Certificate number: 0004943734 Certificate Date: 21 Jun 2020 ★ Star rating: 5.2



Assessor details

Accreditation

number: **HERA10033**Name: **Tracey Cools**

Organisation: Efficient Liiving Pty Ltd

Email: admin@efficientliving.com.au

Phone: **(02) 9970 6181**

Declaration None

of interest:

Software: BERS Pro v4.4.0.0 (3.21)

AAO: HERA

Overview

Dwelling details

Street: 4B Cambridge Avenue

Suburb: Narraweena

State: NSW Postcode: 2099
Type: New Dwelling NCC Class: 1A

NatHERS climate zone: **56**

Lot/DP

number: 1230126 Exposure: Suburban

Key construction and insulation materials

(see following pages for details)

Construction: Weatherboard Cavity Panel Direct Fix

Corrugated Iron

Suspended Timber Floor

Insulation: R2.7 wall insulation

R3.5 ceiling insulation R3.0 floor insulation

Glazing: ALM-006-04 A Aluminium B DG Argon

Fill Low Solar Gain low-E -Clear

Net floor area (m²)

 Conditioned:
 222.0

 Unconditioned:
 55.0

 Garage:
 31.0

 TOTAL:
 277.0

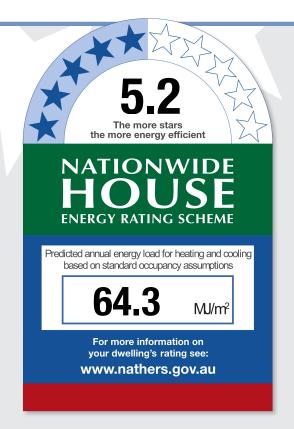
Annual thermal performance loads (MJ/m²)

Heating: 39.8 Cooling: 24.5 TOTAL: 64.3

Plan documents

Plan ref/date: 20-0518

Prepared by: Sally Gardner



Ceiling penetrations

(see following pages for details)

Sealed: **103** Unsealed: **0** TOTAL:** **103**

**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.

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If any of windows selected are outside the 5% tolerance then this certificate is no longer valid and the dwelling will need to be rerated to confirm compliance.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



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Building features

| Window type and | d performance valu | е |
|-----------------|--------------------|---|
|-----------------|--------------------|---|

| Window ID | Window type | U-value | SHGC |
|--------------|---|---------|------|
| ALM-005-04 A | ALM-005-04 A Aluminium A DG Argon Fill Low Solar Gain low-E - Clear | 4.8 | 0.34 |
| ALM-006-04 A | ALM-006-04 A Aluminium B DG Argon Fill Low Solar Gain low-E - Clear | 4.8 | 0.34 |

Window schedule

| Location | Window ID | Window no. | Height (mm) | Width (mm) | Orientation | Outdoor shade |
|----------------|--------------|------------|-------------|------------|-------------|---------------|
| Ens 2 | ALM-005-04 A | n/a | 900 | 600 | N | No Shading |
| Ens 2 | ALM-005-04 A | n/a | 450 | 950 | W | No Shading |
| Guest | ALM-006-04 A | n/a | 2250 | 750 | W | No Shading |
| Foyer/Corridor | ALM-005-04 A | n/a | 2250 | 900 | N | No Shading |
| Foyer/Corridor | ALM-006-04 A | n/a | 2250 | 1150 | N | No Shading |
| Foyer/Corridor | ALM-006-04 A | n/a | 2250 | 1150 | N | No Shading |
| Foyer/Corridor | ALM-006-04 A | n/a | 1800 | 1300 | S | No Shading |
| Foyer/Corridor | ALM-006-04 A | n/a | 1800 | 1300 | S | No Shading |
| Foyer/Corridor | ALM-006-04 A | n/a | 2250 | 3200 | S | No Shading |
| Foyer/Corridor | ALM-006-04 A | n/a | 450 | 2700 | S | No Shading |
| Foyer/Corridor | ALM-006-04 A | n/a | 450 | 2700 | S | No Shading |
| Foyer/Corridor | ALM-005-04 A | n/a | 2250 | 870 | W | No Shading |
| Bedroom 3 | ALM-006-04 A | n/a | 1500 | 1800 | N | No Shading |
| Bedroom 4 | ALM-006-04 A | n/a | 1500 | 1800 | N | No Shading |
| Bathroom | ALM-006-04 A | n/a | 750 | 2100 | N | No Shading |
| Laundry | ALM-005-04 A | n/a | 2700 | 900 | N | No Shading |
| Kitchen/Living | ALM-006-04 A | n/a | 400 | 3000 | N | No Shading |
| Kitchen/Living | ALM-006-04 A | n/a | 2400 | 4069 | Е | No Shading |
| Kitchen/Living | ALM-006-04 A | n/a | 2400 | 3670 | N | No Shading |
| Kitchen/Living | ALM-006-04 A | n/a | 1500 | 3600 | Е | No Shading |
| Kitchen/Living | ALM-005-04 A | n/a | 900 | 600 | S | No Shading |
| Kitchen/Living | ALM-005-04 A | n/a | 900 | 600 | S | No Shading |
| Kitchen/Living | ALM-005-04 A | n/a | 900 | 600 | S | No Shading |
| Ensuite | ALM-006-04 A | n/a | 1500 | 1500 | Е | No Shading |
| Ensuite | ALM-005-04 A | n/a | 1200 | 600 | W | No Shading |
| Master Suite | ALM-006-04 A | n/a | 1700 | 3600 | Е | No Shading |
| Master Suite | ALM-006-04 A | n/a | 1500 | 1200 | Е | No Shading |
| Master Suite | ALM-006-04 A | n/a | 325 | 3600 | Е | No Shading |
| Master Suite | ALM-006-04 A | n/a | 1100 | 600 | S | No Shading |
| Dressing | ALM-006-04 A | n/a | 1200 | 600 | N | No Shading |
| Retreat | ALM-006-04 A | n/a | 600 | 3000 | S | No Shading |
| Retreat | ALM-006-04 A | n/a | 600 | 3000 | N | No Shading |
| Bedroom 2 | ALM-006-04 A | n/a | 1800 | 1800 | W | No Shading |
| Bedroom 2 | ALM-006-04 A | n/a | 600 | 3000 | N | No Shading |
| Powder | ALM-006-04 A | n/a | 1500 | 900 | W | No Shading |
| Void | ALM-006-04 A | n/a | 1200 | 3300 | S | No Shading |
| Void | ALM-006-04 A | n/a | 1800 | 1800 | W | No Shading |

