

SUSTAINABLE MANAGEMENT PLAN

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PROPOSED MIXED-USE
DEVELOPMENT

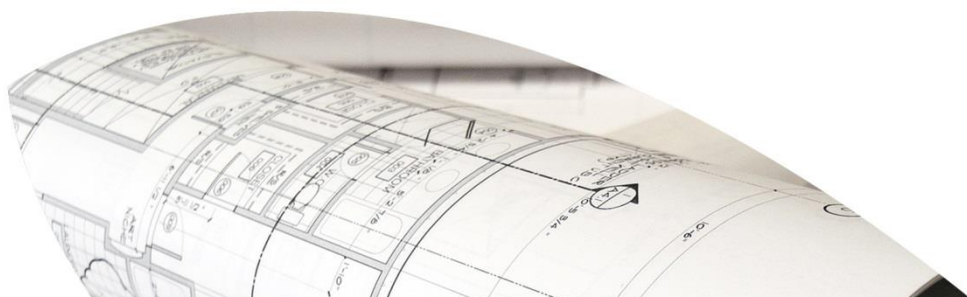
49 Newcombe Street,
Portarlington

GIW24025
Revision E

Prepared for:
The Trustee for 49 Newcombe
Street Unit Trust

1 July 2026

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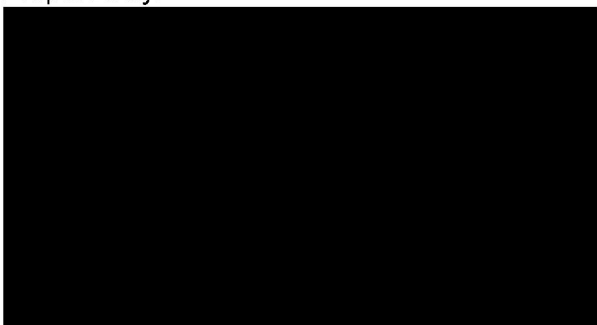
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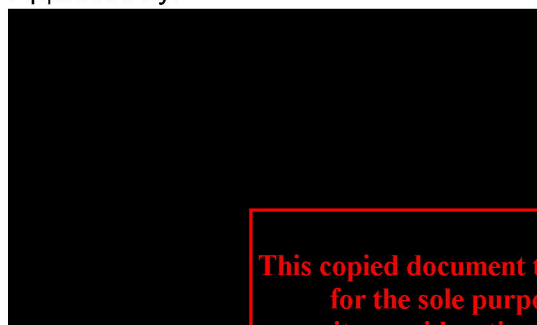
Revision History

Revision Number	Date Issued	Author	Approved	Comments
A	13/11/2024			Draft
B	22/11/2024			Final
C	09/10/2025			Draft
D	17/10/2025			Final
E	1/7/2026			Final

Prepared by:



Approved by:



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1. Introduction

Project Information

GIW Environmental Solutions Pty Ltd ("GIW") has been engaged by The Trustee for 49 Newcombe Street Unit Trust to provide Environmentally Sustainable Design (ESD) consulting services for the proposed mixed use development at 49 Newcombe Street, Portarlington.

The proposed development will include 10 apartments and 1 x retail tenancy constructed over 4 levels plus basement carpark and will consist of the following:

- 1 x studio apartment
- 1 x 1 bedroom apartment
- 1 x 2 bedroom apartment
- 4 x 3 bedroom apartments
- 3 x 4 bedroom apartments
- 84m² retail

The site located at 49 Newcombe Street, Portarlington has an approximate surface area of 990m² and is currently the location of a double storey building. Distance from the site to Geelong City Centre is approximately 31km.



Figure 1 - Pre-existing sites at 49 Newcombe Street, Portarlington.

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Statutory Requirements

This Sustainable Management Plan (SMP) has been prepared to inform City of Greater Geelong of the proposed development's sustainability credentials and performance targets. The project team is committed to achieving a building solution which responds to City of Greater Geelong Planning Scheme - Clause 15.01-2L Environmentally Sustainable Development..

Development Type	Application Requirement	Example Tools
Development of 10 or more dwellings.	Sustainability Management Plan (SMP)	BESS Green Star MUSIC STORM

Further to the above, this SMP also responds to Victoria Planning Provisions VC216 – 15.01-2S.

Built Environment Sustainability Scorecard (BESS)

The proposed mixed-use development will be assessed against the Built Environment Sustainability Scorecard (BESS) guidelines. The BESS tool addresses nine key environmental categories as follows:

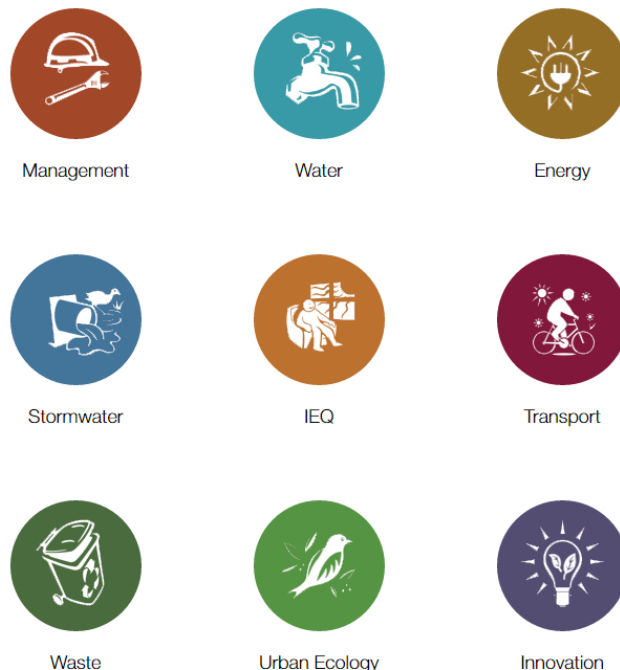


Figure 2 - BESS Environmental Categories (www.bess.net.au)

All ESD measures described under the nine key environmental categories are to be suitably incorporated into relevant project documentation at the appropriate project phase.

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Responsibilities & Implementation

The Trustee for 49 Newcombe Street Unit Trust will be responsible for the suitable implementation of the requirements of this report throughout the design and development phases. Should the development be sold the responsibility will pass to the new owner. At such time as a builder is novated or a building contract is put in place the builder will be responsible for implementation during the construction phase. At occupancy, the Owners Corporation and individual lot owners and or tenants will be responsible for the correct use of installed equipment and building systems in line with the provided Building User's Guide.

Sources of Information

The following 'Sources of Information' have been used to guide the design solutions:

- Kerstin Thompson Architects – Project Code. NEWC – Drawing No. TP000-TP001 Rev TP03; TP010 Rev TP03; TP070 Rev TP03; TP100-TP105 Rev TP03; TP300-TP301 Rev TP03; TP401-TP402 Rev TP03; TP600 Rev TP01; TP610-TP613 Rev TP02; TP800 Rev TP03; TP901 Rev TP02; TP910 Rev TP02; TP940-TP941 Rev TP02.
- Municipal Association of Victoria - SDAPP Explained; Building Design for a Sustainable Future
- Built Environment Sustainability Scorecard (BESS)
- CSIRO 1999, Urban Stormwater – Best Practise Environmental Management Guidelines

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2. ESD Summary

The proposed mixed-use development at 49 Newcombe Street, Portarlington will implement the following ESD initiatives:

