dec 2019 ★Star rating: 6.9

Additional information

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.

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: **0004411393** Certificate Date: **03 Dec 2019** ★Star rating: **6.9**

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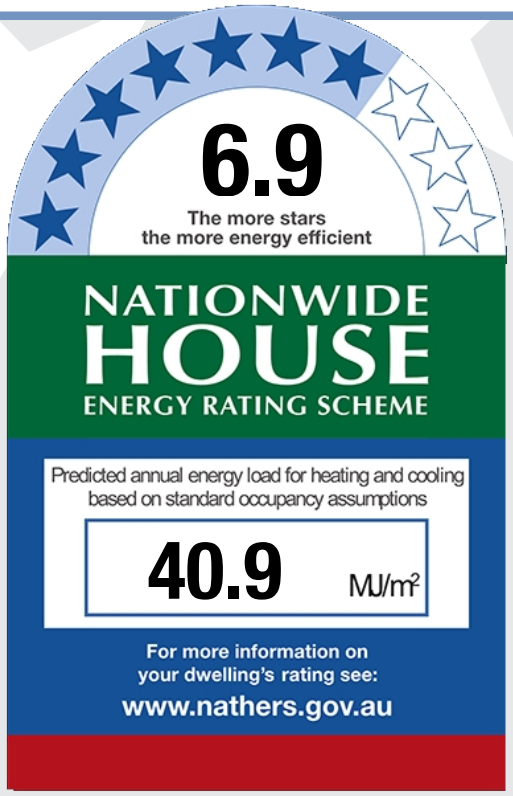
Assessor details

Accreditation number:	**20884**
Name:	**Zoltan Lipovski**
Organisation:	**EcoMode Design**
Email:	**zoltan@ecomode.com.au**
Phone:	**0410605614**
Declaration of interest:	**None**
Software:	**BERS Pro v4.3.0.2f (3.13)**
AAO:	**ABSA**



Overview

Dwelling details

Street:	**Unit 1.04, 28 Lockwood Avenue**		
Suburb:	**Belrose**		
State:	**NSW**	Postcode:	**2085**
Type:	**New Dwelling**	NCC Class:	**2**
		NatHERS climate zone:	**56**
Lot/DP number:	**1/1199795**	Exposure:	**Suburban**

Key construction and insulation materials

(see following pages for details)

Construction:	**Brick Veneer** **Waterproofing Membrane** **Concrete Slab, Unit Below**
Insulation:	**R2.0 wall insulation** **R2.0 ceiling insulation** **No floor insulation**
Glazing:	**ALM-001-01 A Aluminium A SG Clear**

Ceiling penetrations

(see following pages for details)

Sealed:	**29**
Unsealed:	**0**
TOTAL:**	**29**

NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. **If this number is exceeded in construction then this certificate IS NOT VALID and a new certificate is required. Loss of ceiling insulation for the penetrations listed has been taken into account with the rating.

Principle downlight type: **LED**

Net floor area (m²)

Conditioned:	**75.0**
Unconditioned:	**7.0**
Garage:	**0.0**
TOTAL:	**82.0**

Annual thermal performance loads (MJ/m²)

Heating:	**30.7**
Cooling:	**10.1**
TOTAL:	**40.9**

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:	**Plans, Elevations Section**
Prepared by:	**DKO Architecture**

* 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-001-01 A	ALM-001-01 A Aluminium A SG Clear	6.7	0.57

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Bedroom 2	ALM-001-01 A	n/a	2700	1500	NE	No Shading
Kitchen/Living	ALM-001-01 A	n/a	2700	1500	NE	No Shading
Kitchen/Living	ALM-001-01 A	n/a	2700	3000	SE	No Shading
Bedroom 1	ALM-001-01 A	n/a	2700	3000	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	Bulk Insulation R2	No

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Bedroom 2	EW-1	2995	2900	NE	No	1600
Kitchen/Living	EW-1	4095	2900	NE	No	1600
Kitchen/Living	EW-1	3500	2900	SE	No	3000
Bedroom 1	EW-1	2995	2900	NE	No	5100

Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Concrete Panel/Blocks filled, multi plaster layers	57.0	No Insulation	No
IW-2 - Cavity wall, direct fix plasterboard, single gap	73.0	No insulation	No
IW-3 - Stud, multi plaster layers	17.0	Bulk Insulation in the centre R2	No

Floors

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Bathroom	Concrete Slab, Unit Below	4.7	None	No Insulation	Ceramic Tiles

Building features continued

	150mm				8mm
Laundry	Concrete Slab, Unit Below 150mm	2.3	None	No Insulation	Ceramic Tiles 8mm
Bedroom 2	Concrete Slab, Unit Below 150mm	13.9	None	No Insulation	Carpet 10mm
Kitchen/Living	Concrete Slab, Unit Below 150mm	44.1	None	No Insulation	Cork Tiles or Parquetry 8mm
Ensuite	Concrete Slab, Unit Below 150mm	5.5	None	No Insulation	Ceramic Tiles 8mm
Bedroom 1	Concrete Slab, Unit Below 150mm	11.7	None	No Insulation	Carpet 10mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Bathroom	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Laundry	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Bedroom 2	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Kitchen/Living	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Ensuite	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Bedroom 1	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
Bathroom	2	Downlights - LED	150	Sealed
Bathroom	1	Exhaust Fans	300	Sealed
Laundry	2	Downlights - LED	150	Sealed
Laundry	1	Exhaust Fans	300	Sealed
Bedroom 2	5	Downlights - LED	150	Sealed

Building features continued

Kitchen/Living	10	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
Ensuite	2	Downlights - LED	150	Sealed
Ensuite	1	Exhaust Fans	300	Sealed
Bedroom 1	4	Downlights - LED	150	Sealed

Ceiling fans

Location	Number	Diameter (mm)
None Present		

Roof type

Construction	Added insulation	Roof colour
Waterproofing Membrane	No Insulation, Only an Air Gap	Light

Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0004411393 **Certificate Date:** 03 Dec 2019 ★Star rating: 6.9

Additional information

Explanatory notes

About this report

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Contact

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Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004411435** Certificate Date: **03 Dec 2019** ★Star rating: **5.3**

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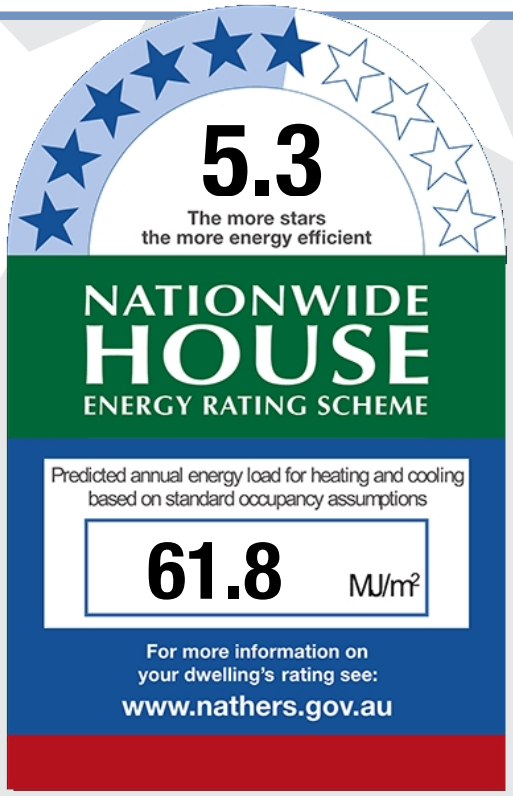
Assessor details

Accreditation number:	**20884**
Name:	**Zoltan Lipovski**
Organisation:	**EcoMode Design**
Email:	**zoltan@ecomode.com.au**
Phone:	**0410605614**
Declaration of interest:	**None**
Software:	**BERS Pro v4.3.0.2f (3.13)**
AAO:	**ABSA**



Overview

Dwelling details

Street:	**Unit 1.05, 28 Lockwood Avenue**		
Suburb:	**Belrose**		
State:	**NSW**	Postcode:	**2085**
Type:	**New Dwelling**	NCC Class:	**2**
		NatHERS climate zone:	**56**
Lot/DP number:	**1/1199795**	Exposure:	**Suburban**

Key construction and insulation materials

(see following pages for details)

Construction:	**Brick Veneer** **Waterproofing Membrane** **Concrete Slab, Unit Below**
Insulation:	**R2.0 wall insulation** **R2.0 ceiling insulation** **No floor insulation**
Glazing:	**ALM-001-01 A Aluminium A SG Clear**

Ceiling penetrations

(see following pages for details)

Sealed:	**30**
Unsealed:	**0**
TOTAL:**	**30**

NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. **If this number is exceeded in construction then this certificate IS NOT VALID and a new certificate is required. Loss of ceiling insulation for the penetrations listed has been taken into account with the rating.

Principle downlight type: **LED**

Net floor area (m²)

Conditioned:	**75.0**
Unconditioned:	**7.0**
Garage:	**0.0**
TOTAL:	**83.0**

Annual thermal performance loads (MJ/m²)

Heating:	**39.1**
Cooling:	**22.7**
TOTAL:	**61.8**

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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Plan documents

Plan ref/date:	**Plans, Elevations Section**
Prepared by:	**DKO Architecture**

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Building features

Window type and performance value

Window ID	Window type	U-value	SHGC
ALM-002-01 A	ALM-002-01 A Aluminium B SG Clear	6.7	0.70
ALM-001-01 A	ALM-001-01 A Aluminium A SG Clear	6.7	0.57

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Kitchen/Living	ALM-002-01 A	n/a	2700	3000	NE	No Shading
Kitchen/Living	ALM-001-01 A	n/a	2700	2400	SE	No Shading
Bedroom 1	ALM-001-01 A	n/a	2700	2100	NE	No Shading
Bedroom 1	ALM-002-01 A	n/a	2700	3000	SE	No Shading
Bedroom 2	ALM-001-01 A	n/a	2700	1500	SE	No Shading
Study	ALM-001-01 A	n/a	1800	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	Brick Veneer	Bulk Insulation R2	No
EW-2	Tilt up concrete, lined	Bulk Insulation R2	No

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Kitchen/Living	EW-1	3400	2900	NE	No	3100
Kitchen/Living	EW-1	3995	2900	SE	No	0
Laundry	EW-1	1295	2900	SW	No	0
Bathroom	EW-1	1790	2900	SW	No	0
Bedroom 1	EW-1	4195	2900	NE	No	0
Bedroom 1	EW-1	3095	2900	SE	No	3400
Bedroom 2	EW-1	3095	2900	SE	No	0
Bedroom 2	EW-1	3795	2900	SW	No	0
Study	EW-2	2490	2900	SW	No	0
Ensuite	EW-1	1795	2900	NE	No	0

Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Stud, multi plaster layers	30.0	Bulk Insulation in the centre R2	No

Building features continued

IW-2 - Cavity wall, direct fix plasterboard, single gap	81.0	No insulation	No

Floors

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living	Concrete Slab, Unit Below 150mm	38.5	None	No Insulation	Cork Tiles or Parquetry 8mm
Laundry	Concrete Slab, Unit Below 150mm	2.2	None	No Insulation	Ceramic Tiles 8mm
Bathroom	Concrete Slab, Unit Below 150mm	5.2	None	No Insulation	Ceramic Tiles 8mm
Bedroom 1	Concrete Slab, Unit Below 150mm	12.7	None	No Insulation	Carpet 10mm
Bedroom 2	Concrete Slab, Unit Below 150mm	11.5	None	No Insulation	Carpet 10mm
Study	Concrete Slab, Unit Below 150mm	7.4	None	No Insulation	Carpet 10mm
Ensuite	Concrete Slab, Unit Below 150mm	5.4	None	No Insulation	Ceramic Tiles 8mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Kitchen/Living	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Laundry	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Bathroom	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Bedroom 1	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Bedroom 2	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Study	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes

Building features continued

Ensuite	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
Kitchen/Living	10	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
Laundry	2	Downlights - LED	150	Sealed
Laundry	1	Exhaust Fans	300	Sealed
Bathroom	2	Downlights - LED	150	Sealed
Bathroom	1	Exhaust Fans	300	Sealed
Bedroom 1	4	Downlights - LED	150	Sealed
Bedroom 2	4	Downlights - LED	150	Sealed
Study	2	Downlights - LED	150	Sealed
Ensuite	2	Downlights - LED	150	Sealed
Ensuite	1	Exhaust Fans	300	Sealed

Ceiling fans

Location	Number	Diameter (mm)
None Present		

Roof type

Construction	Added insulation	Roof colour
Waterproofing Membrane	No Insulation, Only an Air Gap	Dark

Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0004411435 **Certificate Date:** 03 Dec 2019 ★Star rating: 5.3

Additional information

Explanatory notes

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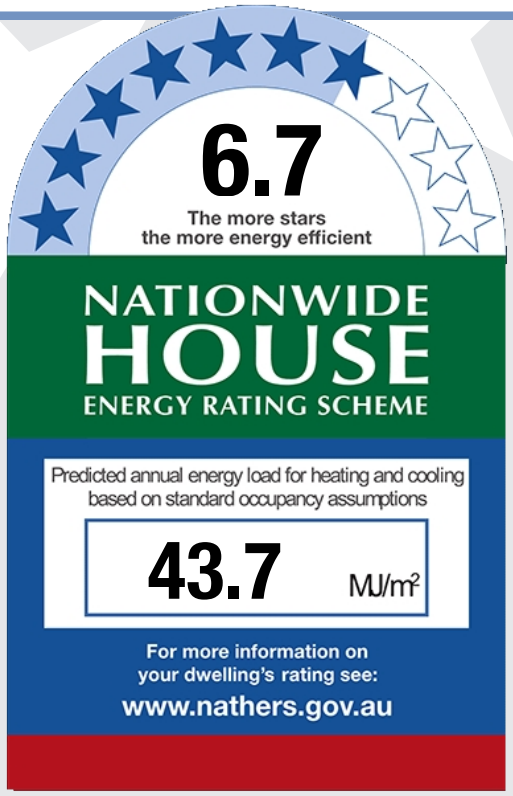
Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004411419** Certificate Date: **03 Dec 2019** ★Star rating: **6.7**

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:	**20884**
Name:	**Zoltan Lipovski**
Organisation:	**EcoMode Design**
Email:	**zoltan@ecomode.com.au**
Phone:	**0410605614**
Declaration of interest:	**None**
Software:	**BERS Pro v4.3.0.2f (3.13)**
AAO:	**ABSA**



Overview

Dwelling details

Street:	**Unit 1.06, 28 Lockwood Avenue**		
Suburb:	**Belrose**		
State:	**NSW**	Postcode:	**2085**
Type:	**New Dwelling**	NCC Class:	**2**
		NatHERS climate zone:	**56**
Lot/DP number:	**1/1199795**	Exposure:	**Suburban**

Key construction and insulation materials

(see following pages for details)

Construction:	**Brick Veneer** **Waterproofing Membrane** **Concrete Slab, Unit Below**
Insulation:	**R2.0 wall insulation** **R2.0 ceiling insulation** **No floor insulation**
Glazing:	**ATB-003-04 B Al Thermally Broken A DG Air Fill Low Solar Gain low-E -Clear**

Ceiling penetrations

(see following pages for details)

Sealed:	**20**
Unsealed:	**0**
TOTAL:**	**20**

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: **LED**

Net floor area (m²)

Conditioned:	**44.0**
Unconditioned:	**5.0**
Garage:	**0.0**
TOTAL:	**49.0**

Annual thermal performance loads (MJ/m²)

Heating:	**25.9**
Cooling:	**17.8**
TOTAL:	**43.7**

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:	**Plans, Elevations Section**
Prepared by:	**DKO Architecture**

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Building features

Window type and performance value

Window ID	Window type	U-value	SHGC
ATB-003-04 B	ATB-003-04 B Al Thermally Broken A DG Air Fill Low Solar Gain low-E -Clear	3.1	0.27
ATB-004-04 B	ATB-004-04 B Al Thermally Broken B DG Air Fill Low Solar Gain low-E -Clear	3.1	0.27

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Kitchen/Living	ATB-003-04 B	n/a	2700	2100	NW	Awning
Kitchen/Living	ATB-003-04 B	n/a	2700	900	NW	Awning
Kitchen/Living	ATB-004-04 B	n/a	2700	2700	NE	Awning
Kitchen/Living	ATB-004-04 B	n/a	2700	2400	NE	Awning
Bedroom 1	ATB-003-04 B	n/a	2700	1500	NW	No Shading
Bedroom 1	ATB-004-04 B	n/a	2700	900	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	Bulk Insulation R2	No

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Kitchen/Living	EW-1	3995	2900	NW	No	0
Kitchen/Living	EW-1	6400	2900	NE	No	0
Bedroom 1	EW-1	3000	2900	NW	No	0
Bedroom 1	EW-1	1600	2900	NE	No	0

Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Cavity wall, direct fix plasterboard, single gap	32.0	No insulation	No
IW-2 - Stud, multi plaster layers	43.0	Bulk Insulation in the centre R2	No

Floors

Building features continued

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living	Concrete Slab, Unit Below 150mm	31.5	None	No Insulation	Cork Tiles or Parquetry 8mm
Bedroom 1	Concrete Slab, Unit Below 150mm	12.1	None	No Insulation	Carpet 10mm
Laundry	Concrete Slab, Unit Below 150mm	0.8	None	No Insulation	Ceramic Tiles 8mm
Bathroom	Concrete Slab, Unit Below 150mm	4.2	None	No Insulation	Ceramic Tiles 8mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Kitchen/Living	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Bedroom 1	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Laundry	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Bathroom	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
Kitchen/Living	10	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
Bedroom 1	4	Downlights - LED	150	Sealed
Laundry	1	Downlights - LED	150	Sealed
Laundry	1	Exhaust Fans	300	Sealed
Bathroom	2	Downlights - LED	150	Sealed
Bathroom	1	Exhaust Fans	300	Sealed

Ceiling fans

Location	Number	Diameter (mm)
None Present		

Building features continued

Roof type

Construction	Added insulation	Roof colour
Waterproofing Membrane	No Insulation, Only an Air Gap	Light

Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0004411419 **Certificate Date:** 03 Dec 2019 ★Star rating: 6.7

Additional information

Explanatory notes

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Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004411427** Certificate Date: **03 Dec 2019** ★Star rating: **6.7**

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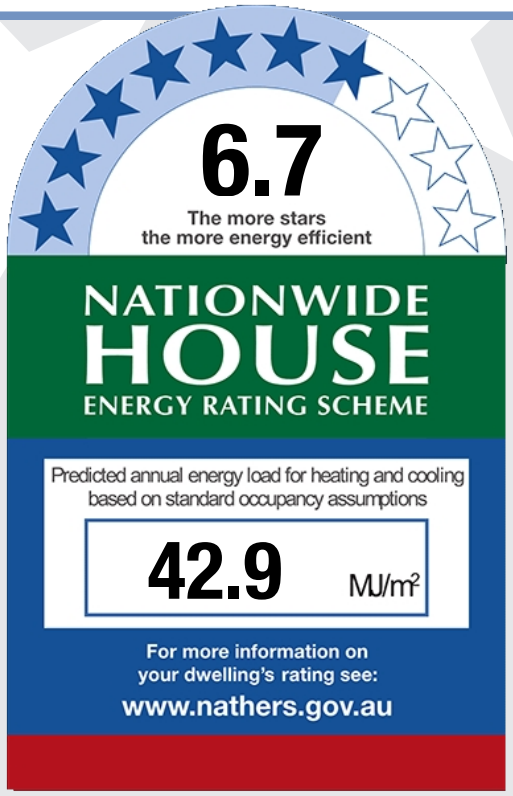
Assessor details

Accreditation number:	**20884**
Name:	**Zoltan Lipovski**
Organisation:	**EcoMode Design**
Email:	**zoltan@ecomode.com.au**
Phone:	**0410605614**
Declaration of interest:	**None**
Software:	**BERS Pro v4.3.0.2f (3.13)**
AAO:	**ABSA**



Overview

Dwelling details

Street:	**Unit 1.07, 28 Lockwood Avenue**		
Suburb:	**Belrose**		
State:	**NSW**	Postcode:	**2085**
Type:	**New Dwelling**	NCC Class:	**2**
		NatHERS climate zone:	**56**
Lot/DP number:	**1/1199795**	Exposure:	**Suburban**

Key construction and insulation materials

(see following pages for details)

Construction:	**Brick Veneer** **Concrete, Plasterboard** **Concrete Slab, Unit Below**
Insulation:	**R2.0 wall insulation** **No ceiling insulation** **No floor insulation**
Glazing:	**ALM-001-01 A Aluminium A SG Clear**

Net floor area (m²)

Conditioned:	**100.0**
Unconditioned:	**9.0**
Garage:	**0.0**
TOTAL:	**109.0**

Annual thermal performance loads (MJ/m²)

Heating:	**17.0**
Cooling:	**25.9**
TOTAL:	**42.9**

Plan documents

Plan ref/date:	**Plans, Elevations Section**
Prepared by:	**DKO Architecture**

Ceiling penetrations

(see following pages for details)

Sealed:	**33**
Unsealed:	**0**
TOTAL:**	**33**

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: **LED**

Window selection - default windows only

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

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Building features

Window type and performance value

Window ID	Window type	U-value	SHGC
ALM-001-01 A	ALM-001-01 A Aluminium A SG Clear	6.7	0.57
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-001-01 A	n/a	2700	1500	SW	No Shading
Bedroom 1	ALM-001-01 A	n/a	2700	1500	SW	No Shading
Bedroom 1	ALM-001-01 A	n/a	2700	2000	NW	No Shading
Kitchen/Living	ALM-002-01 A	n/a	2700	2700	SW	No Shading
Bedroom 2	ALM-001-01 A	n/a	2700	2000	NW	No Shading
Bedroom 3	ALM-001-01 A	n/a	2700	2000	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	Bulk Insulation R2	No

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Bedroom 1	EW-1	5095	2900	SW	No	1100
Bedroom 1	EW-1	3595	2900	NW	No	800
Kitchen/Living	EW-1	5995	2900	SW	No	1100
Bedroom 2	EW-1	4390	2900	NW	No	800
Bedroom 3	EW-1	3095	2900	NW	No	800

Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Cavity wall, direct fix plasterboard, single gap	91.0	No insulation	No
IW-2 - Stud, multi plaster layers	64.0	Bulk Insulation in the centre R2	No

Floors

Building features continued

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Bedroom 1	Concrete Slab, Unit Below 150mm	18.0	None	No Insulation	Carpet 10mm
Kitchen/Living	Concrete Slab, Unit Below 150mm	50.1	None	No Insulation	Cork Tiles or Parquetry 8mm
Bedroom 2	Concrete Slab, Unit Below 150mm	13.6	None	No Insulation	Carpet 10mm
Bedroom 3	Concrete Slab, Unit Below 150mm	13.3	None	No Insulation	Carpet 10mm
Ensuite	Concrete Slab, Unit Below 150mm	4.5	None	No Insulation	Ceramic Tiles 8mm
Bathroom	Concrete Slab, Unit Below 150mm	5.5	None	No Insulation	Ceramic Tiles 8mm
Laundry	Concrete Slab, Unit Below 150mm	3.8	None	No Insulation	Ceramic Tiles 8mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Bedroom 1	Concrete, Plasterboard	No insulation	No
Kitchen/Living	Concrete, Plasterboard	No insulation	No
Bedroom 2	Concrete, Plasterboard	No insulation	No
Bedroom 3	Concrete, Plasterboard	No insulation	No
Ensuite	Concrete, Plasterboard	No insulation	No
Bathroom	Concrete, Plasterboard	No insulation	No
Laundry	Concrete, Plasterboard	No insulation	No

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
Bedroom 1	6	Downlights - LED	150	Sealed
Kitchen/Living	10	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
Bedroom 2	4	Downlights - LED	150	Sealed
Bedroom 3	4	Downlights - LED	150	Sealed
Ensuite	2	Downlights - LED	150	Sealed
Ensuite	1	Exhaust Fans	300	Sealed
Bathroom	2	Downlights - LED	150	Sealed
Bathroom	1	Exhaust Fans	300	Sealed
Laundry	1	Downlights - LED	150	Sealed
Laundry	1	Exhaust Fans	300	Sealed

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: 0004411427 **Certificate Date:** 03 Dec 2019 ★Star rating: 6.7

Additional information

Explanatory notes

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Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004411401** Certificate Date: **03 Dec 2019** ★Star rating: **5.9**

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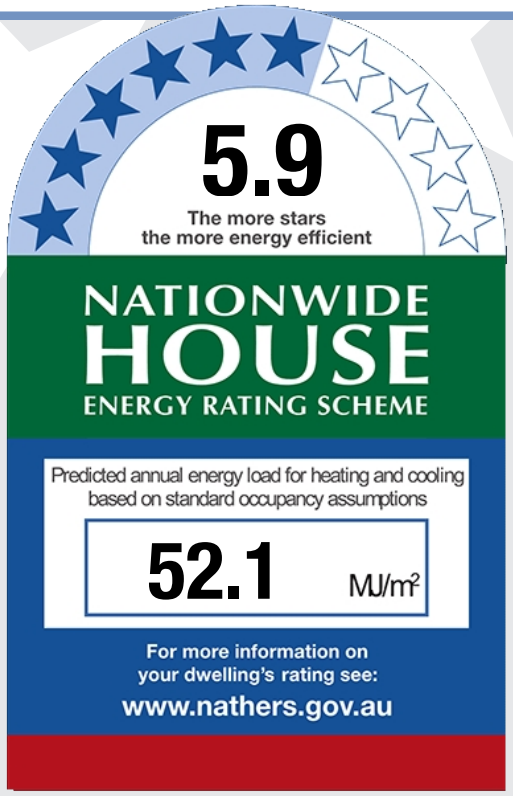
Assessor details

Accreditation number:	**20884**
Name:	**Zoltan Lipovski**
Organisation:	**EcoMode Design**
Email:	**zoltan@ecomode.com.au**
Phone:	**0410605614**
Declaration of interest:	**None**
Software:	**BERS Pro v4.3.0.2f (3.13)**
AAO:	**ABSA**



Overview

Dwelling details

Street:	**Unit 1.08, 28 Lockwood Avenue**		
Suburb:	**Belrose**		
State:	**NSW**	Postcode:	**2085**
Type:	**New Dwelling**	NCC Class:	**2**
		NatHERS climate zone:	**56**
Lot/DP number:	**1/1199795**	Exposure:	**Suburban**

Key construction and insulation materials

(see following pages for details)

Construction:	**Brick Veneer** **Concrete, Plasterboard** **Concrete Slab, Unit Below**
Insulation:	**R2.0 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:	**32**
Unsealed:	**0**
TOTAL:**	**32**

NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. **If this number is exceeded in construction then this certificate IS NOT VALID and a new certificate is required. Loss of ceiling insulation for the penetrations listed has been taken into account with the rating.

Principle downlight type: **LED**

Net floor area (m²)

Conditioned:	**76.0**
Unconditioned:	**6.0**
Garage:	**0.0**
TOTAL:	**82.0**

Annual thermal performance loads (MJ/m²)

Heating:	**26.4**
Cooling:	**25.7**
TOTAL:	**52.1**

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:	**Plans, Elevations Section**
Prepared by:	**DKO Architecture**

* 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
ALM-001-01 A	ALM-001-01 A Aluminium A SG Clear	6.7	0.57

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Bedroom 1	ALM-002-01 A	n/a	2700	1800	SW	No Shading
Kitchen/Living	ALM-002-01 A	n/a	2700	3800	SW	No Shading
Bedroom 2	ALM-001-01 A	n/a	2700	1500	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	Bulk Insulation R2	No

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Bedroom 1	EW-1	2995	2900	SW	No	1000
Kitchen/Living	EW-1	3990	2900	SW	No	1000
Bedroom 2	EW-1	3095	2900	SW	No	1000

Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Stud, multi plaster layers	87.0	Bulk Insulation in the centre R2	No
IW-2 - Cavity wall, direct fix plasterboard, single gap	71.0	No insulation	No

Floors

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Bedroom 1	Concrete Slab, Unit Below 150mm	17.0	None	No Insulation	Carpet 10mm
Kitchen/Living	Concrete Slab, Unit Below 150mm	36.0	None	No Insulation	Cork Tiles or Parquetry 8mm

Building features continued

Bedroom 2	Concrete Slab, Unit Below 150mm	17.9	None	No Insulation	Carpet 10mm
Laundry	Concrete Slab, Unit Below 150mm	1.1	None	No Insulation	Ceramic Tiles 8mm
Ensuite	Concrete Slab, Unit Below 150mm	5.2	None	No Insulation	Ceramic Tiles 8mm
Bathroom	Concrete Slab, Unit Below 150mm	4.9	None	No Insulation	Ceramic Tiles 8mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Bedroom 1	Concrete, Plasterboard	No insulation	No
Kitchen/Living	Concrete, Plasterboard	No insulation	No
Bedroom 2	Concrete, Plasterboard	No insulation	No
Laundry	Concrete, Plasterboard	No insulation	No
Ensuite	Concrete, Plasterboard	No insulation	No
Bathroom	Concrete, Plasterboard	No insulation	No

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
Bedroom 1	6	Downlights - LED	150	Sealed
Kitchen/Living	10	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
Bedroom 2	6	Downlights - LED	150	Sealed
Laundry	2	Downlights - LED	150	Sealed
Laundry	1	Exhaust Fans	300	Sealed
Ensuite	2	Downlights - LED	150	Sealed
Ensuite	1	Exhaust Fans	300	Sealed
Bathroom	2	Downlights - LED	150	Sealed
Bathroom	1	Exhaust Fans	300	Sealed

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: 0004411401 **Certificate Date:** 03 Dec 2019 ★Star rating: 5.9

Additional information

Explanatory notes

About this report

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General Information

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Accredited Assessors

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Contact

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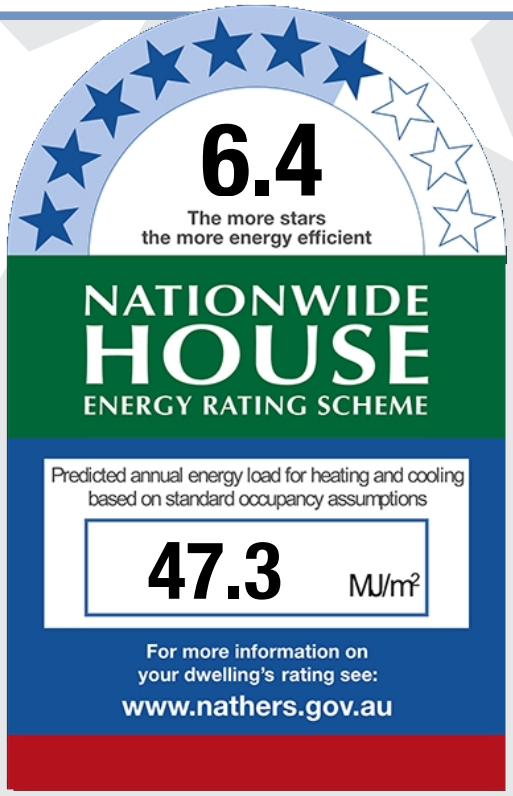
Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004411443** Certificate Date: **03 Dec 2019** ★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:	**20884**
Name:	**Zoltan Lipovski**
Organisation:	**EcoMode Design**
Email:	**zoltan@ecomode.com.au**
Phone:	**0410605614**
Declaration of interest:	**None**
Software:	**BERS Pro v4.3.0.2f (3.13)**
AAO:	**ABSA**



Overview

Dwelling details

Street:	**Unit 1.09, 28 Lockwood Avenue**		
Suburb:	**Belrose**		
State:	**NSW**	Postcode:	**2085**
Type:	**New Dwelling**	NCC Class:	**2**
		NatHERS climate zone:	**56**
Lot/DP number:	**1/1199795**	Exposure:	**Suburban**

Key construction and insulation materials

(see following pages for details)

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

Net floor area (m²)

Conditioned:	**76.0**
Unconditioned:	**6.0**
Garage:	**0.0**
TOTAL:	**82.0**

Annual thermal performance loads (MJ/m²)

Heating:	**21.5**
Cooling:	**25.9**
TOTAL:	**47.3**

Plan documents

Plan ref/date:	**Plans, Elevations Section**
Prepared by:	**DKO Architecture**

Ceiling penetrations

(see following pages for details)

Sealed:	**28**
Unsealed:	**0**
TOTAL:**	**28**

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: **LED**

Window selection - default windows only

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

Note: Only a +/- 5% SHGC tolerance is allowed with this rating.

NB: This tolerance ONLY applies to SHGC, the U-value can always be lower but not higher than the values stated on page 2.

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Building features

Window type and performance value

Window ID	Window type	U-value	SHGC
ALM-001-01 A	ALM-001-01 A Aluminium A SG Clear	6.7	0.57
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 2	ALM-001-01 A	n/a	2700	1500	SW	No Shading
Kitchen/Living	ALM-002-01 A	n/a	2700	2700	SW	No Shading
Bedroom 1	ALM-002-01 A	n/a	2700	2700	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	Bulk Insulation R2	No

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Bedroom 2	EW-1	3095	2900	SW	No	1000
Kitchen/Living	EW-1	3990	2900	SW	No	1000
Bedroom 1	EW-1	2995	2900	SW	No	1000

Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Stud, multi plaster layers	87.0	Bulk Insulation in the centre R2	No
IW-2 - Cavity wall, direct fix plasterboard, single gap	70.0	No insulation	No

Floors

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Bedroom 2	Concrete Slab, Unit Below 150mm	17.9	None	No Insulation	Carpet 10mm
Laundry	Concrete Slab, Unit Below 150mm	1.0	None	No Insulation	Ceramic Tiles 8mm

Building features continued

Bathroom	Concrete Slab, Unit Below 150mm	4.9	None	No Insulation	Ceramic Tiles 8mm
Kitchen/Living	Concrete Slab, Unit Below 150mm	36.5	None	No Insulation	Cork Tiles or Parquetry 8mm
Ensuite	Concrete Slab, Unit Below 150mm	5.2	None	No Insulation	Ceramic Tiles 8mm
Bedroom 1	Concrete Slab, Unit Below 150mm	16.7	None	No Insulation	Carpet 10mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Bedroom 2	Concrete, Plasterboard	No insulation	No
Laundry	Concrete, Plasterboard	No insulation	No
Bathroom	Concrete, Plasterboard	No insulation	No
Kitchen/Living	Concrete, Plasterboard	No insulation	No
Ensuite	Concrete, Plasterboard	No insulation	No
Bedroom 1	Concrete, Plasterboard	No insulation	No

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
Bedroom 2	6	Downlights - LED	150	Sealed
Laundry	1	Downlights - LED	150	Sealed
Laundry	1	Exhaust Fans	300	Sealed
Bathroom	2	Downlights - LED	150	Sealed
Bathroom	1	Exhaust Fans	300	Sealed
Kitchen/Living	10	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
Bedroom 1	6	Downlights - LED	150	Sealed

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: 0004411443 **Certificate Date:** 03 Dec 2019 ★Star rating: 6.4

Additional information

Explanatory notes

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Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004411476** Certificate Date: **03 Dec 2019** ★Star rating: **5.8**

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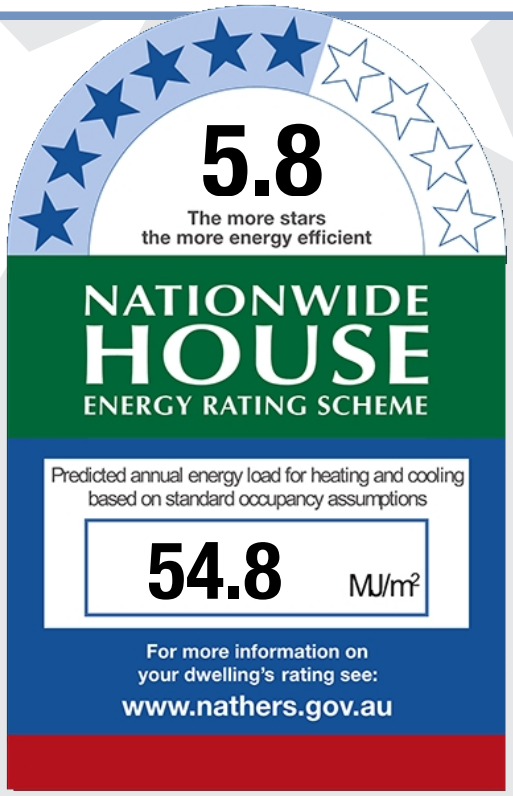
Assessor details

Accreditation number:	**20884**
Name:	**Zoltan Lipovski**
Organisation:	**EcoMode Design**
Email:	**zoltan@ecomode.com.au**
Phone:	**0410605614**
Declaration of interest:	**None**
Software:	**BERS Pro v4.3.0.2f (3.13)**
AAO:	**ABSA**



Overview

Dwelling details

Street:	**Unit 1.10, 28 Lockwood Avenue**		
Suburb:	**Belrose**		
State:	**NSW**	Postcode:	**2085**
Type:	**New Dwelling**	NCC Class:	**2**
		NatHERS climate zone:	**56**
Lot/DP number:	**1/1199795**	Exposure:	**Suburban**

Key construction and insulation materials

(see following pages for details)

Construction:	**Brick Veneer** **Concrete, Plasterboard** **Concrete Slab, Unit Below**
Insulation:	**R2.0 wall insulation** **No ceiling insulation** **No floor insulation**
Glazing:	**ALM-001-01 A Aluminium A SG Clear**

Net floor area (m²)

Conditioned:	**64.0**
Unconditioned:	**6.0**
Garage:	**0.0**
TOTAL:	**70.0**

Annual thermal performance loads (MJ/m²)

Heating:	**25.8**
Cooling:	**29.0**
TOTAL:	**54.8**

Plan documents

Plan ref/date:	**Plans, Elevations Section**
Prepared by:	**DKO Architecture**

Ceiling penetrations

(see following pages for details)

Sealed:	**28**
Unsealed:	**0**
TOTAL:**	**28**

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: **LED**

Window selection - default windows only

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

Note: Only a +/- 5% SHGC tolerance is allowed with this rating.

