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# Sustainable Design Assessment

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## 34 George Street Reservoir

Prepared for **Great Design Fast Track**  
Prepared by Ys Housing  
Version 4 - 24 December 2025



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# Summary

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## Project Information

<b>Municipality</b>	Darebin City Council
<b>Project Address</b>	34 George Street, Reservoir
<b>Project Type</b>	Townhouse development
<b>Total Site Area</b>	3000 m2
<b>No. of Dwellings</b>	24 dwellings
<b>Zoning</b>	General Residential Zone 2 (GRZ2)
<b>Overlays</b>	Heritage Overlay (H0264)

## Introduction

This assessment has been prepared to address the Environmentally Sustainable Development objectives of the Darebin Planning Scheme for the proposed development at 34 George Street Reservoir. Within Clause 22.12, Darebin City Council has identified the following key categories to be addressed:

1. Energy Performance
2. Indoor Environment Quality (IEQ)
3. Water Resources
4. Stormwater Management
5. Transport
6. Waste Management
7. Urban Ecology

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This Assessment additionally provides details on:

8. Building Materials
9. Construction & Building Management

## Assessment Tools

The development has been assessed using the BESS assessment tool ([www.bess.net.au](http://www.bess.net.au)). The full BESS report is contained in **Appendix A**. The stormwater has been assessed using Blue Factor. The full Blue Factor Rating Report is contained in **Appendix B**. Energy performance has been assessed using NatHERS HERO. Draft NatHERS energy ratings for each unique dwelling are contained in **Appendix C**. Final modelling will be completed during the building permit stage with the results subject to change.

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## Initiatives Marked on Drawings

Initiative	Floor Plan and Elevation Notes	Page Reference No.
Water 3.1	Water efficient garden annotated	TP02 - Development Summary
Energy 4.5	Location and size of solar photovoltaic system	TP02 - Development Summary TP13 - Roof Plan
Stormwater 1.1	Location of any stormwater management systems used in STORM or MUSIC modelling (e.g. Rainwater tanks, raingarden, buffer strips)	TP02 - Development Summary TP21 - WSUD
IEQ 2.2	Dwellings meeting the requirements for having 'natural cross flow ventilation'	TP02 - Development Summary TP10 - Ground Level Plan TP11 - Level 1 Plan TP12 - Level 2 Plan
IEQ 3.1	Glazing specification to be annotated	TP01 - Development Summary
IEQ 3.3	North-facing living areas	TP10 - Ground Level Plan TP12 - Level 2 Plan
Transport 1.1	Location of residential bicycle parking spaces	TP10 - Ground Level Plan
Transport 2.1	Location of electric vehicle charging infrastructure	TP02 - Development Summary
Waste 2.1	Location of food and garden waste facilities	TP02 - Development Summary TP10 - Ground Level Plan
Urban Ecology 2.1	Vegetated areas	TP02 - Development Summary TP10 - Ground Level Plan Landscape Plan
Urban Ecology 2.4	Taps and floor waste on balconies / courtyards	TP02 - Development Summary
Urban Ecology 3.1	Food production areas	TP02 - Development Summary

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## Supporting Evidence

Initiative	Floor Plan and Elevation Notes	Page Reference
Energy 3.5	Provide a written description of the average lighting power density to be installed in the development and specify the lighting type(s) to be used.	TP02 - Development Summary
Energy 4.5	Specifications of the solar photovoltaic system(s).	TP02 - Development Summary
Stormwater 1.1	STORM report or MUSIC model	Appendix B
IEQ 2.2	A list of dwellings with natural cross flow ventilation	01 (Church), TH02-24 TP02 - Development Summary TP10 - Ground Level Plan TP11 - First Floor Plan TP12 - Level 2 Plan
IEQ 3.1	Reference to floor plans or energy modelling showing the glazing specification (U-value and Solar Heat Gain Coefficient, SHGC)	TP02 - Development Summary
IEQ 3.3	Reference to the floor plans showing living areas orientated to the north.	TP10 - Ground Level Plan TP12 - Level 2 Plan

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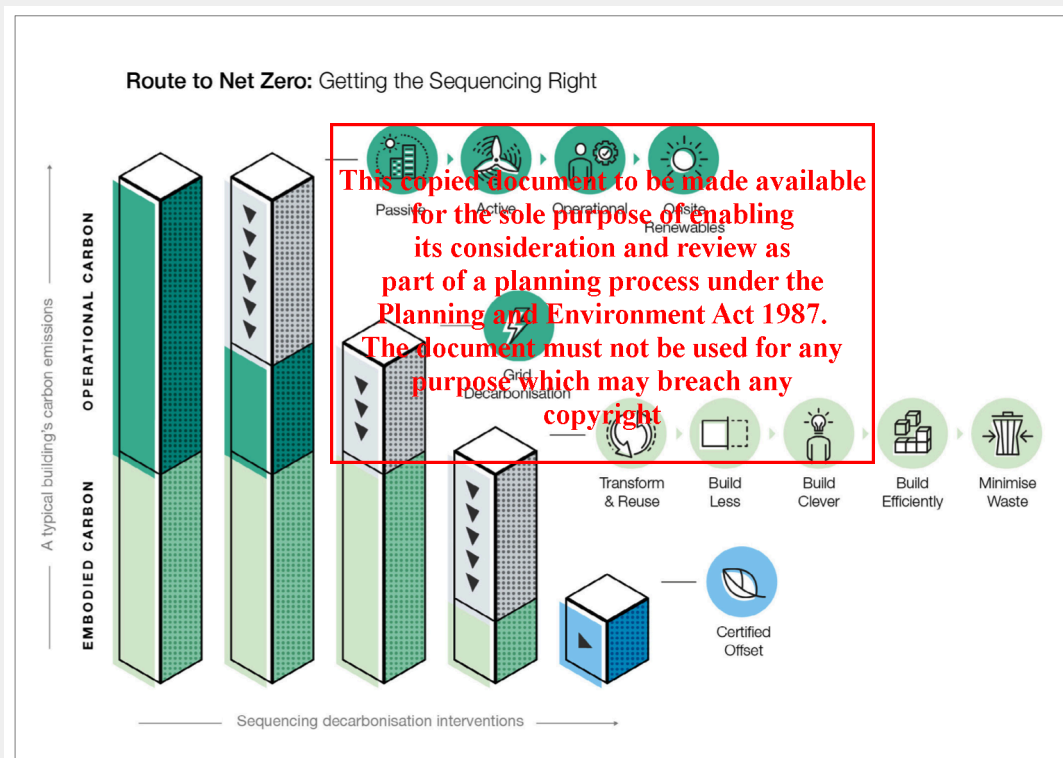
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## 1. Energy Performance

### Targeting Net-Zero in Operation

Net zero is defined as a reduction in the demand for energy to a level that can be met solely by energy sources that do not emit greenhouse gases. Each new dwelling at 34 George Street has been designed to target net-zero in operation, utilising six major strategies:

1. Passive design to harness the sun and the shade, especially north facing living rooms
2. Highly performant building envelope
3. Energy efficient heating, cooling and appliances
4. No gas
5. Roof-top solar
6. 100% Green Power from the grid, to supplement roof-top solar (at the discretion of residents)



Source: Arup (2019)

### 100% Electric and Fossil-Fuel Free

The project is fossil fuel free, meaning it will have no gas connection or gas appliances. All heating, cooling and appliances will be electric.

### Roof-top Solar

Each townhouse will be equipped with an independent solar system.

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## Heat-Pump Hot Water as Thermal Battery

Hot water for the dwellings will be provided by heat-pump hot water systems, powered by the roof-top solar. During peak sunshine, the heat pump efficiently heats the water, storing the hot water like a sponge in preparation for the evening and morning peak periods. The system saves the resident on energy costs, as they can use their low-cost solar electricity to heat hot water. In effect, the heat pump storage tank is acting like a thermal battery, storing thermal energy for peak periods.

## NatHERS Energy Rating

Each dwelling will achieve a minimum NatHERS 7.5 star rating. Indicative NatHERS modelling is enclosed. These results are achieved with the use of:

- High performance double glazed windows
- Careful placement, orientation and sizing of windows
- High-rated insulation

The project is being delivered under National Construction Code (NCC) 2019, which requires a minimum NatHERS star rating of 6. The project aims to exceed that standard.

## Building Seal

All windows, doors, exhaust fans and pipe penetrations will be constructed to minimise air leakage as required by the provisions outlined in the NCC. This will include the use of seals around operable windows and doors, a dwelling packing and triple penetrations, and the addition of self-closing louvres or dampers to exhaust fans.

A high level of internal building sealing is achieved through an air-tight plasterboard system.

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## Heating and Cooling Systems

Heating and cooling in the dwellings will be provided by energy efficient split system air conditioners located in the living rooms. The proposed AC unit has an efficient heating system.

The tight air seal, high performance windows and high rated insulation, will reduce the need for air conditioning to maintain a comfortable temperature. Ceiling fans will also be provided in most bedrooms and living spaces to encourage natural ventilation.

## Internal Lighting

- Energy consumption from artificial lighting will be reduced by the use of efficient LED lighting.
- Internal walls are white to improve daylight penetration and reduce the need for artificial lighting. A maximum illumination power density of 4W/sqm or less is proposed.

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## External Lighting

External lighting will be LED and will have controls (e.g. motion detectors, and timers) to minimise operation during off-peak times (e.g. 11pm- 5am).

## Energy Efficient Appliances

All appliances provided (e.g. dishwasher, oven, rangehood) will be selected for their energy efficient performance.

## 2. Indoor Environment Quality

### Thermal Comfort

- High spec insulation is nominated for all external walls
- High spec insulation is nominated for ceilings & roof
- The roof to new dwellings will be Zinalume, a light grey colour, with a solar absorptance (SA) level of 0.5-0.6, which helps to reduce solar heat gain.

### Daylight & Windows

- All rooms are provided with windows with ample natural daylight.
- Light internal wall colours will enhance the ambient effect of daylight
- All glazing to living rooms will have a minimum 60% Visible Light Transmittance.
- All windows to new dwellings (within the thermal envelope) are double glazed. This provides additional thermal insulation and reduces condensation.
- The new glazing to the church conversion is double glazed.
- Fixed shading generally to north facing windows, and operable shading generally to west facing windows

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### Lighting

- High illuminance levels (300 Lux) will be provided to task areas (e.g. kitchen benches, bathroom basins) for easy use.
- Living rooms are fitted with 2 lighting systems. Most lights are dimmable. The system allows the inhabitant to modify the brightness and direction of lighting as required.
- Maximum illumination power density of 4W/sqm or less.

### Acoustic Comfort

- All internal walls and floors are insulated to dampen sound internally and improve thermal performance.

### Ventilation

- All new dwellings benefit from cross-ventilation through habitable rooms
- The church conversion has cross flow ventilation through the corridor and living room.
- All new dwellings have ceiling fans in most bedrooms. This gives the resident the option for passive ventilation and cooling (instead of an AC unit), while also reducing internal humidity.

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- All kitchens will have dedicated exhaust fans.

## VOCs & Formaldehyde

- Non-VOC paints, adhesives, sealants and flooring will be selected where possible
- All engineered wood products will have low formaldehyde emissions, certified as EO or better. Products without formaldehyde will be specified where possible.

## 3. Water Resources

### Rainwater harvesting

All roof water is reused in either tanks for toilet flushing or directly in the landscape. See the Water Sensitive Urban Design plan for the exact specification.

### WELS

Appliance	WELS Rating
Showerhead	4 Star WELS
Kitchen taps	5 Star WELS
Bathroom taps	5 Star WELS
Dishwasher	4 Star WELS
WC	4 Star WELS

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## 4. Stormwater Management

### Rainwater Tanks for Stormwater Detention

A shared 10,000 L rainwater tank will be provided for Building 3, located under the shared car park area. The large capacity will slow the flow of stormwater during downpours. The overflow will gravity flow to the legal point of discharge.

### Raingarden

A large central rain garden has been included in the common driveway area. It reuses water in the landscape, slows stormwater run-off and improves stormwater quality.

### Permeable Surfaces

The landscape design adopts permeable surfaces to support the natural drainage of stormwater to groundwater stores where practical. The proposed driveway surface is not permeable.

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## 5. Transport

### **Bike Parking**

Residents can securely park their bicycle in the dedicated bicycle area. The area is protected from the weather and secure from theft.

### **Electric Vehicle Ready**

The shared car park will be future-proofed by installing switch board capacity and circuits for future electric vehicle charging.

## 6. Building Materials & Waste Management

### **Low-carbon Structure**

Timber is the preferred structural material, except in the rear car park area, which may require concrete.

Timber stores carbon from the atmosphere as it grows, acting as a carbon sink, which can offset the emission from curing, cutting and transport. The use of steel is minimised, to reduce cost, thermal bridging and embodied carbon.

### **Flooring**

The use of timber flooring will be preferred, with the option of carpet in bedrooms if residents prefer.

### **Construction Waste Management**

A waste management plan will be introduced for all on-site staff at a site orientation session to ensure that the waste generated on site is measured, minimised and disposed of correctly. Construction waste generated on site will be reused or recycled where possible.

### **Operational Waste - Food and Garden Waste**

Residents will have access to a collection system for both food and garden waste, to minimise the organic waste going to landfill.

## 7. Urban Ecology

### **Landscaped Gardens**

Landscaped garden areas provide residents with a tranquil environment for friends, family and solitude.

### **Ecological Value**

The design will incorporate a mix of native species to help strengthen local biodiversity.

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## Private Open Space

16 of the 24 dwellings have a ground floor courtyard garden adjoining living room. The 8 terrace townhouses on top of the car park each have a top floor north facing balcony. Each private open space has a tap and floor waste to allow plant cultivation.

## Deep Root Zones

All garden areas through the site are deep root zones, as there is no basement, which will provide for healthy tree growth and help reduce the urban heat island effect.

## Vegetated Carpark

The carpark will be vegetated and treated with permeable surfaces where practical to increase water infiltration and improve root zones for canopy trees.

## 8. Construction & Building Management

### ESD Professional

An ESD professional has been engaged for the design process from concept to detailed design.

### Building Users Guide

A Building Users Guide will be created and issued to all future residents. The Building Users Guide will:

- Identify the main sustainable design initiatives, systems and processes that building users will interact with;
- Present information that covers the function and use of the building; and
- Use non-technical language targeted to building occupants, and where required, to building managers

### Implementation of ESD initiatives:

- Full integration with architectural plans and specifications
- Full integration with building services design and specifications
- Endorsement of the ESD Report with town planning drawings
- ESD initiatives to be included in plans and specifications for building approval

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## Appendix A: BESS

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# BESS Report

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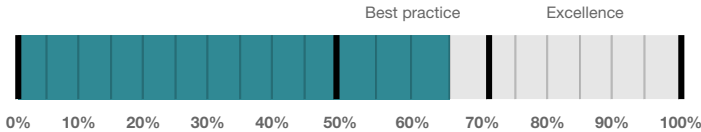
Built Environment Sustainability Scorecard



This BESS report outlines the sustainable design commitments of the proposed development at Kookaburra Uniting Kindergarten Reservoir Victoria 3073. The BESS report and accompanying documents and evidence are submitted in response to the requirement for a Sustainable Design Assessment or Sustainability Management Plan at Darebin City Council.

Note that where a Sustainability Management Plan is required, the BESS report must be accompanied by a report that further demonstrates the development's potential to achieve the relevant environmental performance outcomes and documents the means by which the performance outcomes can be achieved.

### Your BESS Score



# 68%

### Project details

Name	34 George St, Reservoir VIC 3073 -- v3
Address	Kookaburra Uniting Kindergarten, Reservoir VIC 3073
Project ID	8A60A332-F4
BESS Version	BESS-7
Site type	Multi dwelling (dual tenancy), residential
Account	oscar@yshousing.develop
Application no.	
Site area	3,000 m <sup>2</sup>
Building floor area	3,172 m <sup>2</sup>
Date	24 December 2025
Software version	2.3.0-B.638

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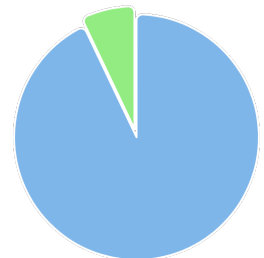


### Performance by category

● This project ● Maximum available

Category	Weight	Score	Pass
Management	5%	100%	●
Water	9%	50%	✓
Energy	28%	70%	✓
Stormwater	14%	100%	✓
IEQ	17%	94%	✓
Transport	9%	67%	●
Waste	6%	50%	●
Urban Ecology	6%	49%	●
Innovation	9%	0%	●

### Project composition



● Townhouse ● Detached dwelling

# Dwellings & Non Res Spaces **ADVERTISED PLAN**

## Dwellings

Name	Quantity	Area	% of total area
<b>Detached dwelling</b>			
01 - Church	1	225 m <sup>2</sup>	7%
<b>Total</b>	<b>1</b>	<b>225 m<sup>2</sup></b>	<b>7%</b>
<b>Townhouse</b>			
TH18-TH23 - Terrace Middle	6	103 m <sup>2</sup>	19%
TH07-TH09-TH11-TH13 - North Middle	4	147 m <sup>2</sup>	18%
TH08-TH10-TH11-TH12 - North Middle	4	145 m <sup>2</sup>	18%
TH03-TH04 - Front Middle	2	153 m <sup>2</sup>	9%
TH15 - North East Side 4BR	1	141 m <sup>2</sup>	4%
TH06 - North West Side	1	145 m <sup>2</sup>	4%
TH02 - Front Diagonal	1	151 m <sup>2</sup>	4%
TH24 - Terrace East Side	1	103 m <sup>2</sup>	3%
TH17 - Terrace West Side	1	103 m <sup>2</sup>	3%
TH16 - North East Side 3BR	1	108 m <sup>2</sup>	3%
TH05 - Front Side	1	104 m <sup>2</sup>	3%
<b>Total</b>	<b>23</b>	<b>2,947 m<sup>2</sup></b>	<b>92%</b>

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## Supporting Evidence

### Shown on Floor Plans

Credit	Requirement	Response	Status
Water 3.1	Annotation: Water efficient garden details	To be printed Refer to TP02	✓
Energy 4.5	Location and size of solar photovoltaic system	To be printed Refer to TP02	✓
Stormwater 1.1	Location of any stormwater management systems (rainwater tanks, raingardens, buffer strips)	To be printed Refer to TP21	✓
IEQ 2.2	Annotation: Dwellings designed for 'natural cross flow ventilation' (If not all dwellings, include a list of compliant dwellings)	To be printed Refer to TP02, TP10, TP11, TP12	✓
IEQ 3.1	Annotation: Glazing specification (U-value, SHGC)	To be printed Refer to TP02	✓
IEQ 3.2	Adjustable shading systems	To be printed Refer to TP30	✓
IEQ 3.3	North-facing living areas	To be printed Refer to TP10 and TP12	✓
Transport 1.1	Location of residential bicycle parking spaces	To be printed Refer to TP10	✓
Transport 2.1	Location of electric vehicle charging infrastructure	To be printed Refer to TP02	✓
Waste 2.1	Location of food and garden waste facilities	To be printed Refer to TP02 and TP10	✓
Urban Ecology 2.1	Location and size of vegetated areas	To be printed Refer to TP02, TP10 and Landscape Plan.	✓

Credit	Requirement	Response	Status
Urban Ecology 2.4	Location of taps and floor waste on balconies / courtyards	To be printed Refer to TP02	✓

**Supporting Documentation**

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Credit	Requirement	Response	Status
Management 2.1	Preliminary NatHERS assessment	To be printed NatHERS Church -	✓
Management 2.2	Preliminary NatHERS assessments	To be printed NatHERS townhouses -	✓
Energy 3.5	Average lighting power density and lighting type(s) to be used	To be printed Architectural Plans Refer to TP02	✓
Energy 4.5	Specifications of the solar photovoltaic system(s)	To be printed Architectural Plans Refer to TP02	✓
Stormwater 1.1	STORM report or MUSIC model	To be printed SDA Report Refer to STORM report included in SDA report	✓
IEQ 2.2	A list of dwellings with natural cross flow ventilation	To be printed Architectural Plans 01 (Church), TH02 - TH24	✓
IEQ 3.1	Reference to floor plans and elevations showing glazing specification (U-value and Solar Heat Gain Coefficient, SHGC)	To be printed Architectural Plans Refer to TP02	✓
IEQ 3.2	Reference to floor plans and elevations showing shading devices	To be printed Architectural Plans Refer to TP30-TP32	✓
IEQ 3.3	Reference to the floor plans showing living areas orientated to the north	To be printed Architectural Plans Refer to TP10 and TP12	✓

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**Credit summary**

**Management Overall contribution 4.5%**

		<b>100%</b>
1.1 Pre-Application Meeting	<div style="width: 100%; height: 10px; background-color: #0070C0;"></div>	100%
2.1 Thermal Performance Modelling - Single Dwelling	<div style="width: 100%; height: 10px; background-color: #0070C0;"></div>	100%
2.2 Thermal Performance Modelling - Multi-Dwelling Residential	<div style="width: 100%; height: 10px; background-color: #0070C0;"></div>	100%
4.1 Building Users Guide	<div style="width: 100%; height: 10px; background-color: #0070C0;"></div>	100%

**Water Overall contribution 9.0%**

		<b>Minimum required 50%</b>	<b>50%</b>	<b>✓ Pass</b>
1.1 Potable Water Use Reduction	<div style="width: 40%; height: 10px; background-color: #0070C0;"></div>		40%	
3.1 Water Efficient Landscaping	<div style="width: 100%; height: 10px; background-color: #0070C0;"></div>		100%	

**Energy Overall contribution 27.5%**

		Minimum required 50%	70%	✓ Pass
1.2 Thermal Performance Rating - Residential			66%	
2.1 Greenhouse Gas Emissions			100%	
2.2 Peak Demand			7%	
2.3 Electricity Consumption			100%	
2.4 Gas Consumption			N/A	✦ Scoped Out
No gas connection in use				
2.5 Wood Consumption			N/A	✦ Scoped Out
No wood heating system present				
2.6 Electrification			100%	
3.2 Hot Water			100%	
3.3 External Lighting			0%	
3.4 Clothes Drying			0%	
3.5 Internal Lighting - Houses and Townhouses			100%	
4.4 Renewable Energy Systems - Other			0%	⊘ Disabled
No other (non-solar PV) renewable energy is in use.				
4.5 Solar PV - Houses and Townhouses			100%	

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**Stormwater Overall contribution 13.5%**

		Minimum required 100%	100%	✓ Pass
1.1 Stormwater Treatment			100%	

**IEQ Overall contribution 16.5%**

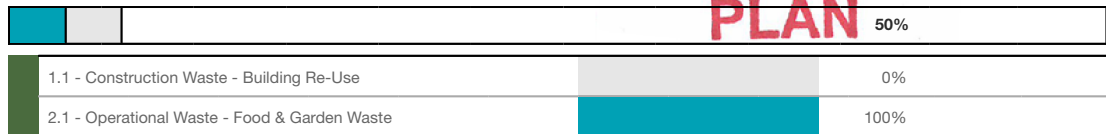
		Minimum required 50%	94%	✓ Pass
2.2 Cross Flow Ventilation			92%	
3.1 Thermal comfort - Double Glazing			92%	
3.2 Thermal Comfort - External Shading			92%	
3.3 Thermal Comfort - Orientation			100%	

**Transport Overall contribution 9.0%**

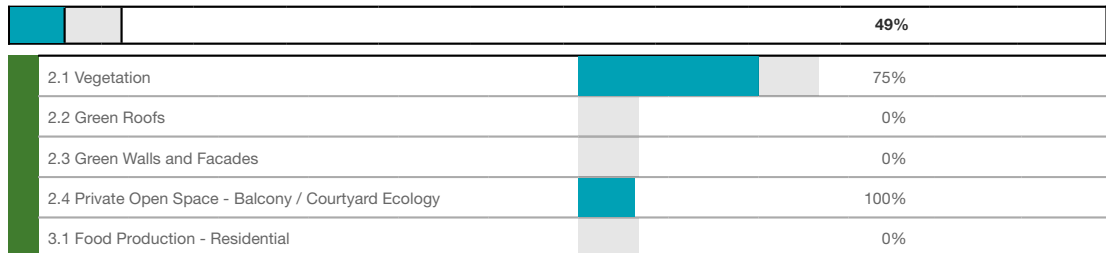
		67%
1.1 Bicycle Parking - Residential		100%
1.2 Bicycle Parking - Residential Visitor		0%
2.1 Electric Vehicle Infrastructure		100%

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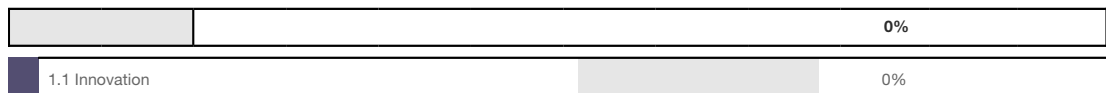
**Waste Overall contribution 5.5%**



**Urban Ecology Overall contribution 5.5%**



**Innovation Overall contribution 9.0%**



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## Credit breakdown

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Management Overall contribution 4.5%

100%

<b>1.1 Pre-Application Meeting</b>		100%
Score Contribution	This credit contributes 50% towards the category score.	
Criteria	Has an ESD professional been engaged to provide sustainability advice from schematic design to construction? AND Has the ESD professional been involved in a pre-application meeting with Council?	
Annotation	Milly Gamlin is a qualified architect and former tutor in Environmental Design at Monash University. She was participated in the Pre-application meeting with Alex Mckenna-Cocks from the City of Darebin 12 September 2023.	
Question	Criteria Achieved ?	
Project	Yes	
<b>2.1 Thermal Performance Modelling - Single Dwelling</b>		100%
Score Contribution	This credit contributes 2.4% towards the category score.	
Criteria	Has a preliminary NatHERS rating been undertaken?	
Question	Criteria Achieved ?	
Detached dwelling	Yes	
<b>2.2 Thermal Performance Modelling - part of a planning</b>		100%
Score Contribution	This credit contributes 30% towards the category score.	
Criteria	Have preliminary NatHERS ratings been undertaken for all thermally unique dwellings?	
Question	Criteria Achieved ?	
Townhouse	Yes	
<b>4.1 Building Users Guide</b>		100%
Score Contribution	This credit contributes 16.7% towards the category score.	
Criteria	Will a building users guide be produced and issued to occupants?	
Annotation	A Building User Guide will be produced and issued to each future resident. The building user guide include all of the instruction booklets from each of the manufacturers of the key ESD products within each townhouse, like, for example, the heat pump hot water system and solar p	
Question	Criteria Achieved ?	
Project	Yes	

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Water Overall contribution 9.0%

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Minimum required 50%

50% ✔ Pass

## Water Approach

What approach do you want to use for Water?: Use the built in calculation tools

Do you have a reticulated third pipe or an on-site water recycling system?: No

Are you installing a swimming pool?: No

Are you installing a rainwater tank?: Yes

## Fixtures, fittings & connections profile

Showerhead: All 4 Star WELS (>= 6.0 but <= 7.5)

### Bath:

01 - Church Medium Sized Contemporary Bath

TH02 - Front Diagonal Small Square Tub/ Combined Shower

TH03-TH04 - Front Middle

TH05 - Front Side

TH06 - North West Side

TH08-TH10-TH11-TH12 - North Middle

TH15 - North East Side 4BR

TH16 - North East Side 3BR

TH17 - Terrace West Side

TH18-TH23 - Terrace Middle

TH24 - Terrace East Side

TH07-TH09-TH11-TH13 - North Middle

Kitchen Taps: All 4 Star WELS rating

Bathroom Taps: All 4 Star WELS rating

Dishwashers: All 4 Star WELS rating

WC: All 4 Star WELS rating

Urinals: All Scope out

Washing Machine Water Efficiency: All Occupant to Install

## Which non-potable water source is the dwelling/space connected to?:

01 - Church -1

TH06 - North West Side

TH08-TH10-TH11-TH12 - North Middle

TH15 - North East Side 4BR

TH16 - North East Side 3BR

TH07-TH09-TH11-TH13 - North Middle

TH02 - Front Diagonal 237613

TH03-TH04 - Front Middle 237614

TH05 - Front Side 237615

TH17 - Terrace West Side 237612

TH18-TH23 - Terrace Middle

TH24 - Terrace East Side

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**Non-potable water source connected to Toilets:**

01 - Church	No
TH06 - North West Side	
TH15 - North East Side 4BR	
TH16 - North East Side 3BR	
TH07-TH09-TH11-TH13 - North Middle	
TH02 - Front Diagonal	Yes
TH03-TH04 - Front Middle	
TH05 - Front Side	
TH08-TH10-TH11-TH12 - North Middle	
TH17 - Terrace West Side	
TH18-TH23 - Terrace Middle	
TH24 - Terrace East Side	

Non-potable water source connected to Laundry (washing machine): All No

Non-potable water source connected to Hot Water System: All No

**Rainwater tank profile**

What is the total roof area connected to the rainwater tank?:

Shared RWT - TH17-TH24	433 m <sup>2</sup>
TH02	52.0 m <sup>2</sup>
TH03-TH04	106 m <sup>2</sup>
TH05	53.0 m <sup>2</sup>

**Tank Size:**

Shared RWT - TH17-TH24	10,000 Litres
TH02	2,000 Litres
TH03-TH04	4,000 Litres
TH05	2,000 Litres

**Irrigation area connected to tank:**

Shared RWT - TH17-TH24	200 m <sup>2</sup>
TH02	25.0 m <sup>2</sup>
TH03-TH04	50.0 m <sup>2</sup>
TH05	25.0 m <sup>2</sup>

Is connected irrigation area a water efficient garden?:

Shared RWT - TH17-TH24	Yes
TH02	Yes
TH03-TH04	Yes
TH05	Yes

Other external water demand connected to tank?:

Shared RWT - TH17-TH24	0.0 Litres/Day
TH02	0.0 Litres/Day
TH03-TH04	0.0 Litres/Day
TH05	0.0 Litres/Day

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**1.1 Potable Water Use Reduction**

40%

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Score Contribution	This credit contributes 83.3% towards the category score.
Criteria	What is the reduction in total potable water use due to efficient fixtures, appliances, rainwater use and recycled water use? To achieve points in this credit there must be >25% potable water reduction.
Output	Reference
Project	4664 kL
Output	Proposed (excluding rainwater and recycled water use)
Project	3743 kL
Output	Proposed (including rainwater and recycled water use)
Project	3471 kL
Output	% Reduction in Potable Water Consumption
Project	25 %
Output	% of connected demand met by rainwater
Project	91 %
Output	How often does the tank overflow?
Project	Often
Output	Opportunity for additional rainwater connection
Project	1836 kL

<b>3.1 Water Efficient Landscaping</b>		100%
--	---	------

Score Contribution	This credit contributes 16.7% towards the category score.
Criteria	Will water efficient landscaping be installed?
Question	Criteria Achieved ?
Project	Yes

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**Energy Overall contribution 27.5%**

	Minimum required 50%	70% <span style="color: green;">✔</span> Pass
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**Dwellings Energy Approach**

What approach do you want to use for Dwellings?:	Use the built in calculation tools
Are you installing any solar photovoltaic (PV) system(s)?:	Yes
Are you installing any other renewable energy system(s)?:	No
Energy Supply:	All-electric

**Dwelling Energy Profiles**

Below the floor is: All	Ground or Carpark
Above the ceiling is: All	Outside

<b>Exposed sides:</b>	
01 - Church	4
TH02 - Front Diagonal	3
TH05 - Front Side	
TH06 - North West Side	
TH15 - North East Side 4BR	
TH16 - North East Side 3BR	
TH17 - Terrace West Side	
TH24 - Terrace East Side	
TH03-TH04 - Front Middle	2
TH08-TH10-TH11-TH12 - North Middle	
TH18-TH23 - Terrace Middle	
TH07-TH09-TH11-TH13 - North Middle	

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<b>NatHERS Annual Energy Loads - Heat:</b>	
01 - Church	33.8 MJ/sqm
TH02 - Front Diagonal	41.7 MJ/sqm
TH03-TH04 - Front Middle	26.4 MJ/sqm
TH05 - Front Side	34.5 MJ/sqm
TH06 - North West Side	44.9 MJ/sqm
TH08-TH10-TH11-TH12 - North Middle	32.2 MJ/sqm
TH15 - North East Side 4BR	37.9 MJ/sqm
TH16 - North East Side 3BR	36.7 MJ/sqm
TH17 - Terrace West Side	38.9 MJ/sqm
TH18-TH23 - Terrace Middle	40.2 MJ/sqm
TH24 - Terrace East Side	42.8 MJ/sqm
TH07-TH09-TH11-TH13 - North Middle	32.0 MJ/sqm

