

BASIX[®]Certificate

Building Sustainability Index www.basix.nsw.gov.au

Single Dwelling

Certificate number: 968582S_02

This certificate confirms that the proposed development will meet the NSW government's requirements for sustainability, if it is built in accordance with the commitments set out below. Terms used in this certificate, or in the commitments, have the meaning given by the document entitled "BASIX Definitions" dated 06/10/2017 published by the Department. This document is available at www.basix.nsw.gov.au

Secretary

Date of issue: Saturday, 19 January 2019

To be valid, this certificate must be lodged within 3 months of the date of issue.



Project summary

Project name	GREMMO-3124-CURL CURL_02
Street address	1 PITT Road CURL CURL 2099
Local Government Area	Northern Beaches Council
Plan type and plan number	deposited 1206790
Lot no.	2
Section no.	N/A
Project type	separate dwelling house
No. of bedrooms	4

Project score

Water	✓ 42	Target 40
Thermal Comfort	✓ Pass	Target Pass
Energy	✓ 52	Target 50

Certificate Prepared by

Name / Company Name: B.L.Roles & Associates

ABN (if applicable): 43 467 257 072

Description of project

Project address

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Local Government Area	Northern Beaches Council
Plan type and plan number	Deposited Plan 1206790
Lot no.	2
Section no.	N/A

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No. of bedrooms	4

Site details

Site area (m ²)	614
Roof area (m ²)	220
Conditioned floor area (m2)	339.0
Unconditioned floor area (m2)	48.0
Total area of garden and lawn (m2)	170

Assessor details and thermal loads

Assessor number	20350
Certificate number	0003240025-02
Climate zone	56
Area adjusted cooling load (MJ/m ² .year)	24
Area adjusted heating load (MJ/m ² .year)	36

Project score

Water	✓ 42	Target 40
Thermal Comfort	✓ Pass	Target Pass
Energy	✓ 52	Target 50

Schedule of BASIX commitments




















The commitments set out below regulate how the proposed development is to be carried out. It is a condition of any development consent granted, or complying development certificate issued, for the proposed development, that BASIX commitments be complied with.

Water Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
Fixtures			
The applicant must install showerheads with a minimum rating of 3 star (> 6 but <= 7.5 L/min) in all showers in the development.		✓	✓
The applicant must install a toilet flushing system with a minimum rating of 4 star in each toilet in the development.		✓	✓
The applicant must install taps with a minimum rating of 4 star in the kitchen in the development.		✓	
The applicant must install basin taps with a minimum rating of 4 star in each bathroom in the development.		✓	
Alternative water			
Rainwater tank			
The applicant must install a rainwater tank of at least 3000 litres on the site. This rainwater tank must meet, and be installed in accordance with, the requirements of all applicable regulatory authorities.	✓	✓	✓
The applicant must configure the rainwater tank to collect rain runoff from at least 170 square metres of the roof area of the development (excluding the area of the roof which drains to any stormwater tank or private dam).		✓	✓
The applicant must connect the rainwater tank to:			
• all toilets in the development		✓	✓
• at least one outdoor tap in the development (Note: NSW Health does not recommend that rainwater be used for human consumption in areas with potable water supply.)		✓	✓

Thermal Comfort Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
Simulation Method			
The applicant must attach the certificate referred to under "Assessor Details" on the front page of this BASIX certificate (the "Assessor Certificate") to the development application and construction certificate application for the proposed development (or, if the applicant is applying for a complying development certificate for the proposed development, to that application). The applicant must also attach the Assessor Certificate to the application for an occupation certificate for the proposed development.			
The Assessor Certificate must have been issued by an Accredited Assessor in accordance with the Thermal Comfort Protocol.			
The details of the proposed development on the Assessor Certificate must be consistent with the details shown in this BASIX certificate, including the Cooling and Heating loads shown on the front page of this certificate.			
The applicant must show on the plans accompanying the development application for the proposed development, all matters which the Assessor Certificate requires to be shown on those plans. Those plans must bear a stamp of endorsement from the Accredited Assessor to certify that this is the case. The applicant must show on the plans accompanying the application for a construction certificate (or complying development certificate, if applicable), all thermal performance specifications set out in the Assessor Certificate, and all aspects of the proposed development which were used to calculate those specifications.	✓	✓	✓
The applicant must construct the development in accordance with all thermal performance specifications set out in the Assessor Certificate, and in accordance with those aspects of the development application or application for a complying development certificate which were used to calculate those specifications.		✓	✓
The applicant must construct the floors and walls of the dwelling in accordance with the specifications listed in the table below.	✓	✓	✓

