

Nationwide House Energy Rating Scheme* Certificate

Certificate number: 0004454328-01

Certificate Date: 23 Jan 2020

★ Star rating: 4.7



Assessor details

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Declaration of interest: **No potential conflicts of interest to declare**
Software: **AccuRate Sustainability V2.3.3.13 SP4**
AAO: **ABSA**

Overview

Dwelling details

Street: **Unit A, 70 Lauderdale Avenue**
Suburb: **Fairlight**
State: **NSW** Postcode: **2094**
Type: **New** NCC Class: **1a**
NatHERS climate zone: **56**
Lot/DP number: **Lot 1 DP 965132** Exposure: **Suburban**

Key construction and insulation materials

(see following pages for details)

Construction: **Plywood wall**
Metal roof/Plasterboard
Plywood
Insulation: **Wall (uninsulated)**
Ceiling (uninsulated)
R2.0 floor insulation
Glazing: **AI Thermally Broken B DG Argon Fill**
High Solar

Net floor area (m²)

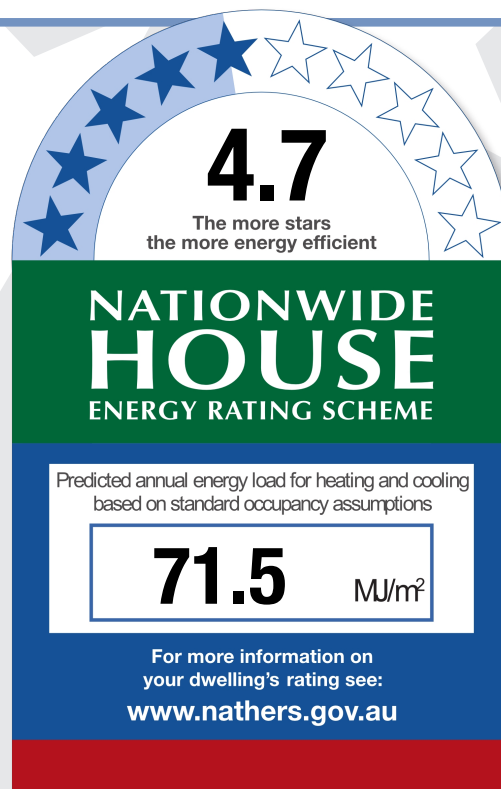
Conditioned: **148.2**
Unconditioned: **44.5**
Garage: **30.2**
TOTAL: **192.7**

Annual thermal performance loads (MJ/m²)

Heating: **46.1**
Cooling: **25.3**
TOTAL: **71.5**

Plan documents

Plan ref/date: **November 2019**
Prepared by: **MARSTON ARCHITECTS**



Ceiling penetrations

(see following pages for details)

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

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: **No Ceiling Penetration Downlights**

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 **4.7**
+10% SHGC **4.8**

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 |
|--------------|--|---------|------|
| ATB-006-03 B | DEFAULTS: AI Thermally Broken B DG Argon Fill High Solar Gain low-E -Clear | 2.9 | 0.51 |
| ATB-006-04 B | DEFAULTS: AI Thermally Broken B DG Argon Fill Low Solar Gain low-E -Clear | 3.0 | 0.26 |

Window schedule

| Location | Window ID | Window no. | Height (mm) | Width (mm) | Orientation | Outdoor shade |
|----------|--------------|------------|-------------|------------|-------------|-------------------|
| bed 1 | ATB-006-03 B | D14 | 2700 | 5120 | SW | None |
| bed 1 | ATB-006-03 B | W13 | 1800 | 3000 | SE | None |
| study | ATB-006-03 B | W12 | 600 | 2700 | SE | None |
| bed 3 | ATB-006-03 B | W10 | 2700 | 2850 | NE | None |
| bed 2 | ATB-006-03 B | W09 | 2700 | 2900 | NE | None |
| hall | ATB-006-03 B | W11 | 2700 | 850 | SE | None |
| kit/liv | ATB-006-03 B | D05 | 2800 | 4900 | SW | None |
| kit/liv | ATB-006-03 B | D06 | 2800 | 4870 | SE | None |
| kit/liv | ATB-006-03 B | D07 | 2800 | 2000 | SW | None |
| kit/liv | ATB-006-04 B | D08 | 2800 | 6770 | SE | None |
| kit/liv | ATB-006-03 B | W04b | 1875 | 3850 | NE | Miniature louvres |
| kit/liv | ATB-006-03 B | W04a | 1130 | 4450 | NE | Miniature louvres |
| entry | ATB-006-03 B | W03 | 1875 | 2000 | SE | Miniature louvres |

Roof window and skylight type and performance value

| ID | Window type | U-value | SHGC |
|--------------|---|---------|------|
| VEL-011-01 W | Velux: VELUX FS - Fixed Skylight DG 3mm LoE 366 / 8.5mm Argon 2.6 Gap / 5.36mm Clear La | | 0.24 |

