

BASIX[®] Certificate

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

Single Dwelling

Certificate number: 1017052S

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: Wednesday, 22 May 2019

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



Planning &
Environment

Project summary

Project name	10 Garraween Avenue
Street address	10 Garraween Avenue North Balgowlah 2093
Local Government Area	Northern Beaches Council
Plan type and plan number	deposited 13871
Lot no.	104
Section no.	-
Project type	separate dwelling house
No. of bedrooms	4

Project score

Water	✓ 41	Target 40
Thermal Comfort	✓ Pass	Target Pass
Energy	✓ 54	Target 50

Certificate Prepared by

Name / Company Name: Efficient Living Pty Ltd

ABN (if applicable): 82116346082

Description of project

Project address	
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Lot no.	104
Section no.	-
Project type	
Project type	separate dwelling house
No. of bedrooms	4
Site details	
Site area (m ²)	467
Roof area (m ²)	215
Conditioned floor area (m2)	217.0
Unconditioned floor area (m2)	24.0
Total area of garden and lawn (m2)	100

Assessor details and thermal loads		
Assessor number	BDAV/12/1473	
Certificate number	0003879723	
Climate zone	56	
Area adjusted cooling load (MJ/m².year)	25	
Area adjusted heating load (MJ/m².year)	47	
Project score		
Water	✓ 41	Target 40
Thermal Comfort	✓ Pass	Target Pass
Energy	✓ 54	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
Landscape			
The applicant must plant indigenous or low water use species of vegetation throughout 50 square metres of the site.	✓	✓	
Fixtures			
The applicant must install showerheads with a minimum rating of 4 star (> 6 but ≤ 7.5 L/min plus spray force and/or coverage tests) 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 2000 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 150 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: <ul style="list-style-type: none"> 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.) 		✓	✓
Greywater diversion system			
The applicant must install a greywater diversion system on the site. This system must meet, and be installed in accordance with, the requirements of all applicable regulatory authorities.		✓	✓
The applicant must configure the greywater diversion system so that greywater for diversion is collected from:			

Water Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
<ul style="list-style-type: none"> the laundry 		✓	✓
<ul style="list-style-type: none"> each bathroom (but not the toilets) 		✓	✓
<p>The applicant must connect the greywater diversion system to:</p> <ul style="list-style-type: none"> a sub-surface irrigation system (Note: NSWHealth does not recommend that greywater be used to irrigate edible plants which are consumed raw.) 		✓	✓

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 - suspended floor/open subfloor	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: gas instantaneous with a performance of 5 stars.	✓	✓	✓
Cooling system			
The applicant must install the following cooling system, or a system with a higher energy rating, in at least 1 living area: ceiling fans; Energy rating: n/a		✓	✓
The bedrooms must not incorporate any cooling system, or any ducting which is designed to accommodate a cooling system.		✓	✓
Heating system			
The living areas must not incorporate any heating system, or any ducting which is designed to accommodate a heating system.		✓	✓
The bedrooms must not incorporate any heating system, or any ducting which is designed to accommodate a heating system.		✓	✓
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:			
• at least 5 of the bedrooms / study; dedicated		✓	✓
• at least 3 of the living / dining rooms; dedicated		✓	✓
• the kitchen; dedicated		✓	✓

Energy Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
<ul style="list-style-type: none"> • all bathrooms/toilets; dedicated • the laundry; dedicated • all hallways; dedicated 		✓ ✓ ✓	✓ ✓ ✓
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 install a fixed outdoor 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.



