Certificate number: 0003344546 Certificate Date: 13 Nov 2018 ★ Star rating: 6.7



then this certificate is not valid

#### Assessor details

Accreditation

number: 20039

Name: **David Howard** 

Organisation: Partners Energy Management david@partnersenergy.com.au Email:

Phone: 0421381005

Declaration The Assessor has provided design

of interest: advice to the Applicant BERS Pro v4.3.0.2c (3.13) Software:

**ABSA** AAO:

#### Overview

#### **Dwelling details**

Street: Unit TH01, 25-27 Warriewood rd

Suburb: Warriewood

Postcode: State: 2102 **NSW** NCC Class: **New Dwelling 1A** Type:

**NatHERS** 

climate zone: 56 Lot/DP

number: **5464** Exposure: Suburban

#### **Key construction and insulation materials**

(see following pages for details)

Construction: Fibro Cavity Panel Direct Fix

**Corrugated Iron** 

**Concrete Slab on Ground** 

Insulation: **R2.5** wall insulation

> R3.5 ceiling insulation No floor insulation

ATB-006-03 B AI Thermally Broken B Glazing:

DG Argon Fill High Solar Gain low-E

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

Conditioned: 232.0 Unconditioned: 41.0 Garage: 41.0 TOTAL:

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

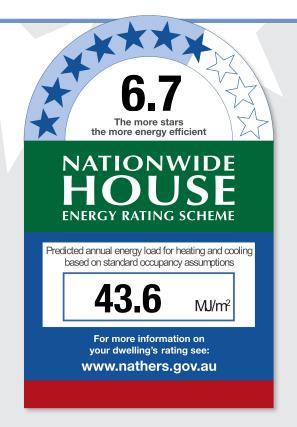
Heating: 17.8 Cooling: 25.7 TOTAL: 43.6

#### Plan documents

**Warriewood Residential Development** Plan ref/date:

273.0

Prepared by: **VIA Architects** 



#### Ceiling penetrations

(see following pages for details)

Sealed: Unsealed: 0

TOTAL:\*\*

\*\*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: Unknown

0

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If any of windows selected are outside the 5% tolerance then this certificate is no longer valid and the dwelling will need to be rerated to confirm compliance.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



Certificate number: 0003344546 Certificate Date: 13 Nov 2018 ★ Star rating:



## **Building features**

| window type and performance value |  |         |      |  |  |  |
|-----------------------------------|--|---------|------|--|--|--|
| Window ID                         | Window type  | U-value | SHGC |  |  |  |
| ATR-006-03 B                      | ATB-006-03 B Al Thermally Broken B DG Argon Fill High Solar Gain | 29      | 0.51 |  |  |  |

low-E -Clear

#### Window schedule

| Location       | Window ID    | Window no. | Height (mm) | Width (mm) | Orientation | Outdoor shade                          |
|----------------|--------------|------------|-------------|------------|-------------|--|
| Studio         | ATB-006-03 B | n/a        | 2700        | 3500       | NE          | No Shading                             |
| Studio         | ATB-006-03 B | n/a        | 2550        | 1000       | SW          | No Shading                             |
| Studio         | ATB-006-03 B | n/a        | 2550        | 1000       | NW          | No Shading                             |
| L2 Living      | ATB-006-03 B | n/a        | 2550        | 3636       | SW          | No Shading                             |
| L2 Living      | ATB-006-03 B | n/a        | 1400        | 900        | NW          | No Shading                             |
| Study          | ATB-006-03 B | n/a        | 2550        | 900        | NW          | No Shading                             |
| Kitchen/Living | ATB-006-03 B | n/a        | 2400        | 3178       | SW          | No Shading                             |
| Kitchen/Living | ATB-006-03 B | n/a        | 2700        | 2722       | NW          | No Shading                             |
| Kitchen/Living | ATB-006-03 B | n/a        | 2700        | 1000       | NW          | No Shading                             |
| Kitchen/Living | ATB-006-03 B | n/a        | 2700        | 3200       | NE          | Vertical Louvres,<br>Horizontal Blades |
| Ens 1          | ATB-006-03 B | n/a        | 2400        | 600        | SW          | No Shading                             |
| Bedroom 1      | ATB-006-03 B | n/a        | 2400        | 3178       | SW          | No Shading                             |
| Bedroom 1      | ATB-006-03 B | n/a        | 2550        | 1000       | NW          | No Shading                             |
| Bedroom 2      | ATB-006-03 B | n/a        | 2550        | 1000       | NW          | No Shading                             |
| Bedroom 3      | ATB-006-03 B | n/a        | 2550        | 2722       | NW          | No Shading                             |
| Bedroom 3      | ATB-006-03 B | n/a        | 2550        | 1875       | NE          | No Shading                             |

| ID           | Window type      |                      |           |             | U-value       | SHGC                     |
|--------------|------------------|----------------------|-----------|-------------|---------------|--------------------------|
| None Present |                  |                      |           |             |               |                          |
| Roof window  | and skylight sch | edule                |           |             |               |                          |
| Location     | ID               | Roof window/skylight | Area (m²) | Orientation | Outdoor shade | Indoor<br>shade/diffuser |

| ID   | Wall type                     | Insulation                                  | Wall wrap or foil |
|------|-------------------------------|---|-------------------|
| EW-1 | Fibro Cavity Panel Direct Fix | Anti-glare foil with bulk no gap R2.5       | Yes               |
| EW-2 | Concrete block, lined         | Anti-glare foil with bulk no gap R1.5       | Yes               |
| EW-3 | Fibro Cavity Panel Direct Fix | Foil, Anti-glare one side, Reflective other | Yes               |

| Location  | ID   | Width (mm) | Height (mm) | Orientation | Fixed Shade | Eaves<br>(mm) |
|-----------|------|------------|-------------|-------------|-------------|---------------|
| Studio    | EW-1 | 5900       | 2700        | NE          | No          | 4400          |
| Studio    | EW-1 | 5900       | 2700        | SW          | No          | 0             |
| Studio    | EW-1 | 5000       | 2700        | NW          | No          | 0             |
| L2 Living | EW-1 | 1800       | 2550        | SW          | No          | 1800          |

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Certificate number: 0003344546 Certificate Date: 13 Nov 2018 ★ Star rating: 6.7



#### **Building features continued** L2 Living EW-1 1800 2550 SE No 4400 L2 Living EW-1 3700 2550 SW No 10600 EW-1 7295 2550 NW L2 Living No 0 EW-2 2795 NE No 0 Ldry 2550 L2 Bath EW-2 2395 2550 NW No 0 L2 Bath EW-2 NE No 0 2695 2550 EW-1 4890 NW 0 Study 2550 No 0 Garage 1 EW-3 5900 3000 SW No Garage 1 EW-3 7300 3000 NW No 0 Garage 1 **EW-3** 4300 2550 NE No 2100 Garage 1 EW-3 1100 2550 SE No 4200 Garage 1 EW-3 1600 2550 NE No 3200 WC EW-1 1595 2700 SW No 600 Kitchen/Living **EW-1** 3895 2700 SW No 600 No Kitchen/Living EW-1 NW 0 12800 2700 No 0 Kitchen/Living EW-1 5500 2700 NE SW No 1300 Ens 1 EW-1 1595 2550 Bedroom 1 SW No 1300 EW-1 3895 2550 Bedroom 1 EW-1 5395 2550 NW No 0 Bedroom 2 0 EW-1 4190 2550 NW No Bedroom 3 NW No 900 EW-1 3795 2550 Bedroom 3 **EW-1** 3295 2550 NE No 2000 L4 Bath EW-1 2195 2550 NE No 2000

| Internal wall type                                      |           |               |                   |  |  |
|---|-----------|---------------|-------------------|--|--|
| Wall type   | Area (m²) | Insulation    | Wall wrap or foil |  |  |
| IW-1 - Brick, plasterboard                              | 133.0     | No Insulation | No                |  |  |
| IW-2 - Cavity wall, direct fix plasterboard, single gap | 145.0     | No insulation | No                |  |  |

| Floors          |                                  |           |                       |                       |                      |
|-----------------|----------------------------------|-----------|-----------------------|-----------------------|----------------------|
| Location        | Construction                     | Area (m²) | Sub floor ventilation | Added insulation      | Covering             |
| Studio/Garage 1 | Timber Above Plasterboard 100mm  | 29.5      |                       | Bulk Insulation<br>R3 | Carpet 10mm          |
| Lift L2 Main    | Concrete Slab on Ground<br>100mm | 2.2       | None                  | No Insulation         | Ceramic Tiles<br>8mm |
| L2 Living       | Concrete Slab on Ground<br>100mm | 47.6      | None                  | No Insulation         | Ceramic Tiles<br>8mm |
| Ldry            | Concrete Slab on Ground<br>100mm | 3.5       | None                  | No Insulation         | Ceramic Tiles<br>8mm |
| L2 Bath         | Concrete Slab on Ground<br>100mm | 6.3       | None                  | No Insulation         | Ceramic Tiles<br>8mm |
| Study           | Concrete Slab on Ground<br>100mm | 15.7      | None                  | No Insulation         | Ceramic Tiles<br>8mm |
| Garage 1        | Concrete Slab on Ground<br>100mm | 41.3      | None                  | No Insulation         | Bare                 |

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

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| L3 Lift/Lift L2 Main         | Timber Above Plasterboard<br>100mm | 2.2  |              | No Insulation                               | Bare                 |
|------------------------------|------------------------------------|------|--------------|---|----------------------|
| WC/L2 Living                 | Timber Above Plasterboard<br>100mm | 3.3  |              | No Insulation                               | Ceramic Tiles<br>8mm |
| Kitchen/Living /L2<br>Living | Timber Above Plasterboard<br>100mm | 38.0 |              | No Insulation                               | Carpet 10mm          |
| Kitchen/Living<br>/Ldry      | Timber Above Plasterboard<br>100mm | 3.6  |              | No Insulation                               | Carpet 10mm          |
| Kitchen/Living /L2<br>Bath   | Timber Above Plasterboard<br>100mm | 6.5  |              | No Insulation                               | Carpet 10mm          |
| Kitchen/Living<br>/Study     | Timber Above Plasterboard<br>100mm | 16.1 |              | No Insulation                               | Carpet 10mm          |
| Ens 1/WC                     | Timber Above Plasterboard<br>19mm  | 3.4  |              | No Insulation                               | Carpet 10mm          |
| Ens 1                        | Suspended Timber Floor 19mm        | 0.9  | Totally Open | Bulk<br>Insulation,<br>Gap to Floor<br>R2.5 | Bare                 |
| L4 Lift/L3 Lift              | Timber Above Plasterboard<br>100mm | 2.2  |              | No Insulation                               | Bare                 |
| Bedroom<br>1/Kitchen/Living  | Timber Above Plasterboard<br>100mm | 17.1 |              | No Insulation                               | Carpet 10mm          |
| Bedroom 1                    | Suspended Timber Floor 100mm       | 2.3  | Totally Open | Bulk<br>Insulation,<br>Gap to Floor<br>R2.5 | Carpet 10mm          |
| Bedroom<br>2/Kitchen/Living  | Timber Above Plasterboard<br>100mm | 12.6 |              | No Insulation                               | Carpet 10mm          |
| Bedroom<br>3/Kitchen/Living  | Timber Above Plasterboard<br>100mm | 12.2 |              | No Insulation                               | Carpet 10mm          |
| L4<br>Bath/Kitchen/Living    | Timber Above Plasterboard<br>100mm | 5.5  |              | No Insulation                               | Ceramic Tiles<br>8mm |
| Upstairs/Kitchen/Li ving     | Timber Above Plasterboard<br>19mm  | 15.2 |              | No Insulation                               | Carpet 10mm          |

| Ceiling type |                           |                         |                  |
|--------------|---------------------------|-------------------------|------------------|
| Location     | Construction              | Added insulation        | Roof space above |
| Studio       | Plasterboard              | Bulk Insulation<br>R3.5 | Yes              |
| Lift L2 Main | Plasterboard              | Bulk Insulation<br>R3   | No               |
| Lift L2 Main | Timber Above Plasterboard | No Insulation           | No               |
| L2 Living    | Plasterboard              | Bulk Insulation<br>R3.5 | No               |
| L2 Living    | Timber Above Plasterboard | No Insulation           | No               |
| Ldry         | Plasterboard              | Bulk Insulation<br>R3   | No               |
| Ldry         | Timber Above Plasterboard | No Insulation           | No               |
| L2 Bath      | Plasterboard              | Bulk Insulation<br>R3   | No               |
| L2 Bath      | Timber Above Plasterboard | No Insulation           | No               |
| Study        | Plasterboard              | Bulk Insulation         | No               |

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Certificate number: 0003344546 Certificate Date:

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|                |                           | R3                      |     |
|----------------|---------------------------|-------------------------|-----|
| Study          | Timber Above Plasterboard | No Insulation           | No  |
| Garage 1       | Plasterboard              | No insulation           | No  |
| Garage 1       | Timber Above Plasterboard | Bulk Insulation<br>R3   | No  |
| L3 Lift        | Timber Above Plasterboard | No Insulation           | No  |
| WC             | Timber Above Plasterboard | No Insulation           | No  |
| Kitchen/Living | Timber Above Plasterboard | No Insulation           | No  |
| Ens 1          | Plasterboard              | Bulk Insulation<br>R3.5 | Yes |
| L4 Lift        | Plasterboard              | Bulk Insulation<br>R3   | Yes |
| Bedroom 1      | Plasterboard              | Bulk Insulation<br>R3.5 | Yes |
| Bedroom 2      | Plasterboard              | Bulk Insulation<br>R3.5 | Yes |
| Bedroom 3      | Plasterboard              | Bulk Insulation<br>R3.5 | Yes |
| L4 Bath        | Plasterboard              | Bulk Insulation<br>R3.5 | Yes |
| Upstairs       | Plasterboard              | Bulk Insulation<br>R3   | Yes |

| Ceiling p | penetrations |
|-----------|--------------|
|-----------|--------------|

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

|  | fans |
|--|------|
|  |      |
|  |      |
|  |      |

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

| Roof type              |  |
|------------------------|--|
| Construction           | Added Roof colou insulation                                  |
| Corrugated Iron        | Bulk, Reflective Medium<br>Side Down, Anti-<br>glare Up R1.3 |
| Waterproofing Membrane | No Insulation, Medium<br>Only an Air Gap                     |



#### Additional information

If carpet noted as floor covering it may be replaced with any type.

Due to non current Window Library the glazing descriptions may not match actual products. Only the U and SHGC values should be considered NOT the glazing descriptions.

## **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**

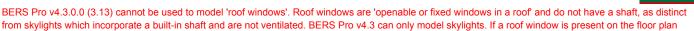
The energy values quoted are for comparison purposes only; they are not a prediction of actual energy use. This rating only applies to the floor plan, construction details, orientation and climate as submitted and included in the attached drawing set that bears a stamp with the same number as this certificate.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

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Certificate number: 0003344587 Certificate Date: 13 Nov 2018 ★ Star rating: 6.2



then this certificate is not valid

#### Assessor details

Accreditation

number: **20039** 

Name: **David Howard** 

Organisation: Partners Energy Management
Email: david@partnersenergy.com.au

Phone: **0421381005** 

Declaration The Assessor has provided design

of interest: advice to the Applicant BERS Pro v4.3.0.2c (3.13)

AAO: ABSA

#### Overview

Lot/DP

#### **Dwelling details**

Street: Unit TH02, 25-27 Warriewood rd

Suburb: Warriewood

State: NSW Postcode: 2102
Type: New Dwelling NCC Class: 1A

NatHERS climate zone: **56** 

number: **5464** Exposure: **Suburban** 

Key construction and insulation materials

(see following pages for details)

Construction: Fibro Cavity Panel Direct Fix

**Corrugated Iron** 

**Concrete Slab on Ground** 

Insulation: R2.5 wall insulation

R3.5 ceiling insulation
No floor insulation

Glazing: ATB-006-03 B AI Thermally Broken B

DG Argon Fill High Solar Gain low-E

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

Conditioned: 232.0
Unconditioned: 41.0
Garage: 41.0
TOTAL: 273.0

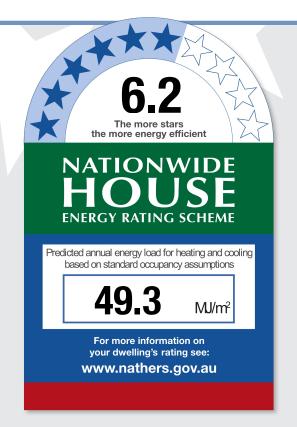
# Annual thermal performance loads (MJ/m²)

Heating: 29.5
Cooling: 19.8
TOTAL: 49.3

#### Plan documents

Plan ref/date: Warriewood Residential Development

Prepared by: VIA 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 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: Unknown

## 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.



Certificate number: 0003344587 Certificate Date: 13 Nov 2018 ★ Star rating: 6.



## **Building features**

| window type  | and performance value   |         |      |
|--------------|---|---------|------|
| Window ID    | Window type   | U-value | SHGC |
| ATB-006-03 B | ATB-006-03 B Al Thermally Broken B DG Argon Fill High Solar Gain low-E -Clear | 2.9     | 0.51 |

#### Window schedule

| Location       | Window ID    | Window no. | Height (mm) | Width (mm) | Orientation | Outdoor shade                          |
|----------------|--------------|------------|-------------|------------|-------------|--|
| Studio         | ATB-006-03 B | n/a        | 2550        | 1000       | SE          | No Shading                             |
| Studio         | ATB-006-03 B | n/a        | 2550        | 1000       | SW          | No Shading                             |
| Studio         | ATB-006-03 B | n/a        | 2700        | 3500       | NE          | No Shading                             |
| L2 Living      | ATB-006-03 B | n/a        | 1400        | 900        | SE          | No Shading                             |
| L2 Living      | ATB-006-03 B | n/a        | 2550        | 3636       | SW          | No Shading                             |
| Study          | ATB-006-03 B | n/a        | 2550        | 900        | SE          | No Shading                             |
| Kitchen/Living | ATB-006-03 B | n/a        | 2700        | 3200       | NE          | Vertical Louvres,<br>Horizontal Blades |
| Kitchen/Living | ATB-006-03 B | n/a        | 2700        | 2722       | SE          | No Shading                             |
| Kitchen/Living | ATB-006-03 B | n/a        | 2700        | 1000       | SE          | No Shading                             |
| Kitchen/Living | ATB-006-03 B | n/a        | 2400        | 3178       | SW          | No Shading                             |
| Ens 1          | ATB-006-03 B | n/a        | 2400        | 600        | SW          | No Shading                             |
| Bedroom 1      | ATB-006-03 B | n/a        | 2550        | 1000       | SE          | No Shading                             |
| Bedroom 1      | ATB-006-03 B | n/a        | 2400        | 3178       | SW          | No Shading                             |
| Bedroom 2      | ATB-006-03 B | n/a        | 2550        | 1000       | SE          | No Shading                             |
| Bedroom 3      | ATB-006-03 B | n/a        | 2550        | 1875       | NE          | No Shading                             |
| Bedroom 3      | ATB-006-03 B | n/a        | 2550        | 2722       | SE          | No Shading                             |

| Window type      |                      |                                |  | U-value  | SHGC   |
|------------------|----------------------|--------------------------------|--|--|--|
|                  |                      |                                |  |  |  |
| and skylight sch | edule                |                                |  |  |  |
| ID               | Roof window/skylight | Area (m²)                      | Orientation                              | Outdoor shade  | Indoor shade/diffuser  |
|                  | and skylight sch     | and skylight schedule  ID Roof | and skylight schedule  ID Roof Area (m²) | and skylight schedule  ID Roof Area (m²) Orientation | and skylight schedule  ID Roof Area (m²) Orientation Outdoor shade |

| ID                      | Wall type      |                 | Insulation       |                   |             | Wall wrap or fo |
|-------------------------|----------------|-----------------|------------------|-------------------|-------------|-----------------|
| EW-1                    | Fibro Cavity F | anel Direct Fix | Anti-glare foil  | with bulk no gap  | R2.5        | Yes             |
| EW-2                    | Concrete bloc  | k, lined        | Anti-glare foil  | with bulk no gap  | R1.5        | Yes             |
| EW-3                    | Fibro Cavity F | anel Direct Fix | Foil, Anti-glare | e one side, Refle | ctive other | Yes             |
| External wa<br>Location | III schedule   | Width (mm)      | Height (mm)      | Orientation       | Fixed Shade | e Eaves (mm)    |
| Studio                  | EW-1           | 5000            | 2700             | SE                | No          | 0               |
| Studio                  | EW-1           | 5900            | 2700             | SW                | No          | 0               |
| Studio                  | EW-1           | 5900            | 2700             | NE                | No          | 4400            |
| Studio                  |                |                 |                  |                   |             |                 |