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**NatHERS Annual Energy Loads - Cool:**

O1 - Church	31.4 MJ/sqm
TH02 - Front Diagonal	24.9 MJ/sqm
TH03-TH04 - Front Middle	28.5 MJ/sqm
TH05 - Front Side	33.0 MJ/sqm
TH06 - North West Side	18.6 MJ/sqm
TH08-TH10-TH11-TH12 - North Middle	17.3 MJ/sqm
TH15 - North East Side 4BR	16.6 MJ/sqm
TH16 - North East Side 3BR	19.9 MJ/sqm
TH17 - Terrace West Side	28.0 MJ/sqm
TH18-TH23 - Terrace Middle	18.3 MJ/sqm
TH24 - Terrace East Side	24.1 MJ/sqm
TH07-TH09-TH11-TH13 - North Middle	16.1 MJ/sqm

NatHERS star rating: All	7.5
Type of Heating System: All	Reverse cycle space
Heating System Efficiency: All	3 Star
Type of Cooling System: All	Refrigerative space
Cooling System Efficiency: All	3 Stars

Type of Hot Water System: All	Electric Heat Pump Band 1
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% Contribution from solar hot water system: All	0%
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Clothes Line: All	No drying facilities
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Clothes Dryer: All	Occupant to install
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**Solar Photovoltaic system profile**

System Size (lesser of inverter and panel capacity):	
O1 - Church	5.0 kW peak
TH02-TH05	12.0 kW peak
TH06-TH016	33.0 kW peak
TH17-TH24	24.0 kW peak

**Orientation (which way is the system facing)?:**

O1 - Church	North
TH02-TH05	North
TH06-TH016	North
TH17-TH24	South

**Inclination (angle from horizontal):**

O1 - Church	45.0 Angle (degrees)
TH02-TH05	40.0 Angle (degrees)
TH06-TH016	2.0 Angle (degrees)
TH17-TH24	2.0 Angle (degrees)

**Which Building Class does this apply to?:**

O1 - Church	Detached dwelling
TH02-TH05	Townhouse
TH06-TH016	Townhouse
TH17-TH24	Townhouse

1.2 Thermal Performance Rating - Residential		66%
Score Contribution	This credit contributes 30% towards the category score.	
Criteria	What is the average NatHERS rating?	
Output	Average NATHERS Rating (Weighted)	
Detached dwelling	7.5 Stars	
Townhouse	7.5 Stars	
2.1 Greenhouse Gas Emissions		100%
Score Contribution	This credit contributes 10% towards the category score.	
Criteria	What is the % reduction in annual greenhouse gas emissions against the benchmark?	
Output	Reference Building with Reference Services (BCA only)	
Detached dwelling	11,951 kg CO2	
Townhouse	216,070 kg CO2	
Output	Proposed Building with Proposed Services (Actual Building)	
Detached dwelling	3,829 kg CO2	
Townhouse	63,584 kg CO2	
Output	% Reduction in GHG Emissions	
Detached dwelling	67 %	
Townhouse	70 %	
2.2 Peak Demand		7%
Score Contribution	This credit contributes 5% towards the category score.	
Criteria	What is the % reduction in the instantaneous (peak-hour) demand against the benchmark?	
Output	Peak Thermal Cooling Load - Baseline	
Detached dwelling	43.4 kW	
Townhouse	329 kW	
Output	Peak Thermal Cooling Load - Proposed	
Detached dwelling	29.5 kW	
Townhouse	291 kW	
Output	Peak Thermal Cooling Load - % Reduction	
Detached dwelling	31 %	
Townhouse	11 %	
2.3 Electricity Consumption		100%

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Score Contribution	This credit contributes 10% towards the category score.
Criteria	What is the % reduction in annual electricity consumption against the benchmark?
Output	Reference
Detached dwelling	11,717 kWh
Townhouse	211,833 kWh
Output	Proposed
Detached dwelling	3,754 kWh
Townhouse	62,337 kWh
Output	Improvement
Detached dwelling	67 %
Townhouse	70 %

<b>2.4 Gas Consumption</b>		N/A	✦ Scoped Out
No gas connection in use			

This credit was scoped out      No gas connection in use

<b>2.5 Wood Consumption</b>		N/A	✦ Scoped Out
No wood heating system present			

This credit was scoped out      No wood heating system present

<b>2.6 Electrification</b>		100%
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Score Contribution	This credit contributes 10% towards the category score.
Criteria	Is the development all-electric?
Question	Criteria Achieved?
Project	Yes

<b>3.2 Hot Water</b>		100%
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Score Contribution	This credit contributes 10% towards the category score.
Criteria	What is the % reduction in annual energy consumption (gas and electricity) of the hot water system against the benchmark?
Output	Reference
Detached dwelling	17,227 MJ
Townhouse	320,881 MJ
Output	Proposed
Detached dwelling	4,950 MJ
Townhouse	87,868 MJ
Output	Improvement
Detached dwelling	71 %
Townhouse	72 %

<b>3.3 External Lighting</b>		0%
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Score Contribution	This credit contributes 5% towards the category score.
Criteria	Is the external lighting controlled by a motion detector?
Question	Criteria Achieved ?
Detached dwelling	No
Townhouse	No

**3.4 Clothes Drying** 0%

Score Contribution	This credit contributes 5% towards the category score.
Criteria	What is the % reduction in annual energy consumption (gas and electricity) from a combination of clothes lines and efficient driers against the benchmark?
Output	Reference
Detached dwelling	792 kWh
Townhouse	14,330 kWh
Output	Proposed
Detached dwelling	792 kWh
Townhouse	14,330 kWh
Output	Improvement
Detached dwelling	0 %
Townhouse	0 %

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**3.5 Internal Lighting - Houses and townhouses** 100%

Score Contribution	This credit contributes 5% towards the category score.
Criteria	Does the development achieve a maximum illumination power density of 4W/sqm or less?
Question	Criteria Achieved?
Detached dwelling	Yes
Townhouse	Yes

**4.4 Renewable Energy Systems - Other** 0%  Disabled

No other (non-solar PV) renewable energy is in use.

This credit is disabled No other (non-solar PV) renewable energy is in use.

**4.5 Solar PV - Houses and Townhouses** 100%

Score Contribution	This credit contributes 10% towards the category score.
Criteria	What % of the estimated energy consumption of the building class it supplies does the solar power system provide?
Output	Solar Power - Energy Generation per year
Detached dwelling	6,450 kWh
Townhouse	79,739 kWh
Output	% of Building's Energy
Detached dwelling	171 %
Townhouse	127 %

**Stormwater Overall contribution 13.5%**

	<b>Minimum required 100%</b>	<b>100%</b>	<b>✓ Pass</b>
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<b>Which stormwater modelling are you using?:</b>		Melbourne Water STORM tool
<b>1.1 Stormwater Treatment</b>		100%
Score Contribution	This credit contributes 100% towards the category score.	
Criteria	Has best practice stormwater management been demonstrated?	
Question	STORM score achieved	
Project	113	
Output	Min STORM Score	
Project	100	

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**IEQ Overall contribution 16.5%**

	<b>Minimum required 50%</b>	<b>94%</b>	<b>✓ Pass</b>
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<b>2.2 Cross Flow Ventilation</b>		92%
Score Contribution	This credit contributes 20% towards the category score.	
Criteria	Are all habitable rooms designed to achieve natural cross flow ventilation?	
Question	Criteria Achieved ?	
Detached dwelling	No	
Townhouse	Yes	
<b>3.1 Thermal comfort - Double Glazing</b>		92%
Score Contribution	This credit contributes 40% towards the category score.	
Criteria	Is double glazing (or better) used to all habitable areas?	
Question	Criteria Achieved ?	
Detached dwelling	No	
Townhouse	Yes	
<b>3.2 Thermal Comfort - External Shading</b>		92%
Score Contribution	This credit contributes 20% towards the category score.	
Criteria	Is appropriate external shading provided to east, west and north facing glazing?	
Question	Criteria Achieved ?	
Detached dwelling	No	
Townhouse	Yes	
<b>3.3 Thermal Comfort - Orientation</b>		100%
Score Contribution	This credit contributes 20% towards the category score.	
Criteria	Are at least 50% of living areas orientated to the north?	
Question	Criteria Achieved ?	
Detached dwelling	Yes	
Townhouse	Yes	

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**Transport Overall contribution 9.0%**

			67%
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**1.1 Bicycle Parking - Residential** 100%

Score Contribution	This credit contributes 33.3% towards the category score.			
Criteria	How many secure and undercover bicycle spaces are there per dwelling for residents?			
Question	Bicycle Spaces Provided ?			
Detached dwelling	1	<b>ADVERTISED PLAN</b>		
Townhouse	23			
Output	Min Bicycle Spaces Required			
Detached dwelling	1			
Townhouse	23			

**1.2 Bicycle Parking - Residential Visitor** 0%

Score Contribution	This credit contributes 32.1% towards the category score.		
Criteria	How many secure bicycle spaces are there per 5 dwellings for visitors?		
Question	Visitor Bicycle Spaces Provided ?		
Townhouse	0		

**2.1 Electric Vehicle Infrastructure** 100%

Score Contribution	This credit contributes 66.7% towards the category score.		
Criteria	Are facilities provided for the charging of electric vehicles?		
Annotation	Spatial provision made for future EV charging in the carpark switchboard and cable trays. No infrastructure to be installed.		
Question	Criteria Achieved ?		
Project	Yes		

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**Waste Overall contribution 5.5%**

			50%
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**1.1 - Construction Waste - Building Re-Use** 0%

Score Contribution	This credit contributes 50% towards the category score.		
Criteria	If the development is on a site that has been previously developed, has at least 30% of the existing building been re-used?		
Question	Criteria Achieved ?		
Project	No		

**2.1 - Operational Waste - Food & Garden Waste** 100%

Score Contribution	This credit contributes 50% towards the category score.		
Criteria	Are facilities provided for on-site management of food and garden waste?		
Question	Criteria Achieved ?		
Project	Yes		

**Urban Ecology Overall contribution 5.5%**



**2.1 Vegetation** 75%

Score Contribution	This credit contributes 50.4% towards the category score.
Criteria	How much of the site is covered with vegetation, expressed as a percentage of the total site area?
Question	Percentage Achieved ?
Project	20 %

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**2.2 Green Roofs** 0%

Score Contribution	This credit contributes 12.6% towards the category score.
Criteria	Does the development incorporate a green roof?
Question	Criteria Achieved ?
Project	No

**2.3 Green Walls and Facades** 0%

Score Contribution	This credit contributes 12.6% towards the category score.
Criteria	Does the development incorporate a green wall or green façade?
Question	Criteria Achieved ?
Project	No

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**2.4 Private Open Space - Balcony / Courtyard Ecology** 100%

Score Contribution	This credit contributes 11.7% towards the category score.
Criteria	Is there an open and functional space (balcony and courtyard (including any roof terrace)?
Question	Criteria Achieved ?
Townhouse	Yes

**3.1 Food Production - Residential** 0%

Score Contribution	This credit contributes 12.6% towards the category score.
Criteria	What area of space per resident is dedicated to food production?
Question	Food Production Area
Detached dwelling	0.0 m <sup>2</sup>
Townhouse	0.0 m <sup>2</sup>
Output	Min Food Production Area
Detached dwelling	1 m <sup>2</sup>
Townhouse	16 m <sup>2</sup>

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Innovation Overall contribution 9.0%

		0%
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<b>1.1 Innovation</b>		0%
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Score Contribution	This credit contributes 100% towards the category score.	
Criteria	What percentage of the Innovation points have been claimed (10 points maximum)?	

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## Appendix B: Blue Factor

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# ADVERTISED PLAN

## 34 George Street - Rev 2

The proposed stormwater treatments provide 'deemed to comply' compliance with the minimum planning requirement for total nitrogen but does not comply with all the relevant objectives for management of stormwater flows on-site.

**113%**  
SCORE

### Project details

Name	34 George Street - Rev 2
Street address	Kookaburra Uniting Kindergarten, 34 George St, Reservoir VIC 3073, Australia
Municipality	Darebin
Site area	8003m <sup>2</sup>
Planning Number	

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### Flow and pollutant load reductions

Item	Result	Target
Mean annual runoff volume harvested or evaporated (%)	11%	>28%
Mean annual runoff volume infiltrated or filtered (%)	27%	>9%
Total suspended solids (%)	65%	>80%
Total phosphorus (%)	54%	>45%
Total nitrogen (%)	51%	>45%
Total gross pollutants (%)	70%	>70%

### Water treatment

#### Catchments

**TH02 to TH05 Roofs 206m<sup>2</sup>**

**TH06 to TH15 Roofs 518m<sup>2</sup>**

**TH16 Roof** 63m<sup>2</sup>

**TH17 to TH24 Roof** 386m<sup>2</sup>

# ADVERTISED PLAN

**TH17 to TH25 Balconies** Roof, 136m<sup>2</sup>

**Church Roof** 183m<sup>2</sup>

**Driveway - Raingarden** Paved, 21m<sup>2</sup>

**Driveway & Path - Untreated** Paved, 261m<sup>2</sup>

**Path - Raingarden** Paved, 210m<sup>2</sup>

**Aggregate Paths - Untreated** Paved, 114m<sup>2</sup>

**Gardens and Permeable Landscape**

Pervious (garden and lawn), 905m<sup>2</sup>

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# ADVERTISED PLAN

**Central Raingarden** Area: 21 m<sup>2</sup>,  
Extended detention depth: 0.1 m, Submerged zone depth: 0.3 m,  
Site soil type: Sandy loam

**TH02 to TH05 Rainwater Tank Aggregate**  
Rainwater tank retention volume in kilolitres: 8

**TH17 to TH25 Shared Rainwater Tank**  
Rainwater tank retention volume in kilolitres: 10

## Buildings & dwellings

**TH02 to TH05** Residential Townhouse, 14 bedroom(s)

**Church** Residential Detached house, 3 bedroom(s)

**TH06 to TH16** Residential Townhouse, 43 bedroom(s)

**TH17 to TH24** Residential Apartment, 16 bedroom(s)

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# ADVERTISED PLAN

**TH02 to TH05 Roofs** 206m<sup>2</sup>

**TH02 to TH05 Rainwater Tank Aggregate**  
Rainwater tank retention volume in kilolitres: 8,

**TH02 to TH05 Residential Townhouse**, 14 bedroom(s)

## Raingarden Runoff

**TH06 to TH15 Roofs** 518m<sup>2</sup>

**TH16 Roof** 63m<sup>2</sup>

**TH17 to TH23 Roofs** 100m<sup>2</sup>

**Driveway - Raingarden Paved**, 21m<sup>2</sup>

**Path - Raingarden Paved**, 210m<sup>2</sup>

**Central Raingarden** Area: 21 m<sup>2</sup>,  
Extended detention depth: 0.1 m,  
Submerged zone depth: 0.3 m, Site soil type: Sandy loam,

**TH17 to TH24 Residential Apartment**, 16 bedroom(s)

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**TH17 to TH24 Roof** 386m<sup>2</sup>

**TH17 to TH25 Shared Rainwater Tank**

Rainwater tank retention volume in kilolitres: 10,

**TH06 to TH16 Residential Townhouse**, 43 bedroom(s)

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## Appendix C: NatHERS

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## ADVERTISED PLAN

### Capabilities

- Energy Rating Reports (Excl. ACT)
  - Class 1a
  - Class 2
  - Expert Witness Reports
- Site Management Plans
- Sustainable Design Assessments/Management Plans
  - WSUD Reports
  - BESS Reports
  - TP NatHERS Reports
- Part 3.12 DTS Reports (Vol. 2)
  - Artificial Lighting Calculator
  - Glazing Calculator
  - Building Fabric Specification
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### NATHERS ENERGY REPORT

34 George Street, Reservoir

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<b>Project Heating &amp; Cooling Loads</b>					
Type:	Unit Number:	STAR RATING ACHIEVED	CALCULATED HEATING	CALCULATED COOLING	TOTAL HEATING & COOLING mj/m <sup>2</sup>
4	U2	7.6	41.7	24.9	66.5
3.a	U3	7.9	25.1	29	54.2
3.b	U4	7.9	27.7	28.1	55.9
6	U5	7.5	34.5	33	67.5
1.a	U6	7.7	44.9	18.6	63.5
2	U7	8.3	29.8	14.4	44.2
1.b	U8	8.1	30.7	19.2	49.9
1.c	U9	7.9	37.9	16.6	54.5
2	U10	8.3	29.8	14.4	44.2
1.b	U11	8.1	30.7	19.2	49.9
1.c	U12	7.9	37.9	16.6	54.5
2	U13	8.3	29.8	14.4	44.2
1.b	U14	8.1	30.7	19.2	49.9
1.c	U15	7.9	37.9	16.6	54.5
7	U16	7.9	36.7	19.9	56.6
5.a	U17	7.5	38.9	28.0	66.9
5.b	U18	7.8	39.9	18.5	58.4
5.c	U19	7.8	40.6	18.2	58.9
5.b	U20	7.8	39.9	18.5	58.4
5.c	U21	7.8	40.6	18.2	58.9
5.b	U22	7.8	39.9	18.5	58.4
5.c	U23	7.8	40.6	18.2	58.9
5.d	U24	7.5	42.8	24.1	66.9

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BUILDING THERMAL PROPERTY DETAILS			
Floor Type:	MIN. INSULATION REQ.		Applies to:
Slab on Ground:	R3.23 100mm EPS Koolfoam Ultra or Similar		U2 – U24
Slab Edge:	None		U2 – U24
Suspended Slab:(300mm)	R4.6 100mm K10 Soffit Board or Similar		U17
Suspended Slab:(300mm)	R2.3 50mm K10 Soffit Board or Similar		U24
Timber Floors:(Throughout)	R4.0 Bulk Insulation		U2 – U24
Wall Type:	MIN. INSULATION REQ.		Air Gap:
Ext. Walls:	R2.5 Bulk Insulation	Non-Refl (E=0.9/0.9)	All (Excl. U17)
Ext. Walls:	R2.7 Bulk Insulation	Non-Refl (E=0.9/0.9)	U17
Ext. Walls:(140mm Stud)	R4.0 Bulk Insulation	Non-Refl (E=0.9/0.9)	U17 & U24
Party Wall:	R5.0 (R2.5x2) Bulk Insulation	Non-Refl (E=0.9/0.9)	U2 – U24
Int. Walls:(Unconditioned Areas)	R2.5 Bulk Insulation	None	U2 – U24
Ceiling:	MIN. INSULATION REQ.		Roof:
Ceiling under Flat Roof:	R7.0 Bulk Insulation	Non-Refl Air	U2 – U24
Ceiling under Balcony:	R4.0 Bulk Insulation	Non-Refl Air	U17 – U24
Ceiling Fans:(1200mm Diameter)	1 x Living	N/A	U17 – U24
Window Operability & I.D	Max U-Value, SHGC, WERS Code & Window Details		Applies to:
Awning	3.18 & 0.52   AWS-088-17		All (Excl. U17)
Fixed	2.90 & 0.51   BRD-127-10 proxy for AWS-090-27		All (Excl. U17)
Sliding Doors	2.24 & 0.56   AWS-089-56 proxy for AWS-12-073 (2.24 & 0.55)		All (Excl. U17)
Casement & Hinged Doors	2.91 & 0.44   ATB-005-03; Alum, DG (Default Window)		All (Excl. U17)
Sliding Windows	2.90 & 0.51   ATB-006-03; Alum, DG (Default Window)		All (Excl. U17)
Hinged Door	2.91 & 0.44   ATB-005-03; Alum, DG (Default Window)		U17
Awning	1.95 & 0.52   DOW-021-01 proxy for XXX-XXX-XX		U17
Fixed	1.44 & 0.51   THC-076-03 proxy for XXX-XXX-XX		U17
Adjustable Shading Devices	West Facing Level 2 Windows		U2 – U5
LEGEND, ADDITIONAL DETAILS & CLAUSES			
<ul style="list-style-type: none"> <li>• “Ext.” = “External” &amp; “Int.” = “Internal”</li> <li>• “Non-Refl” = “Non-Reflective”, “Refl” = “Reflective” &amp; “REQ.” = “Required”</li> <li>• Downlights are sealed</li> <li>• Exhaust fans - sealed</li> <li>• Air infiltration seals to external residence and garage internal doors</li> <li>• SHGC is allowed to be +/- 5% of nominated value</li> <li>• Additional details – refer to NatHERS Certificate</li> </ul>			

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# Nationwide House Energy Rating Scheme — Class 1 Summary

## NatHERS Certificate No. #

Generated on 19 Jun 2025 using Hero 4.1

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### Property

**Address** 34 George Street, Reservoir, VIC, 3073

**Lot/DP**

**NatHERS climate zone** 21 - Melbourne RO

### Accredited assessor



Nguyen Le

Nguyen Le

trang-n-le@outlook.com

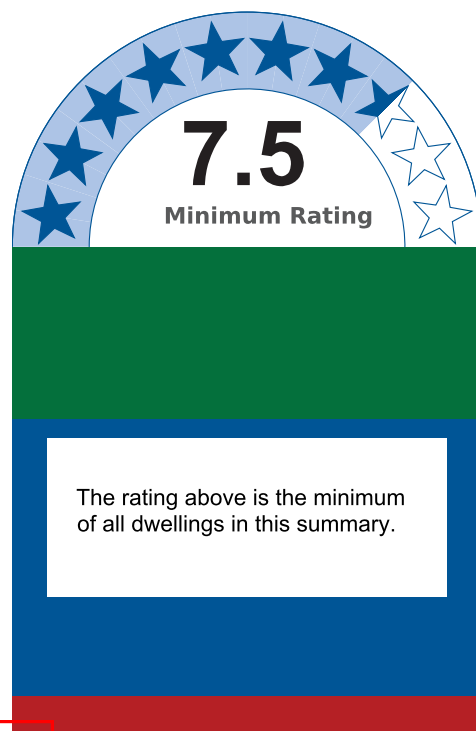
+61 478088493

**Accreditation No.** DMN/22/2127

**Assessor Accrediting Organisation** DMN

### Verification

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The rating above is the minimum of all dwellings in this summary.

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### Summary of all dwellings

Certificate number and link	Unit Number	Heating load (MJ/m <sup>2</sup> )	Cooling load (MJ/m <sup>2</sup> )	Total load (MJ/m <sup>2</sup> )	Star rating
	TH02	41.7 (96)	24.9 (45)	66.5	7.6
	TH03	25.1 (96)	29.0 (45)	54.2	7.9
	TH04	27.7 (96)	28.1 (45)	55.9	7.9
	TH05	34.1 (96)	33.6 (45)	67.7	7.5

### National Construction Code (NCC) requirements

The NCC's requirements for NatHERS-rated houses are detailed in 3.12.0(a)(i) and 3.12.5 of the NCC Volume Two. For apartments the requirements are detailed in J0.2 and J5 to J8 of the NCC Volume One.

In NCC 2019, these requirements include minimum star ratings and separate heating and cooling load limits that need to be met by buildings and apartments through the NatHERS assessment. Requirements additional to the NatHERS assessment that must also be satisfied include, but are not limited to: insulation installation methods, thermal breaks, building sealing, water heating and pumping, and artificial lighting requirements. The NCC and NatHERS Heating and Cooling Load Limits (Australian Building Codes Board Standard) are available at [www.abcb.gov.au](http://www.abcb.gov.au).

State and territory variations and additions to the NCC may also apply

## Summary of all dwellings

Certificate number and link	Unit Number	Heating load (MJ/m <sup>2</sup> )	Cooling load (MJ/m <sup>2</sup> )	Total load (MJ/m <sup>2</sup> )	Star rating
	TH06	44.9 (96)	18.6 (45)	63.5	7.7
	TH07	29.8 (96)	14.4 (45)	44.2	8.3
	TH11	30.7 (96)	19.2 (45)	49.9	8.1
	TH15	37.9 (96)	16.6 (45)	54.5	7.9
	TH16	36.7 (96)	19.9 (45)	56.6	7.9
	TH17	38.9 (88)	28.0 (47)	66.9	7.5
	TH20	39.9 (88)	18.5 (47)	58.4	7.8
	TH21	40.6 (88)	18.3 (47)	58.9	7.8
	TH24	42.8 (88)	24.1 (47)	66.9	7.5
Maximum Loads and Minimum Rating		44.9	33.6	67.7	7.5
Average	13x (Total)	36.2	22.6	58.8	7.8

## Explanatory Notes

### About this report

This summary rating is the ratings of all NCC Class 1 dwellings in a development. The individual dwellings' ratings are a comprehensive, dynamic computer modelling evaluation of a home, using the floorplans, elevations and specifications to estimate the energy load. It addresses the building layout, orientation and fabric (i.e. walls, windows, floors, roofs and ceilings), but does not cover the water or energy use of appliances, or energy production of solar panels. For more details about an individual dwelling's assessment, refer to the individual dwelling's NatHERS Certificate (accessible via link).

### Accredited Assessors

To ensure the NatHERS Certificate is of a high quality, always use an accredited or licenced assessor. NatHERS 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.

Any questions or concerns about this report should be directed to the assessor in the first instance. If the assessor is unable to address these questions or concerns, the AAO specified on the front of this certificate should be contacted.

### Disclaimer

The format of the NatHERS Certificate was developed by the NatHERS Administrator. However the content, input and creation of the NatHERS Certificate is by the assessor. It is the responsibility of the assessor who prepared this certificate to use NatHERS accredited software correctly and follow the NatHERS Technical Notes to produce a NatHERS Certificate.

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# Nationwide House Energy Rating Scheme NatHERS Certificate No. #

Generated on 19 Jun 2025 using Hero 4.1 (Chenath v3.21)

## Property

**Address** TH02, 34 George Street, Reservoir, VIC,  
3073

**Lot/DP**

**NCC Class\*** 1a

**Type** New

## Plans

**Main Plan** 2301 / REV-A 12.2023

**Prepared by** Ys Housing

## Construction and environment

**Assessed floor area (m<sup>2</sup>)\***

**Conditioned\*** 108.1

**Unconditioned\*** 10.6

**Total** 118.7

**Garage** 0.0

**Exposure Type**

Suburban

NatHERS climate zone

2 Melbourne RO

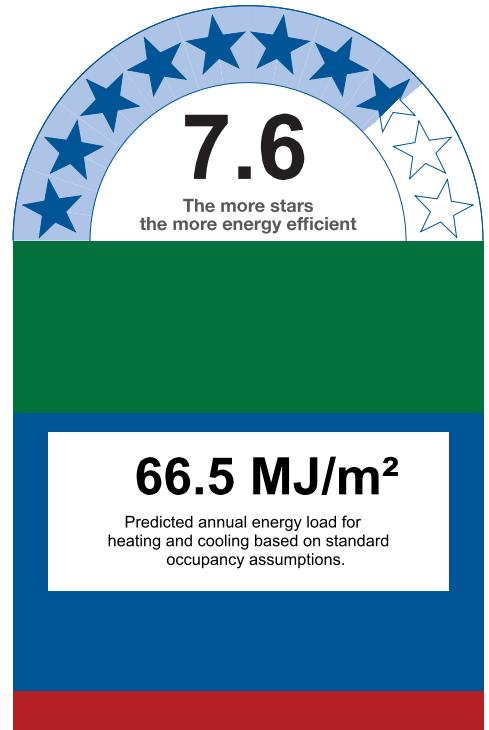


**Accredited assessor**

**Name** Nguyen Le  
**Business name** Nguyen Le  
**Email** tran-n-le@outlook.com  
**Phone** +61 4 38088493  
**Accreditation No.** DMN/222027  
**Assessor Accrediting Organisation** DMN  
**Declaration of interest** Conflict of Interest (Managed)

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## Thermal Performance

**Heating**

**41.7**

**MJ/m<sup>2</sup>**

**Cooling**

**24.9**

**MJ/m<sup>2</sup>**

### About the rating

NatHERS software models the expected thermal energy loads using information about the design and construction, climate and common patterns of household use. The software does not take into account appliances, apart from the airflow impacts from ceiling fans.

## Verification

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## National Construction Code (NCC) requirements

The NCC's requirements for NatHERS-rated houses are detailed in 3.12.0(a)(i) and 3.12.5 of the NCC Volume Two. For apartments the requirements are detailed in J0.2 and J5 to J8 of the NCC Volume One.

In NCC 2019, these requirements include minimum star ratings and separate heating and cooling load limits that need to be met by buildings and apartments through the NatHERS assessment. Requirements additional to the NatHERS assessment that must also be satisfied include, but are not limited to: insulation installation methods, thermal breaks, building sealing, water heating and pumping, and artificial lighting requirements. The NCC and NatHERS Heating and Cooling Load Limits (Australian Building Codes Board Standard) are available at [www.abcb.gov.au](http://www.abcb.gov.au).

State and territory variations and additions to the NCC may also apply.

\* Refer to glossary.

## Certificate Check

Ensure the dwelling is designed and then built as per the NatHERS Certificate. While you need to check the accuracy of the whole Certificate, the following spot check covers some important items impacting the dwelling's rating.

### Genuine certificate

Does this Certificate match the one available at the web address or QR code in the verification box on the front page? Does the set of NatHERS-stamped plans for the dwelling have a Certificate number on the stamp that matches this Certificate?

### Ceiling penetrations\*

Does the 'number' and 'type' of ceiling penetrations (e.g. downlights, exhaust fans, etc) shown on the stamped plans or installed, match what is shown in this Certificate?

### Windows

Does the installed window meet the substitution tolerances (SHGC and U-value) and window type, of the window shown on this Certificate? Substituted values must be based on the Australian Fenestration Rating Council (AFRC) protocol.

### Apartment entrance doors

Does the 'External Door Schedule' show apartment entrance doors? Please note that an "external door" between the modelled dwelling and a shared space, such as an enclosed corridor or foyer, should not be included in the assessment (because it overstates the possible ventilation) and would invalidate the Certificate.

### Exposure\*

Has the appropriate exposure level (terrain) been applied? For example, it is unlikely that a ground-floor apartment is "exposed" or a top floor high-rise apartment is "protected".

### Provisional\* values

Have provisional values been used in the assessment and, if so, noted in "additional notes" below?

## Additional Notes

-----

### Provisional Values

Floor Coverings - Provisional NatHERS Technical Note Values used in floor areas left unspecified

Floor Coverings - If a room has standard drafting hatching detail but no wording regarding the floor covering then an assumption is made based off the hatching detail

Colours (Excl. Roof Colour) - Provisional "Medium" colour used as per NatHERS Technical Note Values used on building areas left unspecified

Roof Colour - Colour used is "worst case scenario" as per NatHERS Technical Note Table 9.1 & 9.2

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## Window and glazed door type and performance

### Default\* windows

Window ID	Window Description	Maximum U-value*	SHGC*	SHGC substitution tolerance ranges	
				lower limit	upper limit
ATB-005-03 B	Al Thermally Broken A DG Argon Fill High Solar Gain low-E - Clear	2.9	0.44	0.42	0.46

### Custom\* windows

Window ID	Window Description	Maximum U-value*	SHGC*	SHGC substitution tolerance ranges	
				lower limit	upper limit
AWS-088-17 A	Series 755 Comfort Edge Awning Window DG LightBridge_ClrS0_5-10-5	2.4	0.46	0.44	0.48

\* Refer to glossary.

# ADVERTISED PLAN

## Custom\* windows

Window ID	Window Description	Maximum U-value*	SHGC*	SHGC substitution tolerance ranges	
				lower limit	upper limit
BRD-127-10 A	ESS Fixed Window External 52 Comm DG 6mmET_12Ar_6mmET	2.0	0.50	0.47	0.53
THC-076-03 A	Secco OS2 65 Steel Fixed Window TG 5ET-12Ar-5-12Ar-5	1.4	0.51	0.48	0.54

## Window and glazed door schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Window type	Opening %	Orient-ation	Shading device*
BATH	AWS-088-17 A	W06	1000	1000	Awning	90	E	None
BED	BRD-127-10 A	W07	1200	1100	Fixed	0	E	None
BED	AWS-088-17 A	W10	1000	900	Awning	90	S	None
BED	AWS-088-17 A	W09	1000	900	Awning	90	S	None
BED	BRD-127-10 A	W03	1500	1400	Fixed	0	WSW	None
BED T	ATB-005-03 B	W04	2100	1700	Casement	90	WSW	OP-70%
ENS	AWS-088-17 A	W11	1000	1000	Awning	90	S	OP-70%
FLEXI/BED	BRD-127-10 A	W08-B	1800	900	Fixed	0	E	None
FLEXI/BED	AWS-088-17 A	W08	1800	900	Awning	90	E	None
HALL	AWS-088-17 A	W02	1000	900	Awning	90	WSW	None
KLM	THC-076-03 A	W05	2700	4100	Sliding Door	60	E	None
KLM	AWS-088-17 A	W01-1	1200	1100	Awning	90	WSW	None
KLM	BRD-127-10 A	W01-2	1500	1100	Fixed	0	WSW	None

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## Roof window type and performance value

### Default\* roof windows

Window ID	Window Description	Maximum U-value*	SHGC*	SHGC substitution tolerance ranges	
				lower limit	upper limit
None					

### Custom\* roof windows

Window ID	Window Description	Maximum U-value*	SHGC*	SHGC substitution tolerance ranges	
				lower limit	upper limit

\* Refer to glossary.

