



ABN: 71 166 427 550

To:

Northern Beaches Council

BASIX ASSESSMENT REPORT
(Simulation Method)

Lot 109 No 81 Prince Alfred Parade, NEWPORT NSW 2106

2 October 2019

Suite 111, Springetts Arcade BOWRAL

Mobile: 0424 630 400

www.efficiencyassessments.com.au

Mobile 0401 861 912

PO Box 363 BOWRAL NSW 2576

info@efficiencyassessments.com.au

Mobile: 0418 430 161

Nationwide House Energy Rating Scheme* Certificate



Certificate number: **0004008983-01**

Certificate Date: **01 Oct 2019**

★ Star rating: **5.8**

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

Assessor details

Accreditation

number: **13/1547**

Name: **Scott Douglass**

Organisation: **Efficiency Assessments Pty Ltd**

Email: **scott@ea1.com.au**

Phone: **0424630400**

Declaration of interest: **The Assessor has provided design advice to the Applicant**

Software: **BERS Pro v4.3.0.2d (3.13)**

AAO: **BDAV**

Overview

Dwelling details

Street: **81 Prince Alfred Parade**

Suburb: **Newport**

State: **NSW**

Postcode: **2106**

Type: **New Dwelling**

NCC Class: **1A**

NatHERS

climate zone: **56**

Lot/DP

number: **109/13457**

Exposure: **Suburban**

Key construction and insulation materials

(see following pages for details)

Construction: **Fibro Cavity Panel Direct Fix Concrete**

Insulation: **Suspended Timber Floor**

R2.5 wall insulation

R5.0 ceiling insulation

No floor insulation

Glazing: **ALM-001-01 A Aluminium A SG Clear**

Net floor area (m²)

Conditioned: **205.0**

Unconditioned: **74.0**

Garage: **60.0**

TOTAL: **279.0**

Annual thermal performance loads (MJ/m²)

Heating: **40.4**

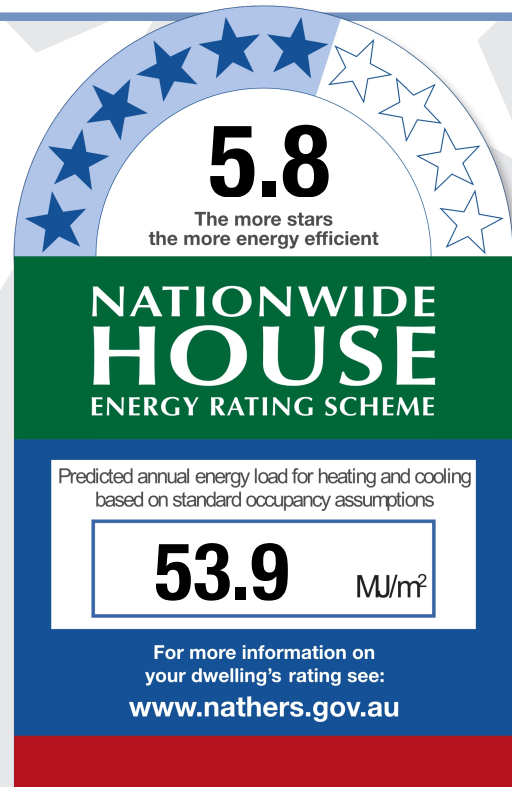
Cooling: **13.5**

TOTAL: **53.9**

Plan documents

Plan ref/date: **Job For Schott, Revision A, Dated 20/9/2019, Sheets 1-10**

Prepared by: **Daniel Raymond Architect**



Ceiling penetrations

(see following pages for details)

Sealed: **100**

Unsealed: **0**

TOTAL:** **100**

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

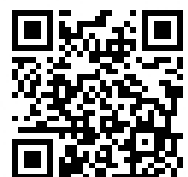
Note on allowable window values:
Only a 5% tolerance to the nominated SHGC window values shown on page 2 can be used with this rating.

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: **0004008983-01**

Certificate Date:

01 Oct 2019

★ Star rating:

5.8



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
ALM-001-01 A	ALM-001-01 A Aluminium A SG Clear	6.7	0.57
ALM-004-01 A	ALM-004-01 A Aluminium B DG Air Fill Clear-Clear	4.8	0.59