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Certificate number: 0003344587 Certificate Date: 13 Nov 2018 ★ Star rating: 6.2



| <b>Building featu</b> | res continue | ed    |      |    |    |       |
|-----------------------|--------------|-------|------|----|----|-------|
| L2 Living             | EW-1         | 3700  | 2550 | SW | No | 10600 |
| L2 Living             | EW-1         | 1800  | 2550 | NW | No | 4400  |
| L2 Living             | EW-1         | 1800  | 2550 | SW | No | 1800  |
| Ldry                  | EW-2         | 2795  | 2550 | NE | No | 0     |
| L2 Bath               | EW-2         | 2695  | 2550 | NE | No | 0     |
| L2 Bath               | EW-2         | 2395  | 2550 | SE | No | 0     |
| Study                 | EW-1         | 4890  | 2550 | SE | No | 0     |
| Garage 1              | EW-3         | 1600  | 2550 | NE | No | 3200  |
| Garage 1              | EW-3         | 1100  | 2550 | NW | No | 4200  |
| Garage 1              | EW-3         | 4300  | 2550 | NE | No | 2100  |
| Garage 1              | EW-3         | 7300  | 3000 | SE | No | 0     |
| Garage 1              | EW-3         | 5900  | 3000 | SW | No | 0     |
| WC                    | EW-1         | 1595  | 2700 | SW | No | 600   |
| Kitchen/Living        | EW-1         | 5500  | 2700 | NE | No | 0     |
| Kitchen/Living        | EW-1         | 12800 | 2700 | SE | No | 0     |
| Kitchen/Living        | EW-1         | 3895  | 2700 | SW | No | 600   |
| Ens 1                 | EW-1         | 1595  | 2550 | SW | No | 1300  |
| Bedroom 1             | EW-1         | 5395  | 2550 | SE | No | 0     |
| Bedroom 1             | EW-1         | 3895  | 2550 | SW | No | 1300  |
| Bedroom 2             | EW-1         | 4190  | 2550 | SE | No | 0     |
| Bedroom 3             | EW-1         | 3295  | 2550 | NE | No | 2000  |
| Bedroom 3             | EW-1         | 3795  | 2550 | SE | No | 900   |
| L4 Bath               | EW-1         | 2195  | 2550 | NE | No | 2000  |

| Internal wall type                                      |           |               |                   |
|---|-----------|---------------|-------------------|
| Wall type   | Area (m²) | Insulation    | Wall wrap or foil |
| IW-1 - Brick, plasterboard                              | 133.0     | No Insulation | No                |
| IW-2 - Cavity wall, direct fix plasterboard, single gap | 145.0     | No insulation | No                |

| Floors          |                                    |           |                       |                       |             |
|-----------------|------------------------------------|-----------|-----------------------|-----------------------|-------------|
| Location        | Construction                       | Area (m²) | Sub floor ventilation | Added insulation      | Covering    |
| Studio/Garage 1 | Timber Above Plasterboard<br>100mm | 29.5      |                       | Bulk Insulation<br>R3 | Carpet 10mm |
| Lift L2 Main    | Concrete Slab on Ground<br>100mm   | 2.2       | None                  | No Insulation         | Carpet 10mm |
| L2 Living       | Concrete Slab on Ground<br>100mm   | 47.6      | None                  | No Insulation         | Carpet 10mm |
| Ldry            | Concrete Slab on Ground<br>100mm   | 3.5       | None                  | No Insulation         | Carpet 10mm |
| L2 Bath         | Concrete Slab on Ground<br>100mm   | 6.3       | None                  | No Insulation         | Carpet 10mm |
| Study           | Concrete Slab on Ground<br>100mm   | 15.7      | None                  | No Insulation         | Carpet 10mm |
| Garage 1        | Concrete Slab on Ground<br>100mm   | 41.3      | None                  | No Insulation         | Bare        |

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Certificate number: 0003344587 Certificate Date: 13 Nov 2018 ★ Star rating:



| L3 Lift/Lift L2 Main         | Timber Above Plasterboard<br>100mm | 2.2  |              | No Insulation                               | Bare        |
|------------------------------|------------------------------------|------|--------------|---|-------------|
| WC/L2 Living                 | Timber Above Plasterboard<br>100mm | 3.3  |              | No Insulation                               | Carpet 10mm |
| Kitchen/Living /L2<br>Living | Timber Above Plasterboard<br>100mm | 38.0 |              | No Insulation                               | Carpet 10mm |
| Kitchen/Living<br>/Ldry      | Timber Above Plasterboard<br>100mm | 3.6  |              | No Insulation                               | Carpet 10mm |
| Kitchen/Living /L2<br>Bath   | Timber Above Plasterboard<br>100mm | 6.5  |              | No Insulation                               | Carpet 10mm |
| Kitchen/Living<br>/Study     | Timber Above Plasterboard 100mm    | 16.1 |              | No Insulation                               | Carpet 10mm |
| Ens 1/WC                     | Timber Above Plasterboard 19mm     | 3.4  |              | No Insulation                               | Carpet 10mm |
| Ens 1                        | Suspended Timber Floor 19mm        | 0.9  | Totally Open | Bulk<br>Insulation,<br>Gap to Floor<br>R2.5 | Carpet 10mm |
| L4 Lift/L3 Lift              | Timber Above Plasterboard<br>100mm | 2.2  |              | No Insulation                               | Bare        |
| Bedroom<br>1/Kitchen/Living  | Timber Above Plasterboard 100mm    | 17.1 |              | No Insulation                               | Carpet 10mm |
| Bedroom 1                    | Suspended Timber Floor 100mm       | 2.3  | Totally Open | Bulk<br>Insulation,<br>Gap to Floor<br>R2.5 | Carpet 10mm |
| Bedroom<br>2/Kitchen/Living  | Timber Above Plasterboard 100mm    | 12.6 |              | No Insulation                               | Carpet 10mm |
| Bedroom<br>3/Kitchen/Living  | Timber Above Plasterboard<br>100mm | 12.2 |              | No Insulation                               | Carpet 10mm |
| L4<br>Bath/Kitchen/Living    | Timber Above Plasterboard<br>100mm | 5.5  |              | No Insulation                               | Carpet 10mm |
| Upstairs/Kitchen/Li ving     | Timber Above Plasterboard<br>19mm  | 15.1 |              | No Insulation                               | Carpet 10mm |

|--|

| Location     | Construction              | Added insulation        | Roof space above |
|--------------|---------------------------|-------------------------|------------------|
| Studio       | Plasterboard              | Bulk Insulation<br>R3.5 | Yes              |
| Lift L2 Main | Plasterboard              | Bulk Insulation<br>R3   | No               |
| Lift L2 Main | Timber Above Plasterboard | No Insulation           | No               |
| L2 Living    | Plasterboard              | Bulk Insulation<br>R3.5 | No               |
| L2 Living    | Timber Above Plasterboard | No Insulation           | No               |
| Ldry         | Plasterboard              | Bulk Insulation<br>R3   | No               |
| Ldry         | Timber Above Plasterboard | No Insulation           | No               |
| L2 Bath      | Plasterboard              | Bulk Insulation<br>R3   | No               |
| L2 Bath      | Timber Above Plasterboard | No Insulation           | No               |
| Study        | Plasterboard              | Bulk Insulation         | No               |

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Certificate number: 0003344587 Certificate Date: 13 Nov 2018 ★ Star rating:



|                |                           | R3                      |     |
|----------------|---------------------------|-------------------------|-----|
| Study          | Timber Above Plasterboard | No Insulation           | No  |
| Garage 1       | Plasterboard              | No insulation           | No  |
| Garage 1       | Timber Above Plasterboard | Bulk Insulation<br>R3   | No  |
| L3 Lift        | Timber Above Plasterboard | No Insulation           | No  |
| WC             | Timber Above Plasterboard | No Insulation           | No  |
| Kitchen/Living | Timber Above Plasterboard | No Insulation           | No  |
| Ens 1          | Plasterboard              | Bulk Insulation<br>R3.5 | Yes |
| L4 Lift        | Plasterboard              | Bulk Insulation<br>R3.5 | Yes |
| Bedroom 1      | Plasterboard              | Bulk Insulation<br>R3.5 | Yes |
| Bedroom 2      | Plasterboard              | Bulk Insulation<br>R3.5 | Yes |
| Bedroom 3      | Plasterboard              | Bulk Insulation<br>R3.5 | Yes |
| L4 Bath        | Plasterboard              | Bulk Insulation<br>R3.5 | Yes |
| Upstairs       | Plasterboard              | Bulk Insulation<br>R3.5 | Yes |

| Ceiling penet | Ceiling penetrations |      |                               |  |  |  |  |  |
|---------------|----------------------|------|-------------------------------|--|--|--|--|--|
| Location      | Number               | Туре | Diameter (mm) Sealed/unsealed |  |  |  |  |  |
| None Present  |                      |      |                               |  |  |  |  |  |

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

| Roof type              |  |
|------------------------|--|
| Construction           | Added Roof colou insulation                                  |
| Corrugated Iron        | Bulk, Reflective Medium<br>Side Down, Anti-<br>glare Up R1.3 |
| Waterproofing Membrane | No Insulation, Medium<br>Only an Air Gap                     |



#### Additional information

If carpet noted as floor covering it may be replaced with any type.

Due to non current Window Library the glazing descriptions may not match actual products. Only the U and SHGC values should be considered NOT the glazing descriptions.

## **Explanatory notes**

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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

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Certificate number: 0003344579 Certificate Date: 13 Nov 2018 ★ Star rating: 6.4

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.

rating: 6.4

#### Assessor details

Accreditation

number: **20039** 

Name: **David Howard** 

Organisation: Partners Energy Management
Email: david@partnersenergy.com.au

Phone: **0421381005** 

Declaration The Assessor has provided design

of interest: advice to the Applicant BERS Pro v4.3.0.2c (3.13)

AAO: ABSA

#### Overview

#### **Dwelling details**

Street: Unit TH03, 25-27 Warriewood rd

Suburb: Warriewood

State: NSW Postcode: 2102
Type: New Dwelling NCC Class: 1A

NatHERS

Lot/DP climate zone: **56** 

number: **5464** Exposure: **Suburban** 

#### Key construction and insulation materials

(see following pages for details)

Construction: Fibro Cavity Panel Direct Fix

Waterproofing Membrane

Insulation: P2.5 wall insulation

R2.5 wall insulation R3.5 ceiling insulation

No floor insulation

Glazing: ATB-006-03 B AI Thermally Broken B

DG Argon Fill High Solar Gain low-E

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

Conditioned: 226.0 Unconditioned: 41.0 Garage: 41.0 TOTAL: 267.0

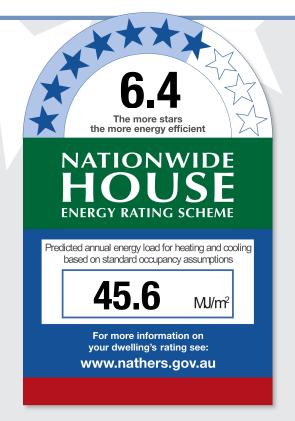
# Annual thermal performance loads (MJ/m²)

Heating: 20.4
Cooling: 25.2
TOTAL: 45.6

#### Plan documents

Plan ref/date: Warriewood Residential Development

Prepared by: VIA Architects



#### Ceiling penetrations

(see following pages for details)

Sealed: 0
Unsealed: 0

TOTAL:\*\*

\*\*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: Unknown

## 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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Certificate number: 0003344579 Certificate Date: 13 Nov 2018 ★ Star rating:



## **Building features**

| Window | type | and | performance | value |
|--------|------|-----|-------------|-------|
|        |      |     |             |       |

| Window ID    | Window type  | U-value | SHGC |  |
|--------------|--|---------|------|--|
| ATB-006-03 B | ATB-006-03 B Al Thermally Broken B DG Argon Fill High Solar Gain | 2.9     | 0.51 |  |

low-E -Clear

#### Window schedule

| Location       | Window ID    | Window no. | Height (mm) | Width (mm) | Orientation | Outdoor shade                          |
|----------------|--------------|------------|-------------|------------|-------------|--|
| Studio         | ATB-006-03 B | n/a        | 2700        | 3500       | NE          | No Shading                             |
| Studio         | ATB-006-03 B | n/a        | 2550        | 1000       | SW          | No Shading                             |
| Studio         | ATB-006-03 B | n/a        | 2550        | 1000       | NW          | No Shading                             |
| L2 Living      | ATB-006-03 B | n/a        | 2550        | 3636       | SW          | No Shading                             |
| L2 Living      | ATB-006-03 B | n/a        | 1400        | 900        | NW          | No Shading                             |
| Study          | ATB-006-03 B | n/a        | 2550        | 900        | NW          | No Shading                             |
| Kitchen/Living | ATB-006-03 B | n/a        | 2400        | 3178       | SW          | No Shading                             |
| Kitchen/Living | ATB-006-03 B | n/a        | 2700        | 2722       | NW          | No Shading                             |
| Kitchen/Living | ATB-006-03 B | n/a        | 2700        | 1000       | NW          | No Shading                             |
| Kitchen/Living | ATB-006-03 B | n/a        | 2700        | 3200       | NE          | Vertical Louvres,<br>Horizontal Blades |
| Ens 1          | ATB-006-03 B | n/a        | 2400        | 600        | SW          | No Shading                             |
| Bedroom 1      | ATB-006-03 B | n/a        | 2400        | 3178       | SW          | No Shading                             |
| Bedroom 1      | ATB-006-03 B | n/a        | 2550        | 1000       | NW          | No Shading                             |
| Bedroom 2      | ATB-006-03 B | n/a        | 2550        | 1000       | NW          | No Shading                             |
| Bedroom 3      | ATB-006-03 B | n/a        | 2550        | 2722       | NW          | No Shading                             |
| Bedroom 3      | ATB-006-03 B | n/a        | 2550        | 1875       | NE          | No Shading                             |

| ID           | Window type        |        |  | U-value | SHGC |
|--------------|--------------------|--------|--|---------|------|
| None Present |                    |        |  |         |      |
| Poof windo   |                    |        |  |         |      |
| KOOI WIIIGOV | v and skylight sch | nedule |  |         |      |

| ID   | Wall type                     | Insulation                                  | Wall wrap or foil |
|------|-------------------------------|---|-------------------|
| EW-1 | Fibro Cavity Panel Direct Fix | Anti-glare foil with bulk no gap R2.5       | Yes               |
| EW-2 | Concrete block, lined         | Anti-glare foil with bulk no gap R1.5       | Yes               |
| EW-3 | Fibro Cavity Panel Direct Fix | Foil, Anti-glare one side, Reflective other | Yes               |

| =xtorriar wan | Combadio |            |             |             |             |               |
|---------------|----------|------------|-------------|-------------|-------------|---------------|
| Location      | ID       | Width (mm) | Height (mm) | Orientation | Fixed Shade | Eaves<br>(mm) |
| Studio        | EW-1     | 5900       | 2700        | NE          | No          | 4400          |
| Studio        | EW-1     | 5900       | 2700        | SW          | No          | 0             |
| Studio        | EW-1     | 5000       | 2700        | NW          | No          | 0             |
| Lift L2 Main  | EW-1     | 1595       | 2700        | SW          | No          | 4000          |

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Certificate number: 0003344579 Certificate Date: 13 Nov 2018 ★ Star rating: 6.4



| <b>Building featu</b> | res continue | ed    |      |    |    |       |
|-----------------------|--------------|-------|------|----|----|-------|
| L2 Living             | EW-1         | 1800  | 2550 | SE | No | 4200  |
| L2 Living             | EW-1         | 3900  | 2550 | SW | No | 10600 |
| L2 Living             | EW-1         | 7295  | 2550 | NW | No | 0     |
| Ldry                  | EW-2         | 2795  | 2550 | NE | No | 0     |
| L2 Bath               | EW-2         | 2395  | 2550 | NW | No | 0     |
| L2 Bath               | EW-2         | 2695  | 2550 | NE | No | 0     |
| Study                 | EW-1         | 4890  | 2550 | NW | No | 0     |
| Garage 1              | EW-3         | 5900  | 3000 | SW | No | 0     |
| Garage 1              | EW-3         | 7300  | 3000 | NW | No | 0     |
| Garage 1              | EW-3         | 4300  | 2550 | NE | No | 2100  |
| Garage 1              | EW-3         | 1100  | 2550 | SE | No | 4200  |
| Garage 1              | EW-3         | 1600  | 2550 | NE | No | 3200  |
| WC                    | EW-1         | 2195  | 2700 | SE | No | 2600  |
| WC                    | EW-1         | 1595  | 2700 | SW | No | 600   |
| Kitchen/Living        | EW-1         | 3895  | 2700 | SW | No | 600   |
| Kitchen/Living        | EW-1         | 12800 | 2700 | NW | No | 0     |
| Kitchen/Living        | EW-1         | 5500  | 2700 | NE | No | 0     |
| Ens 1                 | EW-1         | 1595  | 2550 | SW | No | 1900  |
| Bedroom 1             | EW-1         | 3895  | 2550 | SW | No | 1900  |
| Bedroom 1             | EW-1         | 4795  | 2550 | NW | No | 0     |
| Bedroom 2             | EW-1         | 4190  | 2550 | NW | No | 0     |
| Bedroom 3             | EW-1         | 3795  | 2550 | NW | No | 900   |
| Bedroom 3             | EW-1         | 3295  | 2550 | NE | No | 2000  |
| L4 Bath               | EW-1         | 2195  | 2550 | NE | No | 2000  |

| Internal wall type                                      |           |               |                   |  |
|---|-----------|---------------|-------------------|--|
| Wall type   | Area (m²) | Insulation    | Wall wrap or foil |  |
| IW-1 - Brick, plasterboard                              | 126.0     | No Insulation | No                |  |
| IW-2 - Cavity wall, direct fix plasterboard, single gap | 139.0     | No insulation | No                |  |

| Floors          |                                    |           |                       |                       |                      |
|-----------------|------------------------------------|-----------|-----------------------|-----------------------|----------------------|
| Location        | Construction                       | Area (m²) | Sub floor ventilation | Added insulation      | Covering             |
| Studio/Garage 1 | Timber Above Plasterboard<br>100mm | 29.5      |                       | Bulk Insulation<br>R3 | Carpet 10mm          |
| Lift L2 Main    | Concrete Slab on Ground<br>100mm   | 2.3       | None                  | No Insulation         | Ceramic Tiles<br>8mm |
| L2 Living       | Concrete Slab on Ground<br>100mm   | 44.5      | None                  | No Insulation         | Ceramic Tiles<br>8mm |
| Ldry            | Concrete Slab on Ground<br>100mm   | 3.5       | None                  | No Insulation         | Ceramic Tiles<br>8mm |
| L2 Bath         | Concrete Slab on Ground<br>100mm   | 6.3       | None                  | No Insulation         | Ceramic Tiles<br>8mm |
| Study           | Concrete Slab on Ground<br>100mm   | 15.7      | None                  | No Insulation         | Ceramic Tiles<br>8mm |

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ving

19mm

Certificate number: 0003344579 Certificate Date: 13 Nov 2018 ★ Star rating: 6.4



#### **Building features continued** Concrete Slab on Ground Bare Garage 1 41.3 No Insulation None 100mm L3 Lift/Lift L2 Main Timber Above Plasterboard No Insulation 2.2 Bare 100mm WC Suspended Timber Floor 19mm Totally Open **Bulk Insulation Ceramic Tiles** in Contact with 8mm Floor R2.5 Kitchen/Living /L2 Timber Above Plasterboard 38.0 No Insulation Carpet 10mm Living 100mm Kitchen/Living Timber Above Plasterboard 3.6 No Insulation Carpet 10mm /Ldry 100mm Kitchen/Living /L2 Timber Above Plasterboard 6.5 No Insulation Carpet 10mm 100mm **Bath** Kitchen/Living Timber Above Plasterboard 16.1 No Insulation Carpet 10mm /Study 100mm Ens 1/WC Timber Above Plasterboard 3.3 No Insulation Carpet 10mm 19mm L4 Lift/L3 Lift Timber Above Plasterboard 2.2 No Insulation Bare 100mm **Timber Above Plasterboard Bedroom** 17.0 No Insulation Carpet 10mm 100mm 1/Kitchen/Living Timber Above Plasterboard 12.6 No Insulation **Bedroom** Carpet 10mm 2/Kitchen/Living 100mm Timber Above Plasterboard 12.2 No Insulation Carpet 10mm **Bedroom** 3/Kitchen/Living 100mm Timber Above Plasterboard L4 5.5 No Insulation **Ceramic Tiles** Bath/Kitchen/Living 100mm 8mm Upstairs/Kitchen/Li Timber Above Plasterboard 15.2 No Insulation Carpet 10mm

| Ceiling type |                           |                         |                  |
|--------------|---------------------------|-------------------------|------------------|
| Location     | Construction              | Added insulation        | Roof space above |
| Studio       | Plasterboard              | Bulk Insulation<br>R3.5 | No               |
| Lift L2 Main | Plasterboard              | Bulk Insulation<br>R3   | No               |
| Lift L2 Main | Timber Above Plasterboard | No Insulation           | No               |
| L2 Living    | Plasterboard              | Bulk Insulation<br>R3.5 | No               |
| L2 Living    | Timber Above Plasterboard | No Insulation           | No               |
| Ldry         | Plasterboard              | Bulk Insulation<br>R3   | No               |
| Ldry         | Timber Above Plasterboard | No Insulation           | No               |
| L2 Bath      | Plasterboard              | Bulk Insulation<br>R3   | No               |
| L2 Bath      | Timber Above Plasterboard | No Insulation           | No               |
| Study        | Plasterboard              | Bulk Insulation<br>R3   | No               |
| Study        | Timber Above Plasterboard | No Insulation           | No               |
| Garage 1     | Plasterboard              | No insulation           | No               |
| Garage 1     | Timber Above Plasterboard | Bulk Insulation<br>R3   | No               |

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## **Building features continued**

| L3 Lift        | Timber Above Plasterboard | No Insulation           | No  |
|----------------|---------------------------|-------------------------|-----|
| WC             | Timber Above Plasterboard | No Insulation           | No  |
| Kitchen/Living | Timber Above Plasterboard | No Insulation           | No  |
| Ens 1          | Plasterboard              | Bulk Insulation<br>R3.5 | Yes |
| L4 Lift        | Plasterboard              | Bulk Insulation<br>R3   | Yes |
| Bedroom 1      | Plasterboard              | Bulk Insulation<br>R3.5 | Yes |
| Bedroom 2      | Plasterboard              | Bulk Insulation<br>R3.5 | Yes |
| Bedroom 3      | Plasterboard              | Bulk Insulation<br>R3.5 | Yes |
| L4 Bath        | Plasterboard              | Bulk Insulation<br>R3.5 | Yes |
| Upstairs       | Plasterboard              | Bulk Insulation<br>R3   | Yes |

|      |      | 4 4          |
|------|------|--------------|
| Ceil | lına | penetrations |

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

#### **Ceiling fans**

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

## Roof type

| Construction           | Added insulation                                      | Roof colour |
|------------------------|---|-------------|
| Waterproofing Membrane | No Insulation,<br>Only an Air Gap                     | Medium      |
| Corrugated Iron        | Bulk, Reflective<br>Side Down, Anti-<br>glare Up R1.3 | Medium      |



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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.

