

# BASIX<sup>®</sup>Certificate

Building Sustainability Index [www.basix.nsw.gov.au](http://www.basix.nsw.gov.au)

## Single Dwelling

Certificate number: 948997S\_06

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](http://www.basix.nsw.gov.au)

Secretary

Date of issue: Monday, 24 February 2020

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



Planning,  
Industry &  
Environment

### Project summary

Project name	8 Cooksey Avenue, Freshwater_06
Street address	8 Cooksey Avenue Freshwater 2096
Local Government Area	Northern Beaches Council
Plan type and plan number	deposited 13915
Lot no.	25
Section no.	-
Project type	separate dwelling house
No. of bedrooms	4

### Project score

Water	✓ 40	Target 40
Thermal Comfort	✓ Pass	Target Pass
Energy	✓ 53	Target 50

### Certificate Prepared by

Name / Company Name: AENEC - Trading As Wide Spectrum Pty Ltd

ABN (if applicable): 612556377

# Description of project

## Project address

Project name	8 Cooksey Avenue, Freshwater_06
Street address	8 Cooksey Avenue Freshwater 2096
Local Government Area	Northern Beaches Council
Plan type and plan number	Deposited Plan 13915
Lot no.	25
Section no.	-

## Project type

Project type	separate dwelling house
No. of bedrooms	4

## Site details

Site area (m <sup>2</sup> )	503
Roof area (m <sup>2</sup> )	228
Conditioned floor area (m2)	217.2
Unconditioned floor area (m2)	12.0
Total area of garden and lawn (m2)	201

## Assessor details and thermal loads

Assessor number	20945
Certificate number	0004259214
Climate zone	56
Area adjusted cooling load (MJ/m <sup>2</sup> .year)	19
Area adjusted heating load (MJ/m <sup>2</sup> .year)	39

## Project score

Water	✓ 40	Target 40
Thermal Comfort	✓ Pass	Target Pass
Energy	✓ 53	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
<b>Landscape</b>			
The applicant must plant indigenous or low water use species of vegetation throughout 50 square metres of the site.	✓	✓	
<b>Fixtures</b>			
The applicant must install showerheads with a minimum rating of 3 star (> 4.5 but ≤ 6 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.		✓	
<b>Alternative water</b>			
<b>Rainwater tank</b>			
The applicant must install a rainwater tank of at least 2500 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 228.4 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"> <li>all toilets in the development</li> <li>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.)</li> </ul>		✓ ✓	✓ ✓
<b>Swimming pool</b>			
The swimming pool must not have a volume greater than 40 kilolitres.	✓	✓	

## Water Commitments

Show on  
DA plans

Show on CC/CDC  
plans & specs

Certifier  
check




















The swimming pool must be outdoors.



Thermal Comfort Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
<b>Simulation Method</b>			
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	104.0 square metres
floor - suspended floor/open subfloor	4.0 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
<b>Hot water</b>			
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.	✓	✓	✓
<b>Cooling system</b>			
The applicant must install the following cooling system, or a system with a higher energy rating, in at least 1 living area: airconditioning ducting only; Energy rating: n/a		✓	✓
The applicant must install the following cooling system, or a system with a higher energy rating, in at least 1 bedroom: airconditioning ducting only; Energy rating: n/a		✓	✓
<b>Heating system</b>			
The applicant must install the following heating system, or a system with a higher energy rating, in at least 1 living area: airconditioning ducting only; Energy rating: n/a		✓	✓
The applicant must install the following heating system, or a system with a higher energy rating, in at least 1 bedroom: airconditioning ducting only; Energy rating: n/a		✓	✓
<b>Ventilation</b>			
The applicant must install the following exhaust systems in the development:			
At least 1 Bathroom: individual fan, ducted to façade or roof; Operation control: manual switch on/off		✓	✓
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		✓	✓
<b>Artificial lighting</b>			
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 4 of the bedrooms / study;		✓	✓
• at least 1 of the living / dining rooms;		✓	✓
• the kitchen;		✓	✓

Energy Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
<ul style="list-style-type: none"> <li>• all bathrooms/toilets;</li> <li>• the laundry;</li> <li>• all hallways;</li> </ul>		  	  
<b>Natural lighting</b>			
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.			
<b>Swimming pool</b>			
The development must not incorporate any heating system for the swimming pool.			
The applicant must install a timer for the swimming pool pump in the development.			
<b>Alternative energy</b>			
The applicant must install a photovoltaic system with the capacity to generate at least 1.4 peak kilowatts of electricity as part of the development. The applicant must connect this system to the development's electrical system.			
<b>Other</b>			
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.



