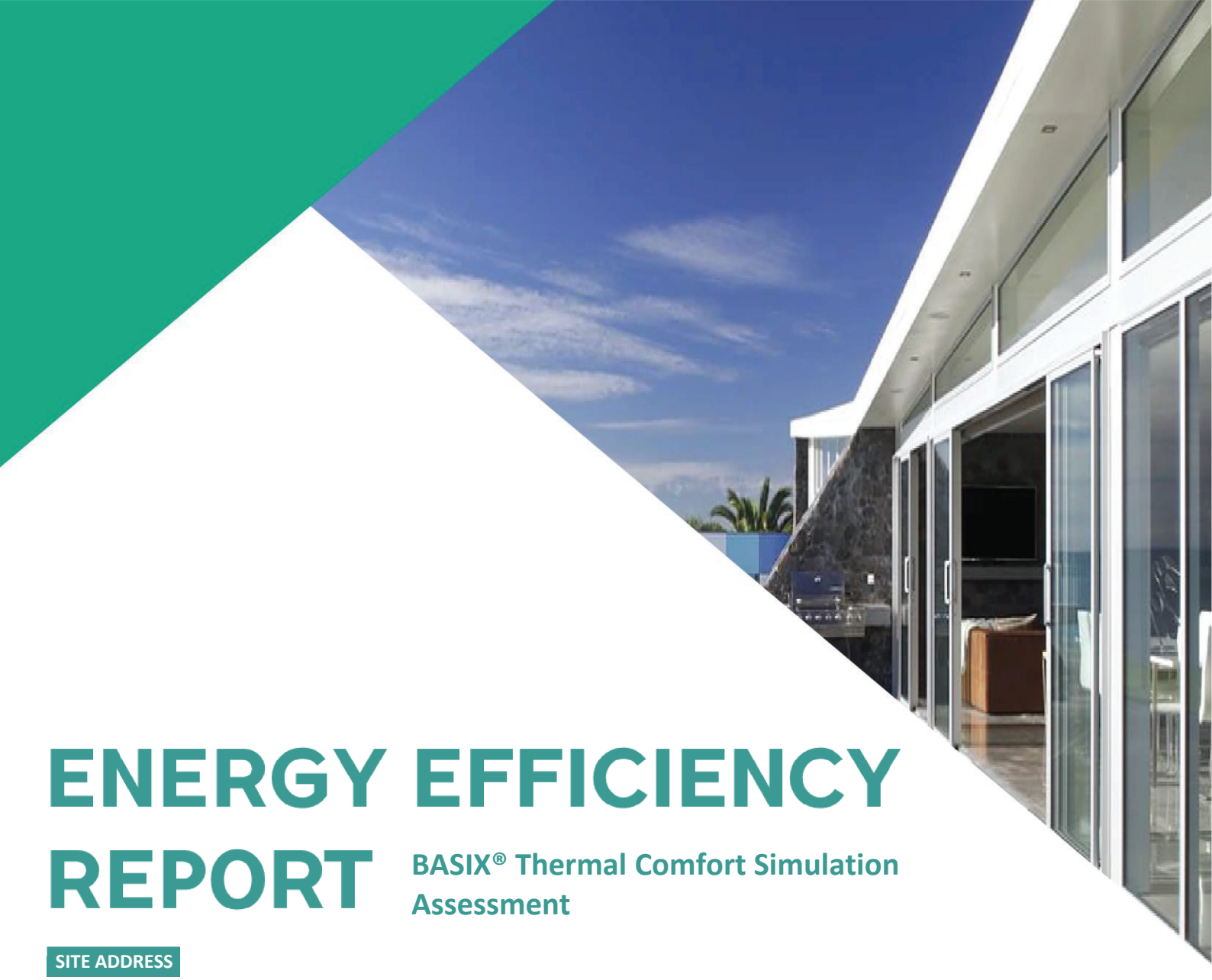


ENERGY EFFICIENCY REPORT

BASIX® Thermal Comfort Simulation Assessment

SITE ADDRESS

Lot 204705 (#16) Chapman Street WERRINGTON 2747

LOCAL GOVERNMENT AUTHORITY

Penrith City Council

REFERENCE NUMBER

920037_204705

COMMISSIONED BY

Creation Homes (NSW) Pty. Ltd.