Floor and wall construction	Area
floor - concrete slab on ground	All or part of floor area square metres
floor - suspended floor above garage	All or part of floor area

Energy Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
Hot water			
The applicant must install the following hot water system in the development, or a system with a higher energy rating: solar (gas boosted, evacuated tube) with a performance of 26 to 30 STCs or better.	✓	✓	✓
Cooling system			
The applicant must install the following cooling system, or a system with a higher energy rating, in at least 1 living area: 3-phase airconditioning; Energy rating: EER 3.0 - 3.5		✓	✓
The applicant must install the following cooling system, or a system with a higher energy rating, in at least 1 bedroom: 3-phase airconditioning; Energy rating: EER 3.0 - 3.5		✓	✓
The cooling system must provide for day/night zoning between living areas and bedrooms.		✓	✓
Heating system			
The applicant must install the following heating system, or a system with a higher energy rating, in at least 1 living area: 3-phase airconditioning; Energy rating: EER 3.5 - 4.0		✓	✓
The applicant must install the following heating system, or a system with a higher energy rating, in at least 1 bedroom: 3-phase airconditioning; Energy rating: EER 3.5 - 4.0		✓	✓
The heating system must provide for day/night zoning between living areas and bedrooms.		✓	✓
Ventilation			
The applicant must install the following exhaust systems in the development:			
At least 1 Bathroom: individual fan, ducted to façade or roof; Operation control: interlocked to light		✓	✓
Kitchen: individual fan, ducted to façade or roof; Operation control: manual switch on/off		✓	✓
Laundry: natural ventilation only, or no laundry; Operation control: n/a		✓	✓
Artificial lighting			
The applicant must ensure that the "primary type of artificial lighting" is fluorescent or light emitting diode (LED) lighting in each of the following rooms, and where the word "dedicated" appears, the fittings for those lights must only be capable of accepting fluorescent or light emitting diode (LED) lamps:			
<ul style="list-style-type: none"> at least 5 of the bedrooms / study; 		✓	✓

Energy Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
<ul style="list-style-type: none"> • at least 5 of the living / dining rooms; • the kitchen; • all bathrooms/toilets; • the laundry; • all hallways; 		    	    
Natural lighting			
The applicant must install a window and/or skylight in the kitchen of the dwelling for natural lighting.			
The applicant must install a window and/or skylight in 3 bathroom(s)/toilet(s) in the development for natural lighting.			
Other			
The applicant must install a gas cooktop & electric oven in the kitchen of the dwelling.			
The applicant must construct each refrigerator space in the development so that it is "well ventilated", as defined in the BASIX definitions.			
The applicant must install a fixed outdoor clothes drying line as part of the development.			
The applicant must install a fixed indoor or sheltered clothes drying line as part of the development.			

Legend

In these commitments, "applicant" means the person carrying out the development.

Commitments identified with a  in the "Show on DA plans" column must be shown on the plans accompanying the development application for the proposed development (if a development application is to be lodged for the proposed development).

Commitments identified with a  in the "Show on CC/CDC plans and specs" column must be shown in the plans and specifications accompanying the application for a construction certificate / complying development certificate for the proposed development.

Commitments identified with a  in the "Certifier check" column must be certified by a certifying authority as having been fulfilled, before a final occupation certificate (either interim or final) for the development may be issued.