Roof window and skylight schedule

| Location | ID | Roof window/skylight no. | Area (m²) | Orientation | Outdoor shade | Indoor shade/diffuser |
|----------|--------------|--------------------------|-----------|-------------|---------------|-----------------------|
| kit/liv | VEL-011-01 W | S2 | 1.7 | NE | 100% shade | None |
| kit/liv | VEL-011-01 W | S1 | 2.7 | SW | 100% shade | None |
| entry | VEL-011-01 W | S3a | 1.8 | NE | 100% shade | None |
| entry | VEL-011-01 W | S3b | 1.8 | SW | 100% shade | None |

External wall type

| ID | Wall type | Insulation | Wall wrap or foil |
|--------|-------------------|------------|-------------------|
| EW-001 | Plywood | | No |
| EW-002 | Plywood | | No |
| EW-003 | Plywood | | No |
| EW-004 | Plywood | | No |
| EW-005 | Retaining Plywood | | No |

External wall schedule

| Location | ID | Width (mm) | Height (mm) | Orientation | Fixed Shade | Eaves (mm) |
|----------|----|------------|-------------|-------------|-------------|------------|
|----------|----|------------|-------------|-------------|-------------|------------|

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| | | | | | | |
|----------|--------|-------|------|----|-----|------|
| bed 1 | EW-004 | 6850 | 2700 | SW | Yes | 700 |
| bed 1 | EW-002 | 3000 | 2700 | SE | Yes | 1000 |
| ensuite | EW-002 | 1700 | 2700 | SE | Yes | 1000 |
| study | EW-002 | 2700 | 2700 | SE | Yes | 1000 |
| study | EW-001 | 1350 | 2700 | NE | Yes | 850 |
| bed 3 | EW-001 | 1350 | 2700 | SW | Yes | 850 |
| bed 3 | EW-002 | 3600 | 2700 | SE | Yes | 900 |
| bed 3 | EW-003 | 2850 | 2700 | NE | Yes | 7500 |
| bed 2 | EW-003 | 2900 | 2700 | NE | Yes | 7500 |
| hall | EW-003 | 900 | 2700 | NE | Yes | 7500 |
| hall | EW-003 | 850 | 2700 | SE | Yes | 2700 |
| kit/liv | EW-003 | 5100 | 2800 | SW | Yes | 700 |
| kit/liv | EW-003 | 5000 | 2800 | SE | Yes | |
| kit/liv | EW-003 | 2000 | 2800 | SW | Yes | |
| kit/liv | EW-001 | 7500 | 2800 | SE | Yes | 1000 |
| kit/liv | EW-001 | 4550 | 3950 | NE | No | |
| garage | EW-001 | 5600 | 2400 | SW | No | |
| garage | EW-001 | 5400 | 2400 | SE | No | |
| garage | EW-001 | 5600 | 2400 | NE | No | |
| garage | EW-001 | 3800 | 2400 | NW | Yes | 2000 |
| entry | EW-001 | 2000 | 2800 | SE | No | |
| entry | EW-001 | 1250 | 2800 | NE | Yes | 4200 |
| wc | EW-001 | 650 | 2800 | NE | Yes | 4200 |
| basement | EW-001 | 2500 | 2400 | SW | Yes | 700 |
| basement | EW-005 | 5650 | 1100 | SE | No | |
| basement | EW-005 | 1500 | 1500 | NE | No | |
| subfloor | EW-005 | 12550 | 800 | SE | No | |

Internal wall type

| ID | Wall type | Area (m²) | Insulation | Wall wrap or foil |
|--------|-----------|-----------|------------|-------------------|
| IW-001 | Plywood | 111.9 | | No |
| IW-002 | Plywood | 129.9 | | No |
| IW-003 | Plywood | 13.5 | | No |

Floors

| Location | Construction | Area (m²) | Sub floor ventilation | Added insulation | Covering |
|------------------|-----------------------------------|-----------|-----------------------|------------------|------------------------------|
| bed 1/basement | Carpet on CLT system 450mm + R2.0 | 9.7 | | R2.0 | Carpet 10 + felt underlay 10 |
| bed 1/subfloor | Carpet on CLT system 450mm + R2.0 | 6.4 | | R2.0 | Carpet 10 + felt underlay 10 |
| bed 1/subfloor | Carpet on CLT system 450mm + R2.0 | 7.2 | | R2.0 | Carpet 10 + felt underlay 10 |
| ensuite/basement | Tiles on CLT system 450mm + R2.0 | 0.8 | | R2.0 | Ceramic tile |
| ensuite/subfloor | Tiles on CLT system 450mm + | 7.4 | | R2.0 | Ceramic tile |