DEPOSITED PLAN NUMBER

1226122

CLIENT

Lendlease Communities

CERTIFICATION DATE

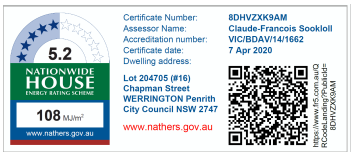
6/04/2020

DWELLING TYPE

Double Storey

Disclaimer and Condition of Use

PROJECT CERTIFICATION SUMMARY



DESIGN AND APPROVED SOFTWARE INFORMATION

SIMULATION ENGINE	Chenath Engine 3.13 (FirstRate5)
EXPOSURE	Suburban
ORIENTATION:	266
NatHERS CLIMATE ZONE:	28
BCA (NCC) CLIMATE ZONE:	6

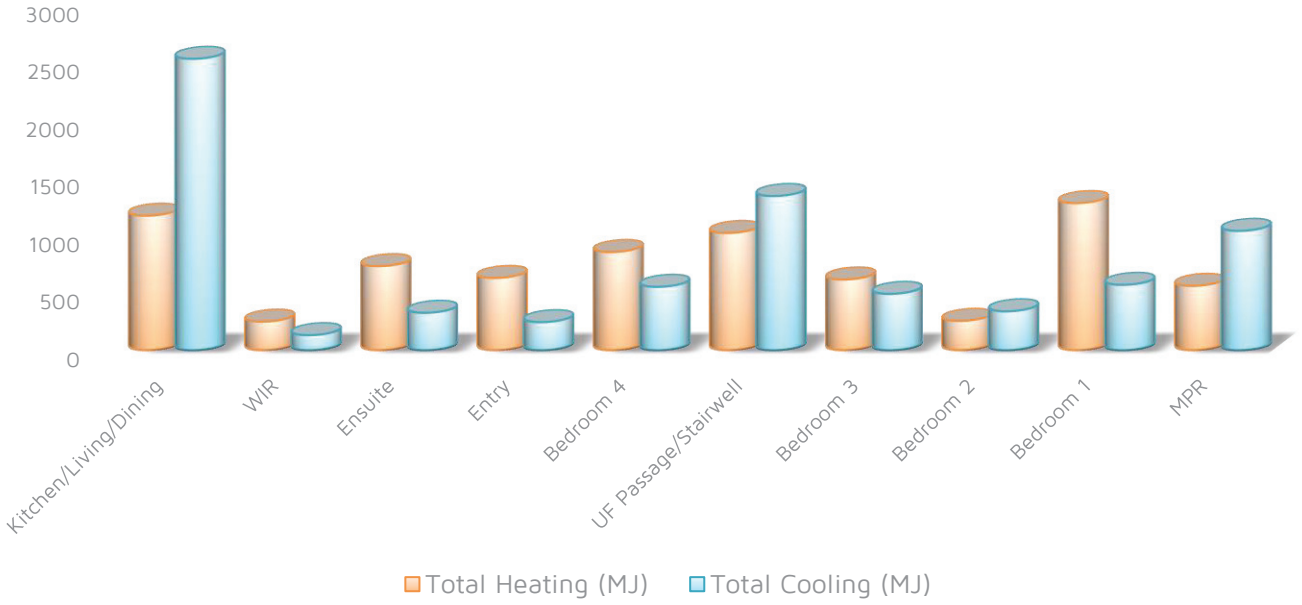
INTERNAL AREAS (m^2)	155.66
OUTDOOR AREAS (m^2)	18.43
GARAGE/CARPORT (m^2)	33.99

ASSESSMENT CALCULATIONS & SOFTWARE RESULTS

TARGET	(MJ/m^2.pa)	PROPOSED	(MJ/m^2.pa)	BUILD EFFICIENCY BENCHMARK	
Heating:	55.7	Heating:	53.3	PASS:	4.4%
Cooling:	56.2	Cooling:	54.7	PASS:	2.7%
Total:	**111.9**	**Total:**	**108.0**		

ZONED ENERGY LOAD DISTRIBUTION TOTALS (MJ)

The heating and cooling loads indicated are the simulated annual energy usages (MJ) for this home. The higher the load, the more energy needed to achieve thermal comfort.



STATEMENT OF COMPLIANCE

I / We certify that we are specialists in the relevant discipline and the following design documents comply with the relevant requirements of the National Construction Code (NCC Volume One/Two as applicable) in relation to thermal performance and the relevant Australian Standards specified in this report.