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21 Jun 2020

★ Star rating:



Building features continued

External wall type

| Roof window and skylight type and performance value | | | | | | |
|---|---------------|--------------------------|-----------|-------------|---------------|--------------------------|
| ID | Window | type | | | U-value | SHGC |
| None Present | t | | | | | |
| Roof windo | w and skyligh | t schedule | | | | |
| Location | ID | Roof window/skylight no. | Area (m²) | Orientation | Outdoor shade | Indoor shade/diffuser |
| None Present | t | | | | | |

| ID | Wall type | | Insulation | | Wa | ıll wrap or foi |
|-----------------|-----------------------|---------------------|-----------------|-------------|-------------|-----------------|
| EW-1 | Weatherboard (Fix | Cavity Panel Direct | Bulk Insulation | n R2.7 | No | |
| EW-2 | Weatherboard (Fix | Cavity Panel Direct | No insulation | | No | |
| External wall s | schedule | | | | | |
| Location | ID | Width (mm) | Height (mm) | Orientation | Fixed Shade | Eaves (mm) |
| Ens 2 | EW-1 | 3170 | 2750 | N | No | 615 |
| Ens 2 | EW-1 | 1270 | 2750 | W | No | 1051 |
| Guest | EW-1 | 3214 | 2750 | W | No | 1041 |
| Foyer/Corridor | EW-1 | 4823 | 2750 | N | No | 56 |
| Foyer/Corridor | EW-1 | 10495 | 2750 | S | No | 50 |
| Foyer/Corridor | EW-1 | 12575 | 2750 | S | No | 548 |
| Foyer/Corridor | EW-1 | 1249 | 2750 | W | No | 1008 |
| Garage 1 | EW-2 | 645 | 2750 | W | No | 4225 |
| Garage 1 | EW-2 | 5773 | 2750 | N | No | 35 |
| Garage 1 | EW-2 | 3742 | 2750 | Е | No | 25 |
| Bedroom 3 | EW-1 | 3300 | 2750 | W | No | 0 |
| Bedroom 3 | EW-1 | 3145 | 2750 | N | No | 0 |
| Bedroom 4 | EW-1 | 3240 | 2750 | N | No | 0 |
| Bathroom | EW-1 | 2340 | 2750 | N | No | 0 |
| Laundry | EW-1 | 2745 | 2750 | W | No | 50 |
| Laundry | EW-1 | 1695 | 2750 | N | No | 50 |
| Kitchen/Living | EW-1 | 4145 | 2750 | N | No | 50 |
| Kitchen/Living | EW-1 | 4950 | 2750 | Е | No | 4500 |
| Kitchen/Living | EW-1 | 3900 | 2750 | N | No | 5000 |
| Kitchen/Living | EW-1 | 4150 | 2750 | Е | No | 600 |
| Kitchen/Living | EW-1 | 7995 | 2750 | S | No | 50 |
| Ensuite | EW-1 | 1845 | 2440 | Е | No | 600 |
| Ensuite | EW-1 | 650 | 2440 | W | No | 11100 |
| Ensuite | EW-1 | 4150 | 2440 | N | No | 700 |
| Master Suite | EW-1 | 5145 | 3500 | Е | No | 600 |
| Master Suite | EW-1 | 5895 | 2440 | S | No | 600 |
| Dressing | EW-1 | 1740 | 2440 | N | No | 600 |
| Retreat | EW-1 | 3090 | 2440 | S | No | 600 |
| Retreat | EW-1 | 4290 | 2440 | N | No | 600 |