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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.

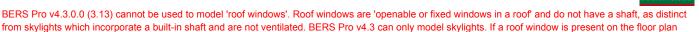
#### **Disclaimer**

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**

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<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au



then this certificate is not valid

#### Assessor details

Accreditation

number: **20039** 

Name: **David Howard** 

Organisation: Partners Energy Management
Email: david@partnersenergy.com.au

Phone: **0421381005** 

Declaration The Assessor has provided design

of interest: advice to the Applicant BERS Pro v4.3.0.2c (3.13)

AAO: ABSA

#### Overview

#### **Dwelling details**

Street: Unit TH04, 25-27 Warriewood rd

Suburb: Warriewood

State: NSW Postcode: 2102
Type: New Dwelling NCC Class: 1A

NatHERS

Lot/DP climate zone: **56** 

number: **5464** Exposure: **Suburban** 

#### Key construction and insulation materials

(see following pages for details)

Construction: Fibro Cavity Panel Direct Fix

**Corrugated Iron** 

**Concrete Slab on Ground** 

Insulation: R2.5 wall insulation

R3.5 ceiling insulation No floor insulation

Glazing: ATB-006-03 B AI Thermally Broken B

DG Argon Fill High Solar Gain low-E

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

Conditioned: 198.0 Unconditioned: 43.0 Garage: 39.0 TOTAL: 240.0

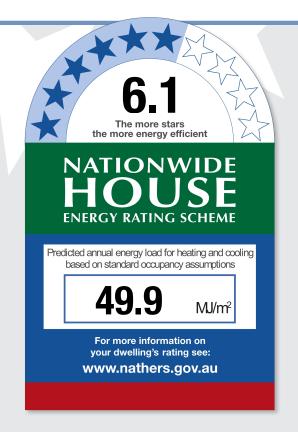
# Annual thermal performance loads (MJ/m²)

Heating: 29.3 Cooling: 20.6 TOTAL: 49.9

#### Plan documents

Plan ref/date: Warriewood Residential Development

Prepared by: VIA Architects



#### Ceiling penetrations

(see following pages for details)

Sealed: 0
Unsealed: 0

TOTAL:\*\*

\*\*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: Unknown

0

## 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.



Certificate number: 0003344603 Certificate Date: 13 Nov 2018 ★ Star rating:



## **Building features**

| Window type  | Window type and performance value   |         |      |  |  |  |
|--------------|---|---------|------|--|--|--|
| Window ID    | Window type   | U-value | SHGC |  |  |  |
| ATB-006-03 B | ATB-006-03 B Al Thermally Broken B DG Argon Fill High Solar Gain low-E -Clear | 2.9     | 0.51 |  |  |  |

#### Window schedule

| Location       | Window ID    | Window no. | Height (mm) | Width (mm) | Orientation | Outdoor shade                          |
|----------------|--------------|------------|-------------|------------|-------------|--|
| Studio         | ATB-006-03 B | n/a        | 2550        | 1000       | SE          | No Shading                             |
| Studio         | ATB-006-03 B | n/a        | 2550        | 1000       | SW          | No Shading                             |
| Studio         | ATB-006-03 B | n/a        | 2700        | 3500       | NE          | No Shading                             |
| L2 Living      | ATB-006-03 B | n/a        | 1400        | 900        | SE          | No Shading                             |
| L2 Living      | ATB-006-03 B | n/a        | 2550        | 3636       | SW          | No Shading                             |
| Study          | ATB-006-03 B | n/a        | 2550        | 900        | SE          | No Shading                             |
| Kitchen/Living | ATB-006-03 B | n/a        | 2700        | 3200       | NE          | Vertical Louvres,<br>Horizontal Blades |
| Kitchen/Living | ATB-006-03 B | n/a        | 2700        | 2722       | SE          | No Shading                             |
| Kitchen/Living | ATB-006-03 B | n/a        | 2700        | 1000       | SE          | No Shading                             |
| Kitchen/Living | ATB-006-03 B | n/a        | 2400        | 3178       | SW          | No Shading                             |
| Bath           | ATB-006-03 B | n/a        | 2550        | 1000       | SW          | No Shading                             |
| Bedroom 1      | ATB-006-03 B | n/a        | 2550        | 1000       | SE          | No Shading                             |
| Bedroom 1      | ATB-006-03 B | n/a        | 2550        | 600        | SW          | No Shading                             |
| Bedroom 2      | ATB-006-03 B | n/a        | 2550        | 1000       | SE          | No Shading                             |
| Bedroom 3      | ATB-006-03 B | n/a        | 2550        | 1875       | NE          | No Shading                             |
| Bedroom 3      | ATB-006-03 B | n/a        | 2550        | 2722       | SE          | No Shading                             |

| ID           | Window type      |                      |           |             | U-value       | SHGC                     |
|--------------|------------------|----------------------|-----------|-------------|---------------|--------------------------|
| None Present |                  |                      |           |             |               |                          |
| Roof window  | and skylight sch | edule                |           |             |               |                          |
| Location     | ID               | Roof window/skylight | Area (m²) | Orientation | Outdoor shade | Indoor<br>shade/diffuser |

| External wa             | II type        |                 |                  |                   |             |                 |
|-------------------------|----------------|-----------------|------------------|-------------------|-------------|-----------------|
| ID                      | Wall type      |                 | Insulation       |                   |             | Wall wrap or fo |
| EW-1                    | Fibro Cavity P | anel Direct Fix | Anti-glare foil  | with bulk no gap  | R2.5        | Yes             |
| EW-2                    | Concrete bloc  | k, lined        | Anti-glare foil  | with bulk no gap  | R1.5        | Yes             |
| EW-3                    | Fibro Cavity P | anel Direct Fix | Foil, Anti-glare | e one side, Refle | ctive other | Yes             |
| External wa<br>Location | III schedule   | Width (mm)      | Height (mm)      | Orientation       | Fixed Shad  | e Eaves<br>(mm) |
| Studio                  | EW-1           | 4904            | 2700             | SE                | No          | 0               |
| Studio                  | EW-1           | 5794            | 2700             | SW                | No          | 0               |
| Studio                  | EW-1           | 5794            | 2700             | NE                | No          | 4322            |
| L2 Living               | EW-2           | 2995            | 2550             | NE                | No          | 0               |

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Certificate number: 0003344603 Certificate Date: 13 Nov 2018 ★ Star rating: 6.1



#### **Building features continued** L2 Living EW-1 5995 2550 SE No 0 L2 Living EW-1 3900 2550 SW No 13550 EW-1 2550 NW 4200 L2 Living 2000 No L2 Living EW-1 1600 SW No 2000 2550 L2 Bath EW-2 2495 2550 ΝE No 0 L2 Bath EW-2 SE No 0 1695 2550 Study EW-1 3690 2550 SE No 0 Garage 1 EW-3 1523 2550 NE No 2173 Garage 1 EW-3 854 2550 NW No 1630 Garage 1 **EW-3** 4272 2550 NE No 1337 Garage 1 EW-3 6964 3000 SE No 0 Garage 1 EW-3 5887 3000 SW No 0 WC EW-1 895 2700 SW No 2000 Kitchen/Living **EW-1** 5500 2700 NE No 0 SE No Kitchen/Living EW-1 11400 0 2700 Kitchen/Living EW-1 SW No 2000 4595 2700 1795 SW No 50 **Bath** EW-1 2550 Bedroom 1 SE No 0 EW-1 3795 2550 Bedroom 1 25 EW-1 3695 2550 SW No Bedroom 2 SE EW-1 4190 2550 No 0 Bedroom 3 NE No 2000 EW-1 3295 2550 Bedroom 3 **EW-1** 3795 2550 SE No 900 Ens EW-1 2195 2550 NE No 2000

| Wall type   | Area (m²) | Insulation    | Wall wrap or foil |
|---|-----------|---------------|-------------------|
| IW-1 - Brick, plasterboard                              | 116.0     | No Insulation | No                |
| IW-2 - Cavity wall, direct fix plasterboard, single gap | 101.0     | No insulation | No                |

| Floors                       |                                    |           |                       |                       |             |
|------------------------------|------------------------------------|-----------|-----------------------|-----------------------|-------------|
| Location                     | Construction                       | Area (m²) | Sub floor ventilation | Added insulation      | Covering    |
| Studio/Garage 1              | Timber Above Plasterboard 100mm    | 28.4      |                       | Bulk Insulation<br>R3 | Carpet 10mm |
| L2 Living                    | Concrete Slab on Ground<br>100mm   | 42.2      | None                  | No Insulation         | Carpet 10mm |
| L2 Bath                      | Concrete Slab on Ground<br>100mm   | 4.1       | None                  | No Insulation         | Carpet 10mm |
| Study                        | Concrete Slab on Ground<br>100mm   | 12.1      | None                  | No Insulation         | Carpet 10mm |
| Garage 1                     | Concrete Slab on Ground<br>100mm   | 39.4      | None                  | No Insulation         | Bare        |
| WC                           | Concrete Slab on Ground<br>100mm   | 1.7       | None                  | No Insulation         | Carpet 10mm |
| Kitchen/Living /L2<br>Living | Timber Above Plasterboard<br>100mm | 42.6      |                       | No Insulation         | Carpet 10mm |

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Certificate number: 0003344603 Certificate Date: 13 Nov 2018 ★ Star rating:



| Kitchen/Living /L2<br>Bath  | Timber Above Plasterboard<br>100mm | 4.2  |              | No Insulation                               | Carpet 10mm |
|-----------------------------|------------------------------------|------|--------------|---|-------------|
| Kitchen/Living<br>/Study    | Timber Above Plasterboard<br>100mm | 12.6 |              | No Insulation                               | Carpet 10mm |
| Kitchen/Living              | Concrete Slab on Ground<br>100mm   | 1.4  | None         | No Insulation                               | Carpet 10mm |
| Bath/WC                     | Timber Above Plasterboard 100mm    | 1.7  |              | No Insulation                               | Bare        |
| Bath/Kitchen/Living         | Timber Above Plasterboard 100mm    | 3.1  |              | No Insulation                               | Bare        |
| Bath                        | Concrete Slab on Ground<br>100mm   | 0.7  | None         | Bulk<br>Insulation,<br>Gap to Floor<br>R2.5 | Carpet 10mm |
| Bedroom<br>1/Kitchen/Living | Timber Above Plasterboard<br>100mm | 11.4 |              | No Insulation                               | Carpet 10mm |
| Bedroom 1                   | Suspended Timber Floor 100mm       | 1.4  | Totally Open | Bulk<br>Insulation,<br>Gap to Floor<br>R2.5 | Carpet 10mm |
| Bedroom<br>2/Kitchen/Living | Timber Above Plasterboard<br>100mm | 12.6 |              | No Insulation                               | Carpet 10mm |
| Bedroom<br>3/Kitchen/Living | Timber Above Plasterboard<br>19mm  | 12.2 |              | No Insulation                               | Carpet 10mm |
| Ens/Kitchen/Living          | Timber Above Plasterboard<br>100mm | 5.5  |              | No Insulation                               | Carpet 10mm |
| Upstairs/Kitchen/Li ving    | Timber Above Plasterboard<br>100mm | 14.0 |              | No Insulation                               | Carpet 10mm |

| Cail | lina  | 4.0 | 20 |
|------|-------|-----|----|
| Ceil | IIIIu | LV  | ue |
|      |       | -,  |    |

| Location       | Construction              | Added insulation        | Roof space above |
|----------------|---------------------------|-------------------------|------------------|
| Studio         | Plasterboard              | Bulk Insulation<br>R3.5 | Yes              |
| L2 Living      | Plasterboard              | Bulk Insulation<br>R3.5 | No               |
| L2 Living      | Timber Above Plasterboard | No Insulation           | No               |
| L2 Bath        | Plasterboard              | Bulk Insulation<br>R3   | No               |
| L2 Bath        | Timber Above Plasterboard | No Insulation           | No               |
| Study          | Plasterboard              | Bulk Insulation<br>R3   | No               |
| Study          | Timber Above Plasterboard | No Insulation           | No               |
| Garage 1       | Plasterboard              | No insulation           | No               |
| Garage 1       | Timber Above Plasterboard | Bulk Insulation<br>R3   | No               |
| WC             | Timber Above Plasterboard | No Insulation           | No               |
| Kitchen/Living | Timber Above Plasterboard | No Insulation           | No               |
| Bath           | Plasterboard              | Bulk Insulation<br>R3.5 | Yes              |
| Bedroom 1      | Plasterboard              | Bulk Insulation<br>R3.5 | Yes              |
| Bedroom 2      | Plasterboard              |                         | Yes              |

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Certificate number: 0003344603 Certificate Date:

13 Nov 2018

★ Star rating:



|           |              | Bulk Insulation<br>R3.5     |
|-----------|--------------|-----------------------------|
| Bedroom 3 | Plasterboard | Bulk Insulation Yes<br>R3.5 |
| Ens       | Plasterboard | Bulk Insulation Yes<br>R3.5 |
| Upstairs  | Plasterboard | Bulk Insulation Yes<br>R3.5 |

| Ceiling pene | etrations |      |                               |
|--------------|-----------|------|-------------------------------|
| Location     | Number    | Туре | Diameter (mm) Sealed/unsealed |
| None Present | t         |      |                               |

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

| Construction           | Added Roof colou insulation                                  |
|------------------------|--|
| Corrugated Iron        | Bulk, Reflective Medium<br>Side Down, Anti-<br>glare Up R1.3 |
| Waterproofing Membrane | No Insulation, Medium Only an Air Gap                        |



#### Additional information

If carpet noted as floor covering it may be replaced with any type.

Due to non current Window Library the glazing descriptions may not match actual products. Only the U and SHGC values should be considered NOT the glazing descriptions.

## **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.

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Certificate number: 0003344637 Certificate Date: 13 Nov 2018 ★ Star rating: 6.9

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: **20039** 

Name: **David Howard** 

Organisation: Partners Energy Management
Email: david@partnersenergy.com.au

Phone: **0421381005** 

Declaration The Assessor has provided design

of interest: advice to the Applicant BERS Pro v4.3.0.2c (3.13)

AAO: ABSA

#### Overview

#### **Dwelling details**

Street: Unit TH05, 25-27 Warriewood rd

Suburb: Warriewood

State: NSW Postcode: 2102
Type: New Dwelling NCC Class: 1A

NatHERS

Lot/DP climate zone: **56** 

number: **5464** Exposure: **Suburban** 

#### Key construction and insulation materials

(see following pages for details)

Construction: Fibro Cavity Panel Direct Fix

Corrugated Iron

**Concrete Slab on Ground** 

Insulation: R2.5 wall insulation

R3.5 ceiling insulation

No floor insulation

Glazing: ATB-006-03 B AI Thermally Broken B

DG Argon Fill High Solar Gain low-E

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

Conditioned: 198.0 Unconditioned: 43.0 Garage: 39.0 TOTAL: 240.0

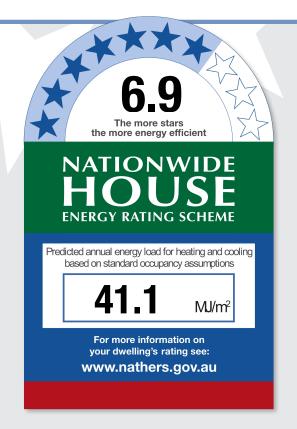
# Annual thermal performance loads (MJ/m²)

Heating: 18.1 Cooling: 23.0 TOTAL: 41.1

#### Plan documents

Plan ref/date: Warriewood Residential Development

Prepared by: VIA Architects



#### Ceiling penetrations

(see following pages for details)

Sealed: 0
Unsealed: 0

TOTAL:\*\*

\*\*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: Unknown

0

## 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.



Certificate number: 0003344637 Certificate Date: 13 Nov 2018 ★ Star rating:



## **Building features**

| window type a | be and performance value   |         |      |  |
|---------------|--|---------|------|--|
| Window ID     | Window type  | U-value | SHGC |  |
| ATB-006-03 B  | ATB-006-03 B Al Thermally Broken B DG Argon Fill High Solar Gain | 2.9     | 0.51 |  |

low-E -Clear

#### Window schedule

| Location       | Window ID    | Window no. | Height (mm) | Width (mm) | Orientation | Outdoor shade                          |
|----------------|--------------|------------|-------------|------------|-------------|--|
| Studio         | ATB-006-03 B | n/a        | 2700        | 3500       | Е           | No Shading                             |
| Studio         | ATB-006-03 B | n/a        | 2550        | 1000       | W           | No Shading                             |
| Studio         | ATB-006-03 B | n/a        | 2550        | 1000       | N           | No Shading                             |
| L2 Living      | ATB-006-03 B | n/a        | 2550        | 3636       | W           | No Shading                             |
| L2 Living      | ATB-006-03 B | n/a        | 1400        | 900        | N           | No Shading                             |
| Study          | ATB-006-03 B | n/a        | 2550        | 900        | N           | No Shading                             |
| Kitchen/Living | ATB-006-03 B | n/a        | 2400        | 3178       | W           | No Shading                             |
| Kitchen/Living | ATB-006-03 B | n/a        | 2700        | 2722       | N           | No Shading                             |
| Kitchen/Living | ATB-006-03 B | n/a        | 2700        | 1000       | N           | No Shading                             |
| Kitchen/Living | ATB-006-03 B | n/a        | 2700        | 3200       | Е           | Vertical Louvres,<br>Horizontal Blades |
| Bath           | ATB-006-03 B | n/a        | 2550        | 1000       | W           | No Shading                             |
| Bedroom 1      | ATB-006-03 B | n/a        | 2550        | 600        | W           | No Shading                             |
| Bedroom 1      | ATB-006-03 B | n/a        | 2550        | 1000       | N           | No Shading                             |
| Bedroom 2      | ATB-006-03 B | n/a        | 2550        | 1000       | N           | No Shading                             |
| Bedroom 3      | ATB-006-03 B | n/a        | 2550        | 2722       | N           | No Shading                             |
| Bedroom 3      | ATB-006-03 B | n/a        | 2550        | 1875       | Е           | No Shading                             |

| ID          | Window        | type                    |           |             | U-value       | SHGC                     |
|-------------|---------------|-------------------------|-----------|-------------|---------------|--------------------------|
| None Presen | it            |                         |           |             |               |                          |
| Roof windo  | w and skyligh | nt schedule             |           |             |               |                          |
| Location    | ID            | Roof<br>window/skylight | Area (m²) | Orientation | Outdoor shade | Indoor<br>shade/diffuser |

| External wa | all type     |                  |                 |                   |             |                  |
|-------------|--------------|------------------|-----------------|-------------------|-------------|------------------|
| ID          | Wall type    |                  | Insulation      |                   | V           | Vall wrap or foi |
| EW-1        | Fibro Cavity | Panel Direct Fix | Anti-glare foil | with bulk no gap  | R2.5        | Yes              |
| EW-2        | Concrete blo | ock, lined       | Anti-glare foil | with bulk no gap  | R1.5        | Yes              |
| EW-3        | Fibro Cavity | Panel Direct Fix | Foil, Anti-glar | e one side, Refle | ctive other | Yes              |
| External wa | all schedule |                  |                 |                   |             |                  |
| Location    | ID           | Width (mm)       | Height (mm)     | Orientation       | Fixed Shade | Eaves            |

| Location  | ID   | Width (mm) | Height (mm) | Orientation | Fixed Shade | Eaves<br>(mm) |
|-----------|------|------------|-------------|-------------|-------------|---------------|
| Studio    | EW-1 | 5794       | 2700        | E           | No          | 4322          |
| Studio    | EW-1 | 5794       | 2700        | W           | No          | 0             |
| Studio    | EW-1 | 4904       | 2700        | N           | No          | 0             |
| L2 Living | EW-1 | 1600       | 2550        | W           | No          | 2000          |

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Certificate number: 0003344637 Certificate Date: 13 Nov 2018 ★ Star rating: 6.9