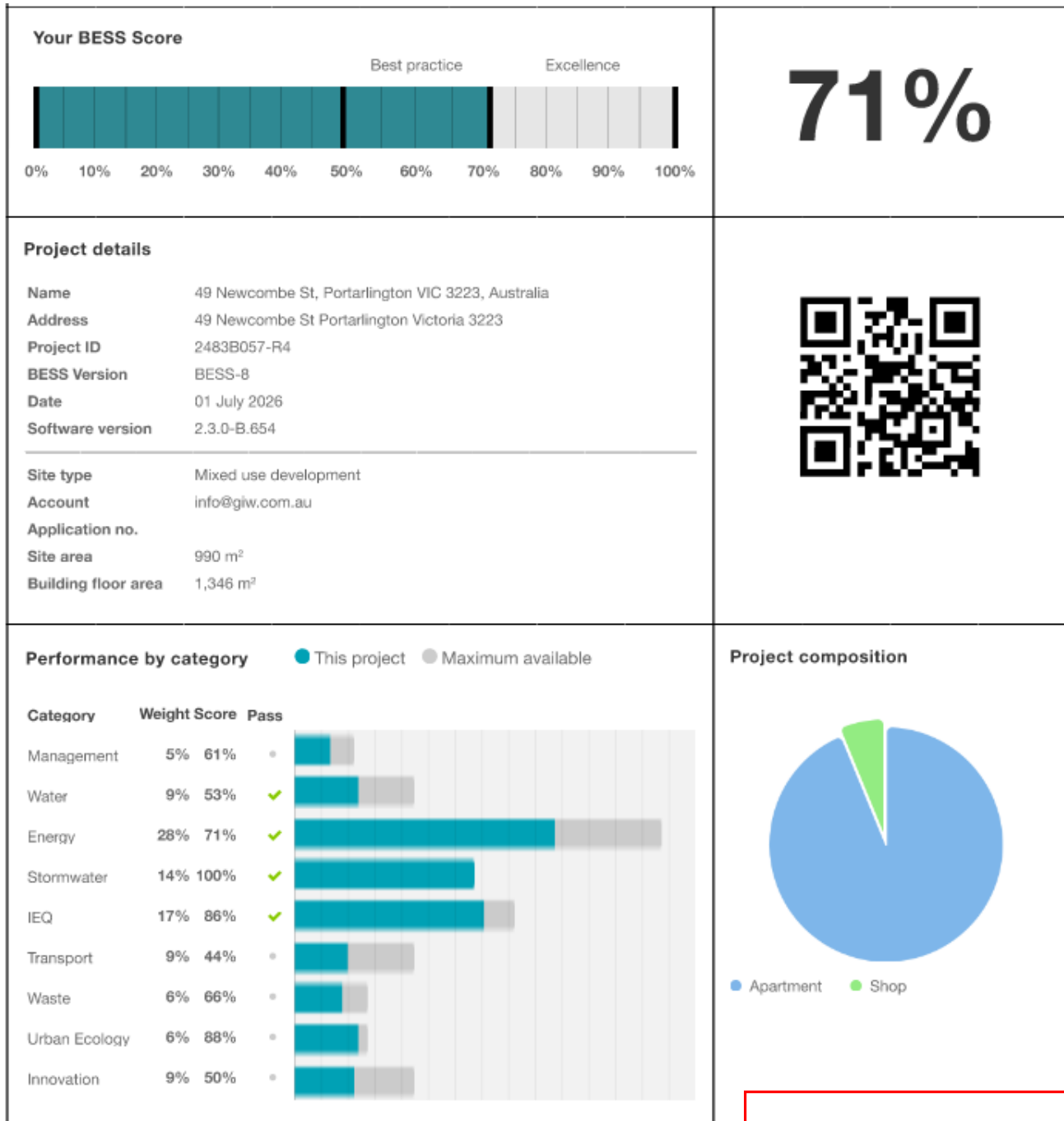
1. The project achieves a total BESS score of 71% with no mandatory category (IEQ, Energy, Water, Stormwater) below 50%.
2. 100% (10 out of 10) of the development's apartments are effectively naturally ventilated.
3. Daylight modelling has been conducted for a representative sample of apartments. The summary result is as follows:
 - 100% of living floor area achieves >90% above DF 1
 - 93% of bedroom floor area achieves >90% above DF0.5
4. The non-residential areas are targeting a 2% DF to 33% of the nominated area.
5. 70% (7 out of 10) of apartments achieve at least 3 hours of sunlight.
6. The development is provided with a comprehensive shading strategy.
7. The development is to achieve an 8.0 Star average NatHERS Energy Rating result.
8. The non-residential areas aim to reduce heating and cooling energy consumption below the reference case (BCA Section J 2022).
9. The development is to utilise individual electric instantaneous hot water systems.
10. An 11.8kW Solar PV system is to be located on the roof of the proposed development covering 32% of the roof area.
11. Individual cold water and electricity meters will be provided to the apartments, retail tenancy and communal areas.
12. Water efficient fittings and fixtures are applied throughout.
13. A 10,000-litre rainwater tank will harvest rainwater from the roof areas. This tank will be connected to all lower and upper ground level toilets, plus landscape irrigation.
14. A Blue Factor result of 108% is achieved.
15. Majority of landscaping is required to be native vegetation with low water demand i.e. no irrigation system and no watering after an initial period when plants are getting established. Where irrigation is required, this will be connected to the rainwater tank.
16. In total 17 bicycle spaces are to be provided for residents.
17. In total 2 bicycle spaces are to be provided for residential visitors.
18. In total 2 bicycle spaces are to be provided for employees & 1 bicycle space is to be provided for non-residential visitors.

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3. BESS Performance

The project achieves a total BESS score of 71% with no mandatory category (IEQ, Energy, Water, Stormwater) below 50%. This figure represents a percentage improvement over a benchmark project. A score of 50% and higher equates to 'best practice' and is an effective pass of the BESS tool. A score of 70% and higher equates to BESS 'excellence' and exists as a higher benchmark in the tool.



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4. Great Design Fast Track

The proposed development at 49 Newcombe Street, Portarlington will be submitted to the Department of Transport and Planning (DTP) under the Great Design Fast Track approval pathway. This entails a suitable response to the 7 design principles including: neighbourly, welcoming, landscaped, sustainable, healthy, adaptable and good value homes. This Sustainable Management Plan responds specifically to principle 5: Sustainable Homes.

Mandatory Requirements

The following mandatory requirements are met by the development:

Mandatory requirement	Design Response
An average Nationwide House Energy Rating Scheme (NatHERS) rating of at least 8.0 stars, and no less than 6.5 stars for an individual apartment. Townhouses must achieve a NatHERS rating of no less than 7.5 stars.	The apartments are currently achieving an 8.0 Star average with no unit below 6.5 Stars. The representative sample ratings demonstrate the development's ability to achieve these requirements. Refer Appendix B for Preliminary FirstRate5 Certificates.
All dwellings proposed need to provide effective natural ventilation, which includes cross ventilation, single sided ventilation or mechanically assisted ventilation.	100% of the development's apartments are effectively naturally ventilated. Refer BESS IEQ and page 24 of the SMP.

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Sustainable Homes Principle 01

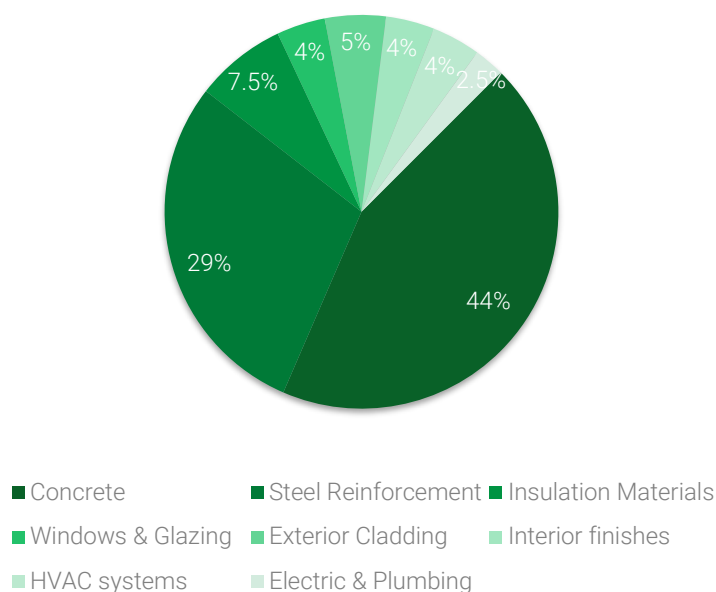
Lifecycle Decarbonisation

Lifecycle decarbonization involves systematically reducing or eliminating carbon emissions across all phases of a building's lifespan - from material extraction and construction through operation to eventual demolition and material recovery. The main focus of the proposed initiatives will be on reducing embodied carbon as the remaining phases will be suitably addressed in principle 2-6.