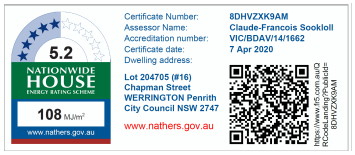
ASSESSOR NAME: C. Sookloll
SIGNATURE: 

RELEVANT QUALIFICATION STATEMENT

Certifiicate IV in NatHERS Assessment (Credential Number: TRF0002560)
Residential Building Thermal Performance Assessment (91318NSW) Course
Assessor Accrediting Organisation (AAO) Accreditation Number: **VIC/BDAV/14/1662 | ABSA/61846**

energy advance

BUILDING SPECIFICATION SUMMARY



EXTERNAL WALLS

	CONSTRUCTION TYPE	INSULATION	NOTES
EXTERNAL WALLS	Brick Masonry	None	Double Brick to Front Elevation of Garage
	Brick Veneer	None	External Garage walls
	Framed	R1.5 Batts	Specified walls of Upper Floor
	Brick Veneer	R1.5 Batts	Remainder of the external walls

ADDITIONAL NOTES Location of Construction Material as per Drawings | No insulation to external Garage walls

INTERNAL WALLS

	CONSTRUCTION TYPE	INSULATION	NOTES
INTERNAL WALLS	Framed	R1.5 Batts	Insulation to Garage internal walls only
	Framed	None	No insulation to remainder of the internal walls

ADDITIONAL NOTES None

ROOF AND CEILING

	CONSTRUCTION TYPE	INSULATION	NOTES
ROOF	Metal Deck	Anticon	Approx. 5"0' & 7"5' Roof Pitch
CEILING	Plasterboard	R2.5 Bulk	To House Area
	Plasterboard	None	To Garage Area

ADDITIONAL NOTES No insulation to the Garage ceiling | Location of Roof Pitch/Type as per elevations | Roof Colour: Dark

FLOOR

	CONSTRUCTION TYPE	INSULATION	NOTES
FLOOR	300mm Waffle | 85mm Slab	None	To Ground Floor
	Timber Suspended	None	GF Ceiling/UF Floor

ADDITIONAL NOTES Floor Coverings modelled as per Drawings & NatHERS Protocols

EXTERNAL GLAZING

GLASS TYPE	COLOUR	FRAME	U_w VALUE	SHGC	NOTES
Standard	Clear	Aluminium	6.25	0.72	Sliding Doors
Standard	Clear	Aluminium	6.42	0.76	Sliding Windows
Standard	Clear	Aluminium	5.93	0.60	Fixed Windows
Standard	Clear	Aluminium	6.50	0.63	Awning Windows
Standard	Clear	Timber	5.40	0.56	Casement Doors

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 in the report. If any of the 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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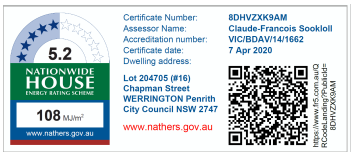
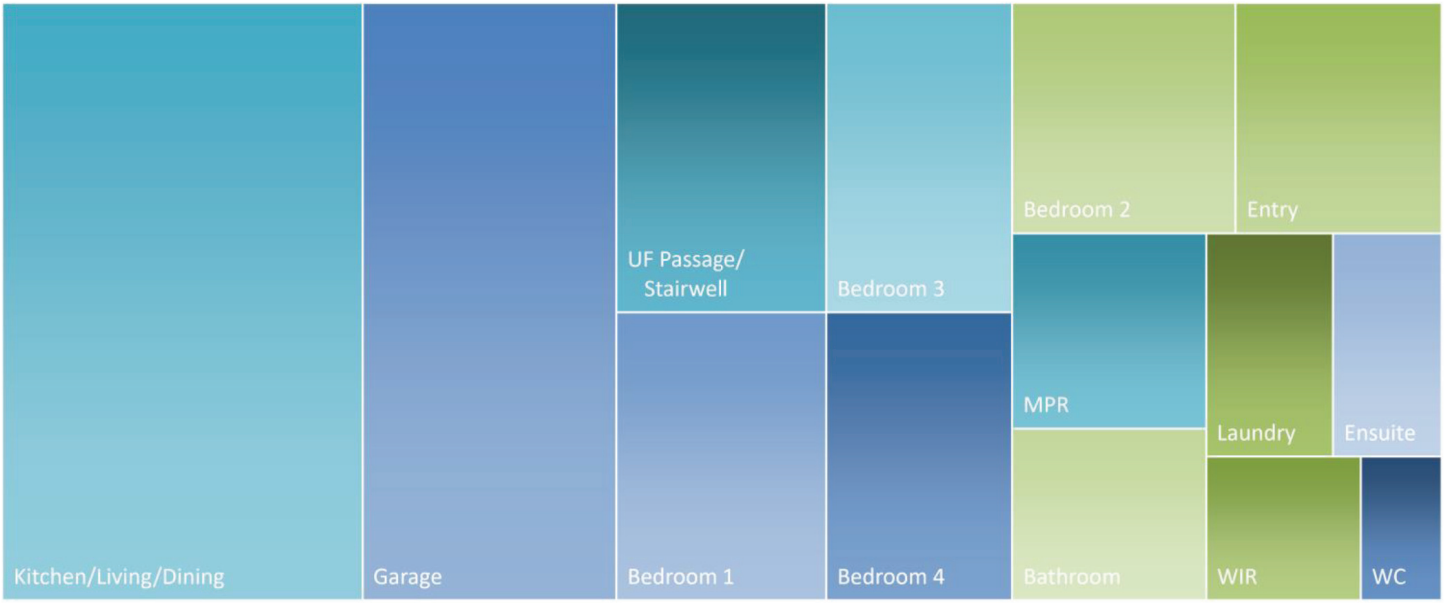
ROOM AREAS