Nationwide House Energy Rating Scheme* Certificate



Certificate number: 0003240025-02

Certificate Date: 19 Jan 2019

★ Star rating: 5.4

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: **20350**
Name: **Bryan Roles**
Organisation: **B.L. Roles Associates**
Email: **bryan.roles@bigpond.com**
Phone: **0413 705 647**
Declaration of interest: **None**
Software: **BERS Pro v4.3.0.2d (3.13)**
AAO: **ABSA**

Overview

Dwelling details

Street: **1 Pitt Road**
Suburb: **North Curl Curl**
State: **NSW** Postcode: **2099**
Type: **New Dwelling** NCC Class: **1A**
NatHERS climate zone: **56**
Lot/DP number: **2/1206790** Exposure: **Suburban**

Key construction and insulation materials

(see following pages for details)

Construction: **EPS Cavity Panel on Battens**
Corrugated Iron
Suspended AAC (75mm)
Insulation: **R3.0 wall insulation**
R5.0 ceiling insulation
R3.5 floor insulation
Glazing: **ATB-004-04 B AI Thermally Broken B**
DG Air Fill Low Solar Gain low-E -Clear

Net floor area (m²)

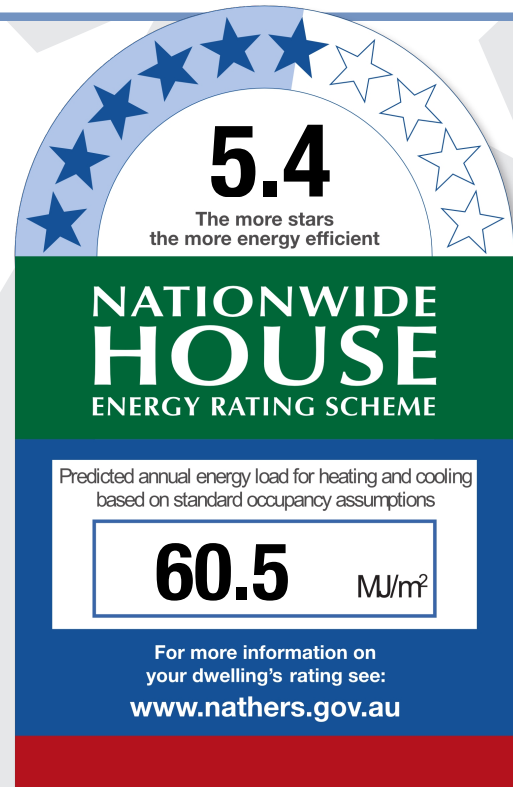
Conditioned: **339.0**
Unconditioned: **85.0**
Garage: **37.0**
TOTAL: **424.0**

Annual thermal performance loads (MJ/m²)

Heating: **36.2**
Cooling: **24.3**
TOTAL: **60.5**

Plan documents

Plan ref/date: **Urban Dwg No 555.102 Revision P-DA-1**
Prepared by: **Urban Harmony**



Ceiling penetrations

(see following pages for details)

Sealed: **62**
Unsealed: **0**
TOTAL:** **62**

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

Principle downlight type: **LED**

Window selection - default windows only

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

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

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

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

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



Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0003240025-02**

Certificate Date:

19 Jan 2019

★ Star rating:

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Building features

Window type and performance value

Window ID	Window type	U-value	SHGC
ATB-004-04 B	ATB-004-04 B AI Thermally Broken B DG Air Fill Low Solar Gain low-E -Clear	3.1	0.27
ATB-003-03 B	ATB-003-03 B AI Thermally Broken A DG Air Fill High Solar Gain low-E -Clear	3.1	0.39
ATB-004-03 B	ATB-004-03 B AI Thermally Broken B DG Air Fill High Solar Gain low-E -Clear	3.1	0.49
ATB-006-04 B	ATB-006-04 B AI Thermally Broken B DG Argon Fill Low Solar Gain low-E -Clear	3.0	0.26
ALM-002-04 A	ALM-002-04 A Aluminium B SG Low Solar Gain Low-E	5.6	0.41
ATB-005-04 B	ATB-005-04 B AI Thermally Broken A DG Argon Fill Low Solar Gain low-E -Clear	3.0	0.27
ALM-002-03 A	ALM-002-03 A Aluminium B SG High Solar Gain Low-E	5.4	0.58