Embodied Carbon

A typical mid-rise mixed-use development in Melbourne, Australia has an embodied carbon footprint of 420-450kgCO₂/m².

More than half of the embodied carbon is associated with the structural components (concrete and structural steel) of the development.



GDFT Initiatives

- Where steel is applied, this will be sourced from a sustainable steelmaker.
- Where timber is to be used, such timbers are to be FSC and / or PEFC certified.
- PVC installed in the building will meet industry best practice standards.
- The development will be all electric with no gas connection to the site.
- All carparking spaces will be future-proofed for the installation of EV charging.
- The proposed development will be established with a carbon neutral power agreement between developer, owner's corporation, and electrical retailer to provide GreenPower for the base building. It is the intent to maintain this agreement for a minimum of 10 years.
- Future occupants will be provided with GreenPower options within their welcome pack.

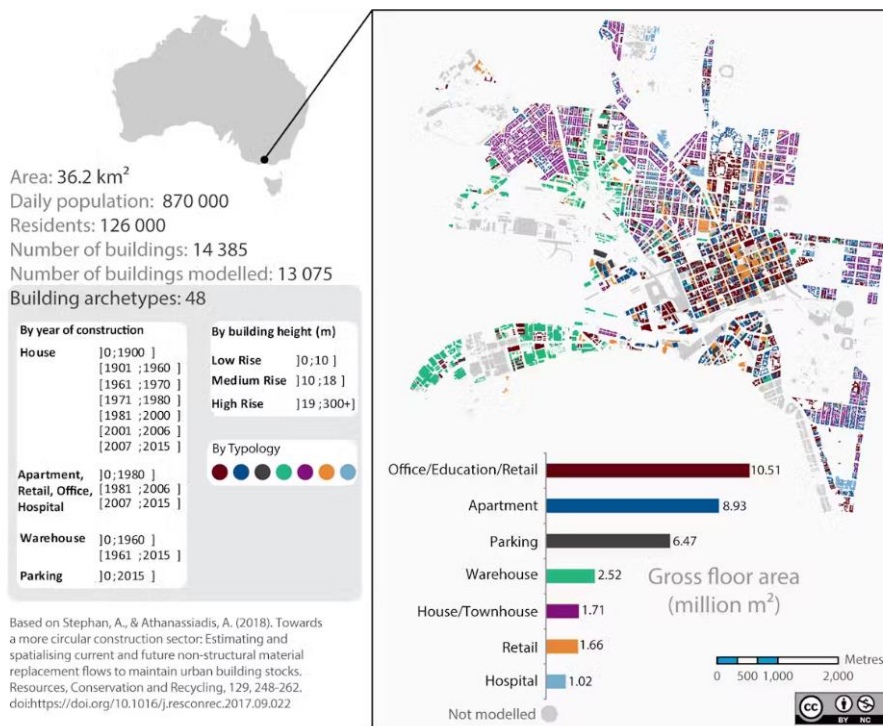
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Sustainable Homes Principle 02

Material Circularity

Material circularity focuses on designing buildings as material banks that can continuously contribute resources to the urban economy rather than prematurely becoming waste at end-of-building-life. Through the creation of circular material flows, both within the building and the wider environment, the use of virgin materials will be reduced as well as associated greenhouse gas emissions.



Urban Mining

Based on Research conducted by Melbourne University on a sample set of 13,075 case studies, City of Melbourne has a stock of 1.5 million tonnes of materials in every square kilometre. Replacing worn materials to maintain this built stock is estimated to require 26 thousand tonnes of materials every year.

GDFT Initiatives

- The design will prioritise the sourcing of locally manufactured materials, where suitable, to reduce transport-related impacts and embodied carbon contribution.

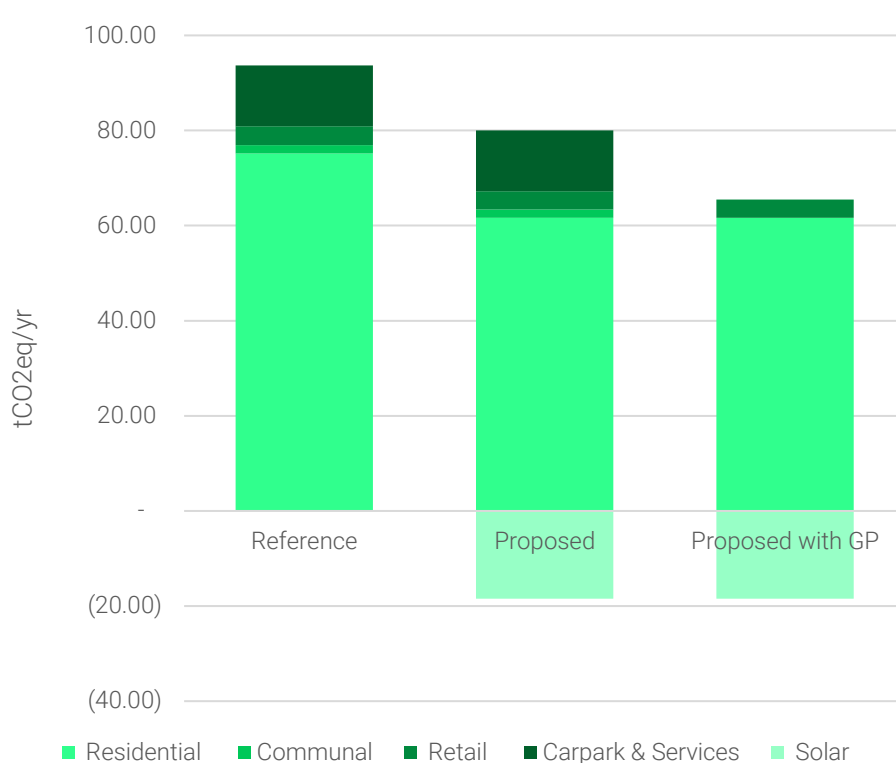
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Sustainable Homes Principle 03

Net-Positive Energy

Net-positive energy is achieved by designing buildings that generate more renewable energy than they consume annually, contributing excess clean energy back to Victoria's electricity grid while achieving carbon neutrality in operations.



GHG Emission Reduction

The proposed development will achieve an 32tCO₂ emission reduction per year compared to a NCC 2022 DtS building without the application of GreenPower.

With the intent to maintain GreenPower agreement for a minimum of 10 years, carbon neutrality will be achieved for the communal areas.

GDFT Initiatives

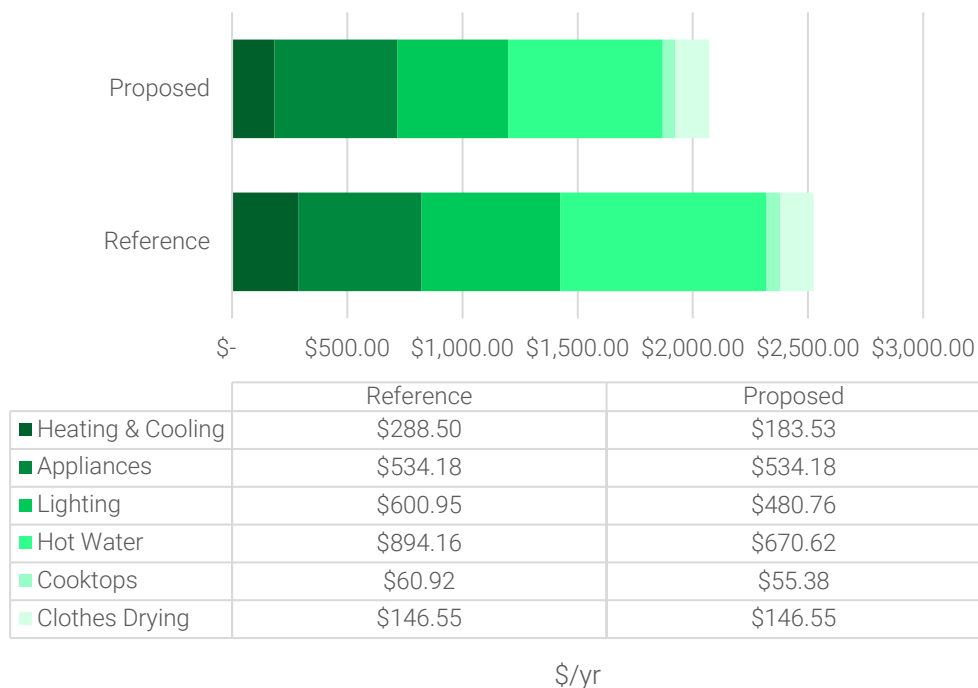
- The development will be all-electric with no gas connection.
- An 11.8kW Solar PV system is to be located on the roof of the proposed development.
- Application of individual electric instantaneous hot water systems.
- Air conditioning systems are to be within 1 star rating of best available unit of the same capacity under MEPS 2019.
- A 20% reduction in lighting power density compared to NCC DtS requirements.
- All common area, external and carpark lighting is to be controlled with daylight, motion sensors or timers

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Sustainable Homes Principle 04

High-Performing Thermal Envelope

Combining appropriate passive design responses with a highly efficient thermal envelope will result in significant energy and cost saving for end-users. This will be carefully balanced to meet the provision of best practice daylight amenity and thermal comfort.