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Building features

Window type and performance value

Window ID	Window type	U-value	SHGC
ALM-001-01 A	ALM-001-01 A Aluminium A SG Clear	6.7	0.57
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 2	ALM-001-01 A	n/a	2700	1500	S	No Shading
Bedroom 1	ALM-001-01 A	n/a	2700	1500	S	No Shading
Kitchen/Living	ALM-002-01 A	n/a	2700	3800	S	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	Bulk Insulation R2	No

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Bedroom 2	EW-1	2995	2900	S	No	1100
Bedroom 1	EW-1	2995	2900	S	No	1100
Kitchen/Living	EW-1	4090	2900	S	No	1100

Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Stud, multi plaster layers	60.0	Bulk Insulation in the centre R2	No
IW-2 - Cavity wall, direct fix plasterboard, single gap	63.0	No insulation	No
IW-3 - Concrete Panel/Blocks filled, plasterboard	16.0	No Insulation	No

Floors

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Bedroom 2	Concrete Slab, Unit Below 150mm	13.9	None	No Insulation	Carpet 10mm

Building features continued

Bathroom	Concrete Slab, Unit Below 150mm	4.3	None	No Insulation	Ceramic Tiles 8mm
Ensuite	Concrete Slab, Unit Below 150mm	5.2	None	No Insulation	Ceramic Tiles 8mm
Laundry	Concrete Slab, Unit Below 150mm	1.5	None	No Insulation	Ceramic Tiles 8mm
Bedroom 1	Concrete Slab, Unit Below 150mm	10.8	None	No Insulation	Carpet 10mm
Kitchen/Living	Concrete Slab, Unit Below 150mm	34.1	None	No Insulation	Cork Tiles or Parquetry 8mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Bedroom 2	Concrete, Plasterboard	No insulation	No
Bathroom	Concrete, Plasterboard	No insulation	No
Ensuite	Concrete, Plasterboard	No insulation	No
Laundry	Concrete, Plasterboard	No insulation	No
Bedroom 1	Concrete, Plasterboard	No insulation	No
Kitchen/Living	Concrete, Plasterboard	No insulation	No

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
Bedroom 2	4	Downlights - LED	150	Sealed
Bathroom	2	Downlights - LED	150	Sealed
Bathroom	1	Exhaust Fans	300	Sealed
Ensuite	2	Downlights - LED	150	Sealed
Ensuite	1	Exhaust Fans	300	Sealed
Laundry	2	Downlights - LED	150	Sealed
Laundry	1	Exhaust Fans	300	Sealed
Bedroom 1	4	Downlights - LED	150	Sealed
Kitchen/Living	10	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed

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: 0004411476 **Certificate Date:** 03 Dec 2019 ★Star rating: 5.8

Additional information

Explanatory notes

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Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004411492** Certificate Date: **03 Dec 2019** ★Star rating: **6.4**

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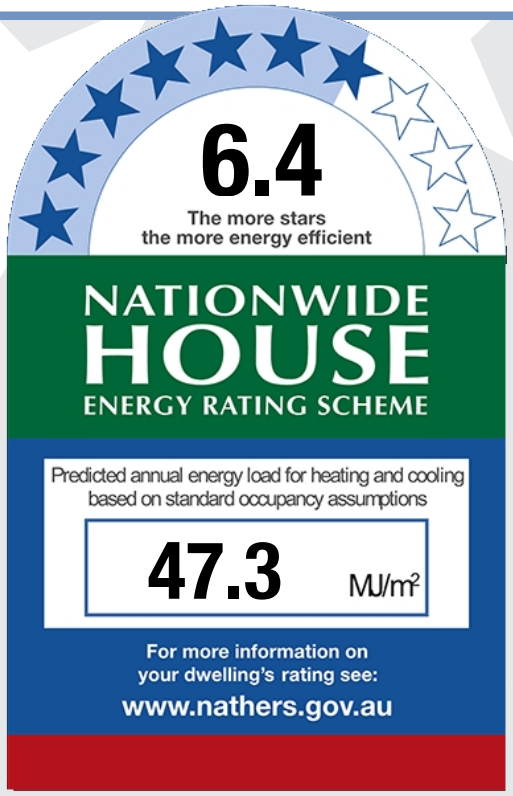
Assessor details

Accreditation number:	**20884**
Name:	**Zoltan Lipovski**
Organisation:	**EcoMode Design**
Email:	**zoltan@ecomode.com.au**
Phone:	**0410605614**
Declaration of interest:	**None**
Software:	**BERS Pro v4.3.0.2f (3.13)**
AAO:	**ABSA**



Overview

Dwelling details

Street:	**Unit 1.11, 28 Lockwood Avenue**		
Suburb:	**Belrose**		
State:	**NSW**	Postcode:	**2085**
Type:	**New Dwelling**	NCC Class:	**2**
		NatHERS climate zone:	**56**
Lot/DP number:	**1/1199795**	Exposure:	**Suburban**

Key construction and insulation materials

(see following pages for details)

Construction:	**Brick Veneer** **Concrete, Plasterboard** **Concrete Slab, Unit Below**
Insulation:	**R2.0 wall insulation** **No ceiling insulation** **No floor insulation**
Glazing:	**ALM-001-01 A Aluminium A SG Clear**

Ceiling penetrations

(see following pages for details)

Sealed:	**34**
Unsealed:	**0**
TOTAL:**	**34**

NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. **If this number is exceeded in construction then this certificate IS NOT VALID and a new certificate is required. Loss of ceiling insulation for the penetrations listed has been taken into account with the rating.

Principle downlight type: **LED**

Net floor area (m²)

Conditioned:	**84.0**
Unconditioned:	**6.0**
Garage:	**0.0**
TOTAL:	**90.0**

Annual thermal performance loads (MJ/m²)

Heating:	**22.1**
Cooling:	**25.2**
TOTAL:	**47.3**

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:	**Plans, Elevations Section**
Prepared by:	**DKO Architecture**

* 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
ALM-001-01 A	ALM-001-01 A Aluminium A SG Clear	6.7	0.57

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Kitchen/Living	ALM-002-01 A	n/a	2700	2700	SW	No Shading
Bedroom 3	ALM-001-01 A	n/a	2700	1500	SW	No Shading
Bedroom 2	ALM-001-01 A	n/a	2700	900	SE	No Shading
Bedroom 2	ALM-001-01 A	n/a	2700	1500	SW	No Shading
Bedroom 1	ALM-001-01 A	n/a	2700	1500	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	Bulk Insulation R2	No

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Kitchen/Living	EW-1	3995	2900	SW	No	1075
Bedroom 3	EW-1	3690	2900	SW	No	1050
Bedroom 2	EW-1	3215	2900	SE	No	770
Bedroom 2	EW-1	2195	2900	SW	No	1025
Bedroom 1	EW-1	2995	2900	SE	No	695

Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Cavity wall, direct fix plasterboard, single gap	96.0	No insulation	No
IW-2 - Stud, multi plaster layers	58.0	Bulk Insulation in the centre R2	No
IW-3 - Concrete Panel/Blocks filled, plasterboard	8.0	No Insulation	No

Floors

Building features continued

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living	Concrete Slab, Unit Below 150mm	35.7	None	No Insulation	Cork Tiles or Parquetry 8mm
Laundry	Concrete Slab, Unit Below 150mm	1.5	None	No Insulation	Ceramic Tiles 8mm
Bedroom 3	Concrete Slab, Unit Below 150mm	12.1	None	No Insulation	Carpet 10mm
Bedroom 2	Concrete Slab, Unit Below 150mm	13.3	None	No Insulation	Carpet 10mm
Bedroom 1	Concrete Slab, Unit Below 150mm	18.9	None	No Insulation	Carpet 10mm
Bathroom	Concrete Slab, Unit Below 150mm	4.4	None	No Insulation	Ceramic Tiles 8mm
Ensuite	Concrete Slab, Unit Below 150mm	4.4	None	No Insulation	Ceramic Tiles 8mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Kitchen/Living	Concrete, Plasterboard	No insulation	No
Laundry	Concrete, Plasterboard	No insulation	No
Bedroom 3	Concrete, Plasterboard	No insulation	No
Bedroom 2	Concrete, Plasterboard	No insulation	No
Bedroom 1	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Bathroom	Concrete, Plasterboard	No insulation	No
Ensuite	Concrete, Plasterboard	No insulation	No

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
Kitchen/Living	10	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
Laundry	1	Downlights - LED	150	Sealed
Laundry	1	Exhaust Fans	300	Sealed
Bedroom 3	4	Downlights - LED	150	Sealed
Bedroom 2	4	Downlights - LED	150	Sealed
Bedroom 1	7	Downlights - LED	150	Sealed
Bathroom	2	Downlights - LED	150	Sealed
Bathroom	1	Exhaust Fans	300	Sealed
Ensuite	2	Downlights - LED	150	Sealed
Ensuite	1	Exhaust Fans	300	Sealed

Building features continued

Ceiling fans

Location	Number	Diameter (mm)
None Present		

Roof type

Construction	Added insulation	Roof colour
Waterproofing Membrane	No Insulation, Only an Air Gap	Light

Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0004411492 **Certificate Date:** 03 Dec 2019 ★Star rating: 6.4

Additional information

Explanatory notes

About this report

Residential energy ratings address the quality of the building fabric i.e. walls, windows, floors and roof/ceilings. Ratings do not cover the energy or water efficiency of appliances including heating and cooling, hot water, dishwashers, ovens, fridges, TVs etc. or solar panel or water tank requirements. The efficiency or specification of these items is generally covered by other regulations, standards or guidelines.

General Information

A NatHERS House Energy Rating is a comprehensive, dynamic computer modelling evaluation of the floorplans, elevations and specifications to predict an energy load of a home. Not all of us use our homes in the same way, so ratings are generated using standard assumptions. This means homes can be compared across the country.

The actual energy consumption of your home may vary significantly from the predicted energy load figures in the report depending on issues such as the size of your household and your personal preferences, e.g. in terms of heating or cooling.

While the figures are an indicative guide to energy use, they can be used as a reliable guide for comparative purposes between different house designs and for demonstrating that the design meets the required regulatory compliance.

Homes that are energy efficient use less energy, are warmer in winter, cooler in summer and cost less to run. The higher the star rating the more energy efficient.

This NatHERS House Energy Rating report was carefully prepared by your assessor on the basis of comprehensive modelling using standard procedures to rate your home using the underlying engine developed by the Australian Commonwealth Scientific and Industrial Research Organisation (CSIRO).

All information relating to energy loads presented in this report is based on a range of standard assumptions in order to allow for comparisons with reports prepared for other homes and to demonstrate minimum regulatory compliance.

The standard assumptions include figures for occupancy, indoor air temperature and are based on a unique climate file for your region.

Accredited Assessors

To ensure you get a high-quality, professional NatHERS House Energy Rating report, you should always use an accredited assessor, accredited assessors are members of a professional body called an Assessor Accrediting Organisation (AAO).

AAOs have specific quality assurance processes in place and continuing professional development requirements to maintain a high and consistent standard of assessments across the country. Non-accredited assessors do not have this level of quality assurance or any on-going training requirements.

If you have any questions or concerns about this report, please direct them to your assessor in the first instance.

If your assessor is unable to address your questions or concerns, please contact their AAO listed under ‘assessor details’. You can also find a range of information about accredited assessors on the AAO websites.

Disclaimer

The energy values quoted are for comparison purposes only; they are not a prediction of actual energy use. This rating only applies to the floor plan, construction details, orientation and climate as submitted and included in the attached drawing set that bears a stamp with the same number as this certificate. Changes to any of these details could affect the rating.

Contact

For more information on the Nationwide House Energy Rating Scheme (NatHERS), visit www.nathers.gov.au

For more information on energy efficient design and insulation visit www.yourhome.gov.au

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

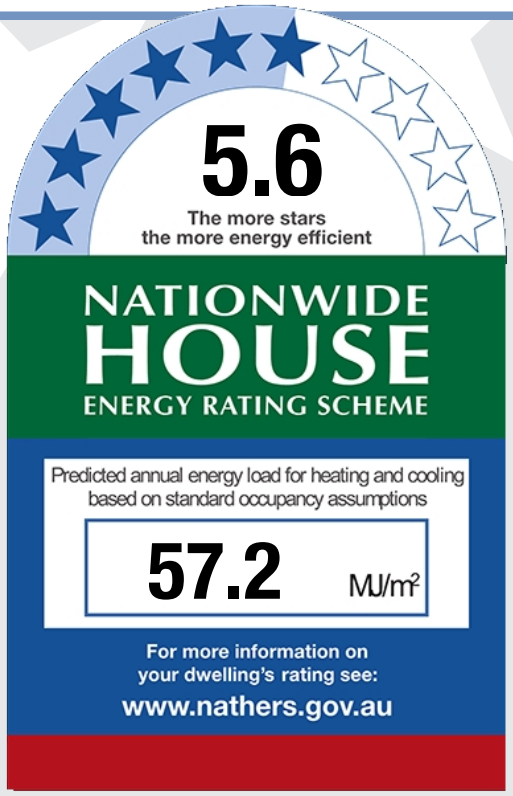
Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004411468** Certificate Date: **03 Dec 2019** ★Star rating: **5.6**

BERS Pro v4.3.0.0 (3.13) cannot be used to model 'roof windows'. Roof windows are 'openable or fixed windows in a roof' and do not have a shaft, as distinct from skylights which incorporate a built-in shaft and are not ventilated. BERS Pro v4.3 can only model skylights. If a roof window is present on the floor plan then this certificate is not valid.

Assessor details

Accreditation number:	**20884**
Name:	**Zoltan Lipovski**
Organisation:	**EcoMode Design**
Email:	**zoltan@ecomode.com.au**
Phone:	**0410605614**
Declaration of interest:	**None**
Software:	**BERS Pro v4.3.0.2f (3.13)**
AAO:	**ABSA**



Overview

Dwelling details

Street:	**Unit 2.01, 28 Lockwood Avenue**		
Suburb:	**Belrose**		
State:	**NSW**	Postcode:	**2085**
Type:	**New Dwelling**	NCC Class:	**2**
		NatHERS climate zone:	**56**
Lot/DP number:	**1/1199795**	Exposure:	**Suburban**

Key construction and insulation materials

(see following pages for details)

Construction:	**Brick Veneer** **Waterproofing Membrane** **Concrete Slab, Unit Below**
Insulation:	**R2.0 wall insulation** **R2.0 ceiling insulation** **No floor insulation**
Glazing:	**ALM-001-01 A Aluminium A SG Clear**

Ceiling penetrations

(see following pages for details)

Sealed:	**36**
Unsealed:	**0**
TOTAL:**	**36**

NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. **If this number is exceeded in construction then this certificate IS NOT VALID and a new certificate is required. Loss of ceiling insulation for the penetrations listed has been taken into account with the rating.

Principle downlight type: **LED**

Net floor area (m²)

Conditioned:	**95.0**
Unconditioned:	**9.0**
Garage:	**0.0**
TOTAL:	**103.0**

Annual thermal performance loads (MJ/m²)

Heating:	**35.1**
Cooling:	**22.1**
TOTAL:	**57.2**

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:	**Plans, Elevations Section**
Prepared by:	**DKO Architecture**

* 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-001-01 A	ALM-001-01 A Aluminium A SG Clear	6.7	0.57

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Bedroom 1	ALM-001-01 A	n/a	2700	900	SE	No Shading
Bedroom 1	ALM-001-01 A	n/a	2700	1800	SW	No Shading
Bedroom 2	ALM-001-01 A	n/a	2700	1500	SW	No Shading
Bedroom 3	ALM-001-01 A	n/a	2700	1500	NE	No Shading
Bedroom 3	ALM-001-01 A	n/a	2700	900	SE	No Shading
Kitchen/Living	ALM-001-01 A	n/a	2700	3600	NE	No Shading
Kitchen/Living	ALM-001-01 A	n/a	2700	1500	SE	No Shading
Kitchen/Living	ALM-001-01 A	n/a	2700	1500	SW	No Shading
Kitchen/Living	ALM-001-01 A	n/a	2700	900	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	Bulk Insulation R2	No

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Bedroom 1	EW-1	1695	2900	SE	No	7450
Bedroom 1	EW-1	3900	2900	SW	No	0
Bedroom 2	EW-1	3095	2900	SW	No	2700
Bedroom 3	EW-1	1200	2900	NW	No	0
Bedroom 3	EW-1	2900	2900	NE	No	0
Bedroom 3	EW-1	2100	2900	SE	No	0
Kitchen/Living	EW-1	4095	2900	NE	No	0
Kitchen/Living	EW-1	10000	2900	SE	No	850
Kitchen/Living	EW-1	4095	2900	SW	No	2700

Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Stud, multi plaster layers	43.0	Bulk Insulation in the centre R2	No

Building features continued

IW-2 - Cavity wall, direct fix plasterboard, single gap	97.0	No insulation	No
IW-3 - Concrete Panel/Blocks filled, plasterboard	8.0	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
Ensuite	Concrete Slab, Unit Below 150mm	5.0	None	No Insulation	Ceramic Tiles 8mm
Corridor	Concrete Slab, Unit Below 150mm	5.2	None	No Insulation	Cork Tiles or Parquetry 8mm
Laundry	Concrete Slab, Unit Below 150mm	4.1	None	No Insulation	Ceramic Tiles 8mm
Bathroom	Concrete Slab, Unit Below 150mm	4.6	None	No Insulation	Ceramic Tiles 8mm
Bedroom 2	Concrete Slab, Unit Below 150mm	11.0	None	No Insulation	Carpet 10mm
Bedroom 3	Concrete Slab, Unit Below 150mm	11.7	None	No Insulation	Carpet 10mm
Kitchen/Living	Concrete Slab, Unit Below 150mm	45.2	None	No Insulation	Cork Tiles or Parquetry 8mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Bedroom 1	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Ensuite	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Corridor	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Laundry	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Bathroom	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes

Building features continued

Bedroom 2	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Bedroom 3	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Kitchen/Living	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
Bedroom 1	6	Downlights - LED	150	Sealed
Ensuite	2	Downlights - LED	150	Sealed
Ensuite	1	Exhaust Fans	300	Sealed
Corridor	2	Downlights - LED	150	Sealed
Laundry	2	Downlights - LED	150	Sealed
Laundry	1	Exhaust Fans	300	Sealed
Bathroom	2	Downlights - LED	150	Sealed
Bathroom	1	Exhaust Fans	300	Sealed
Bedroom 2	4	Downlights - LED	150	Sealed
Bedroom 3	4	Downlights - LED	150	Sealed
Kitchen/Living	10	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed

Ceiling fans

Location	Number	Diameter (mm)
None Present		

Roof type

Construction	Added insulation	Roof colour
Waterproofing Membrane	No Insulation, Only an Air Gap	Light

Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0004411468 **Certificate Date:** 03 Dec 2019 ★Star rating: 5.6

Additional information

Explanatory notes

About this report

Residential energy ratings address the quality of the building fabric i.e. walls, windows, floors and roof/ceilings. Ratings do not cover the energy or water efficiency of appliances including heating and cooling, hot water, dishwashers, ovens, fridges, TVs etc. or solar panel or water tank requirements. The efficiency or specification of these items is generally covered by other regulations, standards or guidelines.

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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.

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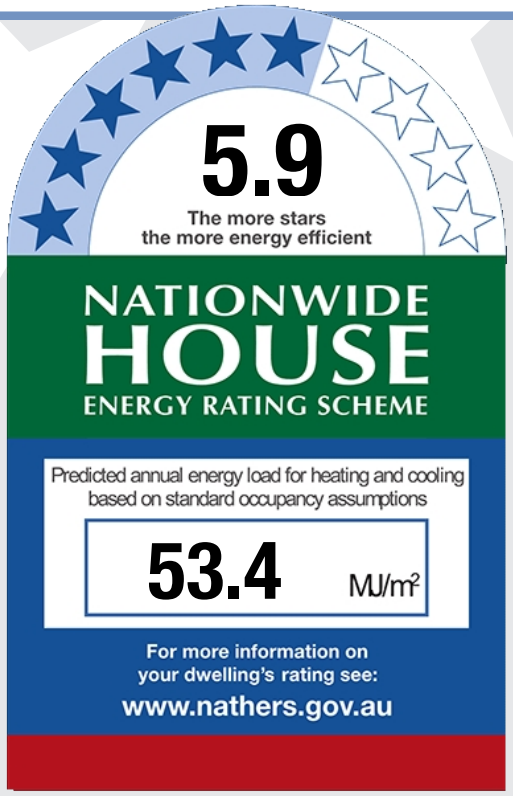
Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004411484** Certificate Date: **03 Dec 2019** ★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:	**20884**
Name:	**Zoltan Lipovski**
Organisation:	**EcoMode Design**
Email:	**zoltan@ecomode.com.au**
Phone:	**0410605614**
Declaration of interest:	**None**
Software:	**BERS Pro v4.3.0.2f (3.13)**
AAO:	**ABSA**



Overview

Dwelling details

Street:	**Unit 2.02, 28 Lockwood Avenue**		
Suburb:	**Belrose**		
State:	**NSW**	Postcode:	**2085**
Type:	**New Dwelling**	NCC Class:	**2**
		NatHERS climate zone:	**56**
Lot/DP number:	**1/1199795**	Exposure:	**Suburban**

Key construction and insulation materials

(see following pages for details)

Construction:	**Brick Veneer** **Waterproofing Membrane** **Concrete Slab, Unit Below**
Insulation:	**R2.0 wall insulation** **R2.0 ceiling insulation** **No floor insulation**
Glazing:	**ALM-001-03 A Aluminium A SG High Solar Gain Low-E**

Ceiling penetrations

(see following pages for details)

Sealed:	**29**
Unsealed:	**0**
TOTAL:**	**29**

NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. **If this number is exceeded in construction then this certificate IS NOT VALID and a new certificate is required. Loss of ceiling insulation for the penetrations listed has been taken into account with the rating.

Principle downlight type: **LED**

Net floor area (m²)

Conditioned:	**62.0**
Unconditioned:	**6.0**
Garage:	**0.0**
TOTAL:	**68.0**

Annual thermal performance loads (MJ/m²)

Heating:	**37.4**
Cooling:	**16.0**
TOTAL:	**53.4**

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.

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:	**Plans, Elevations Section**
Prepared by:	**DKO Architecture**

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Building features

Window type and performance value

Window ID	Window type	U-value	SHGC
ALM-001-03 A	ALM-001-03 A Aluminium A SG High Solar Gain Low-E	5.4	0.49

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Bedroom 1	ALM-001-03 A	n/a	2700	1500	SW	No Shading
Kitchen/Living	ALM-001-03 A	n/a	2700	3600	SW	No Shading
Bedroom 2	ALM-001-03 A	n/a	2700	1500	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	Bulk Insulation R2	No

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Bedroom 1	EW-1	1300	2900	NW	No	7100
Bedroom 1	EW-1	3000	2900	SW	No	1000
Kitchen/Living	EW-1	4090	2900	SW	No	2300
Bedroom 2	EW-1	1300	2900	SE	No	7100
Bedroom 2	EW-1	3000	2900	SW	No	1000
Bedroom 2	EW-1	2100	2900	NW	No	0

Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Cavity wall, direct fix plasterboard, single gap	57.0	No insulation	No
IW-2 - Stud, multi plaster layers	57.0	Bulk Insulation in the centre R2	No
IW-3 - Concrete Panel/Blocks filled, plasterboard	16.0	No Insulation	No

Floors

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering

Building features continued

Bedroom 1	Concrete Slab, Unit Below 150mm	10.6	None	No Insulation	Carpet 10mm
Kitchen/Living	Concrete Slab, Unit Below 150mm	28.7	None	No Insulation	Cork Tiles or Parquetry 8mm
Ensuite	Concrete Slab, Unit Below 150mm	5.5	None	No Insulation	Ceramic Tiles 8mm
Laundry	Concrete Slab, Unit Below 150mm	1.4	None	No Insulation	Ceramic Tiles 8mm
Bathroom	Concrete Slab, Unit Below 150mm	4.7	None	No Insulation	Ceramic Tiles 8mm
Bedroom 2	Concrete Slab, Unit Below 150mm	17.0	None	No Insulation	Carpet 10mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Bedroom 1	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Kitchen/Living	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Ensuite	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Laundry	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Bathroom	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Bedroom 2	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
Bedroom 1	4	Downlights - LED	150	Sealed
Kitchen/Living	10	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
Ensuite	2	Downlights - LED	150	Sealed

Building features continued

Ensuite	1	Exhaust Fans	300	Sealed
Laundry	1	Downlights - LED	150	Sealed
Laundry	1	Exhaust Fans	300	Sealed
Bathroom	2	Downlights - LED	150	Sealed
Bathroom	1	Exhaust Fans	300	Sealed
Bedroom 2	6	Downlights - LED	150	Sealed

Ceiling fans

Location	Number	Diameter (mm)
None Present		

Roof type

Construction	Added insulation	Roof colour
Waterproofing Membrane	No Insulation, Only an Air Gap	Light

Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0004411484 **Certificate Date:** 03 Dec 2019 ★Star rating: 5.9

Additional information

Explanatory notes

About this report

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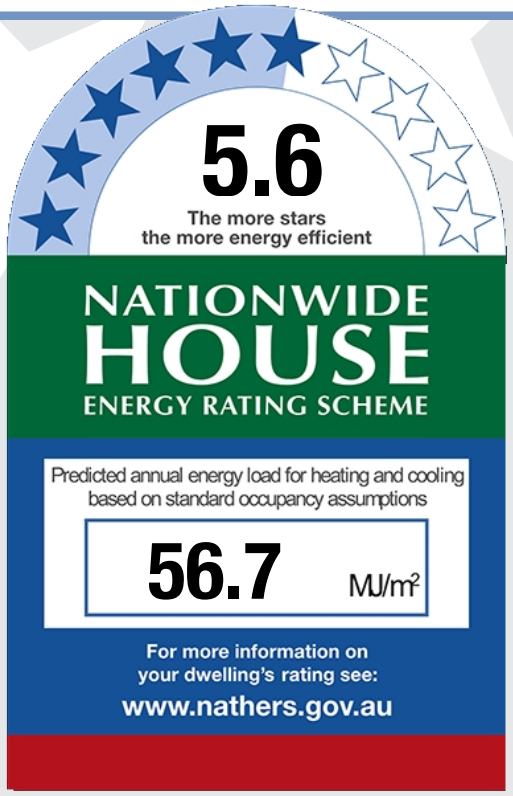
Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004411450** Certificate Date: **03 Dec 2019** ★Star rating: **5.6**

BERS Pro v4.3.0.0 (3.13) cannot be used to model 'roof windows'. Roof windows are 'openable or fixed windows in a roof' and do not have a shaft, as distinct from skylights which incorporate a built-in shaft and are not ventilated. BERS Pro v4.3 can only model skylights. If a roof window is present on the floor plan then this certificate is not valid.

Assessor details

Accreditation number:	**20884**
Name:	**Zoltan Lipovski**
Organisation:	**EcoMode Design**
Email:	**zoltan@ecomode.com.au**
Phone:	**0410605614**
Declaration of interest:	**None**
Software:	**BERS Pro v4.3.0.2f (3.13)**
AAO:	**ABSA**



Overview

Dwelling details

Street:	**Unit 2.03, 28 Lockwood Avenue**		
Suburb:	**Belrose**		
State:	**NSW**	Postcode:	**2085**
Type:	**New Dwelling**	NCC Class:	**2**
		NatHERS climate zone:	**56**
Lot/DP number:	**1/1199795**	Exposure:	**Suburban**

Key construction and insulation materials

(see following pages for details)

Construction:	**Brick Veneer** **Waterproofing Membrane** **Concrete Slab, Unit Below**
Insulation:	**R2.0 wall insulation** **R2.0 ceiling insulation** **No floor insulation**
Glazing:	**ALM-001-01 A Aluminium A SG Clear**

Ceiling penetrations

(see following pages for details)

Sealed:	**32**
Unsealed:	**0**
TOTAL:**	**32**

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: **LED**

Net floor area (m²)

Conditioned:	**86.0**
Unconditioned:	**6.0**
Garage:	**0.0**
TOTAL:	**93.0**

Annual thermal performance loads (MJ/m²)

Heating:	**30.9**
Cooling:	**25.8**
TOTAL:	**56.7**

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:	**Plans, Elevations Section**
Prepared by:	**DKO Architecture**

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Building features

Window type and performance value

Window ID	Window type	U-value	SHGC
ALM-001-01 A	ALM-001-01 A Aluminium A SG Clear	6.7	0.57

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Bedroom 2	ALM-001-01 A	n/a	2700	1500	SW	No Shading
Bedroom 3	ALM-001-01 A	n/a	2700	1500	NE	No Shading
Bedroom 1	ALM-001-01 A	n/a	2700	2700	SW	No Shading
Kitchen/Living	ALM-001-01 A	n/a	2700	3600	NE	No Shading
Kitchen/Living	ALM-001-01 A	n/a	2700	1500	NE	No Shading
Kitchen/Living	ALM-001-01 A	n/a	2700	900	SE	No Shading
Kitchen/Living	ALM-001-01 A	n/a	2700	3000	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	Bulk Insulation R2	No

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Bedroom 2	EW-1	2995	2900	SW	No	1100
Bedroom 3	EW-1	2995	2900	NE	No	0
Bedroom 1	EW-1	3095	2900	SW	No	3200
Kitchen/Living	EW-1	9195	2900	NE	No	0
Kitchen/Living	EW-1	2100	2900	SE	No	3100
Kitchen/Living	EW-1	3995	2900	SW	No	1100

Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Stud, multi plaster layers	57.0	Bulk Insulation in the centre R2	No
IW-2 - Cavity wall, direct fix plasterboard, single gap	91.0	No insulation	No

Building features continued

Floors

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Bedroom 2	Concrete Slab, Unit Below 150mm	10.8	None	No Insulation	Carpet 10mm
Laundry	Concrete Slab, Unit Below 150mm	1.7	None	No Insulation	Ceramic Tiles 8mm
Bedroom 3	Concrete Slab, Unit Below 150mm	9.9	None	No Insulation	Carpet 10mm
Bathroom	Concrete Slab, Unit Below 150mm	4.8	None	No Insulation	Ceramic Tiles 8mm
Bedroom 1	Concrete Slab, Unit Below 150mm	14.2	None	No Insulation	Carpet 10mm
Ensuite	Concrete Slab, Unit Below 150mm	5.1	None	No Insulation	Ceramic Tiles 8mm
Kitchen/Living	Concrete Slab, Unit Below 150mm	46.4	None	No Insulation	Cork Tiles or Parquetry 8mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Bedroom 2	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Laundry	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Bedroom 3	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Bathroom	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Bedroom 1	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Ensuite	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Kitchen/Living	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes

Building features continued

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
Bedroom 2	4	Downlights - LED	150	Sealed
Laundry	1	Downlights - LED	150	Sealed
Laundry	1	Exhaust Fans	300	Sealed
Bedroom 3	4	Downlights - LED	150	Sealed
Bathroom	2	Downlights - LED	150	Sealed
Bathroom	1	Exhaust Fans	300	Sealed
Bedroom 1	5	Downlights - LED	150	Sealed
Ensuite	2	Downlights - LED	150	Sealed
Ensuite	1	Exhaust Fans	300	Sealed
Kitchen/Living	10	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed

Ceiling fans

Location	Number	Diameter (mm)
None Present		

Roof type

Construction	Added insulation	Roof colour
Waterproofing Membrane	No Insulation, Only an Air Gap	Light

Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0004411450 **Certificate Date:** 03 Dec 2019 ★Star rating: 5.6

Additional information

Explanatory notes

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Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004411526** Certificate Date: **03 Dec 2019** ★Star rating: **5.9**

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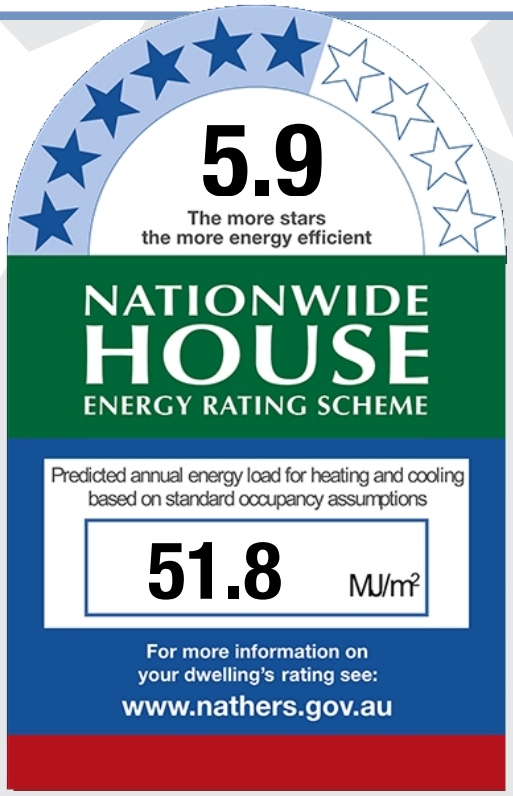
Assessor details

Accreditation number:	**20884**
Name:	**Zoltan Lipovski**
Organisation:	**EcoMode Design**
Email:	**zoltan@ecomode.com.au**
Phone:	**0410605614**
Declaration of interest:	**None**
Software:	**BERS Pro v4.3.0.2f (3.13)**
AAO:	**ABSA**



Overview

Dwelling details

Street:	**Unit 2.04, 28 Lockwood Avenue**		
Suburb:	**Belrose**		
State:	**NSW**	Postcode:	**2085**
Type:	**New Dwelling**	NCC Class:	**2**
		NatHERS climate zone:	**56**
Lot/DP number:	**1/1199795**	Exposure:	**Suburban**

Key construction and insulation materials

(see following pages for details)

Construction:	**Brick Veneer** **Waterproofing Membrane** **Concrete Slab, Unit Below**
Insulation:	**R2.0 wall insulation** **R2.0 ceiling insulation** **No floor insulation**
Glazing:	**ALM-001-01 A Aluminium A SG Clear**

Ceiling penetrations

(see following pages for details)

Sealed:	**32**
Unsealed:	**0**
TOTAL:**	**32**

NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. **If this number is exceeded in construction then this certificate IS NOT VALID and a new certificate is required. Loss of ceiling insulation for the penetrations listed has been taken into account with the rating.

Principle downlight type: **LED**

Net floor area (m²)

Conditioned:	**82.0**
Unconditioned:	**6.0**
Garage:	**0.0**
TOTAL:	**88.0**

Annual thermal performance loads (MJ/m²)

Heating:	**39.2**
Cooling:	**12.6**
TOTAL:	**51.8**

Window selection - default windows only

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Plan ref/date:	**Plans, Elevations Section**
Prepared by:	**DKO Architecture**

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Building features

Window type and performance value

Window ID	Window type	U-value	SHGC
ALM-001-01 A	ALM-001-01 A Aluminium A SG Clear	6.7	0.57

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Bedroom 1	ALM-001-01 A	n/a	2700	2700	SW	No Shading
Kitchen/Living	ALM-001-01 A	n/a	600	1500	NE	No Shading
Kitchen/Living	ALM-001-01 A	n/a	2700	3700	SW	No Shading
Kitchen/Living	ALM-001-01 A	n/a	2700	900	NW	No Shading
Bedroom 2	ALM-001-01 A	n/a	2700	1500	SW	No Shading
Bedroom 3	ALM-001-01 A	n/a	2700	1500	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	Bulk Insulation R2	No

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Bedroom 1	EW-1	4095	2900	SW	No	3000
Bedroom 1	EW-1	1200	2900	NW	No	0
Kitchen/Living	EW-1	3795	2900	NE	No	0
Kitchen/Living	EW-1	4195	2900	SW	No	1100
Kitchen/Living	EW-1	1900	2900	NW	No	4100
Bedroom 2	EW-1	2995	2900	SW	No	1100
Bedroom 3	EW-1	2995	2900	NE	No	0

Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Stud, multi plaster layers	50.0	Bulk Insulation in the centre R2	No
IW-2 - Cavity wall, direct fix plasterboard, single gap	71.0	No insulation	No
IW-3 - Concrete Panel/Blocks filled, plasterboard	28.0	No Insulation	No

Building features continued

Floors

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Bedroom 1	Concrete Slab, Unit Below 150mm	13.7	None	No Insulation	Carpet 10mm
Kitchen/Living	Concrete Slab, Unit Below 150mm	40.5	None	No Insulation	Cork Tiles or Parquetry 8mm
Bedroom 2	Concrete Slab, Unit Below 150mm	10.8	None	No Insulation	Carpet 10mm
Bedroom 3	Concrete Slab, Unit Below 150mm	9.9	None	No Insulation	Carpet 10mm
Laundry	Concrete Slab, Unit Below 150mm	1.7	None	No Insulation	Ceramic Tiles 8mm
Bathroom	Concrete Slab, Unit Below 150mm	4.8	None	No Insulation	Ceramic Tiles 8mm
Ensuite	Concrete Slab, Unit Below 150mm	6.8	None	No Insulation	Ceramic Tiles 8mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Bedroom 1	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Kitchen/Living	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Bedroom 2	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Bedroom 3	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Laundry	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Bathroom	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Ensuite	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes

Building features continued

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
Bedroom 1	4	Downlights - LED	150	Sealed
Kitchen/Living	10	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
Bedroom 2	4	Downlights - LED	150	Sealed
Bedroom 2	1	Exhaust Fans	300	Sealed
Bedroom 3	4	Downlights - LED	150	Sealed
Laundry	1	Downlights - LED	150	Sealed
Laundry	1	Exhaust Fans	300	Sealed
Bathroom	2	Downlights - LED	150	Sealed
Bathroom	1	Exhaust Fans	300	Sealed
Ensuite	2	Downlights - LED	150	Sealed
Ensuite	1	Exhaust Fans	300	Sealed

Ceiling fans

Location	Number	Diameter (mm)
None Present		

Roof type

Construction	Added insulation	Roof colour
Waterproofing Membrane	No Insulation, Only an Air Gap	Light

Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0004411526 **Certificate Date:** 03 Dec 2019 ★Star rating: 5.9

Additional information

Explanatory notes

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Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004411542** Certificate Date: **03 Dec 2019** ★Star rating: **6.4**

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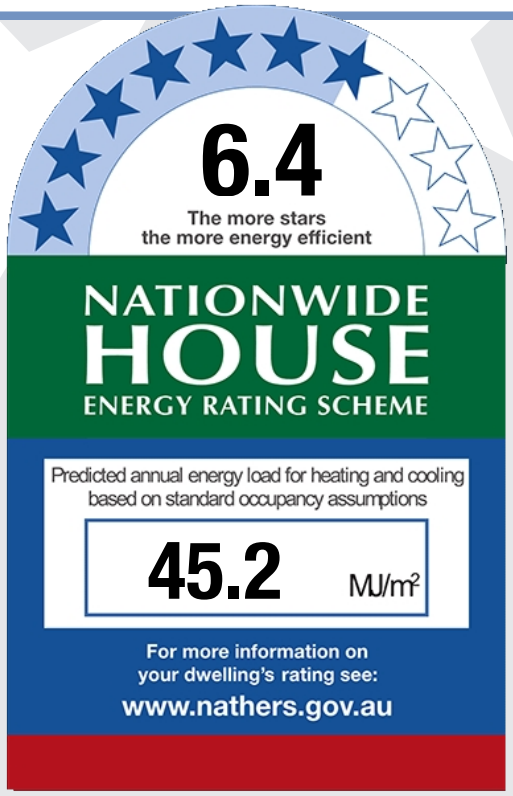
Assessor details

Accreditation number:	**20884**
Name:	**Zoltan Lipovski**
Organisation:	**EcoMode Design**
Email:	**zoltan@ecomode.com.au**
Phone:	**0410605614**
Declaration of interest:	**None**
Software:	**BERS Pro v4.3.0.2f (3.13)**
AAO:	**ABSA**



Overview

Dwelling details

Street:	**Unit 2.05, 28 Lockwood Avenue**		
Suburb:	**Belrose**		
State:	**NSW**	Postcode:	**2085**
Type:	**New Dwelling**	NCC Class:	**2**
		NatHERS climate zone:	**56**
Lot/DP number:	**1/1199795**	Exposure:	**Suburban**

Key construction and insulation materials

(see following pages for details)

Construction:	**Brick Veneer** **Waterproofing Membrane** **Concrete Slab, Unit Below**
Insulation:	**R2.0 wall insulation** **R2.0 ceiling insulation** **No floor insulation**
Glazing:	**ALM-001-01 A Aluminium A SG Clear**

Ceiling penetrations

(see following pages for details)

Sealed:	**34**
Unsealed:	**0**
TOTAL:**	**34**

NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. **If this number is exceeded in construction then this certificate IS NOT VALID and a new certificate is required. Loss of ceiling insulation for the penetrations listed has been taken into account with the rating.