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Rumpus	ATB-004-04 B	n/a	2600	600	S	No Shading
Rumpus	ATB-004-04 B	n/a	2600	3360	S	No Shading
Basement Bathro	ATB-004-04 B	n/a	600	910	W	No Shading
Bedroom 4	ATB-004-04 B	n/a	2600	1390	E	No Shading
Bedroom 4	ATB-004-04 B	n/a	2600	1406	S	No Shading
Gym	ATB-004-04 B	n/a	600	2710	W	No Shading
Garage	ATB-003-03 B	n/a	2400	900	W	No Shading
Laundry	ATB-004-03 B	n/a	600	2110	W	No Shading
Laundry	ATB-003-03 B	n/a	2400	900	W	No Shading
Bathroom	ATB-004-03 B	n/a	2000	900	W	No Shading
Gallery/Retreat	ATB-006-04 B	n/a	2600	2370	E	No Shading
Gallery/Retreat	ATB-006-04 B	n/a	2600	2400	E	No Shading
Gallery/Retreat	ATB-006-04 B	n/a	2600	2280	N	No Shading
Gallery/Retreat	ATB-006-04 B	n/a	2600	1810	E	No Shading
Gallery/Retreat	ATB-004-03 B	n/a	2600	900	E	No Shading
Gallery/Retreat	ATB-006-04 B	n/a	2600	900	E	No Shading
Gallery/Retreat	ATB-004-03 B	n/a	2600	600	S	No Shading
Gallery/Retreat	ATB-006-04 B	n/a	2600	2700	S	No Shading
Bedroom 2	ATB-004-03 B	n/a	2000	900	W	No Shading
Bedroom 2	ATB-003-03 B	n/a	2000	1170	S	No Shading
Bedroom 3	ATB-004-03 B	n/a	2100	900	W	No Shading
Bedroom 3	ATB-004-03 B	n/a	2600	600	S	No Shading
Bedroom 3	ATB-004-03 B	n/a	2600	2810	S	No Shading
Bedroom 1	ATB-004-04 B	n/a	2390	4010	N	No Shading
Bedroom 1	ATB-004-04 B	n/a	2400	910	S	No Shading
Bedroom 1	ATB-004-04 B	n/a	2400	1490	S	No Shading
Bedroom 1	ALM-002-04 A	n/a	10	10	S	No Shading
Bedroom 1	ALM-002-04 A	n/a	10	10	E	No Shading
Bedroom 1	ALM-002-04 A	n/a	10	10	N	No Shading
Main En-Suite	ATB-004-04 B	n/a	490	2210	W	No Shading
Main En-Suite	ATB-004-04 B	n/a	490	1190	N	No Shading
Main En-Suite	ATB-004-04 B	n/a	490	1500	W	No Shading

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Building features continued

Main En-Suite	ATB-004-04 B	n/a	600	1960	N	No Shading
Main En-Suite	ALM-002-04 A	n/a	10	10	W	No Shading
Main En-Suite	ALM-002-04 A	n/a	10	10	N	No Shading
Kitchen/Living	ATB-006-04 B	n/a	600	3600	W	No Shading
Kitchen/Living	ATB-006-04 B	n/a	2600	2370	E	Awning
Kitchen/Living	ATB-004-04 B	n/a	1900	900	N	Awning
Kitchen/Living	ATB-006-04 B	n/a	1900	1365	N	Awning
Kitchen/Living	ATB-004-03 B	n/a	2600	900	E	No Shading
Kitchen/Living	ATB-006-04 B	n/a	2600	910	E	No Shading
Kitchen/Living	ATB-005-04 B	n/a	600	1665	E	Awning
Kitchen/Living	ATB-006-04 B	n/a	2600	3760	S	No Shading
Kitchen/Living	ATB-004-03 B	n/a	2600	600	S	No Shading
Kitchen/Living	ATB-004-03 B	n/a	2600	600	S	No Shading
Kitchen/Living	ATB-006-04 B	n/a	2600	1060	W	No Shading
Kitchen/Living	ATB-006-04 B	n/a	2600	2182	S	No Shading
Kitchen/Living	ATB-004-03 B	n/a	2600	600	S	No Shading
Kitchen/Living	ALM-002-04 A	n/a	632	4320	N	No Shading
Kitchen/Living	ALM-002-04 A	n/a	600	6830	E	No Shading
Kitchen/Living	ALM-002-04 A	n/a	500	4320	S	No Shading
Kitchen/Living	ALM-002-04 A	n/a	600	6830	W	No Shading
Kitchen/Living	ALM-002-04 A	n/a	600	2400	N	No Shading
WIP	ATB-004-04 B	n/a	600	3460	W	No Shading
Gallery/Retreat	ALM-002-03 A	n/a	800	1810	E	No Shading
Gallery/Retreat	ALM-002-03 A	n/a	2600	1500	S	No Shading
Gallery/Retreat	ATB-004-03 B	n/a	2600	760	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	Insulated Concrete Formwork	Foil Sided Bubble Wrap, Anti-glare one side + Bulk Insulation R3	Yes
EW-2	EPS Cavity Panel on Battens	Foil Sided Bubble Wrap, Anti-glare one side + Bulk Insulation R3	Yes