# ADVERTISED PLAN

## Custom\* roof windows

Window ID	Window Description	Maximum U-value*	SHGC*	SHGC substitution tolerance ranges	
				lower limit	upper limit
None					

## Roof window schedule

Location	Window ID	Window no.	Opening %	Height (mm)	Width (mm)	Orient-ation	Outdoor shade	Indoor shade
None								

## Skylight type and performance

Skylight ID	Skylight description
None	

## Skylight schedule

Location	Skylight ID	Skylight No.	Skylight shaft length (mm)	Area (m <sup>2</sup> )	Orient-ation	Outdoor shade	Diffuser	Shaft Reflectance
None								

## External door schedule

Location	Height (mm)	Width (mm)	Opening %	Orientation
KLM	2400	920	90	W

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## External wall type

Wall ID	Wall Type	Solar absorptance	Wall Colour	Bulk insulation (R-value)	Reflective wall wrap*
MC-NOCAV	Metal Glad Direct-Fix (No Cavity) Stud Wall	0.50	Medium	2.50	No

## External wall schedule

Location	Wall ID	Height (mm)	Width (mm)	Orient-ation	Horizontal shading feature* projection (mm)	Vertical shading feature
BATH	MC-NOCAV	2700	1896	E		Yes
BED	MC-NOCAV	2700	2949	E		Yes
BED	MC-NOCAV	2700	4063	S		Yes
BED	MC-NOCAV	2700	2966	S		Yes
BED	MC-NOCAV	2700	3423	WSW		No
BED T	MC-NOCAV	1800	2171	S		Yes

\* Refer to glossary.

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Location	Wall ID	Height (mm)	Width (mm)	Orientation	Horizontal shading feature* projection (mm)	Vertical shading feature
BED T	MC-NOCAV	2800	5811	WSW		No
ENS	MC-NOCAV	1800	1760	S		Yes
FLEXI/BED	MC-NOCAV	2800	5004	E		Yes
FLEXI/BED	MC-NOCAV	1800	2957	S		Yes
HALL	MC-NOCAV	2700	2201	WSW		No
HALL	MC-NOCAV	2700	98	S		Yes
KLM	MC-NOCAV	2700	5004	E		Yes
KLM	MC-NOCAV	2700	7189	S		Yes
KLM	MC-NOCAV	2700	3474	WSW		Yes
KLM	MC-NOCAV	2700	1009	W	728	Yes
WC	MC-NOCAV	2700	845	W	728	Yes

**Internal wall type**

Wall ID	Wall Type	Area (m <sup>2</sup> )	Bulk insulation
CSR PARTY WALL21	CSR Party Wall	67.4	5.00
INT-PB	Internal Plasterboard Stud Wall	34.7	0.00
INT-PB	Internal Plasterboard Stud Wall	31.2	2.50

**Floor type**

Location	Construction	Area (m <sup>2</sup> )	Sub-floor ventilation	Added insulation (R-value)	Covering
BATH	TIMB-001: Suspended Timber Floor	5.4	N/A	4.00	Tile (8mm)
BED	TIMB-001: Suspended Timber Floor	23.3	N/A	4.00	Carpet
BED T	TIMB-001: Suspended Timber Floor	17.1	N/A	4.00	Carpet
ENS	TIMB-001: Suspended Timber Floor	5.2	N/A	4.00	Tile (8mm)
FLEXI/BED	TIMB-001: Suspended Timber Floor	14.8	N/A	4.00	Carpet
HALL	TIMB-001: Suspended Timber Floor	14.2	N/A	4.00	Carpet

# ADVERTISED PLAN

## Floor type

Location	Construction	Area (m <sup>2</sup> )	Sub-floor ventilation	Added insulation (R-value)	Covering
HALL	TIMB-001: Suspended Timber Floor	1.4	N/A	4.00	Tile (8mm)
HALL	TIMB-002: Suspended Timber Floor - Lined Below	0.8	N/A	4.00	Tile (8mm)
HALL	TIMB-002: Suspended Timber Floor - Lined Below	0.4	N/A	4.00	Carpet
KLM	CSOG-100: Concrete Slab on Ground (100mm)	34.8	N/A	3.23	Timber (12mm)
KLM	CSOG-100: Concrete Slab on Ground (100mm)	5.6	N/A	3.23	Tile (8mm)
WC	CSOG-100: Concrete Slab on Ground (100mm)	1.4	N/A	3.23	Tile (8mm)

## Ceiling type

Location	Construction	Bulk insulation (R-value)	Reflective wrap*
BED T	FLAT-02: Flat Framed / Skillion Metal Roof & Cathedral PB Ceiling (11°-33°)	7.00	No
ENS	FLAT-02: Flat Framed / Skillion Metal Roof & Cathedral PB Ceiling (11°-33°)	7.00	No
FLEXI/BED	FLAT-02: Flat Framed / Skillion Metal Roof & Cathedral PB Ceiling (11°-33°)	7.00	No
HALL	FLAT-02: Flat Framed / Skillion Metal Roof & Cathedral PB Ceiling (11°-33°)	7.00	No

## Ceiling penetrations\*

Location	Quantity	Type	Diameter (mm)	Sealed /unsealed
BATH	1	Exhaust Fan	350	Sealed
ENS	1	Exhaust Fan	350	Sealed
HALL	1	Exhaust Fan	350	Sealed
KLM	1	Exhaust Fan	260	Sealed
WC	1	Exhaust Fan	350	Sealed

## Ceiling fans

Location	Quantity	Diameter (mm)
None		

## Roof type

Construction	Added insulation (R-value)	Solar absorptance	Roof Colour

\* Refer to glossary.

# ADVERTISED PLAN

## Roof type

Construction	Added insulation (R-value)	Solar absorptance	Roof Colour
FLAT-02: Flat Framed / Skillion Metal Roof & Cathedral PB Ceiling (11°-33°)	0.00	0.50	Medium

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## Explanatory Notes

### About this report

A NatHERS rating is a comprehensive, dynamic computer modelling evaluation of a home, using the floorplans, elevations and specifications to estimate an energy load. It addresses the building layout, orientation and fabric (i.e. walls, windows, floors, roofs and ceilings), but does not cover the water or energy use of appliances or energy production of solar panels.

Ratings are based on a unique climate zone where the home is located and are generated using standard assumptions, including occupancy patterns and thermostat settings. The actual energy consumption of a home may vary significantly from the predicted energy load, as the assumptions used in the rating will not match actual usage patterns. For example, the number of occupants and personal heating or cooling preferences will vary.

While the figures are an indicative guide to energy use, they can be used as a reliable guide for comparing different dwelling designs and to demonstrate that the design meets the energy efficiency requirements in the National Construction Code. Homes that are energy efficient use less energy, are warmer on cool days, cooler on hot days and cost less to run. The higher the star rating the more thermally efficient the dwelling is.

### Accredited assessors

To ensure the NatHERS Certificate is of a high quality, always use an accredited or licenced assessor. NatHERS accredited assessors are members of a professional body called an Assessor Accrediting Organisation (AAO).

Australian Capital Territory (ACT) licenced assessors may only produce assessments for regulatory purposes using software for which they have a licence endorsement. Licence endorsements can be confirmed on the ACT licensing register

## Glossary

<b>Annual energy load</b>	the predicted amount of energy required for heating and cooling, based on standard occupancy assumptions.
<b>Assessed floor area</b>	the floor area modelled in the software for the purpose of the NatHERS assessment. Note, this may not be consistent with the floor area in the design documents.
<b>Ceiling penetrations</b>	features that require penetration through the ceiling, including exhaust vents, exhaust fans, rangehoods, chimneys and flues. Excludes fixtures attached to the ceiling, such as ceiling fans, pendant lights, and heating and cooling ducts.
<b>Conditioned</b>	a zone within a dwelling that is expected to require heating and cooling based on standard occupancy assumptions. In some circumstances it will include garages.
<b>Custom windows</b>	windows listed in NatHERS software that are available on the market in Australia and have a WERS (Window Energy Rating Scheme) rating.
<b>Default windows</b>	windows that are representative of a specific type of window product and whose properties have been derived by statistical methods.
<b>Entrance door</b>	these signify ventilation benefits in the modelling software and must not be modelled as a door when opening to a minimally ventilated corridor in a Class 2 building.
<b>Exposure category - exposed</b>	terrain with no obstructions, e.g. flat grazing land, ocean-frontage, desert, exposed high-rise unit (usually above 10 floors).
<b>Exposure category - open</b>	terrain with few obstructions at a similar height e.g. grasslands with few well scattered obstructions below 10m, farmland with scattered sheds, lightly vegetated bush blocks, elevated units (e.g. above 3 floors).
<b>Exposure category - suburban</b>	terrain with numerous, closely spaced obstructions below 10m e.g. suburban housing, heavily vegetated bushland areas.
<b>Exposure category - protected</b>	terrain with numerous, closely spaced obstructions over 10 m e.g. city and industrial areas.
<b>Horizontal shading feature</b>	provides shading to the building in the horizontal plane, e.g. eaves, verandahs, pergolas, carports, or overhangs or balconies from upper levels.
<b>National Construction Code (NCC) Class</b>	the NCC groups buildings by their function and use, and assigns a classification code. NatHERS software models NCC Class 1, 2 or 4 buildings and attached Class 10a buildings. Definitions can be found at <a href="http://www.abcb.gov.au">www.abcb.gov.au</a> .
<b>Opening percentage</b>	the openability percentage or operable (moveable) area of doors or windows that is used in ventilation calculations.
<b>Provisional value</b>	an assumed value that does not represent an actual value. For example, if the wall colour is unspecified in the documentation, a provisional value of 'medium' must be modelled. Acceptable provisional values are outlined in the NatHERS Technical Note and can be found at <a href="http://www.nathers.gov.au">www.nathers.gov.au</a>
<b>Reflective wrap (also known as foil)</b>	can be applied to walls, roofs and ceilings. When combined with an appropriate airgap and emissivity value, it provides insulative properties.
<b>Roof window</b>	for NatHERS this is typically an operable window (i.e. can be opened), will have a plaster or similar light well if there is an attic space, and generally does not have a diffuser.
<b>Shading device</b>	a device fixed to windows that provides shading e.g. window awnings or screens but excludes eaves.
<b>Shading features</b>	includes neighbouring buildings, fences, and wing walls, but excludes eaves.
<b>Solar heat gain coefficient (SHGC)</b>	the fraction of incident solar radiation admitted through a window, both directly transmitted as well as absorbed and subsequently released inward. SHGC is expressed as a number between 0 and 1. The lower a window's SHGC, the less solar heat it transmits.
<b>Skylight (also known as roof lights)</b>	for NatHERS this is typically a moulded unit with flexible reflective tubing (light well) and a diffuser at ceiling level.
<b>U-value</b>	the rate of heat transfer through a window. The lower the U-value, the better the insulating ability.
<b>Unconditioned</b>	a zone within a dwelling that is assumed to not require heating and cooling based on standard occupancy assumptions
<b>Vertical shading features</b>	provides shading to the building in the vertical plane and can be parallel or perpendicular to the subject wall/window. Includes privacy screens, other walls in the building (wing walls), fences, other buildings, vegetation (protected or listed heritage trees).

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# Nationwide House Energy Rating Scheme NatHERS Certificate No. #

Generated on 19 Jun 2025 using Hero 4.1 (Chenath v3.21)

## Property

**Address** TH03, 34 George Street, Reservoir, VIC,  
3073

**Lot/DP**

**NCC Class\*** 1a

**Type** New

## Plans

**Main Plan** 2301 / REV-A 12.2023

**Prepared by** Ys Housing

## Construction and environment

**Assessed floor area (m<sup>2</sup>)\***

**Conditioned\*** 121.3

**Unconditioned\*** 2.1

**Total** 123.4

**Garage** 0.0

**Exposure Type**

Suburban

NatHERS climate zone

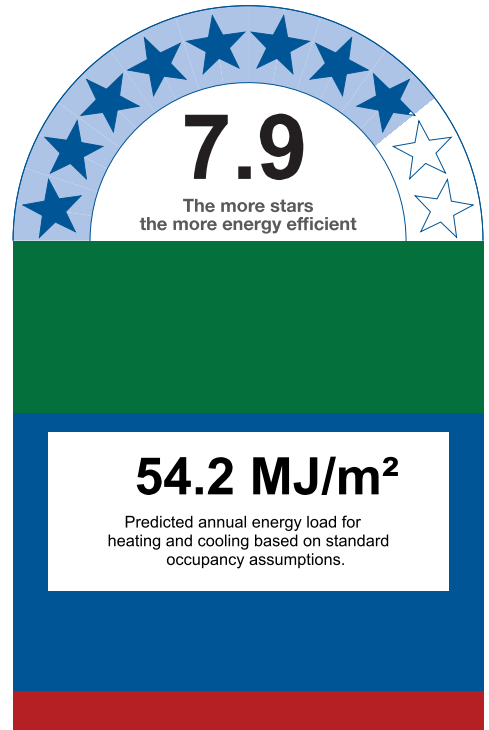
2 Melbourne RO



**Accredited assessor**

**Name** Nguyen Le  
**Business name** Nguyen Le  
**Email** tran-n-le@outlook.com  
**Phone** +61 4 38088493  
**Accreditation No.** DMN/222027  
**Assessor Accrediting Organisation** DMN  
**Declaration of interest** Conflict of Interest (Managed)

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## Thermal Performance

**Heating**      **Cooling**

**25.1**            **29.0**

**MJ/m<sup>2</sup>**        **MJ/m<sup>2</sup>**

### About the rating

NatHERS software models the expected thermal energy loads using information about the design and construction, climate and common patterns of household use. The software does not take into account appliances, apart from the airflow impacts from ceiling fans.

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### Ceiling penetrations\*

Does the 'number' and 'type' of ceiling penetrations (e.g. downlights, exhaust fans, etc) shown on the stamped plans or installed, match what is shown in this Certificate?

### Windows

Does the installed window meet the substitution tolerances (SHGC and U-value) and window type, of the window shown on this Certificate? Substituted values must be based on the Australian Fenestration Rating Council (AFRC) protocol.

### Apartment entrance doors

Does the 'External Door Schedule' show apartment entrance doors? Please note that an "external door" between the modelled dwelling and a shared space, such as an enclosed corridor or foyer, should not be included in the assessment (because it overstates the possible ventilation) and would invalidate the Certificate.

### Exposure\*

Has the appropriate exposure level (terrain) been applied? For example, it is unlikely that a ground-floor apartment is "exposed" or a top floor high-rise apartment is "protected".

### Provisional\* values

Have provisional values been used in the assessment and, if so, noted in "additional notes" below?

## Additional Notes

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### Provisional Values

Floor Coverings - Provisional NatHERS Technical Note Values used in floor areas left unspecified

Floor Coverings - If a room has standard drafting hatching detail but no wording regarding the floor covering then an assumption is made based off the hatching detail

Colours (Excl. Roof Colour) - Provisional "Medium" colour used as per NatHERS Technical Note Values used on building areas left unspecified

Roof Colour - Colour used is "worst case scenario" as per NatHERS Technical Note Table 9.1 & 9.2

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## Window and glazed door type and performance

### Default\* windows

Window ID	Window Description	Maximum U-value*	SHGC*	SHGC substitution tolerance ranges	
				lower limit	upper limit
ATB-005-03 B	AI Thermally Broken A DG Argon Fill High Solar Gain low-E - Clear	2.9	0.44	0.42	0.46
ATB-006-03 B	AI Thermally Broken B DG Argon Fill High Solar Gain low-E - Clear	2.9	0.51	0.48	0.54

### Custom\* windows

Window ID	Window Description	Maximum U-value*	SHGC*	SHGC substitution tolerance ranges	
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\* Refer to glossary.

# ADVERTISED PLAN

## Custom\* windows

Window ID	Window Description	Maximum U-value*	SHGC*	SHGC substitution tolerance ranges	
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AWS-088-17 A	Series 755 Comfort Edge Awning Window DG LightBridge_ClrSO_5-10-5	2.4	0.46	0.44	0.48
AWS-089-56 A	RES SERIES 704 FLUSH SLIDING DOOR DG FGIOptEmaGry_4mm_16Ar_4mm	2.2	0.56	0.53	0.59
BRD-127-10 A	ESS Fixed Window External 52 Comm DG 6mmET_12Ar_6mmET	2.0	0.50	0.47	0.53

## Window and glazed door schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Window type	Opening %	Orient-ation	Shading device*
BED 01 T	ATB-005-03 B	W07	2100	1800	Casement	90	W	OP-70%
BED 02	ATB-006-03 B	W06	1800	1500	Sliding	45	W	None
BED 03	AWS-088-17 A	W02-B	1800	900	Awning	90	E	None
BED 03	BRD-127-10 A	W02-A	1800	900	Fixed	0	E	None
FLEXI/BED	BRD-127-10 A	W03-B	1800	900	Fixed	0	E	None
FLEXI/BED	AWS-088-17 A	W03-A	1800	900	Awning	90	E	None
KLM	BRD-127-10 A	W04	2400	900	Fixed	0	W	None
KLM	AWS-088-17 A	W05	900	900	Awning	90	W	None
KLM	BRD-127-10 A	W05-2	1800	950	Fixed	0	W	None
KLM	AWS-088-17 A	W06	2700	3400	Sliding Door	45	E	None

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## Roof window type and performance value

### Default\* roof windows

Window ID	Window Description	Maximum U-value*	SHGC*	SHGC substitution tolerance ranges	
				lower limit	upper limit
None					

### Custom\* roof windows

Window ID	Window Description	Maximum U-value*	SHGC*	SHGC substitution tolerance ranges	
				lower limit	upper limit
None					

\* Refer to glossary.

# ADVERTISED PLAN

## Roof window schedule

Location	Window ID	Window no.	Opening %	Height (mm)	Width (mm)	Orientation	Outdoor shade	Indoor shade
None								

## Skylight type and performance

Skylight ID	Skylight description
None	

## Skylight schedule

Location	Skylight ID	Skylight No.	Skylight shaft length (mm)	Area (m <sup>2</sup> )	Orientation	Outdoor shade	Diffuser	Shaft Reflectance
None								

## External door schedule

Location	Height (mm)	Width (mm)	Opening %	Orientation
KLM	2400	920	90	W

## External wall type

Wall ID	Wall Type	Sound Absorption	Wall Colour	Bulk insulation (R-value)	Reflective wall wrap*
MC-NOCAV	Metal Clad Direct Fix (No Cavity) Stud Wall	0.15	Medium	2.50	No

## External wall schedule

Location	Wall ID	Height (mm)	Width (mm)	Orientation	Horizontal shading feature* projection (mm)	Vertical shading feature
BED 01 T	MC-NOCAV	3115	4342	W		No
BED 02	MC-NOCAV	2700	4342	W		No
BED 03	MC-NOCAV	2700	4342	E		Yes
FLEXI/BED	MC-NOCAV	3115	4342	E		Yes
KLM	MC-NOCAV	2700	4342	W		Yes
KLM	MC-NOCAV	2700	4342	E		Yes
KLM	MC-NOCAV	2700	1234	S	1310	Yes

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## Internal wall type

Wall ID	Wall Type	Area (m <sup>2</sup> )	Bulk insulation
CSR PARTY WALL21	CSR Party Wall	138.9	5.00
INT-PB	Internal Plasterboard Stud Wall	13.5	2.50
INT-PB	Internal Plasterboard Stud Wall	47.5	0.00

## Floor type

Location	Construction	Area (m <sup>2</sup> )	Sub-floor ventilation	Added insulation (R-value)	Covering
BATH	TIMB-001: Suspended Timber Floor	5.1	N/A	4.00	Tile (8mm)
BED 01 T	TIMB-001: Suspended Timber Floor	17.4	N/A	4.00	Carpet
BED 02	TIMB-001: Suspended Timber Floor	12.7	N/A	4.00	Carpet
BED 03	TIMB-001: Suspended Timber Floor	12.8	N/A	4.00	Carpet
ENS	TIMB-001: Suspended Timber Floor	5.0	N/A	4.00	Tile (8mm)
FLEXI/BED	TIMB-001: Suspended Timber Floor	2.8	N/A	4.00	Carpet
HALL	TIMB-001: Suspended Timber Floor	1.8	N/A	4.00	Carpet
HALL	TIMB-001: Suspended Timber Floor	1.9	N/A	4.00	Tile (8mm)
KLM	CSOG-100: Concrete Slab on Ground (100mm)	40.7	N/A	3.23	Carpet
KLM	CSOG-100: Concrete Slab on Ground (100mm)	3.5	N/A	3.23	Tile (8mm)
WC	TIMB-001: Suspended Timber Floor	2.1	N/A	4.00	Tile (8mm)

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## Ceiling type

Location	Construction	Bulk insulation (R-value)	Reflective wrap*
BED 01 T	FLAT-02: Flat Framed / Skillion Metal Roof & Cathedral PB Ceiling (11°-33°)	7.00	No
ENS	FLAT-02: Flat Framed / Skillion Metal Roof & Cathedral PB Ceiling (11°-33°)	7.00	No
FLEXI/BED	FLAT-02: Flat Framed / Skillion Metal Roof & Cathedral PB Ceiling (11°-33°)	7.00	No
HALL	FLAT-02: Flat Framed / Skillion Metal Roof & Cathedral PB Ceiling (11°-33°)	7.00	No

## Ceiling penetrations\*

Location	Quantity	Type	Diameter (mm)	Sealed /unsealed
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\* Refer to glossary.

# ADVERTISED PLAN

## Ceiling penetrations\*

Location	Quantity	Type	Diameter (mm)	Sealed /unsealed
BATH	1	Exhaust Fan	350	Sealed
ENS	1	Exhaust Fan	350	Sealed
HALL	1	Exhaust Fan	350	Sealed
KLM	1	Exhaust Fan	260	Sealed
WC	1	Exhaust Fan	350	Sealed

## Ceiling fans

Location	Quantity	Diameter (mm)
None		

## Roof type

Construction	Added insulation (R-value)	Solar absorptance	Roof Colour
FLAT-02: Flat Framed / Skillion Metal Roof & Cathedral PB Ceiling (11°-33°)	0.00	0.50	Medium

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# ADVERTISED PLAN

## Explanatory Notes

### About this report

A NatHERS rating is a comprehensive, dynamic computer modelling evaluation of a home, using the floorplans, elevations and specifications to estimate an energy load. It addresses the building layout, orientation and fabric (i.e. walls, windows, floors, roofs and ceilings), but does not cover the water or energy use of appliances or energy production of solar panels.

Ratings are based on a unique climate zone where the home is located and are generated using standard assumptions, including occupancy patterns and thermostat settings. The actual energy consumption of a home may vary significantly from the predicted energy load, as the assumptions used in the rating will not match actual usage patterns. For example, the number of occupants and personal heating or cooling preferences will vary.

While the figures are an indicative guide to energy use, they can be used as a reliable guide for comparing different dwelling designs and to demonstrate that the design meets the energy efficiency requirements in the National Construction Code. Homes that are energy efficient use less energy, are warmer on cool days, cooler on hot days and cost less to run. The higher the star rating the more thermally efficient the dwelling is.

### Accredited assessors

To ensure the NatHERS Certificate is of a high quality, always use an accredited or licenced assessor. NatHERS accredited assessors are members of a professional body called an Assessor Accrediting Organisation (AAO).

Australian Capital Territory (ACT) licenced assessors may only produce assessments for regulatory purposes using software for which they have a licence endorsement. Licence endorsements can be confirmed on the ACT licensing register

## Glossary

<b>Annual energy load</b>	the predicted amount of energy required for heating and cooling, based on standard occupancy assumptions.
<b>Assessed floor area</b>	the floor area modelled in the software for the purpose of the NatHERS assessment. Note, this may not be consistent with the floor area in the design documents.
<b>Ceiling penetrations</b>	features that require penetration through the ceiling, including exhaust fans, rangehoods, chimneys and flues. Excludes fixtures attached to the ceiling, such as ceiling fans, pendant lights, and heating and cooling ducts.
<b>Conditioned</b>	a zone within a dwelling that is expected to require heating and cooling based on standard occupancy assumptions. In some circumstances it will include garages.
<b>Custom windows</b>	windows listed in NatHERS software that are available on the market in Australia and have a WERS (Window Energy Rating Scheme) rating.
<b>Default windows</b>	windows that are representative of a specific type of window product and whose properties have been derived by statistical methods.
<b>Entrance door</b>	these signify ventilation benefits in the modelling software and must not be modelled as a door when opening to a minimally ventilated corridor in a Class 2 building.
<b>Exposure category - exposed</b>	terrain with no obstructions, e.g. flat grazing land, ocean-frontage, desert, exposed high-rise unit (usually above 10 floors).
<b>Exposure category - open</b>	terrain with few obstructions at a similar height e.g. grasslands with few well scattered obstructions below 10m, farmland with scattered sheds, lightly vegetated bush blocks, elevated units (e.g. above 3 floors).
<b>Exposure category - suburban</b>	terrain with numerous, closely spaced obstructions below 10m e.g. suburban housing, heavily vegetated bushland areas.
<b>Exposure category - protected</b>	terrain with numerous, closely spaced obstructions over 10 m e.g. city and industrial areas.
<b>Horizontal shading feature</b>	provides shading to the building in the horizontal plane, e.g. eaves, verandahs, pergolas, carports, or overhangs or balconies from upper levels.
<b>National Construction Code (NCC) Class</b>	the NCC groups buildings by their function and use, and assigns a classification code. NatHERS software models NCC Class 1, 2 or 4 buildings and attached Class 10a buildings. Definitions can be found at <a href="http://www.abcb.gov.au">www.abcb.gov.au</a> .
<b>Opening percentage</b>	the openability percentage or operable (moveable) area of doors or windows that is used in ventilation calculations.
<b>Provisional value</b>	an assumed value that does not represent an actual value. For example, if the wall colour is unspecified in the documentation, a provisional value of 'medium' must be modelled. Acceptable provisional values are outlined in the NatHERS Technical Note and can be found at <a href="http://www.nathers.gov.au">www.nathers.gov.au</a>
<b>Reflective wrap (also known as foil)</b>	can be applied to walls, roofs and ceilings. When combined with an appropriate airgap and emissivity value, it provides insulative properties.
<b>Roof window</b>	for NatHERS this is typically an operable window (i.e. can be opened), will have a plaster or similar light well if there is an attic space, and generally does not have a diffuser.
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**Lot/DP**

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**Total** 123.8

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Suburban

NatHERS climate zone

2 Melbourne RO

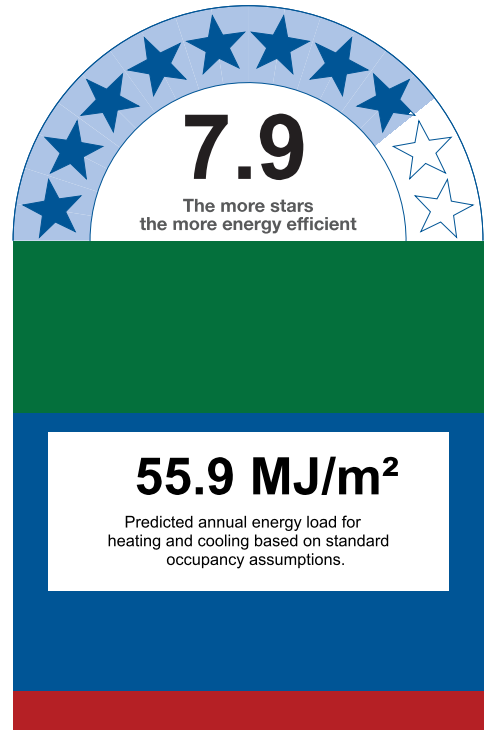


**Accredited assessor**

**Name** Nguyen Le  
**Business name** Nguyen Le  
**Email** tran-n-le@outlook.com  
**Phone** +61 4 38088493  
**Accreditation No.** DMN/222027  
**Assessor Accrediting Organisation** DMN  
**Declaration of interest** Conflict of Interest (Managed)

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## Thermal Performance

**Heating**      **Cooling**

**27.7**            **28.1**

**MJ/m<sup>2</sup>**        **MJ/m<sup>2</sup>**

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				lower limit	upper limit
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# ADVERTISED PLAN

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BRD-127-10 A	ESS Fixed Window External 52 Comm DG 6mmET_12Ar_6mmET	2.0	0.50	0.47	0.53

## Window and glazed door schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Window type	Opening %	Orient-ation	Shading device*
BED 01 T	ATB-005-03 B	W07	2100	1800	Casement	90	W	OP-70%
BED 02	ATB-006-03 B	W06	1500	1500	Sliding	45	W	None
BED 03	AWS-088-17 A	W02-D	1800	900	Awning	90	E	None
BED 03	BRD-127-10 A	W02-C	1800	900	Fixed	0	E	None
FLEXI/BED	BRD-127-10 A	W03-D	1800	900	Fixed	0	E	None
FLEXI/BED	AWS-088-17 A	W03-C	1800	900	Awning	90	E	None
KLM	AWS-089-56 A	W01	2700	2000	Sliding Door	45	E	None
KLM	BRD-127-10 A	W04	2400	400	Fixed	0	W	None
KLM	AWS-088-17 A	W05-3	900	900	Awning	90	W	None
KLM	BRD-127-10 A	W05-4	1800	900	Fixed	0	W	None

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## Roof window type and performance value

### Default\* roof windows

Window ID	Window Description	Maximum U-value*	SHGC*	SHGC substitution tolerance ranges	
				lower limit	upper limit
None					

### Custom\* roof windows

Window ID	Window Description	Maximum U-value*	SHGC*	SHGC substitution tolerance ranges	
				lower limit	upper limit
None					

\* Refer to glossary.

# ADVERTISED PLAN

## Roof window schedule

Location	Window ID	Window no.	Opening %	Height (mm)	Width (mm)	Orientation	Outdoor shade	Indoor shade
None								

## Skylight type and performance

Skylight ID	Skylight description
None	

## Skylight schedule

Location	Skylight ID	Skylight No.	Skylight shaft length (mm)	Area (m <sup>2</sup> )	Orientation	Outdoor shade	Diffuser	Shaft Reflectance
None								

## External door schedule

Location	Height (mm)	Width (mm)	Opening %	Orientation
KLM	2400	920	90	W

## External wall type

Wall ID	Wall Type	Sound Absorptance	Wall Colour	Bulk insulation (R-value)	Reflective wall wrap*
MC-NOCAV	Metal Clad Direct Fix (No Cavity) Stud Wall	0.15	Medium	2.50	No

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## External wall schedule

Location	Wall ID	Height (mm)	Width (mm)	Orientation	Horizontal shading feature* projection (mm)	Vertical shading feature
BED 01 T	MC-NOCAV	1800	4000	N		No
BED 01 T	MC-NOCAV	2800	4373	W		No
BED 02	MC-NOCAV	2700	4372	W		No
BED 03	MC-NOCAV	2700	4373	E		Yes
FLEXI/BED	MC-NOCAV	1800	2957	N		No
FLEXI/BED	MC-NOCAV	2800	4373	E		Yes
HALL	MC-NOCAV	1800	2948	N		No
KLM	MC-NOCAV	2700	4373	E		Yes
KLM	MC-NOCAV	2700	4373	W		Yes

\* Refer to glossary.