#### **Building features continued** L2 Living EW-1 2000 2550 S No 4200 L2 Living EW-1 3900 2550 W No 13550 EW-1 5995 2550 Ν L2 Living No 0 L2 Living EW-2 2995 2550 Е No 0 L2 Bath EW-2 1695 2550 Ν No 0 L2 Bath EW-2 Е No 0 2495 2550 Study EW-1 Ν 0 3690 2550 No W 0 Garage 1 EW-3 5887 3000 No Garage 1 EW-3 6964 3000 Ν No 0 Е Garage 1 **EW-3** 4272 2550 No 1337 S Garage 1 EW-3 854 2550 No 1630 Garage 1 EW-3 1523 2550 SE No 2173 WC EW-1 895 2700 W No 2000 Kitchen/Living **EW-1** 4595 2700 W No 2000 No Kitchen/Living EW-1 11400 2700 Ν 0 EW-1 Е No 0 Kitchen/Living 5500 2700 1795 2550 W No 50 **Bath** EW-1 Bedroom 1 W No 25 EW-1 3695 2550 Ñ Bedroom 1 0 EW-1 3795 2550 No Bedroom 2 0 EW-1 4190 2550 Ν No Ν Bedroom 3 No 900 EW-1 3795 2550 Bedroom 3 **EW-1** 3295 2550 Е No 2000 Е 2000 Ens EW-1 2195 2550 No

| Internal wall type                                      |           |               |                   |  |  |
|---|-----------|---------------|-------------------|--|--|
| Wall type   | Area (m²) | Insulation    | Wall wrap or foil |  |  |
| IW-1 - Brick, plasterboard                              | 116.0     | No Insulation | No                |  |  |
| IW-2 - Cavity wall, direct fix plasterboard, single gap | 101.0     | No insulation | No                |  |  |

| Floors                       |                                    |           |                       |                       |             |
|------------------------------|------------------------------------|-----------|-----------------------|-----------------------|-------------|
| Location                     | Construction                       | Area (m²) | Sub floor ventilation | Added insulation      | Covering    |
| Studio/Garage 1              | Timber Above Plasterboard 100mm    | 28.4      |                       | Bulk Insulation<br>R3 | Carpet 10mm |
| L2 Living                    | Concrete Slab on Ground<br>100mm   | 42.2      | None                  | No Insulation         | Carpet 10mm |
| L2 Bath                      | Concrete Slab on Ground<br>100mm   | 4.1       | None                  | No Insulation         | Carpet 10mm |
| Study                        | Concrete Slab on Ground<br>100mm   | 12.1      | None                  | No Insulation         | Carpet 10mm |
| Garage 1                     | Concrete Slab on Ground<br>100mm   | 39.4      | None                  | No Insulation         | Bare        |
| WC                           | Concrete Slab on Ground<br>100mm   | 1.7       | None                  | No Insulation         | Carpet 10mm |
| Kitchen/Living /L2<br>Living | Timber Above Plasterboard<br>100mm | 42.6      |                       | No Insulation         | Carpet 10mm |

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

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| Timber Above Plasterboard<br>100mm | 4.2   |  | No Insulation  | Carnot 10mm   |
|------------------------------------|---|--|--|---|
| TOOTHIT                            |   |  | 140 modiation  | Carpet 10mm   |
| Timber Above Plasterboard<br>100mm | 12.6  |  | No Insulation  | Carpet 10mm   |
| Concrete Slab on Ground<br>100mm   | 1.4   | None   | No Insulation  | Carpet 10mm   |
| Timber Above Plasterboard<br>100mm | 1.7   |  | No Insulation  | Bare  |
| Timber Above Plasterboard<br>100mm | 3.1   |  | No Insulation  | Bare  |
| Concrete Slab on Ground<br>100mm   | 0.7   | None   | Bulk<br>Insulation,<br>Gap to Floor<br>R2.5  | Carpet 10mm   |
| Timber Above Plasterboard<br>100mm | 11.4  |  | No Insulation  | Carpet 10mm   |
| Suspended Timber Floor 100mm       | 1.4   | Totally Open   | Bulk<br>Insulation,<br>Gap to Floor<br>R2.5  | Carpet 10mm   |
| Timber Above Plasterboard<br>100mm | 12.6  |  | No Insulation  | Carpet 10mm   |
| Timber Above Plasterboard<br>19mm  | 12.2  |  | No Insulation  | Carpet 10mm   |
| Timber Above Plasterboard<br>100mm | 5.5   |  | No Insulation  | Carpet 10mm   |
| Timber Above Plasterboard<br>100mm | 14.1  |  | No Insulation  | Carpet 10mm   |
|                                    | Concrete Slab on Ground 100mm Timber Above Plasterboard 100mm Timber Above Plasterboard 100mm Concrete Slab on Ground 100mm Concrete Slab on Ground 100mm Suspended Timber Floor 100mm Timber Above Plasterboard 100mm Timber Above Plasterboard 100mm Timber Above Plasterboard 19mm Timber Above Plasterboard 100mm Timber Above Plasterboard 100mm Timber Above Plasterboard | Concrete Slab on Ground 1.4 100mm  Timber Above Plasterboard 1.7 100mm  Timber Above Plasterboard 3.1 100mm  Concrete Slab on Ground 0.7 100mm  Timber Above Plasterboard 11.4 100mm  Suspended Timber Floor 100mm 1.4  Timber Above Plasterboard 12.6 100mm  Timber Above Plasterboard 12.2 19mm  Timber Above Plasterboard 5.5 100mm  Timber Above Plasterboard 14.1 | Concrete Slab on Ground 1.4 None 100mm Timber Above Plasterboard 1.7 100mm Timber Above Plasterboard 100mm Concrete Slab on Ground 100mm Concrete Slab on Ground 100mm Timber Above Plasterboard 11.4 100mm Suspended Timber Floor 100mm 1.4 Totally Open Timber Above Plasterboard 12.6 100mm Timber Above Plasterboard 12.2 19mm Timber Above Plasterboard 15.5 100mm Timber Above Plasterboard 15.5 | Concrete Slab on Ground 1.4 None No Insulation Timber Above Plasterboard 1.7 No Insulation Timber Above Plasterboard 1.8 No Insulation Timber Above Plasterboard 1.9 No Insulation Timber Above Plasterboard 1.00mm Concrete Slab on Ground 100mm Concrete Slab on Ground 100mm Timber Above Plasterboard 11.4 No Insulation Suspended Timber Floor 100mm Suspended Timber Floor 100mm Timber Above Plasterboard 12.6 No Insulation Timber Above Plasterboard 12.2 No Insulation Timber Above Plasterboard 15.5 No Insulation Timber Above Plasterboard 16.0 No Insulation Timber Above Plasterboard 17.0 No Insulation Timber Above Plasterboard 18.1 No Insulation Timber Above Plasterboard 19.1 No Insulation |

| Ceil | ling 1 | type |
|------|--------|------|
|      |        |      |

| Location       | Construction              | Added insulation        | Roof space above |
|----------------|---------------------------|-------------------------|------------------|
| Studio         | Plasterboard              | Bulk Insulation<br>R3.5 | Yes              |
| L2 Living      | Plasterboard              | Bulk Insulation<br>R3.5 | No               |
| L2 Living      | Timber Above Plasterboard | No Insulation           | No               |
| L2 Bath        | Plasterboard              | Bulk Insulation<br>R3   | No               |
| L2 Bath        | Timber Above Plasterboard | No Insulation           | No               |
| Study          | Plasterboard              | Bulk Insulation<br>R3   | No               |
| Study          | Timber Above Plasterboard | No Insulation           | No               |
| Garage 1       | Plasterboard              | No insulation           | No               |
| Garage 1       | Timber Above Plasterboard | Bulk Insulation<br>R3   | No               |
| WC             | Timber Above Plasterboard | No Insulation           | No               |
| Kitchen/Living | Timber Above Plasterboard | No Insulation           | No               |
| Bath           | Plasterboard              | Bulk Insulation<br>R3.5 | Yes              |
| Bedroom 1      | Plasterboard              | Bulk Insulation<br>R3.5 | Yes              |
| Bedroom 2      | Plasterboard              |                         | Yes              |

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|           |              | Bulk Insulation<br>R3.5     |
|-----------|--------------|-----------------------------|
| Bedroom 3 | Plasterboard | Bulk Insulation Yes<br>R3.5 |
| Ens       | Plasterboard | Bulk Insulation Yes<br>R3.5 |
| Upstairs  | Plasterboard | Bulk Insulation Yes<br>R3.5 |

| Ceiling penet | rations |      |                               |
|---------------|---------|------|-------------------------------|
| Location      | Number  | Туре | Diameter (mm) Sealed/unsealed |
| None Present  |         |      |                               |

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

| Construction           | Added Roof color insulation                                  |
|------------------------|--|
| Corrugated Iron        | Bulk, Reflective Medium<br>Side Down, Anti-<br>glare Up R1.3 |
| Waterproofing Membrane | No Insulation, Medium<br>Only an Air Gap                     |



#### Additional information

If carpet noted as floor covering it may be replaced with any type.

Due to non current Window Library the glazing descriptions may not match actual products. Only the U and SHGC values should be considered NOT the glazing descriptions.

## **Explanatory notes**

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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.

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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.

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#### **Contact**

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Certificate number: 0003344629 Certificate Date: 13 Nov 2018 ★ Star rating: **5.8** 



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: 20039

Name: **David Howard** 

Organisation: Partners Energy Management david@partnersenergy.com.au Email:

Phone: 0421381005

Declaration The Assessor has provided design

of interest: advice to the Applicant BERS Pro v4.3.0.2c (3.13) Software:

**ABSA** AAO:

#### Overview

#### **Dwelling details**

Street: Unit TH06, 25-27 Warriewood rd

Suburb: Warriewood

Postcode: State: 2102 **NSW** NCC Class: **New Dwelling 1A** Type:

**NatHERS** 

climate zone: 56 Lot/DP

number: **5464** Exposure: Suburban

#### Key construction and insulation materials

(see following pages for details)

Construction: Fibro Cavity Panel Direct Fix

**Corrugated Iron** 

**Concrete Slab on Ground** 

Insulation: **R2.5** wall insulation

> R3.5 ceiling insulation R2.5 floor insulation

ATB-006-03 B AI Thermally Broken B Glazing:

DG Argon Fill High Solar Gain low-E

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

Conditioned: 198.0 Unconditioned: 43.0 Garage: 39.0 TOTAL: 240.0

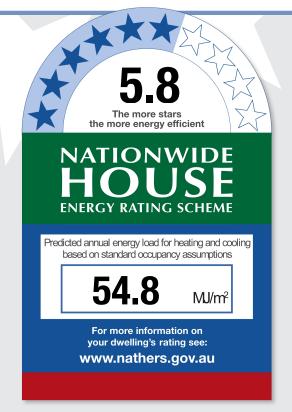
## **Annual thermal** performance loads (MJ/m<sup>2</sup>)

Heating: 32.2 Cooling: 22.6 TOTAL: 54.8

#### Plan documents

**Warriewood Residential Development** Plan ref/date:

Prepared by: **VIA Architects** 



#### Ceiling penetrations

(see following pages for details)

Sealed: Unsealed: 0

TOTAL:\*\*

\*\*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: Unknown

0

## 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.



Certificate number: 0003344629 Certificate Date: 13 Nov 2018 ★ Star rating:



5.8

## **Building features**

| Window type and performance value |   |         |      |  |
|-----------------------------------|---|---------|------|--|
| Window ID                         | Window type   | U-value | SHGC |  |
| ATB-006-03 B                      | ATB-006-03 B Al Thermally Broken B DG Argon Fill High Solar Gain low-F -Clear | 2.9     | 0.51 |  |

#### Window schedule

| Location       | Window ID    | Window no. | Height (mm) | Width (mm) | Orientation | Outdoor shade                          |
|----------------|--------------|------------|-------------|------------|-------------|--|
| Studio         | ATB-006-03 B | n/a        | 2550        | 1000       | S           | No Shading                             |
| Studio         | ATB-006-03 B | n/a        | 2550        | 1000       | W           | No Shading                             |
| Studio         | ATB-006-03 B | n/a        | 2700        | 3500       | E           | No Shading                             |
| L2 Living      | ATB-006-03 B | n/a        | 1400        | 900        | S           | No Shading                             |
| L2 Living      | ATB-006-03 B | n/a        | 2550        | 3636       | W           | No Shading                             |
| Study          | ATB-006-03 B | n/a        | 2550        | 900        | S           | No Shading                             |
| Kitchen/Living | ATB-006-03 B | n/a        | 2700        | 3200       | Е           | Vertical Louvres,<br>Horizontal Blades |
| Kitchen/Living | ATB-006-03 B | n/a        | 2700        | 2722       | S           | No Shading                             |
| Kitchen/Living | ATB-006-03 B | n/a        | 2700        | 1000       | S           | No Shading                             |
| Kitchen/Living | ATB-006-03 B | n/a        | 2400        | 3178       | W           | No Shading                             |
| Bath           | ATB-006-03 B | n/a        | 2550        | 1000       | W           | No Shading                             |
| Bedroom 1      | ATB-006-03 B | n/a        | 2550        | 1000       | S           | No Shading                             |
| Bedroom 1      | ATB-006-03 B | n/a        | 2550        | 600        | W           | No Shading                             |
| Bedroom 2      | ATB-006-03 B | n/a        | 2550        | 1000       | S           | No Shading                             |
| Bedroom 3      | ATB-006-03 B | n/a        | 2550        | 1875       | Е           | No Shading                             |
| Bedroom 3      | ATB-006-03 B | n/a        | 2550        | 2722       | S           | No Shading                             |

| ID          | Window t      | type       |           |             | U-value       | SHGC   |
|-------------|---------------|------------|-----------|-------------|---------------|--------|
| None Presen | t             |            |           |             |               |        |
| Roof windo  | w and skyligh | t schedule |           |             |               |        |
| Location    | ID            | Roof       | Area (m²) | Orientation | Outdoor shade | Indoor |

| ID               | Wall type      |                 | Insulation       |                   | W             | all wrap or fo |
|------------------|----------------|-----------------|------------------|-------------------|---------------|----------------|
| EW-1             | Fibro Cavity P | anel Direct Fix | Anti-glare foil  | with bulk no gap  | R2.5 Y        | es             |
| EW-2             | Concrete bloc  | k, lined        | Anti-glare foil  | with bulk no gap  | R1.5 Y        | es             |
| EW-3             | Fibro Cavity F | anel Direct Fix | Foil, Anti-glare | e one side, Refle | ctive other Y | es             |
| External wa      | III schedule   | Width (mm)      | Height (mm)      | Orientation       | Fixed Shade   | Eaves<br>(mm)  |
|                  |                |                 |                  |                   |               | (111111)       |
| Studio           | EW-1           | 4904            | 2700             | S                 | No            | 0              |
| Studio<br>Studio | EW-1           | 4904<br>5794    | 2700<br>2700     | S<br>W            | No<br>No      | 0              |
|                  |                |                 |                  |                   |               |                |

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Certificate number: 0003344629 Certificate Date: 13 Nov 2018 ★ Star rating: 5.8



#### **Building features continued** L2 Living EW-1 5995 2550 S No 0 L2 Living EW-1 3900 2550 W No 13550 EW-1 2550 Ν 4200 L2 Living 2000 No L2 Living EW-1 1600 2550 W No 2000 L2 Bath EW-2 2495 2550 Е No 0 L2 Bath EW-2 S No 0 1695 2550 Study EW-1 S 0 3690 2550 No Garage 1 EW-3 1523 2550 NE No 3102 Garage 1 EW-3 854 2550 Ν No 1598 Е Garage 1 **EW-3** 4272 2550 No 2238 S Garage 1 EW-3 6964 3000 No 0 Garage 1 EW-3 5887 3000 W No 0 WC EW-1 895 2700 W No 1700 Kitchen/Living EW-1 5500 2700 Е No 0 No Kitchen/Living EW-1 11400 2700 S 0 Kitchen/Living EW-1 W No 1700 4595 2700 1795 2550 W No 50 **Bath** EW-1 Bedroom 1 S No 0 EW-1 3795 2550 Bedroom 1 W 25 EW-1 3695 2550 No Bedroom 2 S EW-1 4190 2550 No 0 Е Bedroom 3 No 2000 EW-1 3295 2550 Bedroom 3 **EW-1** 3795 2550 S No 900 Е Ens 2550 EW-1 2195 No 2000

| Internal wall type                                      |           |               |                   |
|---|-----------|---------------|-------------------|
| Wall type   | Area (m²) | Insulation    | Wall wrap or foil |
| IW-1 - Brick, plasterboard                              | 116.0     | No Insulation | No                |
| IW-2 - Cavity wall, direct fix plasterboard, single gap | 101.0     | No insulation | No                |

| Floors          |                                  |           |                       |  |                      |
|-----------------|----------------------------------|-----------|-----------------------|--|----------------------|
| Location        | Construction                     | Area (m²) | Sub floor ventilation | Added insulation                                 | Covering             |
| Studio/Garage 1 | Timber Above Plasterboard 100mm  | 28.4      |                       | Bulk Insulation<br>R3                            | Carpet 10mm          |
| L2 Living       | Concrete Slab on Ground<br>100mm | 42.2      | None                  | No Insulation                                    | Carpet 10mm          |
| L2 Bath         | Concrete Slab on Ground<br>100mm | 4.1       | None                  | No Insulation                                    | Ceramic Tiles<br>8mm |
| Study           | Concrete Slab on Ground<br>100mm | 12.1      | None                  | No Insulation                                    | Carpet 10mm          |
| Garage 1        | Concrete Slab on Ground<br>100mm | 39.4      | None                  | No Insulation                                    | Bare                 |
| WC              | Suspended Timber Floor 19mm      | 1.7       | Very Open             | Bulk Insulation<br>in Contact with<br>Floor R2.5 |                      |
|                 |                                  | 42.6      |                       | No Insulation                                    | Carpet 10mm          |

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Certificate number: **0003344629** Certificate Date: **13 Nov 2018** ★ Star rating:



| Kitchen/Living /L2<br>Living | Timber Above Plasterboard<br>19mm  |      |              |  |             |
|------------------------------|------------------------------------|------|--------------|--|-------------|
| Kitchen/Living /L2<br>Bath   | Timber Above Plasterboard<br>19mm  | 4.2  |              | No Insulation                                    | Carpet 10mm |
| Kitchen/Living<br>/Study     | Timber Above Plasterboard<br>19mm  | 12.6 |              | No Insulation                                    | Carpet 10mm |
| Kitchen/Living               | Suspended Timber Floor 19mm        | 1.4  | Very Open    | Bulk Insulation<br>in Contact with<br>Floor R2.5 | Carpet 10mm |
| Bath/WC                      | Timber Above Plasterboard<br>100mm | 1.7  |              | No Insulation                                    | Bare        |
| Bath/Kitchen/Living          | Timber Above Plasterboard<br>100mm | 3.1  |              | No Insulation                                    | Bare        |
| Bath                         | Concrete Slab on Ground<br>100mm   | 0.7  | None         | Bulk<br>Insulation,<br>Gap to Floor<br>R2.5      | Carpet 10mm |
| Bedroom<br>1/Kitchen/Living  | Timber Above Plasterboard<br>100mm | 11.4 |              | No Insulation                                    | Carpet 10mm |
| Bedroom 1                    | Suspended Timber Floor 100mm       | 1.4  | Totally Open | Bulk<br>Insulation,<br>Gap to Floor<br>R2.5      | Carpet 10mm |
| Bedroom<br>2/Kitchen/Living  | Timber Above Plasterboard<br>100mm | 12.6 |              | No Insulation                                    | Carpet 10mm |
| Bedroom<br>3/Kitchen/Living  | Timber Above Plasterboard<br>19mm  | 12.2 |              | No Insulation                                    | Carpet 10mm |
| Ens/Kitchen/Living           | Timber Above Plasterboard<br>100mm | 5.5  |              | No Insulation                                    | Carpet 10mm |
| Upstairs/Kitchen/Li ving     | Timber Above Plasterboard<br>100mm | 14.0 |              | No Insulation                                    | Carpet 10mm |

| Ceiling type   |                           |                         |                  |
|----------------|---------------------------|-------------------------|------------------|
| Location       | Construction              | Added insulation        | Roof space above |
| Studio         | Plasterboard              | Bulk Insulation<br>R3.5 | Yes              |
| L2 Living      | Plasterboard              | Bulk Insulation<br>R3.5 | No               |
| L2 Living      | Timber Above Plasterboard | No Insulation           | No               |
| L2 Bath        | Plasterboard              | Bulk Insulation<br>R3   | No               |
| L2 Bath        | Timber Above Plasterboard | No Insulation           | No               |
| Study          | Plasterboard              | Bulk Insulation<br>R3   | No               |
| Study          | Timber Above Plasterboard | No Insulation           | No               |
| Garage 1       | Plasterboard              | No insulation           | No               |
| Garage 1       | Timber Above Plasterboard | Bulk Insulation<br>R3   | No               |
| WC             | Timber Above Plasterboard | No Insulation           | No               |
| Kitchen/Living | Timber Above Plasterboard | No Insulation           | No               |
| Bath           | Plasterboard              | Bulk Insulation<br>R3.5 | Yes              |
| Bedroom 1      | Plasterboard              | Bulk Insulation         | Yes              |

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13 Nov 2018

★ Star rating:



|           |              | R3.5                        |
|-----------|--------------|-----------------------------|
| Bedroom 2 | Plasterboard | Bulk Insulation Yes<br>R3.5 |
| Bedroom 3 | Plasterboard | Bulk Insulation Yes<br>R3.5 |
| Ens       | Plasterboard | Bulk Insulation Yes<br>R3.5 |
| Upstairs  | Plasterboard | Bulk Insulation Yes<br>R3.5 |

| Ceiling penet | rations |      |                               |
|---------------|---------|------|-------------------------------|
| Location      | Number  | Туре | Diameter (mm) Sealed/unsealed |
| None Present  |         |      |                               |

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

| Construction           | Added Roof color insulation                                  |
|------------------------|--|
| Corrugated Iron        | Bulk, Reflective Medium<br>Side Down, Anti-<br>glare Up R1.3 |
| Waterproofing Membrane | No Insulation, Medium<br>Only an Air Gap                     |



#### Additional information

If carpet noted as floor covering it may be replaced with any type.