THERMAL MODELLING SOFTWARE AREA CALCULATIONS



All areas are calculated by the modelling software and do not take into account internal wall area displacements. The areas above are a representation of room proportions only in relation to total areas

LIGHTING/PENETRATION CALCULATIONS

ARTIFICIAL LIGHTING CALCULATION ALLOWANCES

AREA WITHIN THE CLASS 1 BUILDING	**155.66 m²**		
Development Maximum	778 Watts	Area Wattage Allowance	5.0 W/m²
AREA WITHIN THE CLASS 10 BUILDING	**33.99 m²**		
Development Maximum	136 Watts	Area Wattage Allowance	4.0 W/m²
AREA WITHIN THE OUTDOOR AREAS	**18.43 m²**		
Development Maximum	55 Watts	Area Wattage Allowance	3.0 W/m²

CEILING INULATION PENETRATION ALLOWANCE

CLASS 1 MAXIMUM PENETRATION ALLOWANCE	CLASS 1 MAXIMUM PENETRATION AREA (m²)
0.5% TOTAL INSULATED CEILING AREA	**0.78**

The clearance required around downlights by "Australian Standard AS/NZS 3000 – 2007 Electrical Installations" (AS/NZS 3000), introduces a significant area of uninsulated ceiling and therefore increases heat loss and gain through the ceiling.

If approved fireproof downlight covers, which can be fully covered by insulation, are specified and noted on the electrical plan by the building designer or architect, then there is no need to allow for the ceiling penetration

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NSW ADDITIONS: BUILDING FABRIC THERMAL INSULATION

NSW 3.12.1 APPLICATION OF NSW PART 3.12.1

(a) Compliance with NSW 3.12.1.1 satisfies NSW P2.6.1(a) for thermal insulation and thermal breaks.

(b) NSW PART 3.12.1 only applies to thermal insulation in a Class 1 or 10 building where a development consent specifies that the insulation is to be provided as part of the development.

(c) In (b), the term development consent has the meaning given by the Environmental Planning and Assessment Act 1979.

(d) The Deemed-to-Satisfy Provisions of this Part for thermal breaks apply to all Class 1 buildings and Class 10a buildings with a conditioned space.

NSW 3.12.1.1 COMPLIANCE WITH BCA PROVISIONS

(a) Thermal insulation in a building must comply with the national BCA provisions of 3.12.1.1.

(b) A thermal break must be provided between the external cladding and framing in accordance with national BCA provisions of—

(i) 3.12.1.2(c) for a metal framed roof; and

(ii) 3.12.1.4(b) for a metal framed wall.

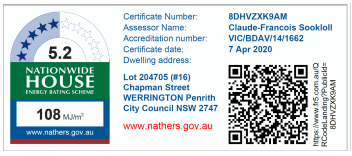
(c) Compensation for reduction in ceiling insulation must comply with the national BCA provisions of 3.12.1.2(e).

(d) A floor with an in-slab or in-screed heating or cooling system must comply with the national BCA provisions of—

(i) 3.12.1.5(a)(ii), (iii) and (e) for a suspended floor; or

(ii) 3.12.1.5(c), (d) and (e) for a concrete slab-on-ground.

BUILDING SEALING & SERVICES



NSW 3.12.3 APPLICATION OF NSW PART 3.12.3

(a) Compliance with NSW 3.12.3.1 satisfies NSW P2.6.1(b) for building sealing.