# ADVERTISED PLAN

## Internal wall type

Wall ID	Wall Type	Area (m <sup>2</sup> )	Bulk insulation
CSR PARTY WALL21	CSR Party Wall	125.6	5.00
INT-PB	Internal Plasterboard Stud Wall	12.9	2.50
INT-PB	Internal Plasterboard Stud Wall	47.7	0.00

## Floor type

Location	Construction	Area (m <sup>2</sup> )	Sub-floor ventilation	Added insulation (R-value)	Covering
BATH	TIMB-001: Suspended Timber Floor	5.2	N/A	4.00	Tile (8mm)
BED 01 T	TIMB-001: Suspended Timber Floor	17.5	N/A	4.00	Carpet
BED 02	TIMB-001: Suspended Timber Floor	12.8	N/A	4.00	Carpet
BED 03	TIMB-001: Suspended Timber Floor	12.9	N/A	4.00	Carpet
ENS	TIMB-001: Suspended Timber Floor	5.1	N/A	4.00	Tile (8mm)
FLEXI/BED	TIMB-001: Suspended Timber Floor	2.9	N/A	4.00	Carpet
HALL	TIMB-001: Suspended Timber Floor	1.8	N/A	4.00	Carpet
HALL	TIMB-001: Suspended Timber Floor	1.0	N/A	4.00	Tile (8mm)
KLM	CSOG-100: Concrete Slab on Ground (100mm)	40.9	N/A	3.23	Carpet
KLM	CSOG-100: Concrete Slab on Ground (100mm)	3.6	N/A	3.23	Tile (8mm)
WC	TIMB-001: Suspended Timber Floor	2.1	N/A	4.00	Tile (8mm)

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## Ceiling type

Location	Construction	Bulk insulation (R-value)	Reflective wrap*
BED 01 T	FLAT-02: Flat Framed / Skillion Metal Roof & Cathedral PB Ceiling (11°-33°)	7.00	No
ENS	FLAT-02: Flat Framed / Skillion Metal Roof & Cathedral PB Ceiling (11°-33°)	7.00	No
FLEXI/BED	FLAT-02: Flat Framed / Skillion Metal Roof & Cathedral PB Ceiling (11°-33°)	7.00	No
HALL	FLAT-02: Flat Framed / Skillion Metal Roof & Cathedral PB Ceiling (11°-33°)	7.00	No

## Ceiling penetrations\*

Location	Quantity	Type	Diameter (mm)	Sealed /unsealed
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\* Refer to glossary.

# ADVERTISED PLAN

## Ceiling penetrations\*

Location	Quantity	Type	Diameter (mm)	Sealed /unsealed
BATH	1	Exhaust Fan	350	Sealed
ENS	1	Exhaust Fan	350	Sealed
HALL	1	Exhaust Fan	350	Sealed
KLM	1	Exhaust Fan	260	Sealed
WC	1	Exhaust Fan	350	Sealed

## Ceiling fans

Location	Quantity	Diameter (mm)
None		

## Roof type

Construction	Added insulation (R-value)	Solar absorptance	Roof Colour
FLAT-02: Flat Framed / Skillion Metal Roof & Cathedral PB Ceiling (11°-33°)	0.00	0.50	Medium

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# ADVERTISED PLAN

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Not all assumptions that may have been made by the assessor while using the NatHERS accredited software tool are presented in this report and further details or data files may be available from the assessor.

## Glossary

<b>Annual energy load</b>	the predicted amount of energy required for heating and cooling, based on standard occupancy assumptions.
<b>Assessed floor area</b>	the floor area modelled in the software for the purpose of the NatHERS assessment. Note, this may not be consistent with the floor area in the design documents.
<b>Ceiling penetrations</b>	features that require penetration through the ceiling, including exhaust vents, exhaust fans, rangehoods, chimneys and flues. Excludes fixtures attached to the ceiling, such as ceiling fans, pendant lights, and heating and cooling ducts.
<b>Conditioned</b>	a zone within a dwelling that is expected to require heating and cooling based on standard occupancy assumptions. In some circumstances it will include garages.
<b>Custom windows</b>	windows listed in NatHERS software that are available on the market in Australia and have a WERS (Window Energy Rating Scheme) rating.
<b>Default windows</b>	windows that are representative of a specific type of window product and whose properties have been derived by statistical methods.
<b>Entrance door</b>	these signify ventilation benefits in the modelling software and must not be modelled as a door when opening to a minimally ventilated corridor in a Class 2 building.
<b>Exposure category - exposed</b>	terrain with no obstructions, e.g. flat grazing land, ocean-frontage, desert, exposed high-rise unit (usually above 10 floors).
<b>Exposure category - open</b>	terrain with few obstructions at a similar height e.g. grasslands with few well scattered obstructions below 10m, farmland with scattered sheds, lightly vegetated bush blocks, elevated units (e.g. above 3 floors).
<b>Exposure category - suburban</b>	terrain with numerous, closely spaced obstructions below 10m e.g. suburban housing, heavily vegetated bushland areas.
<b>Exposure category - protected</b>	terrain with numerous, closely spaced obstructions over 10 m e.g. city and industrial areas.
<b>Horizontal shading feature</b>	provides shading to the building in the horizontal plane, e.g. eaves, verandahs, pergolas, carports, or overhangs or balconies from upper levels.
<b>National Construction Code (NCC) Class</b>	the NCC groups buildings by their function and use, and assigns a classification code. NatHERS software models NCC Class 1, 2 or 4 buildings and attached Class 10a buildings. Definitions can be found at <a href="http://www.abcb.gov.au">www.abcb.gov.au</a> .
<b>Opening percentage</b>	the openability percentage or operable (moveable) area of doors or windows that is used in ventilation calculations.
<b>Provisional value</b>	an assumed value that does not represent an actual value. For example, if the wall colour is unspecified in the documentation, a provisional value of 'medium' must be modelled. Acceptable provisional values are outlined in the NatHERS Technical Note and can be found at <a href="http://www.nathers.gov.au">www.nathers.gov.au</a>
<b>Reflective wrap (also known as foil)</b>	can be applied to walls, roofs and ceilings. When combined with an appropriate airgap and emissivity value, it provides insulative properties.
<b>Roof window</b>	for NatHERS this is typically an operable window (i.e. can be opened), will have a plaster or similar light well if there is an attic space, and generally does not have a diffuser.
<b>Shading device</b>	a device fixed to windows that provides shading e.g. window awnings or screens but excludes eaves.
<b>Shading features</b>	includes neighbouring buildings, fences, and wing walls, but excludes eaves.
<b>Solar heat gain coefficient (SHGC)</b>	the fraction of incident solar radiation admitted through a window, both directly transmitted as well as absorbed and subsequently released inward. SHGC is expressed as a number between 0 and 1. The lower a window's SHGC, the less solar heat it transmits.
<b>Skylight (also known as roof lights)</b>	for NatHERS this is typically a moulded unit with flexible reflective tubing (light well) and a diffuser at ceiling level.
<b>U-value</b>	the rate of heat transfer through a window. The lower the U-value, the better the insulating ability.
<b>Unconditioned</b>	a zone within a dwelling that is assumed to not require heating and cooling based on standard occupancy assumptions
<b>Vertical shading features</b>	provides shading to the building in the vertical plane and can be parallel or perpendicular to the subject wall/window. Includes privacy screens, other walls in the building (wing walls), fences, other buildings, vegetation (protected or listed heritage trees).

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\* Refer to glossary.

# Nationwide House Energy Rating Scheme NatHERS Certificate No. #

Generated on 19 Jun 2025 using Hero 4.1 (Chenath v3.21)

## Property

**Address** TH05, 34 George Street, Reservoir, VIC,  
3073

**Lot/DP**

**NCC Class\*** 1a

**Type** New

## Plans

**Main Plan** 2301 / REV-A 12.2023

**Prepared by** Ys Housing

## Construction and environment

**Assessed floor area (m<sup>2</sup>)\***

**Conditioned\*** 80.5

**Unconditioned\*** 2.0

**Total** 82.5

**Garage** 0.0

**Exposure Type**

Suburban

NatHERS climate zone

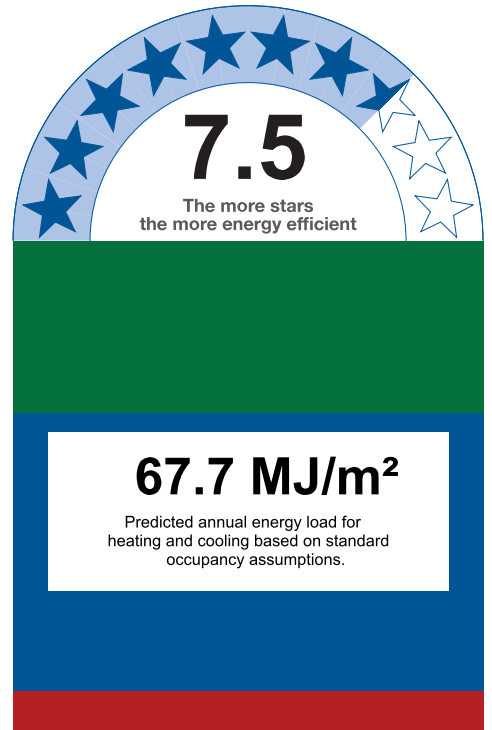
2 Melbourne RO



**Accredited assessor**

**Name** Nguyen Le  
**Business name** Nguyen Le  
**Email** tran-n-le@outlook.com  
**Phone** +61 438088493  
**Accreditation No.** DMN/222027  
**Assessor Accrediting Organisation** DMN  
**Declaration of interest** Conflict of Interest (Managed)

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## Thermal Performance

**Heating**

**34.1**

**MJ/m<sup>2</sup>**

**Cooling**

**33.6**

**MJ/m<sup>2</sup>**

### About the rating

NatHERS software models the expected thermal energy loads using information about the design and construction, climate and common patterns of household use. The software does not take into account appliances, apart from the airflow impacts from ceiling fans.

## Verification

DRAFT PREVIEW ISSUE - NOT TO BE USED FOR CERTIFICATION

## National Construction Code (NCC) requirements

The NCC's requirements for NatHERS-rated houses are detailed in 3.12.0(a)(i) and 3.12.5 of the NCC Volume Two. For apartments the requirements are detailed in J0.2 and J5 to J8 of the NCC Volume One.

In NCC 2019, these requirements include minimum star ratings and separate heating and cooling load limits that need to be met by buildings and apartments through the NatHERS assessment. Requirements additional to the NatHERS assessment that must also be satisfied include, but are not limited to: insulation installation methods, thermal breaks, building sealing, water heating and pumping, and artificial lighting requirements. The NCC and NatHERS Heating and Cooling Load Limits (Australian Building Codes Board Standard) are available at [www.abcb.gov.au](http://www.abcb.gov.au).

State and territory variations and additions to the NCC may also apply.

\* Refer to glossary.

# ADVERTISED PLAN

## Certificate Check

Ensure the dwelling is designed and then built as per the NatHERS Certificate. While you need to check the accuracy of the whole Certificate, the following spot check covers some important items impacting the dwelling’s rating.

### Genuine certificate

Does this Certificate match the one available at the web address or QR code in the verification box on the front page? Does the set of NatHERS-stamped plans for the dwelling have a Certificate number on the stamp that matches this Certificate?

### Ceiling penetrations\*

Does the ‘number’ and ‘type’ of ceiling penetrations (e.g. downlights, exhaust fans, etc) shown on the stamped plans or installed, match what is shown in this Certificate?

### Windows

Does the installed window meet the substitution tolerances (SHGC and U-value) and window type, of the window shown on this Certificate? Substituted values must be based on the Australian Fenestration Rating Council (AFRC) protocol.

### Apartment entrance doors

Does the ‘External Door Schedule’ show apartment entrance doors? Please note that an “external door” between the modelled dwelling and a shared space, such as an enclosed corridor or foyer, should not be included in the assessment (because it overstates the possible ventilation) and would invalidate the Certificate.

### Exposure\*

Has the appropriate exposure level (terrain) been applied? For example, it is unlikely that a ground-floor apartment is “exposed” or a top floor high-rise apartment is “protected”.

### Provisional\* values

Have provisional values been used in the assessment and, if so, noted in “additional notes” below?

## Additional Notes

-----

### Provisional Values

Floor Coverings - Provisional NatHERS Technical Note Values used in floor areas left unspecified

Floor Coverings - If a room has standard drafting hatching detail but no wording regarding the floor covering then an assumption is made based off the hatching detail

Colours (Excl. Roof Colour) - Provisional “Medium” colour used as per NatHERS Technical Note Values used on building areas left unspecified

Roof Colour - Colour used is "worst case scenario" as per NatHERS Technical Note Table 9.1 & 9.2

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## Window and glazed door type and performance

### Default\* windows

Window ID	Window Description	Maximum U-value*	SHGC*	SHGC substitution tolerance ranges	
				lower limit	upper limit
ATB-006-03 B	AI Thermally Broken B DG Argon Fill High Solar Gain low-E - Clear	2.9	0.51	0.48	0.54

### Custom\* windows

Window ID	Window Description	Maximum U-value*	SHGC*	SHGC substitution tolerance ranges	
				lower limit	upper limit
AWS-088-17 A	Series 755 Comfort Edge Awning Window DG LightBridge_ClrS0_5-10-5	2.4	0.46	0.44	0.48

\* Refer to glossary.

# ADVERTISED PLAN

## Custom\* windows

Window ID	Window Description	Maximum U-value*	SHGC*	SHGC substitution tolerance ranges	
				lower limit	upper limit
AWS-089-56 A	RES SERIES 704 FLUSH SLIDING DOOR DG FGIOptEmaGry_4mm_16Ar_4mm	2.2	0.56	0.53	0.59
BRD-127-10 A	ESS Fixed Window External 52 Comm DG 6mmET_12Ar_6mmET	2.0	0.50	0.47	0.53

## Window and glazed door schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Window type	Opening %	Orient-ation	Shading device*
BED 01	ATB-006-03 B	W03	1800	1800	Sliding	45	W	None
BED 02	AWS-088-17 A	W02-F	1800	900	Awning	90	E	None
BED 02	BRD-127-10 A	W02-E	1800	900	Fixed	0	E	None
KLM	AWS-089-56 A	W01	2700	3400	Sliding Door	45	E	None
KLM	AWS-088-17 A	W04-1	900	950	Awning	90	W	None
KLM	BRD-127-10 A	W04-2	1800	950	Fixed	0	W	None
KLM	BRD-127-10 A	W05	2400	1400	Fixed	0	W	None

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## Roof window type and performance value

### Default\* roof windows

Window ID	Window Description	Maximum U-value*	SHGC*	SHGC substitution tolerance ranges	
				lower limit	upper limit
None					

### Custom\* roof windows

Window ID	Window Description	Maximum U-value*	SHGC*	SHGC substitution tolerance ranges	
				lower limit	upper limit
None					

## Roof window schedule

Location	Window ID	Window no.	Opening %	Height (mm)	Width (mm)	Orient-ation	Outdoor shade	Indoor shade
None								

## Skylight type and performance

Skylight ID	Skylight description

\* Refer to glossary.

## Skylight type and performance

Skylight ID	Skylight description
None	

## Skylight schedule

Location	Skylight ID	Skylight No.	Skylight shaft length (mm)	Area (m <sup>2</sup> )	Orientation	Outdoor shade	Diffuser	Shaft Reflectance
None								

## External door schedule

Location	Height (mm)	Width (mm)	Opening %	Orientation
KLM	2400	920	90	W

## External wall type

Wall ID	Wall Type	Solar absorptance	Wall Colour	Bulk insulation (R-value)	Reflective wall wrap*
MC-NOCAV	Metal Clad Direct-Fix (No Cavity) Stud Wall	0.50	Medium	2.50	No

## External wall schedule

Location	Wall ID	Height (mm)	Width (mm)	Orientation	Horizontal shading feature* projection (mm)	Vertical shading feature
BATH	MC-NOCAV	2700	2963	N		Yes
BED 01	MC-NOCAV	2700	2934	N		Yes
BED 01	MC-NOCAV	2700	4333	W		No
BED 02	MC-NOCAV	2700	2957	N		Yes
BED 02	MC-NOCAV	2700	4333	E		Yes
KLM	MC-NOCAV	2700	10187	N		Yes
KLM	MC-NOCAV	2700	4333	E		Yes
KLM	MC-NOCAV	2700	4333	W		Yes
WC	MC-NOCAV	2700	857	N		Yes

## Internal wall type

Wall ID	Wall Type	Area (m <sup>2</sup> )	Bulk insulation
CSR PARTY WALL21	CSR Party Wall	54.1	5.00
INT-PB	Internal Plasterboard Stud Wall	13.2	2.50

\* Refer to glossary.

**Internal wall type****ADVERTISED  
PLAN**

Wall ID	Wall Type	Area (m <sup>2</sup> )	Bulk insulation
INT-PB	Internal Plasterboard Stud Wall	20.8	0.00

**Floor type**

Location	Construction	Area (m <sup>2</sup> )	Sub-floor ventilation	Added insulation (R-value)	Covering
BATH	TIMB-001: Suspended Timber Floor	5.1	N/A	4.00	Tile (8mm)
BED 01	TIMB-001: Suspended Timber Floor	12.7	N/A	4.00	Carpet
BED 02	TIMB-001: Suspended Timber Floor	12.8	N/A	4.00	Carpet
HALL	TIMB-001: Suspended Timber Floor	1.5	N/A	4.00	Tile (8mm)
HALL	TIMB-001: Suspended Timber Floor	7.5	N/A	4.00	Carpet
KLM	CSOG-100: Concrete Slab on Ground (100mm)	40.7	N/A	3.23	Carpet
KLM	CSOG-100: Concrete Slab on Ground (100mm)	3.5	N/A	3.23	Tile (8mm)
WC	TIMB-001: Suspended Timber Floor	2.0	N/A	4.00	Tile (8mm)

**Ceiling type**

Location	Construction	Bulk insulation (R-value)	Reflective wrap*
BATH	FLAT-01: Flat Framed / Skillion Metal Roof & Flat PB Ceiling	7.00	No
BED 01	FLAT-01: Flat Framed / Skillion Metal Roof & Flat PB Ceiling	7.00	No
BED 02	FLAT-01: Flat Framed / Skillion Metal Roof & Flat PB Ceiling	7.00	No
HALL	FLAT-01: Flat Framed / Skillion Metal Roof & Flat PB Ceiling	7.00	No
WC	FLAT-01: Flat Framed / Skillion Metal Roof & Flat PB Ceiling	7.00	No

**Ceiling penetrations\***

Location	Quantity	Type	Diameter (mm)	Sealed /unsealed
BATH	1	Exhaust Fan	350	Sealed
HALL	1	Exhaust Fan	350	Sealed
KLM	1	Exhaust Fan	260	Sealed
WC	1	Exhaust Fan	350	Sealed

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# ADVERTISED PLAN

## Ceiling fans

Location	Quantity	Diameter (mm)
None		

## Roof type

Construction	Added insulation (R-value)	Solar absorptance	Roof Colour
FLAT-01: Flat Framed / Skillion Metal Roof & Flat PB Ceiling	0.00	0.50	Medium

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Not all assumptions that may have been made by the assessor while using the NatHERS accredited software tool are presented in this report and further details or data files may be available from the assessor.

## Glossary

<b>Annual energy load</b>	the predicted amount of energy required for heating and cooling, based on standard occupancy assumptions.
<b>Assessed floor area</b>	the floor area modelled in the software for the purpose of the NatHERS assessment. Note, this may not be consistent with the floor area in the design documents.
<b>Ceiling penetrations</b>	features that require penetration through the ceiling, including exhaust vents, exhaust fans, rangehoods, chimneys and flues. Excludes fixtures attached to the ceiling, such as ceiling fans, pendant lights, and heating and cooling ducts.
<b>Conditioned</b>	a zone within a dwelling that is expected to require heating and cooling based on standard occupancy assumptions. In some circumstances it will include garages.
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<b>Exposure category - exposed</b>	terrain with no obstructions, e.g. flat grazing land, ocean-frontage, desert, exposed high-rise unit (usually above 10 floors).
<b>Exposure category - open</b>	terrain with few obstructions at a similar height e.g. grasslands with few well scattered obstructions below 10m, farmland with scattered sheds, lightly vegetated bush blocks, elevated units (e.g. above 3 floors).
<b>Exposure category - suburban</b>	terrain with numerous, closely spaced obstructions below 10m e.g. suburban housing, heavily vegetated bushland areas.
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<b>Opening percentage</b>	the openability percentage or operable (moveable) area of doors or windows that is used in ventilation calculations.
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<b>Skylight (also known as roof lights)</b>	for NatHERS this is typically a moulded unit with flexible reflective tubing (light well) and a diffuser at ceiling level.
<b>U-value</b>	the rate of heat transfer through a window. The lower the U-value, the better the insulating ability.
<b>Unconditioned</b>	a zone within a dwelling that is assumed to not require heating and cooling based on standard occupancy assumptions
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\* Refer to glossary.

# Nationwide House Energy Rating Scheme NatHERS Certificate No. #

Generated on 19 Jun 2025 using Hero 4.1 (Chenath v3.21)

## Property

**Address** TH06, 34 George Street, Reservoir, VIC,  
3073

**Lot/DP**

**NCC Class\*** 1a

**Type** New

**ADVERTISED  
PLAN**

## Plans

**Main Plan** 2301 / REV-A 12.2023

**Prepared by** Ys Housing

## Construction and environment

**Assessed floor area (m<sup>2</sup>)\***

**Conditioned\*** 114.7

**Unconditioned\*** 2.0

**Total** 116.6

**Garage** 0.0

**Exposure Type**

Suburban

NatHERS climate zone

2 Melbourne RO

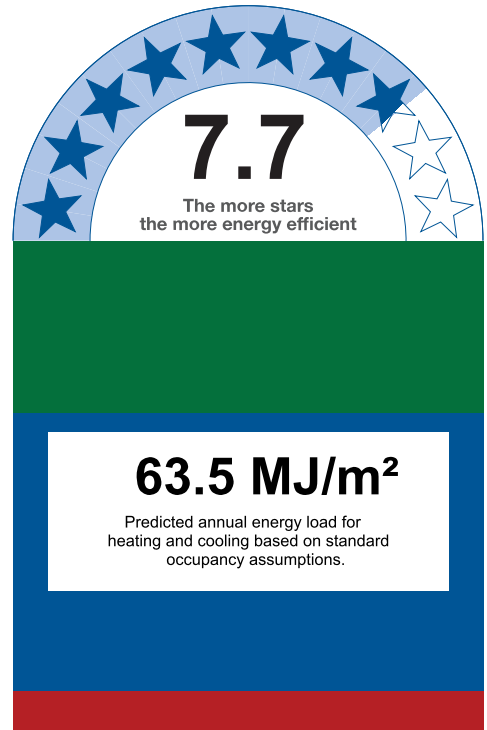


**Accredited assessor**

**Name** Nguyen Le  
**Business name** Nguyen Le  
**Email** tran-n-le@cutflow.com  
**Phone** +61 4 38088493  
**Accreditation No.** DMN/222027  
**Assessor Accrediting Organisation** DMN  
**Declaration of interest** Conflict of Interest (Managed)

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## Thermal Performance

**Heating**

**44.9**

**MJ/m<sup>2</sup>**

**Cooling**

**18.6**

**MJ/m<sup>2</sup>**

### About the rating

NatHERS software models the expected thermal energy loads using information about the design and construction, climate and common patterns of household use. The software does not take into account appliances, apart from the airflow impacts from ceiling fans.

## Verification

DRAFT PREVIEW ISSUE - NOT TO BE USED FOR CERTIFICATION

## National Construction Code (NCC) requirements

The NCC's requirements for NatHERS-rated houses are detailed in 3.12.0(a)(i) and 3.12.5 of the NCC Volume Two. For apartments the requirements are detailed in J0.2 and J5 to J8 of the NCC Volume One.

In NCC 2019, these requirements include minimum star ratings and separate heating and cooling load limits that need to be met by buildings and apartments through the NatHERS assessment. Requirements additional to the NatHERS assessment that must also be satisfied include, but are not limited to: insulation installation methods, thermal breaks, building sealing, water heating and pumping, and artificial lighting requirements. The NCC and NatHERS Heating and Cooling Load Limits (Australian Building Codes Board Standard) are available at [www.abcb.gov.au](http://www.abcb.gov.au).

State and territory variations and additions to the NCC may also apply.

\* Refer to glossary.

# ADVERTISED PLAN

## Certificate Check

Ensure the dwelling is designed and then built as per the NatHERS Certificate. While you need to check the accuracy of the whole Certificate, the following spot check covers some important items impacting the dwelling's rating.

### Genuine certificate

Does this Certificate match the one available at the web address or QR code in the verification box on the front page? Does the set of NatHERS-stamped plans for the dwelling have a Certificate number on the stamp that matches this Certificate?

### Ceiling penetrations\*

Does the 'number' and 'type' of ceiling penetrations (e.g. downlights, exhaust fans, etc) shown on the stamped plans or installed, match what is shown in this Certificate?

### Windows

Does the installed window meet the substitution tolerances (SHGC and U-value) and window type, of the window shown on this Certificate? Substituted values must be based on the Australian Fenestration Rating Council (AFRC) protocol.

### Apartment entrance doors

Does the 'External Door Schedule' show apartment entrance doors? Please note that an "external door" between the modelled dwelling and a shared space, such as an enclosed corridor or foyer, should not be included in the assessment (because it overstates the possible ventilation) and would invalidate the Certificate.

### Exposure\*

Has the appropriate exposure level (terrain) been applied? For example, it is unlikely that a ground-floor apartment is "exposed" or a top floor high-rise apartment is "protected".

### Provisional\* values

Have provisional values been used in the assessment and, if so, noted in "additional notes" below?

## Additional Notes

-----

### Provisional Values

Floor Coverings - Provisional NatHERS Technical Note Values used in floor areas left unspecified

Floor Coverings - If a room has standard drafting hatching detail but no wording regarding the floor covering then an assumption is made based off the hatching detail

Colours (Excl. Roof Colour) - Provisional "Medium" colour used as per NatHERS Technical Note Values used on building areas left unspecified

Roof Colour - Colour used is "worst case scenario" as per NatHERS Technical Note Table 9.1 & 9.2

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## Window and glazed door type and performance

### Default\* windows

Window ID	Window Description	Maximum U-value*	SHGC*	SHGC substitution tolerance ranges	
				lower limit	upper limit
None					

### Custom\* windows

Window ID	Window Description	Maximum U-value*	SHGC*	SHGC substitution tolerance ranges	
				lower limit	upper limit
AWS-088-17 A	Series 755 Comfort Edge Awning Window DG LightBridge_ClrSO_5-10-5	2.4	0.46	0.44	0.48

\* Refer to glossary.

# ADVERTISED PLAN

## Custom\* windows

Window ID	Window Description	Maximum U-value*	SHGC*	SHGC substitution tolerance ranges	
				lower limit	upper limit
AWS-089-56 A	RES SERIES 704 FLUSH SLIDING DOOR DG FGIOptEmaGry_4mm_16Ar_4mm	2.2	0.56	0.53	0.59
BRD-127-10 A	ESS Fixed Window External 52 Comm DG 6mmET_12Ar_6mmET	2.0	0.50	0.47	0.53

## Window and glazed door schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Window type	Opening %	Orient-ation	Shading device*
BED 01	BRD-127-10 A	W06-B	1800	900	Fixed	0	N	None
BED 01	AWS-088-17 A	W06-A	1800	900	Awning	90	N	None
BED 02	BRD-127-10 A	W05-B	1800	900	Fixed	0	N	None
BED 02	AWS-088-17 A	W05-A	1800	900	Awning	90	N	None
BED 03	BRD-127-10 A	W02-H	1800	900	Fixed	0	S	None
BED 03	AWS-088-17 A	W02-G	1800	900	Awning	90	S	None
FLEXI	BRD-127-10 A	W03-F	1800	900	Fixed	0	S	None
FLEXI	AWS-088-17 A	W03-E	1800	900	Awning	90	S	None
FLEXI	AWS-088-17 A	W04	1800	950	Awning	90	S	None
KLM	AWS-089-56 A	W01	2700	3400	Sliding Door	45	N	None
KLM	BRD-127-10 A	W07	2700	400	Fixed	0	S	None
KLM	AWS-088-17 A	W08-1	900	900	Awning	90	S	None
KLM	BRD-127-10 A	W08-2	1800	900	Fixed	0	S	None

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## Roof window type and performance value

### Default\* roof windows

Window ID	Window Description	Maximum U-value*	SHGC*	SHGC substitution tolerance ranges	
				lower limit	upper limit
None					

### Custom\* roof windows

Window ID	Window Description	Maximum U-value*	SHGC*	SHGC substitution tolerance ranges	
				lower limit	upper limit

\* Refer to glossary.

# ADVERTISED PLAN

## Custom\* roof windows

Window ID	Window Description	Maximum U-value*	SHGC*	SHGC substitution tolerance ranges	
				lower limit	upper limit
None					

## Roof window schedule

Location	Window ID	Window no.	Opening %	Height (mm)	Width (mm)	Orient-ation	Outdoor shade	Indoor shade
None								

## Skylight type and performance

Skylight ID	Skylight description
None	

## Skylight schedule

Location	Skylight ID	Skylight No.	Skylight shaft length (mm)	Area (m <sup>2</sup> )	Orient-ation	Outdoor shade	Diffuser	Shaft Reflectance
None								

## External door schedule

Location	Height (mm)	Width (mm)	Opening %	Orientation
KLM	2700	920	90	S

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## External wall type

Wall ID	Wall Type	Solar absorptance	Wall Colour	Bulk insulation (R-value)	Reflective wall wrap*
CSR PARTY WALL21	CSR Party Wall	0.50	Medium	5.00	Yes
MC-NOCAV	Metal Clad Direct-Fix (No Cavity) Stud Wall	0.50	Medium	2.50	No

## External wall schedule

Location	Wall ID	Height (mm)	Width (mm)	Orient-ation	Horizontal shading feature* projection (mm)	Vertical shading feature
BATH	MC-NOCAV	2700	2970	W		Yes
BED 01	MC-NOCAV	2700	4353	N		No
BED 01	MC-NOCAV	2700	2927	W		Yes
BED 02	MC-NOCAV	2700	4353	N		Yes
BED 02	MC-NOCAV	2700	2944	W		Yes

\* Refer to glossary.

**ADVERTISED  
PLAN****External wall schedule**

Location	Wall ID	Height (mm)	Width (mm)	Orientation	Horizontal shading feature* projection (mm)	Vertical shading feature
BED 03	MC-NOCAV	2700	4346	S		Yes
BED 03	MC-NOCAV	2700	2958	W		Yes
ENS	MC-NOCAV	2700	2941	W		Yes
FLEXI	MC-NOCAV	2700	2951	S		Yes
FLEXI	MC-NOCAV	2700	2484	W		Yes
FLEXI	MC-NOCAV	2700	1395	S		Yes
FLEXI	MC-NOCAV	2700	1525	W		Yes
FLEXI	CSR PARTY WALL21	2700	1028	E		Yes
KLM	MC-NOCAV	2700	4346	N	727	Yes
KLM	MC-NOCAV	2700	4346	S	1135	Yes
KLM	MC-NOCAV	2700	9616	W		Yes
WC	MC-NOCAV	2700	82	W		Yes

**Internal wall type**

Wall ID	Wall Type	Area (m <sup>2</sup> )	Bulk insulation
CSR PARTY WALL21	CSR Party Wall	76.3	5.00
INT-PB	Internal Plasterboard Stud Wall	46.5	0.00
INT-PB	Internal Plasterboard Stud Wall	13.4	2.50

**Floor type**

Location	Construction	Area (m <sup>2</sup> )	Sub-floor ventilation	Added insulation (R-value)	Covering
BATH	TIMB-001: Suspended Timber Floor	5.2	N/A	4.00	Tile (8mm)
BED 01	TIMB-001: Suspended Timber Floor	12.7	N/A	4.00	Carpet
BED 02	TIMB-001: Suspended Timber Floor	10.2	N/A	4.00	Carpet
BED 02	TIMB-002: Suspended Timber Floor - Lined Below	2.6	N/A	4.00	Carpet
BED 03	TIMB-001: Suspended Timber Floor	12.9	N/A	4.00	Carpet

# ADVERTISED PLAN

## Floor type

Location	Construction	Area (m <sup>2</sup> )	Sub-floor ventilation	Added insulation (R-value)	Covering
ENS	TIMB-001: Suspended Timber Floor	4.9	N/A	4.00	Tile (8mm)
FLEXI	TIMB-001: Suspended Timber Floor	14.0	N/A	4.00	Carpet
HALL	TIMB-001: Suspended Timber Floor	1.5	N/A	4.00	Tile (8mm)
HALL	TIMB-001: Suspended Timber Floor	14.8	N/A	4.00	Carpet
KLM	CSOG-100: Concrete Slab on Ground (100mm)	37.2	N/A	3.23	Carpet
KLM	CSOG-100: Concrete Slab on Ground (100mm)	4.6	N/A	3.23	Tile (8mm)
WC	TIMB-001: Suspended Timber Floor	2.0	N/A	4.00	Tile (8mm)

## Ceiling type

Location	Construction	Bulk insulation (R-value)	Reflective wrap*
BED 01	FLAT-01: Flat Framed / Skillion Metal Roof & Flat PB Ceiling	7.00	No
BED 03	FLAT-01: Flat Framed / Skillion Metal Roof & Flat PB Ceiling	7.00	No
ENS	FLAT-01: Flat Framed / Skillion Metal Roof & Flat PB Ceiling	7.00	No
FLEXI	FLAT-01: Flat Framed / Skillion Metal Roof & Flat PB Ceiling	7.00	No
HALL	FLAT-01: Flat Framed / Skillion Metal Roof & Flat PB Ceiling	7.00	No

## Ceiling penetrations

Location	Quantity	Type	Diameter (mm)	Sealed /unsealed
BATH	1	Exhaust Fan	350	Sealed
ENS	1	Exhaust Fan	350	Sealed
KLM	1	Exhaust Fan	260	Sealed
WC	1	Exhaust Fan	350	Sealed

## Ceiling fans

Location	Quantity	Diameter (mm)
None		

\* Refer to glossary.