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Certificate number: 0003344660 Certificate Date: 13 Nov 2018 ★ Star rating: 6.9



then this certificate is not valid.

#### Assessor details

Accreditation

number: **20039** 

Name: **David Howard** 

Organisation: Partners Energy Management
Email: david@partnersenergy.com.au

Phone: **0421381005** 

Declaration The Assessor has provided design

of interest: advice to the Applicant BERS Pro v4.3.0.2c (3.13)

AAO: ABSA

## Overview

#### **Dwelling details**

Street: Unit TH07, 25-27 Warriewood rd

Suburb: Warriewood

State: NSW Postcode: 2102
Type: New Dwelling NCC Class: 1A

NatHERS

Lot/DP climate zone: **56** 

number: **5464** Exposure: **Suburban** 

#### Key construction and insulation materials

(see following pages for details)

Construction: Fibro Cavity Panel Direct Fix

**Corrugated Iron** 

**Concrete Slab on Ground** 

Insulation: R2.5 wall insulation

R3.5 ceiling insulation

No floor insulation

Glazing: ATB-006-03 B AI Thermally Broken B

DG Argon Fill High Solar Gain low-E

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

Conditioned: 198.0 Unconditioned: 43.0 Garage: 39.0 TOTAL: 240.0

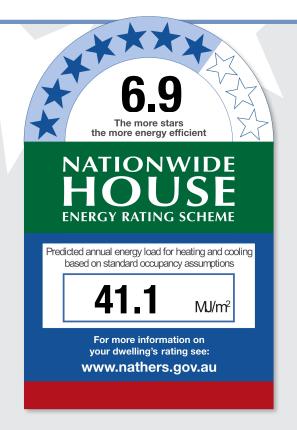
# Annual thermal performance loads (MJ/m²)

Heating: 18.1 Cooling: 23.0 TOTAL: 41.1

#### Plan documents

Plan ref/date: Warriewood Residential Development

Prepared by: VIA Architects



#### Ceiling penetrations

(see following pages for details)

Sealed: 0
Unsealed: 0

TOTAL:\*\*

\*\*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: Unknown

0

## 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.



<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Certificate number: 0003344660 Certificate Date: 13 Nov 2018 ★ Star rating:



## **Building features**

| Window type and performance value |   |         |      |  |  |
|-----------------------------------|---|---------|------|--|--|
| Window ID                         | Window type   | U-value | SHGC |  |  |
| ATB-006-03 B                      | ATB-006-03 B Al Thermally Broken B DG Argon Fill High Solar Gain low-F -Clear | 2.9     | 0.51 |  |  |

#### Window schedule

| Location       | Window ID    | Window no. | Height (mm) | Width (mm) | Orientation | Outdoor shade                          |
|----------------|--------------|------------|-------------|------------|-------------|--|
| Studio         | ATB-006-03 B | n/a        | 2700        | 3500       | E           | No Shading                             |
| Studio         | ATB-006-03 B | n/a        | 2550        | 1000       | W           | No Shading                             |
| Studio         | ATB-006-03 B | n/a        | 2550        | 1000       | N           | No Shading                             |
| L2 Living      | ATB-006-03 B | n/a        | 2550        | 3636       | W           | No Shading                             |
| L2 Living      | ATB-006-03 B | n/a        | 1400        | 900        | N           | No Shading                             |
| Study          | ATB-006-03 B | n/a        | 2550        | 900        | N           | No Shading                             |
| Kitchen/Living | ATB-006-03 B | n/a        | 2400        | 3178       | W           | No Shading                             |
| Kitchen/Living | ATB-006-03 B | n/a        | 2700        | 2722       | N           | No Shading                             |
| Kitchen/Living | ATB-006-03 B | n/a        | 2700        | 1000       | N           | No Shading                             |
| Kitchen/Living | ATB-006-03 B | n/a        | 2700        | 3200       | Е           | Vertical Louvres,<br>Horizontal Blades |
| Bath           | ATB-006-03 B | n/a        | 2550        | 1000       | W           | No Shading                             |
| Bedroom 1      | ATB-006-03 B | n/a        | 2550        | 600        | W           | No Shading                             |
| Bedroom 1      | ATB-006-03 B | n/a        | 2550        | 1000       | N           | No Shading                             |
| Bedroom 2      | ATB-006-03 B | n/a        | 2550        | 1000       | N           | No Shading                             |
| Bedroom 3      | ATB-006-03 B | n/a        | 2550        | 2722       | N           | No Shading                             |
| Bedroom 3      | ATB-006-03 B | n/a        | 2550        | 1875       | Е           | No Shading                             |

| Window type      |                      |                                |  | U-value  | SHGC   |
|------------------|----------------------|--------------------------------|--|--|--|
|                  |                      |                                |  |  |  |
| and skylight sch | edule                |                                |  |  |  |
| ID               | Roof window/skylight | Area (m²)                      | Orientation                              | Outdoor shade  | Indoor shade/diffuser  |
|                  | and skylight sch     | and skylight schedule  ID Roof | and skylight schedule  ID Roof Area (m²) | and skylight schedule  ID Roof Area (m²) Orientation | and skylight schedule  ID Roof Area (m²) Orientation Outdoor shade |

| External wa  | Wall type             |                  | Insulation                            |                   | W              | all wrap or foi |
|--------------|-----------------------|------------------|---------------------------------------|-------------------|----------------|-----------------|
| EW-1         |                       | Panel Direct Fix | Anti-glare foil                       | with bulk no gap  |                | •               |
| EW-2         | Concrete block, lined |                  | Anti-glare foil with bulk no gap R1.5 |                   |                | es              |
| EW-3         | Fibro Cavity F        | Panel Direct Fix | Foil, Anti-glare                      | e one side, Refle | ctive other Ye | es              |
| External was | III schedule<br>ID    | Width (mm)       | Height (mm)                           | Orientation       | Fixed Shade    | Eaves<br>(mm)   |
| Studio       | EW-1                  | 5794             | 2700                                  | E                 | No             | 4322            |
| Studio       | EW-1                  | 5794             | 2700                                  | W                 | No             | 0               |
| Studio       | EW-1                  | 4904             | 2700                                  | N                 | No             | 0               |
| L2 Living    | FW-1                  | 1600             | 2550                                  | W                 | No             | 2000            |

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Certificate number: 0003344660 Certificate Date: 13 Nov 2018 ★ Star rating: 6.



| Building featur | res continue | ed    |      |    |    |       |
|-----------------|--------------|-------|------|----|----|-------|
| L2 Living       | EW-1         | 2000  | 2550 | S  | No | 4200  |
| L2 Living       | EW-1         | 3900  | 2550 | W  | No | 13550 |
| L2 Living       | EW-1         | 5995  | 2550 | N  | No | 0     |
| L2 Living       | EW-2         | 2995  | 2550 | Е  | No | 0     |
| L2 Bath         | EW-2         | 1695  | 2550 | N  | No | 0     |
| L2 Bath         | EW-2         | 2495  | 2550 | Е  | No | 0     |
| Study           | EW-1         | 3690  | 2550 | N  | No | 0     |
| Garage 1        | EW-3         | 5887  | 3000 | W  | No | 0     |
| Garage 1        | EW-3         | 6964  | 3000 | N  | No | 0     |
| Garage 1        | EW-3         | 4272  | 2550 | Е  | No | 1337  |
| Garage 1        | EW-3         | 854   | 2550 | S  | No | 1630  |
| Garage 1        | EW-3         | 1523  | 2550 | SE | No | 2173  |
| WC              | EW-1         | 895   | 2700 | W  | No | 2000  |
| Kitchen/Living  | EW-1         | 4595  | 2700 | W  | No | 2000  |
| Kitchen/Living  | EW-1         | 11400 | 2700 | N  | No | 0     |
| Kitchen/Living  | EW-1         | 5500  | 2700 | Е  | No | 0     |
| Bath            | EW-1         | 1795  | 2550 | W  | No | 50    |
| Bedroom 1       | EW-1         | 3695  | 2550 | W  | No | 25    |
| Bedroom 1       | EW-1         | 3795  | 2550 | N  | No | 0     |
| Bedroom 2       | EW-1         | 4190  | 2550 | N  | No | 0     |
| Bedroom 3       | EW-1         | 3795  | 2550 | N  | No | 900   |
| Bedroom 3       | EW-1         | 3295  | 2550 | Е  | No | 2000  |
| Ens             | EW-1         | 2195  | 2550 | Е  | No | 2000  |

| Wall type   | Area (m²) | Insulation    | Wall wrap or foil |
|---|-----------|---------------|-------------------|
| IW-1 - Brick, plasterboard                              | 116.0     | No Insulation | No                |
| IW-2 - Cavity wall, direct fix plasterboard, single gap | 101.0     | No insulation | No                |

| Floors                       |                                    |           |                       |                       |             |
|------------------------------|------------------------------------|-----------|-----------------------|-----------------------|-------------|
| Location                     | Construction                       | Area (m²) | Sub floor ventilation | Added insulation      | Covering    |
| Studio/Garage 1              | Timber Above Plasterboard 100mm    | 28.4      |                       | Bulk Insulation<br>R3 | Carpet 10mm |
| L2 Living                    | Concrete Slab on Ground<br>100mm   | 42.2      | None                  | No Insulation         | Carpet 10mm |
| L2 Bath                      | Concrete Slab on Ground<br>100mm   | 4.1       | None                  | No Insulation         | Carpet 10mm |
| Study                        | Concrete Slab on Ground<br>100mm   | 12.1      | None                  | No Insulation         | Carpet 10mm |
| Garage 1                     | Concrete Slab on Ground<br>100mm   | 39.4      | None                  | No Insulation         | Bare        |
| WC                           | Concrete Slab on Ground<br>100mm   | 1.7       | None                  | No Insulation         | Carpet 10mm |
| Kitchen/Living /L2<br>Living | Timber Above Plasterboard<br>100mm | 42.6      |                       | No Insulation         | Carpet 10mm |

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Certificate number: 0003344660 Certificate Date: 13 Nov 2018 ★ Star rating:



| Kitchen/Living /L2<br>Bath  | Timber Above Plasterboard<br>100mm | 4.2  |              | No Insulation                               | Carpet 10mm |
|-----------------------------|------------------------------------|------|--------------|---|-------------|
| Kitchen/Living<br>/Study    | Timber Above Plasterboard<br>100mm | 12.6 |              | No Insulation                               | Carpet 10mm |
| Kitchen/Living              | Concrete Slab on Ground<br>100mm   | 1.4  | None         | No Insulation                               | Carpet 10mm |
| Bath/WC                     | Timber Above Plasterboard 100mm    | 1.7  |              | No Insulation                               | Bare        |
| Bath/Kitchen/Living         | Timber Above Plasterboard 100mm    | 3.1  |              | No Insulation                               | Bare        |
| Bath                        | Concrete Slab on Ground<br>100mm   | 0.7  | None         | Bulk<br>Insulation,<br>Gap to Floor<br>R2.5 | Carpet 10mm |
| Bedroom<br>1/Kitchen/Living | Timber Above Plasterboard<br>100mm | 11.4 |              | No Insulation                               | Carpet 10mm |
| Bedroom 1                   | Suspended Timber Floor 100mm       | 1.4  | Totally Open | Bulk<br>Insulation,<br>Gap to Floor<br>R2.5 | Carpet 10mm |
| Bedroom<br>2/Kitchen/Living | Timber Above Plasterboard<br>100mm | 12.6 |              | No Insulation                               | Carpet 10mm |
| Bedroom<br>3/Kitchen/Living | Timber Above Plasterboard<br>19mm  | 12.2 |              | No Insulation                               | Carpet 10mm |
| Ens/Kitchen/Living          | Timber Above Plasterboard<br>100mm | 5.5  |              | No Insulation                               | Carpet 10mm |
| Upstairs/Kitchen/Li ving    | Timber Above Plasterboard<br>100mm | 14.1 |              | No Insulation                               | Carpet 10mm |

|  | type |
|--|------|
|  |      |
|  |      |
|  |      |

| Location       | Construction              | Added insulation        | Roof space above |
|----------------|---------------------------|-------------------------|------------------|
| Studio         | Plasterboard              | Bulk Insulation<br>R3.5 | Yes              |
| L2 Living      | Plasterboard              | Bulk Insulation<br>R3.5 | No               |
| L2 Living      | Timber Above Plasterboard | No Insulation           | No               |
| L2 Bath        | Plasterboard              | Bulk Insulation<br>R3   | No               |
| L2 Bath        | Timber Above Plasterboard | No Insulation           | No               |
| Study          | Plasterboard              | Bulk Insulation<br>R3   | No               |
| Study          | Timber Above Plasterboard | No Insulation           | No               |
| Garage 1       | Plasterboard              | No insulation           | No               |
| Garage 1       | Timber Above Plasterboard | Bulk Insulation<br>R3   | No               |
| WC             | Timber Above Plasterboard | No Insulation           | No               |
| Kitchen/Living | Timber Above Plasterboard | No Insulation           | No               |
| Bath           | Plasterboard              | Bulk Insulation<br>R3.5 | Yes              |
| Bedroom 1      | Plasterboard              | Bulk Insulation<br>R3.5 | Yes              |
| Bedroom 2      | Plasterboard              |                         | Yes              |

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Certificate number: **0003344660** Certificate Date: **13 No** 

13 Nov 2018





|           |              | Bulk Insulation<br>R3.5     |
|-----------|--------------|-----------------------------|
| Bedroom 3 | Plasterboard | Bulk Insulation Yes<br>R3.5 |
| Ens       | Plasterboard | Bulk Insulation Yes<br>R3.5 |
| Upstairs  | Plasterboard | Bulk Insulation Yes<br>R3.5 |

| Ceiling pener | trations |      |                               |
|---------------|----------|------|-------------------------------|
| Location      | Number   | Туре | Diameter (mm) Sealed/unsealed |
| None Present  |          |      |                               |

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

| Construction           | Added Roof color insulation                                  |
|------------------------|--|
| Corrugated Iron        | Bulk, Reflective Medium<br>Side Down, Anti-<br>glare Up R1.3 |
| Waterproofing Membrane | No Insulation, Medium<br>Only an Air Gap                     |



#### Additional information

If carpet noted as floor covering it may be replaced with any type.

Due to non current Window Library the glazing descriptions may not match actual products. Only the U and SHGC values should be considered NOT the glazing descriptions.

## **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

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Certificate number: 0003344645 Certificate Date: 13 Nov 2018 ★ Star rating: 5.8



then this certificate is not valid.

#### Assessor details

Accreditation

number: **20039** 

Name: **David Howard** 

Organisation: Partners Energy Management
Email: david@partnersenergy.com.au

Phone: **0421381005** 

Declaration The Assessor has provided design

of interest: advice to the Applicant BERS Pro v4.3.0.2c (3.13)

AAO: ABSA

## Overview

#### **Dwelling details**

Street: Unit TH08, 25-27 Warriewood rd

Suburb: Warriewood

State: NSW Postcode: 2102
Type: New Dwelling NCC Class: 1A

NatHERS

Lot/DP climate zone: **56** 

number: **5464** Exposure: **Suburban** 

#### Key construction and insulation materials

(see following pages for details)

Construction: Fibro Cavity Panel Direct Fix

Corrugated Iron

**Concrete Slab on Ground** 

Insulation: R2.5 wall insulation

R3.5 ceiling insulation R2.5 floor insulation

Glazing: ATB-006-03 B AI Thermally Broken B

DG Argon Fill High Solar Gain low-E

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

Conditioned: 198.0 Unconditioned: 43.0 Garage: 39.0 TOTAL: 240.0

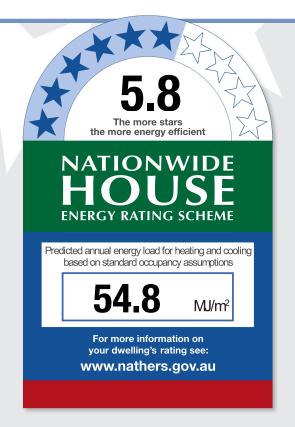
# Annual thermal performance loads (MJ/m²)

Heating: **32.2**Cooling: **22.6**TOTAL: **54.8** 

#### Plan documents

Plan ref/date: Warriewood Residential Development

Prepared by: VIA Architects



#### Ceiling penetrations

(see following pages for details)

Sealed: 0
Unsealed: 0

TOTAL:\*\*

\*\*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: Unknown

0

## 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.



Certificate number: 0003344645 Certificate Date: 13 Nov 2018 ★ Star rating:



5.8

## **Building features**

| Window type and performance value |   |         |      |  |
|-----------------------------------|---|---------|------|--|
| Window ID                         | Window type   | U-value | SHGC |  |
| ATB-006-03 B                      | ATB-006-03 B Al Thermally Broken B DG Argon Fill High Solar Gain low-F -Clear | 2.9     | 0.51 |  |

#### Window schedule

| Location       | Window ID    | Window no. | Height (mm) | Width (mm) | Orientation | Outdoor shade                          |
|----------------|--------------|------------|-------------|------------|-------------|--|
| Studio         | ATB-006-03 B | n/a        | 2550        | 1000       | S           | No Shading                             |
| Studio         | ATB-006-03 B | n/a        | 2550        | 1000       | W           | No Shading                             |
| Studio         | ATB-006-03 B | n/a        | 2700        | 3500       | Е           | No Shading                             |
| L2 Living      | ATB-006-03 B | n/a        | 1400        | 900        | S           | No Shading                             |
| L2 Living      | ATB-006-03 B | n/a        | 2550        | 3636       | W           | No Shading                             |
| Study          | ATB-006-03 B | n/a        | 2550        | 900        | S           | No Shading                             |
| Kitchen/Living | ATB-006-03 B | n/a        | 2700        | 3200       | Е           | Vertical Louvres,<br>Horizontal Blades |
| Kitchen/Living | ATB-006-03 B | n/a        | 2700        | 2722       | S           | No Shading                             |
| Kitchen/Living | ATB-006-03 B | n/a        | 2700        | 1000       | S           | No Shading                             |
| Kitchen/Living | ATB-006-03 B | n/a        | 2400        | 3178       | W           | No Shading                             |
| Bath           | ATB-006-03 B | n/a        | 2550        | 1000       | W           | No Shading                             |
| Bedroom 1      | ATB-006-03 B | n/a        | 2550        | 1000       | S           | No Shading                             |
| Bedroom 1      | ATB-006-03 B | n/a        | 2550        | 600        | W           | No Shading                             |
| Bedroom 2      | ATB-006-03 B | n/a        | 2550        | 1000       | S           | No Shading                             |
| Bedroom 3      | ATB-006-03 B | n/a        | 2550        | 1875       | Е           | No Shading                             |
| Bedroom 3      | ATB-006-03 B | n/a        | 2550        | 2722       | S           | No Shading                             |

| ID          | Window t       | ype                     |           |             | U-value       | SHGC                  |
|-------------|----------------|-------------------------|-----------|-------------|---------------|-----------------------|
| None Presen | it             |                         |           |             |               |                       |
| Roof windo  | w and skylight | schedule                |           |             |               |                       |
| Location    | ID             | Roof<br>window/skylight | Area (m²) | Orientation | Outdoor shade | Indoor shade/diffuser |

| ID          | Wall type             |  | Insulation                               |                   | W              | all wrap or fo |
|-------------|-----------------------|--|--|-------------------|----------------|----------------|
| EW-1        | Fibro Cavity P        | anel Direct Fix                        | ix Anti-glare foil with bulk no gap R2.5 |                   |                | es             |
| EW-2        | Concrete block, lined |  | Anti-glare foil with bulk no gap R1.5    |                   |                | es             |
| EW-3        | Fibro Cavity P        | anel Direct Fix                        | Foil, Anti-glare                         | e one side, Refle | ctive other Yo | es             |
| External wa |                       | \\\\:\d\\:\\\\\\\\\\\\\\\\\\\\\\\\\\\\ | Height (mm)                              | Orientation       | Fixed Shade    |                |
| Location    | ID                    | Width (mm)                             | Height (IIIII)                           | Orientation       | Fixed Shade    | Eaves<br>(mm)  |
| Studio      | EW-1                  | 4904                                   | 2700                                     | S                 | No No          |                |
|             |                       |  |  |                   |                | (mm)           |
| Studio      | EW-1                  | 4904                                   | 2700                                     | S                 | No             | <b>(mm)</b>    |

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Certificate number: 0003344645 Certificate Date: 13 Nov 2018 ★ Star rating: 5.8