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Storage	EW-1	4449	2600	W	No	0

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Building features continued

Storage	EW-1	3300	2600	N	No	0
Storage	EW-1	900	2600	E	No	0
Storage	EW-1	2700	2600	N	No	0
Storage	EW-1	3549	2600	E	No	0
Garage 2	EW-1	2698	2600	W	No	0
Rumpus	EW-1	6049	2600	E	No	0
Rumpus	EW-1	2500	2600	N	No	0
Rumpus	EW-1	8100	2600	E	No	300
Rumpus	EW-1	4349	2600	S	No	3200
Basement Bathro	EW-1	1798	2600	W	No	0
Bedroom 4	EW-1	3849	2600	W	No	0
Bedroom 4	EW-1	1700	2600	E	No	4700
Bedroom 4	EW-1	4100	2600	S	No	1500
Gym	EW-1	7198	2600	W	No	0
Garage	EW-2	6300	2600	W	No	50
Garage	EW-2	6000	2600	N	No	600
Garage	EW-2	3300	2600	E	No	2600
Garage	EW-2	1400	2600	S	No	0
Laundry	EW-2	3590	2600	W	No	1450
Bathroom	EW-2	3195	2600	W	No	50
Bathroom	EW-2	1400	2600	N	No	13300
Gallery/Retreat	EW-2	7800	2600	E	No	0
Gallery/Retreat	EW-2	2500	2600	N	No	3200
Gallery/Retreat	EW-2	9800	2600	E	No	450
Gallery/Retreat	EW-2	3595	2600	S	No	1875
Bedroom 2	EW-2	5795	2600	W	No	50
Bedroom 2	EW-2	1395	2600	S	No	5950
Bedroom 3	EW-2	4095	2600	W	No	1450
Bedroom 3	EW-2	3495	2600	S	No	1875
Bedroom 1	EW-2	4095	2790	N	No	1100
Bedroom 1	EW-2	5800	2790	E	No	0
Bedroom 1	EW-2	2600	2790	S	No	6600
Main En-Suite	EW-2	2295	2790	W	No	1100
Main En-Suite	EW-2	1300	2790	N	No	2800
Main En-Suite	EW-2	1700	2790	W	No	2400
Main En-Suite	EW-2	2095	2790	N	No	1100
Main W.I.R	EW-2	4900	2790	W	No	800
Main W.I.R	EW-2	300	2790	N	No	5600
Main W.I.R	EW-2	495	2790	W	No	1100
Main W.I.R	EW-2	600	2790	S	No	14600
Kitchen/Living	EW-2	6495	2600	W	No	600
Kitchen/Living	EW-2	2395	2790	E	No	0
Kitchen/Living	EW-2	4200	2600	E	No	0
Kitchen/Living	EW-2	2500	2600	N	No	6600
Kitchen/Living	EW-2	10000	2600	E	No	300
Kitchen/Living	EW-2	5000	2600	S	No	1600
Kitchen/Living	EW-2	1200	2600	W	No	3500
Kitchen/Living	EW-2	2900	2600	S	No	2800

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Building features continued

WIP	EW-2	600	2600	S	No	9300
WIP	EW-2	3500	2600	W	No	0
WIP	EW-2	1400	2600	N	No	12300
WIP	EW-2	1795	2600	W	No	1400
Linen Lvl 2	EW-2	2790	2600	W	No	1450
Gallery/Retreat	EW-2	2595	2600	N	No	2800
Gallery/Retreat	EW-2	4900	2600	E	No	0
Gallery/Retreat	EW-2	2595	2600	S	No	4600

Internal wall type

Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-1 - Insulated Concrete Formwork	94.0	Foil reflective both sides of the Bulk Insulation R2.5	Yes
IW-2 - Cavity wall, direct fix plasterboard, single gap	231.0	Foil reflective both sides of the Bulk Insulation R2.5	Yes