# ADVERTISED PLAN

## Roof type

Construction	Added insulation (R-value)	Solar absorptance	Roof Colour
FLAT-01: Flat Framed / Skillion Metal Roof & Flat PB Ceiling	0.00	0.50	Medium

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# ADVERTISED PLAN

## Explanatory Notes

### About this report

A NatHERS rating is a comprehensive, dynamic computer modelling evaluation of a home, using the floorplans, elevations and specifications to estimate an energy load. It addresses the building layout, orientation and fabric (i.e. walls, windows, floors, roofs and ceilings), but does not cover the water or energy use of appliances or energy production of solar panels.

Ratings are based on a unique climate zone where the home is located and are generated using standard assumptions, including occupancy patterns and thermostat settings. The actual energy consumption of a home may vary significantly from the predicted energy load, as the assumptions used in the rating will not match actual usage patterns. For example, the number of occupants and personal heating or cooling preferences will vary.

While the figures are an indicative guide to energy use, they can be used as a reliable guide for comparing different dwelling designs and to demonstrate that the design meets the energy efficiency requirements in the National Construction Code. Homes that are energy efficient use less energy, are warmer on cool days, cooler on hot days and cost less to run. The higher the star rating the more thermally efficient the dwelling is.

### Accredited assessors

To ensure the NatHERS Certificate is of a high quality, always use an accredited or licenced assessor. NatHERS accredited assessors are members of a professional body called an Assessor Accrediting Organisation (AAO).

Australian Capital Territory (ACT) licenced assessors may only produce assessments for regulatory purposes using software for which they have a licence endorsement. Licence endorsements can be confirmed on the ACT licensing register

## Glossary

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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 ongoing training requirements.

Any questions or concerns about this report should be directed to the assessor in the first instance. If the assessor is unable to address these questions or concerns, the AAO specified on the front of this certificate should be contacted.

### Disclaimer

The format of the NatHERS Certificate was developed by the NatHERS Administrator. However the content of each individual certificate is entered and created by the assessor to create a NatHERS Certificate. It is the responsibility of the assessor who prepared this certificate to use NatHERS accredited software correctly and follow the NatHERS Technical Notes to produce a NatHERS Certificate.

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# Nationwide House Energy Rating Scheme NatHERS Certificate No. #

Generated on 19 Jun 2025 using Hero 4.1 (Chenath v3.21)

## Property

**Address** TH07, 34 George Street, Reservoir, VIC,  
3073

**Lot/DP**

**NCC Class\*** 1a

**Type** New

## Plans

**Main Plan** 2301 / REV-A 12.2023

**Prepared by** Ys Housing

## Construction and environment

**Assessed floor area (m<sup>2</sup>)\***

**Conditioned\*** 114.3

**Unconditioned\*** 1.9

**Total** 116.2

**Garage** 0.0

**Exposure Type**

Suburban

NatHERS climate zone

2 Melbourne RO

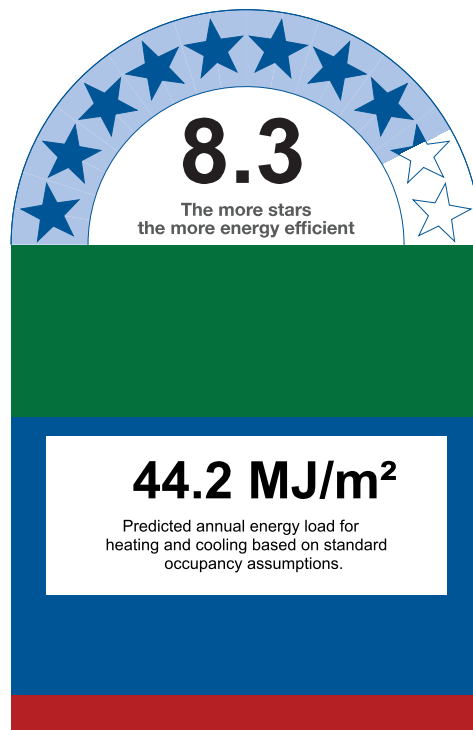


**Accredited assessor**

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**Email** tran-n-le@outlook.com  
**Phone** +61 4 38088493  
**Accreditation No.** DMN/222027  
**Assessor Accrediting Organisation** DMN  
**Declaration of interest** Conflict of Interest (Managed)

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PLAN**

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## Thermal Performance

**Heating Cooling**

**29.8 14.4**

**MJ/m<sup>2</sup> MJ/m<sup>2</sup>**

### About the rating

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In NCC 2019, these requirements include minimum star ratings and separate heating and cooling load limits that need to be met by buildings and apartments through the NatHERS assessment. Requirements additional to the NatHERS assessment that must also be satisfied include, but are not limited to: insulation installation methods, thermal breaks, building sealing, water heating and pumping, and artificial lighting requirements. The NCC and NatHERS Heating and Cooling Load Limits (Australian Building Codes Board Standard) are available at [www.abcb.gov.au](http://www.abcb.gov.au).

State and territory variations and additions to the NCC may also apply.

\* Refer to glossary.

# ADVERTISED PLAN

## Certificate Check

Ensure the dwelling is designed and then built as per the NatHERS Certificate. While you need to check the accuracy of the whole Certificate, the following spot check covers some important items impacting the dwelling's rating.

### Genuine certificate

Does this Certificate match the one available at the web address or QR code in the verification box on the front page? Does the set of NatHERS-stamped plans for the dwelling have a Certificate number on the stamp that matches this Certificate?

### Ceiling penetrations\*

Does the 'number' and 'type' of ceiling penetrations (e.g. downlights, exhaust fans, etc) shown on the stamped plans or installed, match what is shown in this Certificate?

### Windows

Does the installed window meet the substitution tolerances (SHGC and U-value) and window type, of the window shown on this Certificate? Substituted values must be based on the Australian Fenestration Rating Council (AFRC) protocol.

### Apartment entrance doors

Does the 'External Door Schedule' show apartment entrance doors? Please note that an "external door" between the modelled dwelling and a shared space, such as an enclosed corridor or foyer, should not be included in the assessment (because it overstates the possible ventilation) and would invalidate the Certificate.

### Exposure\*

Has the appropriate exposure level (terrain) been applied? For example, it is unlikely that a ground-floor apartment is "exposed" or a top floor high-rise apartment is "protected".

### Provisional\* values

Have provisional values been used in the assessment and, if so, noted in "additional notes" below?

## Additional Notes

-----

### Provisional Values

Floor Coverings - Provisional NatHERS Technical Note Values used in floor areas left unspecified

Floor Coverings - If a room has standard drafting hatching detail but no wording regarding the floor covering then an assumption is made based off the hatching detail

Colours (Excl. Roof Colour) - Provisional "Medium" colour used as per NatHERS Technical Note Values used on building areas left unspecified

Roof Colour - Colour used is "worst case scenario" as per NatHERS Technical Note Table 9.1 & 9.2

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**DRAFT**

## Window and glazed door type and performance

### Default\* windows

Window ID	Window Description	Maximum U-value*	SHGC*	SHGC substitution tolerance ranges	
				lower limit	upper limit
None					

### Custom\* windows

Window ID	Window Description	Maximum U-value*	SHGC*	SHGC substitution tolerance ranges	
				lower limit	upper limit
AWS-088-17 A	Series 755 Comfort Edge Awning Window DG LightBridge_ClrSO_5-10-5	2.4	0.46	0.44	0.48

\* Refer to glossary.

# ADVERTISED PLAN

## Custom\* windows

Window ID	Window Description	Maximum U-value*	SHGC*	SHGC substitution tolerance ranges	
				lower limit	upper limit
AWS-089-56 A	RES SERIES 704 FLUSH SLIDING DOOR DG FGIOptEmaGry_4mm_16Ar_4mm	2.2	0.56	0.53	0.59
BRD-127-10 A	ESS Fixed Window External 52 Comm DG 6mmET_12Ar_6mmET	2.0	0.50	0.47	0.53

## Window and glazed door schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Window type	Opening %	Orient-ation	Shading device*
Bed 1	BRD-127-10 A	W05-D	1800	900	Fixed	0	N	None
Bed 1	AWS-088-17 A	W05-C	1800	900	Awning	90	N	None
Bed 2	BRD-127-10 A	W04-B	1800	900	Fixed	0	S	None
Bed 2	AWS-088-17 A	W04-A	1800	900	Awning	90	S	None
Bed 3	BRD-127-10 A	W06-H	1800	900	Fixed	0	N	None
Bed 3	AWS-088-17 A	W06-G	1800	900	Awning	90	N	None
KIT/LIV/DIN	AWS-089-56 A	W03	2400	3500	Sliding Door	45	N	None
KIT/LIV/DIN	BRD-127-10 A	W01	2400	2400	Fixed	0	S	None
KIT/LIV/DIN	AWS-088-17 A	W02	900	900	Awning	90	S	None
KIT/LIV/DIN	BRD-127-10 A	W02-8	1500	900	Fixed	0	S	None
Study	AWS-088-17 A	W07-F	1800	900	Awning	90	S	None
Study	BRD-127-10 A	W07-E	1800	900	Fixed	0	S	None

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## Roof window type and performance value

### Default\* roof windows

Window ID	Window Description	Maximum U-value*	SHGC*	SHGC substitution tolerance ranges	
				lower limit	upper limit
None					

### Custom\* roof windows

Window ID	Window Description	Maximum U-value*	SHGC*	SHGC substitution tolerance ranges	
				lower limit	upper limit
None					

\* Refer to glossary.

**ADVERTISED  
PLAN****Roof window schedule**

Location	Window ID	Window no.	Opening %	Height (mm)	Width (mm)	Orientation	Outdoor shade	Indoor shade
None								

**Skylight type and performance**

Skylight ID	Skylight description
None	

**Skylight schedule**

Location	Skylight ID	Skylight No.	Skylight shaft length (mm)	Area (m <sup>2</sup> )	Orientation	Outdoor shade	Diffuser	Shaft Reflectance
None								

**External door schedule**

Location	Height (mm)	Width (mm)	Opening %	Orientation
KIT/LIV/DIN	2400	920	90	S

**External wall type**

Wall ID	Wall Type	U-value	Wall Colour	Bulk insulation (R-value)	Reflective wall wrap*
MC-NOCAV	Metal Clad Direct Fix (No Cavity) Stud Wall	0.15	Medium	2.50	No

**External wall schedule**

Location	Wall ID	Height (mm)	Width (mm)	Orientation	Horizontal shading feature* projection (mm)	Vertical shading feature
Bed 1	MC-NOCAV	2700	4372	N		Yes
Bed 2	MC-NOCAV	2700	4380	S		Yes
Bed 3	MC-NOCAV	2700	4380	N		No
KIT/LIV/DIN	MC-NOCAV	2700	4383	N	733	Yes
KIT/LIV/DIN	MC-NOCAV	2700	4383	S	1145	Yes
Study	MC-NOCAV	2700	4375	S		Yes

**Internal wall type**

Wall ID	Wall Type	Area (m <sup>2</sup> )	Bulk insulation
CSR PARTY WALL21	CSR Party Wall	153.0	5.00

\* Refer to glossary.

# ADVERTISED PLAN

## Internal wall type

Wall ID	Wall Type	Area (m <sup>2</sup> )	Bulk insulation
INT-PB	Internal Plasterboard Stud Wall	12.8	2.50
INT-PB	Internal Plasterboard Stud Wall	46.7	0.00

## Floor type

Location	Construction	Area (m <sup>2</sup> )	Sub-floor ventilation	Added insulation (R-value)	Covering
Bath	TIMB-001: Suspended Timber Floor	4.3	N/A	4.00	Tile (8mm)
Bath	TIMB-002: Suspended Timber Floor - Lined Below	0.2	N/A	4.00	Tile (8mm)
Bath	TIMB-002: Suspended Timber Floor - Lined Below	0.1	N/A	4.00	Carpet
Bathroom	TIMB-001: Suspended Timber Floor	5.4	N/A	4.00	Tile (8mm)
Bed 1	TIMB-001: Suspended Timber Floor	10.3	N/A	4.00	Carpet
Bed 1	TIMB-002: Suspended Timber Floor - Lined Below	2.6	N/A	4.00	Carpet
Bed 2	TIMB-001: Suspended Timber Floor	2.9	N/A	4.00	Carpet
Bed 3	TIMB-001: Suspended Timber Floor	0.9	N/A	4.00	Carpet
Bed 3	TIMB-002: Suspended Timber Floor - Lined Below	0.1	N/A	4.00	Carpet
KIT/LIV/DIN	CSOG-100: Concrete Slab on Ground (100mm)	34.5	N/A	3.23	Carpet
KIT/LIV/DIN	CSOG-100: Concrete Slab on Ground (100mm)	7.7	N/A	3.23	Tile (8mm)
Stairs/Landing	TIMB-001: Suspended Timber Floor	16.0	N/A	4.00	Carpet
Stairs/Landing	TIMB-002: Suspended Timber Floor - Lined Below	0.4	N/A	4.00	Carpet
Study	TIMB-001: Suspended Timber Floor	11.9	N/A	4.00	Carpet
Study	TIMB-002: Suspended Timber Floor - Lined Below	1.0	N/A	4.00	Carpet
WC	TIMB-001: Suspended Timber Floor	1.9	N/A	4.00	Tile (8mm)

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## Ceiling type

Location	Construction	Bulk insulation (R-value)	Reflective wrap*
Bath	FLAT-01: Flat Framed / Skillion Metal Roof & Flat PB Ceiling	7.00	No
Bathroom	FLAT-01: Flat Framed / Skillion Metal Roof & Flat PB Ceiling	7.00	No

\* Refer to glossary.

**ADVERTISED  
PLAN****Ceiling type**

Location	Construction	Bulk insulation (R-value)	Reflective wrap*
Bed 2	FLAT-01: Flat Framed / Skillion Metal Roof & Flat PB Ceiling	7.00	No
Bed 3	FLAT-01: Flat Framed / Skillion Metal Roof & Flat PB Ceiling	7.00	No
KIT/LIV/DIN	FLAT-01: Flat Framed / Skillion Metal Roof & Flat PB Ceiling	7.00	No
Stairs/Landing	FLAT-01: Flat Framed / Skillion Metal Roof & Flat PB Ceiling	7.00	No
Study	FLAT-01: Flat Framed / Skillion Metal Roof & Flat PB Ceiling	7.00	No
WC	FLAT-01: Flat Framed / Skillion Metal Roof & Flat PB Ceiling	7.00	No

**Ceiling penetrations\***

Location	Quantity	Type	Diameter (mm)	Sealed /unsealed
Bath	1	Exhaust Fan	350	Sealed
Bathroom	1	Exhaust Fan	350	Sealed
KIT/LIV/DIN	1	Exhaust Fan	260	Sealed
WC	1	Exhaust Fan	350	Sealed

**Ceiling fans**

Location	Quantity	Diameter (mm)
None		

**Roof type**

Construction	Added insulation (R-value)	Solar absorbance	Roof Colour
FLAT-01: Flat Framed / Skillion Metal Roof & Flat PB Ceiling	0.00	0.50	Medium

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# ADVERTISED PLAN

## Explanatory Notes

### About this report

A NatHERS rating is a comprehensive, dynamic computer modelling evaluation of a home, using the floorplans, elevations and specifications to estimate an energy load. It addresses the building layout, orientation and fabric (i.e. walls, windows, floors, roofs and ceilings), but does not cover the water or energy use of appliances or energy production of solar panels.

Ratings are based on a unique climate zone where the home is located and are generated using standard assumptions, including occupancy patterns and thermostat settings. The actual energy consumption of a home may vary significantly from the predicted energy load, as the assumptions used in the rating will not match actual usage patterns. For example, the number of occupants and personal heating or cooling preferences will vary.

While the figures are an indicative guide to energy use, they can be used as a reliable guide for comparing different dwelling designs and to demonstrate that the design meets the energy efficiency requirements in the National Construction Code. Homes that are energy efficient use less energy, are warmer on cool days, cooler on hot days and cost less to run. The higher the star rating the more thermally efficient the dwelling is.

### Accredited assessors

To ensure the NatHERS Certificate is of a high quality, always use an accredited or licenced assessor. NatHERS accredited assessors are members of a professional body called an Assessor Accrediting Organisation (AAO).

Australian Capital Territory (ACT) licenced assessors may only produce assessments for regulatory purposes using software for which they have a licence endorsement. Licence endorsements can be confirmed on the ACT licensing register

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 ongoing training requirements.

Any questions or concerns about this report should be directed to the assessor in the first instance. If the assessor is unable to address these questions or concerns, the AAO specified on the front of this certificate should be contacted.

### Disclaimer

The format of the NatHERS Certificate was developed by the NatHERS Administrator. However the content of each individual certificate is entered and created by the assessor to create a NatHERS Certificate. It is the responsibility of the assessor who prepared this certificate to use NatHERS accredited software correctly and follow the NatHERS Technical Notes to produce a NatHERS Certificate.

The predicted annual energy load in this NatHERS Certificate is an estimate based on an assessment of the building by the assessor. It is not a prediction of actual energy use, but may be used to compare how other buildings are likely to perform when used in a similar way.

Information presented in this report relies on a range of standard assumptions (both embedded in NatHERS accredited software and made by the assessor who prepared this report), including assumptions about occupancy, indoor air temperature and local climate.

Not all assumptions that may have been made by the assessor while using the NatHERS accredited software tool are presented in this report and further details or data files may be available from the assessor.

## Glossary

<b>Annual energy load</b>	the predicted amount of energy required for heating and cooling, based on standard occupancy assumptions.
<b>Assessed floor area</b>	the floor area modelled in the software for the purpose of the NatHERS assessment. Note, this may not be consistent with the floor area in the design documents.
<b>Ceiling penetrations</b>	features that require penetration through the ceiling, including exhaust vents, exhaust fans, rangehoods, chimneys and flues. Excludes fixtures attached to the ceiling, such as ceiling fans, pendant lights, and heating and cooling ducts.
<b>Conditioned</b>	a zone within a dwelling that is expected to require heating and cooling based on standard occupancy assumptions. In some circumstances it will include garages.
<b>Custom windows</b>	windows listed in NatHERS software that are available on the market in Australia and have a WERS (Window Energy Rating Scheme) rating.
<b>Default windows</b>	windows that are representative of a specific type of window product and whose properties have been derived by statistical methods.
<b>Entrance door</b>	these signify ventilation benefits in the modelling software and must not be modelled as a door when opening to a minimally ventilated corridor in a Class 2 building.
<b>Exposure category - exposed</b>	terrain with no obstructions, e.g. flat grazing land, ocean-frontage, desert, exposed high-rise unit (usually above 10 floors).
<b>Exposure category - open</b>	terrain with few obstructions at a similar height e.g. grasslands with few well scattered obstructions below 10m, farmland with scattered sheds, lightly vegetated bush blocks, elevated units (e.g. above 3 floors).
<b>Exposure category - suburban</b>	terrain with numerous, closely spaced obstructions below 10m e.g. suburban housing, heavily vegetated bushland areas.
<b>Exposure category - protected</b>	terrain with numerous, closely spaced obstructions over 10 m e.g. city and industrial areas.
<b>Horizontal shading feature</b>	provides shading to the building in the horizontal plane, e.g. eaves, verandahs, pergolas, carports, or overhangs or balconies from upper levels.
<b>National Construction Code (NCC) Class</b>	the NCC groups buildings by their function and use, and assigns a classification code. NatHERS software models NCC Class 1, 2 or 4 buildings and attached Class 10a buildings. Definitions can be found at <a href="http://www.abcb.gov.au">www.abcb.gov.au</a> .
<b>Opening percentage</b>	the openability percentage or operable (moveable) area of doors or windows that is used in ventilation calculations.
<b>Provisional value</b>	an assumed value that does not represent an actual value. For example, if the wall colour is unspecified in the documentation, a provisional value of 'medium' must be modelled. Acceptable provisional values are outlined in the NatHERS Technical Note and can be found at <a href="http://www.nathers.gov.au">www.nathers.gov.au</a>
<b>Reflective wrap (also known as foil)</b>	can be applied to walls, roofs and ceilings. When combined with an appropriate airgap and emissivity value, it provides insulative properties.
<b>Roof window</b>	for NatHERS this is typically an operable window (i.e. can be opened), will have a plaster or similar light well if there is an attic space, and generally does not have a diffuser.
<b>Shading device</b>	a device fixed to windows that provides shading e.g. window awnings or screens but excludes eaves.
<b>Shading features</b>	includes neighbouring buildings, fences, and wing walls, but excludes eaves.
<b>Solar heat gain coefficient (SHGC)</b>	the fraction of incident solar radiation admitted through a window, both directly transmitted as well as absorbed and subsequently released inward. SHGC is expressed as a number between 0 and 1. The lower a window's SHGC, the less solar heat it transmits.
<b>Skylight (also known as roof lights)</b>	for NatHERS this is typically a moulded unit with flexible reflective tubing (light well) and a diffuser at ceiling level.
<b>U-value</b>	the rate of heat transfer through a window. The lower the U-value, the better the insulating ability.
<b>Unconditioned</b>	a zone within a dwelling that is assumed to not require heating and cooling based on standard occupancy assumptions
<b>Vertical shading features</b>	provides shading to the building in the vertical plane and can be parallel or perpendicular to the subject wall/window. Includes privacy screens, other walls in the building (wing walls), fences, other buildings, vegetation (protected or listed heritage trees).

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\* Refer to glossary.

# Nationwide House Energy Rating Scheme NatHERS Certificate No. #

Generated on 19 Jun 2025 using Hero 4.1 (Chenath v3.21)

## Property

**Address** TH11, 34 George Street, Reservoir, VIC,  
3073

**Lot/DP**

**NCC Class\*** 1a

**Type** New

## Plans

**Main Plan** 2301 / REV-A 12.2023

**Prepared by** Ys Housing

## Construction and environment

**Assessed floor area (m<sup>2</sup>)\***

**Conditioned\*** 115.0

**Unconditioned\*** 2.0

**Total** 116.9

**Garage** 0.0

**Exposure Type**

Suburban

NatHERS climate zone

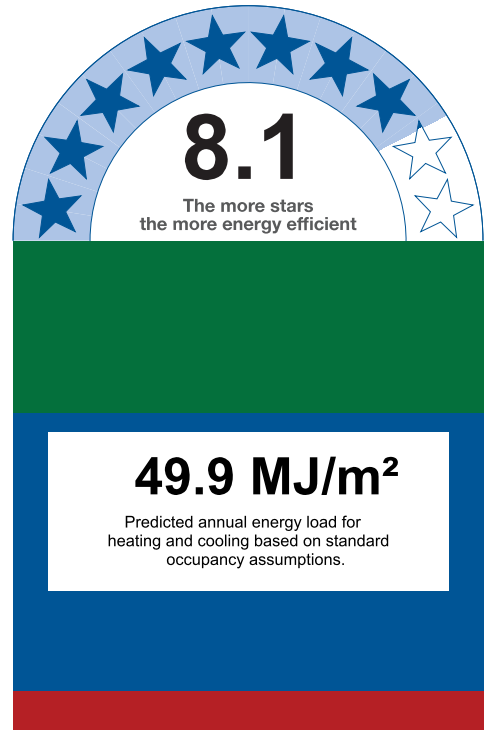
2 Melbourne RO



**Accredited assessor**

**Name** Nguyen Le  
**Business name** Nguyen Le  
**Email** tran-n-le@outlook.com  
**Phone** +61 4 38088493  
**Accreditation No.** DMN/222027  
**Assessor Accrediting Organisation** DMN  
**Declaration of interest** Conflict of Interest (Managed)

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## Thermal Performance

**Heating**

**30.7**

**MJ/m<sup>2</sup>**

**Cooling**

**19.2**

**MJ/m<sup>2</sup>**

### About the rating

NatHERS software models the expected thermal energy loads using information about the design and construction, climate and common patterns of household use. The software does not take into account appliances, apart from the airflow impacts from ceiling fans.

## Verification

DRAFT PREVIEW ISSUE - NOT TO BE USED FOR CERTIFICATION

## National Construction Code (NCC) requirements

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Does the installed window meet the substitution tolerances (SHGC and U-value) and window type, of the window shown on this Certificate? Substituted values must be based on the Australian Fenestration Rating Council (AFRC) protocol.

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Does the 'External Door Schedule' show apartment entrance doors? Please note that an "external door" between the modelled dwelling and a shared space, such as an enclosed corridor or foyer, should not be included in the assessment (because it overstates the possible ventilation) and would invalidate the Certificate.

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Has the appropriate exposure level (terrain) been applied? For example, it is unlikely that a ground-floor apartment is "exposed" or a top floor high-rise apartment is "protected".

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## Additional Notes

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### Provisional Values

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Floor Coverings - If a room has standard drafting hatching detail but no wording regarding the floor covering then an assumption is made based off the hatching detail

Colours (Excl. Roof Colour) - Provisional "Medium" colour used as per NatHERS Technical Note Values used on building areas left unspecified

Roof Colour - Colour used is "worst case scenario" as per NatHERS Technical Note Table 9.1 & 9.2

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## Window and glazed door type and performance

### Default\* windows

Window ID	Window Description	Maximum U-value*	SHGC*	SHGC substitution tolerance ranges	
				lower limit	upper limit
None					

### Custom\* windows

Window ID	Window Description	Maximum U-value*	SHGC*	SHGC substitution tolerance ranges	
				lower limit	upper limit
AWS-088-17 A	Series 755 Comfort Edge Awning Window DG LightBridge_ClrSO_5-10-5	2.4	0.46	0.44	0.48

\* Refer to glossary.

# ADVERTISED PLAN

## Custom\* windows

Window ID	Window Description	Maximum U-value*	SHGC*	SHGC substitution tolerance ranges	
				lower limit	upper limit
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BRD-127-10 A	ESS Fixed Window External 52 Comm DG 6mmET_12Ar_6mmET	2.0	0.50	0.47	0.53

## Window and glazed door schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Window type	Opening %	Orient-ation	Shading device*
BED 01	AWS-088-17 A	W03-H	1800	900	Awning	90	N	None
BED 01	BRD-127-10 A	W03-G	1800	900	Fixed	0	N	None
BED 02	AWS-088-17 A	W02-J	1800	900	Awning	90	N	None
BED 02	BRD-127-10 A	W02-I	1800	900	Fixed	0	N	None
BED 03	AWS-088-17 A	W06-D	1800	900	Awning	90	S	None
BED 03	BRD-127-10 A	W06-C	1800	900	Fixed	0	S	None
FLEXI	BRD-127-10 A	W08	1000	950	Fixed	0	S	None
FLEXI	AWS-088-17 A	W07-B	1800	900	Awning	90	S	None
FLEXI	BRD-127-10 A	W07	1800	900	Fixed	0	S	None
KLM	AWS-089-56 A	W01	2700	3400	Sliding Door	45	N	None
KLM	BRD-127-10 A	W04	2700	400	Fixed	0	S	None
KLM	AWS-088-17 A	W05-5	900	950	Awning	90	S	None
KLM	BRD-127-10 A	W05-6	1800	950	Fixed	0	S	None

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## Roof window type and performance value

### Default\* roof windows

Window ID	Window Description	Maximum U-value*	SHGC*	SHGC substitution tolerance ranges	
				lower limit	upper limit
None					

### Custom\* roof windows

Window ID	Window Description	Maximum U-value*	SHGC*	SHGC substitution tolerance ranges	
				lower limit	upper limit

\* Refer to glossary.

# ADVERTISED PLAN

## Custom\* roof windows

Window ID	Window Description	Maximum U-value*	SHGC*	SHGC substitution tolerance ranges	
				lower limit	upper limit
None					

## Roof window schedule

Location	Window ID	Window no.	Opening %	Height (mm)	Width (mm)	Orient-ation	Outdoor shade	Indoor shade
None								

## Skylight type and performance

Skylight ID	Skylight description
None	

## Skylight schedule

Location	Skylight ID	Skylight No.	Skylight shaft length (mm)	Area (m <sup>2</sup> )	Orient-ation	Outdoor shade	Diffuser	Shaft Reflectance
None								

## External door schedule

Location	Height (mm)	Width (mm)	Opening %	Orientation
KLM	2700	920	90	S

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## External wall type

Wall ID	Wall Type	Solar absorptance	Wall Colour	Bulk insulation (R-value)	Reflective wall wrap*
MC-NOCAV	Metal Glad Direct-Fix (No Cavity) Stud Wall	0.50	Medium	2.50	No

## External wall schedule

Location	Wall ID	Height (mm)	Width (mm)	Orient-ation	Horizontal shading feature* projection (mm)	Vertical shading feature
BED 01	MC-NOCAV	2700	4346	N		No
BED 02	MC-NOCAV	2700	4346	N		Yes
BED 03	MC-NOCAV	2700	4346	S		Yes
FLEXI	MC-NOCAV	2700	1378	S		Yes
FLEXI	MC-NOCAV	2700	2484	E		Yes
FLEXI	MC-NOCAV	2700	2968	S		Yes

\* Refer to glossary.

**ADVERTISED  
PLAN****External wall schedule**

Location	Wall ID	Height (mm)	Width (mm)	Orientation	Horizontal shading feature* projection (mm)	Vertical shading feature
FLEXI	MC-NOCAV	2700	802	W		Yes
KLM	MC-NOCAV	2700	4346	N		Yes
KLM	MC-NOCAV	2700	4346	S	1135	Yes

**Internal wall type**

Wall ID	Wall Type	Area (m <sup>2</sup> )	Bulk insulation
CSR PARTY WALL21	CSR Party Wall	149.2	5.00
INT-PB	Internal Plasterboard Stud Wall	13.4	2.50
INT-PB	Internal Plasterboard Stud Wall	46.4	0.00

**Floor type**

Location	Construction	Area (m <sup>2</sup> )	Sub-floor ventilation	Added insulation (R-value)	Covering
BATH	TIMB-001: Suspended Timber Floor	5.2	N/A	4.00	Tile (8mm)
BED 01	TIMB-001: Suspended Timber Floor	12.7	N/A	4.00	Carpet
BED 02	TIMB-001: Suspended Timber Floor	10.2	N/A	4.00	Carpet
BED 02	TIMB-002: Suspended Timber Floor - Lined Below	2.5	N/A	4.00	Carpet
BED 03	TIMB-001: Suspended Timber Floor	12.9	N/A	4.00	Carpet
ENS	TIMB-001: Suspended Timber Floor	5.0	N/A	4.00	Tile (8mm)
FLEXI	TIMB-001: Suspended Timber Floor	14.0	N/A	4.00	Carpet
HALL	TIMB-001: Suspended Timber Floor	14.8	N/A	4.00	Carpet
HALL	TIMB-001: Suspended Timber Floor	1.6	N/A	4.00	Tile (8mm)
KLM	CSOG-100: Concrete Slab on Ground (100mm)	37.9	N/A	3.23	Carpet
KLM	CSOG-100: Concrete Slab on Ground (100mm)	3.9	N/A	3.23	Tile (8mm)
WC	TIMB-001: Suspended Timber Floor	2.0	N/A	4.00	Tile (8mm)

**Ceiling type**

Location	Construction	Bulk insulation (R-value)	Reflective wrap*
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\* Refer to glossary.