Principle downlight type: **LED**

Net floor area (m²)

Conditioned:	**93.0**
Unconditioned:	**8.0**
Garage:	**0.0**
TOTAL:	**101.0**

Annual thermal performance loads (MJ/m²)

Heating:	**27.9**
Cooling:	**17.3**
TOTAL:	**45.2**

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:	**Plans, Elevations Section**
Prepared by:	**DKO Architecture**

* 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-001-01 A	ALM-001-01 A Aluminium A SG Clear	6.7	0.57

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Bedroom 1	ALM-001-01 A	n/a	2700	1500	SW	No Shading
Bedroom 1	ALM-001-01 A	n/a	2700	1500	SW	No Shading
Bedroom 1	ALM-001-01 A	n/a	2700	2000	NW	No Shading
Bedroom 2	ALM-001-01 A	n/a	2700	2000	NW	No Shading
Bedroom 2	ALM-001-01 A	n/a	2700	2700	NE	No Shading
Bedroom 3	ALM-001-01 A	n/a	2700	2000	NW	No Shading
Kitchen/Living	ALM-001-01 A	n/a	600	1500	NE	No Shading
Kitchen/Living	ALM-001-01 A	n/a	2700	2700	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	Bulk Insulation R2	No

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Ensuite	EW-1	1795	2900	SW	No	1200
Ensuite	EW-1	2995	2900	SE	No	2800
Bedroom 1	EW-1	5295	2900	SW	No	1200
Bedroom 1	EW-1	2995	2900	NW	No	700
Bedroom 2	EW-1	3595	2900	NW	No	700
Bedroom 2	EW-1	3795	2900	NE	No	0
Bedroom 3	EW-1	4390	2900	NW	No	700
Kitchen/Living	EW-1	4795	2900	NE	No	0
Kitchen/Living	EW-1	2800	2900	SW	No	3400
Laundry	EW-1	1290	2900	NE	No	0

Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
	96.0	No insulation	No

Building features continued

IW-1 - Cavity wall, direct fix plasterboard, single gap			
IW-2 - Concrete Panel/Blocks filled, plasterboard	11.0	No Insulation	No
IW-3 - Stud, multi plaster layers	28.0	Bulk Insulation in the centre R2	No

Floors

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Ensuite	Concrete Slab, Unit Below 150mm	5.2	None	No Insulation	Ceramic Tiles 8mm
Bedroom 1	Concrete Slab, Unit Below 150mm	15.5	None	No Insulation	Carpet 10mm
Bedroom 2	Concrete Slab, Unit Below 150mm	14.9	None	No Insulation	Carpet 10mm
Bedroom 3	Concrete Slab, Unit Below 150mm	12.2	None	No Insulation	Carpet 10mm
Kitchen/Living	Concrete Slab, Unit Below 150mm	45.0	None	No Insulation	Cork Tiles or Parquetry 8mm
Bathroom	Concrete Slab, Unit Below 150mm	5.6	None	No Insulation	Ceramic Tiles 8mm
Laundry	Concrete Slab, Unit Below 150mm	2.7	None	No Insulation	Ceramic Tiles 8mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Ensuite	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Bedroom 1	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Bedroom 2	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Bedroom 3	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Kitchen/Living	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Bathroom	Concrete, Plasterboard	Foil Anti-glare one side and	Yes

Building features continued

		Reflective other of the Bulk Insulation R2	
Laundry	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
Ensuite	2	Downlights - LED	150	Sealed
Ensuite	1	Exhaust Fans	300	Sealed
Bedroom 1	6	Downlights - LED	150	Sealed
Bedroom 2	4	Downlights - LED	150	Sealed
Bedroom 3	4	Downlights - LED	150	Sealed
Kitchen/Living	10	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
Bathroom	2	Downlights - LED	150	Sealed
Bathroom	1	Exhaust Fans	300	Sealed
Laundry	2	Downlights - LED	150	Sealed
Laundry	1	Exhaust Fans	300	Sealed

Ceiling fans

Location	Number	Diameter (mm)
None Present		

Roof type

Construction	Added insulation	Roof colour
Waterproofing Membrane	No Insulation, Only an Air Gap	Light

Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0004411542 **Certificate Date:** 03 Dec 2019 ★Star rating: 6.4

Additional information

Explanatory notes

About this report

Residential energy ratings address the quality of the building fabric i.e. walls, windows, floors and roof/ceilings. Ratings do not cover the energy or water efficiency of appliances including heating and cooling, hot water, dishwashers, ovens, fridges, TVs etc. or solar panel or water tank requirements. The efficiency or specification of these items is generally covered by other regulations, standards or guidelines.

General Information

A NatHERS House Energy Rating is a comprehensive, dynamic computer modelling evaluation of the floorplans, elevations and specifications to predict an energy load of a home. Not all of us use our homes in the same way, so ratings are generated using standard assumptions. This means homes can be compared across the country.

The actual energy consumption of your home may vary significantly from the predicted energy load figures in the report depending on issues such as the size of your household and your personal preferences, e.g. in terms of heating or cooling.

While the figures are an indicative guide to energy use, they can be used as a reliable guide for comparative purposes between different house designs and for demonstrating that the design meets the required regulatory compliance.

Homes that are energy efficient use less energy, are warmer in winter, cooler in summer and cost less to run. The higher the star rating the more energy efficient.

This NatHERS House Energy Rating report was carefully prepared by your assessor on the basis of comprehensive modelling using standard procedures to rate your home using the underlying engine developed by the Australian Commonwealth Scientific and Industrial Research Organisation (CSIRO).

All information relating to energy loads presented in this report is based on a range of standard assumptions in order to allow for comparisons with reports prepared for other homes and to demonstrate minimum regulatory compliance.

The standard assumptions include figures for occupancy, indoor air temperature and are based on a unique climate file for your region.

Accredited Assessors

To ensure you get a high-quality, professional NatHERS House Energy Rating report, you should always use an accredited assessor, accredited assessors are members of a professional body called an Assessor Accrediting Organisation (AAO).

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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

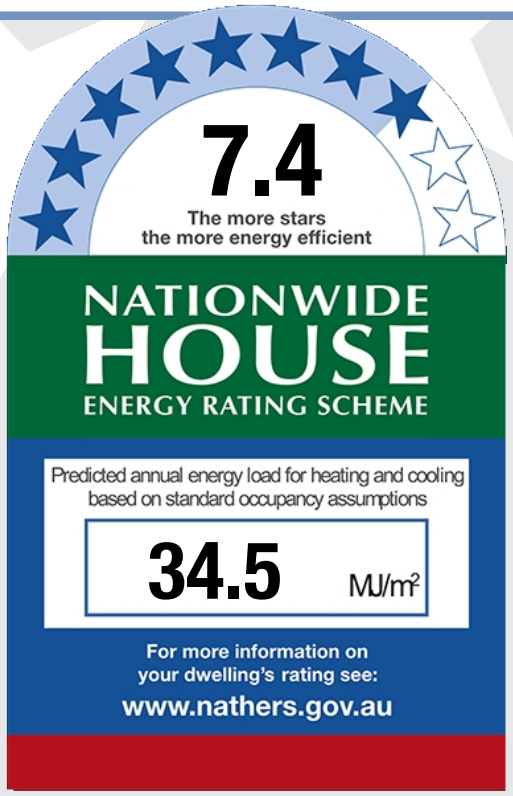
Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004411500** Certificate Date: **03 Dec 2019** ★Star rating: **7.4**

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:	**20884**
Name:	**Zoltan Lipovski**
Organisation:	**EcoMode Design**
Email:	**zoltan@ecomode.com.au**
Phone:	**0410605614**
Declaration of interest:	**None**
Software:	**BERS Pro v4.3.0.2f (3.13)**
AAO:	**ABSA**



Overview

Dwelling details

Street:	**Unit G.01, 28 Lockwood Avenue**		
Suburb:	**Belrose**		
State:	**NSW**	Postcode:	**2085**
Type:	**New Dwelling**	NCC Class:	**2**
		NatHERS climate zone:	**56**
Lot/DP number:	**1/1199795**	Exposure:	**Suburban**

Key construction and insulation materials

(see following pages for details)

Construction:	**Brick Veneer** **Concrete, Plasterboard** **Concrete Slab, Unit Below**
Insulation:	**R2.0 wall insulation** **No ceiling insulation** **No floor insulation**
Glazing:	**ALM-001-01 A Aluminium A SG Clear**

Net floor area (m²)

Conditioned:	**105.0**
Unconditioned:	**6.0**
Garage:	**0.0**
TOTAL:	**111.0**

Annual thermal performance loads (MJ/m²)

Heating:	**18.9**
Cooling:	**15.6**
TOTAL:	**34.5**

Plan documents

Plan ref/date:	**Plans, Elevations Section**
Prepared by:	**DKO Architecture**

Ceiling penetrations

(see following pages for details)

Sealed:	**31**
Unsealed:	**0**
TOTAL:**	**31**

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: **LED**

Window selection - default windows only

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

Note: Only a +/- 5% SHGC tolerance is allowed with this rating.

NB: This tolerance ONLY applies to SHGC, the U-value can always be lower but not higher than the values stated on page 2.

If any of windows selected are outside the 5% tolerance then this certificate is no longer valid and the dwelling will need to be rerated to confirm compliance.

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Building features

Window type and performance value

Window ID	Window type	U-value	SHGC
ALM-001-01 A	ALM-001-01 A Aluminium A SG Clear	6.7	0.57

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Kitchen/Living	ALM-001-01 A	n/a	2700	3600	NE	No Shading
Bedroom 1	ALM-001-01 A	n/a	2700	2900	NE	No Shading
Bedroom 2	ALM-001-01 A	n/a	2700	2900	NE	No Shading
Bedroom 3	ALM-001-01 A	n/a	2700	1500	NE	No Shading
Bedroom 3	ALM-001-01 A	n/a	2700	1500	NE	No Shading
Bedroom 3	ALM-001-01 A	n/a	2700	2580	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	Bulk Insulation R2	No

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Kitchen/Living	EW-1	4995	2900	NE	No	3300
Bedroom 1	EW-1	2995	2900	NE	No	3000
Bedroom 2	EW-1	3210	2900	NE	No	3005
Bedroom 3	EW-1	1495	2900	NW	No	4500
Bedroom 3	EW-1	4022	2900	NE	No	485
Bedroom 3	EW-1	2586	2900	SE	No	6272

Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Cavity wall, direct fix plasterboard, single gap	93.0	No insulation	No
IW-2 - Concrete Panel/Blocks filled, multi plaster layers	52.0	No Insulation	No
IW-3 - Stud, multi plaster layers	27.0	Bulk Insulation in the centre R2	No

Building features continued

Floors

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living	Concrete Slab, Unit Below 150mm	55.2	None	No Insulation	Cork Tiles or Parquetry 8mm
Bathroom	Concrete Slab, Unit Below 150mm	4.4	None	No Insulation	Ceramic Tiles 8mm
Ensuite	Concrete Slab, Unit Below 150mm	4.4	None	No Insulation	Ceramic Tiles 8mm
Laundry	Concrete Slab, Unit Below 150mm	1.7	None	No Insulation	Ceramic Tiles 8mm
Bedroom 1	Concrete Slab, Unit Below 150mm	16.2	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	15.0	None	No Insulation	Carpet 10mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Kitchen/Living	Concrete, Plasterboard	No insulation	No
Bathroom	Concrete, Plasterboard	No insulation	No
Ensuite	Concrete, Plasterboard	No insulation	No
Laundry	Concrete, Plasterboard	No insulation	No
Bedroom 1	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
Kitchen/Living	8	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
Bathroom	2	Downlights - LED	150	Sealed
Bathroom	1	Exhaust Fans	300	Sealed
Ensuite	2	Downlights - LED	150	Sealed
Ensuite	1	Exhaust Fans	300	Sealed
Laundry	1	Downlights - LED	150	Sealed
Laundry	1	Exhaust Fans	300	Sealed
Bedroom 1	6	Downlights - LED	150	Sealed
Bedroom 2	4	Downlights - LED	150	Sealed
Bedroom 3	4	Downlights - LED	150	Sealed

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: 0004411500 **Certificate Date:** 03 Dec 2019 ★Star rating: 7.4

Additional information

Explanatory notes

About this report

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For more information on energy efficient design and insulation visit www.yourhome.gov.au

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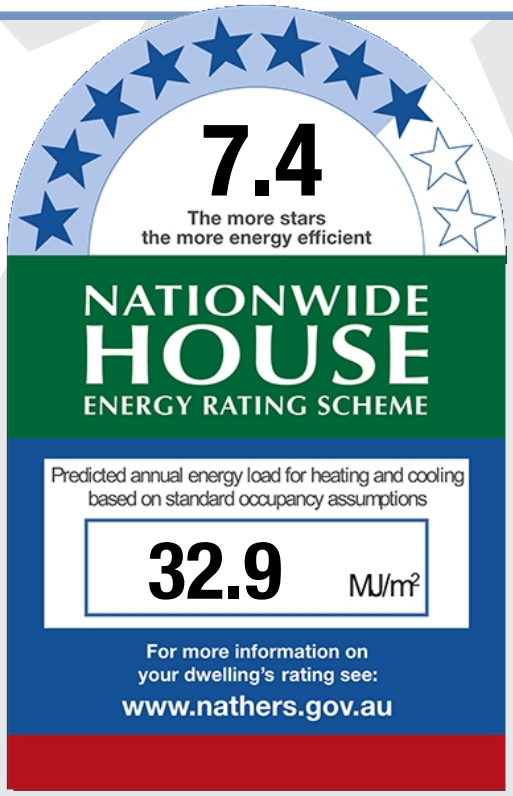
Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004411518** Certificate Date: **03 Dec 2019** ★Star rating: **7.4**

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:	**20884**
Name:	**Zoltan Lipovski**
Organisation:	**EcoMode Design**
Email:	**zoltan@ecomode.com.au**
Phone:	**0410605614**
Declaration of interest:	**None**
Software:	**BERS Pro v4.3.0.2f (3.13)**
AAO:	**ABSA**



Overview

Dwelling details

Street:	**Unit G.02, 28 Lockwood Avenue**		
Suburb:	**Belrose**		
State:	**NSW**	Postcode:	**2085**
Type:	**New Dwelling**	NCC Class:	**2**
		NatHERS climate zone:	**56**
Lot/DP number:	**1/1199795**	Exposure:	**Suburban**

Key construction and insulation materials

(see following pages for details)

Construction:	**Brick Veneer** **Concrete, Plasterboard** **Concrete Slab, Unit Below**
Insulation:	**R2.0 wall insulation** **No ceiling insulation** **No floor insulation**
Glazing:	**ALM-001-01 A Aluminium A SG Clear**

Net floor area (m²)

Conditioned:	**64.0**
Unconditioned:	**6.0**
Garage:	**0.0**
TOTAL:	**70.0**

Annual thermal performance loads (MJ/m²)

Heating:	**12.0**
Cooling:	**20.9**
TOTAL:	**32.9**

Plan documents

Plan ref/date:	**Plans, Elevations Section**
Prepared by:	**DKO Architecture**

Ceiling penetrations

(see following pages for details)

Sealed:	**27**
Unsealed:	**0**
TOTAL:**	**27**

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: **LED**

Window selection - default windows only

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

Note: Only a +/- 5% SHGC tolerance is allowed with this rating.

NB: This tolerance ONLY applies to SHGC, the U-value can always be lower but not higher than the values stated on page 2.

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Building features

Window type and performance value

Window ID	Window type	U-value	SHGC
ALM-001-01 A	ALM-001-01 A Aluminium A SG Clear	6.7	0.57

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Kitchen/Living	ALM-001-01 A	n/a	2700	4000	NE	No Shading
Bedroom 1	ALM-001-01 A	n/a	2700	1500	NE	No Shading
Bedroom 2	ALM-001-01 A	n/a	2700	1500	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	Bulk Insulation R2	No

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Kitchen/Living	EW-1	4295	2900	NE	No	2700
Bedroom 1	EW-1	2995	2900	NE	No	1500
Bedroom 1	EW-1	2100	2900	SE	No	0
Bedroom 2	EW-1	1200	2900	NW	No	4300
Bedroom 2	EW-1	3095	2900	NE	No	1500

Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Stud, multi plaster layers	45.0	Bulk Insulation in the centre R2	No
IW-2 - Cavity wall, direct fix plasterboard, single gap	65.0	No insulation	No
IW-3 - Concrete Panel/Blocks filled, multi plaster layers	30.0	No Insulation	No

Floors

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living	Concrete Slab, Unit Below	35.5	None	No Insulation	Cork Tiles or

Building features continued

	150mm				Parquetry 8mm
Bathroom	Concrete Slab, Unit Below 150mm	4.4	None	No Insulation	Ceramic Tiles 8mm
Ensuite	Concrete Slab, Unit Below 150mm	5.0	None	No Insulation	Ceramic Tiles 8mm
Bedroom 1	Concrete Slab, Unit Below 150mm	12.6	None	No Insulation	Carpet 10mm
Bedroom 2	Concrete Slab, Unit Below 150mm	11.4	None	No Insulation	Carpet 10mm
Laundry	Concrete Slab, Unit Below 150mm	1.4	None	No Insulation	Ceramic Tiles 8mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Kitchen/Living	Concrete, Plasterboard	No insulation	No
Bathroom	Concrete, Plasterboard	No insulation	No
Ensuite	Concrete, Plasterboard	No insulation	No
Bedroom 1	Concrete, Plasterboard	No insulation	No
Bedroom 2	Concrete, Plasterboard	No insulation	No
Laundry	Concrete, Plasterboard	No insulation	No

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
Kitchen/Living	10	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
Bathroom	2	Downlights - LED	150	Sealed
Bathroom	1	Exhaust Fans	300	Sealed
Ensuite	2	Downlights - LED	150	Sealed
Ensuite	1	Exhaust Fans	300	Sealed
Bedroom 1	4	Downlights - LED	150	Sealed
Bedroom 2	4	Downlights - LED	150	Sealed
Laundry	1	Downlights - LED	150	Sealed
Laundry	1	Exhaust Fans	300	Sealed

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: 0004411518 **Certificate Date:** 03 Dec 2019 ★Star rating: 7.4

Additional information

Explanatory notes

About this report

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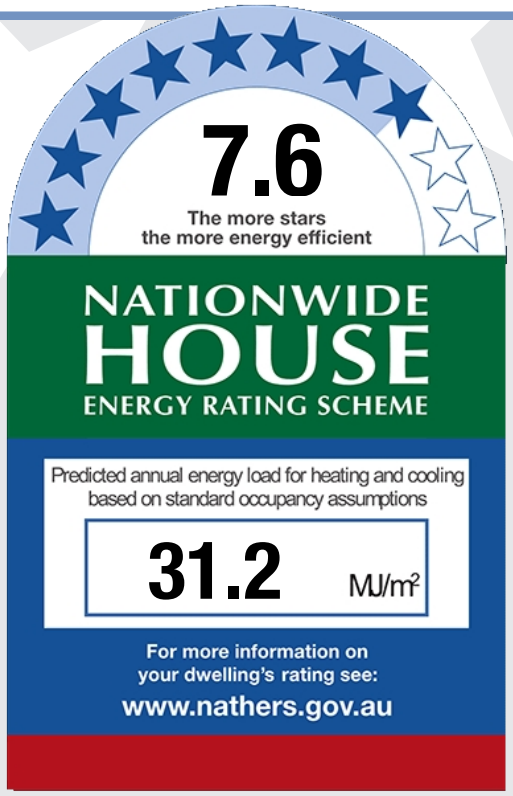
Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004411534** Certificate Date: **03 Dec 2019** ★Star rating: **7.6**

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:	**20884**
Name:	**Zoltan Lipovski**
Organisation:	**EcoMode Design**
Email:	**zoltan@ecomode.com.au**
Phone:	**0410605614**
Declaration of interest:	**None**
Software:	**BERS Pro v4.3.0.2f (3.13)**
AAO:	**ABSA**



Overview

Dwelling details

Street:	**Unit G.03, 28 Lockwood Avenue**		
Suburb:	**Belrose**		
State:	**NSW**	Postcode:	**2085**
Type:	**New Dwelling**	NCC Class:	**2**
		NatHERS climate zone:	**56**
Lot/DP number:	**1/1199795**	Exposure:	**Suburban**

Key construction and insulation materials

(see following pages for details)

Construction:	**Brick Veneer** **Concrete, Plasterboard** **Concrete Slab, Unit Below**
Insulation:	**R2.0 wall insulation** **No ceiling insulation** **No floor insulation**
Glazing:	**ALM-001-01 A Aluminium A SG Clear**

Net floor area (m²)

Conditioned:	**75.0**
Unconditioned:	**7.0**
Garage:	**0.0**
TOTAL:	**82.0**

Annual thermal performance loads (MJ/m²)

Heating:	**19.2**
Cooling:	**12.0**
TOTAL:	**31.2**

Plan documents

Plan ref/date:	**Plans, Elevations Section**
Prepared by:	**DKO Architecture**

Ceiling penetrations

(see following pages for details)

Sealed:	**29**
Unsealed:	**0**
TOTAL:**	**29**

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: **LED**

Window selection - default windows only

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

Note: Only a +/- 5% SHGC tolerance is allowed with this rating.

NB: This tolerance ONLY applies to SHGC, the U-value can always be lower but not higher than the values stated on page 2.

If any of windows selected are outside the 5% tolerance then this certificate is no longer valid and the dwelling will need to be rerated to confirm compliance.

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Building features

Window type and performance value

Window ID	Window type	U-value	SHGC
ALM-001-01 A	ALM-001-01 A Aluminium A SG Clear	6.7	0.57

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Bedroom 2	ALM-001-01 A	n/a	2700	1500	NE	No Shading
Kitchen/Living	ALM-001-01 A	n/a	2700	3000	NW	No Shading
Kitchen/Living	ALM-001-01 A	n/a	2700	1500	NE	No Shading
Bedroom 1	ALM-001-01 A	n/a	2700	3000	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	Bulk Insulation R2	No

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Bedroom 2	EW-1	2995	2900	NE	No	1500
Bedroom 2	EW-1	1300	2900	SE	No	0
Kitchen/Living	EW-1	3500	2900	NW	No	3000
Kitchen/Living	EW-1	4095	2900	NE	No	1500
Bedroom 1	EW-1	2995	2900	NE	No	5000

Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Stud, multi plaster layers	54.0	Bulk Insulation in the centre R2	No
IW-2 - Cavity wall, direct fix plasterboard, single gap	73.0	No insulation	No
IW-3 - Concrete Panel/Blocks filled, multi plaster layers	16.0	No Insulation	No

Floors

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering

Building features continued

Bathroom	Concrete Slab, Unit Below 150mm	4.7	None	No Insulation	Ceramic Tiles 8mm
Laundry	Concrete Slab, Unit Below 150mm	2.3	None	No Insulation	Ceramic Tiles 8mm
Bedroom 2	Concrete Slab, Unit Below 150mm	13.9	None	No Insulation	Carpet 10mm
Kitchen/Living	Concrete Slab, Unit Below 150mm	44.1	None	No Insulation	Cork Tiles or Parquetry 8mm
Ensuite	Concrete Slab, Unit Below 150mm	5.5	None	No Insulation	Ceramic Tiles 8mm
Bedroom 1	Concrete Slab, Unit Below 150mm	11.7	None	No Insulation	Carpet 10mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Bathroom	Concrete, Plasterboard	No insulation	No
Laundry	Concrete, Plasterboard	No insulation	No
Bedroom 2	Concrete, Plasterboard	No insulation	No
Kitchen/Living	Concrete, Plasterboard	No insulation	No
Ensuite	Concrete, Plasterboard	No insulation	No
Bedroom 1	Concrete, Plasterboard	No insulation	No

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
Bathroom	2	Downlights - LED	150	Sealed
Bathroom	1	Exhaust Fans	300	Sealed
Laundry	2	Downlights - LED	150	Sealed
Laundry	1	Exhaust Fans	300	Sealed
Bedroom 2	5	Downlights - LED	150	Sealed
Kitchen/Living	10	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
Ensuite	2	Downlights - LED	150	Sealed
Ensuite	1	Exhaust Fans	300	Sealed
Bedroom 1	4	Downlights - LED	150	Sealed

Ceiling fans

Location	Number	Diameter (mm)
None Present		

Roof type

Construction	Added insulation	Roof colour

Building features continued

None Present

Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0004411534 **Certificate Date:** 03 Dec 2019 ★Star rating: 7.6

Additional information

Explanatory notes

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Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004411575** Certificate Date: **03 Dec 2019** ★Star rating: **7.6**

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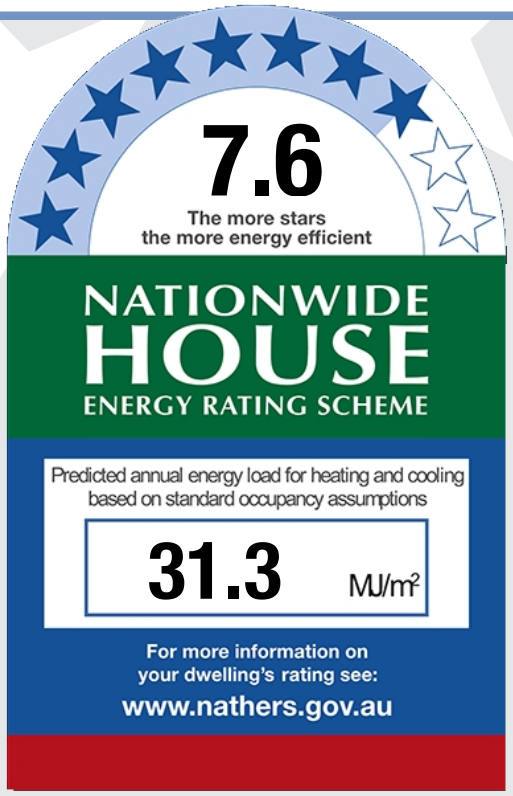
Assessor details

Accreditation number:	**20884**
Name:	**Zoltan Lipovski**
Organisation:	**EcoMode Design**
Email:	**zoltan@ecomode.com.au**
Phone:	**0410605614**
Declaration of interest:	**None**
Software:	**BERS Pro v4.3.0.2f (3.13)**
AAO:	**ABSA**



Overview

Dwelling details

Street:	**Unit G.04, 28 Lockwood Avenue**		
Suburb:	**Belrose**		
State:	**NSW**	Postcode:	**2085**
Type:	**New Dwelling**	NCC Class:	**2**
		NatHERS climate zone:	**56**
Lot/DP number:	**1/1199795**	Exposure:	**Suburban**

Key construction and insulation materials

(see following pages for details)

Construction:	**Brick Veneer** **Concrete, Plasterboard** **Concrete Slab, Unit Below**
Insulation:	**R2.0 wall insulation** **No ceiling insulation** **No floor insulation**
Glazing:	**ALM-001-01 A Aluminium A SG Clear**

Net floor area (m²)

Conditioned:	**75.0**
Unconditioned:	**7.0**
Garage:	**0.0**
TOTAL:	**82.0**

Annual thermal performance loads (MJ/m²)

Heating:	**20.5**
Cooling:	**10.9**
TOTAL:	**31.3**

Plan documents

Plan ref/date:	**Plans, Elevations Section**
Prepared by:	**DKO Architecture**

Ceiling penetrations

(see following pages for details)

Sealed:	**29**
Unsealed:	**0**
TOTAL:**	**29**

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Principle downlight type: **LED**

Window selection - default windows only

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Building features

Window type and performance value

Window ID	Window type	U-value	SHGC
ALM-001-01 A	ALM-001-01 A Aluminium A SG Clear	6.7	0.57

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Bedroom 2	ALM-001-01 A	n/a	2700	1500	NE	No Shading
Kitchen/Living	ALM-001-01 A	n/a	2700	1500	NE	No Shading
Kitchen/Living	ALM-001-01 A	n/a	2700	3000	SE	No Shading
Bedroom 1	ALM-001-01 A	n/a	2700	3000	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	Bulk Insulation R2	No

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Bedroom 2	EW-1	2995	2900	NE	No	1600
Kitchen/Living	EW-1	4095	2900	NE	No	1600
Kitchen/Living	EW-1	3500	2900	SE	No	3000
Bedroom 1	EW-1	2995	2900	NE	No	5100

Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Concrete Panel/Blocks filled, multi plaster layers	57.0	No Insulation	No
IW-2 - Cavity wall, direct fix plasterboard, single gap	73.0	No insulation	No
IW-3 - Stud, multi plaster layers	17.0	Bulk Insulation in the centre R2	No

Floors

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Bathroom	Concrete Slab, Unit Below	4.7	None	No Insulation	Ceramic Tiles

Building features continued

	150mm				8mm
Laundry	Concrete Slab, Unit Below 150mm	2.3	None	No Insulation	Ceramic Tiles 8mm
Bedroom 2	Concrete Slab, Unit Below 150mm	13.9	None	No Insulation	Carpet 10mm
Kitchen/Living	Concrete Slab, Unit Below 150mm	44.1	None	No Insulation	Cork Tiles or Parquetry 8mm
Ensuite	Concrete Slab, Unit Below 150mm	5.5	None	No Insulation	Ceramic Tiles 8mm
Bedroom 1	Concrete Slab, Unit Below 150mm	11.7	None	No Insulation	Carpet 10mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Bathroom	Concrete, Plasterboard	No insulation	No
Laundry	Concrete, Plasterboard	No insulation	No
Bedroom 2	Concrete, Plasterboard	No insulation	No
Kitchen/Living	Concrete, Plasterboard	No insulation	No
Ensuite	Concrete, Plasterboard	No insulation	No
Bedroom 1	Concrete, Plasterboard	No insulation	No

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
Bathroom	2	Downlights - LED	150	Sealed
Bathroom	1	Exhaust Fans	300	Sealed
Laundry	2	Downlights - LED	150	Sealed
Laundry	1	Exhaust Fans	300	Sealed
Bedroom 2	5	Downlights - LED	150	Sealed
Kitchen/Living	10	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
Ensuite	2	Downlights - LED	150	Sealed
Ensuite	1	Exhaust Fans	300	Sealed
Bedroom 1	4	Downlights - LED	150	Sealed

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: 0004411575 **Certificate Date:** 03 Dec 2019 ★Star rating: 7.6

Additional information

Explanatory notes

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Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004411609** Certificate Date: **03 Dec 2019** ★Star rating: **5.4**

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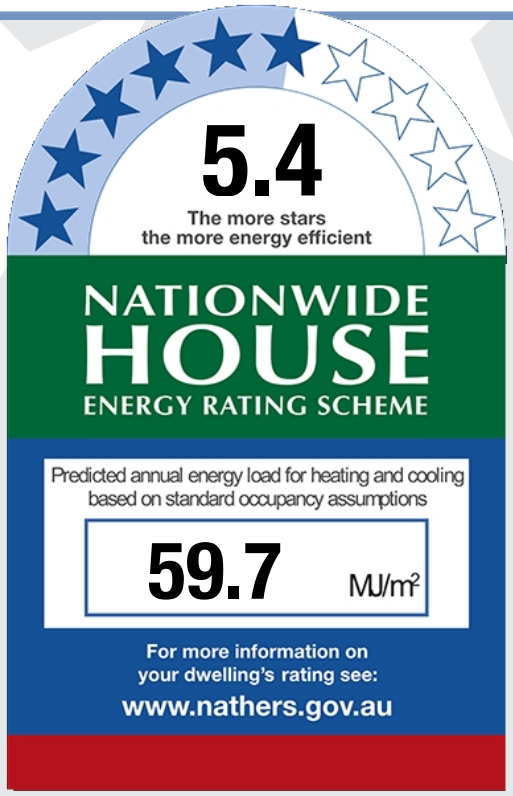
Assessor details

Accreditation number:	**20884**
Name:	**Zoltan Lipovski**
Organisation:	**EcoMode Design**
Email:	**zoltan@ecomode.com.au**
Phone:	**0410605614**
Declaration of interest:	**None**
Software:	**BERS Pro v4.3.0.2f (3.13)**
AAO:	**ABSA**



Overview

Dwelling details

Street:	**Unit G.05, 28 Lockwood Avenue**		
Suburb:	**Belrose**		
State:	**NSW**	Postcode:	**2085**
Type:	**New Dwelling**	NCC Class:	**2**
		NatHERS climate zone:	**56**
Lot/DP number:	**1/1199795**	Exposure:	**Suburban**

Key construction and insulation materials

(see following pages for details)

Construction:	**Brick Veneer** **Concrete, Plasterboard** **Concrete Slab, Unit Below**
Insulation:	**R2.0 wall insulation** **No ceiling insulation** **No floor insulation**
Glazing:	**ALM-001-01 A Aluminium A SG Clear**

Net floor area (m²)

Conditioned:	**75.0**
Unconditioned:	**7.0**
Garage:	**0.0**
TOTAL:	**83.0**

Annual thermal performance loads (MJ/m²)

Heating:	**39.8**
Cooling:	**19.9**
TOTAL:	**59.7**

Plan documents

Plan ref/date:	**Plans, Elevations Section**
Prepared by:	**DKO Architecture**

Ceiling penetrations

(see following pages for details)

Sealed:	**30**
Unsealed:	**0**
TOTAL:**	**30**

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Principle downlight type: **LED**

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
ALM-001-01 A	ALM-001-01 A Aluminium A SG Clear	6.7	0.57

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Kitchen/Living	ALM-002-01 A	n/a	2700	3000	NE	No Shading
Kitchen/Living	ALM-001-01 A	n/a	2700	2400	SE	No Shading
Bedroom 1	ALM-002-01 A	n/a	2700	3000	SE	No Shading
Bedroom 2	ALM-001-01 A	n/a	2700	1500	SE	No Shading
Study	ALM-001-01 A	n/a	1800	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	Brick Veneer	Bulk Insulation R2	No
EW-2	Tilt up concrete, lined	Bulk Insulation R2	No

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Kitchen/Living	EW-1	3400	2900	NE	No	3100
Kitchen/Living	EW-1	3995	2900	SE	No	500
Laundry	EW-1	1295	2900	SW	No	0
Bathroom	EW-1	1790	2900	SW	No	0
Bedroom 1	EW-1	3095	2900	SE	No	3900
Bedroom 2	EW-1	3095	2900	SE	No	500
Bedroom 2	EW-1	3795	2900	SW	No	0
Study	EW-2	2490	2900	SW	No	0

Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Stud, multi plaster layers	47.0	Bulk Insulation in the centre R2	No
IW-2 - Cavity wall, direct fix plasterboard, single gap	81.0	No insulation	No

Building features continued

Floors

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living	Concrete Slab, Unit Below 150mm	38.5	None	No Insulation	Cork Tiles or Parquetry 8mm
Laundry	Concrete Slab, Unit Below 150mm	2.2	None	No Insulation	Ceramic Tiles 8mm
Bathroom	Concrete Slab, Unit Below 150mm	5.2	None	No Insulation	Ceramic Tiles 8mm
Bedroom 1	Concrete Slab, Unit Below 150mm	12.7	None	No Insulation	Carpet 10mm
Bedroom 2	Concrete Slab, Unit Below 150mm	11.5	None	No Insulation	Carpet 10mm
Study	Concrete Slab, Unit Below 150mm	7.4	None	No Insulation	Cork Tiles or Parquetry 8mm
Ensuite	Concrete Slab, Unit Below 150mm	5.4	None	No Insulation	Ceramic Tiles 8mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Kitchen/Living	Concrete, Plasterboard	No insulation	No
Laundry	Concrete, Plasterboard	No insulation	No
Bathroom	Concrete, Plasterboard	No insulation	No
Bedroom 1	Concrete, Plasterboard	No insulation	No
Bedroom 2	Concrete, Plasterboard	No insulation	No
Study	Concrete, Plasterboard	No insulation	No
Ensuite	Concrete, Plasterboard	No insulation	No

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
Kitchen/Living	10	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
Laundry	2	Downlights - LED	150	Sealed
Laundry	1	Exhaust Fans	300	Sealed
Bathroom	2	Downlights - LED	150	Sealed
Bathroom	1	Exhaust Fans	300	Sealed
Bedroom 1	4	Downlights - LED	150	Sealed
Bedroom 2	4	Downlights - LED	150	Sealed
Study	2	Downlights - LED	150	Sealed
Ensuite	2	Downlights - LED	150	Sealed
Ensuite	1	Exhaust Fans	300	Sealed

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: 0004411609 **Certificate Date:** 03 Dec 2019 ★Star rating: 5.4

Additional information

Explanatory notes

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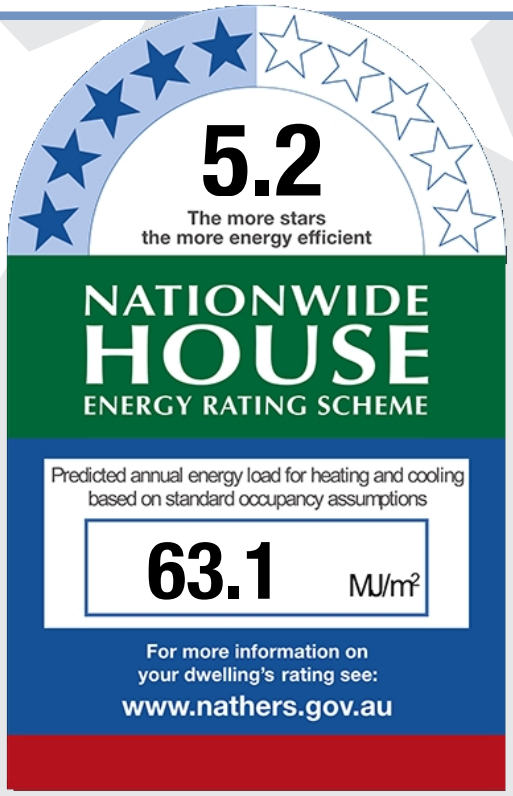
Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004411583** Certificate Date: **03 Dec 2019** ★Star rating: **5.2**

BERS Pro v4.3.0.0 (3.13) cannot be used to model 'roof windows'. Roof windows are 'openable or fixed windows in a roof' and do not have a shaft, as distinct from skylights which incorporate a built-in shaft and are not ventilated. BERS Pro v4.3 can only model skylights. If a roof window is present on the floor plan then this certificate is not valid.

Assessor details

Accreditation number:	**20884**
Name:	**Zoltan Lipovski**
Organisation:	**EcoMode Design**
Email:	**zoltan@ecomode.com.au**
Phone:	**0410605614**
Declaration of interest:	**None**
Software:	**BERS Pro v4.3.0.2f (3.13)**
AAO:	**ABSA**



Overview

Dwelling details

Street:	**Unit G.06, 28 Lockwood Avenue**		
Suburb:	**Belrose**		
State:	**NSW**	Postcode:	**2085**
Type:	**New Dwelling**	NCC Class:	**2**
		NatHERS climate zone:	**56**
Lot/DP number:	**1/1199795**	Exposure:	**Suburban**

Key construction and insulation materials

(see following pages for details)

Construction:	**Brick Veneer** **Waterproofing Membrane** **Concrete Slab, Unit Below**
Insulation:	**R2.0 wall insulation** **R2.0 ceiling insulation** **No floor insulation**
Glazing:	**ALM-002-01 A Aluminium B SG Clear**

Ceiling penetrations

(see following pages for details)

Sealed:	**27**
Unsealed:	**0**
TOTAL:**	**27**

NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. **If this number is exceeded in construction then this certificate IS NOT VALID and a new certificate is required. Loss of ceiling insulation for the penetrations listed has been taken into account with the rating.