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NatHERS and BASIX Assessment



J.D. Evans & Company Proposed Residential Development

To be built at 10 Garraween Avenue, North Balgowlah 2093 NSW

Issue	File Ref	Description	Author	Date
A	19-0400	NatHERS and BASIX Assessment	AM	21/05/19

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

Sustainable Building Consultants

p. 02 9970 6181 e. admin@efficientliving.com.au
www.efficientliving.com.au





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22 May 2019

J.D.Evans & Company
10 Garraween Ave

Assessor: Adriane Mousquer
Email: adriane@efficientliving.com.au

License Holder: Tracey Cools
Accreditation Number: VIC/BDAV/12/1473

BASIX Details:

NatHERS Certificate Number: 0003879723

BASIX adjusted conditioned area: 217m²

BASIX adjusted un-conditioned area: 24m²

Area adjusted heating load: 47.3 MJ/ m²/pa

Area adjusted cooling load: 25.1 MJ/ m²/pa

Specification

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

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

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

Floors

Suspended timber floor with R0.9 insulation (insulation only value) to ground level

Timber between levels, R2.0 insulation (insulation only value)

External Walls

Lightweight cladding on framed walls with R2.0 insulation (insulation only value)

Note: No insulation is required to Garage walls

External Colour

Default colour modelled

Walls within dwellings

Plasterboard on studs - R2.0 insulation to internal walls facing unconditioned rooms (garage, laundry, bathrooms and scullery)

Glazing Doors/Windows

Aluminium framed, low-e single clear glazing throughout

U-value: 4.80 (equal to or lower than) SHGC: 0.51 (±10%)

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

Roof

Metal roof with foil backed blanket (R_u1.0 and R_d1.0)

External Colour

Dark (SA > 0.7)



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22 May 2019

J.D.Evans & Company
10 Garraween Ave

Ceilings

Plasterboard ceiling with R4.0 insulation (insulation only value) where roof above

Ceiling Penetrations

No allowance for downlights.

Floor coverings

Tiles to wet areas and timber elsewhere.

External Shading

Shading as per stamped documentation

Ventilation

All external door have weather seals, all exhaust fans and chimneys have dampers, and down lights proposed will have capped fittings

Nationwide House Energy Rating Scheme* Certificate



Certificate number: **0003879723**

Certificate Date: **22 May 2019**

★ Star rating: **4.7**

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

Overview

Dwelling details

Street: **10 Garraween Avenue**
Suburb: **North Balgowlah**
State: **NSW** Postcode: **2093**
Type: **New Dwelling** NCC Class: **1A**
NatHERS climate zone: **56**
Lot/DP number: **104/13871** Exposure: **Suburban**

Key construction and insulation materials

(see following pages for details)

Construction: **Weatherboard Cavity Panel Direct Fix**
Corrugated Iron
Suspended Timber Floor
Insulation: **R2.0 wall insulation**
R4.0 ceiling insulation
R0.9 floor insulation
Glazing: **ALM-003-01 A Aluminium A DG Air Fill**
Clear-Clear

Net floor area (m²)

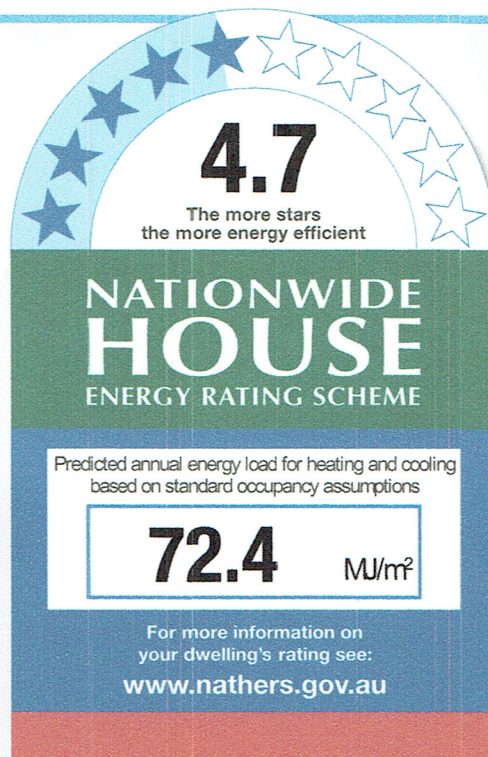
Conditioned: **217.0**
Unconditioned: **65.0**
Garage: **40.0**
TOTAL: **282.0**