# ADVERTISED PLAN

## Ceiling type

Location	Construction	Bulk insulation (R-value)	Reflective wrap*
BED 01	FLAT-01: Flat Framed / Skillion Metal Roof & Flat PB Ceiling	7.00	No
BED 03	FLAT-01: Flat Framed / Skillion Metal Roof & Flat PB Ceiling	7.00	No
ENS	FLAT-01: Flat Framed / Skillion Metal Roof & Flat PB Ceiling	7.00	No
FLEXI	FLAT-01: Flat Framed / Skillion Metal Roof & Flat PB Ceiling	7.00	No
HALL	FLAT-01: Flat Framed / Skillion Metal Roof & Flat PB Ceiling	7.00	No

## Ceiling penetrations\*

Location	Quantity	Type	Diameter (mm)	Sealed /unsealed
BATH	1	Exhaust Fan	350	Sealed
ENS	1	Exhaust Fan	350	Sealed
HALL	1	Exhaust Fan	350	Sealed
KLM	1	Exhaust Fan	260	Sealed
WC	1	Exhaust Fan	350	Sealed

## Ceiling fans

Location	Quantity	Diameter (mm)
None		

## Roof type

Construction	Added insulation (R-value)	Solar absorbance	Roof Colour
FLAT-01: Flat Framed / Skillion Metal Roof & Flat PB Ceiling	0.00	0.50	Medium

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## Explanatory Notes

### About this report

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Ratings are based on a unique climate zone where the home is located and are generated using standard assumptions, including occupancy patterns and thermostat settings. The actual energy consumption of a home may vary significantly from the predicted energy load, as the assumptions used in the rating will not match actual usage patterns. For example, the number of occupants and personal heating or cooling preferences will vary.

While the figures are an indicative guide to energy use, they can be used as a reliable guide for comparing different dwelling designs and to demonstrate that the design meets the energy efficiency requirements in the National Construction Code. Homes that are energy efficient use less energy, are warmer on cool days, cooler on hot days and cost less to run. The higher the star rating the more thermally efficient the dwelling is.

### Accredited assessors

To ensure the NatHERS Certificate is of a high quality, always use an accredited or licenced assessor. NatHERS accredited assessors are members of a professional body called an Assessor Accrediting Organisation (AAO).

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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 ongoing training requirements.

Any questions or concerns about this report should be directed to the assessor in the first instance. If the assessor is unable to address these questions or concerns, the AAO specified on the front of this certificate should be contacted.

### Disclaimer

The format of the NatHERS Certificate was developed by the NatHERS Administrator. However the content of each individual certificate is entered and created by the assessor to create a NatHERS Certificate. It is the responsibility of the assessor who prepared this certificate to use NatHERS accredited software correctly and follow the NatHERS Technical Notes to produce a NatHERS Certificate.

The predicted annual energy load in this NatHERS Certificate is an estimate based on an assessment of the building by the assessor. It is not a prediction of actual energy use, but may be used to compare how other buildings are likely to perform when used in a similar way.

Information presented in this report relies on a range of standard assumptions (both embedded in NatHERS accredited software and made by the assessor who prepared this report), including assumptions about occupancy, indoor air temperature and local climate.

Not all assumptions that may have been made by the assessor while using the NatHERS accredited software tool are presented in this report and further details or data files may be available from the assessor.

## Glossary

<b>Annual energy load</b>	the predicted amount of energy required for heating and cooling, based on standard occupancy assumptions.
<b>Assessed floor area</b>	the floor area modelled in the software for the purpose of the NatHERS assessment. Note, this may not be consistent with the floor area in the design documents.
<b>Ceiling penetrations</b>	features that require penetration through the ceiling, including exhaust vents, exhaust fans, rangehoods, chimneys and flues. Excludes fixtures attached to the ceiling, such as ceiling fans, pendant lights, and heating and cooling ducts.
<b>Conditioned</b>	a zone within a dwelling that is expected to require heating and cooling based on standard occupancy assumptions. In some circumstances it will include garages.
<b>Custom windows</b>	windows listed in NatHERS software that are available on the market in Australia and have a WERS (Window Energy Rating Scheme) rating.
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<b>Horizontal shading feature</b>	provides shading to the building in the horizontal plane, e.g. eaves, verandahs, pergolas, carports, or overhangs or balconies from upper levels.
<b>National Construction Code (NCC) Class</b>	the NCC groups buildings by their function and use, and assigns a classification code. NatHERS software models NCC Class 1, 2 or 4 buildings and attached Class 10a buildings. Definitions can be found at <a href="http://www.abcb.gov.au">www.abcb.gov.au</a> .
<b>Opening percentage</b>	the openability percentage or operable (moveable) area of doors or windows that is used in ventilation calculations.
<b>Provisional value</b>	an assumed value that does not represent an actual value. For example, if the wall colour is unspecified in the documentation, a provisional value of 'medium' must be modelled. Acceptable provisional values are outlined in the NatHERS Technical Note and can be found at <a href="http://www.nathers.gov.au">www.nathers.gov.au</a>
<b>Reflective wrap (also known as foil)</b>	can be applied to walls, roofs and ceilings. When combined with an appropriate airgap and emissivity value, it provides insulative properties.
<b>Roof window</b>	for NatHERS this is typically an operable window (i.e. can be opened), will have a plaster or similar light well if there is an attic space, and generally does not have a diffuser.
<b>Shading device</b>	a device fixed to windows that provides shading e.g. window awnings or screens but excludes eaves.
<b>Shading features</b>	includes neighbouring buildings, fences, and wing walls, but excludes eaves.
<b>Solar heat gain coefficient (SHGC)</b>	the fraction of incident solar radiation admitted through a window, both directly transmitted as well as absorbed and subsequently released inward. SHGC is expressed as a number between 0 and 1. The lower a window's SHGC, the less solar heat it transmits.
<b>Skylight (also known as roof lights)</b>	for NatHERS this is typically a moulded unit with flexible reflective tubing (light well) and a diffuser at ceiling level.
<b>U-value</b>	the rate of heat transfer through a window. The lower the U-value, the better the insulating ability.
<b>Unconditioned</b>	a zone within a dwelling that is assumed to not require heating and cooling based on standard occupancy assumptions
<b>Vertical shading features</b>	provides shading to the building in the vertical plane and can be parallel or perpendicular to the subject wall/window. Includes privacy screens, other walls in the building (wing walls), fences, other buildings, vegetation (protected or listed heritage trees).

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\* Refer to glossary.

# Nationwide House Energy Rating Scheme NatHERS Certificate No. #

Generated on 19 Jun 2025 using Hero 4.1 (Chenath v3.21)

## Property

**Address** TH15, 34 George Street, Reservoir, VIC,  
3073

**Lot/DP**

**NCC Class\*** 1a

**Type** New

## Plans

**Main Plan** 2301 / REV-A 12.2023

**Prepared by** Ys Housing

## Construction and environment

**Assessed floor area (m<sup>2</sup>)\***

**Conditioned\*** 115.7

**Unconditioned\*** 2.0

**Total** 117.6

**Garage** 0.0

**Exposure Type**

Suburban

NatHERS climate zone

2 Melbourne RO

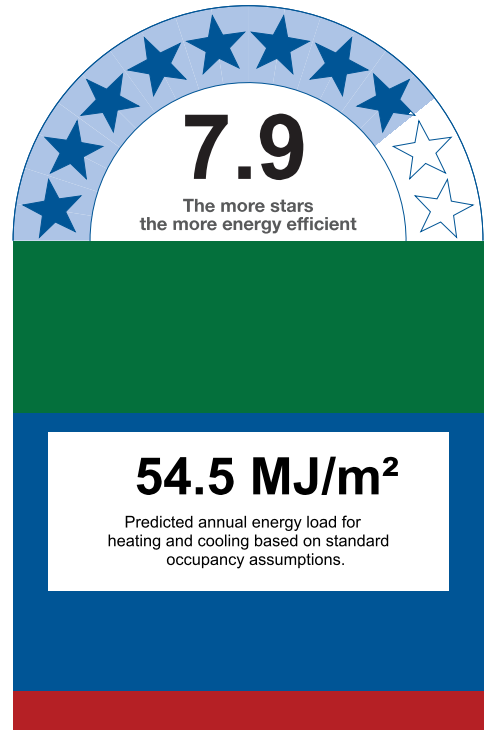


**Accredited assessor**

**Name** Nguyen Le  
**Business name** Nguyen Le  
**Email** tran-n-le@outlook.com  
**Phone** +61 4 38088493  
**Accreditation No.** DMN/222027  
**Assessor Accrediting Organisation** DMN  
**Declaration of interest** Conflict of Interest (Managed)

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## Thermal Performance

**Heating**      **Cooling**

**37.9**            **16.6**

**MJ/m<sup>2</sup>**        **MJ/m<sup>2</sup>**

### About the rating

NatHERS software models the expected thermal energy loads using information about the design and construction, climate and common patterns of household use. The software does not take into account appliances, apart from the airflow impacts from ceiling fans.

## Verification

DRAFT PREVIEW ISSUE - NOT TO BE USED FOR CERTIFICATION

## National Construction Code (NCC) requirements

The NCC's requirements for NatHERS-rated houses are detailed in 3.12.0(a)(i) and 3.12.5 of the NCC Volume Two. For apartments the requirements are detailed in J0.2 and J5 to J8 of the NCC Volume One.

In NCC 2019, these requirements include minimum star ratings and separate heating and cooling load limits that need to be met by buildings and apartments through the NatHERS assessment. Requirements additional to the NatHERS assessment that must also be satisfied include, but are not limited to: insulation installation methods, thermal breaks, building sealing, water heating and pumping, and artificial lighting requirements. The NCC and NatHERS Heating and Cooling Load Limits (Australian Building Codes Board Standard) are available at [www.abcb.gov.au](http://www.abcb.gov.au).

State and territory variations and additions to the NCC may also apply.

\* Refer to glossary.

# ADVERTISED PLAN

## Certificate Check

Ensure the dwelling is designed and then built as per the NatHERS Certificate. While you need to check the accuracy of the whole Certificate, the following spot check covers some important items impacting the dwelling's rating.

### Genuine certificate

Does this Certificate match the one available at the web address or QR code in the verification box on the front page? Does the set of NatHERS-stamped plans for the dwelling have a Certificate number on the stamp that matches this Certificate?

### Ceiling penetrations\*

Does the 'number' and 'type' of ceiling penetrations (e.g. downlights, exhaust fans, etc) shown on the stamped plans or installed, match what is shown in this Certificate?

### Windows

Does the installed window meet the substitution tolerances (SHGC and U-value) and window type, of the window shown on this Certificate? Substituted values must be based on the Australian Fenestration Rating Council (AFRC) protocol.

### Apartment entrance doors

Does the 'External Door Schedule' show apartment entrance doors? Please note that an "external door" between the modelled dwelling and a shared space, such as an enclosed corridor or foyer, should not be included in the assessment (because it overstates the possible ventilation) and would invalidate the Certificate.

### Exposure\*

Has the appropriate exposure level (terrain) been applied? For example, it is unlikely that a ground-floor apartment is "exposed" or a top floor high-rise apartment is "protected".

### Provisional\* values

Have provisional values been used in the assessment and, if so, noted in "additional notes" below?

## Additional Notes

-----

### Provisional Values

Floor Coverings - Provisional NatHERS Technical Note Values used in floor areas left unspecified

Floor Coverings - If a room has standard drafting hatching detail but no wording regarding the floor covering then an assumption is made based off the hatching detail

Colours (Excl. Roof Colour) - Provisional "Medium" colour used as per NatHERS Technical Note Values used on building areas left unspecified

Roof Colour - Colour used is "worst case scenario" as per NatHERS Technical Note Table 9.1 & 9.2

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## Window and glazed door type and performance

### Default\* windows

Window ID	Window Description	Maximum U-value*	SHGC*	SHGC substitution tolerance ranges	
				lower limit	upper limit
None					

### Custom\* windows

Window ID	Window Description	Maximum U-value*	SHGC*	SHGC substitution tolerance ranges	
				lower limit	upper limit
AWS-088-17 A	Series 755 Comfort Edge Awning Window DG LightBridge_ClrSO_5-10-5	2.4	0.46	0.44	0.48

\* Refer to glossary.

# ADVERTISED PLAN

## Custom\* windows

Window ID	Window Description	Maximum U-value*	SHGC*	SHGC substitution tolerance ranges	
				lower limit	upper limit
AWS-089-56 A	RES SERIES 704 FLUSH SLIDING DOOR DG FGIOptEmaGry_4mm_16Ar_4mm	2.2	0.56	0.53	0.59
BRD-127-10 A	ESS Fixed Window External 52 Comm DG 6mmET_12Ar_6mmET	2.0	0.50	0.47	0.53

## Window and glazed door schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Window type	Opening %	Orient-ation	Shading device*
BED 01	BRD-127-10 A	W03-J	1800	900	Fixed	0	N	None
BED 01	AWS-088-17 A	W03-I	1800	900	Awning	90	N	None
BED 02	AWS-088-17 A	W02-1	850	1800	Awning	90	N	None
BED 02	BRD-127-10 A	W02-2	950	1800	Fixed	0	N	None
BED 03	BRD-127-10 A	W06-F	1800	900	Fixed	0	S	None
BED 03	AWS-088-17 A	W06-E	1800	900	Awning	90	S	None
FLEXI	BRD-127-10 A	W07-D	1800	900	Fixed	0	S	None
FLEXI	AWS-088-17 A	W07-G	1800	900	Awning	90	S	None
KLM	AWS-089-56 A	W04	2100	2100	Sliding Door	45	N	None
KLM	BRD-127-10 A	W04	2700	400	Fixed	0	S	None
KLM	AWS-088-17 A	W05-7	900	900	Awning	90	S	None
KLM	BRD-127-10 A	W05-8	1800	900	Fixed	0	S	None

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## Roof window type and performance value

### Default\* roof windows

Window ID	Window Description	Maximum U-value*	SHGC*	SHGC substitution tolerance ranges	
				lower limit	upper limit
None					

### Custom\* roof windows

Window ID	Window Description	Maximum U-value*	SHGC*	SHGC substitution tolerance ranges	
				lower limit	upper limit
None					

\* Refer to glossary.

# ADVERTISED PLAN

## Roof window schedule

Location	Window ID	Window no.	Opening %	Height (mm)	Width (mm)	Orientation	Outdoor shade	Indoor shade
None								

## Skylight type and performance

Skylight ID	Skylight description
None	

## Skylight schedule

Location	Skylight ID	Skylight No.	Skylight shaft length (mm)	Area (m <sup>2</sup> )	Orientation	Outdoor shade	Diffuser	Shaft Reflectance
None								

## External door schedule

Location	Height (mm)	Width (mm)	Opening %	Orientation
KLM	2700	920	90	S

## External wall type

Wall ID	Wall Type	Sound absorptance	Wall Colour	Bulk insulation (R-value)	Reflective wall wrap*
MC-NOCAV	Metal Clad Direct Fix (No Cavity) Stud Wall	0.15	Medium	2.50	No

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## External wall schedule

Location	Wall ID	Height (mm)	Width (mm)	Orientation	Horizontal shading feature* projection (mm)	Vertical shading feature
BED 01	MC-NOCAV	2700	4374	N		No
BED 01	MC-NOCAV	2700	2927	E		Yes
BED 02	MC-NOCAV	2700	4374	N		Yes
BED 03	MC-NOCAV	2700	4374	S		Yes
FLEXI	MC-NOCAV	2700	4009	E		Yes
FLEXI	MC-NOCAV	2700	2950	S		Yes
FLEXI	MC-NOCAV	2700	2484	W		Yes
FLEXI	MC-NOCAV	2700	1424	S		Yes
HALL	MC-NOCAV	2700	2941	E		Yes
KLM	MC-NOCAV	2700	4374	N	727	Yes

\* Refer to glossary.

# ADVERTISED PLAN

## External wall schedule

Location	Wall ID	Height (mm)	Width (mm)	Orientation	Horizontal shading feature* projection (mm)	Vertical shading feature
KLM	MC-NOCAV	2700	97	E		Yes
KLM	MC-NOCAV	2700	4374	S	1102	Yes

## Internal wall type

Wall ID	Wall Type	Area (m <sup>2</sup> )	Bulk insulation
CSR PARTY WALL21	CSR Party Wall	123.6	5.00
INT-PB	Internal Plasterboard Stud Wall	46.9	0.00
INT-PB	Internal Plasterboard Stud Wall	13.4	2.50

## Floor type

Location	Construction	Area (m <sup>2</sup> )	Sub-floor ventilation	Added insulation (R-value)	Covering
BATH	TIMB-001: Suspended Timber Floor	5.3	N/A	4.00	Tile (8mm)
BED 01	TIMB-001: Suspended Timber Floor	12.8	N/A	4.00	Carpet
BED 02	TIMB-001: Suspended Timber Floor	10.3	N/A	4.00	Carpet
BED 02	TIMB-002: Suspended Timber Floor - R-Insulated Below	2.5	N/A	4.00	Carpet
BED 03	TIMB-001: Suspended Timber Floor	12.9	N/A	4.00	Carpet
ENS	TIMB-001: Suspended Timber Floor	5.2	N/A	4.00	Tile (8mm)
FLEXI	TIMB-001: Suspended Timber Floor	14.1	N/A	4.00	Carpet
HALL	TIMB-001: Suspended Timber Floor	1.5	N/A	4.00	Tile (8mm)
HALL	TIMB-001: Suspended Timber Floor	14.8	N/A	4.00	Carpet
KLM	CSOG-100: Concrete Slab on Ground (100mm)	37.3	N/A	3.23	Carpet
KLM	CSOG-100: Concrete Slab on Ground (100mm)	4.7	N/A	3.23	Tile (8mm)
WC	TIMB-001: Suspended Timber Floor	2.0	N/A	4.00	Tile (8mm)

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## Ceiling type

Location	Construction	Bulk insulation (R-value)	Reflective wrap*
BED 01	FLAT-01: Flat Framed / Skillion Metal Roof & Flat PB Ceiling	7.00	No

\* Refer to glossary.

**ADVERTISED  
PLAN****Ceiling type**

Location	Construction	Bulk insulation (R-value)	Reflective wrap*
BED 03	FLAT-01: Flat Framed / Skillion Metal Roof & Flat PB Ceiling	7.00	No
ENS	FLAT-01: Flat Framed / Skillion Metal Roof & Flat PB Ceiling	7.00	No
FLEXI	FLAT-01: Flat Framed / Skillion Metal Roof & Flat PB Ceiling	7.00	No
HALL	FLAT-01: Flat Framed / Skillion Metal Roof & Flat PB Ceiling	7.00	No

**Ceiling penetrations\***

Location	Quantity	Type	Diameter (mm)	Sealed /unsealed
BATH	1	Exhaust Fan	350	Sealed
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HALL	1	Exhaust Fan	350	Sealed
KLM	1	Exhaust Fan	260	Sealed
WC	1	Exhaust Fan	350	Sealed

**Ceiling fans**

Location	Quantity	Diameter (mm)
None		

**Roof type**

Construction	Added insulation (R-value)	Solar absorptance	Roof Colour
FLAT-01: Flat Framed / Skillion Metal Roof & Flat PB Ceiling	0.00	0.50	Medium

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<b>Shading features</b>	includes neighbouring buildings, fences, and wing walls, but excludes eaves.
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<b>Skylight (also known as roof lights)</b>	for NatHERS this is typically a moulded unit with flexible reflective tubing (light well) and a diffuser at ceiling level.
<b>U-value</b>	the rate of heat transfer through a window. The lower the U-value, the better the insulating ability.
<b>Unconditioned</b>	a zone within a dwelling that is assumed to not require heating and cooling based on standard occupancy assumptions
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\* Refer to glossary.

# Nationwide House Energy Rating Scheme NatHERS Certificate No. #

Generated on 19 Jun 2025 using Hero 4.1 (Chenath v3.21)

## Property

**Address** TH16, 34 George Street, Reservoir, VIC,  
3073

**Lot/DP**

**NCC Class\*** 1a

**Type** New

## Plans

**Main Plan** 2301 / REV-A 12.2023

**Prepared by** Ys Housing

## Construction and environment

**Assessed floor area (m<sup>2</sup>)\***

**Conditioned\*** 75.6

**Unconditioned\*** 7.2

**Total** 82.7

**Garage** 0.0

**Exposure Type**

Suburban

NatHERS climate zone

2 Melbourne RO

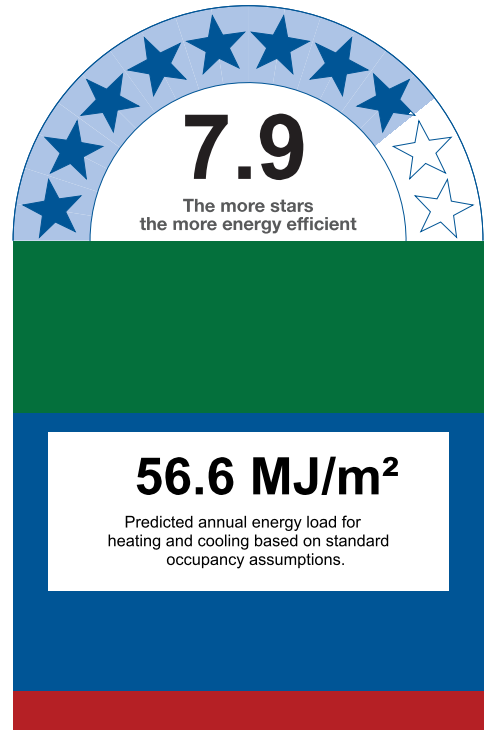


**Accredited assessor**

**Name** Nguyen Le  
**Business name** Nguyen Le  
**Email** tran-n-le@outlook.com  
**Phone** +61 4 38088493  
**Accreditation No.** DMN/222027  
**Assessor Accrediting Organisation** DMN  
**Declaration of interest** Conflict of Interest (Managed)

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**DRAFT**



## Thermal Performance

**Heating**

**36.7**

**MJ/m<sup>2</sup>**

**Cooling**

**19.9**

**MJ/m<sup>2</sup>**

### About the rating

NatHERS software models the expected thermal energy loads using information about the design and construction, climate and common patterns of household use. The software does not take into account appliances, apart from the airflow impacts from ceiling fans.

## Verification

DRAFT PREVIEW ISSUE - NOT TO BE USED FOR CERTIFICATION

## National Construction Code (NCC) requirements

The NCC's requirements for NatHERS-rated houses are detailed in 3.12.0(a)(i) and 3.12.5 of the NCC Volume Two. For apartments the requirements are detailed in J0.2 and J5 to J8 of the NCC Volume One.

In NCC 2019, these requirements include minimum star ratings and separate heating and cooling load limits that need to be met by buildings and apartments through the NatHERS assessment. Requirements additional to the NatHERS assessment that must also be satisfied include, but are not limited to: insulation installation methods, thermal breaks, building sealing, water heating and pumping, and artificial lighting requirements. The NCC and NatHERS Heating and Cooling Load Limits (Australian Building Codes Board Standard) are available at [www.abcb.gov.au](http://www.abcb.gov.au).

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# ADVERTISED PLAN

## Certificate Check

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Does this Certificate match the one available at the web address or QR code in the verification box on the front page? Does the set of NatHERS-stamped plans for the dwelling have a Certificate number on the stamp that matches this Certificate?

### Ceiling penetrations\*

Does the 'number' and 'type' of ceiling penetrations (e.g. downlights, exhaust fans, etc) shown on the stamped plans or installed, match what is shown in this Certificate?

### Windows

Does the installed window meet the substitution tolerances (SHGC and U-value) and window type, of the window shown on this Certificate? Substituted values must be based on the Australian Fenestration Rating Council (AFRC) protocol.

### Apartment entrance doors

Does the 'External Door Schedule' show apartment entrance doors? Please note that an "external door" between the modelled dwelling and a shared space, such as an enclosed corridor or foyer, should not be included in the assessment (because it overstates the possible ventilation) and would invalidate the Certificate.

### Exposure\*

Has the appropriate exposure level (terrain) been applied? For example, it is unlikely that a ground-floor apartment is "exposed" or a top floor high-rise apartment is "protected".

### Provisional\* values

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## Additional Notes

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### Provisional Values

Floor Coverings - Provisional NatHERS Technical Note Values used in floor areas left unspecified

Floor Coverings - If a room has standard drafting hatching detail but no wording regarding the floor covering then an assumption is made based off the hatching detail

Colours (Excl. Roof Colour) - Provisional "Medium" colour used as per NatHERS Technical Note Values used on building areas left unspecified

Roof Colour - Colour used is "worst case scenario" as per NatHERS Technical Note Table 9.1 & 9.2

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## Window and glazed door type and performance

### Default\* windows

Window ID	Window Description	Maximum U-value*	SHGC*	SHGC substitution tolerance ranges	
				lower limit	upper limit
None					

### Custom\* windows

Window ID	Window Description	Maximum U-value*	SHGC*	SHGC substitution tolerance ranges	
				lower limit	upper limit
AWS-088-17 A	Series 755 Comfort Edge Awning Window DG LightBridge_ClrSO_5-10-5	2.4	0.46	0.44	0.48

\* Refer to glossary.

# ADVERTISED PLAN

## Custom\* windows

Window ID	Window Description	Maximum U-value*	SHGC*	SHGC substitution tolerance ranges	
				lower limit	upper limit
AWS-089-56 A	RES SERIES 704 FLUSH SLIDING DOOR DG FGIOptEmaGry_4mm_16Ar_4mm	2.2	0.56	0.53	0.59
BRD-127-10 A	ESS Fixed Window External 52 Comm DG 6mmET_12Ar_6mmET	2.0	0.50	0.47	0.53

## Window and glazed door schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Window type	Opening %	Orient-ation	Shading device*
BATH	AWS-088-17 A	W07	800	750	Awning	90	E	None
BED 01	AWS-088-17 A	W05-9	850	1800	Awning	90	N	None
BED 01	BRD-127-10 A	W05-10	950	1800	Fixed	0	N	None
BED 01	AWS-088-17 A	W06	1200	1150	Awning	90	E	None
BED 02	BRD-127-10 A	W03-L	1800	1200	Fixed	0	S	None
BED 02	AWS-088-17 A	W03-K	1800	1200	Awning	90	S	None
FLEXI	BRD-127-10 A	W01-B	2000	1000	Fixed	0	S	None
FLEXI	AWS-088-17 A	W01-A	2000	1000	Awning	90	S	None
KLM	AWS-089-56 A	W04	2700	4200	Sliding Door	60	N	None
WC	AWS-088-17 A	W02	800	750	Awning	90	S	None

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## Roof window type and performance value

### Default\* roof windows

Window ID	Window Description	Maximum U-value*	SHGC*	SHGC substitution tolerance ranges	
				lower limit	upper limit
None					

### Custom\* roof windows

Window ID	Window Description	Maximum U-value*	SHGC*	SHGC substitution tolerance ranges	
				lower limit	upper limit
None					

## Roof window schedule

Location	Window ID	Window no.	Opening %	Height (mm)	Width (mm)	Orient-ation	Outdoor shade	Indoor shade
----------	-----------	------------	-----------	-------------	------------	--------------	---------------	--------------

\* Refer to glossary.

**ADVERTISED  
PLAN****Roof window schedule**

Location	Window ID	Window no.	Opening %	Height (mm)	Width (mm)	Orientation	Outdoor shade	Indoor shade
None								

**Skylight type and performance**

Skylight ID	Skylight description
None	

**Skylight schedule**

Location	Skylight ID	Skylight No.	Skylight shaft length (mm)	Area (m <sup>2</sup> )	Orientation	Outdoor shade	Diffuser	Shaft Reflectance
None								

**External door schedule**

Location	Height (mm)	Width (mm)	Opening %	Orientation
KLM	2700	920	90	S

**External wall type**

Wall ID	Wall Type	Sound absorptance	Wall Colour	Bulk insulation (R-value)	Reflective wall wrap*
MC-NOCAV	Metal Clad Direct Fix (No Cavity) Stud Wall	0.15	Medium	2.50	No

**External wall schedule**

Location	Wall ID	Height (mm)	Width (mm)	Orientation	Horizontal shading feature* projection (mm)	Vertical shading feature
BATH	MC-NOCAV	2700	3421	E		No
BED 01	MC-NOCAV	2700	3650	N		Yes
BED 01	MC-NOCAV	2700	3520	E		No
BED 02	MC-NOCAV	2700	2958	E		No
BED 02	MC-NOCAV	2700	3650	S		Yes
FLEXI	MC-NOCAV	2700	2364	E		Yes
FLEXI	MC-NOCAV	2700	2956	S	1102	Yes
KLM	MC-NOCAV	2700	5304	N	824	Yes
KLM	MC-NOCAV	2700	7008	E		Yes
KLM	MC-NOCAV	2700	1151	S	1102	Yes

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**ADVERTISED  
PLAN****External wall schedule**

Location	Wall ID	Height (mm)	Width (mm)	Orientation	Horizontal shading feature* projection (mm)	Vertical shading feature
WC	MC-NOCAV	2700	885	S	1102	Yes

**Internal wall type**

Wall ID	Wall Type	Area (m <sup>2</sup> )	Bulk insulation
CSR PARTY WALL21	CSR Party Wall	51.5	5.00
INT-PB	Internal Plasterboard Stud Wall	22.1	2.50
INT-PB	Internal Plasterboard Stud Wall	19.7	0.00

**Floor type**

Location	Construction	Area (m <sup>2</sup> )	Sub-floor ventilation	Added insulation (R-value)	Covering
BATH	TIMB-001: Suspended Timber Floor	5.5	N/A	4.00	Tile (8mm)
BED 01	TIMB-001: Suspended Timber Floor	10.3	N/A	4.00	Carpet
BED 01	TIMB-002: Suspended Timber Floor - Lined Below	2.5	N/A	4.00	Carpet
BED 02	TIMB-001: Suspended Timber Floor	10.8	N/A	4.00	Carpet
FLEXI	C SOG-100: Concrete Slab on Ground (100mm)	7.0	N/A	3.23	Carpet
HALL	TIMB-001: Suspended Timber Floor	6.5	N/A	4.00	Carpet
KLM	C SOG-100: Concrete Slab on Ground (100mm)	5.3	N/A	3.23	Tile (8mm)
KLM	C SOG-100: Concrete Slab on Ground (100mm)	35.2	N/A	3.23	Carpet
WC	C SOG-100: Concrete Slab on Ground (100mm)	1.7	N/A	3.23	Tile (8mm)

**Ceiling type**

Location	Construction	Bulk insulation (R-value)	Reflective wrap*
BATH	FLAT-01: Flat Framed / Skillion Metal Roof & Flat PB Ceiling	7.00	No
BED 01	FLAT-01: Flat Framed / Skillion Metal Roof & Flat PB Ceiling	7.00	No
BED 02	FLAT-01: Flat Framed / Skillion Metal Roof & Flat PB Ceiling	7.00	No
FLEXI	FLAT-01: Flat Framed / Skillion Metal Roof & Flat PB Ceiling	7.00	No
HALL	FLAT-01: Flat Framed / Skillion Metal Roof & Flat PB Ceiling	7.00	No

\* Refer to glossary.

# ADVERTISED PLAN

## Ceiling type

Location	Construction	Bulk insulation (R-value)	Reflective wrap*
KLM	FLAT-01: Flat Framed / Skillion Metal Roof & Flat PB Ceiling	7.00	No

## Ceiling penetrations\*

Location	Quantity	Type	Diameter (mm)	Sealed /unsealed
BATH	1	Exhaust Fan	350	Sealed
KLM	1	Exhaust Fan	260	Sealed
WC	1	Exhaust Fan	350	Sealed

## Ceiling fans

Location	Quantity	Diameter (mm)
None		

## Roof type

Construction	Added insulation (R-value)	Solar absorptance	Roof Colour
FLAT-01: Flat Framed / Skillion Metal Roof & Flat PB Ceiling	7.00	0.50	Medium

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# ADVERTISED PLAN

## Explanatory Notes

### About this report

A NatHERS rating is a comprehensive, dynamic computer modelling evaluation of a home, using the floorplans, elevations and specifications to estimate an energy load. It addresses the building layout, orientation and fabric (i.e. walls, windows, floors, roofs and ceilings), but does not cover the water or energy use of appliances or energy production of solar panels.