Energy Cost Reduction

On average occupants will save \$454 on an annual basis on their energy expenses compared to a NCC 2022 DTS reference scenario.

GDFT Initiatives

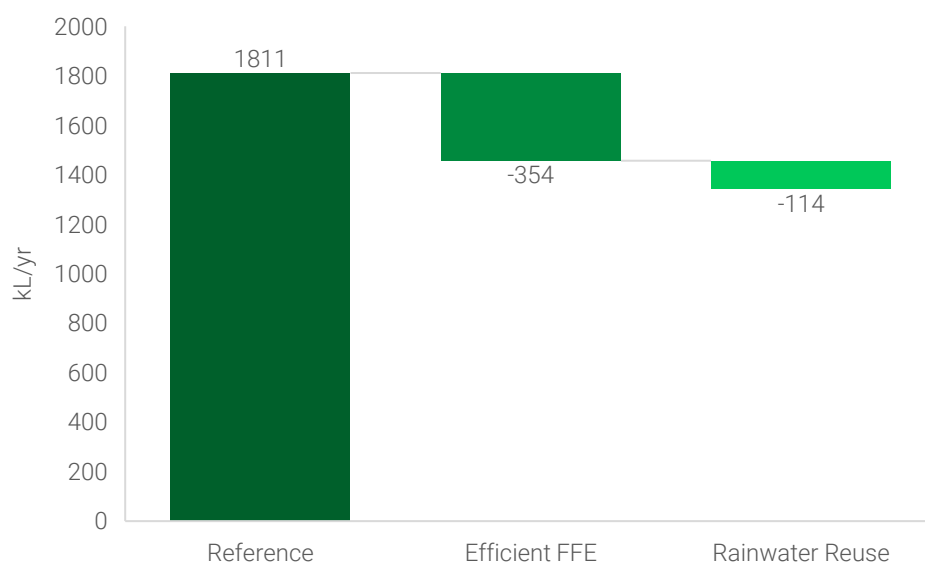
- The development will achieve an average 8 Star energy rating result with no unit below 6.5 Stars.
- A balanced shading strategy including balcony overhangs, wing walls, pergolas, slatted and operable vertical screens and hit-and-miss brickwork has been adopted to limit summer solar heat gain.
- Air tightness testing for a sample of the apartments is to be undertaken mid-construction and post-construction.

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Sustainable Homes Principle 05

Water Resilience

Integrating water systems that suitably respond to Melbourne's current and future climate, will future proof the development and assist in creating a resilient urban water system. The inclusion of stormwater management systems, efficient fittings and fixtures and low-water demand / native vegetation will significantly reduce the potable water demand of developments and reduce pressure on the local water systems.



Potable Water Reduction

The development reduces the potable water demand by 20% through the introduction of water efficient fittings and fixtures. A further 6% reduction in potable water is achieved through the introduction of a 10kL rainwater tank.

GDFT Initiatives

- Rainwater collection off the roof areas directed into a 10,000-litre rainwater tank connected to all lower and upper ground level toilets, plus landscape irrigation.
- Rainwater collection off the green roof will be directed into a $\geq 4\text{m}^2$, minimum 950mm deep raingarden with 100mm of extended detention.
- Water efficient fittings and fixtures are to be installed throughout the development.
- The proposed development is to incorporate air-cooled HVAC systems.

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Sustainable Homes Principle 06

No Waste to Landfill

The inclusion of comprehensive waste reduction, diversion and collection strategies that support contractors, occupants and tenants to successfully divert generated waste from landfill will reduce the environmental impact and operational cost of waste management. With the eventual aim to create systems that are equipped to support zero waste operations and a circular economy.



Waste and Resource Recovery Strategy 2020-2030

City of Greater Geelong has developed a long-term strategy to reduce waste, increase recycling and resource recovery, and support the transition to a circular economy.

The longer term targets align with State Government's Recycling Victoria policy.

GDFT Initiatives

- At least 90% of the waste generated during construction and demolition will be diverted from landfill.
- Separate general, recycling, glass and organic waste storage will be provided at LG bin rooms.
- Retail tenancy is to be provided with separate general, recycling and food and organics waste bins. This requirement is to be included in the owners corporation rules or lease agreement.
- Kitchen joinery is to provide appropriate spatial allowance for food and organics, general and recycling waste collection.

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5. ESD Assessment

Management

Council ESD objectives:

- To encourage a holistic and integrated design and construction process and ongoing high performance.

Council Best Practice Standard

Criteria		Construction and Building Management Actions
Pre-Application Meeting	To ensure appropriate sustainable design principles and strategies are considered from the preliminary design stage of each development.	GIW has been actively involved in the preliminary design stage, but has not been involved in a pre-application meeting with Council.
Metering	To provide building users with information that allows monitoring of energy and water consumption	Electricity and cold water metering is to be provided to each individual apartment and retail tenancy. Lighting and general power to common areas is to be separately metered to quantify energy used for common areas spaces. Additionally, the main electrical switchboard to contain at least two empty three-phase circuit breaker slots and four DIN rail spaces labelled to indicate the use of each space for a solar PV system and battery system.
Building User's Guide	To encourage and recognise initiatives that will help building users to use the building more efficiently.	A Building User's Guide will be provided to all occupants explaining the correct use of installed equipment and building systems. This shall cover at a minimum: - Energy and Environmental Strategy - Options for purchasing a ≥3 Star Washing Machine - Monitoring and Targeting - Building Services - Transport Facilities - Materials and Waste Policy - Expansion/Re-fit Considerations - References and Further Information

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Water

Council ESD objectives:

- To ensure the efficient use of water
- To reduce total operating potable water use
- To encourage the collection and reuse of stormwater
- To encourage the appropriate use of alternative water sources (e.g. grey water)
- To minimize associated water costs

Council Best Practice Standard

Criteria	Development Provision
Potable Water Reduction	WELS 4 Star - Toilets WELS 5 Star - Kitchen Taps WELS 6 Star - Bathroom Taps WELS 4 Star - Shower-head WELS 5 Star - Dishwasher  To reduce total potable water use due through the use of efficient fixtures, appliances, and the use of rainwater.
Rainwater Collection & Reuse	A 10,000-litre rainwater tank will harvest rainwater from the roof areas. This tank will be connected to all lower and upper ground level toilets, plus landscape irrigation. It is estimated that this will save more than 85kL of potable water every year and meet 25.9% of the demand in these areas. Stormwater drainage mechanism is to be determined by the hydraulics services engineer at the design development phase. Refer Appendix A – WSUD Response
Landscape Irrigation	To ensure the efficient use of water and to reduce total operating potable water use through encouraging water efficient landscape design. Majority of landscaping is required to be native vegetation with low water demand i.e. no irrigation system and no watering after an initial period when plants are getting established. Where irrigation is required, this will be connected to the rainwater tank.