Annual thermal performance loads (MJ/m²)

Heating: **47.3**
Cooling: **25.1**
TOTAL: **72.4**

Plan documents

Plan ref/date: **19-0400**
Prepared by: **J.D. Evans and Company**



Ceiling penetrations

(see following pages for details)

Sealed: **5**
Unsealed: **0**
TOTAL:** **5**

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: **Unknown**

Window selection - default windows only

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

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

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

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

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



Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0003879723

Certificate Date:

22 May 2019

★ Star rating:

4.7



Building features

Window type and performance value

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

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Kitchen/Living	ALM-003-01 A	n/a	2400	1700	W	No Shading
Kitchen/Living	ALM-003-01 A	n/a	2400	700	W	No Shading
Kitchen/Living	ALM-003-01 A	n/a	2400	700	N	No Shading
Kitchen/Living	ALM-003-01 A	n/a	2400	4500	W	No Shading
Kitchen/Living	ALM-003-01 A	n/a	800	1500	N	No Shading
Kitchen/Living	ALM-003-01 A	n/a	800	1500	N	No Shading
Kitchen/Living	ALM-003-01 A	n/a	2400	2500	S	No Shading
Kitchen/Living	ALM-003-01 A	n/a	800	2200	S	No Shading
Garage 1	ALM-003-01 A	n/a	1000	2800	S	No Shading
Entry/Dining	ALM-003-01 A	n/a	1700	2500	N	No Shading
Study	ALM-003-01 A	n/a	1500	1800	E	No Shading
Bathroom	ALM-003-01 A	n/a	1000	1600	S	No Shading
Laundry	ALM-003-01 A	n/a	1000	1700	S	No Shading
Bedroom 1	ALM-003-01 A	n/a	1400	1700	W	No Shading
Bedroom 1	ALM-003-01 A	n/a	950	2400	N	No Shading
Bedroom 1	ALM-003-01 A	n/a	1400	2500	S	No Shading
Bedroom 2	ALM-003-01 A	n/a	2400	3450	E	No Shading
Bedroom 3	ALM-003-01 A	n/a	1400	2400	E	No Shading
Bedroom 4	ALM-003-01 A	n/a	1400	800	W	No Shading
Bedroom 4	ALM-003-01 A	n/a	1400	2400	N	No Shading
Ensuite	ALM-003-01 A	n/a	1400	1600	S	No Shading
Sunroom	ALM-003-01 A	n/a	1400	2500	N	No Shading
Sunroom	ALM-003-01 A	n/a	1400	800	E	No Shading
Sunroom	ALM-003-01 A	n/a	1200	1700	S	No Shading
Bathroom	ALM-003-01 A	n/a	1000	1600	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 (m ²)	Orientation	Outdoor shade	Indoor shade/diffuser
None Present						

External wall type

ID	Wall type	Insulation	Wall wrap or foil
EW-1	Weatherboard Cavity Panel Direct Fix	Bulk Insulation R2	No
EW-2		No insulation	No

* 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: 0003879723

Certificate Date:

22 May 2019

★ Star rating:

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Building features continued

Weatherboard Cavity Panel Direct
Fix

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Kitchen/Living	EW-1	3800	2700	W	No	2600
Kitchen/Living	EW-1	1100	2700	N	No	5300
Kitchen/Living	EW-1	5300	2700	W	No	3700
Kitchen/Living	EW-1	7095	2700	N	No	0
Kitchen/Living	EW-1	6995	2700	S	No	500
Garage 1	EW-2	2800	2700	N	No	4700
Garage 1	EW-2	6200	2700	E	No	600
Garage 1	EW-2	6595	2700	S	No	500
Entry/Dining	EW-1	1200	2700	W	No	400
Entry/Dining	EW-1	4495	2700	N	No	600
Entry/Dining	EW-1	1490	2700	E	No	2200
Study	EW-1	3895	2700	N	No	600
Study	EW-1	2595	2700	E	No	2200
Bathroom	EW-1	2290	2700	S	No	500
Laundry	EW-1	3490	2700	S	No	500
Bedroom 1	EW-1	5500	2700	W	No	700
Bedroom 1	EW-1	4095	2700	N	No	500
Bedroom 1	EW-1	4095	2700	S	No	500
Bedroom 2	EW-1	3995	2700	E	No	1800
Bedroom 2	EW-1	3895	2700	S	No	500
Bedroom 3	EW-1	3895	2700	N	No	500
Bedroom 3	EW-1	3195	2700	E	No	500
Bedroom 4	EW-1	2500	2700	W	No	500
Bedroom 4	EW-1	3695	2700	N	No	600
Ensuite	EW-1	1100	2700	E	No	400
Ensuite	EW-1	3700	2700	S	No	400
Ensuite	EW-1	1100	2700	W	No	600
Sunroom	EW-1	4395	2700	N	No	600
Sunroom	EW-1	800	2700	E	No	4400
Sunroom	EW-1	2190	2700	S	No	500
Bathroom	EW-1	2190	2700	S	No	500

Internal wall type

Wall type	Area (m ²)	Insulation	Wall wrap or foil
IW-1 - Cavity wall, direct fix plasterboard, single gap	122.0	No insulation	No
IW-2 - Cavity wall, direct fix plasterboard, single gap	53.0	Bulk Insulation, No Air Gap R2	No
IW-3 - Cavity wall, direct fix plasterboard, single gap	26.0	Bulk Insulation, No Air Gap R2.5	No

Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0003879723

Certificate Date:

22 May 2019

★ Star rating:

4.7



Building features continued

Floors

Location	Construction	Area (m ²)	Sub floor ventilation	Added insulation	Covering
Kitchen/Living	Suspended Timber Floor 19mm	63.6	Open	Bulk Insulation in Contact with Floor R0.9	Cork Tiles or Parquetry 8mm
Garage 1	Suspended Timber Floor 19mm	40.5	Open	Bulk Insulation in Contact with Floor R0.9	Cork Tiles or Parquetry 8mm
Entry/Dining	Suspended Timber Floor 19mm	36.6	Open	Bulk Insulation in Contact with Floor R0.9	Cork Tiles or Parquetry 8mm
Study	Suspended Timber Floor 19mm	9.8	Open	Bulk Insulation in Contact with Floor R0.9	Cork Tiles or Parquetry 8mm
Bathroom	Suspended Timber Floor 19mm	8.1	Open	Bulk Insulation in Contact with Floor R0.9	Cork Tiles or Parquetry 8mm
Laundry	Suspended Timber Floor 19mm	7.3	Open	Bulk Insulation in Contact with Floor R0.9	Cork Tiles or Parquetry 8mm
Scullery	Suspended Timber Floor 19mm	3.2	Open	Bulk Insulation in Contact with Floor R0.9	Cork Tiles or Parquetry 8mm
Bedroom 1/Kitchen/Living	Timber Above Plasterboard 19mm	23.8	Totally Open	Bulk Insulation R2	Cork Tiles or Parquetry 8mm
Bedroom 1	Suspended Timber Floor 19mm	1.6		No Insulation	Cork Tiles or Parquetry 8mm
Bedroom 2/Garage	Timber Above Plasterboard 19mm	14.9	Totally Open	Bulk Insulation R2	Cork Tiles or Parquetry 8mm
Bedroom 3/Garage	Timber Above Plasterboard 19mm	4.1		Bulk Insulation R2	Cork Tiles or Parquetry 8mm
Bedroom 3/Entry/Dining	Timber Above Plasterboard 19mm	5.8	Totally Open	Bulk Insulation R2	Cork Tiles or Parquetry 8mm
Bedroom 3/Study	Timber Above Plasterboard 19mm	2.3		Bulk Insulation R2	Cork Tiles or Parquetry 8mm
Bedroom 4/Kitchen/Living	Timber Above Plasterboard 19mm	12.6	Totally Open	Bulk Insulation R2	Cork Tiles or Parquetry 8mm
Ensuite/Kitchen/Living	Timber Above Plasterboard 19mm	5.3		Bulk Insulation R2	Ceramic Tiles 8mm
Ensuite/Laundry	Timber Above Plasterboard 19mm	2.8	Totally Open	Bulk Insulation R2	Ceramic Tiles 8mm
Sunroom/Kitchen/Living	Timber Above Plasterboard 19mm	0.9		Bulk Insulation R2	Cork Tiles or Parquetry 8mm
Sunroom/Entry/Dining	Timber Above Plasterboard 19mm	24.7	Totally Open	Bulk Insulation R2	Cork Tiles or Parquetry 8mm
Sunroom/Laundry	Timber Above Plasterboard 19mm	2.3		Bulk Insulation R2	Cork Tiles or Parquetry 8mm
Sunroom/Scullery	Timber Above Plasterboard 19mm	1.3	Totally Open	Bulk Insulation R2	Cork Tiles or Parquetry 8mm
Dressing Room/Kitchen/Living	Timber Above Plasterboard 19mm	4.9		Bulk Insulation R2	Cork Tiles or Parquetry 8mm
Dressing Room/Scullery	Timber Above Plasterboard 19mm	1.9	Totally Open	Bulk Insulation R2	Cork Tiles or Parquetry 8mm
Bathroom/Bathroom	Timber Above Plasterboard 19mm	5.4		Bulk Insulation R2	Ceramic Tiles 8mm