# Nationwide House Energy Rating Scheme\* Certificate

Certificate number: 0004259214

Certificate Date: 09 Oct 2019

★ Star rating: 5.4



## Assessor details

Accreditation number: **20945**  
Name: **Dimitrios Harakidas**  
Organisation: **AENEC**  
Email: **info@aenec.com.au**  
Phone: **0416 316 204**  
Declaration of interest: **No potential conflicts of interest to declare**  
Software: **AccuRate Sustainability V2.3.3.13 SP4**  
AAO: **ABSA**

## Overview

### Dwelling details

Street: **8 Cooksey Avenue**  
Suburb: **Freshwater**  
State: **NSW** Postcode: **2096**  
Type: **New** NCC Class: **1a**  
NatHERS climate zone: **56**  
Lot/DP number: **Lot 25 DP 13915** Exposure: **Suburban**

### Key construction and insulation materials

(see following pages for details)

Construction: **Brick wall/Plasterboard**  
**Metal roof**  
**Slab**  
Insulation: **R2.7 wall insulation**  
**R5.0 ceiling insulation**  
**Floor (uninsulated)**  
Glazing: **Aluminium B DG Argon Fill High Solar Gain low**

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

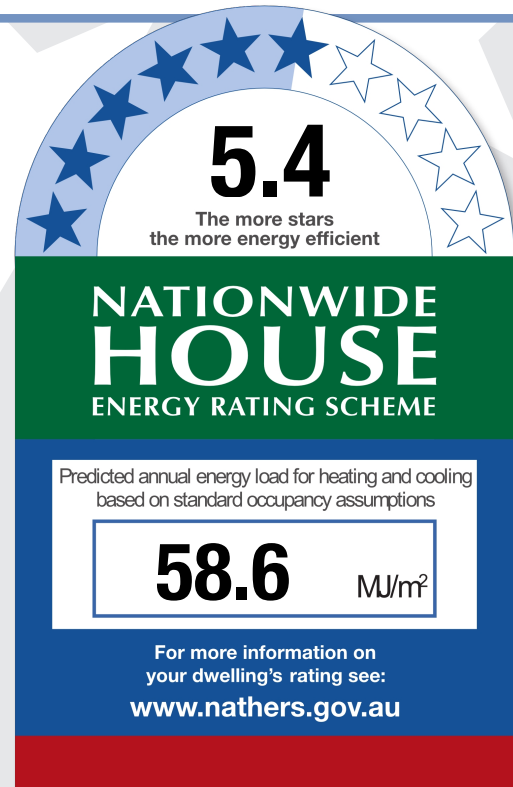
Conditioned: **217.2**  
Unconditioned: **47.2**  
Garage: **35.7**  
TOTAL: **264.4**

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

Heating: **39.4**  
Cooling: **19.3**  
TOTAL: **58.6**

### Plan documents

Plan ref/date: **2018-08 / 03.10.2019 / Issue A**  
Prepared by: **M.M.**



### Ceiling penetrations

(see following pages for details)

Sealed: **54**  
Unsealed: **0**  
TOTAL:\*\* **54**

\*\*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: **Light-emitting diode (LED)**

### Window selection - default windows only

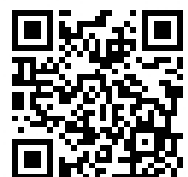
Note on allowable window values: With a 10% tolerance to the nominated SHGC window values shown on page 2, the following ratings are achieved:

-10% SHGC **5.4**  
+10% SHGC **5.4**

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 the rating listed above falls below 6.0 stars or the required rating, then the window with this tolerance can NOT be selected.**

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-006-03 A	DEFAULTS: Aluminium B DG Argon Fill High Solar Gain low-E -Clear	4.1	0.52
ALM-002-01 A	DEFAULTS: Aluminium B SG Clear	6.7	0.70
ALM-001-01 A	DEFAULTS: Aluminium A SG Clear	6.7	0.57
ALM-002-02 A	DEFAULTS: Aluminium B SG Tint	6.6	0.49

### Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
KLD	ALM-006-03 A	W5	1400	700	E	None
KLD	ALM-006-03 A	W6	600	3600	N	None
KLD	ALM-001-01 A	W7	3000	900	W	None
KLD	ALM-006-03 A	W8	3000	3400	W	None
KLD	ALM-006-03 A	W9	3000	3400	W	None
KLD	ALM-006-03 A	W10	600	1500	S	None
KLD	ALM-006-03 A	W11	600	1500	S	None
BATH	ALM-002-01 A	W4	1400	900	N	None
LDRY	ALM-002-01 A	W13	1400	600	S	None
STUDY	ALM-006-03 A	W1 FIXED	1400	1200	E	None
STUDY	ALM-002-01 A	W1 LOUVRE	1400	600	E	None
STUDY	ALM-006-03 A	W2	500	2400	N	None
STUDY	ALM-006-03 A	W3	1400	700	W	None
LANDING - CORRIDOR - SITTING	ALM-002-01 A	W25	800	3300	S	None
B1	ALM-002-01 A	W14	1400	600	E	None
B1	ALM-002-01 A	W16	1400	600	E	None
B1	ALM-006-03 A	W15	2300	2400	E	None
ES 1	ALM-002-01 A	W19	800	1500	N	None
ES 1	ALM-002-02 A	W17	1400	600	E	None
ES 1	ALM-002-02 A	W18	1400	600	E	None
BATH UP	ALM-002-01 A	W20	2100	800	N	None
B2	ALM-002-01 A	W21	800	1500	N	None
B2	ALM-002-01 A	W22	2100	800	N	None
B3	ALM-006-03 A	W23	2300	2100	W	None
B4	ALM-006-03 A	W24	2300	2100	W	None

### Roof window and skylight type and performance value

ID	Window type	U-value	SHGC
GEN-04-004a	Double-glazed clear: norma	0.0	0.00

### Roof window and skylight schedule

Location	ID	Roof window/skylight no.	Area (m²)	Orientation	Outdoor shade	Indoor shade/diffuser
WIR 1	GEN-04-004a	S2	0.4	N	None	Yes
BATH UP	GEN-04-004a	S1	0.4	N	None	Yes
LANDING - CORRIDOR -	GEN-04-004a	S3	0.8	S	None	Yes

# Nationwide House Energy Rating Scheme\* Certificate

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**09 Oct 2019**

★ Star rating:

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## Building features continued

SITTING

LANDING - CORRIDOR - SITTING	GEN-04-004a	S4	0.8	S	None	Yes
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## External wall type

ID	Wall type	Insulation	Wall wrap or foil
EW-001	Plasterboard	Polystyrene extruded (k = 0.028): R2.7	Yes
EW-002	Fibre-cement sheet/Plasterboard	Polystyrene extruded (k = 0.028): R2.7	No
EW-003	Brick wall/Plasterboard	Polystyrene extruded: R1.5	No

## External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
KLD	EW-001	760	3380	E	No	
KLD	EW-001	7000	3380	N	No	
KLD	EW-001	9060	3380	W	Yes	3500
KLD	EW-001	7600	3380	S	No	
BATH	EW-001	2460	3380	N	No	
LDRY	EW-001	1790	3380	S	No	
ENTRY - CORRIDOR - STAIRS	EW-001	1300	2700	E	Yes	2080
ENTRY - CORRIDOR - STAIRS	EW-001	1000	3000	S	No	
STUDY	EW-001	3020	2700	E	Yes	2080
STUDY	EW-001	4500	2700	N	No	
STUDY	EW-001	760	2700	W	No	
GARAGE	EW-003	990	2700	W	No	
GARAGE	EW-003	6170	2700	S	No	
GARAGE	EW-003	5780	2700	E	No	
GARAGE	EW-003	2900	2700	N	Yes	4660
LANDING - CORRIDOR - SITTING	EW-002	6770	2700	S	Yes	20190
B1	EW-002	4500	2700	S	Yes	1050
B1	EW-002	4250	2700	E	Yes	2600
WIR 1	EW-002	2700	2700	N	Yes	1050
ES 1	EW-002	2210	2700	N	Yes	1050
ES 1	EW-002	4050	2700	E	Yes	2590
BATH UP	EW-002	2670	2700	N	Yes	1050
B2	EW-002	3510	2700	N	Yes	1050
B3	EW-002	4030	2700	W	Yes	2460
B3	EW-002	3510	2700	N	Yes	1050
B4	EW-002	4050	2700	W	Yes	10350
B4	EW-002	3510	2700	S	Yes	1050

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## Building features continued

### Internal wall type

ID	Wall type	Area (m²)	Insulation	Wall wrap or foil
IW-001	Plasterboard	179.8	Glass fibre batt: R2.0	No
IW-002	Brick wall	20.4		No