(b) NSW Part 3.12.3 is not applicable to—

(i) existing buildings being relocated; or

(ii) Class 10a buildings—

(A) without a conditioned space; or

(B) for the accommodation of vehicles; or

(iii) parts of buildings that cannot be fully enclosed; or

(iv) a permanent building opening, in a space where a gas appliance is located, that is necessary for the safe operation of a gas appliance; or

(v) a building in climate zones 2 and 5 where the only means of air-conditioning is by using an evaporative cooler.

NSW 3.12.3.1 COMPLIANCE WITH BCA PROVISIONS

The sealing of a building must comply with the national BCA provisions 3.12.3.1 to 3.12.3.6.

NSW 3.12.5 SERVICES: APPLICATION OF NSW PART 3.12.5

(a) Compliance with NSW 3.12.5.1 satisfies NSW P2.6.2 for services.

(b) NSW Part 3.12.5 is not applicable to existing services associated with existing buildings being relocated.

NSW 3.12.5.1 COMPLIANCE WITH BCA PROVISIONS

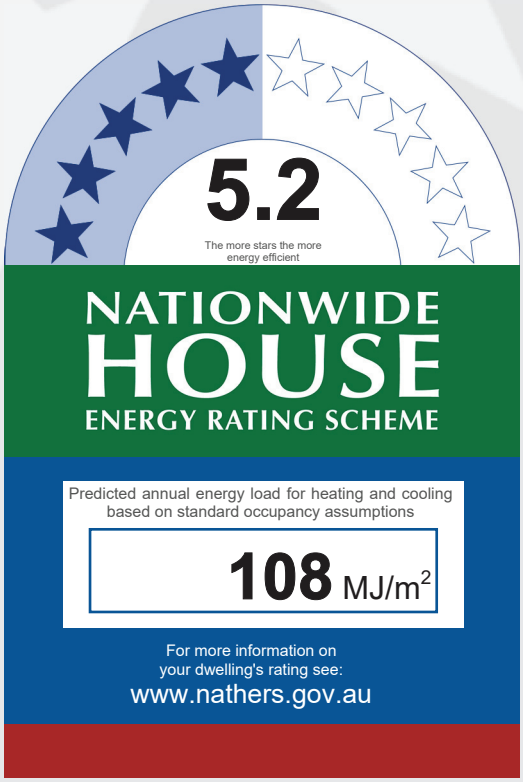
Services must comply with the national BCA provisions 3.12.5.0 to 3.12.5.3.

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **8DHVZXK9AM** Date of Certificate: **7 Apr 2020** ★Star rating: **5.2**

Assessor details

Accreditation number:	**VIC/BDAV/14/1662**
Name:	**Claude-Francois Sookloll**
Organisation:	**Energy Advance**
Email:	**energy@energyadvance.com.au**
Phone:	**1300 850 228**
Declaration of interest:	**No potential conflicts of interest to declare**
Software:	**FirstRate5: 5.2.11 (3.13)**
AAO:	**BDAV**



Overview

Dwelling details

Address:	**Lot 204705 (#16) Chapman Street WERRINGTON**		
Suburb:	**Penrith City Council**		
State:	**NSW**	Postcode:	**2747**
Type:	**New Home**	NCC Class:	**Class 1a**
Lot/DP number:	**204705|1226122**	NatHERS climate zone:	**28**
Exposure:	**suburban**		

Key construction and insulation materials

(see following pages for details)

Construction:	Wall:	**Brick Veneer & Framed**
	Roof:	**Colorbond**
	Floor:	**Waffle Pod 300-85**
Insulation:	Wall:	**R1.5 Batts (excl. Garage)**
	Roof:	**R2.5 Bulk (excl. Garage)**
	Floor:	**Waffle Pod 300-85**
Glazing:		**Aluminium & Timber Single Glazed**

Ceiling penetrations

(see following pages for details)

Sealed:	**1**
Unsealed:	**0**
TOTAL:**	**1**

Principal downlight type: **No downlights modelled**

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.

Net floor area (m^2)

Conditioned:	**120**
Unconditioned:	**14.5**
Garage:	**30**
TOTAL:	**164.5**

Annual thermal performance loads (MJ/m^2)

Heating:	**53.3**
Cooling:	**54.7**
TOTAL:	**108**

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 the 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.