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Council Best Practice Standard

Criteria	Development Provision
Building System Water Use Reduction	Ensure the efficient use of water, to reduce total operating potable water use and to encourage the appropriate use of alternative water sources for cooling and fire testing systems. N/A

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Energy

Council ESD objectives:

- To ensure the efficient use of energy
- To reduce total operating greenhouse emissions
- To reduce energy peak demand
- To reduce associated energy costs

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Council Best Practice Standard

Criteria	Development Provision						
Thermal Performance Rating - Residential	To reduce energy needed to achieve thermal comfort in summer and winter - improving comfort, reducing greenhouse gas emissions, energy consumption, and maintenance costs.	The National Construction Code (NCC) Class 2 – Sole Occupancy Unit(s) residential building component is to be designed in accordance with NCC Section J (2022) NatHERS requirements. The residential units must achieve an average 8.0 Star rating, with no unit achieving below 6.5 Stars.					
		Further to this the development will need to comply with the following heating and cooling load limits:					
		Climate Zone	Heating load limits (MJ/m2)		Cooling load limits (MJ/m2)		
		64 Cape Otway	Average: 93 Maximum: 104		Average: 11 Maximum: 14		
		The apartments are currently achieving an 8.0 Star average. The below sample ratings demonstrate the developments ability to achieve these requirements. Refer Appendix B for Preliminary FirstRate5 Certificates.					
		Apartment No.	ACE Total MJ/M ²	ACE Heating MJ/M ²	ACE Cooling MJ/M ²	ACE NCFA M ²	Star Rating
		1.2	55.4	53.3	2.1	92.4	8.3
		1.3	73.5	64.7	8.8	34.4	7.6
		2.1	37.9	31.1	6.8	149.5	8.9
		3.3	82.6	71.2	11.4	49.6	7.2
		3.4	68.1	60.2	7.9	89.8	7.8
		4.1	64.4	54.9	9.5	140.9	7.9
		Average	63.7	55.9	7.8	92.8	8.0
		*Apartments are assessed using FirstRate5 v5.5.5					
		Construction assumptions for preliminary FirstRate5 ratings are listed below. Note, these assumptions are based on the sample					

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Council Best Practice Standard

Criteria	Development Provision		
	of apartments assessed and may vary throughout the development. These assumptions are not to be relied upon for any other purpose beyond Town Planning assessment.		
	Element	Material	Insulation Value
	Floor (where basement or exposed below)	Concrete Slab	R4.6
	External Walls	Brick	R4.0 + reflective air gap
	Internal Walls	Plasterboard	R2.5
		Concrete	R1.8
	Roof (where balcony or exposed above)	Concrete Slab	R1.75
	Roof (Apt 4.1)	Metal Deck	R8.3
	Fixed Windows	Thermally Broken, Aluminium Framed, Double Glazed, Argon Filled, Low-E, Clear	Total System - U-Value: 2.09 - SHGC: 0.51
	Sliding Doors	Thermally Broken, Aluminium Framed, Double Glazed, Argon Filled, Low-E, Clear	Total System - U-Value: 2.93 - SHGC: 0.49
	Awning Windows	Thermally Broken, Aluminium Framed, Double Glazed, Argon Filled, Low-E, Clear	Total System - U-Value: 2.51 - SHGC: 0.47
	Tilt & Turn	Thermally Broken, Aluminium Framed, Double Glazed, Argon Filled, Low-E, Clear	Total System - U-Value: 2.68 - SHGC: 0.44
Thermal Performance Rating – Non-Residential	To reduce energy needed to achieve thermal comfort in summer and winter - improving The non-residential areas aim to reduce heating and cooling energy consumption below the reference case (BCA Section J 2022). Refer Appendix C - Preliminary Part J4D6 Façade Calculator.		

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Council Best Practice Standard

Criteria	Development Provision	
	comfort, reducing greenhouse gas emissions, energy consumption, and maintenance costs.	
Electrification	To support the transition to renewable energy sources.	The development will be all-electric with no gas connection.
HVAC System	To ensure the efficient use of energy and to reduce consumption of electricity.	VRV / VRF systems with a COP of 3.4 are to be installed to the residential and non-residential areas.
Hot Water System	To ensure the efficient use of energy and to reduce consumption and greenhouse emissions from water heating.	The development is to utilise individual electric instantaneous hot water systems.
Car Park Ventilation	To ensure the efficient use of energy, reduce total operating greenhouse gas emissions and to reduce energy peak demand.	Carpark ventilation fans are driven by a VSD motor connected to CO sensors within the carpark. The inclusion of CO sensor control will allow the ventilation fans to ramp down when the car park is unoccupied. The system is to be designed in accordance with AS1668.2. The mechanical services engineer is responsible for the design and specification of the system. The contractor is to procure and install the specified system. Maintenance requirements of the CO sensor system are to be included in the O&M manual.
Clothes Drying	Ensure the efficient use of energy and to	Nil.

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Council Best Practice Standard

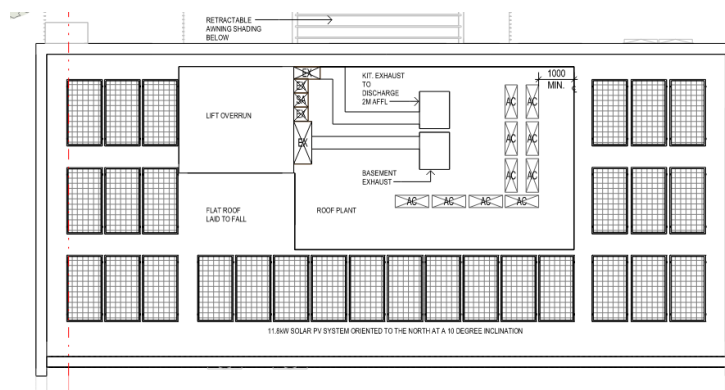
Criteria	Development Provision	
	reduce energy consumption and greenhouse emissions associated with clothes drying	
Internal Lighting - Residential	To ensure the efficient use of energy, to reduce energy consumption, greenhouse emissions associated with artificial lighting, and to reduce energy peak demand.	The maximum illumination power density (W/sqm) is at least 20% lower than NCC 2022 requirements. Lighting power density shall be as follows: • Dwellings: No greater than average 4W/m² • POS: No greater than average 3.2W/m² • Back of house and indoor car parks: No greater than average 1.6W/m² All common area, external and carpark lighting is to be controlled with daylight, motion sensors or timers (whichever is deemed appropriate).
Internal Lighting – Non-Residential	To ensure the efficient use of energy, to reduce energy consumption, greenhouse emissions associated with artificial lighting, and to reduce energy peak demand.	The maximum illumination power density (W/m²) in the non-residential areas meets the requirements of Table J7D3a of the NCC 2022 Section J. Lighting power density shall be as follows: • Retail: No greater than average 14W/m²
Renewable Energy Systems - Solar	To encourage on-site renewable energy generation and reduce greenhouse emissions.	An 11.8kW Solar PV system is to be located on the roof of the proposed development covering 32% of the roof area. The system is expected to generate approximately 15,760kWh annually.

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Council Best Practice Standard

Criteria

Development Provision



Location Solar PV System

Refer Appendix D – Renewable Energy

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Stormwater

Council ESD objectives:

- To reduce the impact of stormwater run-off
- To improve the water quality of stormwater run-off
- To achieve best practice stormwater quality outcomes
- To incorporate water sensitive urban design principles

Council Best Practice Standard

Criteria	Development Provision
Stormwater Treatment	The Blue Factor tool has been applied to determine performance relative to Best Practice Environmental Management Guidelines (Victoria Stormwater Committee, 1999). As per City of Greater Geelong Planning Scheme - Clause 53.18 Stormwater Management in Urban Development, the development is required to achieve a compliant Blue Factor result. A Blue Factor result of 108% is achieved via the following: • Rainwater collection off the roof areas directed into a 10,000-litre rainwater tank connected to all lower and upper ground level toilets, plus landscape irrigation. • Rainwater collection off the green roof will be directed into a $\geq 4\text{m}^2$, minimum 950mm deep raingarden with 100mm of extended detention.
To minimise negative environmental impacts of stormwater runoff and maximise onsite re-use of stormwater.	Refer Appendix A – WSUD Response.

