# Nationwide House Energy Rating Scheme\* Certificate

Certificate number: 0004871034

Certificate Date: 28 May 2020



### Assessor details

| Accreditation number:    | VIC/BDAV/13/1524         |
|--------------------------|--------------------------|
| Name:                    | Manthee Chetty           |
| Organisation:            | Home Design Services     |
| Email:                   | mantheechetty@gmail.com  |
| Phone:                   | 0478098780               |
| Declaration of interest: | None                     |
| Software:                | BERS Pro v4.4.0.0 (3.21) |
| AAO:                     | BDAV                     |

# Overview

### **Dwelling details**

| Street: | 4 MORELLO TERRACE |               |            |  |  |  |
|---------|-------------------|---------------|------------|--|--|--|
| Suburb: | CADDENS           |               |            |  |  |  |
| State:  | NSW               | Postcode:     | 2747       |  |  |  |
| Type:   | New Dwelling      | NCC Class:    | 1 <b>A</b> |  |  |  |
| .)po:   |                   | NatHERS       |            |  |  |  |
| Lot/DP  |                   | climate zone: | 28         |  |  |  |
| number: | 356/1175094       | Exposure:     | Suburban   |  |  |  |

### Key construction and insulation materials

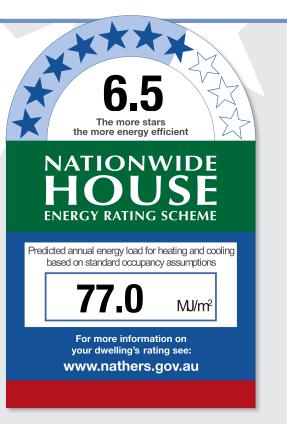
(see following pages for details)

| Fibro Cavity Panel on Battens     |
|-----------------------------------|
| Corrugated Iron                   |
| Suspended Concrete Slab           |
| R2.0 wall insulation              |
| R4.0 ceiling insulation           |
| No floor insulation               |
| ALM-002-01 A Aluminium B SG Clear |
|                                   |

| Net floor area (m <sup>2</sup> ) |              | Annual the                         |              |
|----------------------------------|--------------|------------------------------------|--------------|
| Conditioned:<br>Unconditioned:   | 161.0        | performanc<br>(MJ/m <sup>2</sup> ) | e loads      |
| Garage:                          | 33.0<br>20.0 | Heating:                           | 53.2         |
| TOTAL:                           | 195.0        | Cooling:<br>TOTAL:                 | 23.7<br>77.0 |

### **Plan documents**

Plan ref/date: LOT 356- 4 MORELLO TERRACE Prepared by: SJAD - Benchmark Building Certifiers



| Ceiling penetrations<br>(see following pages for deta  | <b>s</b><br>ails) p    | naxii<br>bene   | TE: This total is the<br>num number of ceiling<br>trations allowed to a<br>g (under a roof) for this |  |  |
|--|------------------------|---|--|--|--|
| Unsealed:  | 4 0<br>0 t<br>4 a<br>1 | <ul> <li>ceiling (under a roof) for this<br/>certificate. If this number is<br/>exceded in construction then<br/>this certificate IS NOT VALID<br/>and a new certificate is require<br/>Loss of ceiling insulation for the<br/>penetrations listed has been<br/>taken into account with the rating</li> </ul> |  |  |  |
| Principle downlight type:  | Unkı                   | now   | /n   |  |  |
| Window selection -<br>default windows only   | <b>y</b>               |   | Scan to access this certificate online and confirm this is valid.                                    |  |  |
| Note on allowable window values:<br>Only a 5% tolerance to the nominate<br>SHGC window values shown on pa<br>can be used with this rating. |                        |   |  |  |  |
|  |                        |   |  |  |  |
| Note: Only a +/- 5% SHGC toleranc allowed with this rating.  | e is                   |   | o seco   |  |  |

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.