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| Building features continued | | | | | | |
|-----------------------------|------|------|------|---|----|-----|
| Bedroom 2 | EW-1 | 2545 | 2700 | W | No | 650 |
| Bedroom 2 | EW-1 | 4395 | 2440 | N | No | 600 |
| Powder | EW-1 | 1540 | 3700 | W | No | 650 |
| Void | EW-1 | 5595 | 2440 | S | No | 600 |
| Void | EW-1 | 2245 | 2700 | W | No | 650 |

| Internal wall type | | | |
|---|-----------|--------------------------------|-------------------|
| Wall type | Area (m²) | Insulation | Wall wrap or foil |
| IW-1 - Cavity wall, direct fix plasterboard, single gap | 45.0 | Bulk Insulation, No Air Gap R2 | No |
| IW-2 - Cavity wall, direct fix plasterboard, single gap | 190.0 | No insulation | No |

| Floors | | | | | |
|--------------------------------|-----------------------------------|-----------|-----------------------|--|--------------------------------|
| Location | Construction | Area (m²) | Sub floor ventilation | Added insulation | Covering |
| Ens 2 | Suspended Concrete Slab 150mm | 3.9 | Totally Open | Bulk Insulation in Contact with Floor R3 | |
| Guest | Suspended Concrete Slab 150mm | 9.8 | Totally Open | Bulk Insulation in Contact with Floor R3 | Cork Tiles or Parquetry 8mm |
| Foyer/Corridor | Suspended Concrete Slab 150mm | 46.7 | Enclosed | Bulk Insulation in Contact with Floor R3 | Cork Tiles or Parquetry 8mm |
| Garage 1 | Suspended Concrete Slab 150mm | 31.0 | Open | No Insulation | Bare |
| Bedroom 3 | Suspended Timber Floor 19mm | 12.4 | Enclosed | Bulk Insulation in Contact with Floor R3 | Cork Tiles or Parquetry 8mm |
| Bedroom 4 | Suspended Timber Floor 19mm | 12.7 | Enclosed | Bulk Insulation in Contact with Floor R3 | Cork Tiles or Parquetry 8mm |
| Bathroom | Suspended Timber Floor 19mm | 9.7 | Enclosed | Bulk Insulation in Contact with Floor R3 | |
| Pantry | Suspended Timber Floor 19mm | 4.5 | Enclosed | Bulk Insulation in Contact with Floor R3 | Cork Tiles or Parquetry 8mm |
| Laundry | Suspended Timber Floor 19mm | 4.5 | Enclosed | Bulk Insulation in Contact with Floor R3 | |
| Kitchen/Living | Suspended Timber Floor 19mm | 52.7 | Enclosed | Bulk Insulation in Contact with Floor R3 | Cork Tiles or Parquetry 8mm |
| Ensuite/Kitchen/Liv ing | Timber Above Plasterboard 19mm | 7.4 | | No Insulation | Ceramic Tiles 8mm |
| Master Suite/Foyer/Corridor | Timber Above Plasterboard 19mm | 2.7 | | No Insulation | Carpet+Rubber Underlay 18mm |
| Master Suite/Pantry | Timber Above Plasterboard 19mm | 0.6 | | No Insulation | Carpet+Rubber Underlay 18mm |

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5.2

Building features continued Timber Above Plasterboard 20.2 Master No Insulation Carpet+Rubber Suite/Kitchen/Living 19mm Underlay 18mm Timber Above Plasterboard Carpet+Rubber Dressing/Foyer/Co 3.0 No Insulation rridor 19mm Underlay 18mm Dressing/Bathroom Timber Above Plasterboard 0.8 No Insulation Carpet+Rubber 19mm Underlay 18mm Timber Above Plasterboard Carpet+Rubber Dressing/Pantry 4.1 No Insulation 19mm Underlay 18mm Retreat/Foyer/Corri Timber Above Plasterboard 8.2 No Insulation Carpet+Rubber 19mm Underlay 18mm **Timber Above Plasterboard** 7.9 No Insulation Carpet+Rubber Retreat/Bedroom 4 Underlay 18mm 19mm **Timber Above Plasterboard** 9.1 Carpet+Rubber Retreat/Bathroom No Insulation 19mm Underlay 18mm Bedroom Timber Above Plasterboard 7.8 No Insulation Carpet+Rubber Underlay 18mm 2/Bedroom 3 19mm Carpet+Rubber Timber Above Plasterboard **Bedroom** 3.1 No Insulation 2/Bedroom 4 19mm Underlay 18mm Powder/Bedroom 3 Timber Above Plasterboard 2.8 No Insulation **Ceramic Tiles** 19mm 8mm Corridor/Foyer/Cor Timber Above Plasterboard Carpet+Rubber 1.1 No Insulation Underlay 18mm 19mm ridor Corridor/Bedroom 3 Timber Above Plasterboard Carpet+Rubber 1.6 No Insulation Underlay 18mm 19mm Corridor/Bedroom 4 Timber Above Plasterboard 1.7 No Insulation Carpet+Rubber 19mm Underlay 18mm Void/Foyer/Corridor Timber Above Plasterboard 9.9 No Insulation Carpet+Rubber Underlay 18mm 19mm