Floors

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
Storage	Waffle pod slab 375 mm 100mm	23.9	None	Waffle Pod 375mm	Ceramic Tiles 8mm
Garage 2	Waffle pod slab 375 mm 100mm	5.6	None	Waffle Pod 375mm	Ceramic Tiles 8mm
Rumpus	Waffle pod slab 375 mm 100mm	49.1	None	Waffle Pod 375mm	Ceramic Tiles 8mm
Basement Bathro	Waffle pod slab 375 mm 100mm	4.5	None	Waffle Pod 375mm	Ceramic Tiles 8mm
Bedroom 4	Waffle pod slab 375 mm 100mm	15.3	None	Waffle Pod 375mm	Ceramic Tiles 8mm
Gym	Waffle pod slab 375 mm 100mm	28.2	None	Waffle Pod 375mm	Ceramic Tiles 8mm
Garage/Storage	AAC Above Plasterboard 75mm	2.9		Bulk Insulation R3.5	Bare
Garage	Suspended AAC (75mm) 75mm	34.5	Totally Open	Foil Both Sides of Bulk, Gap to Floor R3.5	Carpet 10mm
Laundry/Storage	AAC Above Plasterboard 75mm	7.2		Bulk Insulation R3.5	Carpet 10mm
Bathroom/Gym	AAC Above Plasterboard 75mm	5.9		Bulk Insulation R3.5	Carpet 10mm
Gallery/Retreat/Storage	AAC Above Plasterboard 75mm	8.8		Bulk Insulation R3.5	Carpet 10mm
Gallery/Retreat/Rumpus	AAC Above Plasterboard 75mm	42.8		Bulk Insulation R3.5	Carpet 10mm
Gallery/Retreat/Gym	AAC Above Plasterboard 75mm	4.4		Bulk Insulation R3.5	Carpet 10mm
Gallery/Retreat	Suspended AAC (75mm) 75mm	6.0	Totally Open	Foil Both Sides of Bulk,	Carpet 10mm

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Building features continued

					Gap to Floor R3.5	
Bedroom 2/Rumpus	AAC Above Plasterboard 75mm	3.2			Bulk Insulation R3.5	Carpet 10mm
Bedroom 2/Basement Bathro	AAC Above Plasterboard 75mm	2.3			Bulk Insulation R3.5	Carpet 10mm
Bedroom 2/Gym	AAC Above Plasterboard 75mm	16.3			Bulk Insulation R3.5	Carpet 10mm
Bedroom 3/Rumpus	AAC Above Plasterboard 75mm	2.9			Bulk Insulation R3.5	Carpet 10mm
Bedroom 3/Bedroom 4	AAC Above Plasterboard 75mm	10.3			Bulk Insulation R3.5	Carpet 10mm
Bedroom 3	Suspended AAC (75mm) 75mm	1.3	Totally Open		Foil Both Sides of Bulk, Gap to Floor R3.5	Carpet 10mm
Bedroom 1/Garage	AAC Above Plasterboard 75mm	10.0			Foil Under Floor+Bulk R3.5	Carpet+Rubber Underlay 18mm
Bedroom 1/Gallery/Retreat	AAC Above Plasterboard 75mm	7.7			Foil Under Floor+Bulk R3.5	Carpet+Rubber Underlay 18mm
Bedroom 1	Suspended AAC (75mm) 75mm	7.2	Open		Foil Both Sides of Bulk, Gap to Floor R3.5	Carpet+Rubber Underlay 18mm
Main En- Suite/Garage	AAC Above Plasterboard 75mm	11.3			Foil Under Floor+Bulk R3.5	Ceramic Tiles 8mm
Main W.I.R./Garage	AAC Above Plasterboard 75mm	4.6			Foil Under Floor+Bulk R3.5	Carpet+Rubber Underlay 18mm
Main W.I.R./Laundry	AAC Above Plasterboard 75mm	7.3			Foil Under Floor+Bulk R3.5	Carpet+Rubber Underlay 18mm
Main W.I.R	Suspended AAC (75mm) 75mm	2.1	Open		Foil Both Sides of Bulk, Gap to Floor R3.5	Carpet+Rubber Underlay 18mm
Kitchen/Living /Bathroom	AAC Above Plasterboard 75mm	0.8			Foil Under Floor+Bulk R3.5	Cork Tiles or Parquetry 8mm
Kitchen/Living /Gallery/Retreat	AAC Above Plasterboard 75mm	50.0			Foil Under Floor+Bulk R3.5	Cork Tiles or Parquetry 8mm
Kitchen/Living /Bedroom 2	AAC Above Plasterboard 75mm	18.8			Foil Under Floor+Bulk R3.5	Cork Tiles or Parquetry 8mm
Kitchen/Living /Bedroom 3	AAC Above Plasterboard 75mm	2.4			Foil Under Floor+Bulk R3.5	Cork Tiles or Parquetry 8mm
Kitchen/Living /Bed 3 WIR	AAC Above Plasterboard 75mm	3.7			Foil Under Floor+Bulk R3.5	Cork Tiles or Parquetry 8mm
Kitchen/Living /WC Lvl 2	AAC Above Plasterboard 75mm	1.2			Foil Under Floor+Bulk R3.5	Cork Tiles or Parquetry 8mm
Kitchen/Living	Suspended AAC (75mm) 75mm	7.7	Open		Foil Both Sides of Bulk,	Cork Tiles or Parquetry 8mm