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|--|-------------------|-------------|----------------|-----|---|--|
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# **Building features**

### Window type and performance value

| Window ID    | Window type                       | U-value | SHGC |
|--------------|-----------------------------------|---------|------|
| ALM-002-01 A | ALM-002-01 A Aluminium B SG Clear | 6.7     | 0.70 |
| ALM-001-01 A | ALM-001-01 A Aluminium A SG Clear | 6.7     | 0.57 |

### Window schedule

| Location        | Window ID    | Window no. | Height (mm) | Width (mm) | Orientation | Outdoor shade |
|-----------------|--------------|------------|-------------|------------|-------------|---------------|
| Kitchen/meal/fa | ALM-002-01 A | n/a        | 2100        | 900        | W           | No Shading    |
| Kitchen/meal/fa | ALM-002-01 A | n/a        | 900         | 1800       | W           | No Shading    |
| Kitchen/meal/fa | ALM-002-01 A | n/a        | 900         | 1800       | Ν           | No Shading    |
| Kitchen/meal/fa | ALM-002-01 A | n/a        | 2100        | 3600       | Ν           | No Shading    |
| LAUNDRY         | ALM-002-01 A | n/a        | 2100        | 900        | W           | No Shading    |
| Garage          | ALM-002-01 A | n/a        | 600         | 1600       | W           | No Shading    |
| Bedroom 1       | ALM-001-01 A | n/a        | 1800        | 1800       | S           | No Shading    |
| Bedroom 2       | ALM-001-01 A | n/a        | 900         | 2100       | S           | No Shading    |
| TV ROOM         | ALM-002-01 A | n/a        | 900         | 1800       | W           | No Shading    |
| BATH            | ALM-002-01 A | n/a        | 900         | 1600       | W           | No Shading    |
| Bedroom 3       | ALM-002-01 A | n/a        | 900         | 1800       | W           | No Shading    |
| Bedroom 4       | ALM-002-01 A | n/a        | 900         | 1800       | W           | No Shading    |

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

## External wall type

| ID              | Wall type       |                 | Insulation      |                  | Wa          | Il wrap or fo |
|-----------------|-----------------|-----------------|-----------------|------------------|-------------|---------------|
| EW-1            | Fibro Cavity Pa | anel on Battens | Reflective foil | with bulk no gap | R2 Ye       | S             |
| EW-2            | Cavity Brick    |                 | No insulation   |                  | Nc          | )             |
| EW-3            | Single Skin Bri | ck              | No insulation   |                  | No          | )             |
| External wall s | chedule         |                 |                 |                  |             |               |
| Location        | ID              | Width (mm)      | Height (mm)     | Orientation      | Fixed Shade | Eaves<br>(mm) |
| Kitchen/meal/fa | EW-1            | 1495            | 2550            | S                | No          | 1400          |
| Kitchen/meal/fa | EW-1            | 6595            | 2550            | W                | No          | 750           |
| Kitchen/meal/fa | EW-1            | 2100            | 2551            | Ν                | No          | 750           |
| Kitchen/meal/fa | EW-1            | 5400            | 2550            | Ν                | No          | 3700          |
| LAUNDRY         | EW-1            | 495             | 2551            | W                | No          | 2150          |
| LAUNDRY         | EW-1            | 1595            | 2550            | W                | No          | 750           |
| Garage          | EW-2            | 595             | 2551            | S                | No          | 2600          |
| Garage          | EW-2            | 2900            | 2550            | S                | No          | 700           |