Plan documents

Plan ref/date:	**920037_204705 | 05/04/2020**
Prepared by:	**Creation Homes**

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

https://www.fr5.com.au/QRCodeLanding?PublicId=8DHVZXK9AM

* 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

Windows type and performance value

Window ID	Window type	U-value	SHGC
TIM-001-01 W	Timber A SG Clear	5.4	0.56
JAS-006-02 A	Aluminium Premium Fixed Window SG 5Clr	6.43	0.77
WID-005-01 A	Al Residential Internal Sliding Door SG 4mm Clear	6.25	0.72
WID-001-01 A	Al Residential Awning Window SG 3mm Clear	6.5	0.63

Windows schedule

Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Zone name	Outdoor shade
TIM-001-01 W	WD1	2100	160	N	Entry	No
JAS-006-02 A	W6	600	2170	S	Kitchen/Living/Dining	No
WID-005-01 A	WD2	2110	3216	N	Kitchen/Living/Dining	No
WID-001-01 A	W1	2050	850	N	Kitchen/Living/Dining	No
WID-001-01 A	W2	600	2410	W	Kitchen/Living/Dining	No
WID-001-01 A	W3	1030	610	W	WC	No
WID-001-01 A	W4	1030	610	W	WC	No
WID-001-01 A	W5	1030	610	S	WC	No
TIM-001-01 W	WD3	2100	100	S	Laundry	No
WID-001-01 A	W16	2050	1210	S	UF Passage/Stairwell	No
WID-005-01 A	WD4	2100	1810	N	Bedroom 1	No
WID-001-01 A	W8	1030	2170	N	Bedroom 2	No
WID-001-01 A	W10	600	2170	W	Bedroom 3	No
WID-001-01 A	W9	1200	850	N	Bedroom 3	No
WID-001-01 A	W11	1370	610	W	Bedroom 4	No
WID-001-01 A	W12	1370	610	W	Bedroom 4	No
WID-001-01 A	W13	1370	610	S	Bedroom 4	No
WID-001-01 A	W14	1370	610	S	Bedroom 4	No
WID-001-01 A	W7	1200	850	N	MPR	No
WID-001-01 A	W17	1030	610	S	Ensuite	No
WID-001-01 A	W18	1030	610	E	Ensuite	No
WID-001-01 A	W15	1030	1570	S	Bathroom	No

Roof windows and skylight type and performance value

ID	Window type	U-value	SHGC

Roof window and skylight schedule

Building Features

ID	Roof window/ skylight no.	Area (m^2)	Orientation	Zone name	Outdoor shade	Indoor shade/ diffuser

External wall type

Type	Insulation	Wall wrap
1 : WALLS-STANDARD - Brick Veneer		No
2 : WALLS-STANDARD - Double Brick		No
3 : WALLS-STANDARD - Brick Veneer - R1.5 Batts	Glass fibre batt: R1.5 (R1.5)	No
4 : WALLS-STANDARD - Framed Thick (Generic) - R1.5 Batts	Glass fibre batt: R1.5 (R1.5)	No
5 : WALLS-STANDARD - Framed Slim (Generic) - R1.5 Batts	Glass fibre batt: R1.5 (R1.5)	No

External wall schedule

Wall type	Area (m^2)	Orientation	Zone name	Fixed shade	Eaves
1 : WALLS-STANDARD - Brick Veneer	13.2	S	Garage	Yes	No
1 : WALLS-STANDARD - Brick Veneer	13.5	E	Garage	No	No
2 : WALLS-STANDARD - Double Brick	4.4	N	Garage	Yes	No
2 : WALLS-STANDARD - Double Brick	8.9	N	Garage	Yes	Yes
3 : WALLS-STANDARD - Brick Veneer - R1.5 Batts	2.2	S	Entry	No	No
3 : WALLS-STANDARD - Brick Veneer - R1.5 Batts	2	E	Entry	Yes	No
3 : WALLS-STANDARD - Brick Veneer - R1.5 Batts	2.1	E	Entry	Yes	Yes
3 : WALLS-STANDARD - Brick Veneer - R1.5 Batts	0.5	E	Entry	Yes	No
3 : WALLS-STANDARD - Brick Veneer - R1.5 Batts	3.7	N	Entry	No	Yes
3 : WALLS-STANDARD - Brick Veneer - R1.5 Batts	0.6	S	Kitchen/Living/Dining	No	No
3 : WALLS-STANDARD - Brick Veneer - R1.5 Batts	9.3	S	Kitchen/Living/Dining	No	No
3 : WALLS-STANDARD - Brick Veneer - R1.5 Batts	10.5	N	Kitchen/Living/Dining	No	Yes
3 : WALLS-STANDARD - Brick Veneer - R1.5 Batts	5.8	N	Kitchen/Living/Dining	No	No
3 : WALLS-STANDARD - Brick Veneer - R1.5	9.6	W	Kitchen/Living/Dining	No	No