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| | | | |
|--------------------------|---|------|------------------------------|
| | R2.0 | | |
| study/subfloor | Timber on CLT system 450mm + 6.3 R2.0 | R2.0 | |
| bed 3/subfloor | Carpet on CLT system 450mm + 10.3 R2.0 | R2.0 | Carpet 10 + felt underlay 10 |
| bed 2/subfloor | Carpet on CLT system 450mm + 10.7 R2.0 | R2.0 | Carpet 10 + felt underlay 10 |
| hall/basement | Timber on CLT system 450mm + 1.0 R2.0 | R2.0 | |
| hall/subfloor | Timber on CLT system 450mm + 10.2 R2.0 | R2.0 | |
| bath/subfloor | Tiles on CLT system 450mm + 4.5 R2.0 | R2.0 | Ceramic tile |
| laundry/subfloor | Tiles on CLT system 450mm + 2.0 R2.0 | R2.0 | Ceramic tile |
| lift lower/lift basement | Concrete Slab 200mm: timber/bare | 2.6 | |
| kit/liv/ensuite | Timber on CLT system 450mm | 5.2 | |
| kit/liv/bed 1 | Timber on CLT system 450mm | 17.7 | |
| kit/liv/laundry | Timber on CLT system 450mm | 2.0 | |
| kit/liv/bath | Timber on CLT system 450mm | 4.5 | |
| kit/liv/study | Timber on CLT system 450mm | 6.3 | |
| kit/liv/hall | Timber on CLT system 450mm | 6.1 | |
| kit/liv/Outdoor Air | Timber on CLT system 450mm | 1.5 | |
| kit/liv/bed 3 | Timber on CLT system 450mm | 10.3 | |
| kit/liv/bed 2 | Timber on CLT system 450mm | 5.3 | |
| garage/Outdoor Air | Concrete Slab 250 mm: bare/bare | 30.2 | |
| entry/bed 2 | Timber on CLT system 450mm | 4.4 | |
| entry/hall | Timber on CLT system 450mm | 4.7 | |
| entry/Outdoor Air | Timber on CLT system 450mm | 5.2 | |
| wc/Outdoor Air | Tiles on CLT system 450mm | 2.1 | Ceramic tile |
| lift upper/lift lower | Concrete Slab 200mm: timber/bare | 2.6 | |
| basement/Ground | Concrete Slab 200mm: timber/bare | 12.3 | |
| lift basement/Ground | Concrete Slab 200mm: timber/bare | 2.6 | |
| subfloor/Ground | Bare ground | 65.0 | Enclosed |

Ceiling type

| Location | Construction | Added insulation | Roof space above |
|-----------------|----------------------------|------------------|------------------|
| kit/liv/bed 1 | Timber on CLT system 450mm | | No |
| kit/liv/ensuite | Timber on CLT system 450mm | | No |
| kit/liv/study | Timber on CLT system 450mm | | No |
| kit/liv/bed 3 | Timber on CLT system 450mm | | No |
| kit/liv/bed 2 | Timber on CLT system 450mm | | No |
| entry/bed 2 | Timber on CLT system 450mm | | No |
| kit/liv/hall | Timber on CLT system 450mm | | No |

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| | | |
|--------------------------|-----------------------------------|---------|
| entry/hall | Timber on CLT system 450mm | No |
| kit/liv/bath | Timber on CLT system 450mm | No |
| kit/liv/laundry | Timber on CLT system 450mm | No |
| lift upper/lift lower | Concrete Slab 200mm: timber/bare | No |
| bed 1/basement | Carpet on CLT system 450mm + R2.0 | R2.0 No |
| ensuite/basement | Tiles on CLT system 450mm + R2.0 | R2.0 No |
| hall/basement | Timber on CLT system 450mm + R2.0 | R2.0 No |
| lift lower/lift basement | Concrete Slab 200mm: timber/bare | No |
| bed 1/subfloor | Carpet on CLT system 450mm + R2.0 | R2.0 No |
| bed 1/subfloor | Carpet on CLT system 450mm + R2.0 | R2.0 No |
| ensuite/subfloor | Tiles on CLT system 450mm + R2.0 | R2.0 No |
| study/subfloor | Timber on CLT system 450mm + R2.0 | R2.0 No |
| bed 3/subfloor | Carpet on CLT system 450mm + R2.0 | R2.0 No |
| bed 2/subfloor | Carpet on CLT system 450mm + R2.0 | R2.0 No |
| hall/subfloor | Timber on CLT system 450mm + R2.0 | R2.0 No |
| bath/subfloor | Tiles on CLT system 450mm + R2.0 | R2.0 No |
| laundry/subfloor | Tiles on CLT system 450mm + R2.0 | R2.0 No |

Ceiling penetrations

| Location | Number | Type | Diameter (mm) | Sealed/unsealed |
|--------------|--------|------|---------------|-----------------|
| None Present | | | | |

Ceiling fans

| Location | Number | Diameter (mm) |
|--------------|--------|---------------|
| None Present | | |

Roof type

| Construction | Added insulation | Roof colour |
|--------------------------|------------------|-------------|
| Raked roof anticon +R4.0 | R5.2 | Medium |
| Timber on CLT system | | Medium |
| Pebbles on CLT system | | Medium |

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Additional information

Explanatory notes

About this report

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

General Information

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

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

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

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

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

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

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

Accredited Assessors

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

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

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

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

Disclaimer

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

Contact

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

For more information on energy efficient design and insulation visit www.yourhome.gov.au