Window schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Orientation	Outdoor shade
Foyer	ALM-003-01 A	n/a	2040	820	N	No Shading
Kitchen/Living	ALM-001-01 A	n/a	2340	920	E	No Shading
Kitchen/Living	ALM-001-01 A	n/a	1200	750	W	No Shading
Kitchen/Living	ALM-004-01 A	n/a	2400	7900	N	No Shading
wc	ALM-001-01 A	n/a	1200	600	E	No Shading
Laundry	ALM-001-01 A	n/a	2340	920	E	No Shading
Laundry	ALM-001-01 A	n/a	1200	600	E	No Shading
Bed 4/ens	ALM-001-01 A	n/a	1200	750	W	No Shading
Bedroom 2	ALM-004-01 A	n/a	2100	4200	N	No Shading
ens b1	ALM-001-01 A	n/a	1200	600	W	No Shading
ens b1	ALM-003-01 A	n/a	1200	1000	N	No Shading
Lounge	ALM-003-01 A	n/a	1200	1600	E	No Shading
Lounge	ALM-004-01 A	n/a	2100	3000	S	No Shading
bed 2	ALM-001-01 A	n/a	1200	1600	W	No Shading
bath	ALM-001-01 A	n/a	1200	600	W	No Shading
bed 3	ALM-001-01 A	n/a	2100	1800	S	No Shading
wir	ALM-003-01 A	n/a	1200	1000	N	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	Concrete Block	No insulation	No
EW-2	Concrete block, lined	Bulk Insulation R2.5	No
EW-3	Tilt up concrete, lined	Bulk Insulation R2.5	No
EW-4	Fibro Cavity Panel Direct Fix	Bulk Insulation R2.5	No

External wall schedule

Location	ID	Width (mm)	Height (mm)	Orientation	Fixed Shade	Eaves (mm)
Garage 1	EW-1	1300	2400	E	No	1600

Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004008983-01**

Certificate Date:

01 Oct 2019

★ Star rating:

5.8



Building features continued

Garage 1	EW-1	6400	3400	S	No	0
Garage 1	EW-1	8000	2700	W	No	0
Garage 1	EW-1	8000	700	W	No	0
Garage 1	EW-1	7600	2400	N	No	0
Foyer	EW-2	13600	2000	E	No	0
Foyer	EW-2	13600	1400	E	No	0
Foyer	EW-2	2800	3400	S	No	0
Foyer	EW-2	6800	3400	W	No	0
Foyer	EW-2	1500	3400	N	No	1300
Kitchen/Living	EW-3	6900	2800	E	No	0
Kitchen/Living	EW-3	1600	2800	S	No	0
Kitchen/Living	EW-3	6895	2800	W	No	0
Kitchen/Living	EW-3	600	2800	N	No	0
Kitchen/Living	EW-3	9200	2801	N	No	2200
wc	EW-3	1590	2800	E	No	0
Laundry	EW-3	2095	2800	E	No	0
Laundry	EW-3	2695	2800	S	No	0
Bed 4/ens	EW-3	4895	2800	S	No	0
Bed 4/ens	EW-3	2800	1600	W	No	0
Bed 4/ens	EW-3	2800	1200	W	No	0
Bed 4/ens	EW-3	600	2800	S	No	0
Bed 4/ens	EW-3	895	2800	W	No	0
Bedroom 2	EW-4	4890	3550	N	No	450
ens b1	EW-4	4695	2100	W	No	550
ens b1	EW-4	2695	2600	N	No	450
Lounge	EW-4	3695	3000	E	No	550
Lounge	EW-4	4100	3500	S	No	450
Hall Stairs	EW-4	1600	2700	S	No	450
Hall Stairs	EW-4	3295	2400	E	No	550
bed 2	EW-4	600	2250	S	No	7550
bed 2	EW-4	3095	2100	W	No	550
bath	EW-4	2790	2400	W	No	1150
bed 3	EW-4	4295	2400	E	No	550
bed 3	EW-4	4100	2750	S	No	450
bed 3	EW-4	4300	2100	W	No	550
bed 3	EW-4	600	2250	N	No	11050
wir	EW-4	2195	2750	N	No	450
wir	EW-4	3595	2400	E	No	550

Internal wall type

Wall type	Area (m ²)	Insulation	Wall wrap or foil
IW-1 - Concrete Block	27.0	Bulk Insulation, No Air Gap R2.5	No
IW-2 - Cavity wall, direct fix plasterboard, single gap	51.0	Bulk Insulation, No Air Gap R2.5	No
IW-3 - Cavity wall, direct fix plasterboard, single gap	111.0	No insulation	No

Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004008983-01**

Certificate Date:

01 Oct 2019

★ Star rating:

5.8



Building features continued

Floors

Location	Construction	Area (m ²)	Sub floor ventilation	Added insulation	Covering
Garage 1	Waffle pod slab 175 mm 100mm	60.0	None	Waffle Pod 175mm	Bare
Foyer	Waffle pod slab 225 mm 100mm	29.2	None	Waffle Pod 225mm	Carpet+Rubber Underlay 18mm
Kitchen/Living /Foyer	Concrete Above Plasterboard 100mm	19.2		Bulk Insulation R2.5	Carpet+Rubber Underlay 18mm
Kitchen/Living	Concrete Slab on Ground 100mm	50.3	None	No Insulation	Carpet+Rubber Underlay 18mm
wc	Concrete Slab on Ground 100mm	1.7	None	No Insulation	Ceramic Tiles 8mm
Laundry	Concrete Slab on Ground 100mm	5.5	None	No Insulation	Ceramic Tiles 8mm
Bed 4/ens	Concrete Slab on Ground 100mm	18.3	None	No Insulation	80/20 Carpet 10mm/Ceramic
Bedroom 2/Kitchen/Living	Timber Above Plasterboard 19mm	17.1		Bulk Insulation R2.5	Carpet+Rubber Underlay 18mm
ens b1/Kitchen/Living	Timber Above Plasterboard 19mm	12.4		Bulk Insulation R2.5	Ceramic Tiles 8mm
Lounge/Kitchen/Living	Timber Above Plasterboard 19mm	2.3		Bulk Insulation R2.5	Carpet+Rubber Underlay 18mm
Lounge/wc	Timber Above Plasterboard 19mm	1.9		Bulk Insulation R2.5	Carpet+Rubber Underlay 18mm
Lounge/Laundry	Timber Above Plasterboard 19mm	5.5		Bulk Insulation R2.5	Carpet+Rubber Underlay 18mm
Lounge/Bed 4/ens	Timber Above Plasterboard 19mm	5.9		Bulk Insulation R2.5	Carpet+Rubber Underlay 18mm
Hall Stairs/Kitchen/Living	Timber Above Plasterboard 19mm	19.6		Bulk Insulation R2.5	Carpet+Rubber Underlay 18mm
bed 2/Kitchen/Living	Timber Above Plasterboard 19mm	8.7		Bulk Insulation R2.5	Carpet+Rubber Underlay 18mm
bed 2/Bed 4/ens	Timber Above Plasterboard 19mm	4.7		Bulk Insulation R2.5	Carpet+Rubber Underlay 18mm
bath/Bed 4/ens	Timber Above Plasterboard 19mm	7.3		Bulk Insulation R2.5	Ceramic Tiles 8mm
bed 3	Suspended Timber Floor 19mm	17.5	Enclosed	Bulk Insulation in Contact with Floor R2.5	Carpet+Rubber Underlay 18mm
wir/Kitchen/Living	Timber Above Plasterboard 19mm	7.7		Bulk Insulation R2.5	Carpet+Rubber Underlay 18mm

Ceiling type

Location	Construction	Added insulation	Roof space above
Garage 1	Plasterboard	No insulation	No
Foyer	Plasterboard	Bulk Insulation R5	No
Foyer	Concrete Above Plasterboard	Bulk Insulation R2.5	No
Kitchen/Living	Plasterboard	Bulk Insulation R3.5	No

Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004008983-01**

Certificate Date:

01 Oct 2019

★ Star rating:

5.8



Building features continued

Kitchen/Living	Timber Above Plasterboard	Bulk Insulation R2.5	No
wc	Plasterboard	Bulk Insulation R3.5	No
wc	Timber Above Plasterboard	Bulk Insulation R2.5	No
Laundry	Plasterboard	Bulk Insulation R3.5	No
Laundry	Timber Above Plasterboard	Bulk Insulation R2.5	No
Bed 4/ens	Plasterboard	Bulk Insulation R3.5	No
Bed 4/ens	Timber Above Plasterboard	Bulk Insulation R2.5	No
Bedroom 2	Plasterboard	Bulk Insulation R5	No
ens b1	Plasterboard	Bulk Insulation R5	No
Lounge	Plasterboard	Bulk Insulation R5	No
Hall Stairs	Plasterboard	Bulk Insulation R5	No
bed 2	Plasterboard	Bulk Insulation R5	No
bath	Plasterboard	Bulk Insulation R5	No
bed 3	Plasterboard	Bulk Insulation R5	No
wir	Plasterboard	Bulk Insulation R5	No

Ceiling penetrations

Location	Number	Type	Diameter (mm)	Sealed/unsealed
Foyer	12	Downlights - LED	150	Sealed
Kitchen/Living	28	Downlights - LED	150	Sealed
Kitchen/Living	1	Exhaust Fans	160	Sealed
Kitchen/Living	1	Chimneys	300	Sealed
wc	1	Downlights - LED	150	Sealed
Laundry	2	Downlights - LED	150	Sealed
Bed 4/ens	8	Downlights - LED	150	Sealed
Bed 4/ens	1	Exhaust Fans	300	Sealed
Bedroom 2	7	Downlights - LED	150	Sealed
ens b1	5	Downlights - LED	150	Sealed
ens b1	1	Exhaust Fans	300	Sealed
Lounge	6	Downlights - LED	150	Sealed
Hall Stairs	8	Downlights - LED	150	Sealed
bed 2	5	Downlights - LED	150	Sealed
bath	3	Downlights - LED	150	Sealed
bath	1	Exhaust Fans	300	Sealed
bed 3	7	Downlights - LED	150	Sealed

Nationwide House Energy Rating Scheme* Certificate

Certificate number: **0004008983-01**

Certificate Date:

01 Oct 2019

★ Star rating:

5.8



Building features continued

wir	3	Downlights - LED	150	Sealed
-----	---	------------------	-----	--------

Ceiling fans

Location	Number	Diameter (mm)
None Present		

Roof type

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

Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0004008983-01

Certificate Date: 01 Oct 2019

★ Star rating: 5.8



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