Ratings are based on a unique climate zone where the home is located and are generated using standard assumptions, including occupancy patterns and thermostat settings. The actual energy consumption of a home may vary significantly from the predicted energy load, as the assumptions used in the rating will not match actual usage patterns. For example, the number of occupants and personal heating or cooling preferences will vary.

While the figures are an indicative guide to energy use, they can be used as a reliable guide for comparing different dwelling designs and to demonstrate that the design meets the energy efficiency requirements in the National Construction Code. Homes that are energy efficient use less energy, are warmer on cool days, cooler on hot days and cost less to run. The higher the star rating the more thermally efficient the dwelling is.

### Accredited assessors

To ensure the NatHERS Certificate is of a high quality, always use an accredited or licenced assessor. NatHERS accredited assessors are members of a professional body called an Assessor Accrediting Organisation (AAO).

Australian Capital Territory (ACT) licenced assessors may only produce assessments for regulatory purposes using software for which they have a licence endorsement. Licence endorsements can be confirmed on the ACT licensing register

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## Glossary

<b>Annual energy load</b>	the predicted amount of energy required for heating and cooling, based on standard occupancy assumptions.
<b>Assessed floor area</b>	the floor area modelled in the software for the purpose of the NatHERS assessment. Note, this may not be consistent with the floor area in the design documents.
<b>Ceiling penetrations</b>	features that require penetration through the ceiling, including exhaust vents, exhaust fans, rangehoods, chimneys and flues. Excludes fixtures attached to the ceiling, such as ceiling fans, pendant lights, and heating and cooling ducts.
<b>Conditioned</b>	a zone within a dwelling that is expected to require heating and cooling based on standard occupancy assumptions. In some circumstances it will include garages.
<b>Custom windows</b>	windows listed in NatHERS software that are available on the market in Australia and have a WERS (Window Energy Rating Scheme) rating.
<b>Default windows</b>	windows that are representative of a specific type of window product and whose properties have been derived by statistical methods.
<b>Entrance door</b>	these signify ventilation benefits in the modelling software and must not be modelled as a door when opening to a minimally ventilated corridor in a Class 2 building.
<b>Exposure category - exposed</b>	terrain with no obstructions, e.g. flat grazing land, ocean-frontage, desert, exposed high-rise unit (usually above 10 floors).
<b>Exposure category - open</b>	terrain with few obstructions at a similar height e.g. grasslands with few well scattered obstructions below 10m, farmland with scattered sheds, lightly vegetated bush blocks, elevated units (e.g. above 3 floors).
<b>Exposure category - suburban</b>	terrain with numerous, closely spaced obstructions below 10m e.g. suburban housing, heavily vegetated bushland areas.
<b>Exposure category - protected</b>	terrain with numerous, closely spaced obstructions over 10 m e.g. city and industrial areas.
<b>Horizontal shading feature</b>	provides shading to the building in the horizontal plane, e.g. eaves, verandahs, pergolas, carports, or overhangs or balconies from upper levels.
<b>National Construction Code (NCC) Class</b>	the NCC groups buildings by their function and use, and assigns a classification code. NatHERS software models NCC Class 1, 2 or 4 buildings and attached Class 10a buildings. Definitions can be found at <a href="http://www.abcb.gov.au">www.abcb.gov.au</a> .
<b>Opening percentage</b>	the openability percentage or operable (moveable) area of doors or windows that is used in ventilation calculations.
<b>Provisional value</b>	an assumed value that does not represent an actual value. For example, if the wall colour is unspecified in the documentation, a provisional value of 'medium' must be modelled. Acceptable provisional values are outlined in the NatHERS Technical Note and can be found at <a href="http://www.nathers.gov.au">www.nathers.gov.au</a>
<b>Reflective wrap (also known as foil)</b>	can be applied to walls, roofs and ceilings. When combined with an appropriate airgap and emissivity value, it provides insulative properties.
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# Nationwide House Energy Rating Scheme NatHERS Certificate No. #

Generated on 19 Jun 2025 using Hero 4.1 (Chenath v3.21)

## Property

**Address** TH17, 34 George Street, Reservoir, VIC,  
3073

**Lot/DP**

**NCC Class\*** 1a

**Type** New

## Plans

**Main Plan** 2301 / REV-A 12.2023

**Prepared by** Ys Housing

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**Assessed floor area (m<sup>2</sup>)\***

**Conditioned\*** 75.2

**Unconditioned\*** 7.1

**Total** 82.3

**Garage** 0.0

**Exposure Type**

Suburban

NatHERS climate zone

2 Melbourne RO

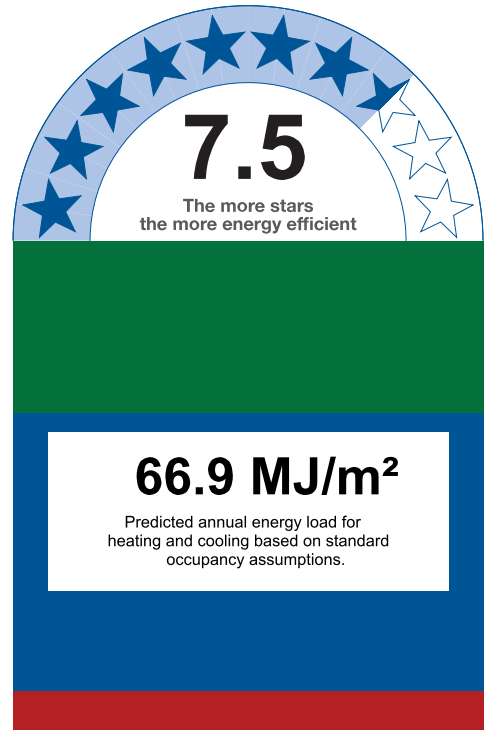


**Accredited assessor**

**Name** Nguyen Le  
**Business name** Nguyen Le  
**Email** tran-n-le@outlook.com  
**Phone** +61 4 38088493  
**Accreditation No.** DMN/222027  
**Assessor Accrediting Organisation** DMN  
**Declaration of interest** Conflict of Interest (Managed)

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## Thermal Performance

**Heating**

**38.9**

**MJ/m<sup>2</sup>**

**Cooling**

**28.0**

**MJ/m<sup>2</sup>**

### About the rating

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Does the 'External Door Schedule' show apartment entrance doors? Please note that an "external door" between the modelled dwelling and a shared space, such as an enclosed corridor or foyer, should not be included in the assessment (because it overstates the possible ventilation) and would invalidate the Certificate.

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Roof Colour - Colour used is "worst case scenario" as per NatHERS Technical Note Table 9.1 & 9.2

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## Window and glazed door type and performance

### Default\* windows

Window ID	Window Description	Maximum U-value*	SHGC*	SHGC substitution tolerance ranges	
				lower limit	upper limit
ATB-005-03 B	Al Thermally Broken A DG Argon Fill High Solar Gain low-E - Clear	2.9	0.44	0.42	0.46

### Custom\* windows

Window ID	Window Description	Maximum U-value*	SHGC*	SHGC substitution tolerance ranges	
				lower limit	upper limit
DOW-021-01 B	Thermally Broken Aluminium Awning Window DG 4Clr/12Ar /4LE	1.9	0.52	0.49	0.55

\* Refer to glossary.

# ADVERTISED PLAN

## Custom\* windows

Window ID	Window Description	Maximum U-value*	SHGC*	SHGC substitution tolerance ranges	
				lower limit	upper limit
THC-076-03 A	Secco OS2 65 Steel Fixed Window TG 5ET-12Ar-5-12Ar-5	1.4	0.51	0.48	0.54

## Window and glazed door schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Window type	Opening %	Orient-ation	Shading device*
BATH	DOW-021-01 B	W06	1000	900	Awning	90	W	None
BED 01	DOW-021-01 B	W03-N	1800	900	Awning	90	S	None
BED 01	THC-076-03 A	W03-M	1800	900	Fixed	0	S	None
BED 02	DOW-021-01 B	W02-3	900	1050	Awning	90	N	None
BED 02	THC-076-03 A	W02-4	850	1050	Fixed	0	N	None
HALL	ATB-005-03 B	W09	2600	920	Hinged Door	90	N	None
KLM	DOW-021-01 B	W04-B3	1200	1200	Awning	90	S	None
KLM	THC-076-03 A	W04-4	1200	2400	Fixed	0	S	None
KLM	THC-076-03 A	W04-A3	1200	2000	Fixed	0	S	None
KLM	THC-076-03 A	W07	1100	1100	Fixed	0	W	None
KLM	THC-076-03 A	W08	1500	1500	Fixed	0	W	None
KLM	DOW-021-01 B	W01	2700	3600	Awning	90	N	None
WC	DOW-021-01 B	W05	800	750	Awning	90	S	None

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## Roof window type and performance value

### Default\* roof windows

Window ID	Window Description	Maximum U-value*	SHGC*	SHGC substitution tolerance ranges	
				lower limit	upper limit
None					

### Custom\* roof windows

Window ID	Window Description	Maximum U-value*	SHGC*	SHGC substitution tolerance ranges	
				lower limit	upper limit
None					

\* Refer to glossary.

# ADVERTISED PLAN

## Roof window schedule

Location	Window ID	Window no.	Opening %	Height (mm)	Width (mm)	Orientation	Outdoor shade	Indoor shade
None								

## Skylight type and performance

Skylight ID	Skylight description
None	

## Skylight schedule

Location	Skylight ID	Skylight No.	Skylight shaft length (mm)	Area (m <sup>2</sup> )	Orientation	Outdoor shade	Diffuser	Shaft Reflectance
None								

## External door schedule

Location	Height (mm)	Width (mm)	Opening %	Orientation
None				

## External wall type

Wall ID	Wall Type	Solar absorptance	Wall Colour	Bulk insulation (R-value)	Reflective wall wrap*
FC-NOCAV REN	Fibre-Cement Clad Direct-Fix (No Cavity) Stud Wall Rendered	0.50	Medium	2.50	No
MC-NOCAV-A	Metal Clad Direct-Fix (No Cavity) Stud Wall	0.50	Medium	4.00	No
MC-NOCAV-B	Metal Clad Direct-Fix (No Cavity) Stud Wall	0.50	Medium	2.70	No

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## External wall schedule

Location	Wall ID	Height (mm)	Width (mm)	Orientation	Horizontal shading feature* projection (mm)	Vertical shading feature
BATH	MC-NOCAV-A	2700	2920	W		Yes
BED 01	MC-NOCAV-A	2700	3345	W		Yes
BED 01	MC-NOCAV-B	2700	4536	S		No
BED 02	MC-NOCAV-A	2700	3408	W		Yes
BED 02	MC-NOCAV-B	2700	1000	N		No
BED 02	MC-NOCAV-B	2700	605	W		No
BED 02	MC-NOCAV-B	2700	2162	N	1738	Yes
BED 02	MC-NOCAV-B	2700	804	E	35618	Yes

\* Refer to glossary.

**ADVERTISED  
PLAN****External wall schedule**

Location	Wall ID	Height (mm)	Width (mm)	Orientation	Horizontal shading feature* projection (mm)	Vertical shading feature
HALL	MC-NOCAV-B	2700	1230	N	2542	Yes
KLM	MC-NOCAV-B	3330	3508	S		No
KLM	MC-NOCAV-A	3330	8893	W		Yes
KLM	FC-NOCAV REN	3330	4536	N		Yes
WC	MC-NOCAV-B	3330	861	S		No

**Internal wall type**

Wall ID	Wall Type	Area (m <sup>2</sup> )	Bulk insulation
CSR PARTY WALL21	CSR Party Wall	55.0	5.00
INT-PB	Internal Plasterboard Stud Wall	26.0	2.50
INT-PB	Internal Plasterboard Stud Wall	13.5	0.00

**Floor type**

Location	Construction	Area (m <sup>2</sup> )	Sub-floor ventilation	Added insulation (R-value)	Covering
BATH	SUSP-CONC-300: Suspended Concrete Slab Floor (300mm)	5.7	N/A	4.60	Tile (8mm)
BED 01	SUSP-CONC-300: Suspended Concrete Slab Floor (300mm)	15.2	N/A	4.60	Carpet
BED 02	SUSP-CONC-300: Suspended Concrete Slab Floor (300mm)	11.6	N/A	4.60	Carpet
HALL	SUSP-CONC-300: Suspended Concrete Slab Floor (300mm)	1.4	N/A	4.60	Tile (8mm)
HALL	SUSP-CONC-300: Suspended Concrete Slab Floor (300mm)	10.1	N/A	4.60	Timber (12mm)
KLM	TIMB-001: Suspended Timber Floor	38.4	N/A	4.00	Timber (12mm)
WC	TIMB-001: Suspended Timber Floor	1.4	N/A	4.00	Tile (8mm)

**Ceiling type**

Location	Construction	Bulk insulation (R-value)	Reflective wrap*
BED 02	FLAT-03: Flat Framed / Skillion Tile Roof & Flat PB Ceiling	4.00	No
HALL	FLAT-03: Flat Framed / Skillion Tile Roof & Flat PB Ceiling	4.00	No

\* Refer to glossary.

# ADVERTISED PLAN

## Ceiling type

Location	Construction	Bulk insulation (R-value)	Reflective wrap*
KLM	FLAT-01: Flat Framed / Skillion Metal Roof & Flat PB Ceiling	7.00	No
WC	FLAT-01: Flat Framed / Skillion Metal Roof & Flat PB Ceiling	7.00	No

## Ceiling penetrations\*

Location	Quantity	Type	Diameter (mm)	Sealed /unsealed
BATH	1	Exhaust Fan	350	Sealed
KLM	1	Exhaust Fan	260	Sealed
WC	1	Exhaust Fan	350	Sealed

## Ceiling fans

Location	Quantity	Diameter (mm)
KLM	1	1200

## Roof type

Construction	Added insulation (R-value)	Solar absorptance	Roof Colour
FLAT-01: Flat Framed / Skillion Metal Roof & Flat PB Ceiling	0.00	0.50	Medium
FLAT-03: Flat Framed / Skillion Tile Roof & Flat PB Ceiling	0.00	0.50	Medium

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# ADVERTISED PLAN

## Explanatory Notes

### About this report

A NatHERS rating is a comprehensive, dynamic computer modelling evaluation of a home, using the floorplans, elevations and specifications to estimate an energy load. It addresses the building layout, orientation and fabric (i.e. walls, windows, floors, roofs and ceilings), but does not cover the water or energy use of appliances or energy production of solar panels.

Ratings are based on a unique climate zone where the home is located and are generated using standard assumptions, including occupancy patterns and thermostat settings. The actual energy consumption of a home may vary significantly from the predicted energy load, as the assumptions used in the rating will not match actual usage patterns. For example, the number of occupants and personal heating or cooling preferences will vary.

While the figures are an indicative guide to energy use, they can be used as a reliable guide for comparing different dwelling designs and to demonstrate that the design meets the energy efficiency requirements in the National Construction Code. Homes that are energy efficient use less energy, are warmer on cool days, cooler on hot days and cost less to run. The higher the star rating the more thermally efficient the dwelling is.

### Accredited assessors

To ensure the NatHERS Certificate is of a high quality, always use an accredited or licenced assessor. NatHERS accredited assessors are members of a professional body called an Assessor Accrediting Organisation (AAO).

Australian Capital Territory (ACT) licenced assessors may only produce assessments for regulatory purposes using software for which they have a licence endorsement. Licence endorsements can be confirmed on the ACT licensing register

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 ongoing training requirements.

Any questions or concerns about this report should be directed to the assessor in the first instance. If the assessor is unable to address these questions or concerns, the AAO specified on the front of this certificate should be contacted.

### Disclaimer

The format of the NatHERS Certificate was developed by the NatHERS Administrator. However the content of each individual certificate is entered and created by the assessor to create a NatHERS Certificate. It is the responsibility of the assessor who prepared this certificate to use NatHERS accredited software correctly and follow the NatHERS Technical Notes to produce a NatHERS Certificate.

The predicted annual energy load in this NatHERS Certificate is an estimate based on an assessment of the building by the assessor. It is not a prediction of actual energy use, but may be used to compare how other buildings are likely to perform when used in a similar way.

Information presented in this report relies on a range of standard assumptions (both embedded in NatHERS accredited software and made by the assessor who prepared this report), including assumptions about occupancy, indoor air temperature and local climate.

Not all assumptions that may have been made by the assessor while using the NatHERS accredited software tool are presented in this report and further details or data files may be available from the assessor.

## Glossary

<b>Annual energy load</b>	the predicted amount of energy required for heating and cooling, based on standard occupancy assumptions.
<b>Assessed floor area</b>	the floor area modelled in the software for the purpose of the NatHERS assessment. Note, this may not be consistent with the floor area in the design documents.
<b>Ceiling penetrations</b>	features that require penetration through the ceiling, including exhaust vents, exhaust fans, rangehoods, chimneys and flues. Excludes fixtures attached to the ceiling, such as ceiling fans, pendant lights, and heating and cooling ducts.
<b>Conditioned</b>	a zone within a dwelling that is expected to require heating and cooling based on standard occupancy assumptions. In some circumstances it will include garages.
<b>Custom windows</b>	windows listed in NatHERS software that are available on the market in Australia and have a WERS (Window Energy Rating Scheme) rating.
<b>Default windows</b>	windows that are representative of a specific type of window product and whose properties have been derived by statistical methods.
<b>Entrance door</b>	these signify ventilation benefits in the modelling software and must not be modelled as a door when opening to a minimally ventilated corridor in a Class 2 building.
<b>Exposure category - exposed</b>	terrain with no obstructions, e.g. flat grazing land, ocean-frontage, desert, exposed high-rise unit (usually above 10 floors).
<b>Exposure category - open</b>	terrain with few obstructions at a similar height e.g. grasslands with few well scattered obstructions below 10m, farmland with scattered sheds, lightly vegetated bush blocks, elevated units (e.g. above 3 floors).
<b>Exposure category - suburban</b>	terrain with numerous, closely spaced obstructions below 10m e.g. suburban housing, heavily vegetated bushland areas.
<b>Exposure category - protected</b>	terrain with numerous, closely spaced obstructions over 10 m e.g. city and industrial areas.
<b>Horizontal shading feature</b>	provides shading to the building in the horizontal plane, e.g. eaves, verandahs, pergolas, carports, or overhangs or balconies from upper levels.
<b>National Construction Code (NCC) Class</b>	the NCC groups buildings by their function and use, and assigns a classification code. NatHERS software models NCC Class 1, 2 or 4 buildings and attached Class 10a buildings. Definitions can be found at <a href="http://www.abcb.gov.au">www.abcb.gov.au</a> .
<b>Opening percentage</b>	the openability percentage or operable (moveable) area of doors or windows that is used in ventilation calculations.
<b>Provisional value</b>	an assumed value that does not represent an actual value. For example, if the wall colour is unspecified in the documentation, a provisional value of 'medium' must be modelled. Acceptable provisional values are outlined in the NatHERS Technical Note and can be found at <a href="http://www.nathers.gov.au">www.nathers.gov.au</a>
<b>Reflective wrap (also known as foil)</b>	can be applied to walls, roofs and ceilings. When combined with an appropriate airgap and emissivity value, it provides insulative properties.
<b>Roof window</b>	for NatHERS this is typically an operable window (i.e. can be opened), will have a plaster or similar light well if there is an attic space, and generally does not have a diffuser.
<b>Shading device</b>	a device fixed to windows that provides shading e.g. window awnings or screens but excludes eaves.
<b>Shading features</b>	includes neighbouring buildings, fences, and wing walls, but excludes eaves.
<b>Solar heat gain coefficient (SHGC)</b>	the fraction of incident solar radiation admitted through a window, both directly transmitted as well as absorbed and subsequently released inward. SHGC is expressed as a number between 0 and 1. The lower a window's SHGC, the less solar heat it transmits.
<b>Skylight (also known as roof lights)</b>	for NatHERS this is typically a moulded unit with flexible reflective tubing (light well) and a diffuser at ceiling level.
<b>U-value</b>	the rate of heat transfer through a window. The lower the U-value, the better the insulating ability.
<b>Unconditioned</b>	a zone within a dwelling that is assumed to not require heating and cooling based on standard occupancy assumptions
<b>Vertical shading features</b>	provides shading to the building in the vertical plane and can be parallel or perpendicular to the subject wall/window. Includes privacy screens, other walls in the building (wing walls), fences, other buildings, vegetation (protected or listed heritage trees).

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\* Refer to glossary.

# Nationwide House Energy Rating Scheme NatHERS Certificate No. #

Generated on 19 Jun 2025 using Hero 4.1 (Chenath v3.21)

## Property

**Address** TH20, 34 George Street, Reservoir, VIC,  
3073

**Lot/DP**

**NCC Class\*** 1a

**Type** New

## Plans

**Main Plan** 2301 / REV-A 12.2023

**Prepared by** Ys Housing

## Construction and environment

**Assessed floor area (m<sup>2</sup>)\***

**Conditioned\*** 81.2

**Unconditioned\*** 1.5

**Total** 82.6

**Garage** 0.0

**Exposure Type**

Suburban

NatHERS climate zone

Melbourne RO

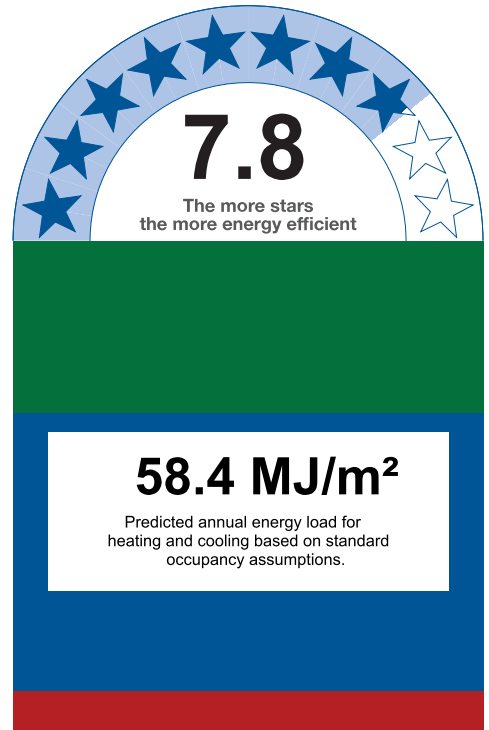


**Accredited assessor**

**Name** Nguyen Le  
**Business name** Nguyen Le  
**Email** tran-n-le@outlook.com  
**Phone** +61 4 38088493  
**Accreditation No.** DMN/222027  
**Assessor Accrediting Organisation** DMN  
**Declaration of interest** Conflict of Interest (Managed)

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## Thermal Performance

**Heating**

**39.9**

**MJ/m<sup>2</sup>**

**Cooling**

**18.5**

**MJ/m<sup>2</sup>**

### About the rating

NatHERS software models the expected thermal energy loads using information about the design and construction, climate and common patterns of household use. The software does not take into account appliances, apart from the airflow impacts from ceiling fans.

## Verification

DRAFT PREVIEW ISSUE - NOT TO BE USED FOR CERTIFICATION

## National Construction Code (NCC) requirements

The NCC's requirements for NatHERS-rated houses are detailed in 3.12.0(a)(i) and 3.12.5 of the NCC Volume Two. For apartments the requirements are detailed in J0.2 and J5 to J8 of the NCC Volume One.

In NCC 2019, these requirements include minimum star ratings and separate heating and cooling load limits that need to be met by buildings and apartments through the NatHERS assessment. Requirements additional to the NatHERS assessment that must also be satisfied include, but are not limited to: insulation installation methods, thermal breaks, building sealing, water heating and pumping, and artificial lighting requirements. The NCC and NatHERS Heating and Cooling Load Limits (Australian Building Codes Board Standard) are available at [www.abcb.gov.au](http://www.abcb.gov.au).

State and territory variations and additions to the NCC may also apply.

\* Refer to glossary.

# ADVERTISED PLAN

## Certificate Check

Ensure the dwelling is designed and then built as per the NatHERS Certificate. While you need to check the accuracy of the whole Certificate, the following spot check covers some important items impacting the dwelling's rating.

### Genuine certificate

Does this Certificate match the one available at the web address or QR code in the verification box on the front page? Does the set of NatHERS-stamped plans for the dwelling have a Certificate number on the stamp that matches this Certificate?

### Ceiling penetrations\*

Does the 'number' and 'type' of ceiling penetrations (e.g. downlights, exhaust fans, etc) shown on the stamped plans or installed, match what is shown in this Certificate?

### Windows

Does the installed window meet the substitution tolerances (SHGC and U-value) and window type, of the window shown on this Certificate? Substituted values must be based on the Australian Fenestration Rating Council (AFRC) protocol.

### Apartment entrance doors

Does the 'External Door Schedule' show apartment entrance doors? Please note that an "external door" between the modelled dwelling and a shared space, such as an enclosed corridor or foyer, should not be included in the assessment (because it overstates the possible ventilation) and would invalidate the Certificate.

### Exposure\*

Has the appropriate exposure level (terrain) been applied? For example, it is unlikely that a ground-floor apartment is "exposed" or a top floor high-rise apartment is "protected".

### Provisional\* values

Have provisional values been used in the assessment and, if so, noted in "additional notes" below?

## Additional Notes

-----

### Provisional Values

Floor Coverings - Provisional NatHERS Technical Note Values used in floor areas left unspecified

Floor Coverings - If a room has standard drafting hatching detail but no wording regarding the floor covering then an assumption is made based off the hatching detail

Colours (Excl. Roof Colour) - Provisional "Medium" colour used as per NatHERS Technical Note Values used on building areas left unspecified

Roof Colour - Colour used is "worst case scenario" as per NatHERS Technical Note Table 9.1 & 9.2

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## Window and glazed door type and performance

### Default\* windows

Window ID	Window Description	Maximum U-value*	SHGC*	SHGC substitution tolerance ranges	
				lower limit	upper limit
ATB-005-03 B	AI Thermally Broken A DG Argon Fill High Solar Gain low-E - Clear	2.9	0.44	0.42	0.46

### Custom\* windows

Window ID	Window Description	Maximum U-value*	SHGC*	SHGC substitution tolerance ranges	
				lower limit	upper limit
AWS-088-17 A	Series 755 Comfort Edge Awning Window DG LightBridge_ClrS0_5-10-5	2.4	0.46	0.44	0.48

\* Refer to glossary.

# ADVERTISED PLAN

## Custom\* windows

Window ID	Window Description	Maximum U-value*	SHGC*	SHGC substitution tolerance ranges	
				lower limit	upper limit
AWS-089-56 A	RES SERIES 704 FLUSH SLIDING DOOR DG FGIOptEmaGry_4mm_16Ar_4mm	2.2	0.56	0.53	0.59
BRD-127-10 A	ESS Fixed Window External 52 Comm DG 6mmET_12Ar_6mmET	2.0	0.50	0.47	0.53

## Window and glazed door schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Window type	Opening %	Orient-ation	Shading device*
BED 01	AWS-088-17 A	W01-D-a	1800	900	Awning	90	S	None
BED 01	BRD-127-10 A	W01-C-a	1800	900	Fixed	0	S	None
BED 02	AWS-088-17 A	W04-3-a	1750	1050	Awning	90	N	None
BED 02	AWS-088-17 A	W04-5-a	850	1050	Awning	90	N	None
HALL	ATB-005-03 B	W06	2600	920	Hinged Door	90	N	None
KLM	AWS-089-56 A	W05-a	2700	3600	Sliding Door	60	N	None
KLM	AWS-088-17 A	W02-a	2000	1200	Awning	90	S	None
KLM	BRD-127-10 A	W02-k-8	2000	900	Fixed	0	S	None
WC	AWS-088-17 A	W03-a	800	750	Awning	90	S	None

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## Roof window type and performance value

### Default\* roof windows

Window ID	Window Description	Maximum U-value*	SHGC*	SHGC substitution tolerance ranges	
				lower limit	upper limit
None					

### Custom\* roof windows

Window ID	Window Description	Maximum U-value*	SHGC*	SHGC substitution tolerance ranges	
				lower limit	upper limit
None					

## Roof window schedule

Location	Window ID	Window no.	Opening %	Height (mm)	Width (mm)	Orient-ation	Outdoor shade	Indoor shade
None								

\* Refer to glossary.

**Skylight type and performance**

Skylight ID	Skylight description
None	

**Skylight schedule**

Location	Skylight ID	Skylight No.	Skylight shaft length (mm)	Area (m <sup>2</sup> )	Orientation	Outdoor shade	Diffuser	Shaft Reflectance
None								

**External door schedule**

Location	Height (mm)	Width (mm)	Opening %	Orientation
None				

**External wall type**

Wall ID	Wall Type	Solar absorptance	Wall Colour	Bulk insulation (R-value)	Reflective wall wrap*
FC-NOCAV REN	Fibre-Cement Clad Direct-Fix (No Cavity) Stud Wall Rendered	0.50	Medium	2.50	No
MC-NOCAV	Metal Clad Direct-Fix (No Cavity) Stud Wall	0.50	Medium	2.50	No

**External wall schedule**

Location	Wall ID	Height (mm)	Width (mm)	Orientation	Horizontal shading feature* projection (mm)	Vertical shading feature
BED 01	MC-NOCAV	2700	4554	S		No
BED 02	MC-NOCAV	2700	1016	N		No
BED 02	MC-NOCAV	2700	605	E		No
BED 02	MC-NOCAV	2700	2150	N	1724	Yes
BED 02	MC-NOCAV	2700	804	W	16163	Yes
HALL	MC-NOCAV	2700	1225	N	2528	Yes
KLM	FC-NOCAV REN	3330	4554	N		Yes
KLM	MC-NOCAV	3330	3544	S		No
WC	MC-NOCAV	3330	876	S		No

**Internal wall type**

Wall ID	Wall Type	Area (m <sup>2</sup> )	Bulk insulation
CSR PARTY WALL21	CSR Party Wall	110.7	5.00

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\* Refer to glossary.

**ADVERTISED  
PLAN****Internal wall type**

Wall ID	Wall Type	Area (m <sup>2</sup> )	Bulk insulation
INT-PB	Internal Plasterboard Stud Wall	7.3	2.50
INT-PB	Internal Plasterboard Stud Wall	32.3	0.00

**Floor type**

Location	Construction	Area (m <sup>2</sup> )	Sub-floor ventilation	Added insulation (R-value)	Covering
BATH	SUSP-CONC-300: Suspended Concrete Slab Floor (300mm)	5.7	N/A	2.30	Tile (8mm)
BED 01	SUSP-CONC-300: Suspended Concrete Slab Floor (300mm)	15.2	N/A	2.30	Carpet
BED 02	SUSP-CONC-300: Suspended Concrete Slab Floor (300mm)	11.7	N/A	2.30	Carpet
HALL	SUSP-CONC-300: Suspended Concrete Slab Floor (300mm)	1.5	N/A	2.30	Tile (8mm)
HALL	SUSP-CONC-300: Suspended Concrete Slab Floor (300mm)	10.0	N/A	2.30	Carpet
KLM	TIMB-001: Suspended Timber Floor	8.0	N/A	4.00	Tile (8mm)
KLM	TIMB-001: Suspended Timber Floor	30.4	N/A	4.00	Carpet
WC	TIMB-001: Suspended Timber Floor	1.5	N/A	4.00	Tile (8mm)

**Ceiling type**

Location	Construction	Bulk insulation (R-value)	Reflective wrap*
BED 02	FLAT-03: Flat Framed / Skillion Tile Roof & Flat PB Ceiling	4.00	No
HALL	FLAT-03: Flat Framed / Skillion Tile Roof & Flat PB Ceiling	4.00	No
KLM	FLAT-01: Flat Framed / Skillion Metal Roof & Flat PB Ceiling	7.00	No
WC	FLAT-01: Flat Framed / Skillion Metal Roof & Flat PB Ceiling	7.00	No

**Ceiling penetrations\***

Location	Quantity	Type	Diameter (mm)	Sealed /unsealed
BATH	1	Exhaust Fan	350	Sealed
KLM	1	Exhaust Fan	260	Sealed
WC	1	Exhaust Fan	350	Sealed

\* Refer to glossary.

# ADVERTISED PLAN

## Ceiling fans

Location	Quantity	Diameter (mm)
KLM	1	1200

## Roof type

Construction	Added insulation (R-value)	Solar absorptance	Roof Colour
FLAT-01: Flat Framed / Skillion Metal Roof & Flat PB Ceiling	0.00	0.50	Medium
FLAT-03: Flat Framed / Skillion Tile Roof & Flat PB Ceiling	0.00	0.50	Medium

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# ADVERTISED PLAN

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## Glossary

<b>Annual energy load</b>	the predicted amount of energy required for heating and cooling, based on standard occupancy assumptions.
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DRAFT

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\* Refer to glossary.