| Location | Construction | Added insulation | Roof space above |
|----------------|---------------------------|-------------------------|------------------|
| Ens 2 | Plasterboard | Bulk Insulation R3.5 | Yes |
| Guest | Plasterboard | Bulk Insulation R3.5 | Yes |
| Foyer/Corridor | Plasterboard | Bulk Insulation R3.5 | Yes |
| Foyer/Corridor | Timber Above Plasterboard | No Insulation | No |
| Garage 1 | Plasterboard | No insulation | Yes |
| Bedroom 3 | Timber Above Plasterboard | No Insulation | No |
| Bedroom 4 | Timber Above Plasterboard | No Insulation | No |
| Bathroom | Timber Above Plasterboard | No Insulation | No |
| Pantry | Timber Above Plasterboard | No Insulation | No |
| Laundry | Plasterboard | Bulk Insulation R3.5 | Yes |
| Kitchen/Living | Plasterboard | Bulk Insulation R3.5 | Yes |
| Kitchen/Living | Timber Above Plasterboard | No Insulation | No |
| Ensuite | Plasterboard | Bulk Insulation R3.5 | No |
| Master Suite | Plasterboard | Bulk Insulation R3.5 | No |

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Building features continued

| Dressing | Plasterboard | Bulk Insulation No R3.5 |
|-----------|--------------|----------------------------|
| Retreat | Plasterboard | Bulk Insulation No R3.5 |
| Bedroom 2 | Plasterboard | Bulk Insulation No R3.5 |
| Powder | Plasterboard | Bulk Insulation No R3.5 |
| Corridor | Plasterboard | Bulk Insulation No R3.5 |
| Void | Plasterboard | Bulk Insulation No R3.5 |

| Location | Number | Туре | Diameter (mm) | Sealed/unsealed |
|----------------|--------|------------------|---------------|-----------------|
| Ens 2 | 1 | Downlights - LED | 150 | Sealed |
| Ens 2 | 1 | Exhaust Fans | 300 | Sealed |
| Guest | 4 | Downlights - LED | 150 | Sealed |
| Foyer/Corridor | 19 | Downlights - LED | 150 | Sealed |
| Bedroom 3 | 5 | Downlights - LED | 150 | Sealed |
| Bedroom 4 | 5 | Downlights - LED | 150 | Sealed |
| Bathroom | 4 | Downlights - LED | 150 | Sealed |
| Bathroom | 1 | Exhaust Fans | 300 | Sealed |
| Pantry | 2 | Downlights - LED | 150 | Sealed |
| Laundry | 1 | Downlights - LED | 150 | Sealed |
| Laundry | 1 | Exhaust Fans | 300 | Sealed |
| Kitchen/Living | 21 | Downlights - LED | 150 | Sealed |
| Kitchen/Living | 1 | Exhaust Fans | 300 | Sealed |
| Ensuite | 3 | Downlights - LED | 150 | Sealed |
| Ensuite | 1 | Exhaust Fans | 300 | Sealed |
| Master Suite | 9 | Downlights - LED | 150 | Sealed |
| Master Suite | 1 | Exhaust Fans | 300 | Sealed |
| Dressing | 3 | Downlights - LED | 150 | Sealed |
| Retreat | 10 | Downlights - LED | 150 | Sealed |
| Bedroom 2 | 4 | Downlights - LED | 150 | Sealed |
| Powder | 1 | Downlights - LED | 150 | Sealed |
| Corridor | 1 | Downlights - LED | 150 | Sealed |
| Void | 4 | Downlights - LED | 150 | Sealed |

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| OCI | ши | ıaııə |
| | | |

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

Roof type

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Building features continued

| colour | Added insulation | Construction |
|--------|---|-----------------|
| | Foil, No Gap, Reflective Side Down, Anti-glar Up | Corrugated Iron |
| | | |



| Additional information | | | | | |
|------------------------|--|--|--|--|--|
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
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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

^{*} Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au