Principle downlight type: **LED**

Net floor area (m²)

Conditioned:	**70.0**
Unconditioned:	**7.0**
Garage:	**0.0**
TOTAL:	**77.0**

Annual thermal performance loads (MJ/m²)

Heating:	**39.8**
Cooling:	**23.3**
TOTAL:	**63.1**

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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Plan documents

Plan ref/date:	**Plans, Elevations Section**
Prepared by:	**DKO Architecture**

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Building features

Window type and performance value

Window ID	Window type	U-value	SHGC
ALM-002-01 A	ALM-002-01 A Aluminium B SG Clear	6.7	0.70
ALM-001-01 A	ALM-001-01 A Aluminium A SG Clear	6.7	0.57

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Bedroom 1	ALM-002-01 A	n/a	2700	3000	SE	No Shading
Kitchen/Living	ALM-001-01 A	n/a	2700	2400	SE	No Shading
Kitchen/Living	ALM-002-01 A	n/a	2700	3000	SW	No Shading
Bedroom 2	ALM-001-01 A	n/a	2700	1500	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	Bulk Insulation R2	No

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Bedroom 1	EW-1	3095	2900	SE	No	3900
Kitchen/Living	EW-1	3895	2900	SE	No	500
Kitchen/Living	EW-1	3400	2900	SW	No	3100
Bathroom	EW-1	3195	2900	NE	No	0
Bedroom 2	EW-1	3595	2900	NE	No	0
Bedroom 2	EW-1	3195	2900	SE	No	500

Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Stud, multi plaster layers	40.0	Bulk Insulation in the centre R2	No
IW-2 - Cavity wall, direct fix plasterboard, single gap	64.0	No insulation	No
IW-3 - Concrete Panel/Blocks filled, multi plaster layers	15.0	No Insulation	No

Floors

Building features continued

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Bedroom 1	Concrete Slab, Unit Below 150mm	12.7	None	No Insulation	Carpet 10mm
Ensuite	Concrete Slab, Unit Below 150mm	5.4	None	No Insulation	Ceramic Tiles 8mm
Kitchen/Living	Concrete Slab, Unit Below 150mm	40.6	None	No Insulation	Cork Tiles or Parquetry 8mm
Laundry	Concrete Slab, Unit Below 150mm	1.1	None	No Insulation	Ceramic Tiles 8mm
Bathroom	Concrete Slab, Unit Below 150mm	5.9	None	No Insulation	Ceramic Tiles 8mm
Bedroom 2	Concrete Slab, Unit Below 150mm	11.2	None	No Insulation	Carpet 10mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Bedroom 1	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Ensuite	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Kitchen/Living	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Laundry	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Bathroom	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Bedroom 2	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
Bedroom 1	4	Downlights - LED	150	Sealed
Ensuite	2	Downlights - LED	150	Sealed

Building features continued

Ensuite	1	Exhaust Fans	300	Sealed
Kitchen/Living	10	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
Laundry	1	Downlights - LED	150	Sealed
Laundry	1	Exhaust Fans	300	Sealed
Bathroom	2	Downlights - LED	150	Sealed
Bathroom	1	Exhaust Fans	300	Sealed
Bedroom 2	4	Downlights - LED	150	Sealed

Ceiling fans

Location	Number	Diameter (mm)
None Present		

Roof type

Construction	Added insulation	Roof colour
Waterproofing Membrane	No Insulation, Only an Air Gap	Dark

Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0004411583 **Certificate Date:** 03 Dec 2019 ★Star rating: 5.2

Additional information

Explanatory notes

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Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004411617** Certificate Date: **03 Dec 2019** ★Star rating: **7.2**

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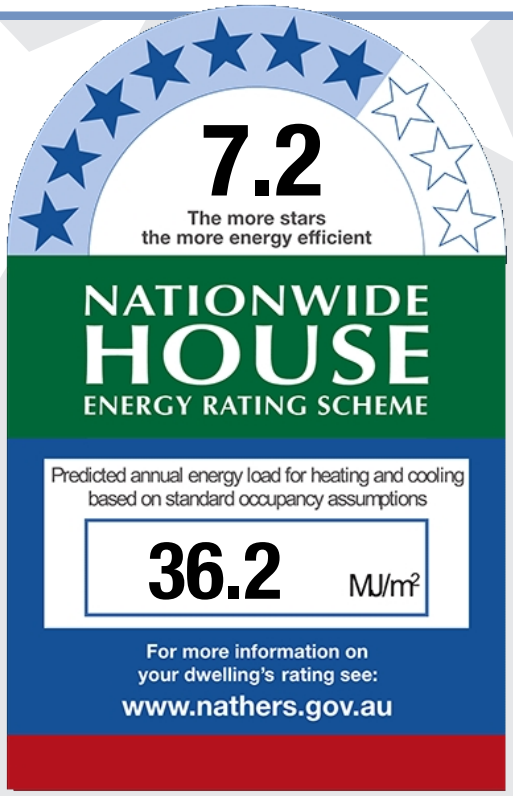
Assessor details

Accreditation number:	**20884**
Name:	**Zoltan Lipovski**
Organisation:	**EcoMode Design**
Email:	**zoltan@ecomode.com.au**
Phone:	**0410605614**
Declaration of interest:	**None**
Software:	**BERS Pro v4.3.0.2f (3.13)**
AAO:	**ABSA**



Overview

Dwelling details

Street:	**Unit G.07, 28 Lockwood Avenue**		
Suburb:	**Belrose**		
State:	**NSW**	Postcode:	**2085**
Type:	**New Dwelling**	NCC Class:	**2**
		NatHERS climate zone:	**56**
Lot/DP number:	**1/1199795**	Exposure:	**Suburban**

Key construction and insulation materials

(see following pages for details)

Construction:	**Brick Veneer** **Concrete, Plasterboard** **Concrete Slab, Unit Below**
Insulation:	**R2.0 wall insulation** **No ceiling insulation** **No floor insulation**
Glazing:	**ALM-001-01 A Aluminium A SG Clear**

Net floor area (m²)

Conditioned:	**96.0**
Unconditioned:	**9.0**
Garage:	**0.0**
TOTAL:	**105.0**

Annual thermal performance loads (MJ/m²)

Heating:	**17.4**
Cooling:	**18.8**
TOTAL:	**36.2**

Plan documents

Plan ref/date:	**Plans, Elevations Section**
Prepared by:	**DKO Architecture**

Ceiling penetrations

(see following pages for details)

Sealed:	**34**
Unsealed:	**0**
TOTAL:**	**34**

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: **LED**

Window selection - default windows only

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

Note: Only a +/- 5% SHGC tolerance is allowed with this rating.

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Building features

Window type and performance value

Window ID	Window type	U-value	SHGC
ALM-001-01 A	ALM-001-01 A Aluminium A SG Clear	6.7	0.57

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Kitchen/Living	ALM-001-01 A	n/a	2700	2000	NW	No Shading
Kitchen/Living	ALM-001-01 A	n/a	2700	1800	SW	No Shading
Bedroom 1	ALM-001-01 A	n/a	2700	1500	NW	No Shading
Bedroom 1	ALM-001-01 A	n/a	2700	1800	NE	No Shading
Bedroom 2	ALM-001-01 A	n/a	2700	2000	NW	No Shading
Bedroom 3	ALM-001-01 A	n/a	2700	1000	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	Bulk Insulation R2	No

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Kitchen/Living	EW-1	4500	2900	NW	No	800
Kitchen/Living	EW-1	3000	2900	SW	No	7900
Bedroom 1	EW-1	3100	2900	NW	No	800
Bedroom 1	EW-1	2995	2900	NE	No	9300
Bedroom 2	EW-1	3090	2900	NW	No	3800
Bedroom 3	EW-1	1695	2900	NW	No	3800

Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Stud, multi plaster layers	93.0	Bulk Insulation in the centre R2	No
IW-2 - Cavity wall, direct fix plasterboard, single gap	102.0	No insulation	No

Floors

Building features continued

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living	Concrete Slab, Unit Below 150mm	44.2	None	No Insulation	Cork Tiles or Parquetry 8mm
Corridor	Concrete Slab, Unit Below 150mm	5.3	None	No Insulation	Cork Tiles or Parquetry 8mm
Ensuite	Concrete Slab, Unit Below 150mm	4.5	None	No Insulation	Ceramic Tiles 8mm
Bedroom 1	Concrete Slab, Unit Below 150mm	18.5	None	No Insulation	Carpet 10mm
Bedroom 2	Concrete Slab, Unit Below 150mm	11.9	None	No Insulation	Carpet 10mm
Bedroom 3	Concrete Slab, Unit Below 150mm	11.8	None	No Insulation	Carpet 10mm
Laundry	Concrete Slab, Unit Below 150mm	4.6	None	No Insulation	Ceramic Tiles 8mm
Bathroom	Concrete Slab, Unit Below 150mm	4.4	None	No Insulation	Cork Tiles or Parquetry 8mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Kitchen/Living	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Corridor	Concrete, Plasterboard	No insulation	No
Ensuite	Concrete, Plasterboard	No insulation	No
Bedroom 1	Concrete, Plasterboard	No insulation	No
Bedroom 2	Concrete, Plasterboard	No insulation	No
Bedroom 3	Concrete, Plasterboard	No insulation	No
Laundry	Concrete, Plasterboard	No insulation	No
Bathroom	Concrete, Plasterboard	No insulation	No

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
Kitchen/Living	10	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
Corridor	3	Downlights - LED	150	Sealed
Ensuite	2	Downlights - LED	150	Sealed
Ensuite	1	Exhaust Fans	300	Sealed
Bedroom 1	4	Downlights - LED	150	Sealed
Bedroom 2	4	Downlights - LED	150	Sealed
Bedroom 3	4	Downlights - LED	150	Sealed
Laundry	2	Downlights - LED	150	Sealed
Laundry	1	Exhaust Fans	300	Sealed
Bathroom	1	Downlights - LED	150	Sealed
Bathroom	1	Exhaust Fans	300	Sealed

Building features continued

Ceiling fans

Location	Number	Diameter (mm)
None Present		

Roof type

Construction	Added insulation	Roof colour
Waterproofing Membrane	No Insulation, Only an Air Gap	Dark

Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0004411617 **Certificate Date:** 03 Dec 2019 ★Star rating: 7.2

Additional information

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Contact

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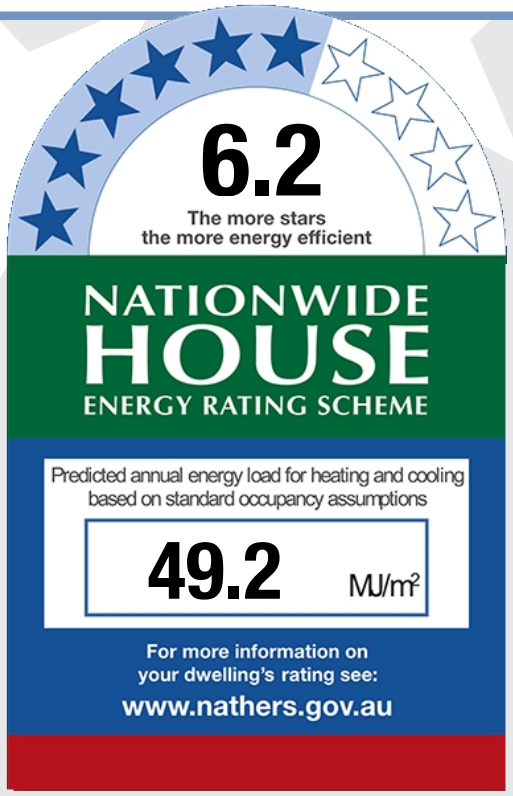
Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004411567** Certificate Date: **03 Dec 2019** ★Star rating: **6.2**

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:	**20884**
Name:	**Zoltan Lipovski**
Organisation:	**EcoMode Design**
Email:	**zoltan@ecomode.com.au**
Phone:	**0410605614**
Declaration of interest:	**None**
Software:	**BERS Pro v4.3.0.2f (3.13)**
AAO:	**ABSA**



Overview

Dwelling details

Street:	**Unit G.08, 28 Lockwood Avenue**		
Suburb:	**Belrose**		
State:	**NSW**	Postcode:	**2085**
Type:	**New Dwelling**	NCC Class:	**2**
		NatHERS climate zone:	**56**
Lot/DP number:	**1/1199795**	Exposure:	**Suburban**

Key construction and insulation materials

(see following pages for details)

Construction:	**Brick Veneer** **Waterproofing Membrane** **Concrete Slab, Unit Below**
Insulation:	**R2.0 wall insulation** **R2.0 ceiling insulation** **No floor insulation**
Glazing:	**ALM-001-01 A Aluminium A SG Clear**

Ceiling penetrations

(see following pages for details)

Sealed:	**28**
Unsealed:	**0**
TOTAL:**	**28**

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: **LED**

Net floor area (m²)

Conditioned:	**62.0**
Unconditioned:	**10.0**
Garage:	**0.0**
TOTAL:	**71.0**

Annual thermal performance loads (MJ/m²)

Heating:	**27.7**
Cooling:	**21.5**
TOTAL:	**49.2**

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:	**Plans, Elevations Section**
Prepared by:	**DKO Architecture**

* 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-001-01 A	ALM-001-01 A Aluminium A SG Clear	6.7	0.57

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Kitchen/Living	ALM-001-01 A	n/a	2700	3000	NW	No Shading
Bedroom 2	ALM-001-01 A	n/a	2700	1500	NW	No Shading
Bedroom 2	ALM-001-01 A	n/a	2700	1800	NE	No Shading
Bedroom 1	ALM-001-01 A	n/a	2700	1800	SW	No Shading
Bedroom 1	ALM-001-01 A	n/a	2700	1500	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	Bulk Insulation R2	No

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Kitchen/Living	EW-1	4490	2900	NW	No	3000
Bedroom 2	EW-1	2900	2900	NW	No	800
Bedroom 2	EW-1	2200	2900	NE	No	7500
Bedroom 1	EW-1	2200	2900	SW	No	7400
Bedroom 1	EW-1	3000	2900	NW	No	800

Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Cavity wall, direct fix plasterboard, single gap	62.0	No insulation	No
IW-2 - Stud, multi plaster layers	77.0	Bulk Insulation in the centre R2	No

Floors

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living		29.6	None	No Insulation	

Building features continued

	Concrete Slab, Unit Below 150mm				Cork Tiles or Parquetry 8mm
Bathroom	Concrete Slab, Unit Below 150mm	6.0	None	No Insulation	Ceramic Tiles 8mm
Laundry	Concrete Slab, Unit Below 150mm	3.7	None	No Insulation	Ceramic Tiles 8mm
Bedroom 2	Concrete Slab, Unit Below 150mm	11.4	None	No Insulation	Carpet 10mm
Bedroom 1	Concrete Slab, Unit Below 150mm	15.9	None	No Insulation	Carpet 10mm
Ensuite	Concrete Slab, Unit Below 150mm	4.7	None	No Insulation	Ceramic Tiles 8mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Kitchen/Living	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Bathroom	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Laundry	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Bedroom 2	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Bedroom 1	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Ensuite	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
Kitchen/Living	8	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
Bathroom	2	Downlights - LED	150	Sealed
Bathroom	1	Exhaust Fans	300	Sealed
Laundry	2	Downlights - LED	150	Sealed

Building features continued

Laundry	1	Exhaust Fans	300	Sealed
Bedroom 2	4	Downlights - LED	150	Sealed
Bedroom 1	6	Downlights - LED	150	Sealed
Ensuite	2	Downlights - LED	150	Sealed
Ensuite	1	Exhaust Fans	300	Sealed

Ceiling fans

Location	Number	Diameter (mm)
None Present		

Roof type

Construction	Added insulation	Roof colour
Waterproofing Membrane	No Insulation, Only an Air Gap	Dark

Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0004411567 **Certificate Date:** 03 Dec 2019 ★Star rating: 6.2

Additional information

Explanatory notes

About this report

Residential energy ratings address the quality of the building fabric i.e. walls, windows, floors and roof/ceilings. Ratings do not cover the energy or water efficiency of appliances including heating and cooling, hot water, dishwashers, ovens, fridges, TVs etc. or solar panel or water tank requirements. The efficiency or specification of these items is generally covered by other regulations, standards or guidelines.

General Information

A NatHERS House Energy Rating is a comprehensive, dynamic computer modelling evaluation of the floorplans, elevations and specifications to predict an energy load of a home. Not all of us use our homes in the same way, so ratings are generated using standard assumptions. This means homes can be compared across the country.

The actual energy consumption of your home may vary significantly from the predicted energy load figures in the report depending on issues such as the size of your household and your personal preferences, e.g. in terms of heating or cooling.

While the figures are an indicative guide to energy use, they can be used as a reliable guide for comparative purposes between different house designs and for demonstrating that the design meets the required regulatory compliance.

Homes that are energy efficient use less energy, are warmer in winter, cooler in summer and cost less to run. The higher the star rating the more energy efficient.

This NatHERS House Energy Rating report was carefully prepared by your assessor on the basis of comprehensive modelling using standard procedures to rate your home using the underlying engine developed by the Australian Commonwealth Scientific and Industrial Research Organisation (CSIRO).

All information relating to energy loads presented in this report is based on a range of standard assumptions in order to allow for comparisons with reports prepared for other homes and to demonstrate minimum regulatory compliance.

The standard assumptions include figures for occupancy, indoor air temperature and are based on a unique climate file for your region.

Accredited Assessors

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Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004411591** Certificate Date: **03 Dec 2019** ★Star rating: **6.0**

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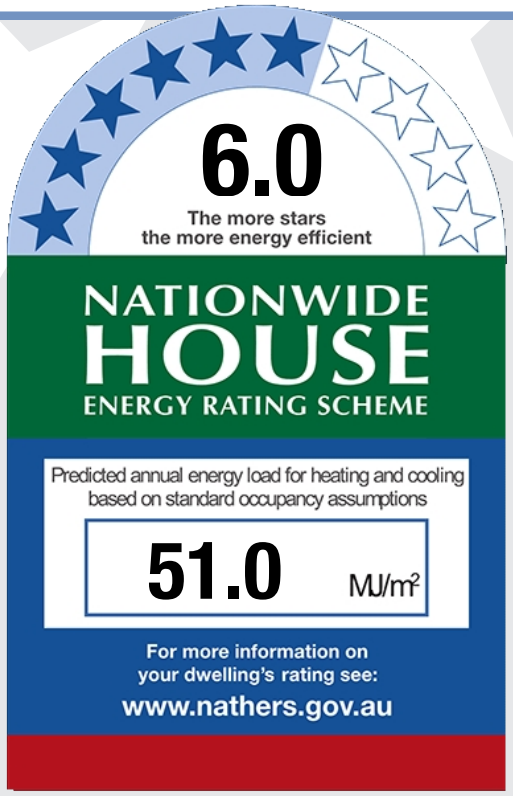
Assessor details

Accreditation number:	**20884**
Name:	**Zoltan Lipovski**
Organisation:	**EcoMode Design**
Email:	**zoltan@ecomode.com.au**
Phone:	**0410605614**
Declaration of interest:	**None**
Software:	**BERS Pro v4.3.0.2f (3.13)**
AAO:	**ABSA**



Overview

Dwelling details

Street:	**Unit G.09, 28 Lockwood Avenue**		
Suburb:	**Belrose**		
State:	**NSW**	Postcode:	**2085**
Type:	**New Dwelling**	NCC Class:	**2**
		NatHERS climate zone:	**56**
Lot/DP number:	**1/1199795**	Exposure:	**Suburban**

Key construction and insulation materials

(see following pages for details)

Construction:	**Brick Veneer** **Waterproofing Membrane** **Concrete Slab, Unit Below**
Insulation:	**R2.0 wall insulation** **R2.0 ceiling insulation** **No floor insulation**
Glazing:	**ALM-001-01 A Aluminium A SG Clear**

Net floor area (m²)

Conditioned:	**62.0**
Unconditioned:	**10.0**
Garage:	**0.0**
TOTAL:	**71.0**

Annual thermal performance loads (MJ/m²)

Heating:	**27.6**
Cooling:	**23.4**
TOTAL:	**51.0**

Plan documents

Plan ref/date:	**Plans, Elevations Section**
Prepared by:	**DKO Architecture**

Ceiling penetrations

(see following pages for details)

Sealed:	**28**
Unsealed:	**0**
TOTAL:**	**28**

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: **LED**

Window selection - default windows only

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

Note: Only a +/- 5% SHGC tolerance is allowed with this rating.

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Building features

Window type and performance value

Window ID	Window type	U-value	SHGC
ALM-001-01 A	ALM-001-01 A Aluminium A SG Clear	6.7	0.57

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Kitchen/Living	ALM-001-01 A	n/a	2700	3000	NW	No Shading
Bedroom 2	ALM-001-01 A	n/a	2700	1800	SW	No Shading
Bedroom 2	ALM-001-01 A	n/a	2700	1500	NW	No Shading
Bedroom 1	ALM-001-01 A	n/a	2700	1500	NW	No Shading
Bedroom 1	ALM-001-01 A	n/a	2700	1800	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	Bulk Insulation R2	No

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Kitchen/Living	EW-1	4490	2900	NW	No	2700
Bedroom 2	EW-1	2200	2900	SW	No	7500
Bedroom 2	EW-1	2900	2900	NW	No	500
Bedroom 1	EW-1	3000	2900	NW	No	500
Bedroom 1	EW-1	2200	2900	NE	No	7400

Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Cavity wall, direct fix plasterboard, single gap	62.0	No insulation	No
IW-2 - Stud, multi plaster layers	77.0	Bulk Insulation in the centre R2	No

Floors

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living		29.6	None	No Insulation	

Building features continued

	Concrete Slab, Unit Below 150mm				Cork Tiles or Parquetry 8mm
Bathroom	Concrete Slab, Unit Below 150mm	6.0	None	No Insulation	Ceramic Tiles 8mm
Laundry	Concrete Slab, Unit Below 150mm	3.7	None	No Insulation	Ceramic Tiles 8mm
Bedroom 2	Concrete Slab, Unit Below 150mm	11.4	None	No Insulation	Carpet 10mm
Bedroom 1	Concrete Slab, Unit Below 150mm	15.9	None	No Insulation	Carpet 10mm
Ensuite	Concrete Slab, Unit Below 150mm	4.7	None	No Insulation	Ceramic Tiles 8mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Kitchen/Living	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Bathroom	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Laundry	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Bedroom 2	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Bedroom 1	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Ensuite	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
Kitchen/Living	8	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
Bathroom	2	Downlights - LED	150	Sealed
Bathroom	1	Exhaust Fans	300	Sealed
Laundry	2	Downlights - LED	150	Sealed

Building features continued

Laundry	1	Exhaust Fans	300	Sealed
Bedroom 2	4	Downlights - LED	150	Sealed
Bedroom 1	6	Downlights - LED	150	Sealed
Ensuite	2	Downlights - LED	150	Sealed
Ensuite	1	Exhaust Fans	300	Sealed

Ceiling fans

Location	Number	Diameter (mm)
None Present		

Roof type

Construction	Added insulation	Roof colour
Waterproofing Membrane	No Insulation, Only an Air Gap	Dark

Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0004411591 **Certificate Date:** 03 Dec 2019 ★Star rating: 6.0

Additional information

Explanatory notes

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Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004411633** Certificate Date: **03 Dec 2019** ★Star rating: **7.4**

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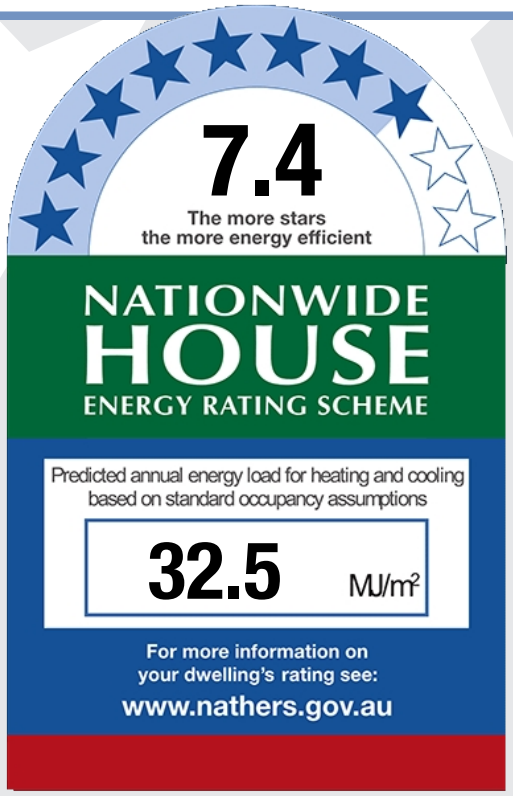
Assessor details

Accreditation number:	**20884**
Name:	**Zoltan Lipovski**
Organisation:	**EcoMode Design**
Email:	**zoltan@ecomode.com.au**
Phone:	**0410605614**
Declaration of interest:	**None**
Software:	**BERS Pro v4.3.0.2f (3.13)**
AAO:	**ABSA**



Overview

Dwelling details

Street:	**Unit G.10, 28 Lockwood Avenue**		
Suburb:	**Belrose**		
State:	**NSW**	Postcode:	**2085**
Type:	**New Dwelling**	NCC Class:	**2**
		NatHERS climate zone:	**56**
Lot/DP number:	**1/1199795**	Exposure:	**Suburban**

Key construction and insulation materials

(see following pages for details)

Construction:	**Brick Veneer** **Waterproofing Membrane** **Concrete Slab, Unit Below**
Insulation:	**R2.0 wall insulation** **R2.0 ceiling insulation** **No floor insulation**
Glazing:	**ALM-001-01 A Aluminium A SG Clear**

Ceiling penetrations

(see following pages for details)

Sealed:	**31**
Unsealed:	**0**
TOTAL:**	**31**

NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. **If this number is exceeded in construction then this certificate IS NOT VALID and a new certificate is required. Loss of ceiling insulation for the penetrations listed has been taken into account with the rating.

Principle downlight type: **LED**

Net floor area (m²)

Conditioned:	**87.0**
Unconditioned:	**5.0**
Garage:	**0.0**
TOTAL:	**93.0**

Annual thermal performance loads (MJ/m²)

Heating:	**15.3**
Cooling:	**17.2**
TOTAL:	**32.5**

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.

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Plan documents

Plan ref/date:	**Plans, Elevations Section**
Prepared by:	**DKO Architecture**

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Building features

Window type and performance value

Window ID	Window type	U-value	SHGC
ALM-001-01 A	ALM-001-01 A Aluminium A SG Clear	6.7	0.57
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 2	ALM-001-01 A	n/a	2700	1500	NW	No Shading
Bedroom 3	ALM-001-01 A	n/a	2700	1500	NW	No Shading
Bedroom 3	ALM-002-01 A	n/a	2700	3600	NE	No Shading
Bedroom 1	ALM-001-01 A	n/a	2700	1500	NE	No Shading
Kitchen/Living	ALM-002-01 A	n/a	2700	2400	NW	No Shading
Kitchen/Living	ALM-001-01 A	n/a	2700	1500	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	Bulk Insulation R2	No

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Bedroom 2	EW-1	2995	2900	NW	No	800
Bedroom 3	EW-1	2995	2900	NW	No	800
Bedroom 3	EW-1	4495	2900	NE	No	3600
Bedroom 1	EW-1	1995	2900	NE	No	800
Bedroom 1	EW-1	1600	2900	SE	No	0
Bedroom 1	EW-1	1100	2900	NE	No	0
Kitchen/Living	EW-1	2800	2900	NW	No	5300
Kitchen/Living	EW-1	4595	2900	NE	No	800

Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Stud, multi plaster layers	60.0	Bulk Insulation in the centre R2	No
IW-2 - Cavity wall, direct fix plasterboard, single gap	82.0	No insulation	No

Building features continued

Floors

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Bedroom 2	Concrete Slab, Unit Below 150mm	13.2	None	No Insulation	Carpet 10mm
Bedroom 3	Concrete Slab, Unit Below 150mm	13.2	None	No Insulation	Carpet 10mm
Ensuite	Concrete Slab, Unit Below 150mm	5.5	None	No Insulation	Ceramic Tiles 8mm
Bathroom	Concrete Slab, Unit Below 150mm	4.5	None	No Insulation	Ceramic Tiles 8mm
Laundry	Concrete Slab, Unit Below 150mm	0.9	None	No Insulation	Ceramic Tiles 8mm
Bedroom 1	Concrete Slab, Unit Below 150mm	13.1	None	No Insulation	Carpet 10mm
Kitchen/Living	Concrete Slab, Unit Below 150mm	42.5	None	No Insulation	Cork Tiles or Parquetry 8mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Bedroom 2	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Bedroom 3	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Ensuite	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Bathroom	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Laundry	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Bedroom 1	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Kitchen/Living	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes

Building features continued

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
Bedroom 2	4	Downlights - LED	150	Sealed
Bedroom 3	4	Downlights - LED	150	Sealed
Ensuite	2	Downlights - LED	150	Sealed
Ensuite	1	Exhaust Fans	300	Sealed
Bathroom	2	Downlights - LED	150	Sealed
Bathroom	1	Exhaust Fans	300	Sealed
Laundry	1	Downlights - LED	150	Sealed
Laundry	1	Exhaust Fans	300	Sealed
Bedroom 1	4	Downlights - LED	150	Sealed
Kitchen/Living	10	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed

Ceiling fans

Location	Number	Diameter (mm)
None Present		

Roof type

Construction	Added insulation	Roof colour
Waterproofing Membrane	No Insulation, Only an Air Gap	Dark

Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0004411633 **Certificate Date:** 03 Dec 2019 ★Star rating: 7.4

Additional information

Explanatory notes

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Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004411682** Certificate Date: **03 Dec 2019** ★Star rating: **7.7**

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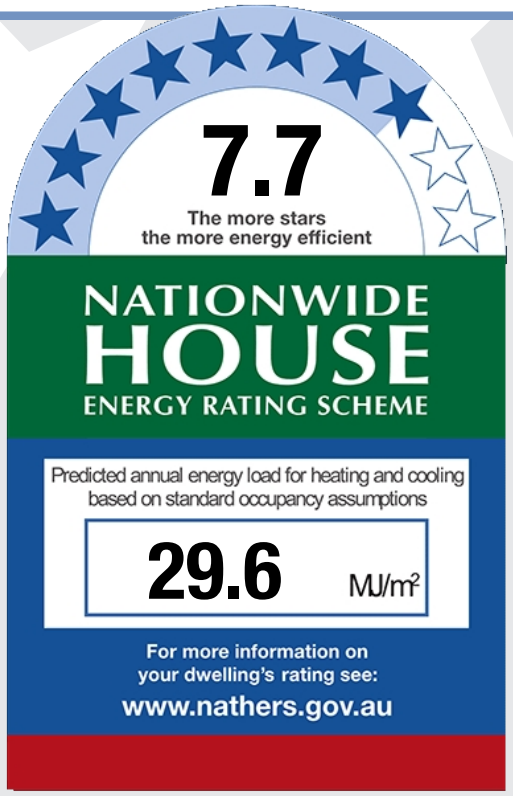
Assessor details

Accreditation number:	**20884**
Name:	**Zoltan Lipovski**
Organisation:	**EcoMode Design**
Email:	**zoltan@ecomode.com.au**
Phone:	**0410605614**
Declaration of interest:	**None**
Software:	**BERS Pro v4.3.0.2f (3.13)**
AAO:	**ABSA**



Overview

Dwelling details

Street:	**Unit G.11, 28 Lockwood Avenue**		
Suburb:	**Belrose**		
State:	**NSW**	Postcode:	**2085**
Type:	**New Dwelling**	NCC Class:	**2**
		NatHERS climate zone:	**56**
Lot/DP number:	**1/1199795**	Exposure:	**Suburban**

Key construction and insulation materials

(see following pages for details)

Construction:	**Brick Veneer** **Waterproofing Membrane** **Concrete Slab, Unit Below**
Insulation:	**R2.0 wall insulation** **R2.0 ceiling insulation** **No floor insulation**
Glazing:	**ALM-002-01 A Aluminium B SG Clear**

Ceiling penetrations

(see following pages for details)

Sealed:	**32**
Unsealed:	**0**
TOTAL:**	**32**

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: **LED**

Net floor area (m²)

Conditioned:	**85.0**
Unconditioned:	**6.0**
Garage:	**0.0**
TOTAL:	**91.0**

Annual thermal performance loads (MJ/m²)

Heating:	**10.2**
Cooling:	**19.5**
TOTAL:	**29.6**

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:	**Plans, Elevations Section**
Prepared by:	**DKO Architecture**

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Building features

Window type and performance value

Window ID	Window type	U-value	SHGC
ALM-002-01 A	ALM-002-01 A Aluminium B SG Clear	6.7	0.70
ALM-001-01 A	ALM-001-01 A Aluminium A SG Clear	6.7	0.57

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Bedroom 1	ALM-002-01 A	n/a	2700	2100	NE	No Shading
Bedroom 1	ALM-001-01 A	n/a	2700	1000	NE	No Shading
Bedroom 2	ALM-002-01 A	n/a	2700	1800	NE	No Shading
Bedroom 3	ALM-001-01 A	n/a	2700	1500	NE	No Shading
Kitchen/Living	ALM-001-01 A	n/a	2700	1500	NE	No Shading
Kitchen/Living	ALM-002-01 A	n/a	2700	2100	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	Bulk Insulation R2	No

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Bedroom 1	EW-1	3795	2900	NE	No	2800
Bedroom 2	EW-1	3190	2900	NE	No	2800
Bedroom 3	EW-1	2995	2900	NE	No	0
Kitchen/Living	EW-1	4195	2900	NE	No	0
Kitchen/Living	EW-1	2200	2900	SE	No	7000

Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Stud, multi plaster layers	80.0	Bulk Insulation in the centre R2	No
IW-2 - Cavity wall, direct fix plasterboard, single gap	88.0	No insulation	No

Floors

Building features continued

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Bedroom 1	Concrete Slab, Unit Below 150mm	15.7	None	No Insulation	Carpet 10mm
Ensuite	Concrete Slab, Unit Below 150mm	4.9	None	No Insulation	Ceramic Tiles 8mm
Bedroom 2	Concrete Slab, Unit Below 150mm	12.3	None	No Insulation	Carpet 10mm
Bedroom 3	Concrete Slab, Unit Below 150mm	10.5	None	No Insulation	Carpet 10mm
Bathroom	Concrete Slab, Unit Below 150mm	5.1	None	No Insulation	Ceramic Tiles 8mm
Laundry	Concrete Slab, Unit Below 150mm	1.0	None	No Insulation	Ceramic Tiles 8mm
Kitchen/Living	Concrete Slab, Unit Below 150mm	42.0	None	No Insulation	Cork Tiles or Parquetry 8mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Bedroom 1	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Ensuite	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Bedroom 2	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Bedroom 3	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Bathroom	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Laundry	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Kitchen/Living	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes

Building features continued

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
Bedroom 1	5	Downlights - LED	150	Sealed
Ensuite	2	Downlights - LED	150	Sealed
Ensuite	1	Exhaust Fans	300	Sealed
Bedroom 2	4	Downlights - LED	150	Sealed
Bedroom 3	4	Downlights - LED	150	Sealed
Bathroom	2	Downlights - LED	150	Sealed
Bathroom	1	Exhaust Fans	300	Sealed
Laundry	1	Downlights - LED	150	Sealed
Laundry	1	Exhaust Fans	300	Sealed
Kitchen/Living	10	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed

Ceiling fans

Location	Number	Diameter (mm)
None Present		

Roof type

Construction	Added insulation	Roof colour
Waterproofing Membrane	No Insulation, Only an Air Gap	Dark

Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0004411682 **Certificate Date:** 03 Dec 2019 ★Star rating: 7.7

Additional information

Explanatory notes

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Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004411641** Certificate Date: **03 Dec 2019** ★Star rating: **8.1**

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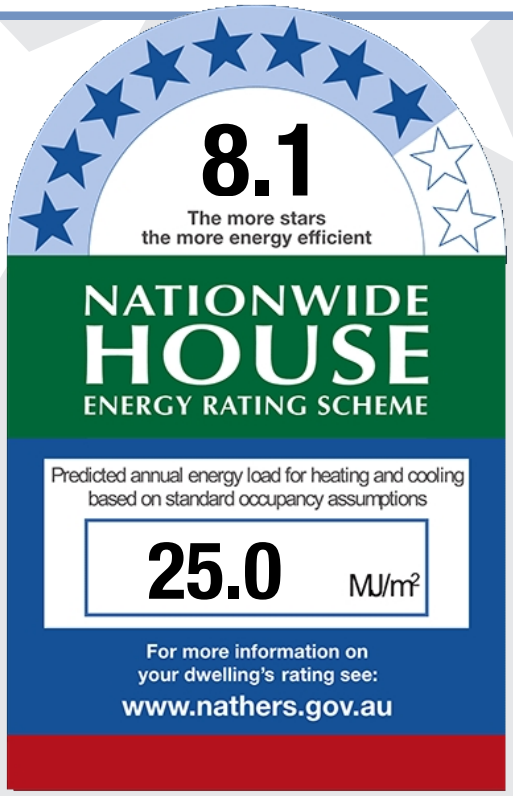
Assessor details

Accreditation number:	**20884**
Name:	**Zoltan Lipovski**
Organisation:	**EcoMode Design**
Email:	**zoltan@ecomode.com.au**
Phone:	**0410605614**
Declaration of interest:	**None**
Software:	**BERS Pro v4.3.0.2f (3.13)**
AAO:	**ABSA**



Overview

Dwelling details

Street:	**Unit G.12, 28 Lockwood Avenue**		
Suburb:	**Belrose**		
State:	**NSW**	Postcode:	**2085**
Type:	**New Dwelling**	NCC Class:	**2**
		NatHERS climate zone:	**56**
Lot/DP number:	**1/1199795**	Exposure:	**Suburban**

Key construction and insulation materials

(see following pages for details)

Construction:	**Brick Veneer** **Waterproofing Membrane** **Concrete Slab, Unit Below**
Insulation:	**R2.0 wall insulation** **R2.0 ceiling insulation** **No floor insulation**
Glazing:	**ALM-002-01 A Aluminium B SG Clear**

Ceiling penetrations

(see following pages for details)

Sealed:	**35**
Unsealed:	**0**
TOTAL:**	**35**

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: **LED**

Net floor area (m²)

Conditioned:	**104.0**
Unconditioned:	**7.0**
Garage:	**0.0**
TOTAL:	**111.0**

Annual thermal performance loads (MJ/m²)

Heating:	**13.6**
Cooling:	**11.4**
TOTAL:	**25.0**

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 documents

Plan ref/date:	**Plans, Elevations Section**
Prepared by:	**DKO Architecture**

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Building features

Window type and performance value

Window ID	Window type	U-value	SHGC
ALM-002-01 A	ALM-002-01 A Aluminium B SG Clear	6.7	0.70
ALM-001-01 A	ALM-001-01 A Aluminium A SG Clear	6.7	0.57

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Kitchen/Living	ALM-002-01 A	n/a	2700	2700	NE	No Shading
Study	ALM-002-01 A	n/a	2700	1800	NW	No Shading
Study	ALM-001-01 A	n/a	2700	1800	NE	No Shading
Bedroom 2	ALM-001-01 A	n/a	2700	1200	NE	No Shading
Bedroom 1	ALM-002-01 A	n/a	2700	2700	NE	No Shading
Bedroom 3	ALM-002-01 A	n/a	2700	1800	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	Bulk Insulation R2	No

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Kitchen/Living	EW-1	4390	2900	NE	No	2800
Study	EW-1	2100	2900	NW	No	7400
Study	EW-1	400	2900	NE	No	700
Study	EW-1	3576	2900	NE	No	2165
Bedroom 2	EW-1	2990	2900	NE	No	4340
Bedroom 1	EW-1	3936	2900	NE	No	4371
Bedroom 3	EW-1	2995	2900	NE	No	1800

Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Cavity wall, direct fix plasterboard, single gap	111.0	No insulation	No
IW-2 - Concrete Panel/Blocks filled, plasterboard	16.0	No Insulation	No
IW-3 - Stud, multi plaster layers	66.0	Bulk Insulation in the centre R2	No

Building features continued

Floors

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living	Concrete Slab, Unit Below 150mm	46.6	None	No Insulation	Cork Tiles or Parquetry 8mm
Study	Concrete Slab, Unit Below 150mm	10.1	None	No Insulation	Carpet 10mm
Bedroom 2	Concrete Slab, Unit Below 150mm	12.6	None	No Insulation	Carpet 10mm
Bedroom 1	Concrete Slab, Unit Below 150mm	14.9	None	No Insulation	Carpet 10mm
Laundry	Concrete Slab, Unit Below 150mm	2.0	None	No Insulation	Ceramic Tiles 8mm
Corridor	Concrete Slab, Unit Below 150mm	4.2	None	No Insulation	Cork Tiles or Parquetry 8mm
Ensuite	Concrete Slab, Unit Below 150mm	4.7	None	No Insulation	Ceramic Tiles 8mm
Bedroom 3	Concrete Slab, Unit Below 150mm	11.1	None	No Insulation	Carpet 10mm
Bathroom	Concrete Slab, Unit Below 150mm	5.2	None	No Insulation	Ceramic Tiles 8mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Kitchen/Living	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
Kitchen/Living	10	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
Study	3	Downlights - LED	150	Sealed
Bedroom 2	4	Downlights - LED	150	Sealed
Bedroom 1	4	Downlights - LED	150	Sealed
Laundry	1	Downlights - LED	150	Sealed
Corridor	2	Downlights - LED	150	Sealed
Ensuite	2	Downlights - LED	150	Sealed
Ensuite	1	Exhaust Fans	300	Sealed
Bedroom 3	4	Downlights - LED	150	Sealed
Bathroom	2	Downlights - LED	150	Sealed
Bathroom	1	Exhaust Fans	300	Sealed

Ceiling fans

Building features continued

Location	Number	Diameter (mm)
None Present		

Roof type

Construction	Added insulation	Roof colour
Waterproofing Membrane	No Insulation, Only an Air Gap	Dark

Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0004411641 **Certificate Date:** 03 Dec 2019 ★Star rating: 8.1

Additional information

Explanatory notes

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Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004411674** Certificate Date: **03 Dec 2019** ★Star rating: **7.2**

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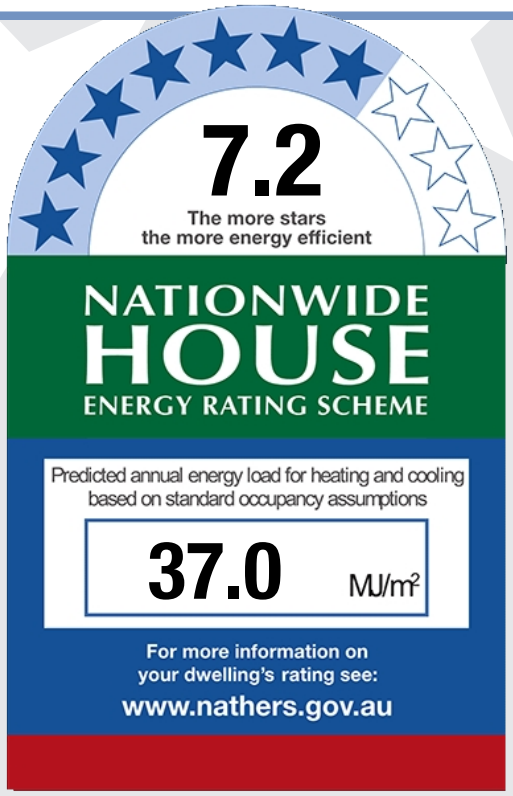
Assessor details

Accreditation number:	**20884**
Name:	**Zoltan Lipovski**
Organisation:	**EcoMode Design**
Email:	**zoltan@ecomode.com.au**
Phone:	**0410605614**
Declaration of interest:	**None**
Software:	**BERS Pro v4.3.0.2f (3.13)**
AAO:	**ABSA**



Overview

Dwelling details

Street:	**Unit G.13, 28 Lockwood Avenue**		
Suburb:	**Belrose**		
State:	**NSW**	Postcode:	**2085**
Type:	**New Dwelling**	NCC Class:	**2**
		NatHERS climate zone:	**56**
Lot/DP number:	**1/1199795**	Exposure:	**Suburban**

Key construction and insulation materials

(see following pages for details)

Construction:	**Brick Veneer** **Waterproofing Membrane** **Concrete Slab, Unit Below**
Insulation:	**R2.0 wall insulation** **R2.0 ceiling insulation** **No floor insulation**
Glazing:	**ALM-001-01 A Aluminium A SG Clear**

Ceiling penetrations

(see following pages for details)

Sealed:	**34**
Unsealed:	**0**
TOTAL:**	**34**

NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. **If this number is exceeded in construction then this certificate IS NOT VALID and a new certificate is required. Loss of ceiling insulation for the penetrations listed has been taken into account with the rating.