#### **Building features continued** L2 Living EW-1 5995 2550 S No 0 L2 Living EW-1 3900 2550 W No 13550 EW-1 2550 Ν 4200 L2 Living 2000 No L2 Living EW-1 1600 2550 W No 2000 L2 Bath EW-2 2495 2550 Е No 0 L2 Bath EW-2 S No 0 1695 2550 Study EW-1 S 0 3690 2550 No Garage 1 EW-3 1523 2550 NE No 3102 Garage 1 EW-3 854 2550 Ν No 1598 Е Garage 1 **EW-3** 4272 2550 No 2238 S Garage 1 EW-3 6964 3000 No 0 Garage 1 EW-3 5887 3000 W No 0 WC EW-1 895 2700 W No 1700 Kitchen/Living EW-1 5500 2700 Е No 0 No Kitchen/Living EW-1 11400 2700 S 0 Kitchen/Living EW-1 W No 1700 4595 2700 1795 2550 W No 50 **Bath** EW-1 Bedroom 1 S No 0 EW-1 3795 2550 Bedroom 1 W 25 EW-1 3695 2550 No Bedroom 2 S EW-1 4190 2550 No 0 Е Bedroom 3 No 2000 EW-1 3295 2550 Bedroom 3 **EW-1** 3795 2550 S No 900 Е Ens 2550 EW-1 2195 No 2000

| Internal wall type                                      |           |               |                   |
|---|-----------|---------------|-------------------|
| Wall type   | Area (m²) | Insulation    | Wall wrap or foil |
| IW-1 - Brick, plasterboard                              | 116.0     | No Insulation | No                |
| IW-2 - Cavity wall, direct fix plasterboard, single gap | 101.0     | No insulation | No                |

| Floors          |                                  |           |                       |  |                      |
|-----------------|----------------------------------|-----------|-----------------------|--|----------------------|
| Location        | Construction                     | Area (m²) | Sub floor ventilation | Added insulation                                 | Covering             |
| Studio/Garage 1 | Timber Above Plasterboard 100mm  | 28.4      |                       | Bulk Insulation<br>R3                            | Carpet 10mm          |
| L2 Living       | Concrete Slab on Ground<br>100mm | 42.2      | None                  | No Insulation                                    | Carpet 10mm          |
| L2 Bath         | Concrete Slab on Ground<br>100mm | 4.1       | None                  | No Insulation                                    | Ceramic Tiles<br>8mm |
| Study           | Concrete Slab on Ground<br>100mm | 12.1      | None                  | No Insulation                                    | Carpet 10mm          |
| Garage 1        | Concrete Slab on Ground<br>100mm | 39.4      | None                  | No Insulation                                    | Bare                 |
| WC              | Suspended Timber Floor 19mm      | 1.7       | Very Open             | Bulk Insulation<br>in Contact with<br>Floor R2.5 |                      |
|                 |                                  | 42.6      |                       | No Insulation                                    | Carpet 10mm          |

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Certificate number: 0003344645 Certificate Date: 13 Nov 2018 ★ Star rating:



| Kitchen/Living /L2<br>Living | Timber Above Plasterboard<br>19mm  |      |              |   |             |
|------------------------------|------------------------------------|------|--------------|---|-------------|
| Kitchen/Living /L2<br>Bath   | Timber Above Plasterboard<br>19mm  | 4.2  |              | No Insulation                               | Carpet 10mm |
| Kitchen/Living<br>/Study     | Timber Above Plasterboard<br>19mm  | 12.6 |              | No Insulation                               | Carpet 10mm |
| Kitchen/Living               | Suspended Timber Floor 19mm        | 1.4  | Very Open    | Bulk Insulation in Contact with Floor R2.5  | Carpet 10mm |
| Bath/WC                      | Timber Above Plasterboard<br>100mm | 1.7  |              | No Insulation                               | Bare        |
| Bath/Kitchen/Living          | Timber Above Plasterboard<br>100mm | 3.1  |              | No Insulation                               | Bare        |
| Bath                         | Concrete Slab on Ground<br>100mm   | 0.7  | None         | Bulk<br>Insulation,<br>Gap to Floor<br>R2.5 | Carpet 10mm |
| Bedroom<br>1/Kitchen/Living  | Timber Above Plasterboard<br>100mm | 11.4 |              | No Insulation                               | Carpet 10mm |
| Bedroom 1                    | Suspended Timber Floor 100mm       | 1.4  | Totally Open | Bulk<br>Insulation,<br>Gap to Floor<br>R2.5 | Carpet 10mm |
| Bedroom<br>2/Kitchen/Living  | Timber Above Plasterboard<br>100mm | 12.6 |              | No Insulation                               | Carpet 10mm |
| Bedroom<br>3/Kitchen/Living  | Timber Above Plasterboard<br>19mm  | 12.2 |              | No Insulation                               | Carpet 10mm |
| Ens/Kitchen/Living           | Timber Above Plasterboard<br>100mm | 5.5  |              | No Insulation                               | Carpet 10mm |
| Upstairs/Kitchen/Li ving     | Timber Above Plasterboard<br>100mm | 14.0 |              | No Insulation                               | Carpet 10mm |

| Ceiling type   |                           |                         |                  |  |
|----------------|---------------------------|-------------------------|------------------|--|
| Location       | Construction              | Added insulation        | Roof space above |  |
| Studio         | Plasterboard              | Bulk Insulation<br>R3.5 | Yes              |  |
| L2 Living      | Plasterboard              | Bulk Insulation<br>R3.5 | No               |  |
| L2 Living      | Timber Above Plasterboard | No Insulation           | No               |  |
| L2 Bath        | Plasterboard              | Bulk Insulation<br>R3   | No               |  |
| L2 Bath        | Timber Above Plasterboard | No Insulation           | No               |  |
| Study          | Plasterboard              | Bulk Insulation<br>R3   | No               |  |
| Study          | Timber Above Plasterboard | No Insulation           | No               |  |
| Garage 1       | Plasterboard              | No insulation           | No               |  |
| Garage 1       | Timber Above Plasterboard | Bulk Insulation<br>R3   | No               |  |
| WC             | Timber Above Plasterboard | No Insulation           | No               |  |
| Kitchen/Living | Timber Above Plasterboard | No Insulation           | No               |  |
| Bath           | Plasterboard              | Bulk Insulation<br>R3.5 | Yes              |  |
| Bedroom 1      | Plasterboard              | Bulk Insulation         | Yes              |  |

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Certificate number: **0003344645** Certificate Date: **13 Nov** 2

13 Nov 2018 ★ Star rating:



|           |              | R3.5                        |
|-----------|--------------|-----------------------------|
| Bedroom 2 | Plasterboard | Bulk Insulation Yes<br>R3.5 |
| Bedroom 3 | Plasterboard | Bulk Insulation Yes<br>R3.5 |
| Ens       | Plasterboard | Bulk Insulation Yes<br>R3.5 |
| Upstairs  | Plasterboard | Bulk Insulation Yes<br>R3.5 |

| Ceiling penetrations |        |      |                               |  |  |
|----------------------|--------|------|-------------------------------|--|--|
| Location             | Number | Туре | Diameter (mm) Sealed/unsealed |  |  |
| None Present         | t      |      |                               |  |  |

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

| Construction           | Added Roof colo insulation                                   |
|------------------------|--|
| Corrugated Iron        | Bulk, Reflective Medium<br>Side Down, Anti-<br>glare Up R1.3 |
| Waterproofing Membrane | No Insulation, Medium<br>Only an Air Gap                     |



#### Additional information

If carpet noted as floor covering it may be replaced with any type.

Due to non current Window Library the glazing descriptions may not match actual products. Only the U and SHGC values should be considered NOT the glazing descriptions.

## **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**

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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.

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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

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Certificate number: 0003344652 Certificate Date: 13 Nov 2018 ★ Star rating: 6.9



then this certificate is not valid.

#### Assessor details

Accreditation

number: **20039** 

Name: **David Howard** 

Organisation: Partners Energy Management
Email: david@partnersenergy.com.au

Phone: **0421381005** 

Declaration The Assessor has provided design

of interest: advice to the Applicant BERS Pro v4.3.0.2c (3.13)

AAO: ABSA

## Overview

#### **Dwelling details**

Street: Unit TH09, 25-27 Warriewood rd

Suburb: Warriewood

State: NSW Postcode: 2102
Type: New Dwelling NCC Class: 1A

NatHERS

Lot/DP climate zone: **56** 

number: **5464** Exposure: **Suburban** 

#### Key construction and insulation materials

(see following pages for details)

Construction: Fibro Cavity Panel Direct Fix

**Corrugated Iron** 

**Concrete Slab on Ground** 

Insulation: R2.5 wall insulation

R3.5 ceiling insulation

No floor insulation

Glazing: ATB-006-03 B AI Thermally Broken B

DG Argon Fill High Solar Gain low-E

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

Conditioned: 198.0 Unconditioned: 43.0 Garage: 39.0 TOTAL: 240.0

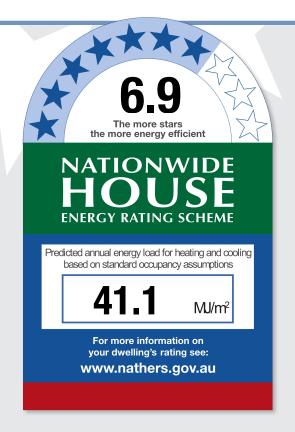
# Annual thermal performance loads (MJ/m²)

Heating: 18.1 Cooling: 23.0 TOTAL: 41.1

#### Plan documents

Plan ref/date: Warriewood Residential Development

Prepared by: VIA Architects



#### Ceiling penetrations

(see following pages for details)

Sealed: 0
Unsealed: 0

TOTAL:\*\*

\*\*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: Unknown

0

## 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.



Certificate number: 0003344652 Certificate Date: 13 Nov 2018

★ Star rating:



## **Building features**

| Window type | and performance value |
|-------------|-----------------------|
|             |                       |
| Window ID   | Window tree           |

**U-value SHGC** Window ID Window type ATB-006-03 B ATB-006-03 B Al Thermally Broken B DG Argon Fill High Solar Gain 0.51 2.9

low-E -Clear

#### Window schedule

| Location       | Window ID    | Window no. | Height (mm) | Width (mm) | Orientation | Outdoor shade                          |
|----------------|--------------|------------|-------------|------------|-------------|--|
| Studio         | ATB-006-03 B | n/a        | 2700        | 3500       | E           | No Shading                             |
| Studio         | ATB-006-03 B | n/a        | 2550        | 1000       | W           | No Shading                             |
| Studio         | ATB-006-03 B | n/a        | 2550        | 1000       | N           | No Shading                             |
| L2 Living      | ATB-006-03 B | n/a        | 2550        | 3636       | W           | No Shading                             |
| L2 Living      | ATB-006-03 B | n/a        | 1400        | 900        | N           | No Shading                             |
| Study          | ATB-006-03 B | n/a        | 2550        | 900        | N           | No Shading                             |
| Kitchen/Living | ATB-006-03 B | n/a        | 2400        | 3178       | W           | No Shading                             |
| Kitchen/Living | ATB-006-03 B | n/a        | 2700        | 2722       | N           | No Shading                             |
| Kitchen/Living | ATB-006-03 B | n/a        | 2700        | 1000       | N           | No Shading                             |
| Kitchen/Living | ATB-006-03 B | n/a        | 2700        | 3200       | Е           | Vertical Louvres,<br>Horizontal Blades |
| Bath           | ATB-006-03 B | n/a        | 2550        | 1000       | W           | No Shading                             |
| Bedroom 1      | ATB-006-03 B | n/a        | 2550        | 600        | W           | No Shading                             |
| Bedroom 1      | ATB-006-03 B | n/a        | 2550        | 1000       | N           | No Shading                             |
| Bedroom 2      | ATB-006-03 B | n/a        | 2550        | 1000       | N           | No Shading                             |
| Bedroom 3      | ATB-006-03 B | n/a        | 2550        | 2722       | N           | No Shading                             |
| Bedroom 3      | ATB-006-03 B | n/a        | 2550        | 1875       | E           | No Shading                             |

| Roof wir | ndow and skylight type and performance valu | ne      |      |
|----------|---|---------|------|
| ID       | Window type                                 | U-value | SHGC |
| None Pre | esent                                       |         |      |
| Roof wir | ndow and skylight schedule                  |         |      |

Location ID Area (m²) Orientation Outdoor shade Indoor Roof window/skylight shade/diffuser

None Present

| External v | ternal wall type              |   |                   |
|------------|-------------------------------|---|-------------------|
| ID         | Wall type                     | Insulation                                  | Wall wrap or foil |
| EW-1       | Fibro Cavity Panel Direct Fix | Anti-glare foil with bulk no gap R2.5       | Yes               |
| EW-2       | Concrete block, lined         | Anti-glare foil with bulk no gap R1.5       | Yes               |
| EW-3       | Fibro Cavity Panel Direct Fix | Foil, Anti-glare one side, Reflective other | Yes               |

## **External wall schedule**

| Location  | ID   | Width (mm) | Height (mm) | Orientation | Fixed Shade | Eaves<br>(mm) |
|-----------|------|------------|-------------|-------------|-------------|---------------|
| Studio    | EW-1 | 5794       | 2700        | E           | No          | 4322          |
| Studio    | EW-1 | 5794       | 2700        | W           | No          | 0             |
| Studio    | EW-1 | 4904       | 2700        | N           | No          | 0             |
| L2 Living | EW-1 | 1600       | 2550        | W           | No          | 2000          |

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Certificate number: 0003344652 Certificate Date: 13 Nov 2018 ★ Star rating: 6.9



#### **Building features continued** L2 Living EW-1 2000 2550 S No 4200 L2 Living EW-1 3900 2550 W No 13550 EW-1 5995 2550 Ν L2 Living No 0 L2 Living EW-2 2995 2550 Е No 0 L2 Bath EW-2 1695 2550 Ν No 0 L2 Bath EW-2 2495 Е No 0 2550 Study EW-1 Ν 0 3690 2550 No W 0 Garage 1 EW-3 5887 3000 No Garage 1 EW-3 6964 3000 Ν No 0 Е Garage 1 **EW-3** 4272 2550 No 1337 S Garage 1 EW-3 854 2550 No 1630 Garage 1 EW-3 1523 2550 SE No 2173 WC EW-1 895 2700 W No 2000 Kitchen/Living EW-1 4595 2700 W No 2000 No Kitchen/Living EW-1 11400 2700 Ν 0 Kitchen/Living EW-1 Е No 0 5500 2700 1795 2550 W No 50 **Bath** EW-1 Bedroom 1 W No 25 EW-1 3695 2550 Bedroom 1 N 0 EW-1 3795 2550 No Bedroom 2 0 EW-1 4190 2550 Ν No Ν Bedroom 3 No 900 EW-1 3795 2550 Bedroom 3 **EW-1** 3295 2550 Е No 2000 Е Ens 2550 2000 EW-1 2195 No

| Wall type   | Area (m²) | Insulation    | Wall wrap or foil |
|---|-----------|---------------|-------------------|
| IW-1 - Brick, plasterboard                              | 116.0     | No Insulation | No                |
| IW-2 - Cavity wall, direct fix plasterboard, single gap | 101.0     | No insulation | No                |

| Floors                       |                                    |           |                       |                       |             |
|------------------------------|------------------------------------|-----------|-----------------------|-----------------------|-------------|
| Location                     | Construction                       | Area (m²) | Sub floor ventilation | Added insulation      | Covering    |
| Studio/Garage 1              | Timber Above Plasterboard 100mm    | 28.4      |                       | Bulk Insulation<br>R3 | Carpet 10mm |
| L2 Living                    | Concrete Slab on Ground<br>100mm   | 42.2      | None                  | No Insulation         | Carpet 10mm |
| L2 Bath                      | Concrete Slab on Ground<br>100mm   | 4.1       | None                  | No Insulation         | Carpet 10mm |
| Study                        | Concrete Slab on Ground<br>100mm   | 12.1      | None                  | No Insulation         | Carpet 10mm |
| Garage 1                     | Concrete Slab on Ground<br>100mm   | 39.4      | None                  | No Insulation         | Bare        |
| WC                           | Concrete Slab on Ground<br>100mm   | 1.7       | None                  | No Insulation         | Carpet 10mm |
| Kitchen/Living /L2<br>Living | Timber Above Plasterboard<br>100mm | 42.6      |                       | No Insulation         | Carpet 10mm |

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Certificate number: 0003344652 Certificate Date: 13 Nov 2018 ★ Star rating:



| Kitchen/Living /L2<br>Bath  | Timber Above Plasterboard<br>100mm | 4.2  |              | No Insulation                               | Carpet 10mm |
|-----------------------------|------------------------------------|------|--------------|---|-------------|
| Kitchen/Living<br>/Study    | Timber Above Plasterboard<br>100mm | 12.6 |              | No Insulation                               | Carpet 10mm |
| Kitchen/Living              | Concrete Slab on Ground<br>100mm   | 1.4  | None         | No Insulation                               | Carpet 10mm |
| Bath/WC                     | Timber Above Plasterboard 100mm    | 1.7  |              | No Insulation                               | Bare        |
| Bath/Kitchen/Living         | Timber Above Plasterboard 100mm    | 3.1  |              | No Insulation                               | Bare        |
| Bath                        | Concrete Slab on Ground<br>100mm   | 0.7  | None         | Bulk<br>Insulation,<br>Gap to Floor<br>R2.5 | Carpet 10mm |
| Bedroom<br>1/Kitchen/Living | Timber Above Plasterboard<br>100mm | 11.4 |              | No Insulation                               | Carpet 10mm |
| Bedroom 1                   | Suspended Timber Floor 100mm       | 1.4  | Totally Open | Bulk<br>Insulation,<br>Gap to Floor<br>R2.5 | Carpet 10mm |
| Bedroom<br>2/Kitchen/Living | Timber Above Plasterboard<br>100mm | 12.6 |              | No Insulation                               | Carpet 10mm |
| Bedroom<br>3/Kitchen/Living | Timber Above Plasterboard<br>19mm  | 12.2 |              | No Insulation                               | Carpet 10mm |
| Ens/Kitchen/Living          | Timber Above Plasterboard<br>100mm | 5.5  |              | No Insulation                               | Carpet 10mm |
| Upstairs/Kitchen/Li ving    | Timber Above Plasterboard<br>100mm | 14.1 |              | No Insulation                               | Carpet 10mm |

| Ceil | ling 1 | type |
|------|--------|------|
|      |        |      |

| Location       | Construction              | Added insulation        | Roof space above |
|----------------|---------------------------|-------------------------|------------------|
| Studio         | Plasterboard              | Bulk Insulation<br>R3.5 | Yes              |
| L2 Living      | Plasterboard              | Bulk Insulation<br>R3.5 | No               |
| L2 Living      | Timber Above Plasterboard | No Insulation           | No               |
| L2 Bath        | Plasterboard              | Bulk Insulation<br>R3   | No               |
| L2 Bath        | Timber Above Plasterboard | No Insulation           | No               |
| Study          | Plasterboard              | Bulk Insulation<br>R3   | No               |
| Study          | Timber Above Plasterboard | No Insulation           | No               |
| Garage 1       | Plasterboard              | No insulation           | No               |
| Garage 1       | Timber Above Plasterboard | Bulk Insulation<br>R3   | No               |
| WC             | Timber Above Plasterboard | No Insulation           | No               |
| Kitchen/Living | Timber Above Plasterboard | No Insulation           | No               |
| Bath           | Plasterboard              | Bulk Insulation<br>R3.5 | Yes              |
| Bedroom 1      | Plasterboard              | Bulk Insulation<br>R3.5 | Yes              |
| Bedroom 2      | Plasterboard              |                         | Yes              |

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Certificate number: 0003344652 Certificate Date:

13 Nov 2018





|           |              | Bulk Insulation<br>R3.5     |
|-----------|--------------|-----------------------------|
| Bedroom 3 | Plasterboard | Bulk Insulation Yes<br>R3.5 |
| Ens       | Plasterboard | Bulk Insulation Yes<br>R3.5 |
| Upstairs  | Plasterboard | Bulk Insulation Yes<br>R3.5 |

| Ceiling penetrations |        |      |                               |  |  |  |  |
|----------------------|--------|------|-------------------------------|--|--|--|--|
| Location             | Number | Туре | Diameter (mm) Sealed/unsealed |  |  |  |  |
| None Present         |        |      |                               |  |  |  |  |

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

| Construction           | Added Roof coloui insulation                                 |
|------------------------|--|
| Corrugated Iron        | Bulk, Reflective Medium<br>Side Down, Anti-<br>glare Up R1.3 |
| Waterproofing Membrane | No Insulation, Medium<br>Only an Air Gap                     |



#### Additional information

If carpet noted as floor covering it may be replaced with any type.

Due to non current Window Library the glazing descriptions may not match actual products. Only the U and SHGC values should be considered NOT the glazing descriptions.