# Nationwide House Energy Rating Scheme NatHERS Certificate No. #

Generated on 19 Jun 2025 using Hero 4.1 (Chenath v3.21)

## Property

**Address** TH21, 34 George Street, Reservoir, VIC,  
3073

**Lot/DP**

**NCC Class\*** 1a

**Type** New

## Plans

**Main Plan** 2301 / REV-A 12.2023

**Prepared by** Ys Housing

## Construction and environment

**Assessed floor area (m<sup>2</sup>)\***

**Conditioned\*** 81.2

**Unconditioned\*** 1.5

**Total** 82.6

**Garage** 0.0

**Exposure Type**

Suburban

NatHERS climate zone

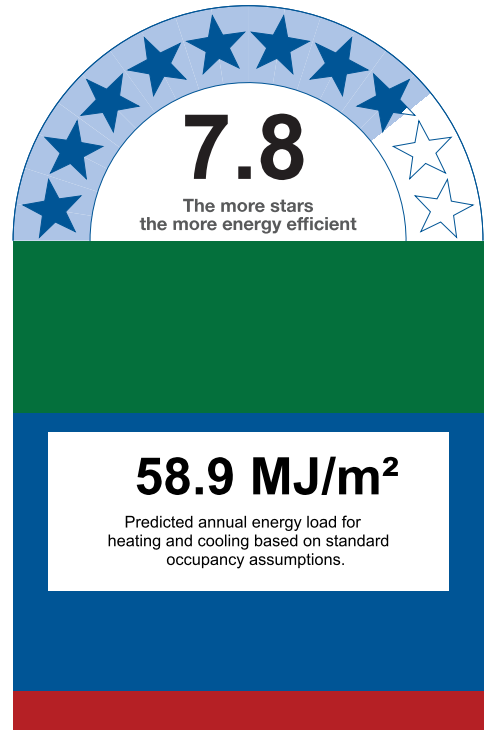
2 Melbourne RO



**Accredited assessor**

**Name** Nguyen Le  
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**Phone** +61 4 38088493  
**Accreditation No.** DMN/222027  
**Assessor Accrediting Organisation** DMN  
**Declaration of interest** Conflict of Interest (Managed)

**ADVERTISED  
PLAN**



## Thermal Performance

**Heating**      **Cooling**

**40.6**

**18.3**

**MJ/m<sup>2</sup>**

**MJ/m<sup>2</sup>**

### About the rating

NatHERS software models the expected thermal energy loads using information about the design and construction, climate and common patterns of household use. The software does not take into account appliances, apart from the airflow impacts from ceiling fans.

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DRAFT PREVIEW ISSUE - NOT TO BE USED FOR CERTIFICATION

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### Ceiling penetrations\*

Does the 'number' and 'type' of ceiling penetrations (e.g. downlights, exhaust fans, etc) shown on the stamped plans or installed, match what is shown in this Certificate?

### Windows

Does the installed window meet the substitution tolerances (SHGC and U-value) and window type, of the window shown on this Certificate? Substituted values must be based on the Australian Fenestration Rating Council (AFRC) protocol.

### Apartment entrance doors

Does the 'External Door Schedule' show apartment entrance doors? Please note that an "external door" between the modelled dwelling and a shared space, such as an enclosed corridor or foyer, should not be included in the assessment (because it overstates the possible ventilation) and would invalidate the Certificate.

### Exposure\*

Has the appropriate exposure level (terrain) been applied? For example, it is unlikely that a ground-floor apartment is "exposed" or a top floor high-rise apartment is "protected".

### Provisional\* values

Have provisional values been used in the assessment and, if so, noted in "additional notes" below?

## Additional Notes

-----

### Provisional Values

Floor Coverings - Provisional NatHERS Technical Note Values used in floor areas left unspecified

Floor Coverings - If a room has standard drafting hatching detail but no wording regarding the floor covering then an assumption is made based off the hatching detail

Colours (Excl. Roof Colour) - Provisional "Medium" colour used as per NatHERS Technical Note Values used on building areas left unspecified

Roof Colour - Colour used is "worst case scenario" as per NatHERS Technical Note Table 9.1 & 9.2

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## Window and glazed door type and performance

### Default\* windows

Window ID	Window Description	Maximum U-value*	SHGC*	SHGC substitution tolerance ranges	
				lower limit	upper limit
ATB-005-03 B	Al Thermally Broken A DG Argon Fill High Solar Gain low-E - Clear	2.9	0.44	0.42	0.46

### Custom\* windows

Window ID	Window Description	Maximum U-value*	SHGC*	SHGC substitution tolerance ranges	
				lower limit	upper limit
AWS-088-17 A	Series 755 Comfort Edge Awning Window DG LightBridge_ClrS0_5-10-5	2.4	0.46	0.44	0.48

\* Refer to glossary.

# ADVERTISED PLAN

## Custom\* windows

Window ID	Window Description	Maximum U-value*	SHGC*	SHGC substitution tolerance ranges	
				lower limit	upper limit
AWS-089-56 A	RES SERIES 704 FLUSH SLIDING DOOR DG FGIOptEmaGry_4mm_16Ar_4mm	2.2	0.56	0.53	0.59
BRD-127-10 A	ESS Fixed Window External 52 Comm DG 6mmET_12Ar_6mmET	2.0	0.50	0.47	0.53

## Window and glazed door schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Window type	Opening %	Orient-ation	Shading device*
BED 01	AWS-088-17 A	W01-D	1800	900	Awning	90	S	None
BED 01	BRD-127-10 A	W01-C	1800	900	Fixed	0	S	None
BED 02	AWS-088-17 A	W04-3	1750	1050	Awning	90	N	None
BED 02	AWS-088-17 A	W04-5	850	1050	Awning	90	N	None
HALL	ATB-005-03 B	W06	2600	920	Hinged Door	90	N	None
KLM	AWS-089-56 A	W05	2700	3600	Sliding Door	60	N	None
KLM	AWS-088-17 A	W02	2000	1200	Awning	90	S	None
KLM	BRD-127-10 A	W02-K	2000	900	Fixed	0	S	None
WC	AWS-088-17 A	W03	800	750	Awning	90	S	None

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## Roof window type and performance value

### Default\* roof windows

Window ID	Window Description	Maximum U-value*	SHGC*	SHGC substitution tolerance ranges	
				lower limit	upper limit
None					

### Custom\* roof windows

Window ID	Window Description	Maximum U-value*	SHGC*	SHGC substitution tolerance ranges	
				lower limit	upper limit
None					

## Roof window schedule

Location	Window ID	Window no.	Opening %	Height (mm)	Width (mm)	Orient-ation	Outdoor shade	Indoor shade
None								

\* Refer to glossary.

**Skylight type and performance**

Skylight ID	Skylight description
None	

**Skylight schedule**

Location	Skylight ID	Skylight No.	Skylight shaft length (mm)	Area (m <sup>2</sup> )	Orientation	Outdoor shade	Diffuser	Shaft Reflectance
None								

**External door schedule**

Location	Height (mm)	Width (mm)	Opening %	Orientation
None				

**External wall type**

Wall ID	Wall Type	Solar absorptance	Wall Colour	Bulk insulation (R-value)	Reflective wall wrap*
FC-NOCAV REN	Fibre-Cement Clad Direct-Fix (No Cavity) Stud Wall Rendered	0.50	Medium	2.50	No
MC-NOCAV	Metal Clad Direct-Fix (No Cavity) Stud Wall	0.50	Medium	2.50	No

**External wall schedule**

Location	Wall ID	Height (mm)	Width (mm)	Orientation	Horizontal shading feature* projection (mm)	Vertical shading feature
BED 01	MC-NOCAV	2700	4554	S		No
BED 02	MC-NOCAV	2700	1016	N		Yes
BED 02	MC-NOCAV	2700	605	W		Yes
BED 02	MC-NOCAV	2700	2150	N	1738	Yes
BED 02	MC-NOCAV	2700	804	E	16184	Yes
HALL	MC-NOCAV	2700	1225	N	2542	Yes
KLM	FC-NOCAV REN	3330	4554	N		Yes
KLM	MC-NOCAV	3330	3544	S		No
WC	MC-NOCAV	3330	876	S		No

**Internal wall type**

Wall ID	Wall Type	Area (m <sup>2</sup> )	Bulk insulation
CSR PARTY WALL21	CSR Party Wall	110.7	5.00

\* Refer to glossary.

**ADVERTISED  
PLAN****Internal wall type**

Wall ID	Wall Type	Area (m <sup>2</sup> )	Bulk insulation
INT-PB	Internal Plasterboard Stud Wall	32.3	0.00
INT-PB	Internal Plasterboard Stud Wall	7.3	2.50

**Floor type**

Location	Construction	Area (m <sup>2</sup> )	Sub-floor ventilation	Added insulation (R-value)	Covering
BATH	SUSP-CONC-300: Suspended Concrete Slab Floor (300mm)	5.7	N/A	2.30	Tile (8mm)
BED 01	SUSP-CONC-300: Suspended Concrete Slab Floor (300mm)	15.2	N/A	2.30	Carpet
BED 02	SUSP-CONC-300: Suspended Concrete Slab Floor (300mm)	11.7	N/A	2.30	Carpet
HALL	SUSP-CONC-300: Suspended Concrete Slab Floor (300mm)	1.5	N/A	2.30	Tile (8mm)
HALL	SUSP-CONC-300: Suspended Concrete Slab Floor (300mm)	10.0	N/A	2.30	Carpet
KLM	TIMB-001: Suspended Timber Floor	8.0	N/A	4.00	Tile (8mm)
KLM	TIMB-001: Suspended Timber Floor	30.4	N/A	4.00	Carpet
WC	TIMB-001: Suspended Timber Floor	1.5	N/A	4.00	Tile (8mm)

**Ceiling type**

Location	Construction	Bulk insulation (R-value)	Reflective wrap*
BED 02	FLAT-03: Flat Framed / Skillion Tile Roof & Flat PB Ceiling	4.00	No
HALL	FLAT-03: Flat Framed / Skillion Tile Roof & Flat PB Ceiling	4.00	No
KLM	FLAT-01: Flat Framed / Skillion Metal Roof & Flat PB Ceiling	7.00	No
WC	FLAT-01: Flat Framed / Skillion Metal Roof & Flat PB Ceiling	7.00	No

**Ceiling penetrations\***

Location	Quantity	Type	Diameter (mm)	Sealed /unsealed
BATH	1	Exhaust Fan	350	Sealed
KLM	1	Exhaust Fan	260	Sealed
WC	1	Exhaust Fan	350	Sealed

\* Refer to glossary.

# ADVERTISED PLAN

## Ceiling fans

Location	Quantity	Diameter (mm)
KLM	1	1200

## Roof type

Construction	Added insulation (R-value)	Solar absorptance	Roof Colour
FLAT-01: Flat Framed / Skillion Metal Roof & Flat PB Ceiling	0.00	0.50	Medium
FLAT-03: Flat Framed / Skillion Tile Roof & Flat PB Ceiling	0.00	0.50	Medium

**DRAFT**

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## Explanatory Notes

### About this report

A NatHERS rating is a comprehensive, dynamic computer modelling evaluation of a home, using the floorplans, elevations and specifications to estimate an energy load. It addresses the building layout, orientation and fabric (i.e. walls, windows, floors, roofs and ceilings), but does not cover the water or energy use of appliances or energy production of solar panels.

Ratings are based on a unique climate zone where the home is located and are generated using standard assumptions, including occupancy patterns and thermostat settings. The actual energy consumption of a home may vary significantly from the predicted energy load, as the assumptions used in the rating will not match actual usage patterns. For example, the number of occupants and personal heating or cooling preferences will vary.

While the figures are an indicative guide to energy use, they can be used as a reliable guide for comparing different dwelling designs and to demonstrate that the design meets the energy efficiency requirements in the National Construction Code. Homes that are energy efficient use less energy, are warmer on cool days, cooler on hot days and cost less to run. The higher the star rating the more thermally efficient the dwelling is.

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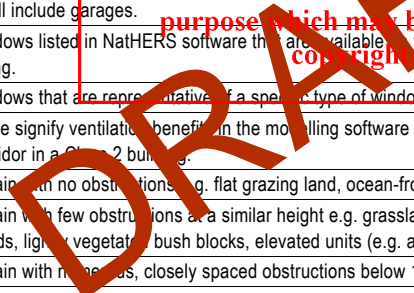
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**Lot/DP**

**NCC Class\*** 1a

**Type** New

## Plans

**Main Plan** 2301 / REV-A 12.2023

**Prepared by** Ys Housing

## Construction and environment

**Assessed floor area (m<sup>2</sup>)\***

**Conditioned\*** 74.6

**Unconditioned\*** 7.1

**Total** 81.7

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**Exposure Type**

Suburban

NatHERS climate zone

2 Melbourne RO

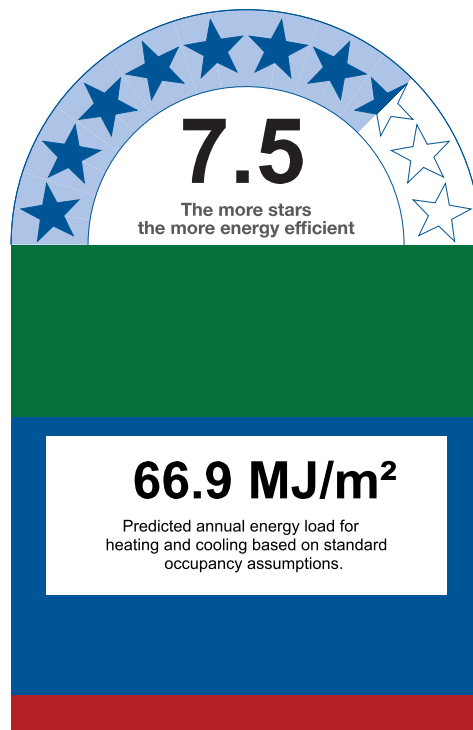


**Accredited assessor**

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**Business name** Nguyen Le  
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**Phone** +61 4 38088493  
**Accreditation No.** DMN/222027  
**Assessor Accrediting Organisation** DMN  
**Declaration of interest** Conflict of Interest (Managed)

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**DRAFT**



## Thermal Performance

**Heating**      **Cooling**

**42.8**            **24.1**  
MJ/m<sup>2</sup>            MJ/m<sup>2</sup>

### About the rating

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Does the ‘number’ and ‘type’ of ceiling penetrations (e.g. downlights, exhaust fans, etc) shown on the stamped plans or installed, match what is shown in this Certificate?

**Windows**

Does the installed window meet the substitution tolerances (SHGC and U-value) and window type, of the window shown on this Certificate? Substituted values must be based on the Australian Fenestration Rating Council (AFRC) protocol.

**Apartment entrance doors**

Does the ‘External Door Schedule’ show apartment entrance doors? Please note that an “external door” between the modelled dwelling and a shared space, such as an enclosed corridor or foyer, should not be included in the assessment (because it overstates the possible ventilation) and would invalidate the Certificate.

**Exposure\***

Has the appropriate exposure level (terrain) been applied? For example, it is unlikely that a ground-floor apartment is “exposed” or a top floor high-rise apartment is “protected”.

**Provisional\* values**

Have provisional values been used in the assessment and, if so, noted in “additional notes” below?

**Additional Notes**

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-----  
 Provisional Values  
 Floor Coverings - Provisional NatHERS Technical Note Values used in floor areas left unspecified  
 Floor Coverings - If a room has standard drafting hatching detail but no wording regarding the floor covering then an assumption is made based off the hatching detail  
 Colours (Excl. Roof Colour) - Provisional “Medium” colour used as per NatHERS Technical Note Values used on building areas left unspecified  
 Roof Colour - Colour used is “worst case scenario” as per NatHERS Technical Note Table 9.1 & 9.2  
 -----

**Window and glazed door type and performance**

**Default\* windows**

Window ID	Window Description	Maximum U-value*	SHGC*	SHGC substitution tolerance ranges	
				lower limit	upper limit
ATB-005-03 B	Al Thermally Broken A DG Argon Fill High Solar Gain low-E - Clear	2.9	0.44	0.42	0.46

**Custom\* windows**

Window ID	Window Description	Maximum U-value*	SHGC*	SHGC substitution tolerance ranges	
				lower limit	upper limit
AWS-088-17 A	Series 755 Comfort Edge Awning Window DG LightBridge_ClrS0_5-10-5	2.4	0.46	0.44	0.48

\* Refer to glossary.

# ADVERTISED PLAN

## Custom\* windows

Window ID	Window Description	Maximum U-value*	SHGC*	SHGC substitution tolerance ranges	
				lower limit	upper limit
BRD-127-10 A	ESS Fixed Window External 52 Comm DG 6mmET_12Ar_6mmET	2.0	0.50	0.47	0.53
THC-076-03 A	Secco OS2 65 Steel Fixed Window TG 5ET-12Ar-5-12Ar-5	1.4	0.51	0.48	0.54

## Window and glazed door schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Window type	Opening %	Orient-ation	Shading device*
BATH	AWS-088-17 A	W06	1000	950	Awning	90	E	None
BED 01	AWS-088-17 A	W03-1	850	1800	Awning	90	S	None
BED 01	BRD-127-10 A	W03-2	950	1800	Fixed	0	S	None
BED 02	AWS-088-17 A	W02-5	1750	1050	Awning	90	N	None
BED 02	BRD-127-10 A	W02-6	850	1050	Fixed	0	N	None
HALL	ATB-005-03 B	W09	2600	920	Hinged Door	90	N	None
KLM	THC-076-03 A	W01	2700	3600	Sliding Door	60	N	None
KLM	AWS-088-17 A	W07	1500	1500	Awning	90	E	None
KLM	AWS-088-17 A	W08	1500	1500	Awning	90	E	None
KLM	BRD-127-10 A	W04-B	1200	1200	Fixed	0	S	None
KLM	BRD-127-10 A	W04-C	1200	2400	Fixed	0	S	None
KLM	AWS-088-17 A	W04-A6	1200	1200	Awning	90	S	None
WC	AWS-088-17 A	W05	750	750	Awning	90	S	None

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## Roof window type and performance value

### Default\* roof windows

Window ID	Window Description	Maximum U-value*	SHGC*	SHGC substitution tolerance ranges	
				lower limit	upper limit
None					

### Custom\* roof windows

Window ID	Window Description	Maximum U-value*	SHGC*	SHGC substitution tolerance ranges	
				lower limit	upper limit

\* Refer to glossary.

# ADVERTISED PLAN

## Custom\* roof windows

Window ID	Window Description	Maximum U-value*	SHGC*	SHGC substitution tolerance ranges	
				lower limit	upper limit
None					

## Roof window schedule

Location	Window ID	Window no.	Opening %	Height (mm)	Width (mm)	Orientation	Outdoor shade	Indoor shade
None								

## Skylight type and performance

Skylight ID	Skylight description
None	

## Skylight schedule

Location	Skylight ID	Skylight No.	Skylight shaft length (mm)	Area (m <sup>2</sup> )	Orientation	Outdoor shade	Diffuser	Shaft Reflectance
None								

## External door schedule

Location	Height (mm)	Width (mm)	Opening %	Orientation
None				

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## External wall type

Wall ID	Wall Type	Solar absorptance	Wall Colour	Bulk insulation (R-value)	Reflective wall wrap*
FC-NOCAV REN	Fibre Cement Clad Direct-Fix (No Cavity) Stud Wall Rendered	0.50	Medium	2.50	No
MC-NOCAV-A	Metal Clad Direct-Fix (No Cavity) Stud Wall	0.50	Medium	4.00	No
MC-NOCAV-B	Metal Clad Direct-Fix (No Cavity) Stud Wall	0.50	Medium	2.50	No

## External wall schedule

Location	Wall ID	Height (mm)	Width (mm)	Orientation	Horizontal shading feature* projection (mm)	Vertical shading feature
BATH	MC-NOCAV-A	2700	2920	E		Yes
BED 01	MC-NOCAV-A	2700	3345	E		Yes
BED 01	MC-NOCAV-B	2700	4502	S		No
BED 02	MC-NOCAV-B	2700	2147	N	1738	Yes

\* Refer to glossary.

**ADVERTISED  
PLAN****External wall schedule**

Location	Wall ID	Height (mm)	Width (mm)	Orient-ation	Horizontal shading feature* projection (mm)	Vertical shading feature
BED 02	MC-NOCAV-B	2700	605	E		No
BED 02	MC-NOCAV-B	2700	1002	N		No
BED 02	MC-NOCAV-A	2700	3408	E		Yes
BED 02	MC-NOCAV-B	2700	804	W	35615	Yes
HALL	MC-NOCAV-B	2700	1191	N	2542	Yes
KLM	FC-NOCAV REN	3330	4502	N		Yes
KLM	MC-NOCAV-A	3330	8893	E		No
KLM	MC-NOCAV-B	3330	3507	S		No
WC	MC-NOCAV-B	3330	841	S		No

**Internal wall type**

Wall ID	Wall Type	Area (m <sup>2</sup> )	Bulk insulation
CSR PARTY WALL21	CSR Party Wall	55.0	5.00
INT-PB	Internal Plasterboard Stud	25.8	2.50
INT-PB	Internal Plasterboard Stud	13.3	0.00

**Floor type**

Location	Construction	Area (m <sup>2</sup> )	Sub-floor ventilation	Added insulation (R-value)	Covering
BATH	SUSP-CONC-300: Suspended Concrete Slab Floor (300mm)	5.7	N/A	2.30	Tile (8mm)
BED 01	SUSP-CONC-300: Suspended Concrete Slab Floor (300mm)	15.1	N/A	2.30	Carpet
BED 02	SUSP-CONC-300: Suspended Concrete Slab Floor (300mm)	11.6	N/A	2.30	Carpet
HALL	SUSP-CONC-300: Suspended Concrete Slab Floor (300mm)	9.8	N/A	2.30	Timber (12mm)
HALL	SUSP-CONC-300: Suspended Concrete Slab Floor (300mm)	1.5	N/A	2.30	Tile (8mm)
KLM	TIMB-001: Suspended Timber Floor	38.2	N/A	4.00	Timber (12mm)
WC	TIMB-001: Suspended Timber Floor	1.4	N/A	4.00	Tile (8mm)

**ADVERTISED  
PLAN****Ceiling type**

Location	Construction	Bulk insulation (R-value)	Reflective wrap*
BED 02	FLAT-03: Flat Framed / Skillion Tile Roof & Flat PB Ceiling	4.00	No
HALL	FLAT-03: Flat Framed / Skillion Tile Roof & Flat PB Ceiling	4.00	No
KLM	FLAT-01: Flat Framed / Skillion Metal Roof & Flat PB Ceiling	7.00	No
WC	FLAT-01: Flat Framed / Skillion Metal Roof & Flat PB Ceiling	7.00	No

**Ceiling penetrations\***

Location	Quantity	Type	Diameter (mm)	Sealed /unsealed
BATH	1	Exhaust Fan	350	Sealed
KLM	1	Exhaust Fan	260	Sealed
WC	1	Exhaust Fan	350	Sealed

**Ceiling fans**

Location	Quantity	Diameter (mm)
KLM	1	1200

**Roof type**

Construction	Added insulation (R-value)	Solar absorbance	Roof Colour
FLAT-01: Flat Framed / Skillion Metal Roof & Flat PB Ceiling	0.00	0.50	Medium
FLAT-03: Flat Framed / Skillion Tile Roof & Flat PB Ceiling	0.00	0.50	Medium

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# ADVERTISED PLAN

## Explanatory Notes

### About this report

A NatHERS rating is a comprehensive, dynamic computer modelling evaluation of a home, using the floorplans, elevations and specifications to estimate an energy load. It addresses the building layout, orientation and fabric (i.e. walls, windows, floors, roofs and ceilings), but does not cover the water or energy use of appliances or energy production of solar panels.

Ratings are based on a unique climate zone where the home is located and are generated using standard assumptions, including occupancy patterns and thermostat settings. The actual energy consumption of a home may vary significantly from the predicted energy load, as the assumptions used in the rating will not match actual usage patterns. For example, the number of occupants and personal heating or cooling preferences will vary.

While the figures are an indicative guide to energy use, they can be used as a reliable guide for comparing different dwelling designs and to demonstrate that the design meets the energy efficiency requirements in the National Construction Code. Homes that are energy efficient use less energy, are warmer on cool days, cooler on hot days and cost less to run. The higher the star rating the more thermally efficient the dwelling is.

### Accredited assessors

To ensure the NatHERS Certificate is of a high quality, always use an accredited or licenced assessor. NatHERS accredited assessors are members of a professional body called an Assessor Accrediting Organisation (AAO).

Australian Capital Territory (ACT) licenced assessors may only produce assessments for regulatory purposes using software for which they have a licence endorsement. Licence endorsements can be confirmed on the ACT licensing register

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 ongoing training requirements.

Any questions or concerns about this report should be directed to the assessor in the first instance. If the assessor is unable to address these questions or concerns, the AAO specified on the front of this certificate should be contacted.

### Disclaimer

The format of the NatHERS Certificate was developed by the NatHERS Administrator. However the content of each individual certificate is entered and created by the assessor to create a NatHERS Certificate. It is the responsibility of the assessor who prepared this certificate to use NatHERS accredited software correctly and follow the NatHERS Technical Notes to produce a NatHERS Certificate.

The predicted annual energy load in this NatHERS Certificate is an estimate based on an assessment of the building by the assessor. It is not a prediction of actual energy use, but may be used to compare how other buildings are likely to perform when used in a similar way.

Information presented in this report relies on a range of standard assumptions (both embedded in NatHERS accredited software and made by the assessor who prepared this report), including assumptions about occupancy, indoor air temperature and local climate.

Not all assumptions that may have been made by the assessor while using the NatHERS accredited software tool are presented in this report and further details or data files may be available from the assessor.

## Glossary

<b>Annual energy load</b>	the predicted amount of energy required for heating and cooling, based on standard occupancy assumptions.
<b>Assessed floor area</b>	the floor area modelled in the software for the purpose of the NatHERS assessment. Note, this may not be consistent with the floor area in the design documents.
<b>Ceiling penetrations</b>	features that require penetration through the ceiling, including exhaust vents, exhaust fans, rangehoods, chimneys and flues. Excludes fixtures attached to the ceiling, such as ceiling fans, pendant lights, and heating and cooling ducts.
<b>Conditioned</b>	a zone within a dwelling that is expected to require heating and cooling based on standard occupancy assumptions. In some circumstances it will include garages.
<b>Custom windows</b>	windows listed in NatHERS software that are available on the market in Australia and have a WERS (Window Energy Rating Scheme) rating.
<b>Default windows</b>	windows that are representative of a specific type of window product and whose properties have been derived by statistical methods.
<b>Entrance door</b>	these signify ventilation benefits in the modelling software and must not be modelled as a door when opening to a minimally ventilated corridor in a Class 2 building.
<b>Exposure category - exposed</b>	terrain with no obstructions, e.g. flat grazing land, ocean-frontage, desert, exposed high-rise unit (usually above 10 floors).
<b>Exposure category - open</b>	terrain with few obstructions at a similar height e.g. grasslands with few well scattered obstructions below 10m, farmland with scattered sheds, lightly vegetated bush blocks, elevated units (e.g. above 3 floors).
<b>Exposure category - suburban</b>	terrain with numerous, closely spaced obstructions below 10m e.g. suburban housing, heavily vegetated bushland areas.
<b>Exposure category - protected</b>	terrain with numerous, closely spaced obstructions over 10 m e.g. city and industrial areas.
<b>Horizontal shading feature</b>	provides shading to the building in the horizontal plane, e.g. eaves, verandahs, pergolas, carports, or overhangs or balconies from upper levels.
<b>National Construction Code (NCC) Class</b>	the NCC groups buildings by their function and use, and assigns a classification code. NatHERS software models NCC Class 1, 2 or 4 buildings and attached Class 10a buildings. Definitions can be found at <a href="http://www.abcb.gov.au">www.abcb.gov.au</a> .
<b>Opening percentage</b>	the openability percentage or operable (moveable) area of doors or windows that is used in ventilation calculations.
<b>Provisional value</b>	an assumed value that does not represent an actual value. For example, if the wall colour is unspecified in the documentation, a provisional value of 'medium' must be modelled. Acceptable provisional values are outlined in the NatHERS Technical Note and can be found at <a href="http://www.nathers.gov.au">www.nathers.gov.au</a>
<b>Reflective wrap (also known as foil)</b>	can be applied to walls, roofs and ceilings. When combined with an appropriate airgap and emissivity value, it provides insulative properties.
<b>Roof window</b>	for NatHERS this is typically an operable window (i.e. can be opened), will have a plaster or similar light well if there is an attic space, and generally does not have a diffuser.
<b>Shading device</b>	a device fixed to windows that provides shading e.g. window awnings or screens but excludes eaves.
<b>Shading features</b>	includes neighbouring buildings, fences, and wing walls, but excludes eaves.
<b>Solar heat gain coefficient (SHGC)</b>	the fraction of incident solar radiation admitted through a window, both directly transmitted as well as absorbed and subsequently released inward. SHGC is expressed as a number between 0 and 1. The lower a window's SHGC, the less solar heat it transmits.
<b>Skylight (also known as roof lights)</b>	for NatHERS this is typically a moulded unit with flexible reflective tubing (light well) and a diffuser at ceiling level.
<b>U-value</b>	the rate of heat transfer through a window. The lower the U-value, the better the insulating ability.
<b>Unconditioned</b>	a zone within a dwelling that is assumed to not require heating and cooling based on standard occupancy assumptions
<b>Vertical shading features</b>	provides shading to the building in the vertical plane and can be parallel or perpendicular to the subject wall/window. Includes privacy screens, other walls in the building (wing walls), fences, other buildings, vegetation (protected or listed heritage trees).

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\* Refer to glossary.



## ADVERTISED PLAN

### Capabilities

- Energy Rating Reports (Excl. ACT)
  - Class 1a
  - Class 2
- Site Management Plans
- Sustainable Design Assessments/Management Plans
  - WSUD Reports
  - BESS Reports
  - TP NatHERS Reports
- DTS Reports (Vol. 2)
  - Artificial Lighting Calculator
  - Glazing Calculator
  - Building Fabric Specification
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### NATHERS ENERGY RATING (NCC 2019)

Church located at  
34 George Street, Reservoir

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## Project Heating & Cooling Loads

	STAR RATING ACHIEVED	CALCULATED HEATING	CALCULATED COOLING	TOTAL HEATING & COOLING mj/m <sup>2</sup>
Dwelling	7.6 ☆	33.8	31.4	65.2d

BUILDING THERMAL PROPERTY DETAILS		
Floor Type:	MIN. INSULATION REQ.	
	(Excl. Garage)	
Timber Sub Floor:(Prop.)	R3.6 (R1.8x2 60mm Black Expol Board or Similar)	
Remaining Floor Areas:(Prop.)	R2.5 Bulk Insulation	
Wall Type:	MIN. INSULATION REQ.	
	(Excl. Garage)	
Ext. Walls:(Exist. – Triple Brick)	70mm K17 Insulated PB or Similar	Air Gap:
Int. Walls:(Prop. - Bath)	R2.5 Bulk Insulation	Non-Refl (E=0.90/0.90)
Int. Walls:(Prop. - Skylight Shaft)	R2.5 Bulk Insulation	None
		None
Ceiling Type:	MIN. INSULATION REQ.	
	(Excl. Garage)	
Existing Ceiling:	R7.0 Bulk Insulation	Roof:
		Refl Sarking
Window Operability:	U-Value & SHGC - Window Specs	
Fixed	5.73 & 0.76   Steel, Single Glazed	
French	1.91 & 0.53	
Skylights	2.61 & 0.21   VEL-010-02: Operable, DG, Internal Holland Blind	
LEGEND, ADDITIONAL DETAILS & CLAUSES		
<ul style="list-style-type: none"> <li>• "Ext." = "External" &amp; "Int." = "Internal"</li> <li>• "Non-Refl" = "Non-Reflective", "Refl" = "Reflective" &amp; "REQ" = "Required"</li> <li>• Exhaust Fans &amp; Downlights are sealed</li> <li>• Air infiltration seals to external residence and garage internal doors</li> <li>• SHGC is allowed to be +/- 5% of nominated value</li> <li>• Additional details – refer to NatHERS Certificate</li> </ul>		

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