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ADVERTISED PLAN

Indoor Environment Quality

Council ESD objectives:

- to achieve a healthy indoor environment quality for the wellbeing of building occupants.
- to provide a naturally comfortable indoor environment will lower the need for building services, such as artificial lighting, mechanical ventilation and cooling and heating devices.

Council Best Practice Standard

Criteria		Development Provision	
Daylight Access - Residential	To provide a high level of amenity and energy efficiency through design for natural light.	Daylight modelling has been conducted for a representative sample of apartments. The summary result is as follows:	
		% of living floor area above DF 1.0	% of bedroom floor area above DF 0.5
		100	93
		Refer Appendix E - Daylight Modelling.	
Winter Sunlight	To provide a high level of amenity and reduce need for artificial heating in winter.	70% (7 out of 10) of apartments achieve at least 3 hours of sunlight.	
Daylight Access – Non-Residential	To provide a high level of amenity and energy efficiency through design for natural light.	The non-residential areas are targeting a 2% DF to 33% of the nominated area.	
Minimal Internal Bedrooms	90% of bedrooms have an external window.	NIL internal bedrooms.	
Effective Natural Ventilation	To provide fresh air and passive cooling opportunities.	100% (10 out of 10) of the development’s apartments are effectively naturally ventilated. Apartments are provided with windows on opposite or adjacent facades or are effective single sided ventilated.	

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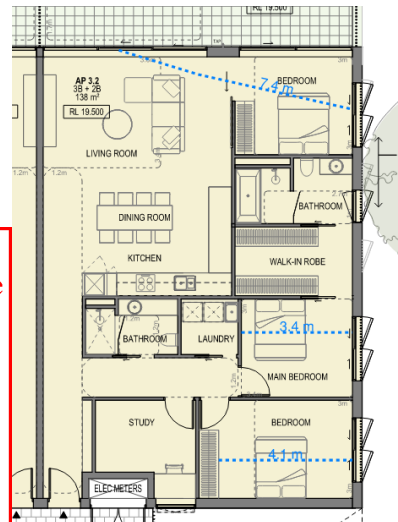
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Council Best Practice Standard

Criteria

Development Provision

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Typical cross-ventilated living area and typical single sided ventilated bedroom.

Ventilation –
Non-
Residential

To provide fresh air and passive cooling opportunities.

Outdoor air rate for the retail area is to be 50% increased compared to AS 1668:2012.

This is to be included in the mechanical design and specifications.

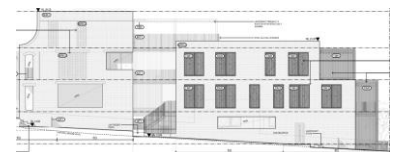
The development is provided with a comprehensive shading strategy:

Thermal
Comfort

To provide comfortable indoor spaces and reduce energy needed for heating and cooling.

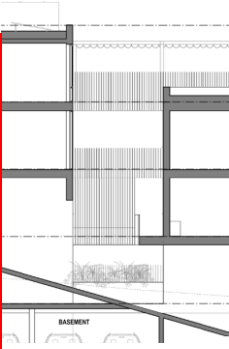


North oriented windows are shaded by a combination of the overhanging slab of the level above, wing walls, pergolas and full height slatted screens.



East and west oriented windows are shaded by a combination of 'hit and miss' brickwork and operable vertical screens.

Council Best Practice Standard

Criteria	Development Provision
	This copied document to be made available for the sole purpose of enabling its consideration and review as part of a planning process under the Planning and Environment Act 1987. The document must not be used for any purpose which may breach any copyright  Windows facing the breezeway are shaded by a combination of the built form massing and overhanging slab of the breezeway above or pergola structure.
Thermal Comfort – Non-Residential	To provide comfortable indoor spaces and reduce energy needed for heating and cooling.  South oriented retail windows are shaded by the overhanging slab of the level above. None of the regular use areas of the commercial areas are provided with ceiling fans.
Air Quality – Non-Residential	All paints and adhesives meet the maximum total indoor pollutant emission limits. All internally applied paints adhesives and sealants are to have a low or ultra-low VOC content in line with Green Star Buildings V1 Credit 13.
	All carpet meets the maximum total indoor All internally applied carpets are to have a low VOC content in line with Green Star Buildings V1 Credit 13.

ADVERTISED PLAN

Council Best Practice Standard

Criteria	Development Provision
pollutant emission limits.	
All engineered wood meets the maximum total indoor pollutant emission limits.	All internally applied engineered wood products are to have low formaldehyde levels in line with Green Star Buildings V1 Credit 13.

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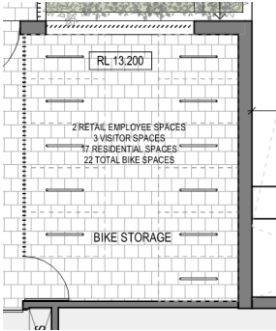
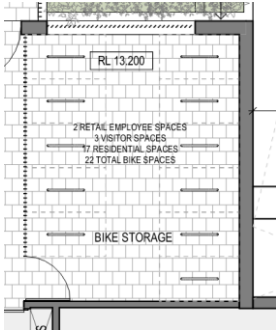
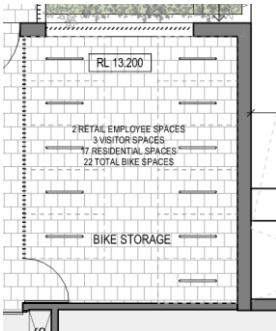
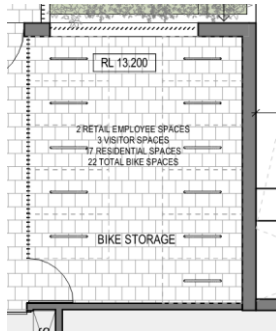
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Transport

Council ESD objectives:

- To minimise car dependency.
- To ensure that the built environment is designed to promote the use of public transport, walking and cycling.

Council Best Practice Standard

Criteria	Development Provision
Bicycle Parking – Residential & Residential Visitors	To encourage and recognise initiatives that facilitate cycling.  In total 17 bicycle spaces are to be provided for residents. This will provide a ratio of approximately 1 or 2 resident bicycle space for every apartment.
Bicycle Parking – Non-Residential & Non-Residential Visitors	To encourage and recognise initiatives that facilitate cycling.  In total 2 bicycle spaces are to be provided for residential visitors. This will provide a ratio of approximately 1 visitor bicycle space for every 5 apartments.
Bicycle Parking – Non-Residential & Non-Residential Visitors	To encourage and recognise initiatives that facilitate cycling.  In total 2 bicycle spaces are to be provided for employees. This represents a 50% increase over the planning scheme requirements.
Bicycle Parking – Non-Residential & Non-Residential Visitors	To encourage and recognise initiatives that facilitate cycling.  In total 1 bicycle space is to be provided for non-residential visitors. This represents a 50% increase over the planning scheme requirements.

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Council Best Practice Standard

Criteria	Development Provision
End of Trip Facilities – Non-Residential	To minimise car dependency and to ensure that the built environment is designed to promote the use of public transport, walking and cycling. Nil.
Electric Vehicle Infrastructure	No car parking spaces are specifically intended for electric vehicles. Future infrastructure for electrical charging points is incorporated in the services design including dedicated electrical distribution boards (DB-EV) for EV charging on every floor of the parking lot per NCC 2022 Table J9D4. Each DB-EV must be fitted with a charging control system with the ability to manage and schedule charging of electric vehicles in response to total building demand. When associated with a Class 2 building, have capacity for each circuit to support an electric vehicle charger able to deliver a minimum of 12 kWh from 11:00 pm to 7:00 am daily. Additionally, each DB-EV must be sized to support the future installation of a 7 kW (32 A) type 2 electric vehicle charger in 100% of the car parking spaces associated with a Class 2 building.
Car Share Scheme	To minimise car dependency and to ensure that the built environment is designed to promote the use of public transport, walking and cycling. Nil.
Motorbikes / Mopeds	To minimise car dependency and to ensure that the built environment Nil.

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Criteria	Development Provision
	is designed to promote the use of public transport, walking and cycling.