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Building features continued

Powder/Gallery/Retreat	AAC Above Plasterboard 75mm	2.3		Gap to Floor R3.5	Foil Under Floor+Bulk R3.5	Ceramic Tiles 8mm
Powder/Linen Lvl 2	AAC Above Plasterboard 75mm	1.8			Foil Under Floor+Bulk R3.5	Ceramic Tiles 8mm
Powder/WC Lvl 2	AAC Above Plasterboard 75mm	0.5			Foil Under Floor+Bulk R3.5	Ceramic Tiles 8mm
WIP/Bathroom	AAC Above Plasterboard 75mm	4.4			Foil Under Floor+Bulk R3.5	Cork Tiles or Parquetry 8mm
WIP/Linen Lvl 2	AAC Above Plasterboard 75mm	1.4			Foil Under Floor+Bulk R3.5	Cork Tiles or Parquetry 8mm
WIP	Suspended AAC (75mm) 75mm	1.3	Open		Foil Both Sides of Bulk, Gap to Floor R3.5	Cork Tiles or Parquetry 8mm
Lift/Lift Lvl 2	AAC Above Plasterboard 75mm	2.7			Foil Under Floor+Bulk R3.5	Bare
Lift Lvl 2/Lift Lvl 1	AAC Above Plasterboard 75mm	2.7			Bulk Insulation R3.5	Carpet 10mm
Linen Lvl 2/Garage	AAC Above Plasterboard 75mm	2.5			Bulk Insulation R3.5	Carpet 10mm
Linen Lvl 2/Gym	AAC Above Plasterboard 75mm	0.5			Bulk Insulation R3.5	Carpet 10mm
Lift Lvl 1	Waffle pod slab 375 mm 100mm	2.3	None		Waffle Pod 375mm	Ceramic Tiles 8mm
Bed 3 WIR/Rumpus	AAC Above Plasterboard 75mm	1.2			Bulk Insulation R3.5	Carpet 10mm
Bed 3 WIR/Basement Bathro	AAC Above Plasterboard 75mm	2.2			Bulk Insulation R3.5	Carpet 10mm
WC Lvl 2/Gym	AAC Above Plasterboard 75mm	1.6			Bulk Insulation R3.5	Carpet 10mm
Gallery/Retreat	Suspended AAC (75mm) 75mm	12.5	Totally Open		Foil Both Sides of Bulk, Gap to Floor R3.5	Carpet 10mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Storage	Plasterboard	Foil Sided Bubble Wrap, Anti-glare one side + Bulk Insulation R5	Yes
Storage	AAC Above Plasterboard	Bulk Insulation R3.5	No
Garage 2	Plasterboard	Foil Sided Bubble Wrap,	Yes