### Floors

Location	Construction	Area (m²)	Sub floor ventilation	Added insulation	Covering
KLD/Ground	Concrete Slab 100 mm: bare/bare	76.8			
BATH/Ground	Concrete Slab 100 mm: bare/bare	5.3			
LDRY/Ground	Concrete Slab 100 mm: bare/bare	6.3			
ENTRY - CORRIDOR - STAIRS/Ground	Concrete Slab 100 mm: boards/bare	12.0			
STUDY/Ground	Concrete Slab 100 mm: boards/bare	14.8			
GARAGE/Ground	Concrete Slab 100 mm: bare/bare	35.7			
LANDING - CORRIDOR - SITTING/ENTRY - CORRIDOR - STAIRS	Framed (particleboard) - air gap - Boards	3.0			
LANDING - CORRIDOR - SITTING/LDRY	Framed (particleboard) - air gap - Boards	6.3			
LANDING - CORRIDOR - SITTING/KLD	Framed (particleboard) - air gap - Boards	17.0			
B1/GARAGE	Framed (particleboard) - air gap - Carpet	19.0			Carpet 10 + felt underlay 10
B1/ENTRY - CORRIDOR - STAIRS	Framed (particleboard) - air gap - Carpet	1.1			Carpet 10 + felt underlay 10
WIR 1/GARAGE	Framed (particleboard) - air gap - Carpet	0.8			Carpet 10 + felt underlay 10
WIR 1/STUDY	Framed (particleboard) - air gap - Carpet	5.9			Carpet 10 + felt underlay 10
WIR 1/ENTRY - CORRIDOR - STAIRS	Framed (particleboard) - air gap - Carpet	3.7			Carpet 10 + felt underlay 10
ES 1/Outdoor Air	Framed (particleboard) - air gap - Ceramic tiles - to O/A + R4.0	4.3		R4.0	Ceramic tile
ES 1/GARAGE	Framed (particleboard) - air gap - Ceramic tiles	0.8			Ceramic tile
ES 1/STUDY	Framed (particleboard) - air gap - Ceramic tiles	1.6			Ceramic tile
ES 1/ENTRY - CORRIDOR - STAIRS	Framed (particleboard) - air gap - Ceramic tiles	1.0			Ceramic tile
BATH UP/STUDY	Framed (particleboard) - air gap - Ceramic tiles	3.1			Ceramic tile

# Nationwide House Energy Rating Scheme\* Certificate

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**5.4**



## Building features continued

BATH UP/ENTRY - CORRIDOR - STAIRS	Framed (particleboard) - air gap - Ceramic tiles	2.4		Ceramic tile
BATH UP/BATH	Framed (particleboard) - air gap - Ceramic tiles	2.2		Ceramic tile
BATH UP/KLD	Framed (particleboard) - air gap - Ceramic tiles	2.3		Ceramic tile
B2/BATH	Framed (particleboard) - air gap - Carpet	2.8		Carpet 10 + felt underlay 10
B2/KLD	Framed (particleboard) - air gap - Carpet	10.7		Carpet 10 + felt underlay 10
B3/KLD	Framed (particleboard) - air gap - Carpet	14.1		Carpet 10 + felt underlay 10
B4/KLD	Framed (particleboard) - air gap - Carpet	13.9		Carpet 10 + felt underlay 10
ROOF SPACE/LANDING - CORRIDOR - SITTING	Plasterboard 10 mm + R5.0 bulk insulation	28.3	R5.0	
ROOF SPACE/B1	Plasterboard 10 mm + R5.0 bulk insulation	20.4	R5.0	
ROOF SPACE/WIR 1	Plasterboard 10 mm + R5.0 bulk insulation	10.9	R5.0	
ROOF SPACE/ES 1	Plasterboard 10 mm + R5.0 bulk insulation	8.9	R5.0	
ROOF SPACE/BATH UP	Plasterboard 10 mm + R5.0 bulk insulation	10.8	R5.0	
ROOF SPACE/B2	Plasterboard 10 mm + R5.0 bulk insulation	14.1	R5.0	
ROOF SPACE/B3	Plasterboard 10 mm + R5.0 bulk insulation	14.1	R5.0	
ROOF SPACE/B4	Plasterboard 10 mm + R5.0 bulk insulation	13.9	R5.0	
ROOF SPACE/Outdoor Air	Roof Space Floor to O/A	44.3		