Principle downlight type: **LED**

Net floor area (m²)

Conditioned:	**123.0**
Unconditioned:	**9.0**
Garage:	**0.0**
TOTAL:	**132.0**

Annual thermal performance loads (MJ/m²)

Heating:	**17.8**
Cooling:	**19.2**
TOTAL:	**37.0**

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.

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:	**Plans, Elevations Section**
Prepared by:	**DKO Architecture**

* 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
ALM-001-01 A	ALM-001-01 A Aluminium A SG Clear	6.7	0.57

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Kitchen/Living	ALM-002-01 A	n/a	2700	3700	NE	No Shading
Bedroom 1	ALM-002-01 A	n/a	2700	2700	NE	No Shading
Bedroom 2	ALM-001-01 A	n/a	2700	900	NE	No Shading
Study	ALM-001-01 A	n/a	2700	900	SE	No Shading
Bedroom 3	ALM-001-01 A	n/a	2700	1500	NE	No Shading
Bedroom 3	ALM-001-01 A	n/a	2700	1500	SE	No Shading
Bedroom 3	ALM-001-01 A	n/a	2700	1500	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	Bulk Insulation R2	No

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Kitchen/Living	EW-1	4570	2900	NE	No	4345
Bedroom 1	EW-1	3796	2900	NE	No	3261
Bedroom 2	EW-1	3130	2900	NE	No	3245
Study	EW-1	3076	2900	SE	No	500
Bedroom 3	EW-1	2936	2900	NE	No	4322
Bedroom 3	EW-1	6296	2900	SE	No	500

Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Cavity wall, direct fix plasterboard, single gap	127.0	No insulation	No
IW-2 - Stud, multi plaster layers	60.0	Bulk Insulation in the centre R2	No
IW-3 - Concrete Panel/Blocks filled, plasterboard	9.0	No Insulation	No

Building features continued

Floors

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living	Concrete Slab, Unit Below 150mm	49.4	None	No Insulation	Cork Tiles or Parquetry 8mm
Bedroom 1	Concrete Slab, Unit Below 150mm	23.4	None	No Insulation	Carpet 10mm
Bedroom 2	Concrete Slab, Unit Below 150mm	17.8	None	No Insulation	Carpet 10mm
Study	Concrete Slab, Unit Below 150mm	8.8	None	No Insulation	Carpet 10mm
Bedroom 3	Concrete Slab, Unit Below 150mm	18.1	None	No Insulation	Carpet 10mm
Ensuite	Concrete Slab, Unit Below 150mm	5.4	None	No Insulation	Ceramic Tiles 8mm
Laundry	Concrete Slab, Unit Below 150mm	4.4	None	No Insulation	Ceramic Tiles 8mm
Bathroom	Concrete Slab, Unit Below 150mm	4.4	None	No Insulation	Ceramic Tiles 8mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Kitchen/Living	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Bedroom 1	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Bedroom 2	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Study	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Bedroom 3	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Ensuite	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Laundry	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk	Yes

Building features continued

		Insulation R2	
Bathroom	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
Kitchen/Living	10	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
Bedroom 1	6	Downlights - LED	150	Sealed
Study	2	Downlights - LED	150	Sealed
Bedroom 3	6	Downlights - LED	150	Sealed
Ensuite	2	Downlights - LED	150	Sealed
Ensuite	1	Exhaust Fans	300	Sealed
Laundry	2	Downlights - LED	150	Sealed
Laundry	1	Exhaust Fans	300	Sealed
Bathroom	2	Downlights - LED	150	Sealed
Bathroom	1	Exhaust Fans	300	Sealed

Ceiling fans

Location	Number	Diameter (mm)
None Present		

Roof type

Construction	Added insulation	Roof colour
Waterproofing Membrane	No Insulation, Only an Air Gap	Dark

Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0004411674 **Certificate Date:** 03 Dec 2019 ★Star rating: 7.2

Additional information

Explanatory notes

About this report

Residential energy ratings address the quality of the building fabric i.e. walls, windows, floors and roof/ceilings. Ratings do not cover the energy or water efficiency of appliances including heating and cooling, hot water, dishwashers, ovens, fridges, TVs etc. or solar panel or water tank requirements. The efficiency or specification of these items is generally covered by other regulations, standards or guidelines.

General Information

A NatHERS House Energy Rating is a comprehensive, dynamic computer modelling evaluation of the floorplans, elevations and specifications to predict an energy load of a home. Not all of us use our homes in the same way, so ratings are generated using standard assumptions. This means homes can be compared across the country.

The actual energy consumption of your home may vary significantly from the predicted energy load figures in the report depending on issues such as the size of your household and your personal preferences, e.g. in terms of heating or cooling.

While the figures are an indicative guide to energy use, they can be used as a reliable guide for comparative purposes between different house designs and for demonstrating that the design meets the required regulatory compliance.

Homes that are energy efficient use less energy, are warmer in winter, cooler in summer and cost less to run. The higher the star rating the more energy efficient.

This NatHERS House Energy Rating report was carefully prepared by your assessor on the basis of comprehensive modelling using standard procedures to rate your home using the underlying engine developed by the Australian Commonwealth Scientific and Industrial Research Organisation (CSIRO).

All information relating to energy loads presented in this report is based on a range of standard assumptions in order to allow for comparisons with reports prepared for other homes and to demonstrate minimum regulatory compliance.

The standard assumptions include figures for occupancy, indoor air temperature and are based on a unique climate file for your region.

Accredited Assessors

To ensure you get a high-quality, professional NatHERS House Energy Rating report, you should always use an accredited assessor, accredited assessors are members of a professional body called an Assessor Accrediting Organisation (AAO).

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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

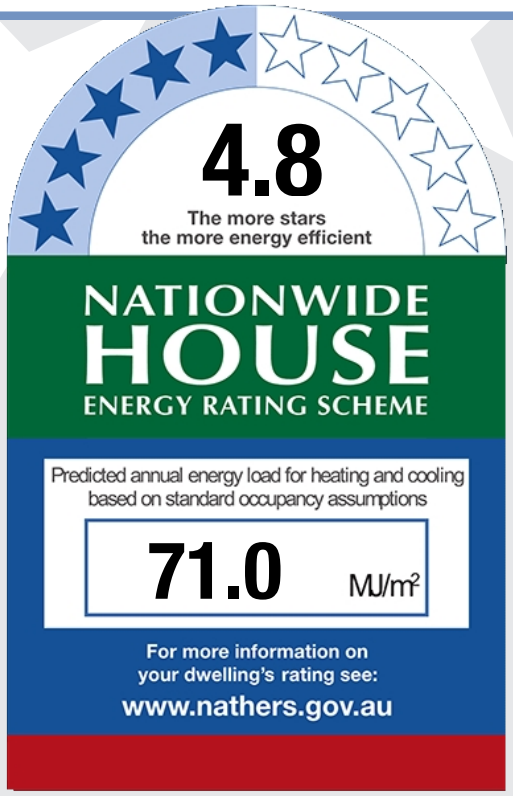
Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004411690** Certificate Date: **03 Dec 2019** ★Star rating: **4.8**

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:	**20884**
Name:	**Zoltan Lipovski**
Organisation:	**EcoMode Design**
Email:	**zoltan@ecomode.com.au**
Phone:	**0410605614**
Declaration of interest:	**None**
Software:	**BERS Pro v4.3.0.2f (3.13)**
AAO:	**ABSA**



Overview

Dwelling details

Street:	**Unit G.14, 28 Lockwood Avenue**		
Suburb:	**Belrose**		
State:	**NSW**	Postcode:	**2085**
Type:	**New Dwelling**	NCC Class:	**2**
		NatHERS climate zone:	**56**
Lot/DP number:	**1/1199795**	Exposure:	**Suburban**

Key construction and insulation materials

(see following pages for details)

Construction:	**Brick Veneer** **Waterproofing Membrane** **Concrete Slab, Unit Below**
Insulation:	**R2.0 wall insulation** **R2.0 ceiling insulation** **No floor insulation**
Glazing:	**ALM-001-01 A Aluminium A SG Clear**

Net floor area (m²)

Conditioned:	**76.0**
Unconditioned:	**7.0**
Garage:	**0.0**
TOTAL:	**83.0**

Annual thermal performance loads (MJ/m²)

Heating:	**43.9**
Cooling:	**27.0**
TOTAL:	**71.0**

Plan documents

Plan ref/date:	**Plans, Elevations Section**
Prepared by:	**DKO Architecture**

Ceiling penetrations

(see following pages for details)

Sealed:	**28**
Unsealed:	**0**
TOTAL:**	**28**

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: **LED**

Window selection - default windows only

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

Note: Only a +/- 5% SHGC tolerance is allowed with this rating.

NB: This tolerance ONLY applies to SHGC, the U-value can always be lower but not higher than the values stated on page 2.

If any of windows selected are outside the 5% tolerance then this certificate is no longer valid and the dwelling will need to be rerated to confirm compliance.

Scan to access this certificate online and confirm this is valid.

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Building features

Window type and performance value

Window ID	Window type	U-value	SHGC
ALM-001-01 A	ALM-001-01 A Aluminium A SG Clear	6.7	0.57
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-001-01 A	n/a	600	2400	SE	No Shading
Bedroom 1	ALM-002-01 A	n/a	2700	2700	SW	No Shading
Kitchen/Living	ALM-002-01 A	n/a	2700	3000	SE	No Shading
Kitchen/Living	ALM-001-01 A	n/a	2700	2400	SW	No Shading
Bedroom 2	ALM-001-01 A	n/a	2700	900	SW	No Shading
Bedroom 2	ALM-001-01 A	n/a	2700	900	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	Bulk Insulation R2	No

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Bedroom 1	EW-1	4075	2900	SE	No	270
Bedroom 1	EW-1	3076	2900	SW	No	3851
Ensuite	EW-1	1855	2900	SE	No	250
Kitchen/Living	EW-1	3495	2900	SE	No	3410
Kitchen/Living	EW-1	4075	2900	SW	No	320
Bedroom 2	EW-1	2995	2900	SW	No	340
Bedroom 2	EW-1	2500	2900	NW	No	0

Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Cavity wall, direct fix plasterboard, single gap	73.0	No insulation	No
IW-2 - Stud, multi plaster layers	50.0	Bulk Insulation in the centre R2	No

Building features continued

Floors

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Bedroom 1	Concrete Slab, Unit Below 150mm	12.2	None	No Insulation	Carpet 10mm
Ensuite	Concrete Slab, Unit Below 150mm	5.5	None	No Insulation	Ceramic Tiles 8mm
Kitchen/Living	Concrete Slab, Unit Below 150mm	44.1	None	No Insulation	Cork Tiles or Parquetry 8mm
Bedroom 2	Concrete Slab, Unit Below 150mm	13.6	None	No Insulation	Carpet 10mm
Laundry	Concrete Slab, Unit Below 150mm	2.6	None	No Insulation	Ceramic Tiles 8mm
Bathroom	Concrete Slab, Unit Below 150mm	4.8	None	No Insulation	Ceramic Tiles 8mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Bedroom 1	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Ensuite	Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Kitchen/Living	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Bedroom 2	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Laundry	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Bathroom	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
Bedroom 1	4	Downlights - LED	150	Sealed
Ensuite	2	Downlights - LED	150	Sealed

Building features continued

Ensuite	1	Exhaust Fans	300	Sealed
Kitchen/Living	10	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
Bedroom 2	4	Downlights - LED	150	Sealed
Laundry	2	Downlights - LED	150	Sealed
Laundry	1	Exhaust Fans	300	Sealed
Bathroom	2	Downlights - LED	150	Sealed
Bathroom	1	Exhaust Fans	300	Sealed

Ceiling fans

Location	Number	Diameter (mm)
None Present		

Roof type

Construction	Added insulation	Roof colour
Waterproofing Membrane	No Insulation, Only an Air Gap	Dark

Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0004411690 **Certificate Date:** 03 Dec 2019 ★Star rating: 4.8

Additional information

Explanatory notes

About this report

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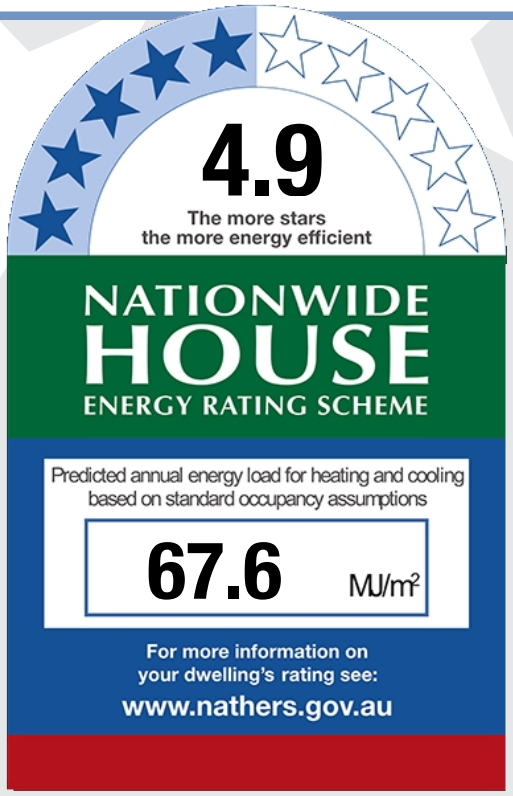
Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004411625** Certificate Date: **03 Dec 2019** ★Star rating: **4.9**

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:	**20884**
Name:	**Zoltan Lipovski**
Organisation:	**EcoMode Design**
Email:	**zoltan@ecomode.com.au**
Phone:	**0410605614**
Declaration of interest:	**None**
Software:	**BERS Pro v4.3.0.2f (3.13)**
AAO:	**ABSA**



Overview

Dwelling details

Street:	**Unit G.15, 28 Lockwood Avenue**		
Suburb:	**Belrose**		
State:	**NSW**	Postcode:	**2085**
Type:	**New Dwelling**	NCC Class:	**2**
		NatHERS climate zone:	**56**
Lot/DP number:	**1/1199795**	Exposure:	**Suburban**

Key construction and insulation materials

(see following pages for details)

Construction:	**Brick Veneer** **Waterproofing Membrane** **Concrete Slab, Unit Below**
Insulation:	**R2.0 wall insulation** **R2.0 ceiling insulation** **No floor insulation**
Glazing:	**ALM-002-01 A Aluminium B SG Clear**

Ceiling penetrations

(see following pages for details)

Sealed:	**19**
Unsealed:	**0**
TOTAL:**	**19**

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: **LED**

Net floor area (m²)

Conditioned:	**48.0**
Unconditioned:	**7.0**
Garage:	**0.0**
TOTAL:	**56.0**

Annual thermal performance loads (MJ/m²)

Heating:	**39.6**
Cooling:	**28.0**
TOTAL:	**67.6**

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:	**Plans, Elevations Section**
Prepared by:	**DKO Architecture**

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Building features

Window type and performance value

Window ID	Window type	U-value	SHGC
ALM-002-01 A	ALM-002-01 A Aluminium B SG Clear	6.7	0.70
ALM-001-01 A	ALM-001-01 A Aluminium A SG Clear	6.7	0.57

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Kitchen/Living	ALM-002-01 A	n/a	2700	3600	SW	No Shading
Bedroom 2	ALM-002-01 A	n/a	2700	2400	SE	No Shading
Bedroom 2	ALM-001-01 A	n/a	2700	1500	SW	No Shading
Bedroom 2	ALM-001-01 A	n/a	2700	600	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	Bulk Insulation R2	No

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Kitchen/Living	EW-1	4075	2900	SW	No	3275
Bedroom 2	EW-1	2495	2900	SE	No	4145
Bedroom 2	EW-1	3000	2900	SW	No	785
Bedroom 2	EW-1	4360	2900	NW	No	35

Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Stud, multi plaster layers	55.0	Bulk Insulation in the centre R2	No
IW-2 - Cavity wall, direct fix plasterboard, single gap	40.0	No insulation	No

Floors

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living	Concrete Slab, Unit Below 150mm	34.3	None	No Insulation	Cork Tiles or Parquetry 8mm

Building features continued

Bedroom 2	Concrete Slab, Unit Below 150mm	13.8	None	No Insulation	Carpet 10mm
Laundry	Concrete Slab, Unit Below 150mm	2.6	None	No Insulation	Ceramic Tiles 8mm
Bathroom	Concrete Slab, Unit Below 150mm	4.8	None	No Insulation	Ceramic Tiles 8mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Kitchen/Living	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Bedroom 2	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Laundry	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Bathroom	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
Kitchen/Living	8	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
Bedroom 2	4	Downlights - LED	150	Sealed
Laundry	2	Downlights - LED	150	Sealed
Laundry	1	Exhaust Fans	300	Sealed
Bathroom	2	Downlights - LED	150	Sealed
Bathroom	1	Exhaust Fans	300	Sealed

Ceiling fans

Location	Number	Diameter (mm)
None Present		

Roof type

Construction	Added	Roof colour

Building features continued

	insulation	
Waterproofing Membrane	No Insulation, Only an Air Gap	Dark

Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0004411625 **Certificate Date:** 03 Dec 2019 ★Star rating: 4.9

Additional information

Explanatory notes

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Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004411658** Certificate Date: **03 Dec 2019** ★Star rating: **4.9**

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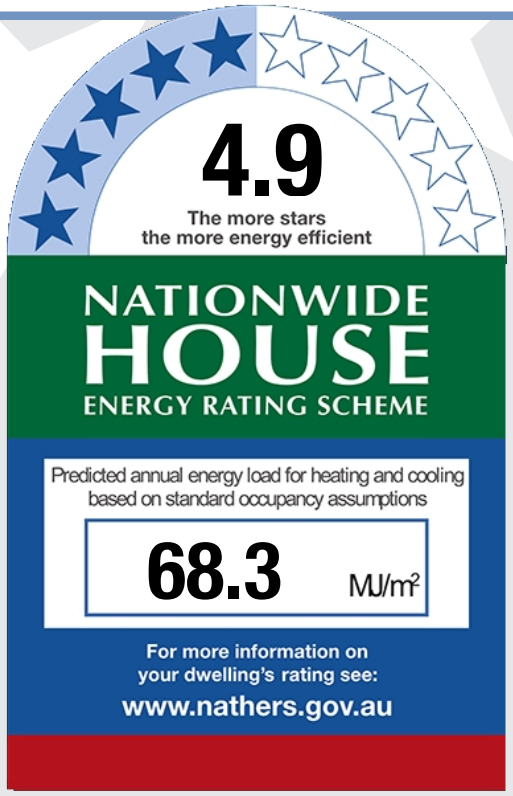
Assessor details

Accreditation number:	**20884**
Name:	**Zoltan Lipovski**
Organisation:	**EcoMode Design**
Email:	**zoltan@ecomode.com.au**
Phone:	**0410605614**
Declaration of interest:	**None**
Software:	**BERS Pro v4.3.0.2f (3.13)**
AAO:	**ABSA**



Overview

Dwelling details

Street:	**Unit G.16, 28 Lockwood Avenue**		
Suburb:	**Belrose**		
State:	**NSW**	Postcode:	**2085**
Type:	**New Dwelling**	NCC Class:	**2**
		NatHERS climate zone:	**56**
Lot/DP number:	**1/1199795**	Exposure:	**Suburban**

Key construction and insulation materials

(see following pages for details)

Construction:	**Brick Veneer** **Waterproofing Membrane** **Concrete Slab, Unit Below**
Insulation:	**R2.0 wall insulation** **R2.0 ceiling insulation** **No floor insulation**
Glazing:	**ALM-001-01 A Aluminium A SG Clear**

Net floor area (m²)

Conditioned:	**64.0**
Unconditioned:	**5.0**
Garage:	**0.0**
TOTAL:	**70.0**

Annual thermal performance loads (MJ/m²)

Heating:	**42.6**
Cooling:	**25.7**
TOTAL:	**68.3**

Plan documents

Plan ref/date:	**Plans, Elevations Section**
Prepared by:	**DKO Architecture**

Ceiling penetrations

(see following pages for details)

Sealed:	**26**
Unsealed:	**0**
TOTAL:**	**26**

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: **LED**

Window selection - default windows only

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

Note: Only a +/- 5% SHGC tolerance is allowed with this rating.

NB: This tolerance ONLY applies to SHGC, the U-value can always be lower but not higher than the values stated on page 2.

If any of windows selected are outside the 5% tolerance then this certificate is no longer valid and the dwelling will need to be rerated to confirm compliance.

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Building features

Window type and performance value

Window ID	Window type	U-value	SHGC
ALM-001-01 A	ALM-001-01 A Aluminium A SG Clear	6.7	0.57

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Bedroom 2	ALM-001-01 A	n/a	2700	2700	SW	No Shading
Bedroom 1	ALM-001-01 A	n/a	2700	1500	SW	No Shading
Kitchen/Living	ALM-001-01 A	n/a	2700	2700	SE	No Shading
Kitchen/Living	ALM-001-01 A	n/a	2700	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	Brick Veneer	Bulk Insulation R2	No

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Bedroom 2	EW-1	3095	2900	SW	No	3000
Bedroom 1	EW-1	3595	2900	SW	No	0
Kitchen/Living	EW-1	3000	2900	SE	No	3100
Kitchen/Living	EW-1	4395	2900	SW	No	0

Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Cavity wall, direct fix plasterboard, single gap	63.0	No insulation	No
IW-2 - Stud, multi plaster layers	17.0	Bulk Insulation in the centre R2	No
IW-3 - Concrete Panel/Blocks filled, plasterboard	49.0	No Insulation	No

Floors

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Bedroom 2	Concrete Slab, Unit Below	11.8	None	No Insulation	Carpet 10mm

Building features continued

	150mm				
Bedroom 1	Concrete Slab, Unit Below 150mm	14.9	None	No Insulation	Carpet 10mm
Ensuite	Concrete Slab, Unit Below 150mm	4.3	None	No Insulation	Ceramic Tiles 8mm
Kitchen/Living	Concrete Slab, Unit Below 150mm	33.4	None	No Insulation	Cork Tiles or Parquetry 8mm
Bathroom	Concrete Slab, Unit Below 150mm	4.2	None	No Insulation	Ceramic Tiles 8mm
Laundry	Concrete Slab, Unit Below 150mm	1.1	None	No Insulation	Ceramic Tiles 8mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Bedroom 2	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Bedroom 1	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Ensuite	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Kitchen/Living	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Bathroom	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Laundry	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
Bedroom 2	4	Downlights - LED	150	Sealed
Bedroom 1	5	Downlights - LED	150	Sealed
Ensuite	2	Downlights - LED	150	Sealed
Ensuite	1	Exhaust Fans	300	Sealed
Kitchen/Living	8	Downlights - LED	150	Sealed

Building features continued

Kitchen/Living	1	Exhaust Fans	300	Sealed
Bathroom	2	Downlights - LED	150	Sealed
Bathroom	1	Exhaust Fans	300	Sealed
Laundry	1	Downlights - LED	150	Sealed
Laundry	1	Exhaust Fans	300	Sealed

Ceiling fans

Location	Number	Diameter (mm)
None Present		

Roof type

Construction	Added insulation	Roof colour
Waterproofing Membrane	No Insulation, Only an Air Gap	Dark

Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0004411658 **Certificate Date:** 03 Dec 2019 ★Star rating: 4.9

Additional information

Explanatory notes

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Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004411708** Certificate Date: **03 Dec 2019** ★Star rating: **7.4**

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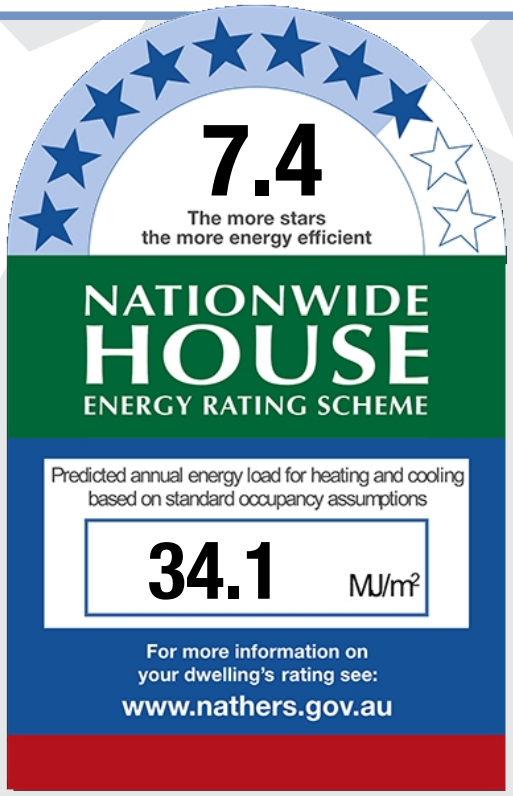
Assessor details

Accreditation number:	**20884**
Name:	**Zoltan Lipovski**
Organisation:	**EcoMode Design**
Email:	**zoltan@ecomode.com.au**
Phone:	**0410605614**
Declaration of interest:	**None**
Software:	**BERS Pro v4.3.0.2f (3.13)**
AAO:	**ABSA**



Overview

Dwelling details

Street:	**Unit LG.01, 28 Lockwood Avenue**		
Suburb:	**Belrose**		
State:	**NSW**	Postcode:	**2085**
Type:	**New Dwelling**	NCC Class:	**2**
		NatHERS climate zone:	**56**
Lot/DP number:	**1/1199795**	Exposure:	**Suburban**

Key construction and insulation materials

(see following pages for details)

Construction:	**Brick Veneer** **Concrete, Plasterboard** **Concrete Slab, Unit Below**
Insulation:	**R2.0 wall insulation** **No ceiling insulation** **No floor insulation**
Glazing:	**ALM-001-01 A Aluminium A SG Clear**

Net floor area (m²)

Conditioned:	**105.0**
Unconditioned:	**6.0**
Garage:	**0.0**
TOTAL:	**111.0**

Annual thermal performance loads (MJ/m²)

Heating:	**17.8**
Cooling:	**16.3**
TOTAL:	**34.1**

Plan documents

Plan ref/date:	**Plans, Elevations Section**
Prepared by:	**DKO Architecture**

Ceiling penetrations

(see following pages for details)

Sealed:	**31**
Unsealed:	**0**
TOTAL:**	**31**

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: **LED**

Window selection - default windows only

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

Note: Only a +/- 5% SHGC tolerance is allowed with this rating.

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Building features

Window type and performance value

Window ID	Window type	U-value	SHGC
ALM-001-01 A	ALM-001-01 A Aluminium A SG Clear	6.7	0.57

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Kitchen/Living	ALM-001-01 A	n/a	2700	3600	NE	No Shading
Bedroom 1	ALM-001-01 A	n/a	2700	2900	NE	No Shading
Bedroom 2	ALM-001-01 A	n/a	2700	2900	NE	No Shading
Bedroom 3	ALM-001-01 A	n/a	2700	1500	NE	No Shading
Bedroom 3	ALM-001-01 A	n/a	2700	1500	NE	No Shading
Bedroom 3	ALM-001-01 A	n/a	2700	2580	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	Bulk Insulation R2	No

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Kitchen/Living	EW-1	4995	2900	NE	No	3300
Bedroom 1	EW-1	2995	2900	NE	No	3000
Bedroom 2	EW-1	3210	2900	NE	No	3005
Bedroom 3	EW-1	1495	2900	NW	No	4500
Bedroom 3	EW-1	4022	2900	NE	No	485
Bedroom 3	EW-1	2586	2900	SE	No	6272

Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Cavity wall, direct fix plasterboard, single gap	93.0	No insulation	No
IW-2 - Concrete Panel/Blocks filled, multi plaster layers	52.0	No Insulation	No
IW-3 - Stud, multi plaster layers	27.0	Bulk Insulation in the centre R2	No

Building features continued

Floors

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living	Concrete Slab, Unit Below 150mm	55.2	None	No Insulation	Cork Tiles or Parquetry 8mm
Bathroom	Concrete Slab, Unit Below 150mm	4.4	None	No Insulation	Ceramic Tiles 8mm
Ensuite	Concrete Slab, Unit Below 150mm	4.4	None	No Insulation	Ceramic Tiles 8mm
Laundry	Concrete Slab, Unit Below 150mm	1.7	None	No Insulation	Ceramic Tiles 8mm
Bedroom 1	Concrete Slab, Unit Below 150mm	16.2	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	15.0	None	No Insulation	Carpet 10mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Kitchen/Living	Concrete, Plasterboard	No insulation	No
Bathroom	Concrete, Plasterboard	No insulation	No
Ensuite	Concrete, Plasterboard	No insulation	No
Laundry	Concrete, Plasterboard	No insulation	No
Bedroom 1	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
Kitchen/Living	8	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
Bathroom	2	Downlights - LED	150	Sealed
Bathroom	1	Exhaust Fans	300	Sealed
Ensuite	2	Downlights - LED	150	Sealed
Ensuite	1	Exhaust Fans	300	Sealed
Laundry	1	Downlights - LED	150	Sealed
Laundry	1	Exhaust Fans	300	Sealed
Bedroom 1	6	Downlights - LED	150	Sealed
Bedroom 2	4	Downlights - LED	150	Sealed
Bedroom 3	4	Downlights - LED	150	Sealed

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: 0004411708 **Certificate Date:** 03 Dec 2019 ★Star rating: 7.4

Additional information

Explanatory notes

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Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004411732** Certificate Date: **03 Dec 2019** ★Star rating: **7.4**

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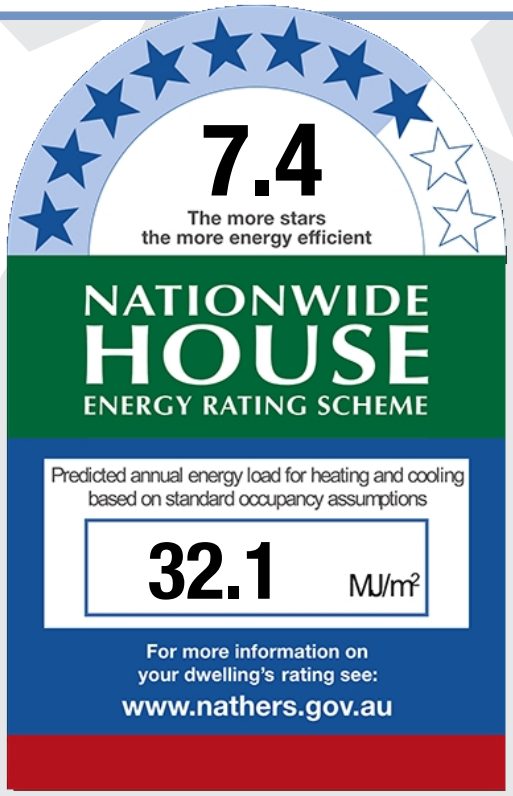
Assessor details

Accreditation number:	**20884**
Name:	**Zoltan Lipovski**
Organisation:	**EcoMode Design**
Email:	**zoltan@ecomode.com.au**
Phone:	**0410605614**
Declaration of interest:	**None**
Software:	**BERS Pro v4.3.0.2f (3.13)**
AAO:	**ABSA**



Overview

Dwelling details

Street:	**Unit LG.02, 28 Lockwood Avenue**		
Suburb:	**Belrose**		
State:	**NSW**	Postcode:	**2085**
Type:	**New Dwelling**	NCC Class:	**2**
		NatHERS climate zone:	**56**
Lot/DP number:	**1/1199795**	Exposure:	**Suburban**

Key construction and insulation materials

(see following pages for details)

Construction:	**Brick Veneer** **Concrete, Plasterboard** **Concrete Slab, Unit Below**
Insulation:	**R2.0 wall insulation** **No ceiling insulation** **No floor insulation**
Glazing:	**ALM-001-01 A Aluminium A SG Clear**

Net floor area (m²)

Conditioned:	**64.0**
Unconditioned:	**6.0**
Garage:	**0.0**
TOTAL:	**70.0**

Annual thermal performance loads (MJ/m²)

Heating:	**11.1**
Cooling:	**21.0**
TOTAL:	**32.1**

Plan documents

Plan ref/date:	**Plans, Elevations Section**
Prepared by:	**DKO Architecture**

Ceiling penetrations

(see following pages for details)

Sealed:	**27**
Unsealed:	**0**
TOTAL:**	**27**

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Principle downlight type: **LED**

Window selection - default windows only

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

Note: Only a +/- 5% SHGC tolerance is allowed with this rating.

NB: This tolerance ONLY applies to SHGC, the U-value can always be lower but not higher than the values stated on page 2.

If any of windows selected are outside the 5% tolerance then this certificate is no longer valid and the dwelling will need to be rerated to confirm compliance.

Scan to access this certificate online and confirm this is valid.

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Building features

Window type and performance value

Window ID	Window type	U-value	SHGC
ALM-001-01 A	ALM-001-01 A Aluminium A SG Clear	6.7	0.57

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Kitchen/Living	ALM-001-01 A	n/a	2700	4000	NE	No Shading
Bedroom 1	ALM-001-01 A	n/a	2700	1500	NE	No Shading
Bedroom 2	ALM-001-01 A	n/a	2700	1500	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	Bulk Insulation R2	No

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Kitchen/Living	EW-1	4295	2900	NE	No	2700
Bedroom 1	EW-1	2995	2900	NE	No	1500
Bedroom 1	EW-1	2100	2900	SE	No	0
Bedroom 2	EW-1	1200	2900	NW	No	4300
Bedroom 2	EW-1	3095	2900	NE	No	1500

Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Stud, multi plaster layers	45.0	Bulk Insulation in the centre R2	No
IW-2 - Cavity wall, direct fix plasterboard, single gap	65.0	No insulation	No
IW-3 - Concrete Panel/Blocks filled, multi plaster layers	30.0	No Insulation	No

Floors

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living	Concrete Slab, Unit Below	35.5	None	No Insulation	Cork Tiles or

Building features continued

	150mm				Parquetry 8mm
Bathroom	Concrete Slab, Unit Below 150mm	4.4	None	No Insulation	Ceramic Tiles 8mm
Ensuite	Concrete Slab, Unit Below 150mm	5.0	None	No Insulation	Ceramic Tiles 8mm
Bedroom 1	Concrete Slab, Unit Below 150mm	12.6	None	No Insulation	Carpet 10mm
Bedroom 2	Concrete Slab, Unit Below 150mm	11.4	None	No Insulation	Carpet 10mm
Laundry	Concrete Slab, Unit Below 150mm	1.4	None	No Insulation	Ceramic Tiles 8mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Kitchen/Living	Concrete, Plasterboard	No insulation	No
Bathroom	Concrete, Plasterboard	No insulation	No
Ensuite	Concrete, Plasterboard	No insulation	No
Bedroom 1	Concrete, Plasterboard	No insulation	No
Bedroom 2	Concrete, Plasterboard	No insulation	No
Laundry	Concrete, Plasterboard	No insulation	No

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
Kitchen/Living	10	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
Bathroom	2	Downlights - LED	150	Sealed
Bathroom	1	Exhaust Fans	300	Sealed
Ensuite	2	Downlights - LED	150	Sealed
Ensuite	1	Exhaust Fans	300	Sealed
Bedroom 1	4	Downlights - LED	150	Sealed
Bedroom 2	4	Downlights - LED	150	Sealed
Laundry	1	Downlights - LED	150	Sealed
Laundry	1	Exhaust Fans	300	Sealed

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: 0004411732 **Certificate Date:** 03 Dec 2019 ★Star rating: 7.4

Additional information

Explanatory notes

About this report

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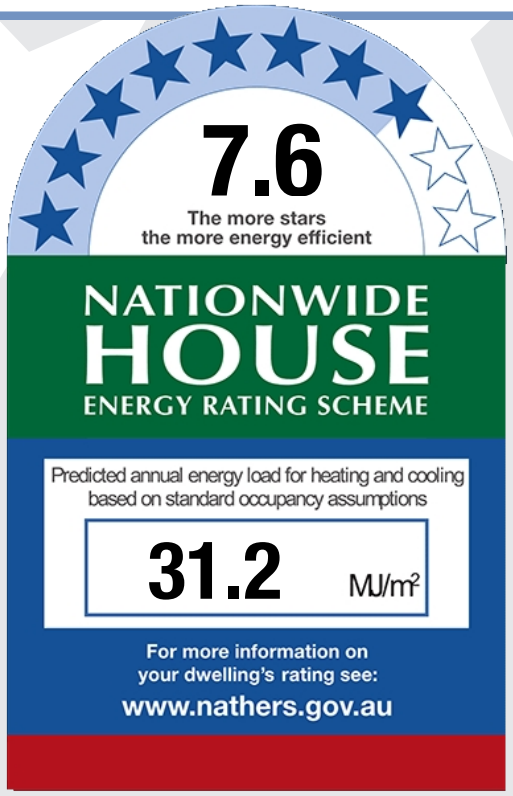
Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004411773** Certificate Date: **03 Dec 2019** ★Star rating: **7.6**

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:	**20884**
Name:	**Zoltan Lipovski**
Organisation:	**EcoMode Design**
Email:	**zoltan@ecomode.com.au**
Phone:	**0410605614**
Declaration of interest:	**None**
Software:	**BERS Pro v4.3.0.2f (3.13)**
AAO:	**ABSA**



Overview

Dwelling details

Street:	**Unit LG.03, 28 Lockwood Avenue**		
Suburb:	**Belrose**		
State:	**NSW**	Postcode:	**2085**
Type:	**New Dwelling**	NCC Class:	**2**
		NatHERS climate zone:	**56**
Lot/DP number:	**1/1199795**	Exposure:	**Suburban**

Key construction and insulation materials

(see following pages for details)

Construction:	**Brick Veneer** **Concrete, Plasterboard** **Concrete Slab, Unit Below**
Insulation:	**R2.0 wall insulation** **No ceiling insulation** **No floor insulation**
Glazing:	**ALM-001-01 A Aluminium A SG Clear**

Net floor area (m²)

Conditioned:	**75.0**
Unconditioned:	**7.0**
Garage:	**0.0**
TOTAL:	**82.0**

Annual thermal performance loads (MJ/m²)

Heating:	**18.1**
Cooling:	**13.1**
TOTAL:	**31.2**

Plan documents

Plan ref/date:	**Plans, Elevations Section**
Prepared by:	**DKO Architecture**

Ceiling penetrations

(see following pages for details)

Sealed:	**29**
Unsealed:	**0**
TOTAL:**	**29**

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: **LED**

Window selection - default windows only

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

Note: Only a +/- 5% SHGC tolerance is allowed with this rating.