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Building features continued

		Anti-glare one side + Bulk Insulation R5	
Garage 2	AAC Above Plasterboard	Bulk Insulation R3.5	No
Rumpus	AAC Above Plasterboard	Bulk Insulation R3.5	No
Basement Bathro	AAC Above Plasterboard	Bulk Insulation R3.5	No
Bedroom 4	Plasterboard	Foil Sided Bubble Wrap, Anti-glare one side + Bulk Insulation R5	Yes
Bedroom 4	AAC Above Plasterboard	Bulk Insulation R3.5	No
Gym	AAC Above Plasterboard	Bulk Insulation R3.5	No
Garage	Plasterboard	Foil Sided Bubble Wrap, Anti-glare one side + Bulk Insulation R5	Yes
Garage	AAC Above Plasterboard	Foil Under Floor+Bulk R3.5	No
Laundry	AAC Above Plasterboard	Foil Under Floor+Bulk R3.5	No
Bathroom	AAC Above Plasterboard	Foil Under Floor+Bulk R3.5	No
Gallery/Retreat	Plasterboard	Foil Sided Bubble Wrap, Anti-glare one side + Bulk Insulation R5	Yes
Gallery/Retreat	AAC Above Plasterboard	Foil Under Floor+Bulk R3.5	No
Bedroom 2	Plasterboard	Foil Sided Bubble Wrap, Anti-glare one side + Bulk Insulation R5	Yes
Bedroom 2	AAC Above Plasterboard	Foil Under Floor+Bulk R3.5	No
Bedroom 3	Plasterboard	Foil Sided Bubble Wrap, Anti-glare one side + Bulk Insulation R5	Yes
Bedroom 3	AAC Above Plasterboard	Foil Under Floor+Bulk R3.5	No
Bedroom 1	Plasterboard	Foil Sided Bubble Wrap, Anti-glare one side + Bulk Insulation R5	Yes
Main En-Suite	Plasterboard	Foil Sided Bubble Wrap, Anti-glare one side + Bulk Insulation R5	Yes

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Building features continued

Main W.I.R	Plasterboard	Foil Sided Bubble Wrap, Anti-glare one side + Bulk Insulation R5	Yes
Kitchen/Living	Plasterboard	Foil Sided Bubble Wrap, Anti-glare one side + Bulk Insulation R5	Yes
Powder	Plasterboard	Foil Sided Bubble Wrap, Anti-glare one side + Bulk Insulation R5	Yes
WIP	Plasterboard	Foil Sided Bubble Wrap, Anti-glare one side + Bulk Insulation R5	Yes
Lift	Plasterboard	Foil Sided Bubble Wrap, Anti-glare one side + Bulk Insulation R5	Yes
Lift Lvl 2	AAC Above Plasterboard	Foil Under Floor+Bulk R3.5	No
Linen Lvl 2	AAC Above Plasterboard	Foil Under Floor+Bulk R3.5	No
Lift Lvl 1	AAC Above Plasterboard	Bulk Insulation R3.5	No
Bed 3 WIR	AAC Above Plasterboard	Foil Under Floor+Bulk R3.5	No
WC Lvl 2	AAC Above Plasterboard	Foil Under Floor+Bulk R3.5	No
Gallery/Retreat	Plasterboard	Foil Sided Bubble Wrap, Anti-glare one side + Bulk Insulation R5	Yes
Gallery/Retreat	AAC Above Plasterboard	Foil Under Floor+Bulk R3.5	No

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
Rumpus	6	Downlights - LED	150	Sealed
Basement Bathro	2	Downlights - LED	150	Sealed
Basement Bathro	1	Exhaust Fans	300	Sealed
Gym	6	Downlights - LED	150	Sealed
Bathroom	2	Downlights - LED	150	Sealed
Bathroom	1	Exhaust Fans	300	Sealed
Gallery/Retreat	10	Downlights - LED	150	Sealed
Bedroom 2	4	Downlights - LED	150	Sealed

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Building features continued

Bedroom 3	4	Downlights - LED	150	Sealed
Bedroom 1	6	Downlights - LED	150	Sealed
Main En-Suite	3	Downlights - LED	150	Sealed
Main En-Suite	1	Exhaust Fans	300	Sealed
Main W.I.R	5	Downlights - LED	150	Sealed
Kitchen/Living	8	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
Powder	1	Exhaust Fans	300	Sealed
WC Lvl 2	1	Exhaust Fans	300	Sealed

Ceiling fans

Location	Number	Diameter (mm)
None Present		

Roof type

Construction	Added insulation	Roof colour
Corrugated Iron	Bulk, Reflective Side Down, No Air Gap Above R1.3	Medium

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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