## Ceiling type

Location	Construction	Added insulation	Roof space above
BATH UP/KLD	Framed (particleboard) - air gap - Ceramic tiles		No
B2/KLD	Framed (particleboard) - air gap - Carpet		No
LANDING - CORRIDOR - SITTING/KLD	Framed (particleboard) - air gap - Boards		No
B4/KLD	Framed (particleboard) - air gap - Carpet		No
B3/KLD	Framed (particleboard) - air gap - Carpet		No
B2/BATH	Framed (particleboard) - air gap - Carpet		No
BATH UP/BATH	Framed (particleboard) - air gap - Ceramic tiles		No
LANDING - CORRIDOR - SITTING/LDRY	Framed (particleboard) - air gap - Boards		No
ES 1/ENTRY -	Framed (particleboard) - air gap - Ceramic tiles		No

# Nationwide House Energy Rating Scheme\* Certificate

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**5.4**



## Building features continued

CORRIDOR -  
STAIRS

BATH UP/ENTRY - Framed (particleboard) - air gap - Ceramic tiles No

CORRIDOR -  
STAIRS

WIR 1/ENTRY - Framed (particleboard) - air gap - Carpet No

CORRIDOR -  
STAIRS

LANDING - Framed (particleboard) - air gap - Boards No

CORRIDOR -  
SITTING/ENTRY -  
CORRIDOR -  
STAIRS

B1/ENTRY - Framed (particleboard) - air gap - Carpet No

CORRIDOR -  
STAIRS

ES 1/STUDY Framed (particleboard) - air gap - Ceramic tiles No

WIR 1/STUDY Framed (particleboard) - air gap - Carpet No

BATH UP/STUDY Framed (particleboard) - air gap - Ceramic tiles No

B1/GARAGE Framed (particleboard) - air gap - Carpet No

WIR 1/GARAGE Framed (particleboard) - air gap - Carpet No

ES 1/GARAGE Framed (particleboard) - air gap - Ceramic tiles No

ROOF SPACE/LANDING - CORRIDOR - SITTING	Plasterboard 10 mm + R5.0 bulk insulation	R5.0	Yes
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ROOF SPACE/B1	Plasterboard 10 mm + R5.0 bulk insulation	R5.0	Yes
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ROOF SPACE/WIR 1	Plasterboard 10 mm + R5.0 bulk insulation	R5.0	Yes
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ROOF SPACE/ES 1	Plasterboard 10 mm + R5.0 bulk insulation	R5.0	Yes
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ROOF SPACE/BATH UP	Plasterboard 10 mm + R5.0 bulk insulation	R5.0	Yes
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ROOF SPACE/B2	Plasterboard 10 mm + R5.0 bulk insulation	R5.0	Yes
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ROOF SPACE/B3	Plasterboard 10 mm + R5.0 bulk insulation	R5.0	Yes
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ROOF SPACE/B4	Plasterboard 10 mm + R5.0 bulk insulation	R5.0	Yes
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## Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
KLD	4	Downlight		Sealed
KLD	1	Ceiling exhaust fan	160	Sealed
BATH	1	Downlight		Sealed
LDRY	1	Downlight		Sealed
ENTRY - CORRIDOR - STAIRS	7	Downlight		Sealed
STUDY	1	Downlight		Sealed
GARAGE	3	Downlight		Sealed
LANDING - CORRIDOR - SITTING	12	Downlight		Sealed
B1	8	Downlight		Sealed
WIR 1	4	Downlight		Sealed

## Nationwide House Energy Rating Scheme\* Certificate

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### Building features continued

ES 1	2	Downlight		Sealed
ES 1	1	Ceiling exhaust fan	160	Sealed
BATH UP	2	Downlight		Sealed
BATH UP	1	Ceiling exhaust fan	160	Sealed
B2	5	Downlight		Sealed
B3	5	Downlight		Sealed
B4	5	Downlight		Sealed

### Ceiling fans

Location	Number	Diameter (mm)
None Present		

### Roof type

Construction	Added insulation	Roof colour
Terrace above - T/F - Plasterboard R4.0	R4.0	Medium
Metal deck - Anticon R1.8	R1.8	Medium
Metal deck system - R4.0	R4.0	Medium



# Nationwide House Energy Rating Scheme\* Certificate

Certificate number: 0004259214

Certificate Date: 09 Oct 2019

★ Star rating: 5.4



## Additional information

Default ceiling penetration density calculated as lighting plan has not been provided.

All openable windows other than located on ground floor or are louvre type  
(if applicable) are 10% only due to safety regulations/restrictions.

## Explanatory notes

### About this report

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

### General Information

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

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

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

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

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

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

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

### Accredited Assessors

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

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

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

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

### Disclaimer

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

### Contact

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

For more information on energy efficient design and insulation visit [www.yourhome.gov.au](http://www.yourhome.gov.au)