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ADVERTISED PLAN

Materials

ESD objectives:

- Use of low embodied energy materials.
- Encourage use of recycled and reusable materials in building construction and undertake adaptive reuse of buildings, where practical.

Council Best Practice Standard

Criteria	Development Provision	
Embodied Energy	Limited use of high embodied energy metals and materials, especially in a design with intended high churn (e.g. retail)	The design will seek to limit the use of high embodied energy metal finishes. At least 40% of coarse aggregate in the concrete is crushed slag aggregate or other alternative materials (measured by mass across all concrete mixes in the project).
Structural and Reinforcing Steel	Commitment to source structural and reinforcing steel from a responsible steel maker	The building's steel (by mass) is to be sourced from a Responsible Steel Maker with: • a currently valid and certified ISO 14001 Environmental Management System (EMS) in place; and • is a member of the World Steel Association's (WSA) Climate Action Programme (CAP)
Sustainable Timber	Commitment to source timber from sustainably managed source, with proof of audit trail.	Where timber is to be used, such timbers are to accord with the GBCA's 'Essential' criteria for forest certification. This may include FSC and / or PEFC Certification which are both internationally recognised schemes ensuring that timber is sourced from sustainable sources. Alternatively, recycled timber will be used.
PVC	Commitment to source best practice PVC products	Permanent formwork, pipes, flooring, blinds and cables in the project will seek to comply with the following: • Meet the GBCA's Best Practice Guidelines for PVC. or; • The supplier holds a valid ISO14001 certification.
Sustainable Products	Commitment to source products that meet the transparency and sustainability requirements	The project will incorporate products that meet the transparency and sustainability requirements where deemed appropriate. This includes the following: reused products, recycled content products, environmental product declarations, third party certified and stewardship programs.

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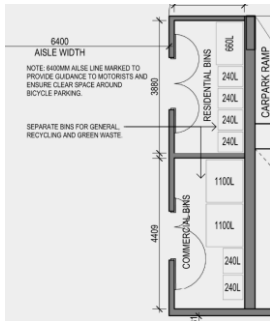
ADVERTISED PLAN

Waste Management

Council ESD objectives:

- To ensure waste avoidance, reuse and recycling during the design, construction and operation stages of development.
- To ensure long term reusability of building materials.
- To meet Councils' requirement that all multi-unit developments must provide a Waste Management Plan in accordance with the *Guide to Best Practice for Waste Management in Multi-unit Developments 2010*, published by Sustainability Victoria.

Council Best Practice Standard

Criteria	Development Provision
Building Re-use	To ensure waste avoidance, reuse and recycling during the design. None of the existing structure is re-used.
Construction and Demolition Waste	To reduce construction waste going to landfill At least 90% of the waste generated during construction and demolition has been diverted from landfill.
Food & Garden Waste	To ensure waste avoidance, reuse and recycling during the operational life of the building. Green waste storage is provided in the basement bin rooms.
Convenience of Recycling	To ensure waste avoidance, reuse and recycling during the operational life of the building.  The diagram is a floor plan of a basement bin room. It shows a central aisle with a width of 6400. On either side of the aisle are rows of bins. The top row is labeled 'RESIDENTIAL BINS' and the bottom row is labeled 'COMMERCIAL BINS'. The bins are arranged in a grid pattern. A 'CARPARK RAMP' is located on the right side of the plan. Dimensions for the aisles and bin rows are provided: 3850 for the top aisle, 4450 for the bottom aisle, and 6600 for the bin rows. A note states: 'NOTE: 6400MM AISLE LINE MARKED TO PROVIDE CLEARANCE TO MOTORISTS AND ENSURE CLEAR SPACE AROUND BICYCLE PARKING.' Another note states: 'SEPARATE BIN FOR GENERAL, RECYCLING AND GREEN WASTE.' Separate general, recycling and organic waste storage will be provided at the basement bin rooms.

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Council Best Practice Standard

Criteria	Development Provision
	is to be included in the owners corporation rules or lease agreement.
	Kitchen joinery for the residential units is to provide appropriate spatial allowance for food and organics, general and recycling waste collection.

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Urban Ecology

Council ESD objectives:

- To protect and enhance biodiversity.
- To provide sustainable landscaping.
- To protect and manage all remnant indigenous plant communities.
- To encourage the planting of indigenous vegetation.

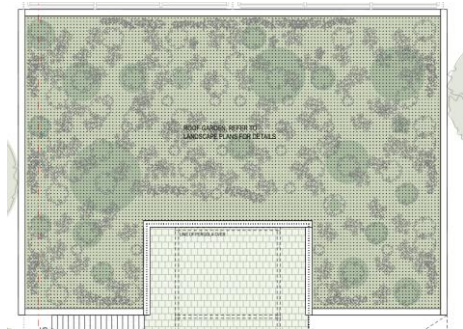
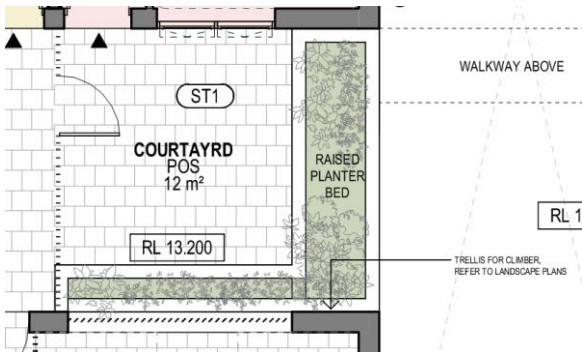
Council Best Practice Standard

Criteria	Development Provision
Communal Space	Min. 26m² of communal space will be provided along the eastern boundary. Communal space will include the following amenities: walking path to the beach with bench seating and landscaping.  To encourage and recognise initiatives that facilitate interaction between building occupants. Communal space will be provided along the eastern boundary.
Vegetation	To encourage and recognise the use of vegetation and landscaping within and around developments. Planter boxes are to be located at LG breezeway. Landscaped area is to be located at GF and green roof at L2. The total area of vegetation is 42.9% of the site area.

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Council Best Practice Standard

Criteria	Development Provision	
Green Walls / Roof	To encourage the appropriate use of green roofs, walls and facades to mitigate the impact of the urban heat island effect.	The proposed development will incorporate a green wall and roof.
		
		Green roof location. 
Green wall location.		
Private Open Space - Balcony / Courtyard Ecology	To encourage plants to be grown on balconies and courtyards.	All balconies or private open space have been provided with a tap and floor waste allowing residents to cultivate their own gardens.
Food Production - Residential	To encourage the production of fresh food on-site.	Nil.
Heat Island Effect	To reduce the contribution of the project site to the 'heat island effect	Roof are to have a three year SRI of minimum 60 Unshaded hard-scaping elements are to have a three year SRI of minimum 40.

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Innovation

Council ESD objectives:

- To encourage innovative technology, design and processes in all development, which positively influence the sustainability of buildings.

Council Best Practice Standard

Criteria	Development Provision	
Air Tightness Testing	To identify leaks, improve energy efficiency and thermal comfort, and reduce energy costs.	Air tightness testing for a sample of the apartments is to be undertaken mid-construction and post-construction.
Carbon Neutral Power Agreement	To reduce environmental impact and contribute to a sustainable future by minimizing carbon emissions.	The proposed development will be established with a carbon neutral power agreement between developer, owner's corporation, and electrical retailer to provide GreenPower for the base building. It is the intent to maintain this agreement for a minimum of 10 years. Future occupants will be provided with GreenPower options within their welcome pack.
ESD Checkpoint during Construction Phase	To ensure that all ESD items are suitably installed and incorporated during construction.	An ESD professional will be engaged throughout the design and construction process. The ESD professional will perform a minimum of 2 site inspections during the construction phase to ensure suitable implementation of the ESD initiatives. Any deficiencies compared to the endorsed SMP will be escalated to the project manager and resolved. The checkpoint assessments will be undertaken at two stages as follows: • Site Inspection 1: Prior to installation of internal linings. • Site inspection 2: At the time of project completion.

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Appendices

Appendix A: WSUD Response

Site layout Plan

The following architectural mark-up illustrates the rainwater collection and impervious areas of the proposed development site.