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Certificate number: 0003344694 Certificate Date: 13 Nov 2018 ★ 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: 20039

Name: **David Howard** 

Organisation: Partners Energy Management david@partnersenergy.com.au Email:

Phone: 0421381005

Declaration The Assessor has provided design

of interest: advice to the Applicant BERS Pro v4.3.0.2c (3.13) Software:

**ABSA** AAO:

## Overview

#### **Dwelling details**

Street: Unit TH10, 25-27 Warriewood rd

Suburb: Warriewood

Postcode: State: 2102 **NSW** NCC Class: **New Dwelling 1A** Type:

**NatHERS** 

climate zone: 56 Lot/DP

number: **5464** Exposure: Suburban

#### **Key construction and insulation materials**

(see following pages for details)

Construction: Fibro Cavity Panel Direct Fix

**Corrugated Iron** 

**Concrete Slab on Ground** 

Insulation: **R2.5** wall insulation

> R3.5 ceiling insulation R2.5 floor insulation

ATB-006-03 B AI Thermally Broken B Glazing:

DG Argon Fill High Solar Gain low-E

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

Conditioned: 198.0 Unconditioned: 43.0 Garage: 39.0 TOTAL: 240.0

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

Heating: 32.2 Cooling: 22.6 TOTAL: 54.8

#### Plan documents

**Warriewood Residential Development** Plan ref/date:

Prepared by: **VIA Architects** 

# the more energy efficient NATIONWIDE Predicted annual energy load for heating and cooling based on standard occupancy assumptions MJ/m² For more information on your dwelling's rating see: www.nathers.gov.au

#### Ceiling penetrations

(see following pages for details)

Sealed: Unsealed: 0

TOTAL:\*\*

\*\*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: Unknown

0

## 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.



Certificate number: 0003344694 Certificate Date: 13 Nov 2018 ★ Star rating:



## **Building features**

| Window type and performance value |   |         |      |  |  |
|-----------------------------------|---|---------|------|--|--|
| Window ID                         | Window type   | U-value | SHGC |  |  |
| ATB-006-03 B                      | ATB-006-03 B Al Thermally Broken B DG Argon Fill High Solar Gain low-E -Clear | 2.9     | 0.51 |  |  |

#### Window schedule

| Location       | Window ID    | Window no. | Height (mm) | Width (mm) | Orientation | Outdoor shade                          |
|----------------|--------------|------------|-------------|------------|-------------|--|
| Studio         | ATB-006-03 B | n/a        | 2550        | 1000       | S           | No Shading                             |
| Studio         | ATB-006-03 B | n/a        | 2550        | 1000       | W           | No Shading                             |
| Studio         | ATB-006-03 B | n/a        | 2700        | 3500       | E           | No Shading                             |
| L2 Living      | ATB-006-03 B | n/a        | 1400        | 900        | S           | No Shading                             |
| L2 Living      | ATB-006-03 B | n/a        | 2550        | 3636       | W           | No Shading                             |
| Study          | ATB-006-03 B | n/a        | 2550        | 900        | S           | No Shading                             |
| Kitchen/Living | ATB-006-03 B | n/a        | 2700        | 3200       | Е           | Vertical Louvres,<br>Horizontal Blades |
| Kitchen/Living | ATB-006-03 B | n/a        | 2700        | 2722       | S           | No Shading                             |
| Kitchen/Living | ATB-006-03 B | n/a        | 2700        | 1000       | S           | No Shading                             |
| Kitchen/Living | ATB-006-03 B | n/a        | 2400        | 3178       | W           | No Shading                             |
| Bath           | ATB-006-03 B | n/a        | 2550        | 1000       | W           | No Shading                             |
| Bedroom 1      | ATB-006-03 B | n/a        | 2550        | 1000       | S           | No Shading                             |
| Bedroom 1      | ATB-006-03 B | n/a        | 2550        | 600        | W           | No Shading                             |
| Bedroom 2      | ATB-006-03 B | n/a        | 2550        | 1000       | S           | No Shading                             |
| Bedroom 3      | ATB-006-03 B | n/a        | 2550        | 1875       | Е           | No Shading                             |
| Bedroom 3      | ATB-006-03 B | n/a        | 2550        | 2722       | S           | No Shading                             |

| ID          | Window        | type        |           |             | U-value              | SHGC   |
|-------------|---------------|-------------|-----------|-------------|----------------------|--------|
| None Presen | it            |             |           |             |                      |        |
| Roof windo  | w and skyligh | it schedule |           |             |                      |        |
| Location    | ID            | Roof        | Area (m²) | Orientation | <b>Outdoor shade</b> | Indoor |

| ID               | Wall type      |  | Insulation      |                                       | Wa          | all wrap or fo |
|------------------|----------------|--|-----------------|---------------------------------------|-------------|----------------|
| EW-1             | Fibro Cavity F | Panel Direct Fix   | Anti-glare foil | with bulk no gap                      | R2.5 Ye     | es             |
| EW-2             | Concrete bloc  | k, lined   | Anti-glare foil | Anti-glare foil with bulk no gap R1.5 |             |                |
| EW-3             | Fibro Cavity F | y Panel Direct Fix Foil, Anti-glare one side, Reflective other |                 |                                       |             | es             |
| External wa      | III schedule   | Width (mm)   | Height (mm)     | Orientation                           | Fixed Shade | Eaves<br>(mm)  |
| Studio           | EW-1           | 4904   | 2700            | S                                     | No          | 0              |
|                  |                | 5794   | 2700            | W                                     | No          | 0              |
| Studio           | EW-1           | 0101   |                 |                                       |             |                |
| Studio<br>Studio | EW-1           | 5794   | 2700            | Е                                     | No          | 4322           |

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

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| Building featur | es continue | ed    |      |    |    |       |
|-----------------|-------------|-------|------|----|----|-------|
| L2 Living       | EW-1        | 5995  | 2550 | S  | No | 0     |
| L2 Living       | EW-1        | 3900  | 2550 | W  | No | 13550 |
| L2 Living       | EW-1        | 2000  | 2550 | N  | No | 4200  |
| L2 Living       | EW-1        | 1600  | 2550 | W  | No | 2000  |
| L2 Bath         | EW-2        | 2495  | 2550 | Е  | No | 0     |
| L2 Bath         | EW-2        | 1695  | 2550 | S  | No | 0     |
| Study           | EW-1        | 3690  | 2550 | S  | No | 0     |
| Garage 1        | EW-3        | 1523  | 2550 | NE | No | 3102  |
| Garage 1        | EW-3        | 854   | 2550 | N  | No | 1598  |
| Garage 1        | EW-3        | 4272  | 2550 | Е  | No | 2238  |
| Garage 1        | EW-3        | 6964  | 3000 | S  | No | 0     |
| Garage 1        | EW-3        | 5887  | 3000 | W  | No | 0     |
| WC              | EW-1        | 895   | 2700 | W  | No | 1700  |
| Kitchen/Living  | EW-1        | 5500  | 2700 | Е  | No | 0     |
| Kitchen/Living  | EW-1        | 11400 | 2700 | S  | No | 0     |
| Kitchen/Living  | EW-1        | 4595  | 2700 | W  | No | 1700  |
| Bath            | EW-1        | 1795  | 2550 | W  | No | 50    |
| Bedroom 1       | EW-1        | 3795  | 2550 | S  | No | 0     |
| Bedroom 1       | EW-1        | 3695  | 2550 | W  | No | 25    |
| Bedroom 2       | EW-1        | 4190  | 2550 | S  | No | 0     |
| Bedroom 3       | EW-1        | 3295  | 2550 | Е  | No | 2000  |
| Bedroom 3       | EW-1        | 3795  | 2550 | S  | No | 900   |
| Ens             | EW-1        | 2195  | 2550 | Е  | No | 2000  |

| Internal wall type                                      |           |               |                   |  |  |
|---|-----------|---------------|-------------------|--|--|
| Wall type   | Area (m²) | Insulation    | Wall wrap or foil |  |  |
| IW-1 - Brick, plasterboard                              | 116.0     | No Insulation | No                |  |  |
| IW-2 - Cavity wall, direct fix plasterboard, single gap | 101.0     | No insulation | No                |  |  |

| Floors          |                                    |           |                       |  |                      |
|-----------------|------------------------------------|-----------|-----------------------|--|----------------------|
| Location        | Construction                       | Area (m²) | Sub floor ventilation | Added insulation                                 | Covering             |
| Studio/Garage 1 | Timber Above Plasterboard<br>100mm | 28.4      |                       | Bulk Insulation<br>R3                            | Carpet 10mm          |
| L2 Living       | Concrete Slab on Ground<br>100mm   | 42.2      | None                  | No Insulation                                    | Carpet 10mm          |
| L2 Bath         | Concrete Slab on Ground<br>100mm   | 4.1       | None                  | No Insulation                                    | Ceramic Tiles<br>8mm |
| Study           | Concrete Slab on Ground<br>100mm   | 12.1      | None                  | No Insulation                                    | Carpet 10mm          |
| Garage 1        | Concrete Slab on Ground<br>100mm   | 39.4      | None                  | No Insulation                                    | Bare                 |
| WC              | Suspended Timber Floor 19mm        | 1.7       | Very Open             | Bulk Insulation<br>in Contact with<br>Floor R2.5 |                      |
|                 |                                    | 42.6      |                       | No Insulation                                    | Carpet 10mm          |

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

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| Kitchen/Living /L2<br>Living | Timber Above Plasterboard<br>19mm  |      |              |   |             |
|------------------------------|------------------------------------|------|--------------|---|-------------|
| Kitchen/Living /L2<br>Bath   | Timber Above Plasterboard<br>19mm  | 4.2  |              | No Insulation                               | Carpet 10mm |
| Kitchen/Living<br>/Study     | Timber Above Plasterboard<br>19mm  | 12.6 |              | No Insulation                               | Carpet 10mm |
| Kitchen/Living               | Suspended Timber Floor 19mm        | 1.4  | Very Open    | Bulk Insulation in Contact with Floor R2.5  | Carpet 10mm |
| Bath/WC                      | Timber Above Plasterboard<br>100mm | 1.7  |              | No Insulation                               | Bare        |
| Bath/Kitchen/Living          | Timber Above Plasterboard<br>100mm | 3.1  |              | No Insulation                               | Bare        |
| Bath                         | Concrete Slab on Ground<br>100mm   | 0.7  | None         | Bulk<br>Insulation,<br>Gap to Floor<br>R2.5 | Carpet 10mm |
| Bedroom<br>1/Kitchen/Living  | Timber Above Plasterboard<br>100mm | 11.4 |              | No Insulation                               | Carpet 10mm |
| Bedroom 1                    | Suspended Timber Floor 100mm       | 1.4  | Totally Open | Bulk<br>Insulation,<br>Gap to Floor<br>R2.5 | Carpet 10mm |
| Bedroom<br>2/Kitchen/Living  | Timber Above Plasterboard<br>100mm | 12.6 |              | No Insulation                               | Carpet 10mm |
| Bedroom<br>3/Kitchen/Living  | Timber Above Plasterboard<br>19mm  | 12.2 |              | No Insulation                               | Carpet 10mm |
| Ens/Kitchen/Living           | Timber Above Plasterboard<br>100mm | 5.5  |              | No Insulation                               | Carpet 10mm |
| Upstairs/Kitchen/Li ving     | Timber Above Plasterboard<br>100mm | 14.0 |              | No Insulation                               | Carpet 10mm |

| Ceiling type   |                           |                         |                  |
|----------------|---------------------------|-------------------------|------------------|
| Location       | Construction              | Added insulation        | Roof space above |
| Studio         | Plasterboard              | Bulk Insulation<br>R3.5 | Yes              |
| L2 Living      | Plasterboard              | Bulk Insulation<br>R3.5 | No               |
| L2 Living      | Timber Above Plasterboard | No Insulation           | No               |
| L2 Bath        | Plasterboard              | Bulk Insulation<br>R3   | No               |
| L2 Bath        | Timber Above Plasterboard | No Insulation           | No               |
| Study          | Plasterboard              | Bulk Insulation<br>R3   | No               |
| Study          | Timber Above Plasterboard | No Insulation           | No               |
| Garage 1       | Plasterboard              | No insulation           | No               |
| Garage 1       | Timber Above Plasterboard | Bulk Insulation<br>R3   | No               |
| WC             | Timber Above Plasterboard | No Insulation           | No               |
| Kitchen/Living | Timber Above Plasterboard | No Insulation           | No               |
| Bath           | Plasterboard              | Bulk Insulation<br>R3.5 | Yes              |
| Bedroom 1      | Plasterboard              | Bulk Insulation         | Yes              |

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

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|           |              | R3.5                        |
|-----------|--------------|-----------------------------|
| Bedroom 2 | Plasterboard | Bulk Insulation Yes<br>R3.5 |
| Bedroom 3 | Plasterboard | Bulk Insulation Yes<br>R3.5 |
| Ens       | Plasterboard | Bulk Insulation Yes<br>R3.5 |
| Upstairs  | Plasterboard | Bulk Insulation Yes<br>R3.5 |

| Ceiling penetrations |        |      |                               |  |  |  |  |
|----------------------|--------|------|-------------------------------|--|--|--|--|
| Location             | Number | Туре | Diameter (mm) Sealed/unsealed |  |  |  |  |
| None Present         |        |      |                               |  |  |  |  |
| None i resent        |        |      |                               |  |  |  |  |

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

| Construction           | Added Roof color insulation                                  |
|------------------------|--|
| Corrugated Iron        | Bulk, Reflective Medium<br>Side Down, Anti-<br>glare Up R1.3 |
| Waterproofing Membrane | No Insulation, Medium<br>Only an Air Gap                     |



#### Additional information

If carpet noted as floor covering it may be replaced with any type.

Due to non current Window Library the glazing descriptions may not match actual products. Only the U and SHGC values should be considered NOT the glazing descriptions.

## **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

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au



then this certificate is not valid

#### Assessor details

Accreditation

number: **20039** 

Name: **David Howard** 

Organisation: Partners Energy Management
Email: david@partnersenergy.com.au

Phone: **0421381005** 

Declaration The Assessor has provided design

of interest: advice to the Applicant BERS Pro v4.3.0.2c (3.13)

AAO: ABSA

## Overview

#### **Dwelling details**

Street: Unit TH11, 25-27 Warriewood rd

Suburb: Warriewood

State: NSW Postcode: 2102
Type: New Dwelling NCC Class: 1A

NatHERS

Lot/DP climate zone: **56** 

number: **5464** Exposure: **Suburban** 

#### Key construction and insulation materials

(see following pages for details)

Construction: Fibro Cavity Panel Direct Fix

**Corrugated Iron** 

**Concrete Slab on Ground** 

Insulation: R2.5 wall insulation

R3.5 ceiling insulation No floor insulation

Glazing: ATB-006-03 B AI Thermally Broken B

DG Argon Fill High Solar Gain low-E

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

 Conditioned:
 200.0

 Unconditioned:
 46.0

 Garage:
 41.0

 TOTAL:
 246.0

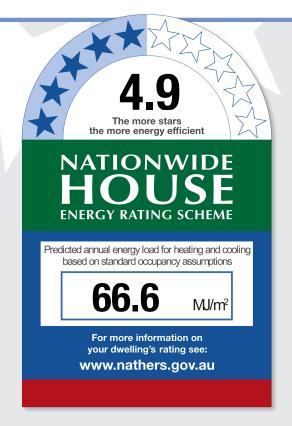
# Annual thermal performance loads (MJ/m²)

Heating: 40.7
Cooling: 25.9
TOTAL: 66.6

#### Plan documents

Plan ref/date: Warriewood Residential Development

Prepared by: VIA Architects



#### Ceiling penetrations

(see following pages for details)

Sealed: 0
Unsealed: 0

TOTAL:\*\*

\*\*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: Unknown

0

## 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 ID    | Window type   | U-value | SHGC |
|--------------|---|---------|------|
| ATB-006-03 B | ATB-006-03 B Al Thermally Broken B DG Argon Fill High Solar Gain low-E -Clear | 2.9     | 0.51 |
| ATB-006-04 B | ATB-006-04 B Al 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                          |
|----------------|--------------|------------|-------------|------------|-------------|--|
| Living         | ATB-006-03 B | n/a        | 2550        | 1000       | S           | No Shading                             |
| Living         | ATB-006-03 B | n/a        | 2550        | 3636       | W           | No Shading                             |
| Living         | ATB-006-04 B | n/a        | 2550        | 1000       | N           | No Shading                             |
| Study          | ATB-006-03 B | n/a        | 1400        | 1000       | S           | No Shading                             |
| Kitchen/Living | ATB-006-04 B | n/a        | 2550        | 1000       | N           | No Shading                             |
| Kitchen/Living | ATB-006-03 B | n/a        | 2700        | 3100       | Е           | Vertical Louvres,<br>Horizontal Blades |
| Kitchen/Living | ATB-006-03 B | n/a        | 2700        | 2700       | S           | No Shading                             |
| Kitchen/Living | ATB-006-03 B | n/a        | 2550        | 1000       | S           | No Shading                             |
| Kitchen/Living | ATB-006-03 B | n/a        | 2400        | 3100       | W           | Vertical Louvres,<br>Horizontal Blades |
| Bath           | ATB-006-03 B | n/a        | 750         | 1000       | W           | No Shading                             |
| Bedroom 1      | ATB-006-03 B | n/a        | 2550        | 1000       | S           | No Shading                             |
| Bedroom 1      | ATB-006-03 B | n/a        | 2550        | 600        | W           | No Shading                             |
| Bedroom 2      | ATB-006-03 B | n/a        | 1400        | 900        | S           | No Shading                             |
| Bedroom 3      | ATB-006-03 B | n/a        | 2550        | 1875       | Е           | No Shading                             |
| Bedroom 3      | ATB-006-03 B | n/a        | 2550        | 2700       | S           | No Shading                             |
| Ens            | ATB-006-04 B | n/a        | 850         | 1025       | N           | No Shading                             |
| Upstairs       | ATB-006-04 B | n/a        | 2400        | 1000       | N           | No Shading                             |
| Studio         | ATB-006-04 B | n/a        | 2550        | 1000       | N           | No Shading                             |
| Studio         | ATB-006-03 B | n/a        | 2550        | 3500       | Е           | No Shading                             |
| Studio         | ATB-006-03 B | n/a        | 2550        | 1000       | SW          | No Shading                             |

| Roof windo        | w and skylig | ht type and performanc         | e value   |             |               |                          |
|-------------------|--------------|--------------------------------|-----------|-------------|---------------|--------------------------|
| ID<br>None Presen | Window       | v type                         |           |             | U-value       | SHGC                     |
|                   | w and skylig | ht schedule                    |           |             |               |                          |
| Location          | ID           | Roof<br>window/skylight<br>no. | Area (m²) | Orientation | Outdoor shade | Indoor<br>shade/diffuser |
| None Presen       | t            |                                |           |             |               |                          |

| External wall type |                               |                                       |                   |  |  |  |
|--------------------|-------------------------------|---------------------------------------|-------------------|--|--|--|
| ID                 | Wall type                     | Insulation                            | Wall wrap or foil |  |  |  |
| EW-1               | Concrete block, lined         | Anti-glare foil with bulk no gap R1.5 | Yes               |  |  |  |
| EW-2               | Fibro Cavity Panel Direct Fix | Anti-glare foil with bulk no gap R2.5 | Yes               |  |  |  |
| External v         | External wall schedule        |                                       |                   |  |  |  |

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| Location       | ID   | Width (mm) | Height (mm) | Orientation | Fixed Shade | Eaves<br>(mm) |
|----------------|------|------------|-------------|-------------|-------------|---------------|
| Living         | EW-1 | 2995       | 2550        | E           | No          | 0             |
| Living         | EW-2 | 5995       | 2550        | S           | No          | 0             |
| Living         | EW-2 | 3900       | 2550        | W           | No          | 2000          |
| Living         | EW-2 | 2000       | 2550        | N           | No          | 1600          |
| Living         | EW-2 | 1600       | 2550        | W           | No          | 4000          |
| Living         | EW-2 | 9400       | 2700        | N           | No          | 0             |
| Grd Bath       | EW-1 | 2495       | 2550        | Е           | No          | 0             |
| Grd Bath       | EW-1 | 1695       | 2550        | S           | No          | 0             |
| Study          | EW-2 | 3690       | 1200        | S           | No          | 0             |
| Study          | EW-1 | 3690       | 1350        | S           | No          | 0             |
| WC             | EW-2 | 895        | 2700        | W           | No          | 400           |
| WC             | EW-2 | 1995       | 2700        | N           | No          | 0             |
| Kitchen/Living | EW-2 | 9395       | 2700        | N           | No          | 0             |
| Kitchen/Living | EW-2 | 5500       | 2700        | Е           | No          | 1400          |
| Kitchen/Living | EW-2 | 11400      | 2700        | S           | No          | 600           |
| Kitchen/Living | EW-2 | 4595       | 2700        | W           | No          | 400           |
| Bath           | EW-2 | 3195       | 2550        | N           | No          | 0             |
| Bath           | EW-2 | 1795       | 2550        | W           | No          | 0             |
| Bedroom 1      | EW-2 | 3795       | 2550        | S           | No          | 25            |
| Bedroom 1      | EW-2 | 3695       | 2550        | W           | No          | 0             |
| Bedroom 2      | EW-2 | 4190       | 2550        | S           | No          | 50            |
| Bedroom 3      | EW-2 | 3295       | 2550        | E           | No          | 1400          |
| Bedroom 3      | EW-2 | 3795       | 2550        | S           | No          | 75            |
| Ens            | EW-2 | 2595       | 2550        | N           | No          | 0             |
| Ens            | EW-2 | 2195       | 2550        | Е           | No          | 1400          |
| Upstairs       | EW-2 | 5990       | 2550        | N           | No          | 0             |
| Garage 1       | EW-2 | 5738       | 2550        | SW          | No          | 25            |
| Garage 1       | EW-2 | 6277       | 2550        | N           | No          | 0             |
| Garage 1       | EW-2 | 1616       | 2550        | Е           | No          | 3208          |
| Garage 1       | EW-2 | 949        | 2550        | N           | No          | 1636          |
| Garage 1       | EW-2 | 4254       | 2550        | NE          | No          | 2206          |
| Garage 1       | EW-2 | 7280       | 2550        | S           | No          | 0             |
| Studio WC      | EW-2 | 1388       | 2550        | W           | No          | 25            |
| Studio WC      | EW-2 | 2595       | 2550        | SE          | No          | 25            |
| Studio         | EW-2 | 5070       | 2550        | N           | No          | 0             |
| Studio         | EW-2 | 5794       | 2550        | E           | No          | 4267          |
| Studio         | EW-2 | 2372       | 2550        | S           | No          | 56            |
| Studio         | EW-2 | 4433       | 2550        | SW          | No          | 25            |

| Internal     | WA   | typo  |
|--------------|------|-------|
| IIIILEI IIAI | waii | ILVDE |

| Wall type                      | Area (m²) | Insulation    | Wall wrap or foil |
|--------------------------------|-----------|---------------|-------------------|
| IW-1 - Cavity wall, direct fix | 111.0     | No insulation | No                |
| plasterboard, single gap       |           |               |                   |