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Building features

Window type and performance value

Window ID	Window type	U-value	SHGC
ALM-001-01 A	ALM-001-01 A Aluminium A SG Clear	6.7	0.57

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Bedroom 2	ALM-001-01 A	n/a	2700	1500	NE	No Shading
Kitchen/Living	ALM-001-01 A	n/a	2700	3000	NW	No Shading
Kitchen/Living	ALM-001-01 A	n/a	2700	1500	NE	No Shading
Bedroom 1	ALM-001-01 A	n/a	2700	3000	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	Bulk Insulation R2	No

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Bedroom 2	EW-1	2995	2900	NE	No	1500
Bedroom 2	EW-1	1300	2900	SE	No	0
Kitchen/Living	EW-1	3500	2900	NW	No	3000
Kitchen/Living	EW-1	4095	2900	NE	No	1500
Bedroom 1	EW-1	2995	2900	NE	No	5000

Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Stud, multi plaster layers	54.0	Bulk Insulation in the centre R2	No
IW-2 - Cavity wall, direct fix plasterboard, single gap	73.0	No insulation	No
IW-3 - Concrete Panel/Blocks filled, multi plaster layers	16.0	No Insulation	No

Floors

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering

Building features continued

Bathroom	Concrete Slab, Unit Below 150mm	4.7	None	No Insulation	Ceramic Tiles 8mm
Laundry	Concrete Slab, Unit Below 150mm	2.3	None	No Insulation	Ceramic Tiles 8mm
Bedroom 2	Concrete Slab, Unit Below 150mm	13.9	None	No Insulation	Carpet 10mm
Kitchen/Living	Concrete Slab, Unit Below 150mm	44.1	None	No Insulation	Cork Tiles or Parquetry 8mm
Ensuite	Concrete Slab, Unit Below 150mm	5.5	None	No Insulation	Ceramic Tiles 8mm
Bedroom 1	Concrete Slab, Unit Below 150mm	11.7	None	No Insulation	Carpet 10mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Bathroom	Concrete, Plasterboard	No insulation	No
Laundry	Concrete, Plasterboard	No insulation	No
Bedroom 2	Concrete, Plasterboard	No insulation	No
Kitchen/Living	Concrete, Plasterboard	No insulation	No
Ensuite	Concrete, Plasterboard	No insulation	No
Bedroom 1	Concrete, Plasterboard	No insulation	No

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
Bathroom	2	Downlights - LED	150	Sealed
Bathroom	1	Exhaust Fans	300	Sealed
Laundry	2	Downlights - LED	150	Sealed
Laundry	1	Exhaust Fans	300	Sealed
Bedroom 2	5	Downlights - LED	150	Sealed
Kitchen/Living	10	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
Ensuite	2	Downlights - LED	150	Sealed
Ensuite	1	Exhaust Fans	300	Sealed
Bedroom 1	4	Downlights - LED	150	Sealed

Ceiling fans

Location	Number	Diameter (mm)
None Present		

Roof type

Construction	Added insulation	Roof colour

Building features continued

None Present

Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0004411773 **Certificate Date:** 03 Dec 2019 ★Star rating: 7.6

Additional information

Explanatory notes

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Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004411716** Certificate Date: **03 Dec 2019** ★Star rating: **6.6**

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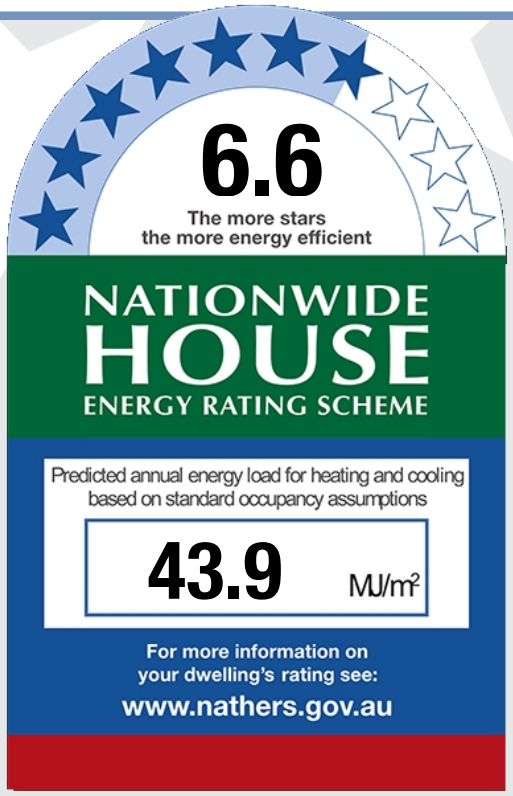
Assessor details

Accreditation number:	**20884**
Name:	**Zoltan Lipovski**
Organisation:	**EcoMode Design**
Email:	**zoltan@ecomode.com.au**
Phone:	**0410605614**
Declaration of interest:	**None**
Software:	**BERS Pro v4.3.0.2f (3.13)**
AAO:	**ABSA**



Overview

Dwelling details

Street:	**Unit LG.04, 28 Lockwood Avenue**		
Suburb:	**Belrose**		
State:	**NSW**	Postcode:	**2085**
Type:	**New Dwelling**	NCC Class:	**2**
		NatHERS climate zone:	**56**
Lot/DP number:	**1/1199795**	Exposure:	**Suburban**

Key construction and insulation materials

(see following pages for details)

Construction:	**Brick Veneer** **Concrete, Plasterboard** **Concrete Slab, Unit Below**
Insulation:	**R2.0 wall insulation** **No ceiling insulation** **No floor insulation**
Glazing:	**ALM-001-01 A Aluminium A SG Clear**

Net floor area (m²)

Conditioned:	**75.0**
Unconditioned:	**7.0**
Garage:	**0.0**
TOTAL:	**82.0**

Annual thermal performance loads (MJ/m²)

Heating:	**31.8**
Cooling:	**12.1**
TOTAL:	**43.9**

Plan documents

Plan ref/date:	**Plans, Elevations Section**
Prepared by:	**DKO Architecture**

Ceiling penetrations

(see following pages for details)

Sealed:	**29**
Unsealed:	**0**
TOTAL:**	**29**

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Principle downlight type: **LED**

Window selection - default windows only

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Building features

Window type and performance value

Window ID	Window type	U-value	SHGC
ALM-001-01 A	ALM-001-01 A Aluminium A SG Clear	6.7	0.57

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Bedroom 2	ALM-001-01 A	n/a	2700	1500	NE	No Shading
Kitchen/Living	ALM-001-01 A	n/a	2700	1500	NE	No Shading
Kitchen/Living	ALM-001-01 A	n/a	2700	3000	SE	No Shading
Bedroom 1	ALM-001-01 A	n/a	2700	3000	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	Bulk Insulation R2	No

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Bedroom 2	EW-1	2995	2900	NE	No	1600
Kitchen/Living	EW-1	4095	2900	NE	No	1600
Kitchen/Living	EW-1	3500	2900	SE	No	3000
Bedroom 1	EW-1	2995	2900	NE	No	5100

Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Concrete Panel/Blocks filled, multi plaster layers	57.0	No Insulation	No
IW-2 - Cavity wall, direct fix plasterboard, single gap	73.0	No insulation	No
IW-3 - Stud, multi plaster layers	17.0	Bulk Insulation in the centre R2	No

Floors

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Bathroom	Concrete Slab, Unit Below	4.7	None	No Insulation	Ceramic Tiles

Building features continued

	150mm				8mm
Laundry	Concrete Slab, Unit Below 150mm	2.3	None	No Insulation	Ceramic Tiles 8mm
Bedroom 2	Concrete Slab, Unit Below 150mm	13.9	None	No Insulation	Carpet 10mm
Kitchen/Living	Concrete Slab, Unit Below 150mm	44.1	None	No Insulation	Cork Tiles or Parquetry 8mm
Ensuite	Concrete Slab, Unit Below 150mm	5.5	None	No Insulation	Ceramic Tiles 8mm
Bedroom 1	Concrete Slab, Unit Below 150mm	11.7	None	No Insulation	Carpet 10mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Bathroom	Concrete, Plasterboard	No insulation	No
Laundry	Concrete, Plasterboard	No insulation	No
Bedroom 2	Concrete, Plasterboard	No insulation	No
Kitchen/Living	Concrete, Plasterboard	No insulation	No
Ensuite	Concrete, Plasterboard	No insulation	No
Bedroom 1	Concrete, Plasterboard	No insulation	No

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
Bathroom	2	Downlights - LED	150	Sealed
Bathroom	1	Exhaust Fans	300	Sealed
Laundry	2	Downlights - LED	150	Sealed
Laundry	1	Exhaust Fans	300	Sealed
Bedroom 2	5	Downlights - LED	150	Sealed
Kitchen/Living	10	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
Ensuite	2	Downlights - LED	150	Sealed
Ensuite	1	Exhaust Fans	300	Sealed
Bedroom 1	4	Downlights - LED	150	Sealed

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: 0004411716 **Certificate Date:** 03 Dec 2019 ★Star rating: 6.6

Additional information

Explanatory notes

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Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004411740** Certificate Date: **03 Dec 2019** ★Star rating: **5.4**

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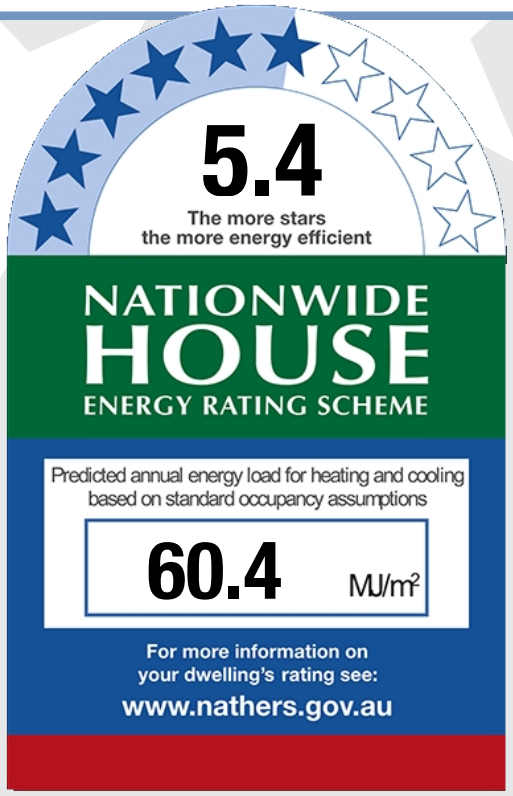
Assessor details

Accreditation number:	**20884**
Name:	**Zoltan Lipovski**
Organisation:	**EcoMode Design**
Email:	**zoltan@ecomode.com.au**
Phone:	**0410605614**
Declaration of interest:	**None**
Software:	**BERS Pro v4.3.0.2f (3.13)**
AAO:	**ABSA**



Overview

Dwelling details

Street:	**Unit LG.05, 28 Lockwood Avenue**		
Suburb:	**Belrose**		
State:	**NSW**	Postcode:	**2085**
Type:	**New Dwelling**	NCC Class:	**2**
		NatHERS climate zone:	**56**
Lot/DP number:	**1/1199795**	Exposure:	**Suburban**

Key construction and insulation materials

(see following pages for details)

Construction:	**Brick Veneer** **Concrete, Plasterboard** **Concrete Slab, Unit Below**
Insulation:	**R2.0 wall insulation** **No ceiling insulation** **No floor insulation**
Glazing:	**ALM-001-01 A Aluminium A SG Clear**

Net floor area (m²)

Conditioned:	**75.0**
Unconditioned:	**7.0**
Garage:	**0.0**
TOTAL:	**83.0**

Annual thermal performance loads (MJ/m²)

Heating:	**39.3**
Cooling:	**21.1**
TOTAL:	**60.4**

Plan documents

Plan ref/date:	**Plans, Elevations Section**
Prepared by:	**DKO Architecture**

Ceiling penetrations

(see following pages for details)

Sealed:	**30**
Unsealed:	**0**
TOTAL:**	**30**

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: **LED**

Window selection - default windows only

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

Note: Only a +/- 5% SHGC tolerance is allowed with this rating.

NB: This tolerance ONLY applies to SHGC, the U-value can always be lower but not higher than the values stated on page 2.

If any of windows selected are outside the 5% tolerance then this certificate is no longer valid and the dwelling will need to be rerated to confirm compliance.

Scan to access this certificate online and confirm this is valid.

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Building features

Window type and performance value

Window ID	Window type	U-value	SHGC
ALM-002-01 A	ALM-002-01 A Aluminium B SG Clear	6.7	0.70
ALM-001-01 A	ALM-001-01 A Aluminium A SG Clear	6.7	0.57

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Kitchen/Living	ALM-002-01 A	n/a	2700	3000	NE	No Shading
Kitchen/Living	ALM-001-01 A	n/a	2700	2400	SE	No Shading
Bedroom 1	ALM-002-01 A	n/a	2700	3000	SE	No Shading
Bedroom 2	ALM-001-01 A	n/a	2700	1500	SE	No Shading
Study	ALM-001-01 A	n/a	1800	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	Brick Veneer	Bulk Insulation R2	No
EW-2	Tilt up concrete, lined	Bulk Insulation R2	No

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Kitchen/Living	EW-1	3400	2900	NE	No	3100
Kitchen/Living	EW-1	3995	2900	SE	No	500
Laundry	EW-1	1295	2900	SW	No	0
Bathroom	EW-1	1790	2900	SW	No	0
Bedroom 1	EW-1	3095	2900	SE	No	3900
Bedroom 2	EW-1	3095	2900	SE	No	500
Bedroom 2	EW-1	3795	2900	SW	No	0
Study	EW-2	2490	2900	SW	No	0

Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Stud, multi plaster layers	47.0	Bulk Insulation in the centre R2	No
IW-2 - Cavity wall, direct fix plasterboard, single gap	81.0	No insulation	No

Building features continued

Floors

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living	Concrete Slab, Unit Below 150mm	38.5	None	No Insulation	Cork Tiles or Parquetry 8mm
Laundry	Concrete Slab, Unit Below 150mm	2.2	None	No Insulation	Ceramic Tiles 8mm
Bathroom	Concrete Slab, Unit Below 150mm	5.2	None	No Insulation	Ceramic Tiles 8mm
Bedroom 1	Concrete Slab, Unit Below 150mm	12.7	None	No Insulation	Carpet 10mm
Bedroom 2	Concrete Slab, Unit Below 150mm	11.5	None	No Insulation	Carpet 10mm
Study	Concrete Slab, Unit Below 150mm	7.4	None	No Insulation	Cork Tiles or Parquetry 8mm
Ensuite	Concrete Slab, Unit Below 150mm	5.4	None	No Insulation	Ceramic Tiles 8mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Kitchen/Living	Concrete, Plasterboard	No insulation	No
Laundry	Concrete, Plasterboard	No insulation	No
Bathroom	Concrete, Plasterboard	No insulation	No
Bedroom 1	Concrete, Plasterboard	No insulation	No
Bedroom 2	Concrete, Plasterboard	No insulation	No
Study	Concrete, Plasterboard	No insulation	No
Ensuite	Concrete, Plasterboard	No insulation	No

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
Kitchen/Living	10	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
Laundry	2	Downlights - LED	150	Sealed
Laundry	1	Exhaust Fans	300	Sealed
Bathroom	2	Downlights - LED	150	Sealed
Bathroom	1	Exhaust Fans	300	Sealed
Bedroom 1	4	Downlights - LED	150	Sealed
Bedroom 2	4	Downlights - LED	150	Sealed
Study	2	Downlights - LED	150	Sealed
Ensuite	2	Downlights - LED	150	Sealed
Ensuite	1	Exhaust Fans	300	Sealed

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: 0004411740 **Certificate Date:** 03 Dec 2019 ★Star rating: 5.4

Additional information

Explanatory notes

About this report

Residential energy ratings address the quality of the building fabric i.e. walls, windows, floors and roof/ceilings. Ratings do not cover the energy or water efficiency of appliances including heating and cooling, hot water, dishwashers, ovens, fridges, TVs etc. or solar panel or water tank requirements. The efficiency or specification of these items is generally covered by other regulations, standards or guidelines.

General Information

A NatHERS House Energy Rating is a comprehensive, dynamic computer modelling evaluation of the floorplans, elevations and specifications to predict an energy load of a home. Not all of us use our homes in the same way, so ratings are generated using standard assumptions. This means homes can be compared across the country.

The actual energy consumption of your home may vary significantly from the predicted energy load figures in the report depending on issues such as the size of your household and your personal preferences, e.g. in terms of heating or cooling.

While the figures are an indicative guide to energy use, they can be used as a reliable guide for comparative purposes between different house designs and for demonstrating that the design meets the required regulatory compliance.

Homes that are energy efficient use less energy, are warmer in winter, cooler in summer and cost less to run. The higher the star rating the more energy efficient.

This NatHERS House Energy Rating report was carefully prepared by your assessor on the basis of comprehensive modelling using standard procedures to rate your home using the underlying engine developed by the Australian Commonwealth Scientific and Industrial Research Organisation (CSIRO).

All information relating to energy loads presented in this report is based on a range of standard assumptions in order to allow for comparisons with reports prepared for other homes and to demonstrate minimum regulatory compliance.

The standard assumptions include figures for occupancy, indoor air temperature and are based on a unique climate file for your region.

Accredited Assessors

To ensure you get a high-quality, professional NatHERS House Energy Rating report, you should always use an accredited assessor, accredited assessors are members of a professional body called an Assessor Accrediting Organisation (AAO).

AAOs have specific quality assurance processes in place and continuing professional development requirements to maintain a high and consistent standard of assessments across the country. Non-accredited assessors do not have this level of quality assurance or any on-going training requirements.

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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

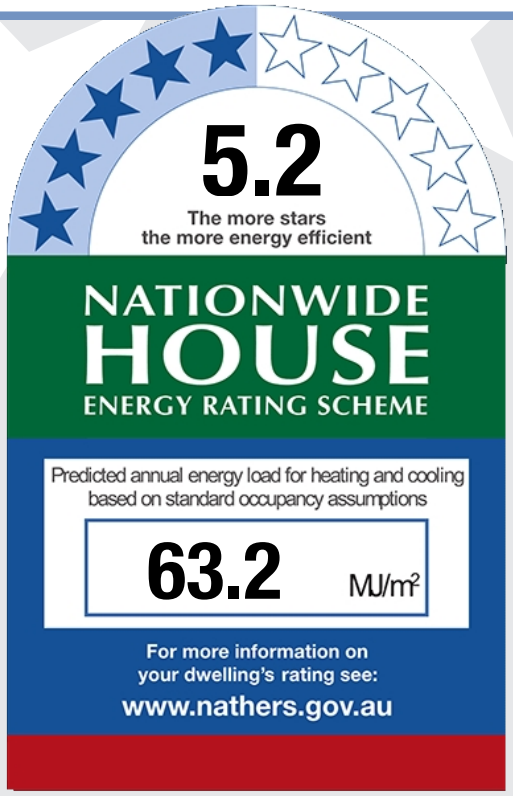
Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004411781** Certificate Date: **03 Dec 2019** ★Star rating: **5.2**

BERS Pro v4.3.0.0 (3.13) cannot be used to model 'roof windows'. Roof windows are 'openable or fixed windows in a roof' and do not have a shaft, as distinct from skylights which incorporate a built-in shaft and are not ventilated. BERS Pro v4.3 can only model skylights. If a roof window is present on the floor plan then this certificate is not valid.

Assessor details

Accreditation number:	**20884**
Name:	**Zoltan Lipovski**
Organisation:	**EcoMode Design**
Email:	**zoltan@ecomode.com.au**
Phone:	**0410605614**
Declaration of interest:	**None**
Software:	**BERS Pro v4.3.0.2f (3.13)**
AAO:	**ABSA**



Overview

Dwelling details

Street:	**Unit LG.06, 28 Lockwood Avenue**		
Suburb:	**Belrose**		
State:	**NSW**	Postcode:	**2085**
Type:	**New Dwelling**	NCC Class:	**2**
		NatHERS climate zone:	**56**
Lot/DP number:	**1/1199795**	Exposure:	**Suburban**

Key construction and insulation materials

(see following pages for details)

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

Net floor area (m²)

Conditioned:	**70.0**
Unconditioned:	**7.0**
Garage:	**0.0**
TOTAL:	**77.0**

Annual thermal performance loads (MJ/m²)

Heating:	**39.3**
Cooling:	**23.9**
TOTAL:	**63.2**

Plan documents

Plan ref/date:	**Plans, Elevations Section**
Prepared by:	**DKO Architecture**

Ceiling penetrations

(see following pages for details)

Sealed:	**27**
Unsealed:	**0**
TOTAL:**	**27**

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: **LED**

Window selection - default windows only

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

Note: Only a +/- 5% SHGC tolerance is allowed with this rating.

NB: This tolerance ONLY applies to SHGC, the U-value can always be lower but not higher than the values stated on page 2.

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Building features

Window type and performance value

Window ID	Window type	U-value	SHGC
ALM-002-01 A	ALM-002-01 A Aluminium B SG Clear	6.7	0.70
ALM-001-01 A	ALM-001-01 A Aluminium A SG Clear	6.7	0.57

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Bedroom 1	ALM-002-01 A	n/a	2700	3000	SE	No Shading
Kitchen/Living	ALM-001-01 A	n/a	2700	2400	SE	No Shading
Kitchen/Living	ALM-002-01 A	n/a	2700	3000	SW	No Shading
Bedroom 2	ALM-001-01 A	n/a	2700	1500	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	Bulk Insulation R2	No

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Bedroom 1	EW-1	3095	2900	SE	No	3900
Kitchen/Living	EW-1	3895	2900	SE	No	500
Kitchen/Living	EW-1	3400	2900	SW	No	3100
Bathroom	EW-1	3195	2900	NE	No	0
Bedroom 2	EW-1	3595	2900	NE	No	0
Bedroom 2	EW-1	3195	2900	SE	No	500

Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Stud, multi plaster layers	40.0	Bulk Insulation in the centre R2	No
IW-2 - Cavity wall, direct fix plasterboard, single gap	64.0	No insulation	No
IW-3 - Concrete Panel/Blocks filled, multi plaster layers	15.0	No Insulation	No

Floors

Building features continued

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Bedroom 1	Concrete Slab, Unit Below 150mm	12.7	None	No Insulation	Carpet 10mm
Ensuite	Concrete Slab, Unit Below 150mm	5.4	None	No Insulation	Ceramic Tiles 8mm
Kitchen/Living	Concrete Slab, Unit Below 150mm	40.6	None	No Insulation	Cork Tiles or Parquetry 8mm
Laundry	Concrete Slab, Unit Below 150mm	1.1	None	No Insulation	Ceramic Tiles 8mm
Bathroom	Concrete Slab, Unit Below 150mm	5.9	None	No Insulation	Ceramic Tiles 8mm
Bedroom 2	Concrete Slab, Unit Below 150mm	11.2	None	No Insulation	Carpet 10mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Bedroom 1	Concrete, Plasterboard	No insulation	No
Ensuite	Concrete, Plasterboard	No insulation	No
Kitchen/Living	Concrete, Plasterboard	No insulation	No
Laundry	Concrete, Plasterboard	No insulation	No
Bathroom	Concrete, Plasterboard	No insulation	No
Bedroom 2	Concrete, Plasterboard	No insulation	No

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
Bedroom 1	4	Downlights - LED	150	Sealed
Ensuite	2	Downlights - LED	150	Sealed
Ensuite	1	Exhaust Fans	300	Sealed
Kitchen/Living	10	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
Laundry	1	Downlights - LED	150	Sealed
Laundry	1	Exhaust Fans	300	Sealed
Bathroom	2	Downlights - LED	150	Sealed
Bathroom	1	Exhaust Fans	300	Sealed
Bedroom 2	4	Downlights - LED	150	Sealed

Ceiling fans

Location	Number	Diameter (mm)
None Present		

Roof type

Building features continued

Construction	Added insulation	Roof colour
None Present		

Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0004411781 **Certificate Date:** 03 Dec 2019 ★Star rating: 5.2

Additional information

Explanatory notes

About this report

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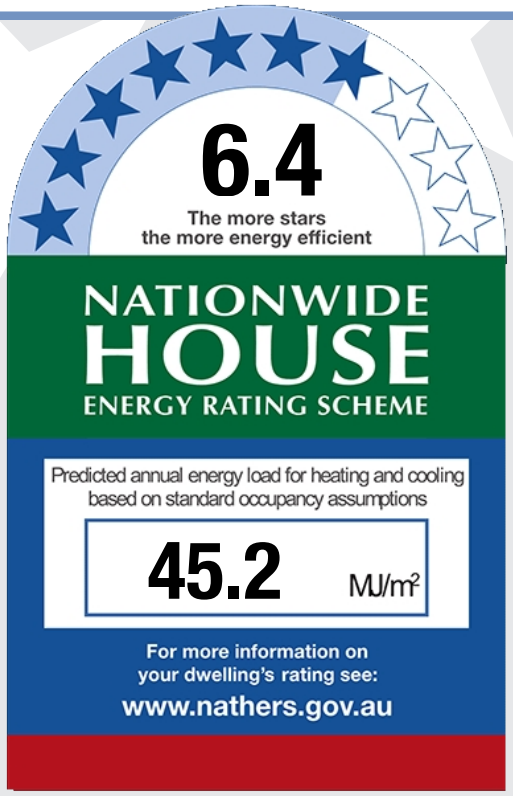
Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004411765** Certificate Date: **03 Dec 2019** ★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:	**20884**
Name:	**Zoltan Lipovski**
Organisation:	**EcoMode Design**
Email:	**zoltan@ecomode.com.au**
Phone:	**0410605614**
Declaration of interest:	**None**
Software:	**BERS Pro v4.3.0.2f (3.13)**
AAO:	**ABSA**



Overview

Dwelling details

Street:	**Unit LG.07, 28 Lockwood Avenue**		
Suburb:	**Belrose**		
State:	**NSW**	Postcode:	**2085**
Type:	**New Dwelling**	NCC Class:	**2**
		NatHERS climate zone:	**56**
Lot/DP number:	**1/1199795**	Exposure:	**Suburban**

Key construction and insulation materials

(see following pages for details)

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

Net floor area (m²)

Conditioned:	**111.0**
Unconditioned:	**12.0**
Garage:	**0.0**
TOTAL:	**123.0**

Annual thermal performance loads (MJ/m²)

Heating:	**19.4**
Cooling:	**25.7**
TOTAL:	**45.2**

Plan documents

Plan ref/date:	**Plans, Elevations Section**
Prepared by:	**DKO Architecture**

Ceiling penetrations

(see following pages for details)

Sealed:	**47**
Unsealed:	**0**
TOTAL:**	**47**

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: **LED**

Window selection - default windows only

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

Note: Only a +/- 5% SHGC tolerance is allowed with this rating.

NB: This tolerance ONLY applies to SHGC, the U-value can always be lower but not higher than the values stated on page 2.

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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	2700	2900	NW	Vertical Louvres, Vertical Blades
Kitchen/Living	ALM-002-01 A	n/a	2700	2200	NW	No Shading
Study	ALM-002-01 A	n/a	2700	2200	NW	Vertical Louvres, Vertical Blades
Bedroom 2	ALM-002-01 A	n/a	2700	2900	NW	No Shading
Bedroom 1	ALM-002-01 A	n/a	2700	2700	NW	Vertical Louvres, Vertical Blades
Bedroom 3	ALM-002-01 A	n/a	2700	2200	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	Bulk Insulation R2	No

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Kitchen/Living	EW-1	6000	2900	NW	No	1900
Study	EW-1	2995	2900	NW	No	2800
Bedroom 2	EW-1	2995	2900	NW	No	1700
Bedroom 1	EW-1	2995	2900	NW	No	2900
Bedroom 3	EW-1	2995	2900	NW	No	1800

Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Concrete Panel/Blocks filled, plasterboard	22.0	No Insulation	No
IW-2 - Stud, multi plaster layers	170.0	Bulk Insulation in the centre R2	No
IW-3 - Cavity wall, direct fix plasterboard, single gap	137.0	No insulation	No

Building features continued

Floors

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living	Concrete Slab, Unit Below 150mm	30.9	None	No Insulation	Cork Tiles or Parquetry 8mm
Entry-Stair	Concrete Slab, Unit Below 150mm	12.0	None	No Insulation	Cork Tiles or Parquetry 8mm
Powder	Concrete Slab, Unit Below 150mm	2.6	None	No Insulation	Ceramic Tiles 8mm
Study/Kitchen/Living	Concrete Above Plasterboard 150mm	10.2		No Insulation	Carpet 10mm
Bedroom 2/Kitchen/Living	Concrete Above Plasterboard 150mm	11.1		No Insulation	Carpet 10mm
Corridor/Kitchen/Living	Concrete Above Plasterboard 150mm	3.8		No Insulation	Cork Tiles or Parquetry 8mm
Corridor/Entry-Stair	Concrete Above Plasterboard 150mm	7.9		No Insulation	Cork Tiles or Parquetry 8mm
Corridor/Powder	Concrete Above Plasterboard 150mm	1.7		No Insulation	Cork Tiles or Parquetry 8mm
Laundry/Entry-Stair	Concrete Above Plasterboard 150mm	2.3		No Insulation	Ceramic Tiles 8mm
Bathroom/Kitchen/Living	Concrete Above Plasterboard 150mm	2.2		No Insulation	Ceramic Tiles 8mm
Bathroom/Entry-Stair	Concrete Above Plasterboard 150mm	1.7		No Insulation	Ceramic Tiles 8mm
Bathroom/Powder	Concrete Above Plasterboard 150mm	1.0		No Insulation	Ceramic Tiles 8mm
Store/Kitchen/Living	Concrete Above Plasterboard 150mm	2.8		No Insulation	Cork Tiles or Parquetry 8mm
Bedroom 1/Study	Concrete Above Plasterboard 150mm	10.3		No Insulation	Carpet 10mm
Bedroom 1/Corridor	Concrete Above Plasterboard 150mm	2.0		No Insulation	Carpet 10mm
Bedroom 1/Store	Concrete Above Plasterboard 150mm	3.0		No Insulation	Carpet 10mm
Bedroom 3/Bedroom 2	Concrete Above Plasterboard 150mm	11.1		No Insulation	Carpet 10mm
Bedroom 3/Corridor	Concrete Above Plasterboard 150mm	0.5		No Insulation	Carpet 10mm
Corridor/Corridor	Concrete Above Plasterboard 150mm	10.8		No Insulation	Cork Tiles or Parquetry 8mm
Bathroom/Bathroom	Concrete Above Plasterboard 150mm	4.7		No Insulation	Ceramic Tiles 8mm
Store 2/Laundry	Concrete Above Plasterboard 150mm	2.3		No Insulation	Ceramic Tiles 8mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Kitchen/Living	Concrete, Plasterboard	No insulation	No
Kitchen/Living	Concrete Above Plasterboard	No Insulation	No
Entry-Stair	Concrete, Plasterboard	No insulation	No
Entry-Stair	Concrete Above Plasterboard	No Insulation	No

Building features continued

Powder	Concrete, Plasterboard	No insulation	No
Powder	Concrete Above Plasterboard	No Insulation	No
Study	Concrete, Plasterboard	No insulation	No
Study	Concrete Above Plasterboard	No Insulation	No
Bedroom 2	Concrete, Plasterboard	No insulation	No
Bedroom 2	Concrete Above Plasterboard	No Insulation	No
Corridor	Concrete, Plasterboard	No insulation	No
Corridor	Concrete Above Plasterboard	No Insulation	No
Laundry	Concrete, Plasterboard	No insulation	No
Laundry	Concrete Above Plasterboard	No Insulation	No
Bathroom	Concrete, Plasterboard	No insulation	No
Bathroom	Concrete Above Plasterboard	No Insulation	No
Store	Concrete, Plasterboard	No insulation	No
Store	Concrete Above Plasterboard	No Insulation	No
Bedroom 1	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Bedroom 3	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Corridor	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Bathroom	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Store 2	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
Kitchen/Living	8	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
Entry-Stair	4	Downlights - LED	150	Sealed
Powder	1	Downlights - LED	150	Sealed
Powder	1	Exhaust Fans	300	Sealed
Study	4	Downlights - LED	150	Sealed
Bedroom 2	4	Downlights - LED	150	Sealed
Corridor	4	Downlights - LED	150	Sealed
Laundry	1	Downlights - LED	150	Sealed
Laundry	1	Exhaust Fans	300	Sealed

Building features continued

Bathroom	2	Downlights - LED	150	Sealed
Bathroom	1	Exhaust Fans	300	Sealed
Store	1	Downlights - LED	150	Sealed
Bedroom 1	4	Downlights - LED	150	Sealed
Bedroom 3	4	Downlights - LED	150	Sealed
Corridor	3	Downlights - LED	150	Sealed
Bathroom	2	Downlights - LED	150	Sealed
Bathroom	1	Exhaust Fans	300	Sealed

Ceiling fans

Location	Number	Diameter (mm)
None Present		

Roof type

Construction	Added insulation	Roof colour
Waterproofing Membrane	No Insulation, Only an Air Gap	Dark

Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0004411765 **Certificate Date:** 03 Dec 2019 ★Star rating: 6.4

Additional information

Explanatory notes

About this report

Residential energy ratings address the quality of the building fabric i.e. walls, windows, floors and roof/ceilings. Ratings do not cover the energy or water efficiency of appliances including heating and cooling, hot water, dishwashers, ovens, fridges, TVs etc. or solar panel or water tank requirements. The efficiency or specification of these items is generally covered by other regulations, standards or guidelines.

General Information

A NatHERS House Energy Rating is a comprehensive, dynamic computer modelling evaluation of the floorplans, elevations and specifications to predict an energy load of a home. Not all of us use our homes in the same way, so ratings are generated using standard assumptions. This means homes can be compared across the country.

The actual energy consumption of your home may vary significantly from the predicted energy load figures in the report depending on issues such as the size of your household and your personal preferences, e.g. in terms of heating or cooling.

While the figures are an indicative guide to energy use, they can be used as a reliable guide for comparative purposes between different house designs and for demonstrating that the design meets the required regulatory compliance.

Homes that are energy efficient use less energy, are warmer in winter, cooler in summer and cost less to run. The higher the star rating the more energy efficient.

This NatHERS House Energy Rating report was carefully prepared by your assessor on the basis of comprehensive modelling using standard procedures to rate your home using the underlying engine developed by the Australian Commonwealth Scientific and Industrial Research Organisation (CSIRO).

All information relating to energy loads presented in this report is based on a range of standard assumptions in order to allow for comparisons with reports prepared for other homes and to demonstrate minimum regulatory compliance.

The standard assumptions include figures for occupancy, indoor air temperature and are based on a unique climate file for your region.

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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

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For more information on energy efficient design and insulation visit www.yourhome.gov.au

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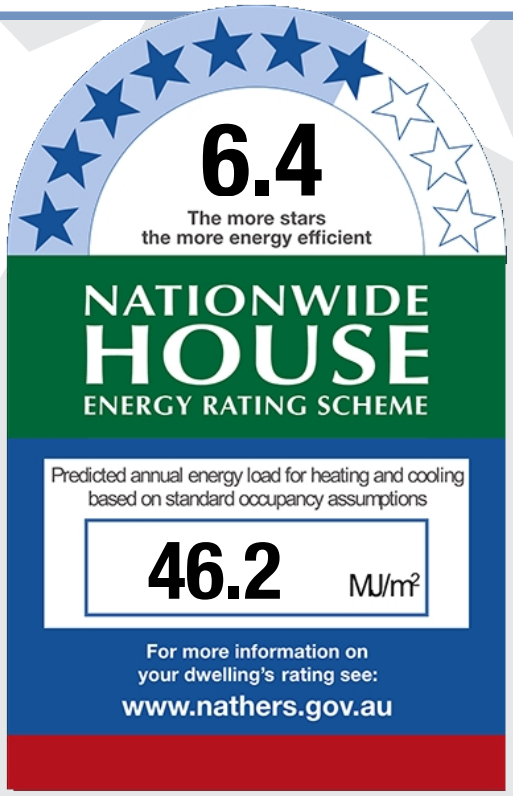
Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004411799** Certificate Date: **03 Dec 2019** ★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:	**20884**
Name:	**Zoltan Lipovski**
Organisation:	**EcoMode Design**
Email:	**zoltan@ecomode.com.au**
Phone:	**0410605614**
Declaration of interest:	**None**
Software:	**BERS Pro v4.3.0.2f (3.13)**
AAO:	**ABSA**



Overview

Dwelling details

Street:	**Unit LG.08, 28 Lockwood Avenue**		
Suburb:	**Belrose**		
State:	**NSW**	Postcode:	**2085**
Type:	**New Dwelling**	NCC Class:	**2**
		NatHERS climate zone:	**56**
Lot/DP number:	**1/1199795**	Exposure:	**Suburban**

Key construction and insulation materials

(see following pages for details)

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

Net floor area (m²)

Conditioned:	**115.0**
Unconditioned:	**12.0**
Garage:	**0.0**
TOTAL:	**127.0**

Annual thermal performance loads (MJ/m²)

Heating:	**21.7**
Cooling:	**24.5**
TOTAL:	**46.2**

Plan documents

Plan ref/date:	**Plans, Elevations Section**
Prepared by:	**DKO Architecture**

Ceiling penetrations

(see following pages for details)

Sealed:	**43**
Unsealed:	**0**
TOTAL:**	**43**

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: **LED**

Window selection - default windows only

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

Note: Only a +/- 5% SHGC tolerance is allowed with this rating.

NB: This tolerance ONLY applies to SHGC, the U-value can always be lower but not higher than the values stated on page 2.

If any of windows selected are outside the 5% tolerance then this certificate is no longer valid and the dwelling will need to be rerated to confirm compliance.

Scan to access this certificate online and confirm this is valid.