Building Features

Batts					
3 : WALLS-STANDARD - Brick Veneer - R1.5 Batts	1	W	Kitchen/Living/Dining	Yes	No
3 : WALLS-STANDARD - Brick Veneer - R1.5 Batts	1	W	Kitchen/Living/Dining	Yes	No
3 : WALLS-STANDARD - Brick Veneer - R1.5 Batts	2.8	W	WC	No	No
3 : WALLS-STANDARD - Brick Veneer - R1.5 Batts	1	W	WC	Yes	No
3 : WALLS-STANDARD - Brick Veneer - R1.5 Batts	2.7	W	WC	No	No
3 : WALLS-STANDARD - Brick Veneer - R1.5 Batts	2.2	S	WC	No	No
3 : WALLS-STANDARD - Brick Veneer - R1.5 Batts	5	S	Laundry	Yes	No
4 : WALLS-STANDARD - Framed Thick (Generic) - R1.5 Batts	5.7	S	UF Passage/Stairwell	No	Yes
4 : WALLS-STANDARD - Framed Thick (Generic) - R1.5 Batts	2.5	E	UF Passage/Stairwell	Yes	Yes
5 : WALLS-STANDARD - Framed Slim (Generic) - R1.5 Batts	11.7	E	Bedroom 1	No	No
5 : WALLS-STANDARD - Framed Slim (Generic) - R1.5 Batts	10.6	N	Bedroom 1	Yes	Yes
4 : WALLS-STANDARD - Framed Thick (Generic) - R1.5 Batts	9	N	Bedroom 2	No	Yes
4 : WALLS-STANDARD - Framed Thick (Generic) - R1.5 Batts	8.8	W	Bedroom 3	No	Yes
4 : WALLS-STANDARD - Framed Thick (Generic) - R1.5 Batts	9	N	Bedroom 3	No	Yes
4 : WALLS-STANDARD - Framed Thick (Generic) - R1.5 Batts	0.6	W	Bedroom 4	Yes	Yes
3 : WALLS-STANDARD - Brick Veneer - R1.5 Batts	1	W	Bedroom 4	Yes	Yes
3 : WALLS-STANDARD - Brick Veneer - R1.5 Batts	3.9	W	Bedroom 4	No	Yes
3 : WALLS-STANDARD - Brick Veneer - R1.5 Batts	1	W	Bedroom 4	Yes	Yes
3 : WALLS-STANDARD - Brick Veneer - R1.5 Batts	2.7	W	Bedroom 4	No	Yes
3 : WALLS-STANDARD - Brick Veneer - R1.5 Batts	3.3	S	Bedroom 4	No	Yes
3 : WALLS-STANDARD - Brick Veneer - R1.5 Batts	1	S	Bedroom 4	Yes	Yes

Building Features

3 : WALLS-STANDARD - Brick Veneer - R1.5 Batts	4.7	S	Bedroom 4	No	Yes
4 : WALLS-STANDARD - Framed Thick (Generic) - R1.5 Batts	4.9	S	WIR	Yes	No
4 : WALLS-STANDARD - Framed Thick (Generic) - R1.5 Batts	1.3	E	MPR	Yes	Yes
4 : WALLS-STANDARD - Framed Thick (Generic) - R1.5 Batts	6.2	N	MPR	No	Yes
4 : WALLS-STANDARD - Framed Thick (Generic) - R1.5 Batts	5.4	S	Ensuite	Yes	No
5 : WALLS-STANDARD - Framed Slim (Generic) - R1.5 Batts	9.1	E	Ensuite	No	No
3 : WALLS-STANDARD - Brick Veneer - R1.5 Batts	1.1	S	Bathroom	Yes	Yes
4 : WALLS-STANDARD - Framed Thick (Generic) - R1.5 Batts	8.4	S	Bathroom	No	Yes

Internal wall type

Type	Area (m^2)	Insulation
1 : WALLS-STANDARD - Internal Stud Walls -R1.5 Batts	13.5	Glass fibre batt: R1.5 (R1.5)
2 : WALLS-STANDARD - Internal Stud Walls	131.1	