* 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: 0003879723

Certificate Date:

22 May 2019

★ Star rating:

4.7



Building features continued

Ceiling type

Location	Construction	Added insulation	Roof space above
Kitchen/Living	Plasterboard	Bulk Insulation R4	Yes
Kitchen/Living	Timber Above Plasterboard	Bulk Insulation R2	No
Garage 1	Plasterboard	Bulk Insulation R4	Yes
Garage 1	Timber Above Plasterboard	Bulk Insulation R2	No
Entry/Dining	Plasterboard	Bulk Insulation R4	Yes
Entry/Dining	Timber Above Plasterboard	Bulk Insulation R2	No
Study	Plasterboard	Bulk Insulation R4	Yes
Study	Timber Above Plasterboard	Bulk Insulation R2	No
Bathroom	Plasterboard	Bulk Insulation R4	Yes
Bathroom	Timber Above Plasterboard	Bulk Insulation R2	No
Laundry	Plasterboard	Bulk Insulation R4	Yes
Laundry	Timber Above Plasterboard	Bulk Insulation R2	No
Scullery	Timber Above Plasterboard	Bulk Insulation R2	No
Bedroom 1	Plasterboard	Bulk Insulation R4	Yes
Bedroom 2	Plasterboard	Bulk Insulation R4	Yes
Bedroom 3	Plasterboard	Bulk Insulation R4	Yes
Bedroom 4	Plasterboard	Bulk Insulation R4	Yes
Ensuite	Plasterboard	Bulk Insulation R4	Yes
Sunroom	Plasterboard	Bulk Insulation R4	Yes
Dressing Room	Plasterboard	Bulk Insulation R4	Yes
Bathroom	Plasterboard	Bulk Insulation R4	Yes

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
Bathroom	1	Exhaust Fans	300	Sealed
Laundry	1	Exhaust Fans	300	Sealed
Ensuite	1	Exhaust Fans	300	Sealed
Bathroom	1	Exhaust Fans	300	Sealed

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For more details see www.nathers.gov.au

Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0003879723

Certificate Date:

22 May 2019

★ Star rating:

4.7



Building features continued

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	Dark

Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0003879723

Certificate Date: 22 May 2019

★ Star rating: 4.7



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