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| Floors                      |                                    |           |                       |   |                      |
|-----------------------------|------------------------------------|-----------|-----------------------|---|----------------------|
| Location                    | Construction                       | Area (m²) | Sub floor ventilation | Added insulation                            | Covering             |
| Living                      | Concrete Slab on Ground<br>100mm   | 42.2      | None                  | No Insulation                               | Ceramic Tiles<br>8mm |
| Grd Bath                    | Concrete Slab on Ground<br>100mm   | 4.1       | None                  | No Insulation                               | Ceramic Tiles<br>8mm |
| Study                       | Concrete Slab on Ground<br>100mm   | 12.1      | None                  | No Insulation                               | Ceramic Tiles<br>8mm |
| WC                          | Suspended Timber Floor 19mm        | 1.7       | Very Open             | Bulk Insulation in Contact with Floor R2.5  | Ceramic Tiles<br>8mm |
| Kitchen/Living<br>/Living   | Timber Above Plasterboard<br>19mm  | 42.6      |                       | No Insulation                               | Carpet 10mm          |
| Kitchen/Living /Grd<br>Bath | Timber Above Plasterboard<br>19mm  | 4.2       |                       | No Insulation                               | Carpet 10mm          |
| Kitchen/Living<br>/Study    | Timber Above Plasterboard<br>19mm  | 12.6      |                       | No Insulation                               | Carpet 10mm          |
| Kitchen/Living              | Suspended Timber Floor 19mm        | 1.4       | Very Open             | Bulk Insulation in Contact with Floor R2.5  | Carpet 10mm          |
| Bath/WC                     | Timber Above Plasterboard<br>19mm  | 1.7       |                       | No Insulation                               | Ceramic Tiles<br>8mm |
| Bath/Kitchen/Living         | Timber Above Plasterboard<br>19mm  | 3.1       |                       | No Insulation                               | Ceramic Tiles<br>8mm |
| Bath                        | Suspended Timber Floor 19mm        | 0.7       | Totally Open          | Bulk<br>Insulation,<br>Gap to Floor<br>R2.5 | Ceramic Tiles<br>8mm |
| Bedroom<br>1/Kitchen/Living | Timber Above Plasterboard 100mm    | 11.4      |                       | No Insulation                               | Carpet 10mm          |
| Bedroom 1                   | Suspended Timber Floor 100mm       | 1.4       | Totally Open          | Bulk<br>Insulation,<br>Gap to Floor<br>R2.5 | Carpet 10mm          |
| Bedroom<br>2/Kitchen/Living | Timber Above Plasterboard 100mm    | 12.6      |                       | No Insulation                               | Carpet 10mm          |
| Bedroom<br>3/Kitchen/Living | Timber Above Plasterboard<br>100mm | 12.2      |                       | No Insulation                               | Carpet 10mm          |
| Ens/Kitchen/Living          | Timber Above Plasterboard<br>100mm | 5.5       |                       | No Insulation                               | Ceramic Tiles<br>8mm |
| Upstairs/Kitchen/Li<br>ving | Timber Above Plasterboard<br>19mm  | 14.0      |                       | No Insulation                               | Carpet 10mm          |
| Garage 1                    | Concrete Slab on Ground<br>100mm   | 40.6      | None                  | No Insulation                               | Bare                 |
| Studio WC/Garage            | Timber Above Plasterboard<br>100mm | 3.1       |                       | Bulk Insulation<br>R3                       | Ceramic Tiles<br>8mm |
| Studio/Garage 1             | Timber Above Plasterboard<br>100mm | 25.4      |                       | Bulk Insulation<br>R3                       | Carpet 10mm          |

| Ceiling type |              |                         |                  |
|--------------|--------------|-------------------------|------------------|
| Location     | Construction | Added insulation        | Roof space above |
| Living       | Plasterboard | Bulk Insulation<br>R3.5 | No               |

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au

Certificate number: 0003344678 Certificate Date:

13 Nov 2018

★ Star rating:



## **Building features continued**

| Living         | Timber Above Plasterboard | No Insulation           | No  |
|----------------|---------------------------|-------------------------|-----|
| Grd Bath       | Plasterboard              | Bulk Insulation<br>R3   | No  |
| Grd Bath       | Timber Above Plasterboard | No Insulation           | No  |
| Study          | Plasterboard              | Bulk Insulation<br>R3   | No  |
| Study          | Timber Above Plasterboard | No Insulation           | No  |
| WC             | Timber Above Plasterboard | No Insulation           | No  |
| Kitchen/Living | Timber Above Plasterboard | No Insulation           | No  |
| Bath           | Plasterboard              | Bulk Insulation<br>R3.5 | Yes |
| Bedroom 1      | Plasterboard              | Bulk Insulation<br>R3.5 | Yes |
| Bedroom 2      | Plasterboard              | Bulk Insulation<br>R3.5 | Yes |
| Bedroom 3      | Plasterboard              | Bulk Insulation<br>R3.5 | Yes |
| Ens            | Plasterboard              | Bulk Insulation<br>R3.5 | Yes |
| Upstairs       | Plasterboard              | Bulk Insulation<br>R3.5 | Yes |
| Garage 1       | Plasterboard              | No insulation           | No  |
| Garage 1       | Timber Above Plasterboard | Bulk Insulation<br>R3   | No  |
| Studio WC      | Plasterboard              | Bulk Insulation<br>R3.5 | Yes |
| Studio         | Plasterboard              | Bulk Insulation<br>R3.5 | Yes |

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

## **Ceiling fans**

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

## **Roof type**

| Construction           | Added insulation                                      | Roof colour |
|------------------------|---|-------------|
| Waterproofing Membrane | No Insulation,<br>Only an Air Gap                     | Medium      |
| Corrugated Iron        | Bulk, Reflective<br>Side Down, Anti-<br>glare Up R1.3 |             |



#### Additional information

If carpet noted as floor covering it may be replaced with any type.

Due to non current Window Library the glazing descriptions may not match actual products. Only the U and SHGC values should be considered NOT the glazing descriptions.

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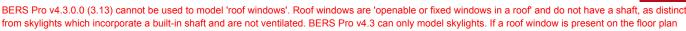
The energy values quoted are for comparison purposes only; they are not a prediction of actual energy use. This rating only applies to the floor plan, construction details, orientation and climate as submitted and included in the attached drawing set that bears a stamp with the same number as this certificate.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

#### **Contact**

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Certificate number: 0003344702 Certificate Date: 13 Nov 2018 ★ Star rating: 5.1



then this certificate is not valid.

#### Assessor details

Accreditation

number: **20039** 

Name: **David Howard** 

Organisation: Partners Energy Management
Email: david@partnersenergy.com.au

Phone: **0421381005** 

Declaration The Assessor has provided design

of interest: advice to the Applicant BERS Pro v4.3.0.2c (3.13)

AAO: ABSA

## Overview

#### **Dwelling details**

Street: Unit TH12, 25-27 Warriewood rd

Suburb: Warriewood

State: NSW Postcode: 2102
Type: New Dwelling NCC Class: 1A

NatHERS

Lot/DP climate zone: **56** 

number: **5464** Exposure: **Suburban** 

#### Key construction and insulation materials

(see following pages for details)

Construction: Fibro Cavity Panel Direct Fix

**Corrugated Iron** 

**Concrete Slab on Ground** 

Insulation: R2.5 wall insulation

R3.0 ceiling insulation
No floor insulation

Glazing: ATB-005-04 B AI Thermally Broken A

DG Argon Fill Low Solar Gain low-E

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

Conditioned: 194.0 Unconditioned: 58.0 Garage: 41.0 TOTAL: 252.0

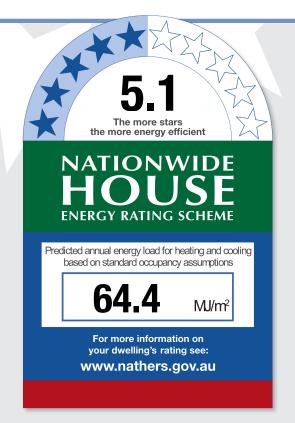
# Annual thermal performance loads (MJ/m²)

Heating: 39.2 Cooling: 25.2 TOTAL: 64.4

#### Plan documents

Plan ref/date: Warriewood Residential Development

Prepared by: VIA Architects



#### Ceiling penetrations

(see following pages for details)

Sealed: 0
Unsealed: 0

TOTAL:\*\*

\*\*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: Unknown

0

## 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.



Certificate number: 0003344702 Certificate Date: 13 Nov 2018 ★ Star rating: 5.1



## **Building features**

| Window type and performance value |  |         |      |  |
|-----------------------------------|--|---------|------|--|
| Window ID                         | Window type  | U-value | SHGC |  |
| ATB-005-04 B                      | ATB-005-04 B Al Thermally Broken A DG Argon Fill Low Solar Gain low-E -Clear | 3.0     | 0.27 |  |

## **Window schedule**

| Location       | Window ID    | Window no. | Height (mm) | Width (mm) | Orientation | Outdoor shade                          |
|----------------|--------------|------------|-------------|------------|-------------|--|
| Bath/Ldry      | ATB-005-04 B | n/a        | 2550        | 1345       | N           | No Shading                             |
| Downstairs     | ATB-005-04 B | n/a        | 2100        | 2100       | W           | No Shading                             |
| Pantry         | ATB-005-04 B | n/a        | 1500        | 1000       | Е           | No Shading                             |
| WC             | ATB-005-04 B | n/a        | 1500        | 1100       | Е           | No Shading                             |
| Kitchen/Living | ATB-005-04 B | n/a        | 1500        | 2913       | S           | No Shading                             |
| Kitchen/Living | ATB-005-04 B | n/a        | 1500        | 1942       | S           | No Shading                             |
| Kitchen/Living | ATB-005-04 B | n/a        | 1500        | 2400       | W           | No Shading                             |
| Kitchen/Living | ATB-005-04 B | n/a        | 2700        | 4900       | W           | Vertical Louvres,<br>Horizontal Blades |
| Kitchen/Living | ATB-005-04 B | n/a        | 2700        | 3100       | N           | No Shading                             |
| Kitchen/Living | ATB-005-04 B | n/a        | 2550        | 1345       | N           | No Shading                             |
| Kitchen/Living | ATB-005-04 B | n/a        | 2550        | 1100       | Е           | No Shading                             |
| Kitchen/Living | ATB-005-04 B | n/a        | 2550        | 1100       | E           | No Shading                             |
| Ens            | ATB-005-04 B | n/a        | 1000        | 1200       | E           | No Shading                             |
| Bedroom 1      | ATB-005-04 B | n/a        | 2700        | 4900       | W           | No Shading                             |
| Bedroom 1      | ATB-005-04 B | n/a        | 2700        | 3100       | N           | No Shading                             |
| Bedroom 2      | ATB-005-04 B | n/a        | 2550        | 1345       | N           | No Shading                             |
| Bedroom 3      | ATB-005-04 B | n/a        | 2700        | 900        | Е           | No Shading                             |
| Bedroom 3      | ATB-005-04 B | n/a        | 2700        | 900        | Е           | No Shading                             |
| Upstairs       | ATB-005-04 B | n/a        | 1000        | 2200       | Е           | No Shading                             |
| Upstairs       | ATB-005-04 B | n/a        | 2700        | 900        | Е           | No Shading                             |

| ID          | Window        | type                    |           |             | U-value       | SHGC                     |
|-------------|---------------|-------------------------|-----------|-------------|---------------|--------------------------|
| None Presen | it            |                         |           |             |               |                          |
| Roof windo  | w and skyligl | nt schedule             |           |             |               |                          |
| Location    | ID            | Roof<br>window/skylight | Area (m²) | Orientation | Outdoor shade | Indoor<br>shade/diffuser |

| External wa | II type        |                  |                                       |                  |             |                 |
|-------------|----------------|------------------|---------------------------------------|------------------|-------------|-----------------|
| ID          | Wall type      |                  | Insulation                            |                  | W           | all wrap or foi |
| EW-1        | Fibro Cavity F | Panel Direct Fix | Anti-glare foil                       | with bulk no gap | R2.5 Y      | es              |
| EW-2        | Concrete bloc  | k, lined         | Anti-glare foil with bulk no gap R1.5 |                  | R1.5 Y      | es              |
| External wa | II schedule    |                  |                                       |                  |             |                 |
| Location    | ID             | Width (mm)       | Height (mm)                           | Orientation      | Fixed Shade | Eaves<br>(mm)   |
| Garage 1    | FW-1           | 6100             | 2550                                  | \/\/             | No          | 0               |

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Certificate number: 0003344702 Certificate Date: 13 Nov 2018 ★ Star rating: 5.1



## **Building features continued**

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|----------------|-----------|-------|------|---|----|------|
| Garage 1       | EW-1      | 5600  | 2550 | N | No | 0    |
| Garage 1       | EW-1      | 5800  | 2550 | S | No | 0    |
| Bath/Ldry      | EW-1      | 1895  | 2550 | W | No | 0    |
| Bath/Ldry      | EW-1      | 3895  | 2550 | N | No | 0    |
| Downstairs     | EW-2      | 2095  | 2550 | N | No | 0    |
| Downstairs     | EW-2      | 10900 | 2550 | Е | No | 2600 |
| Downstairs     | EW-1      | 5800  | 2550 | S | No | 0    |
| Downstairs     | EW-1      | 2895  | 2550 | W | No | 1400 |
| Pantry         | EW-1      | 2195  | 2700 | S | No | 0    |
| Pantry         | EW-1      | 3095  | 2700 | Е | No | 1500 |
| WC             | EW-1      | 2290  | 2700 | Е | No | 1500 |
| Kitchen/Living | EW-1      | 4995  | 2700 | S | No | 0    |
| Kitchen/Living | EW-1      | 2900  | 2700 | W | No | 0    |
| Kitchen/Living | EW-1      | 2300  | 2700 | S | No | 0    |
| Kitchen/Living | EW-1      | 4900  | 2700 | W | No | 2300 |
| Kitchen/Living | EW-1      | 3500  | 2700 | N | No | 1400 |
| Kitchen/Living | EW-1      | 3100  | 2700 | W | No | 0    |
| Kitchen/Living | EW-1      | 6000  | 2700 | N | No | 0    |
| Kitchen/Living | EW-1      | 5495  | 2700 | Е | No | 1500 |
| Ens            | EW-1      | 3095  | 2700 | S | No | 0    |
| Ens            | EW-1      | 2095  | 2700 | Е | No | 0    |
| WIR            | EW-1      | 2895  | 2700 | W | No | 0    |
| WIR            | EW-1      | 4095  | 2700 | S | No | 0    |
| Bedroom 1      | EW-1      | 4900  | 2700 | W | No | 1700 |
| Bedroom 1      | EW-1      | 3500  | 2700 | N | No | 1300 |
| Bedroom 1      | EW-1      | 2300  | 2700 | S | No | 0    |
| Bedroom 2      | EW-1      | 3095  | 2700 | W | No | 0    |
| Bedroom 2      | EW-1      | 3895  | 2700 | N | No | 0    |
| Bedroom 3      | EW-1      | 3390  | 2700 | Е | No | 0    |
| Upstairs       | EW-1      | 2095  | 2700 | N | No | 0    |
| Upstairs       | EW-1      | 5395  | 2700 | Е | No | 0    |
|                |           |       |      |   |    |      |

## Internal wall type

| Wall type   | Area (m²) | Insulation                     | Wall wrap or foil |
|---|-----------|--------------------------------|-------------------|
| IW-1 - Cavity wall, direct fix plasterboard, single gap | 21.0      | Bulk Insulation, No Air Gap R2 | No                |
| IW-2 - Cavity wall, direct fix plasterboard, single gap | 118.0     | No insulation                  | No                |

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| Location  | Construction                     | Area (m²) | Sub floor ventilation | Added insulation | Covering             |
|-----------|----------------------------------|-----------|-----------------------|------------------|----------------------|
| Garage 1  | Concrete Slab on Ground 100mm    | 41.1      | None                  | No Insulation    | Bare                 |
| Bath/Ldry | Concrete Slab on Ground<br>100mm | 12.1      | None                  | No Insulation    | Ceramic Tiles<br>8mm |

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Certificate number: 0003344702 Certificate Date: 13 Nov 2018 ★ Star rating:



| Downstairs                    | Concrete Slab on Ground<br>100mm   | 44.4 | None      | No Insulation                              | Ceramic Tiles<br>8mm |
|-------------------------------|------------------------------------|------|-----------|--|----------------------|
| Pantry/Downstairs             | Timber Above Plasterboard<br>100mm | 6.6  |           | No Insulation                              | Carpet 10mm          |
| WC/Downstairs                 | Timber Above Plasterboard<br>100mm | 4.8  |           | No Insulation                              | Carpet 10mm          |
| Kitchen/Living<br>/Garage 1   | Timber Above Plasterboard<br>19mm  | 24.4 |           | Bulk Insulation<br>R2.5                    | Carpet 10mm          |
| Kitchen/Living<br>/Bath/Ldry  | Timber Above Plasterboard<br>19mm  | 12.5 |           | No Insulation                              | Carpet 10mm          |
| Kitchen/Living<br>/Downstairs | Timber Above Plasterboard<br>19mm  | 32.9 |           | No Insulation                              | Carpet 10mm          |
| Kitchen/Living                | Suspended Timber Floor 19mm        | 4.0  | Very Open | Bulk Insulation in Contact with Floor R2.5 | Carpet 10mm          |
| Ens/Pantry                    | Timber Above Plasterboard<br>100mm | 4.5  |           | No Insulation                              | Carpet 10mm          |
| Ens/Kitchen/Living            | Timber Above Plasterboard<br>100mm | 1.8  |           | No Insulation                              | Carpet 10mm          |
| WIR/Kitchen/Living            | Timber Above Plasterboard<br>100mm | 11.0 |           | No Insulation                              | Carpet 10mm          |
| Bedroom<br>1/Kitchen/Living   | Timber Above Plasterboard<br>100mm | 21.7 |           | No Insulation                              | Carpet 10mm          |
| Bedroom<br>2/Kitchen/Living   | Timber Above Plasterboard<br>100mm | 11.8 |           | No Insulation                              | Carpet 10mm          |
| Bedroom 3/Pantry              | Timber Above Plasterboard<br>100mm | 2.1  |           | No Insulation                              | Carpet 10mm          |
| Bedroom 3/WC                  | Timber Above Plasterboard<br>100mm | 4.9  |           | No Insulation                              | Carpet 10mm          |
| Bedroom<br>3/Kitchen/Living   | Timber Above Plasterboard<br>100mm | 3.1  |           | No Insulation                              | Carpet 10mm          |
| Bath/Kitchen/Living           | Timber Above Plasterboard<br>100mm | 5.1  |           | No Insulation                              | Carpet 10mm          |
| Upstairs/Kitchen/Li ving      | Timber Above Plasterboard<br>100mm | 17.4 |           | No Insulation                              | Carpet 10mm          |

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|---|------|-----|-----|-----|
|   |      |     |     |     |

| Location       | Construction              | Added insulation        | Roof space above |
|----------------|---------------------------|-------------------------|------------------|
| Garage 1       | Plasterboard              | No insulation           | No               |
| Garage 1       | Timber Above Plasterboard | Bulk Insulation<br>R2.5 | No               |
| Bath/Ldry      | Timber Above Plasterboard | No Insulation           | No               |
| Downstairs     | Timber Above Plasterboard | No Insulation           | No               |
| Pantry         | Timber Above Plasterboard | No Insulation           | No               |
| WC             | Timber Above Plasterboard | No Insulation           | No               |
| Kitchen/Living | Timber Above Plasterboard | No Insulation           | No               |
| Ens            | Plasterboard              | Bulk Insulation<br>R3.5 | Yes              |
| WIR            | Plasterboard              | Bulk Insulation<br>R3.5 | Yes              |
| Bedroom 1      | Plasterboard              | Bulk Insulation         | Yes              |

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Certificate number: 0003344702 Certificate Date:

13 Nov 2018





## **Building features continued**

|           |              | R3.5                        |
|-----------|--------------|-----------------------------|
| Bedroom 2 | Plasterboard | Bulk Insulation Yes<br>R3.5 |
| Bedroom 3 | Plasterboard | Bulk Insulation Yes<br>R3.5 |
| Bath      | Plasterboard | Bulk Insulation Yes<br>R3.5 |
| Upstairs  | Plasterboard | Bulk Insulation Yes<br>R3.5 |

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| OCILITIES | penetrations |

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

**Ceiling fans** 

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

Roof type

| Construction           | Added insulation                                      | Roof colour |
|------------------------|---|-------------|
| Waterproofing Membrane | No Insulation,<br>Only an Air Gap                     | Medium      |
| Corrugated Iron        | Bulk, Reflective<br>Side Down, Anti-<br>glare Up R1.3 | Medium      |



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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

<sup>\*</sup> Nationwide House Energy Rating Scheme (NatHERS) is an initiative of the Australian, state and territory governments. For more details see www.nathers.gov.au