Floors

Location	Construction	Area (m^2)	Sub floor ventilation	Added insulation	Covering
Garage	FR5 - 300mm waffle pod, 85mm concrete (R0.8)	9.9	Enclosed	R0.0	none
Garage	FR5 - 300mm waffle pod, 85mm concrete (R0.8)	20.1	Enclosed	R0.0	none
Entry	FR5 - 300mm waffle pod, 85mm concrete (R0.8)	9.4	Enclosed	R0.0	Carpet
Kitchen/Living/Dining	FR5 - 300mm waffle pod, 85mm concrete (R0.8)	42.7	Enclosed	R0.0	Tiles
WC	FR5 - 300mm waffle pod, 85mm concrete (R0.8)	2.3	Enclosed	R0.0	Tiles
Laundry	FR5 - 300mm waffle pod, 85mm concrete (R0.8)	5.6	Enclosed	R0.0	Tiles
UF Passage/Stairwell	FLOOR - Framed Internal Suspended Floor (uninsulated)	12.9	Enclosed	R0.0	Carpet
Bedroom 1	FLOOR - Framed External Suspended Floor (uninsulated)	1.3	Elevated	R0.0	Carpet

Building Features

Bedroom 1	FLOOR - Framed Internal Suspended Floor (uninsulated)	10.8	Enclosed	R0.0	Carpet
Bedroom 2	FLOOR - Framed Internal Suspended Floor (uninsulated)	10.2	Enclosed	R0.0	Carpet
Bedroom 3	FLOOR - Framed Internal Suspended Floor (uninsulated)	11.4	Enclosed	R0.0	Carpet
Bedroom 4	FLOOR - Framed Internal Suspended Floor (uninsulated)	10.6	Enclosed	R0.0	Carpet
WIR	FLOOR - Framed Internal Suspended Floor (uninsulated)	4.4	Enclosed	R0.0	Carpet
MPR	FLOOR - Framed Internal Suspended Floor (uninsulated)	7.5	Enclosed	R0.0	Carpet
Ensuite	FLOOR - Framed Internal Suspended Floor (uninsulated)	4.8	Enclosed	R0.0	Tiles
Bathroom	FLOOR - Framed Internal Suspended Floor (uninsulated)	6.6	Enclosed	R0.0	Tiles

Ceiling type

Location	Material	Added insulation	Roof space above
Garage	Plasterboard	R0.0	No
Garage	FLOOR - Framed Internal Suspended Floor (uninsulated)	R0.0	No
Garage	FLOOR - Framed Internal Suspended Floor (uninsulated)	R0.0	No
Garage	FLOOR - Framed Internal Suspended Floor (uninsulated)	R0.0	No
Entry	FLOOR - Framed Internal Suspended Floor (uninsulated)	R0.0	No
Entry	FLOOR - Framed Internal Suspended Floor (uninsulated)	R0.0	No
Kitchen/Living/Dining	FLOOR - Framed Internal Suspended Floor (uninsulated)	R0.0	No
Kitchen/Living/Dining	FLOOR - Framed Internal Suspended Floor (uninsulated)	R0.0	No
Kitchen/Living/Dining	FLOOR - Framed Internal Suspended Floor (uninsulated)	R0.0	No
Kitchen/Living/Dining	FLOOR - Framed Internal Suspended Floor (uninsulated)	R0.0	No
Kitchen/Living/Dining	FLOOR - Framed Internal Suspended Floor (uninsulated)	R0.0	No
Kitchen/Living/Dining	FLOOR - Framed Internal Suspended Floor (uninsulated)	R0.0	No
WC	FLOOR - Framed Internal Suspended Floor (uninsulated)	R0.0	No
Laundry	FLOOR - Framed Internal Suspended Floor (uninsulated)	R0.0	No
Laundry	FLOOR - Framed Internal Suspended Floor (uninsulated)	R0.0	No
Laundry	FLOOR - Framed Internal Suspended Floor (uninsulated)	R0.0	No
UF Passage/Stairwell	Plasterboard	R2.5	No
Bedroom 1	Plasterboard	R2.5	No

Building Features

Bedroom 1	Plasterboard	R2.5	No
Bedroom 2	Plasterboard	R2.5	No
Bedroom 3	Plasterboard	R2.5	No
Bedroom 4	Plasterboard	R2.5	No
WIR	Plasterboard	R2.5	No
MPR	Plasterboard	R2.5	No
Ensuite	Plasterboard	R2.5	No
Bathroom	Plasterboard	R2.5	No

Ceiling penetrations

Location	Number	Type	Width (mm)	Length (mm)	Seal/ unsealed
Kitchen/Living/Dining	1	Exhaust Fans	185	185	Sealed

Ceiling fans

Location	Number	Diameter (mm)

Roof type

Material	Added insulation	Roof colour
Framed:Flat - Flat Framed (Metal Deck)	1.1	dark

Nationwide House Energy Rating Scheme* Certificate

Certificate Number: **8DHVZXK9AM** Date of Certificate: **7 Apr 2020** ★Star rating: **5.2**

Additional information

BCA Climate Zone: 6

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 this 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 an 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