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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	2700	2900	NW	Vertical Louvres, Vertical Blades
Kitchen/Living	ALM-002-01 A	n/a	2700	2200	NW	No Shading
Study	ALM-002-01 A	n/a	2700	2200	NW	No Shading
Bedroom 2	ALM-002-01 A	n/a	2700	2900	NW	Vertical Louvres, Vertical Blades
Bedroom 1	ALM-002-01 A	n/a	2700	2200	NW	No Shading
Bedroom 3	ALM-002-01 A	n/a	2700	2700	NW	Vertical Louvres, Vertical Blades

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	Bulk Insulation R2	No

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Kitchen/Living	EW-1	6000	2900	NW	No	1600
Study	EW-1	2995	2900	NW	No	1700
Bedroom 2	EW-1	2995	2900	NW	No	2800
Bedroom 1	EW-1	2995	2900	NW	No	1700
Bedroom 3	EW-1	2995	2900	NW	No	2850

Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Cavity wall, direct fix plasterboard, single gap	144.0	No insulation	No
IW-2 - Stud, multi plaster layers	168.0	Bulk Insulation in the centre R2	No
IW-3 - Concrete Panel/Blocks filled, plasterboard	23.0	No Insulation	No

Building features continued

Floors

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living	Concrete Slab, Unit Below 150mm	33.9	None	No Insulation	Cork Tiles or Parquetry 8mm
Entry-Stair	Concrete Slab, Unit Below 150mm	10.5	None	No Insulation	Cork Tiles or Parquetry 8mm
Powder	Concrete Slab, Unit Below 150mm	2.6	None	No Insulation	Ceramic Tiles 8mm
Study/Kitchen/Living	Concrete Above Plasterboard 150mm	13.2		No Insulation	Carpet 10mm
Bedroom 2/Kitchen/Living	Concrete Above Plasterboard 150mm	11.1		No Insulation	Carpet 10mm
Corridor/Kitchen/Living	Concrete Above Plasterboard 150mm	2.3		No Insulation	Cork Tiles or Parquetry 8mm
Corridor/Entry-Stair	Concrete Above Plasterboard 150mm	7.3		No Insulation	Cork Tiles or Parquetry 8mm
Corridor/Powder	Concrete Above Plasterboard 150mm	1.7		No Insulation	Cork Tiles or Parquetry 8mm
Laundry/Entry-Stair	Concrete Above Plasterboard 150mm	2.2		No Insulation	Ceramic Tiles 8mm
Bathroom/Kitchen/Living	Concrete Above Plasterboard 150mm	3.0		No Insulation	Ceramic Tiles 8mm
Bathroom/Entry-Stair	Concrete Above Plasterboard 150mm	0.9		No Insulation	Ceramic Tiles 8mm
Bathroom/Powder	Concrete Above Plasterboard 150mm	0.8		No Insulation	Ceramic Tiles 8mm
Store/Kitchen/Living	Concrete Above Plasterboard 150mm	3.3		No Insulation	Cork Tiles or Parquetry 8mm
Bedroom 1/Study	Concrete Above Plasterboard 150mm	13.2		No Insulation	Carpet 10mm
Bedroom 1/Store	Concrete Above Plasterboard 150mm	3.5		No Insulation	Carpet 10mm
Bedroom 3/Bedroom 2	Concrete Above Plasterboard 150mm	11.2		No Insulation	Carpet 10mm
Bedroom 3/Corridor	Concrete Above Plasterboard 150mm	0.5		No Insulation	Carpet 10mm
Corridor/Corridor	Concrete Above Plasterboard 150mm	10.9		No Insulation	Cork Tiles or Parquetry 8mm
Bathroom/Bathroom	Concrete Above Plasterboard 150mm	4.7		No Insulation	Ceramic Tiles 8mm
Store 2/Laundry	Concrete Above Plasterboard 150mm	2.3		No Insulation	Ceramic Tiles 8mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Kitchen/Living	Concrete, Plasterboard	No insulation	No
Kitchen/Living	Concrete Above Plasterboard	No Insulation	No
Entry-Stair	Concrete, Plasterboard	No insulation	No
Entry-Stair	Concrete Above Plasterboard	No Insulation	No
Powder	Concrete, Plasterboard	No insulation	No
Powder	Concrete Above Plasterboard	No Insulation	No

Building features continued

Study	Concrete, Plasterboard	No insulation	No
Study	Concrete Above Plasterboard	No Insulation	No
Bedroom 2	Concrete, Plasterboard	No insulation	No
Bedroom 2	Concrete Above Plasterboard	No Insulation	No
Corridor	Concrete, Plasterboard	No insulation	No
Corridor	Concrete Above Plasterboard	No Insulation	No
Laundry	Concrete, Plasterboard	No insulation	No
Laundry	Concrete Above Plasterboard	No Insulation	No
Bathroom	Concrete, Plasterboard	No insulation	No
Bathroom	Concrete Above Plasterboard	No Insulation	No
Store	Concrete, Plasterboard	No insulation	No
Store	Concrete Above Plasterboard	No Insulation	No
Bedroom 1	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Bedroom 3	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Corridor	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Bathroom	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Store 2	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
Kitchen/Living	8	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
Entry-Stair	4	Downlights - LED	150	Sealed
Powder	1	Downlights - LED	150	Sealed
Powder	1	Exhaust Fans	300	Sealed
Study	4	Downlights - LED	150	Sealed
Bedroom 2	4	Downlights - LED	150	Sealed
Laundry	1	Downlights - LED	150	Sealed
Laundry	1	Exhaust Fans	300	Sealed
Bathroom	2	Downlights - LED	150	Sealed
Bathroom	1	Exhaust Fans	300	Sealed

Building features continued

Store	1	Downlights - LED	150	Sealed
Bedroom 1	4	Downlights - LED	150	Sealed
Bedroom 3	4	Downlights - LED	150	Sealed
Corridor	3	Downlights - LED	150	Sealed
Bathroom	2	Downlights - LED	150	Sealed
Bathroom	1	Exhaust Fans	300	Sealed

Ceiling fans

Location	Number	Diameter (mm)
None Present		

Roof type

Construction	Added insulation	Roof colour
Waterproofing Membrane	No Insulation, Only an Air Gap	Dark

Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0004411799 **Certificate Date:** 03 Dec 2019 ★Star rating: 6.4

Additional information

Explanatory notes

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Certificate number: **0004411823** Certificate Date: **03 Dec 2019** ★Star rating: **6.4**

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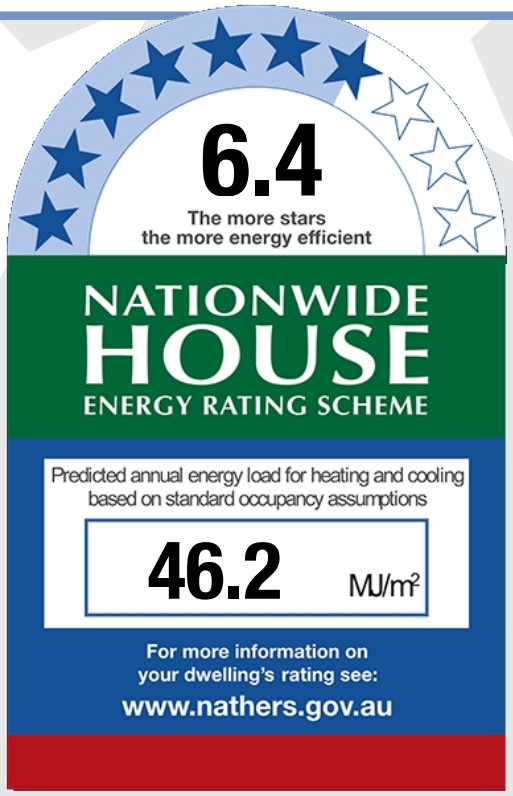
Assessor details

Accreditation number:	**20884**
Name:	**Zoltan Lipovski**
Organisation:	**EcoMode Design**
Email:	**zoltan@ecomode.com.au**
Phone:	**0410605614**
Declaration of interest:	**None**
Software:	**BERS Pro v4.3.0.2f (3.13)**
AAO:	**ABSA**



Overview

Dwelling details

Street:	**Unit LG.09, 28 Lockwood Avenue**		
Suburb:	**Belrose**		
State:	**NSW**	Postcode:	**2085**
Type:	**New Dwelling**	NCC Class:	**2**
		NatHERS climate zone:	**56**
Lot/DP number:	**1/1199795**	Exposure:	**Suburban**

Key construction and insulation materials

(see following pages for details)

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

Net floor area (m²)

Conditioned:	**115.0**
Unconditioned:	**12.0**
Garage:	**0.0**
TOTAL:	**127.0**

Annual thermal performance loads (MJ/m²)

Heating:	**21.7**
Cooling:	**24.5**
TOTAL:	**46.2**

Plan documents

Plan ref/date:	**Plans, Elevations Section**
Prepared by:	**DKO Architecture**

Ceiling penetrations

(see following pages for details)

Sealed:	**43**
Unsealed:	**0**
TOTAL:**	**43**

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: **LED**

Window selection - default windows only

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

Note: Only a +/- 5% SHGC tolerance is allowed with this rating.

NB: This tolerance ONLY applies to SHGC, the U-value can always be lower but not higher than the values stated on page 2.

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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	2700	2900	NW	Vertical Louvres, Vertical Blades
Kitchen/Living	ALM-002-01 A	n/a	2700	2200	NW	No Shading
Study	ALM-002-01 A	n/a	2700	2200	NW	No Shading
Bedroom 2	ALM-002-01 A	n/a	2700	2900	NW	Vertical Louvres, Vertical Blades
Bedroom 1	ALM-002-01 A	n/a	2700	2200	NW	No Shading
Bedroom 3	ALM-002-01 A	n/a	2700	2700	NW	Vertical Louvres, Vertical Blades

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	Bulk Insulation R2	No

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Kitchen/Living	EW-1	6000	2900	NW	No	1600
Study	EW-1	2995	2900	NW	No	1700
Bedroom 2	EW-1	2995	2900	NW	No	2800
Bedroom 1	EW-1	2995	2900	NW	No	1700
Bedroom 3	EW-1	2995	2900	NW	No	2850

Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Cavity wall, direct fix plasterboard, single gap	144.0	No insulation	No
IW-2 - Stud, multi plaster layers	168.0	Bulk Insulation in the centre R2	No
IW-3 - Concrete Panel/Blocks filled, plasterboard	23.0	No Insulation	No

Building features continued

Floors

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living	Concrete Slab, Unit Below 150mm	33.9	None	No Insulation	Cork Tiles or Parquetry 8mm
Entry-Stair	Concrete Slab, Unit Below 150mm	10.5	None	No Insulation	Cork Tiles or Parquetry 8mm
Powder	Concrete Slab, Unit Below 150mm	2.6	None	No Insulation	Ceramic Tiles 8mm
Study/Kitchen/Living	Concrete Above Plasterboard 150mm	13.2		No Insulation	Carpet 10mm
Bedroom 2/Kitchen/Living	Concrete Above Plasterboard 150mm	11.1		No Insulation	Carpet 10mm
Corridor/Kitchen/Living	Concrete Above Plasterboard 150mm	2.3		No Insulation	Cork Tiles or Parquetry 8mm
Corridor/Entry-Stair	Concrete Above Plasterboard 150mm	7.3		No Insulation	Cork Tiles or Parquetry 8mm
Corridor/Powder	Concrete Above Plasterboard 150mm	1.7		No Insulation	Cork Tiles or Parquetry 8mm
Laundry/Entry-Stair	Concrete Above Plasterboard 150mm	2.2		No Insulation	Ceramic Tiles 8mm
Bathroom/Kitchen/Living	Concrete Above Plasterboard 150mm	3.0		No Insulation	Ceramic Tiles 8mm
Bathroom/Entry-Stair	Concrete Above Plasterboard 150mm	0.9		No Insulation	Ceramic Tiles 8mm
Bathroom/Powder	Concrete Above Plasterboard 150mm	0.8		No Insulation	Ceramic Tiles 8mm
Store/Kitchen/Living	Concrete Above Plasterboard 150mm	3.3		No Insulation	Cork Tiles or Parquetry 8mm
Bedroom 1/Study	Concrete Above Plasterboard 150mm	13.2		No Insulation	Carpet 10mm
Bedroom 1/Store	Concrete Above Plasterboard 150mm	3.5		No Insulation	Carpet 10mm
Bedroom 3/Bedroom 2	Concrete Above Plasterboard 150mm	11.2		No Insulation	Carpet 10mm
Bedroom 3/Corridor	Concrete Above Plasterboard 150mm	0.5		No Insulation	Carpet 10mm
Corridor/Corridor	Concrete Above Plasterboard 150mm	10.9		No Insulation	Cork Tiles or Parquetry 8mm
Bathroom/Bathroom	Concrete Above Plasterboard 150mm	4.7		No Insulation	Ceramic Tiles 8mm
Store 2/Laundry	Concrete Above Plasterboard 150mm	2.3		No Insulation	Ceramic Tiles 8mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Kitchen/Living	Concrete, Plasterboard	No insulation	No
Kitchen/Living	Concrete Above Plasterboard	No Insulation	No
Entry-Stair	Concrete, Plasterboard	No insulation	No
Entry-Stair	Concrete Above Plasterboard	No Insulation	No
Powder	Concrete, Plasterboard	No insulation	No
Powder	Concrete Above Plasterboard	No Insulation	No

Building features continued

Study	Concrete, Plasterboard	No insulation	No
Study	Concrete Above Plasterboard	No Insulation	No
Bedroom 2	Concrete, Plasterboard	No insulation	No
Bedroom 2	Concrete Above Plasterboard	No Insulation	No
Corridor	Concrete, Plasterboard	No insulation	No
Corridor	Concrete Above Plasterboard	No Insulation	No
Laundry	Concrete, Plasterboard	No insulation	No
Laundry	Concrete Above Plasterboard	No Insulation	No
Bathroom	Concrete, Plasterboard	No insulation	No
Bathroom	Concrete Above Plasterboard	No Insulation	No
Store	Concrete, Plasterboard	No insulation	No
Store	Concrete Above Plasterboard	No Insulation	No
Bedroom 1	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Bedroom 3	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Corridor	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Bathroom	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
Store 2	Concrete, Plasterboard	Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
Kitchen/Living	8	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
Entry-Stair	4	Downlights - LED	150	Sealed
Powder	1	Downlights - LED	150	Sealed
Powder	1	Exhaust Fans	300	Sealed
Study	4	Downlights - LED	150	Sealed
Bedroom 2	4	Downlights - LED	150	Sealed
Laundry	1	Downlights - LED	150	Sealed
Laundry	1	Exhaust Fans	300	Sealed
Bathroom	2	Downlights - LED	150	Sealed
Bathroom	1	Exhaust Fans	300	Sealed

Building features continued

Store	1	Downlights - LED	150	Sealed
Bedroom 1	4	Downlights - LED	150	Sealed
Bedroom 3	4	Downlights - LED	150	Sealed
Corridor	3	Downlights - LED	150	Sealed
Bathroom	2	Downlights - LED	150	Sealed
Bathroom	1	Exhaust Fans	300	Sealed

Ceiling fans

Location	Number	Diameter (mm)
None Present		

Roof type

Construction	Added insulation	Roof colour
Waterproofing Membrane	No Insulation, Only an Air Gap	Dark

Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0004411823 **Certificate Date:** 03 Dec 2019 ★Star rating: 6.4

Additional information

Explanatory notes

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Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004411864** Certificate Date: **03 Dec 2019** ★Star rating: **6.4**

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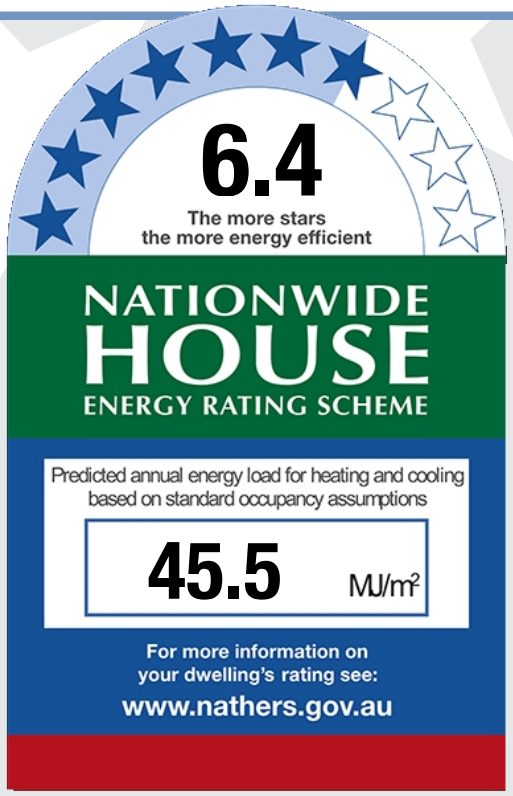
Assessor details

Accreditation number:	**20884**
Name:	**Zoltan Lipovski**
Organisation:	**EcoMode Design**
Email:	**zoltan@ecomode.com.au**
Phone:	**0410605614**
Declaration of interest:	**None**
Software:	**BERS Pro v4.3.0.2f (3.13)**
AAO:	**ABSA**



Overview

Dwelling details

Street:	**Unit LG.10, 28 Lockwood Avenue**		
Suburb:	**Belrose**		
State:	**NSW**	Postcode:	**2085**
Type:	**New Dwelling**	NCC Class:	**2**
		NatHERS climate zone:	**56**
Lot/DP number:	**1/1199795**	Exposure:	**Suburban**

Key construction and insulation materials

(see following pages for details)

Construction:	**Brick Veneer** **Concrete, Plasterboard** **Concrete Slab, Unit Below**
Insulation:	**R2.0 wall insulation** **No ceiling insulation** **No floor insulation**
Glazing:	**ALM-001-01 A Aluminium A SG Clear**

Net floor area (m²)

Conditioned:	**76.0**
Unconditioned:	**6.0**
Garage:	**0.0**
TOTAL:	**82.0**

Annual thermal performance loads (MJ/m²)

Heating:	**25.1**
Cooling:	**20.3**
TOTAL:	**45.5**

Plan documents

Plan ref/date:	**Plans, Elevations Section**
Prepared by:	**DKO Architecture**

Ceiling penetrations

(see following pages for details)

Sealed:	**16**
Unsealed:	**0**
TOTAL:**	**16**

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: **LED**

Window selection - default windows only

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

Note: Only a +/- 5% SHGC tolerance is allowed with this rating.

NB: This tolerance ONLY applies to SHGC, the U-value can always be lower but not higher than the values stated on page 2.

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Building features

Window type and performance value

Window ID	Window type	U-value	SHGC
ALM-001-01 A	ALM-001-01 A Aluminium A SG Clear	6.7	0.57

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Kitchen/Living	ALM-001-01 A	n/a	2700	2000	NW	No Shading
Kitchen/Living	ALM-001-01 A	n/a	2700	1800	SW	No Shading
Bedroom 1	ALM-001-01 A	n/a	2700	1500	NW	No Shading
Bedroom 1	ALM-001-01 A	n/a	2700	1800	NE	No Shading
Bedroom 2	ALM-001-01 A	n/a	2700	2000	NW	No Shading
Bedroom 2	ALM-001-01 A	n/a	2700	1000	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	Bulk Insulation R2	No

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Kitchen/Living	EW-1	4500	2900	NW	No	1100
Kitchen/Living	EW-1	3000	2900	SW	No	7900
Bedroom 1	EW-1	3100	2900	NW	No	1100
Bedroom 1	EW-1	3000	2900	NE	No	9300
Bedroom 2	EW-1	4790	2900	NW	No	4100

Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Stud, multi plaster layers	82.0	Bulk Insulation in the centre R2	No
IW-2 - Cavity wall, direct fix plasterboard, single gap	77.0	No insulation	No

Floors

Location	Construction	Area (m²)	Sub floor	Added	Covering

Building features continued

			ventilation	insulation	
Kitchen/Living	Concrete Slab, Unit Below 150mm	35.8	None	No Insulation	Cork Tiles or Parquetry 8mm
Corridor	Concrete Slab, Unit Below 150mm	9.1	None	No Insulation	Cork Tiles or Parquetry 8mm
Bathroom	Concrete Slab, Unit Below 150mm	5.4	None	No Insulation	Ceramic Tiles 8mm
Laundry	Concrete Slab, Unit Below 150mm	1.1	None	No Insulation	Ceramic Tiles 8mm
Bedroom 1	Concrete Slab, Unit Below 150mm	14.1	None	No Insulation	Carpet 10mm
Ensuite	Concrete Slab, Unit Below 150mm	4.4	None	No Insulation	Ceramic Tiles 8mm
Bedroom 2	Concrete Slab, Unit Below 150mm	12.6	None	No Insulation	Carpet 10mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Kitchen/Living	Concrete, Plasterboard	No insulation	No
Corridor	Concrete, Plasterboard	No insulation	No
Bathroom	Concrete, Plasterboard	No insulation	No
Laundry	Concrete, Plasterboard	No insulation	No
Bedroom 1	Concrete, Plasterboard	No insulation	No
Ensuite	Concrete, Plasterboard	No insulation	No
Bedroom 2	Concrete, Plasterboard	No insulation	No

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
Bathroom	2	Downlights - LED	150	Sealed
Bathroom	1	Exhaust Fans	300	Sealed
Laundry	1	Downlights - LED	150	Sealed
Laundry	1	Exhaust Fans	300	Sealed
Bedroom 1	4	Downlights - LED	150	Sealed
Ensuite	2	Downlights - LED	150	Sealed
Ensuite	1	Exhaust Fans	300	Sealed
Bedroom 2	4	Downlights - LED	150	Sealed

Ceiling fans

Location	Number	Diameter (mm)
None Present		

Roof type

Construction	Added	Roof colour

Building features continued

	insulation
None Present	

Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0004411864 **Certificate Date:** 03 Dec 2019 ★Star rating: 6.4

Additional information

Explanatory notes

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Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004411906** Certificate Date: **03 Dec 2019** ★Star rating: **6.3**

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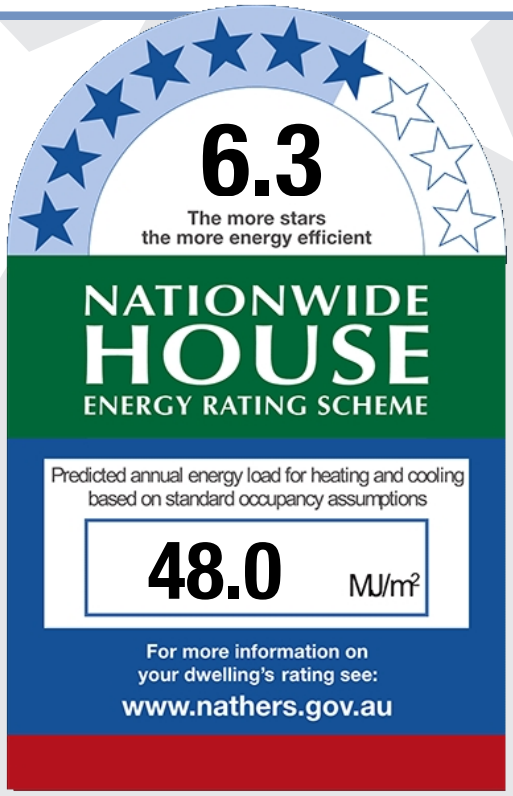
Assessor details

Accreditation number:	**20884**
Name:	**Zoltan Lipovski**
Organisation:	**EcoMode Design**
Email:	**zoltan@ecomode.com.au**
Phone:	**0410605614**
Declaration of interest:	**None**
Software:	**BERS Pro v4.3.0.2f (3.13)**
AAO:	**ABSA**



Overview

Dwelling details

Street:	**Unit LG.11, 28 Lockwood Avenue**		
Suburb:	**Belrose**		
State:	**NSW**	Postcode:	**2085**
Type:	**New Dwelling**	NCC Class:	**2**
		NatHERS climate zone:	**56**
Lot/DP number:	**1/1199795**	Exposure:	**Suburban**

Key construction and insulation materials

(see following pages for details)

Construction:	**Brick Veneer** **Concrete, Plasterboard** **Concrete Slab, Unit Below**
Insulation:	**R2.0 wall insulation** **No ceiling insulation** **No floor insulation**
Glazing:	**ALM-001-01 A Aluminium A SG Clear**

Net floor area (m²)

Conditioned:	**62.0**
Unconditioned:	**10.0**
Garage:	**0.0**
TOTAL:	**71.0**

Annual thermal performance loads (MJ/m²)

Heating:	**26.6**
Cooling:	**21.4**
TOTAL:	**48.0**

Plan documents

Plan ref/date:	**Plans, Elevations Section**
Prepared by:	**DKO Architecture**

Ceiling penetrations

(see following pages for details)

Sealed:	**28**
Unsealed:	**0**
TOTAL:**	**28**

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: **LED**

Window selection - default windows only

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Building features

Window type and performance value

Window ID	Window type	U-value	SHGC
ALM-001-01 A	ALM-001-01 A Aluminium A SG Clear	6.7	0.57

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Kitchen/Living	ALM-001-01 A	n/a	2700	3000	NW	No Shading
Bedroom 2	ALM-001-01 A	n/a	2700	1500	NW	No Shading
Bedroom 2	ALM-001-01 A	n/a	2700	1800	NE	No Shading
Bedroom 1	ALM-001-01 A	n/a	2700	1800	SW	No Shading
Bedroom 1	ALM-001-01 A	n/a	2700	1500	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	Bulk Insulation R2	No

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Kitchen/Living	EW-1	4490	2900	NW	No	3000
Bedroom 2	EW-1	2900	2900	NW	No	800
Bedroom 2	EW-1	2200	2900	NE	No	7500
Bedroom 1	EW-1	2200	2900	SW	No	7400
Bedroom 1	EW-1	3000	2900	NW	No	800

Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Cavity wall, direct fix plasterboard, single gap	62.0	No insulation	No
IW-2 - Stud, multi plaster layers	77.0	Bulk Insulation in the centre R2	No

Floors

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living		29.6	None	No Insulation	

Building features continued

	Concrete Slab, Unit Below 150mm				Cork Tiles or Parquetry 8mm
Bathroom	Concrete Slab, Unit Below 150mm	6.0	None	No Insulation	Ceramic Tiles 8mm
Laundry	Concrete Slab, Unit Below 150mm	3.7	None	No Insulation	Ceramic Tiles 8mm
Bedroom 2	Concrete Slab, Unit Below 150mm	11.4	None	No Insulation	Carpet 10mm
Bedroom 1	Concrete Slab, Unit Below 150mm	15.9	None	No Insulation	Carpet 10mm
Ensuite	Concrete Slab, Unit Below 150mm	4.7	None	No Insulation	Ceramic Tiles 8mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Kitchen/Living	Concrete, Plasterboard	No insulation	No
Bathroom	Concrete, Plasterboard	No insulation	No
Laundry	Concrete, Plasterboard	No insulation	No
Bedroom 2	Concrete, Plasterboard	No insulation	No
Bedroom 1	Concrete, Plasterboard	No insulation	No
Ensuite	Concrete, Plasterboard	No insulation	No

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
Kitchen/Living	8	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
Bathroom	2	Downlights - LED	150	Sealed
Bathroom	1	Exhaust Fans	300	Sealed
Laundry	2	Downlights - LED	150	Sealed
Laundry	1	Exhaust Fans	300	Sealed
Bedroom 2	4	Downlights - LED	150	Sealed
Bedroom 1	6	Downlights - LED	150	Sealed
Ensuite	2	Downlights - LED	150	Sealed
Ensuite	1	Exhaust Fans	300	Sealed

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: 0004411906 **Certificate Date:** 03 Dec 2019 ★Star rating: 6.3

Additional information

Explanatory notes

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Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004411922** Certificate Date: **03 Dec 2019** ★Star rating: **6.1**

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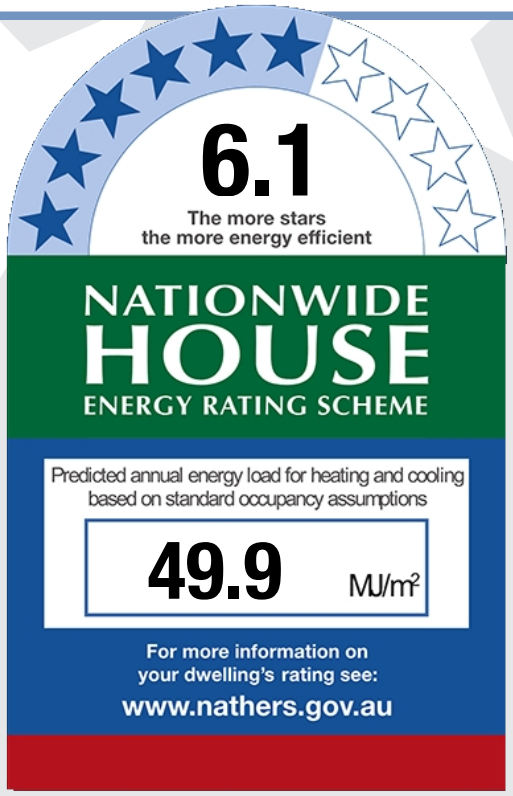
Assessor details

Accreditation number:	**20884**
Name:	**Zoltan Lipovski**
Organisation:	**EcoMode Design**
Email:	**zoltan@ecomode.com.au**
Phone:	**0410605614**
Declaration of interest:	**None**
Software:	**BERS Pro v4.3.0.2f (3.13)**
AAO:	**ABSA**



Overview

Dwelling details

Street:	**Unit LG.12, 28 Lockwood Avenue**		
Suburb:	**Belrose**		
State:	**NSW**	Postcode:	**2085**
Type:	**New Dwelling**	NCC Class:	**2**
		NatHERS climate zone:	**56**
Lot/DP number:	**1/1199795**	Exposure:	**Suburban**

Key construction and insulation materials

(see following pages for details)

Construction:	**Brick Veneer** **Concrete, Plasterboard** **Concrete Slab, Unit Below**
Insulation:	**R2.0 wall insulation** **No ceiling insulation** **No floor insulation**
Glazing:	**ALM-001-01 A Aluminium A SG Clear**

Net floor area (m²)

Conditioned:	**62.0**
Unconditioned:	**10.0**
Garage:	**0.0**
TOTAL:	**71.0**

Annual thermal performance loads (MJ/m²)

Heating:	**27.3**
Cooling:	**22.6**
TOTAL:	**49.9**

Plan documents

Plan ref/date:	**Plans, Elevations Section**
Prepared by:	**DKO Architecture**

Ceiling penetrations

(see following pages for details)

Sealed:	**28**
Unsealed:	**0**
TOTAL:**	**28**

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: **LED**

Window selection - default windows only

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

Note: Only a +/- 5% SHGC tolerance is allowed with this rating.

NB: This tolerance ONLY applies to SHGC, the U-value can always be lower but not higher than the values stated on page 2.

If any of windows selected are outside the 5% tolerance then this certificate is no longer valid and the dwelling will need to be rerated to confirm compliance.

Scan to access this certificate online and confirm this is valid.

* Nationwide House Energy Rating Scheme (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-001-01 A	ALM-001-01 A Aluminium A SG Clear	6.7	0.57

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Kitchen/Living	ALM-001-01 A	n/a	2700	3000	NW	No Shading
Bedroom 2	ALM-001-01 A	n/a	2700	1800	SW	No Shading
Bedroom 2	ALM-001-01 A	n/a	2700	1500	NW	No Shading
Bedroom 1	ALM-001-01 A	n/a	2700	1500	NW	No Shading
Bedroom 1	ALM-001-01 A	n/a	2700	1800	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	Bulk Insulation R2	No

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Kitchen/Living	EW-1	4490	2900	NW	No	3000
Bedroom 2	EW-1	2200	2900	SW	No	7500
Bedroom 2	EW-1	2900	2900	NW	No	800
Bedroom 1	EW-1	3000	2900	NW	No	800
Bedroom 1	EW-1	2200	2900	NE	No	7400

Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Cavity wall, direct fix plasterboard, single gap	62.0	No insulation	No
IW-2 - Stud, multi plaster layers	77.0	Bulk Insulation in the centre R2	No

Floors

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living		29.6	None	No Insulation	

Building features continued

	Concrete Slab, Unit Below 150mm				Cork Tiles or Parquetry 8mm
Bathroom	Concrete Slab, Unit Below 150mm	6.0	None	No Insulation	Ceramic Tiles 8mm
Laundry	Concrete Slab, Unit Below 150mm	3.7	None	No Insulation	Ceramic Tiles 8mm
Bedroom 2	Concrete Slab, Unit Below 150mm	11.4	None	No Insulation	Carpet 10mm
Bedroom 1	Concrete Slab, Unit Below 150mm	15.9	None	No Insulation	Carpet 10mm
Ensuite	Concrete Slab, Unit Below 150mm	4.7	None	No Insulation	Ceramic Tiles 8mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Kitchen/Living	Concrete, Plasterboard	No insulation	No
Bathroom	Concrete, Plasterboard	No insulation	No
Laundry	Concrete, Plasterboard	No insulation	No
Bedroom 2	Concrete, Plasterboard	No insulation	No
Bedroom 1	Concrete, Plasterboard	No insulation	No
Ensuite	Concrete, Plasterboard	No insulation	No

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
Kitchen/Living	8	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
Bathroom	2	Downlights - LED	150	Sealed
Bathroom	1	Exhaust Fans	300	Sealed
Laundry	2	Downlights - LED	150	Sealed
Laundry	1	Exhaust Fans	300	Sealed
Bedroom 2	4	Downlights - LED	150	Sealed
Bedroom 1	6	Downlights - LED	150	Sealed
Ensuite	2	Downlights - LED	150	Sealed
Ensuite	1	Exhaust Fans	300	Sealed

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: 0004411922 **Certificate Date:** 03 Dec 2019 ★Star rating: 6.1

Additional information

Explanatory notes

About this report

Residential energy ratings address the quality of the building fabric i.e. walls, windows, floors and roof/ceilings. Ratings do not cover the energy or water efficiency of appliances including heating and cooling, hot water, dishwashers, ovens, fridges, TVs etc. or solar panel or water tank requirements. The efficiency or specification of these items is generally covered by other regulations, standards or guidelines.

General Information

A NatHERS House Energy Rating is a comprehensive, dynamic computer modelling evaluation of the floorplans, elevations and specifications to predict an energy load of a home. Not all of us use our homes in the same way, so ratings are generated using standard assumptions. This means homes can be compared across the country.

The actual energy consumption of your home may vary significantly from the predicted energy load figures in the report depending on issues such as the size of your household and your personal preferences, e.g. in terms of heating or cooling.

While the figures are an indicative guide to energy use, they can be used as a reliable guide for comparative purposes between different house designs and for demonstrating that the design meets the required regulatory compliance.

Homes that are energy efficient use less energy, are warmer in winter, cooler in summer and cost less to run. The higher the star rating the more energy efficient.

This NatHERS House Energy Rating report was carefully prepared by your assessor on the basis of comprehensive modelling using standard procedures to rate your home using the underlying engine developed by the Australian Commonwealth Scientific and Industrial Research Organisation (CSIRO).

All information relating to energy loads presented in this report is based on a range of standard assumptions in order to allow for comparisons with reports prepared for other homes and to demonstrate minimum regulatory compliance.

The standard assumptions include figures for occupancy, indoor air temperature and are based on a unique climate file for your region.

Accredited Assessors

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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.

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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

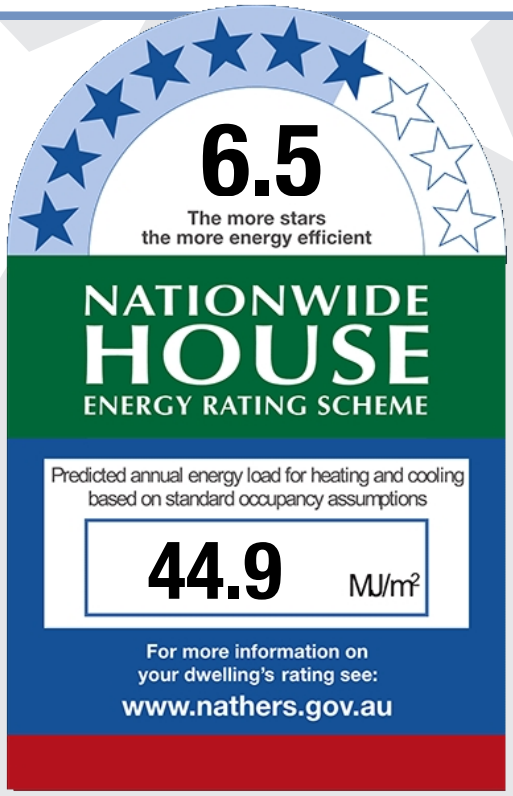
Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004411849** Certificate Date: **03 Dec 2019** ★Star rating: **6.5**

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:	**20884**
Name:	**Zoltan Lipovski**
Organisation:	**EcoMode Design**
Email:	**zoltan@ecomode.com.au**
Phone:	**0410605614**
Declaration of interest:	**None**
Software:	**BERS Pro v4.3.0.2f (3.13)**
AAO:	**ABSA**



Overview

Dwelling details

Street:	**Unit LG.13, 28 Lockwood Avenue**		
Suburb:	**Belrose**		
State:	**NSW**	Postcode:	**2085**
Type:	**New Dwelling**	NCC Class:	**2**
		NatHERS climate zone:	**56**
Lot/DP number:	**1/1199795**	Exposure:	**Suburban**

Key construction and insulation materials

(see following pages for details)

Construction:	**Brick Veneer** **Concrete, Plasterboard** **Concrete Slab, Unit Below**
Insulation:	**R2.0 wall insulation** **No ceiling insulation** **No floor insulation**
Glazing:	**ALM-001-01 A Aluminium A SG Clear**

Net floor area (m²)

Conditioned:	**82.0**
Unconditioned:	**8.0**
Garage:	**0.0**
TOTAL:	**90.0**

Annual thermal performance loads (MJ/m²)

Heating:	**23.7**
Cooling:	**21.2**
TOTAL:	**44.9**

Plan documents

Plan ref/date:	**Plans, Elevations Section**
Prepared by:	**DKO Architecture**

Ceiling penetrations

(see following pages for details)

Sealed:	**33**
Unsealed:	**0**
TOTAL:**	**33**

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: **LED**

Window selection - default windows only

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

Note: Only a +/- 5% SHGC tolerance is allowed with this rating.

NB: This tolerance ONLY applies to SHGC, the U-value can always be lower but not higher than the values stated on page 2.

If any of windows selected are outside the 5% tolerance then this certificate is no longer valid and the dwelling will need to be rerated to confirm compliance.