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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|-------------------|----------------|------------------|--------|---------|----------------|-------------------|
|                   |                |                  |        |         |                | ENERGY RATING SCH |
| Building featu    | res continued  |                  |        |         |                |                   |
| Garage            | EW-3           | 5700             | 2550   | W       | No             | 750               |
| Garage            | EW-3           | 650              | 2550   | Ν       | No             | 500               |
| Garage            | EW-3           | 750              | 2551   | Ν       | No             | 9450              |
| Bedroom 1         | EW-1           | 1095             | 2551   | S       | No             | 1400              |
| Bedroom 1         | EW-1           | 2800             | 2550   | S       | No             | 600               |
| Bedroom 1         | EW-1           | 2000             | 2550   | W       | No             | 600               |
| Bedroom 2         | EW-1           | 4150             | 2450   | S       | No             | 600               |
| Bedroom 2         | EW-1           | 2400             | 2450   | W       | No             | 750               |
| Bedroom 2         | EW-1           | 595              | 2451   | W       | No             | 1900              |
| TV ROOM           | EW-1           | 750              | 2451   | S       | No             | 3600              |
| TV ROOM           | EW-1           | 500              | 2450   | S       | No             | 600               |
| TV ROOM           | EW-1           | 3595             | 2450   | W       | No             | 650               |

| BATH      | EW-1 | 500  | 2450 | S | No | 4200 |
|-----------|------|------|------|---|----|------|
| BATH      | EW-1 | 2050 | 2450 | W | No | 150  |
| BATH      | EW-1 | 600  | 2450 | N | No | 7350 |
| Bedroom 3 | EW-1 | 3540 | 2450 | W | No | 750  |
| Bedroom 4 | EW-1 | 3045 | 2450 | W | No | 750  |
| Bedroom 4 | EW-1 | 5300 | 2450 | N | No | 750  |
|           |      |      |      |   |    |      |
|           |      |      |      |   |    |      |

## Internal wall type

| Wall type  | Area (m <sup>2</sup> ) | Insulation                              | Wall wrap or foil |
|--|------------------------|---|-------------------|
| IW-1 - Cavity wall, plasterboard on battens one side | 154.0                  | No insulation                           | No                |
| IW-2 - Shaft liner party wall with plaster           | 79.0                   | No Insulation both sides of Shaft liner | No                |

| Floors                       |                                   |           |                       |                  |                      |
|------------------------------|-----------------------------------|-----------|-----------------------|------------------|----------------------|
| Location                     | Construction                      | Area (m²) | Sub floor ventilation | Added insulation | Covering             |
| Kitchen/meal/fa              | Suspended Concrete Slab<br>150mm  | 64.0      | Enclosed              | No Insulation    | Ceramic Tiles<br>8mm |
| WC                           | Suspended Concrete Slab<br>150mm  | 1.6       | Enclosed              | No Insulation    | Ceramic Tiles<br>8mm |
| LAUNDRY                      | Suspended Concrete Slab<br>150mm  | 6.7       | Enclosed              | No Insulation    | Ceramic Tiles<br>8mm |
| Kitchen/meal/fa              | Suspended Concrete Slab<br>150mm  | 3.6       | Enclosed              | No Insulation    | Ceramic Tiles<br>8mm |
| ENSUITE                      | Suspended Concrete Slab<br>150mm  | 4.9       | Enclosed              | No Insulation    | Ceramic Tiles<br>8mm |
| Garage                       | Suspended Concrete Slab<br>150mm  | 19.5      | Enclosed              | No Insulation    | Bare                 |
| WIR                          | Suspended Concrete Slab<br>150mm  | 6.8       | Enclosed              | No Insulation    | Carpet 10mm          |
| Bedroom 1                    | Suspended Concrete Slab<br>150mm  | 15.5      | Enclosed              | No Insulation    | Carpet 10mm          |
| Bedroom<br>2/Kitchen/meal/fa | Timber Above Plasterboard<br>19mm | 4.4       |                       | No Insulation    | Carpet 10mm          |
| Bedroom                      | Timber Above Plasterboard         | 7.8       |                       | No Insulation    | Carpet 10mm          |

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★ Star rating:



6.5

## **Building features continued**

| 2/Bedroom 1                    | 19mm                              |      |               |                      |
|--------------------------------|-----------------------------------|------|---------------|----------------------|
| TV<br>ROOM/Kitchen/me<br>al/fa | Timber Above Plasterboard<br>19mm | 16.7 | No Insulation | Carpet 10mm          |
| TV ROOM/WC                     | Timber Above Plasterboard<br>19mm | 1.8  | No Insulation | Carpet 10mm          |
| TV<br>ROOM/ENSUITE             | Timber Above Plasterboard<br>19mm | 5.3  | No Insulation | Carpet 10mm          |
| TV ROOM/WIR                    | Timber Above Plasterboard<br>19mm | 7.2  | No Insulation | Carpet 10mm          |
| BATH/LAUNDRY                   | Timber Above Plasterboard<br>19mm | 3.5  | No Insulation | Ceramic Tiles<br>8mm |
| BATH/Kitchen/mea<br>I/fa       | Timber Above Plasterboard<br>19mm | 3.7  | No Insulation | Ceramic Tiles<br>8mm |
| Bedroom<br>3/Kitchen/meal/fa   | Timber Above Plasterboard<br>19mm | 10.3 | No Insulation | Carpet 10mm          |
| Bedroom<br>4/Kitchen/meal/fa   | Timber Above Plasterboard<br>19mm | 15.9 | No Insulation | Carpet 10mm          |

### **Ceiling type**

| Location        | Construction              | Added<br>insulation   | Roof space<br>above |
|-----------------|---------------------------|-----------------------|---------------------|
| Kitchen/meal/fa | Plasterboard              | Bulk Insulation<br>R4 | Yes                 |
| Kitchen/meal/fa | Timber Above Plasterboard | No Insulation         | No                  |
| WC              | Timber Above Plasterboard | No Insulation         | No                  |
| LAUNDRY         | Plasterboard              | Bulk Insulation<br>R4 | Yes                 |
| LAUNDRY         | Timber Above Plasterboard | No Insulation         | No                  |
| Kitchen/meal/fa | Timber Above Plasterboard | No Insulation         | No                  |
| ENSUITE         | Timber Above Plasterboard | No Insulation         | No                  |
| Garage          | Plasterboard              | Bulk Insulation<br>R4 | Yes                 |
| WIR             | Timber Above Plasterboard | No Insulation         | No                  |
| Bedroom 1       | Plasterboard              | Bulk Insulation<br>R4 | Yes                 |
| Bedroom 1       | Timber Above Plasterboard | No Insulation         | No                  |
| Bedroom 2       | Plasterboard              | Bulk Insulation<br>R4 | Yes                 |
| TV ROOM         | Plasterboard              | Bulk Insulation<br>R4 | Yes                 |
| BATH            | Plasterboard              | Bulk Insulation<br>R4 | Yes                 |
| Bedroom 3       | Plasterboard              | Bulk Insulation<br>R4 | Yes                 |
| Bedroom 4       | Plasterboard              | Bulk Insulation<br>R4 | Yes                 |

| Ceiling pene | etrations |      |                               |
|--------------|-----------|------|-------------------------------|
| Location     | Number    | Туре | Diameter (mm) Sealed/unsealed |

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|-------------------|---------------|-------------------|-------------|----------------|--------|---------------------------------------|
| Building featu    | res continued |                   |             |                |        |                                       |
| Kitchen/meal/fa   | 1             | Exhaust Fans      |             | 300            | Sealed |                                       |
| WC                | 1             | Exhaust Fans      |             | 300            | Sealed |                                       |
| ENSUITE           | 1             | Exhaust Fans      |             | 300            | Sealed |                                       |
| BATH              | 1             | Exhaust Fans      |             | 300            | Sealed |                                       |

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

| Roof type       |  |  |  |
|-----------------|--|--|--|
| Construction    | Added Roof colour insulation                                     |  |  |
| Corrugated Iron | Bulk, Reflective Light<br>Side Down, No<br>Air Gap Above<br>R1.3 |  |  |

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### **Additional information**

# **Explanatory notes**

### About this report

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

### **General Information**

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

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

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

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

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

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

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

### **Accredited Assessors**

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

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

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

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

### Disclaimer

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

### Contact

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

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