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Building features

Window type and performance value

Window ID	Window type	U-value	SHGC
ALM-001-01 A	ALM-001-01 A Aluminium A SG Clear	6.7	0.57

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Bedroom 2	ALM-001-01 A	n/a	2700	1500	NW	No Shading
Bedroom 3	ALM-001-01 A	n/a	2700	1500	NW	No Shading
Bedroom 3	ALM-001-01 A	n/a	2700	3200	NE	No Shading
Kitchen/Living	ALM-001-01 A	n/a	2700	2400	NW	No Shading
Kitchen/Living	ALM-001-01 A	n/a	2700	1500	NE	No Shading
Bedroom 1	ALM-001-01 A	n/a	2700	1500	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	Bulk Insulation R2	No

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Bedroom 2	EW-1	2995	2900	NW	No	1400
Bedroom 3	EW-1	2995	2900	NW	No	1400
Bedroom 3	EW-1	3895	2900	NE	No	5700
Kitchen/Living	EW-1	695	2900	NE	No	5700
Kitchen/Living	EW-1	2800	2900	NW	No	6000
Kitchen/Living	EW-1	3495	2900	NE	No	2900
Bedroom 1	EW-1	3095	2900	NE	No	2900
Bedroom 1	EW-1	1500	2900	SE	No	0

Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Stud, multi plaster layers	39.0	Bulk Insulation in the centre R2	No
IW-2 - Cavity wall, direct fix plasterboard, single gap	89.0	No insulation	No
IW-3 - Concrete Panel/Blocks filled, plasterboard	28.0	No Insulation	No

Building features continued

Floors

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Bedroom 2	Concrete Slab, Unit Below 150mm	13.2	None	No Insulation	Carpet 10mm
Bedroom 3	Concrete Slab, Unit Below 150mm	10.7	None	No Insulation	Carpet 10mm
Kitchen/Living	Concrete Slab, Unit Below 150mm	39.7	None	No Insulation	Cork Tiles or Parquetry 8mm
Ensuite	Concrete Slab, Unit Below 150mm	4.4	None	No Insulation	Ceramic Tiles 8mm
Bathroom	Concrete Slab, Unit Below 150mm	4.3	None	No Insulation	Ceramic Tiles 8mm
Laundry	Concrete Slab, Unit Below 150mm	3.3	None	No Insulation	Ceramic Tiles 8mm
Bedroom 1	Concrete Slab, Unit Below 150mm	14.3	None	No Insulation	Carpet 10mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Bedroom 2	Concrete, Plasterboard	No insulation	No
Bedroom 3	Concrete, Plasterboard	No insulation	No
Kitchen/Living	Concrete, Plasterboard	No insulation	No
Ensuite	Concrete, Plasterboard	No insulation	No
Bathroom	Concrete, Plasterboard	No insulation	No
Laundry	Concrete, Plasterboard	No insulation	No
Bedroom 1	Concrete, Plasterboard	No insulation	No

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
Bedroom 2	4	Downlights - LED	150	Sealed
Bedroom 3	4	Downlights - LED	150	Sealed
Kitchen/Living	10	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
Ensuite	2	Downlights - LED	150	Sealed
Ensuite	1	Exhaust Fans	300	Sealed
Bathroom	2	Downlights - LED	150	Sealed
Bathroom	1	Exhaust Fans	300	Sealed
Laundry	2	Downlights - LED	150	Sealed
Laundry	1	Exhaust Fans	300	Sealed
Bedroom 1	5	Downlights - LED	150	Sealed

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: 0004411849 **Certificate Date:** 03 Dec 2019 ★Star rating: 6.5

Additional information

Explanatory notes

About this report

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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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Contact

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For more information on energy efficient design and insulation visit www.yourhome.gov.au

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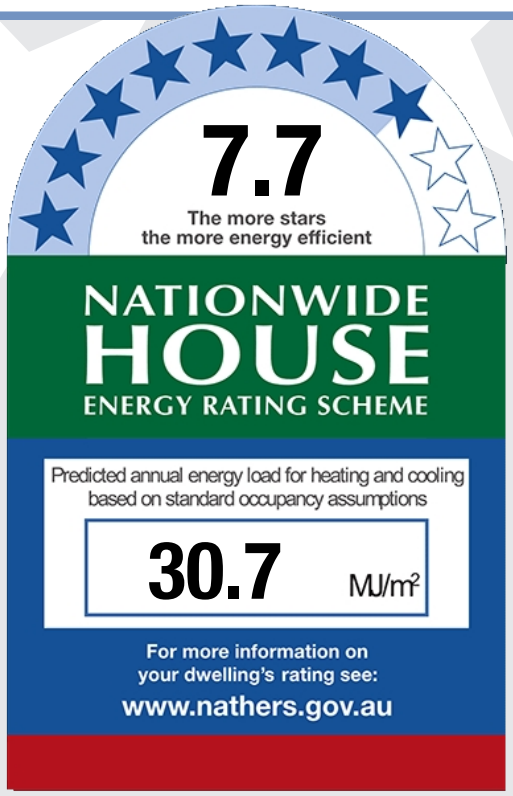
Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004411856** Certificate Date: **03 Dec 2019** ★Star rating: **7.7**

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:	**20884**
Name:	**Zoltan Lipovski**
Organisation:	**EcoMode Design**
Email:	**zoltan@ecomode.com.au**
Phone:	**0410605614**
Declaration of interest:	**None**
Software:	**BERS Pro v4.3.0.2f (3.13)**
AAO:	**ABSA**



Overview

Dwelling details

Street:	**Unit LG.14, 28 Lockwood Avenue**		
Suburb:	**Belrose**		
State:	**NSW**	Postcode:	**2085**
Type:	**New Dwelling**	NCC Class:	**2**
		NatHERS climate zone:	**56**
Lot/DP number:	**1/1199795**	Exposure:	**Suburban**

Key construction and insulation materials

(see following pages for details)

Construction:	**Brick Veneer** **Concrete, Plasterboard** **Concrete Slab, Unit Below**
Insulation:	**R2.0 wall insulation** **No ceiling insulation** **No floor insulation**
Glazing:	**ALM-001-01 A Aluminium A SG Clear**

Ceiling penetrations

(see following pages for details)

Sealed:	**35**
Unsealed:	**0**
TOTAL:**	**35**

NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. **If this number is exceeded in construction then this certificate IS NOT VALID and a new certificate is required. Loss of ceiling insulation for the penetrations listed has been taken into account with the rating.

Principle downlight type: **LED**

Net floor area (m²)

Conditioned:	**92.0**
Unconditioned:	**6.0**
Garage:	**0.0**
TOTAL:	**98.0**

Annual thermal performance loads (MJ/m²)

Heating:	**16.9**
Cooling:	**13.8**
TOTAL:	**30.7**

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.

Scan to access this certificate online and confirm this is valid.

Plan documents

Plan ref/date:	**Plans, Elevations Section**
Prepared by:	**DKO Architecture**

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Building features

Window type and performance value

Window ID	Window type	U-value	SHGC
ALM-001-01 A	ALM-001-01 A Aluminium A SG Clear	6.7	0.57

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Kitchen/Living	ALM-001-01 A	n/a	2700	2100	NE	No Shading
Kitchen/Living	ALM-001-01 A	n/a	2700	900	NE	No Shading
Kitchen/Living	ALM-001-01 A	n/a	2700	2100	SE	No Shading
Bedroom 2	ALM-001-01 A	n/a	2700	1800	NE	No Shading
Bedroom 3	ALM-001-01 A	n/a	2700	1800	NE	No Shading
Bedroom 1	ALM-001-01 A	n/a	2700	2700	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	Bulk Insulation R2	No

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Kitchen/Living	EW-1	6100	2900	NE	No	800
Kitchen/Living	EW-1	2300	2900	SE	No	9800
Bedroom 2	EW-1	2990	2900	NE	No	3100
Bedroom 3	EW-1	3090	2900	NE	No	3100
Corridor	EW-1	900	2900	NW	No	0
Bedroom 1	EW-1	3695	2900	NE	No	3100

Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Stud, multi plaster layers	67.0	Bulk Insulation in the centre R2	No
IW-2 - Concrete Panel/Blocks filled, plasterboard	20.0	No Insulation	No
IW-3 - Cavity wall, direct fix plasterboard, single gap	89.0	No insulation	No

Building features continued

Floors

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living	Concrete Slab, Unit Below 150mm	41.7	None	No Insulation	Cork Tiles or Parquetry 8mm
Bedroom 2	Concrete Slab, Unit Below 150mm	9.7	None	No Insulation	Carpet 10mm
Bedroom 3	Concrete Slab, Unit Below 150mm	10.7	None	No Insulation	Carpet 10mm
Corridor	Concrete Slab, Unit Below 150mm	11.3	None	No Insulation	Cork Tiles or Parquetry 8mm
Bedroom 1	Concrete Slab, Unit Below 150mm	14.8	None	No Insulation	Carpet 10mm
Bathroom	Concrete Slab, Unit Below 150mm	4.7	None	No Insulation	Ceramic Tiles 8mm
Ensuite	Concrete Slab, Unit Below 150mm	4.1	None	No Insulation	Ceramic Tiles 8mm
Laundry	Concrete Slab, Unit Below 150mm	1.0	None	No Insulation	Ceramic Tiles 8mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Kitchen/Living	Concrete, Plasterboard	No insulation	No
Bedroom 2	Concrete, Plasterboard	No insulation	No
Bedroom 3	Concrete, Plasterboard	No insulation	No
Corridor	Concrete, Plasterboard	No insulation	No
Bedroom 1	Concrete, Plasterboard	No insulation	No
Bathroom	Concrete, Plasterboard	No insulation	No
Ensuite	Concrete, Plasterboard	No insulation	No
Laundry	Concrete, Plasterboard	No insulation	No

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
Kitchen/Living	10	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
Bedroom 2	4	Downlights - LED	150	Sealed
Bedroom 3	4	Downlights - LED	150	Sealed
Corridor	4	Downlights - LED	150	Sealed
Bedroom 1	4	Downlights - LED	150	Sealed
Bathroom	2	Downlights - LED	150	Sealed
Bathroom	1	Exhaust Fans	300	Sealed
Ensuite	2	Downlights - LED	150	Sealed
Ensuite	1	Exhaust Fans	300	Sealed
Laundry	1	Downlights - LED	150	Sealed
Laundry	1	Exhaust Fans	300	Sealed

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: 0004411856 **Certificate Date:** 03 Dec 2019 ★Star rating: 7.7

Additional information

Explanatory notes

About this report

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Disclaimer

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Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004411880** Certificate Date: **03 Dec 2019** ★Star rating: **7.9**

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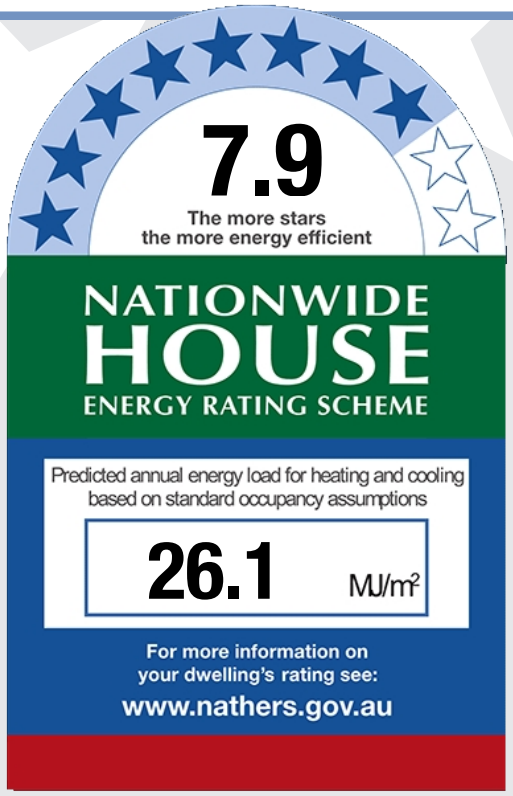
Assessor details

Accreditation number:	**20884**
Name:	**Zoltan Lipovski**
Organisation:	**EcoMode Design**
Email:	**zoltan@ecomode.com.au**
Phone:	**0410605614**
Declaration of interest:	**None**
Software:	**BERS Pro v4.3.0.2f (3.13)**
AAO:	**ABSA**



Overview

Dwelling details

Street:	**Unit LG.15, 28 Lockwood Avenue**		
Suburb:	**Belrose**		
State:	**NSW**	Postcode:	**2085**
Type:	**New Dwelling**	NCC Class:	**2**
		NatHERS climate zone:	**56**
Lot/DP number:	**1/1199795**	Exposure:	**Suburban**

Key construction and insulation materials

(see following pages for details)

Construction:	**Brick Veneer** **Concrete, Plasterboard** **Concrete Slab, Unit Below**
Insulation:	**R2.0 wall insulation** **No ceiling insulation** **No floor insulation**
Glazing:	**ALM-001-01 A Aluminium A SG Clear**

Ceiling penetrations

(see following pages for details)

Sealed:	**35**
Unsealed:	**0**
TOTAL:**	**35**

NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. **If this number is exceeded in construction then this certificate IS NOT VALID and a new certificate is required. Loss of ceiling insulation for the penetrations listed has been taken into account with the rating.

Principle downlight type: **LED**

Net floor area (m²)

Conditioned:	**95.0**
Unconditioned:	**9.0**
Garage:	**0.0**
TOTAL:	**105.0**

Annual thermal performance loads (MJ/m²)

Heating:	**14.1**
Cooling:	**12.0**
TOTAL:	**26.1**

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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Scan to access this certificate online and confirm this is valid.

Plan documents

Plan ref/date:	**Plans, Elevations Section**
Prepared by:	**DKO Architecture**

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Building features

Window type and performance value

Window ID	Window type	U-value	SHGC
ALM-001-01 A	ALM-001-01 A Aluminium A SG Clear	6.7	0.57
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 3	ALM-001-01 A	n/a	2700	1800	NE	No Shading
Bedroom 2	ALM-001-01 A	n/a	2700	1500	NE	No Shading
Bedroom 1	ALM-002-01 A	n/a	2700	2700	NE	No Shading
Kitchen/Living	ALM-002-01 A	n/a	2700	2700	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	Bulk Insulation R2	No

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Bedroom 3	EW-1	2100	2900	NW	No	0
Bedroom 3	EW-1	4575	2900	NE	No	2790
Bedroom 2	EW-1	3071	2900	NE	No	4781
Bedroom 1	EW-1	3071	2900	NE	No	4766
Kitchen/Living	EW-1	4075	2900	NE	No	3275
Laundry	EW-1	1300	2900	NW	No	0
Laundry	EW-1	1000	2900	NE	No	0
Laundry	EW-1	1300	2900	SE	No	12800
Laundry	EW-1	1000	2900	SW	No	0

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 - Stud, multi plaster layers	78.0	Bulk Insulation in the centre R2	No

Building features continued

Floors

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Bedroom 3	Concrete Slab, Unit Below 150mm	13.1	None	No Insulation	Carpet 10mm
Corridor	Concrete Slab, Unit Below 150mm	11.4	None	No Insulation	Cork Tiles or Parquetry 8mm
Bathroom	Concrete Slab, Unit Below 150mm	4.5	None	No Insulation	Ceramic Tiles 8mm
Laundry	Concrete Slab, Unit Below 150mm	3.6	None	No Insulation	Ceramic Tiles 8mm
Bedroom 2	Concrete Slab, Unit Below 150mm	14.2	None	No Insulation	Carpet 10mm
Ensuite	Concrete Slab, Unit Below 150mm	5.7	None	No Insulation	Ceramic Tiles 8mm
Bedroom 1	Concrete Slab, Unit Below 150mm	13.1	None	No Insulation	Carpet 10mm
Kitchen/Living	Concrete Slab, Unit Below 150mm	37.9	None	No Insulation	Cork Tiles or Parquetry 8mm
Laundry	Concrete Slab, Unit Below 150mm	1.3	None	No Insulation	Ceramic Tiles 8mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Bedroom 3	Concrete, Plasterboard	No insulation	No
Corridor	Concrete, Plasterboard	No insulation	No
Bathroom	Concrete, Plasterboard	No insulation	No
Laundry	Concrete, Plasterboard	No insulation	No
Bedroom 2	Concrete, Plasterboard	No insulation	No
Ensuite	Concrete, Plasterboard	No insulation	No
Bedroom 1	Concrete, Plasterboard	No insulation	No
Kitchen/Living	Concrete, Plasterboard	No insulation	No
Laundry	Concrete, Plasterboard	No insulation	No

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
Bedroom 3	4	Downlights - LED	150	Sealed
Corridor	4	Downlights - LED	150	Sealed
Bathroom	2	Downlights - LED	150	Sealed
Bathroom	1	Exhaust Fans	300	Sealed
Laundry	2	Downlights - LED	150	Sealed
Laundry	1	Exhaust Fans	300	Sealed
Bedroom 2	4	Downlights - LED	150	Sealed
Ensuite	2	Downlights - LED	150	Sealed
Ensuite	1	Exhaust Fans	300	Sealed
Bedroom 1	2	Downlights - LED	150	Sealed
Bedroom 1	1	Exhaust Fans	300	Sealed

Building features continued

Kitchen/Living	10	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed

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: 0004411880 **Certificate Date:** 03 Dec 2019 ★Star rating: 7.9

Additional information

Explanatory notes

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Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004411831** Certificate Date: **03 Dec 2019** ★Star rating: **6.7**

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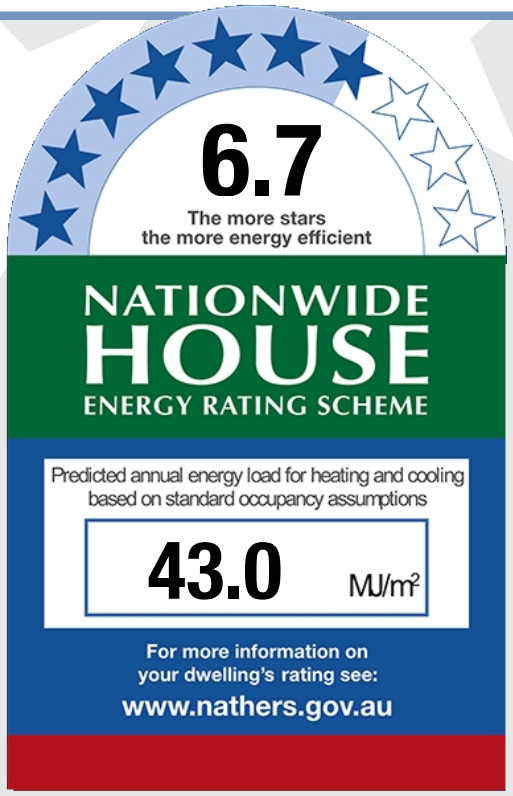
Assessor details

Accreditation number:	**20884**
Name:	**Zoltan Lipovski**
Organisation:	**EcoMode Design**
Email:	**zoltan@ecomode.com.au**
Phone:	**0410605614**
Declaration of interest:	**None**
Software:	**BERS Pro v4.3.0.2f (3.13)**
AAO:	**ABSA**



Overview

Dwelling details

Street:	**Unit LG.16, 28 Lockwood Avenue**		
Suburb:	**Belrose**		
State:	**NSW**	Postcode:	**2085**
Type:	**New Dwelling**	NCC Class:	**2**
		NatHERS climate zone:	**56**
Lot/DP number:	**1/1199795**	Exposure:	**Suburban**

Key construction and insulation materials

(see following pages for details)

Construction:	**Brick Veneer** **Concrete, Plasterboard** **Concrete Slab, Unit Below**
Insulation:	**R2.0 wall insulation** **No ceiling insulation** **No floor insulation**
Glazing:	**ALM-001-01 A Aluminium A SG Clear**

Ceiling penetrations

(see following pages for details)

Sealed:	**34**
Unsealed:	**0**
TOTAL:**	**34**

NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. **If this number is exceeded in construction then this certificate IS NOT VALID and a new certificate is required. Loss of ceiling insulation for the penetrations listed has been taken into account with the rating.

Principle downlight type: **LED**

Net floor area (m²)

Conditioned:	**89.0**
Unconditioned:	**8.0**
Garage:	**0.0**
TOTAL:	**98.0**

Annual thermal performance loads (MJ/m²)

Heating:	**22.1**
Cooling:	**21.0**
TOTAL:	**43.0**

Window selection - default windows only

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Plan documents

Plan ref/date:	**Plans, Elevations Section**
Prepared by:	**DKO Architecture**

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Building features

Window type and performance value

Window ID	Window type	U-value	SHGC
ALM-001-01 A	ALM-001-01 A Aluminium A SG Clear	6.7	0.57
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-001-01 A	n/a	2700	900	NE	No Shading
Kitchen/Living	ALM-002-01 A	n/a	2700	3700	NE	No Shading
Bedroom 2	ALM-001-01 A	n/a	2700	900	SE	No Shading
Bedroom 3	ALM-001-01 A	n/a	2700	1500	NE	No Shading
Bedroom 3	ALM-001-01 A	n/a	2700	1500	SE	No Shading
Study	ALM-001-01 A	n/a	2700	1500	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	Bulk Insulation R2	No

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Bedroom 1	EW-1	3018	2900	NE	No	3419
Kitchen/Living	EW-1	4350	2900	NE	No	5055
Bedroom 2	EW-1	3936	2900	SE	No	0
Bedroom 3	EW-1	3076	2900	NE	No	5086
Bedroom 3	EW-1	3576	2900	SE	No	0
Study	EW-1	1990	2900	SE	No	0
Laundry	EW-1	1300	2900	NW	No	0
Laundry	EW-1	1000	2900	NE	No	0
Laundry	EW-1	1300	2900	SE	No	0
Laundry	EW-1	1000	2900	SW	No	0

Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Stud, multi plaster layers	57.0	Bulk Insulation in the centre R2	No
	98.0	No insulation	No

Building features continued

IW-2 - Cavity wall, direct fix plasterboard, single gap

Floors

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Bathroom	Concrete Slab, Unit Below 150mm	5.4	None	No Insulation	Ceramic Tiles 8mm
Ensuite	Concrete Slab, Unit Below 150mm	4.5	None	No Insulation	Ceramic Tiles 8mm
Laundry	Concrete Slab, Unit Below 150mm	1.3	None	No Insulation	Ceramic Tiles 8mm
Bedroom 1	Concrete Slab, Unit Below 150mm	14.9	None	No Insulation	Carpet 10mm
Kitchen/Living	Concrete Slab, Unit Below 150mm	41.7	None	No Insulation	Cork Tiles or Parquetry 8mm
Bedroom 2	Concrete Slab, Unit Below 150mm	11.8	None	No Insulation	Carpet 10mm
Bedroom 3	Concrete Slab, Unit Below 150mm	10.7	None	No Insulation	Carpet 10mm
Study	Concrete Slab, Unit Below 150mm	5.8	None	No Insulation	Carpet 10mm
Laundry	Concrete Slab, Unit Below 150mm	1.3	None	No Insulation	Ceramic Tiles 8mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Bathroom	Concrete, Plasterboard	No insulation	No
Ensuite	Concrete, Plasterboard	No insulation	No
Laundry	Concrete, Plasterboard	No insulation	No
Bedroom 1	Concrete, Plasterboard	No insulation	No
Kitchen/Living	Concrete, Plasterboard	No insulation	No
Bedroom 2	Concrete, Plasterboard	No insulation	No
Bedroom 3	Concrete, Plasterboard	No insulation	No
Study	Concrete, Plasterboard	No insulation	No
Laundry	Concrete, Plasterboard	No insulation	No

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
Bathroom	2	Downlights - LED	150	Sealed
Bathroom	1	Exhaust Fans	300	Sealed
Ensuite	2	Downlights - LED	150	Sealed
Ensuite	1	Exhaust Fans	300	Sealed
Laundry	1	Downlights - LED	150	Sealed
Laundry	1	Exhaust Fans	300	Sealed
Bedroom 1	6	Downlights - LED	150	Sealed

Building features continued

Bedroom 1	1	Exhaust Fans	300	Sealed
Kitchen/Living	10	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
Bedroom 2	4	Downlights - LED	150	Sealed
Bedroom 3	4	Downlights - LED	150	Sealed

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: 0004411831 **Certificate Date:** 03 Dec 2019 ★Star rating: 6.7

Additional information

Explanatory notes

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Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004411872** Certificate Date: **03 Dec 2019** ★Star rating: **4.9**

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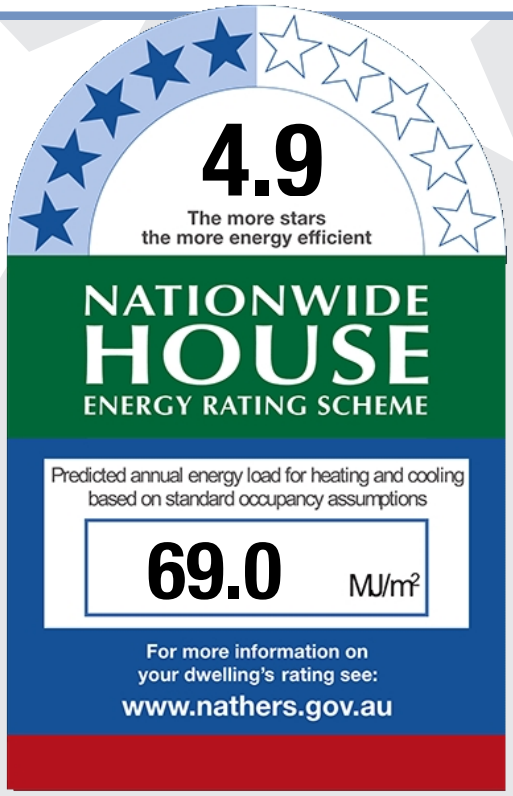
Assessor details

Accreditation number:	**20884**
Name:	**Zoltan Lipovski**
Organisation:	**EcoMode Design**
Email:	**zoltan@ecomode.com.au**
Phone:	**0410605614**
Declaration of interest:	**None**
Software:	**BERS Pro v4.3.0.2f (3.13)**
AAO:	**ABSA**



Overview

Dwelling details

Street:	**Unit LG.17, 28 Lockwood Avenue**		
Suburb:	**Belrose**		
State:	**NSW**	Postcode:	**2085**
Type:	**New Dwelling**	NCC Class:	**2**
		NatHERS climate zone:	**56**
Lot/DP number:	**1/1199795**	Exposure:	**Suburban**

Key construction and insulation materials

(see following pages for details)

Construction:	**Brick Veneer** **Concrete, Plasterboard** **Concrete Slab, Unit Below**
Insulation:	**R2.0 wall insulation** **No ceiling insulation** **No floor insulation**
Glazing:	**ALM-001-01 A Aluminium A SG Clear**

Ceiling penetrations

(see following pages for details)

Sealed:	**28**
Unsealed:	**0**
TOTAL:**	**28**

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: **LED**

Net floor area (m²)

Conditioned:	**76.0**
Unconditioned:	**7.0**
Garage:	**0.0**
TOTAL:	**83.0**

Annual thermal performance loads (MJ/m²)

Heating:	**42.6**
Cooling:	**26.4**
TOTAL:	**69.0**

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.

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:	**Plans, Elevations Section**
Prepared by:	**DKO Architecture**

* 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-001-01 A	ALM-001-01 A Aluminium A SG Clear	6.7	0.57
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-001-01 A	n/a	600	2400	SE	No Shading
Bedroom 1	ALM-002-01 A	n/a	2700	2700	SW	No Shading
Kitchen/Living	ALM-002-01 A	n/a	2700	3000	SE	No Shading
Kitchen/Living	ALM-001-01 A	n/a	2700	2400	SW	No Shading
Bedroom 2	ALM-001-01 A	n/a	2700	900	SW	No Shading
Bedroom 2	ALM-001-01 A	n/a	2700	900	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	Bulk Insulation R2	No

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Bedroom 1	EW-1	4075	2900	SE	No	270
Bedroom 1	EW-1	3076	2900	SW	No	3851
Ensuite	EW-1	1855	2900	SE	No	250
Kitchen/Living	EW-1	3495	2900	SE	No	3410
Kitchen/Living	EW-1	4075	2900	SW	No	320
Bedroom 2	EW-1	2995	2900	SW	No	340
Bedroom 2	EW-1	2500	2900	NW	No	0

Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Cavity wall, direct fix plasterboard, single gap	73.0	No insulation	No
IW-2 - Stud, multi plaster layers	50.0	Bulk Insulation in the centre R2	No

Building features continued

Floors

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Bedroom 1	Concrete Slab, Unit Below 150mm	12.2	None	No Insulation	Carpet 10mm
Ensuite	Concrete Slab, Unit Below 150mm	5.5	None	No Insulation	Ceramic Tiles 8mm
Kitchen/Living	Concrete Slab, Unit Below 150mm	44.1	None	No Insulation	Cork Tiles or Parquetry 8mm
Bedroom 2	Concrete Slab, Unit Below 150mm	13.6	None	No Insulation	Carpet 10mm
Laundry	Concrete Slab, Unit Below 150mm	2.6	None	No Insulation	Ceramic Tiles 8mm
Bathroom	Concrete Slab, Unit Below 150mm	4.8	None	No Insulation	Ceramic Tiles 8mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Bedroom 1	Concrete, Plasterboard	No insulation	No
Ensuite	Concrete, Plasterboard	No insulation	No
Kitchen/Living	Concrete, Plasterboard	No insulation	No
Bedroom 2	Concrete, Plasterboard	No insulation	No
Laundry	Concrete, Plasterboard	No insulation	No
Bathroom	Concrete, Plasterboard	No insulation	No

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
Bedroom 1	4	Downlights - LED	150	Sealed
Ensuite	2	Downlights - LED	150	Sealed
Ensuite	1	Exhaust Fans	300	Sealed
Kitchen/Living	10	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
Bedroom 2	4	Downlights - LED	150	Sealed
Laundry	2	Downlights - LED	150	Sealed
Laundry	1	Exhaust Fans	300	Sealed
Bathroom	2	Downlights - LED	150	Sealed
Bathroom	1	Exhaust Fans	300	Sealed

Ceiling fans

Location	Number	Diameter (mm)
None Present		

Roof type

Building features continued

Construction	Added insulation	Roof colour
None Present		

Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0004411872 **Certificate Date:** 03 Dec 2019 ★Star rating: 4.9

Additional information

Explanatory notes

About this report

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Accredited Assessors

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Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004411898** Certificate Date: **03 Dec 2019** ★Star rating: **4.5**

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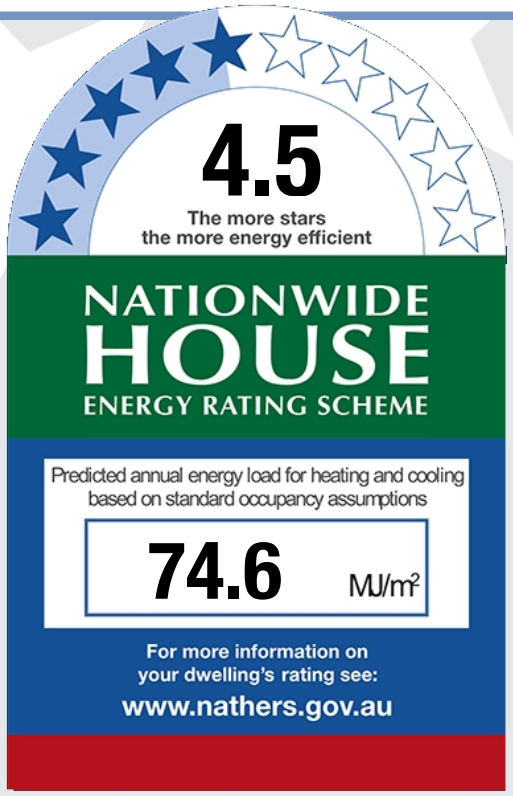
Assessor details

Accreditation number:	**20884**
Name:	**Zoltan Lipovski**
Organisation:	**EcoMode Design**
Email:	**zoltan@ecomode.com.au**
Phone:	**0410605614**
Declaration of interest:	**None**
Software:	**BERS Pro v4.3.0.2f (3.13)**
AAO:	**ABSA**



Overview

Dwelling details

Street:	**Unit LG.18, 28 Lockwood Avenue**		
Suburb:	**Belrose**		
State:	**NSW**	Postcode:	**2085**
Type:	**New Dwelling**	NCC Class:	**2**
		NatHERS climate zone:	**56**
Lot/DP number:	**1/1199795**	Exposure:	**Suburban**

Key construction and insulation materials

(see following pages for details)

Construction:	**Brick Veneer** **Concrete, Plasterboard** **Concrete Slab, Unit Below**
Insulation:	**R2.0 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:	**19**
Unsealed:	**0**
TOTAL:**	**19**

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: **LED**

Net floor area (m²)

Conditioned:	**48.0**
Unconditioned:	**7.0**
Garage:	**0.0**
TOTAL:	**56.0**

Annual thermal performance loads (MJ/m²)

Heating:	**45.1**
Cooling:	**29.5**
TOTAL:	**74.6**

Window selection - default windows only

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Plan documents

Plan ref/date:	**Plans, Elevations Section**
Prepared by:	**DKO Architecture**

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Building features

Window type and performance value

Window ID	Window type	U-value	SHGC
ALM-002-01 A	ALM-002-01 A Aluminium B SG Clear	6.7	0.70
ALM-001-01 A	ALM-001-01 A Aluminium A SG Clear	6.7	0.57

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Kitchen/Living	ALM-002-01 A	n/a	2700	3600	SW	No Shading
Bedroom 2	ALM-002-01 A	n/a	2700	2400	SE	No Shading
Bedroom 2	ALM-001-01 A	n/a	2700	1500	SW	No Shading
Bedroom 2	ALM-001-01 A	n/a	2700	1500	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	Bulk Insulation R2	No

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Kitchen/Living	EW-1	4075	2900	SW	No	3275
Bedroom 2	EW-1	2495	2900	SE	No	4145
Bedroom 2	EW-1	3000	2900	SW	No	785
Bedroom 2	EW-1	4360	2900	NW	No	35

Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Stud, multi plaster layers	55.0	Bulk Insulation in the centre R2	No
IW-2 - Cavity wall, direct fix plasterboard, single gap	40.0	No insulation	No

Floors

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living	Concrete Slab, Unit Below 150mm	34.3	None	No Insulation	Cork Tiles or Parquetry 8mm

Building features continued

Bedroom 2	Concrete Slab, Unit Below 150mm	13.8	None	No Insulation	Carpet 10mm
Laundry	Concrete Slab, Unit Below 150mm	2.6	None	No Insulation	Ceramic Tiles 8mm
Bathroom	Concrete Slab, Unit Below 150mm	4.8	None	No Insulation	Ceramic Tiles 8mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Kitchen/Living	Concrete, Plasterboard	No insulation	No
Bedroom 2	Concrete, Plasterboard	No insulation	No
Laundry	Concrete, Plasterboard	No insulation	No
Bathroom	Concrete, Plasterboard	No insulation	No

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
Kitchen/Living	8	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
Bedroom 2	4	Downlights - LED	150	Sealed
Laundry	2	Downlights - LED	150	Sealed
Laundry	1	Exhaust Fans	300	Sealed
Bathroom	2	Downlights - LED	150	Sealed
Bathroom	1	Exhaust Fans	300	Sealed

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: 0004411898 **Certificate Date:** 03 Dec 2019 ★Star rating: 4.5

Additional information

Explanatory notes

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Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004411930** Certificate Date: **03 Dec 2019** ★Star rating: **5.3**

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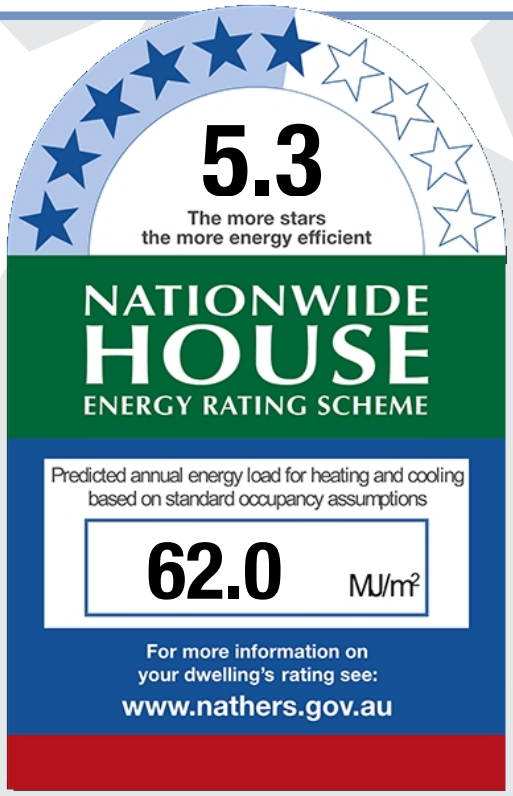
Assessor details

Accreditation number:	**20884**
Name:	**Zoltan Lipovski**
Organisation:	**EcoMode Design**
Email:	**zoltan@ecomode.com.au**
Phone:	**0410605614**
Declaration of interest:	**None**
Software:	**BERS Pro v4.3.0.2f (3.13)**
AAO:	**ABSA**



Overview

Dwelling details

Street:	**Unit LG.19, 28 Lockwood Avenue**		
Suburb:	**Belrose**		
State:	**NSW**	Postcode:	**2085**
Type:	**New Dwelling**	NCC Class:	**2**
		NatHERS climate zone:	**56**
Lot/DP number:	**1/1199795**	Exposure:	**Suburban**

Key construction and insulation materials

(see following pages for details)

Construction:	**Brick Veneer** **Concrete, Plasterboard** **Concrete Slab, Unit Below**
Insulation:	**R2.0 wall insulation** **No ceiling insulation** **No floor insulation**
Glazing:	**ALM-001-01 A Aluminium A SG Clear**

Ceiling penetrations

(see following pages for details)

Sealed:	**27**
Unsealed:	**0**
TOTAL:**	**27**

NOTE: This total is the maximum number of ceiling penetrations allowed to a ceiling (under a roof) for this certificate. **If this number is exceeded in construction then this certificate IS NOT VALID and a new certificate is required. Loss of ceiling insulation for the penetrations listed has been taken into account with the rating.

Principle downlight type: **LED**

Net floor area (m²)

Conditioned:	**65.0**
Unconditioned:	**8.0**
Garage:	**0.0**
TOTAL:	**73.0**

Annual thermal performance loads (MJ/m²)

Heating:	**37.8**
Cooling:	**24.2**
TOTAL:	**62.0**

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 documents

Plan ref/date:	**Plans, Elevations Section**
Prepared by:	**DKO Architecture**

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Building features

Window type and performance value

Window ID	Window type	U-value	SHGC
ALM-001-01 A	ALM-001-01 A Aluminium A SG Clear	6.7	0.57

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Bedroom 1	ALM-001-01 A	n/a	2700	1500	SW	No Shading
Kitchen/Living	ALM-001-01 A	n/a	2700	3200	SW	No Shading
Bedroom 2	ALM-001-01 A	n/a	2700	3200	SE	No Shading
Bedroom 2	ALM-001-01 A	n/a	2700	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	Brick Veneer	Bulk Insulation R2	No

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Bedroom 1	EW-1	2995	2900	SW	No	0
Kitchen/Living	EW-1	3200	2900	SW	No	3600
Bathroom	EW-1	1890	2900	SW	No	0
Bedroom 2	EW-1	3595	2900	SE	No	3200
Bedroom 2	EW-1	3095	2900	SW	No	0

Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Concrete Panel/Blocks filled, plasterboard	68.0	No Insulation	No
IW-2 - Cavity wall, direct fix plasterboard, single gap	54.0	No insulation	No
IW-3 - Stud, multi plaster layers	24.0	Bulk Insulation in the centre R2	No

Floors

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering

Building features continued

Bedroom 1	Concrete Slab, Unit Below 150mm	13.8	None	No Insulation	Carpet 10mm
Kitchen/Living	Concrete Slab, Unit Below 150mm	36.2	None	No Insulation	Cork Tiles or Parquetry 8mm
Laundry	Concrete Slab, Unit Below 150mm	1.9	None	No Insulation	Cork Tiles or Parquetry 8mm
Bathroom	Concrete Slab, Unit Below 150mm	6.4	None	No Insulation	Ceramic Tiles 8mm
Bedroom 2	Concrete Slab, Unit Below 150mm	10.9	None	No Insulation	Carpet 10mm
WIR	Concrete Slab, Unit Below 150mm	3.9	None	No Insulation	Carpet 10mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Bedroom 1	Concrete, Plasterboard	No insulation	No
Kitchen/Living	Concrete, Plasterboard	No insulation	No
Laundry	Concrete, Plasterboard	No insulation	No
Bathroom	Concrete, Plasterboard	No insulation	No
Bedroom 2	Concrete, Plasterboard	No insulation	No
WIR	Concrete, Plasterboard	No insulation	No

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
Bedroom 1	6	Downlights - LED	150	Sealed
Kitchen/Living	10	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
Laundry	1	Downlights - LED	150	Sealed
Laundry	1	Exhaust Fans	300	Sealed
Bathroom	2	Downlights - LED	150	Sealed
Bathroom	1	Exhaust Fans	300	Sealed
Bedroom 2	4	Downlights - LED	150	Sealed
WIR	1	Downlights - LED	150	Sealed

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: 0004411930 **Certificate Date:** 03 Dec 2019 ★Star rating: 5.3

Additional information

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