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Blue Factor Result

A compliant Blue Factor result can be achieved by implementing the following initiatives:

- Rainwater collection off the roof areas directed into a 10,000-litre rainwater tank connected to all lower and upper ground level toilets, plus landscape irrigation.
- Rainwater collection off the green roof will be directed into a $\geq 4\text{m}^2$, minimum 950mm deep raingarden with 100mm of extended detention.

Note: The majority of landscaping is intended to comprise native vegetation with low water demand i.e. no irrigation system and no watering after an initial period when plants are getting established. As irrigation will only be connected to the rainwater tank where necessary, for the purposes of the Blue Factor assessment, we have assumed that 50% of the total landscape area will be irrigated.

The Blue Factor tool has been developed by DEECA in partnership with Microburst Software as the successor to the STORM tool. The Blue Factor tool displays the amount of treatment that is required to meet best practice targets, using WSUD treatment measures.

The best practice standards have been set out in the Urban Stormwater Best Practice Environmental Management Guidelines (Victoria Stormwater Committee, 1999) for reduction in total suspended solids (TSS), total phosphorus (TP) and total nitrogen (TN) loads.

The Blue Factor Result is provided below:

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PLAN**

108%
SCORE

49 Newcombe Street, Portarlington (SMP Rev E)

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.

Project details

Name	49 Newcombe Street, Portarlington (SMP Rev E)
Project ID	53A66F64
Street address	49 Newcombe St, Portarlington VIC 3223, Australia
Municipality	Greater Geelong
Site area	990 m ²
Planning Number	

Flow and pollutant load reductions

Item	Result	Target	
Mean annual runoff volume harvested or evapotranspired (%)	30%	>32%	×
Mean annual runoff volume infiltrated or filtered (%)	29%	>3%	✓
Total suspended solids (%)	55%	>80%	×
Total phosphorus (%)	49%	>45%	✓
Total nitrogen (%)	48%	>45%	✓
Total gross pollutants (%)	57%	>70%	×

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WSUD Strategy

The development will include the provision of a 10,000-litre rainwater tank and associated pump at lower ground. The rainwater tank is to be connected to all lower and upper ground level toilets, plus landscape irrigation.

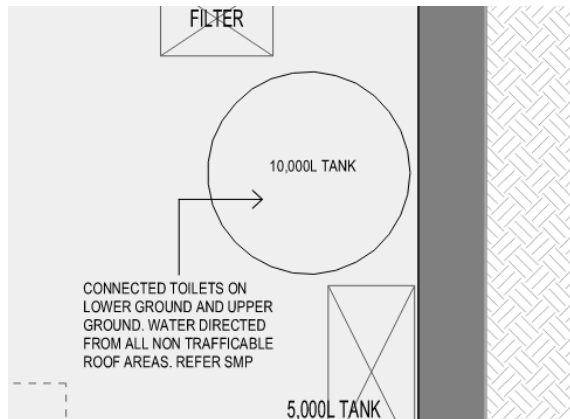


Figure 2 – Location Rainwater Tank

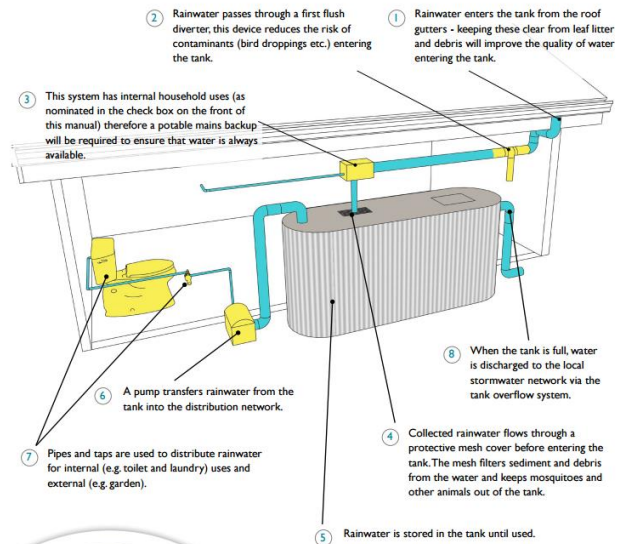


Figure 3 – Cross-section Tank
(City of Port Phillip)

Furthermore, a $\geq 4\text{m}^2$, minimum 950mm deep raingarden with 100mm of extended detention is to be provided. Rainwater collected from the green roof is to be directed into the raingarden for treatment prior to discharge into the stormwater system.

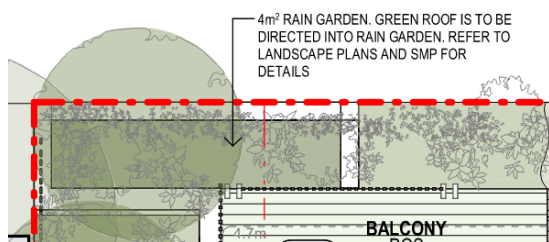


Figure 4 – Location Raingarden

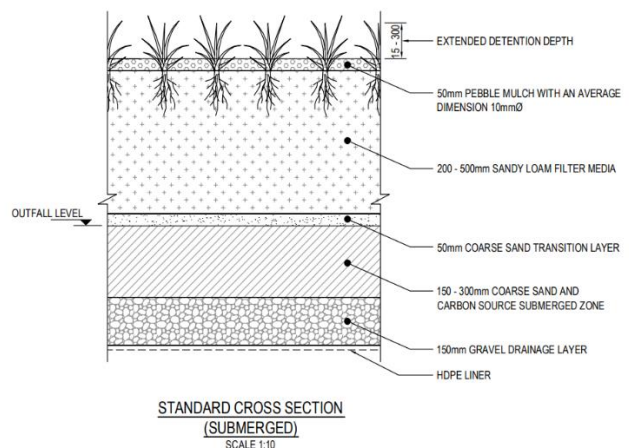


Figure 5 – Cross-section Raingarden
(City of Moreland)

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Rainwater Reuse

Inputs

Catchment Area	234 sqm
Number of Occupants	15
Bin Washout	No
Irrigation Area	212 sqm
Tank Capacity	10,000 Litre

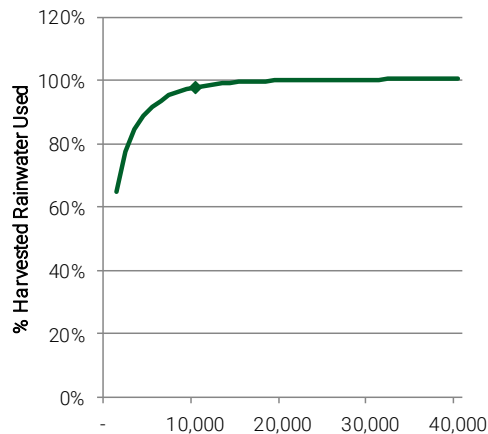
Outputs

% Served by Rainwater	26.5%
% Harvested Rainwater Used	97.8%
Total Potable Water Saved	85,632 Litre

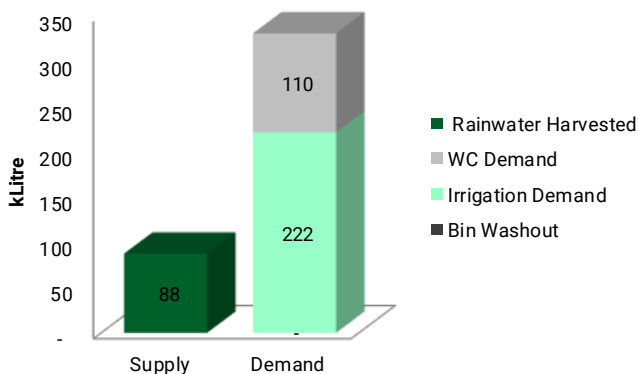
Rainwater Balance (Monthly Averages)

Month	Rainwater Harvested (L)	Irrigation Demand (L)	WC Demand (L)	Bin Washout (L)
Jan	5,607	32,800	9,300	0
Feb	7,508	29,713	8,400	0
Mar	6,535	15,242	9,300	0
Apr	7,995	14,591	9,000	0
May	6,652	15,056	9,300	0
Jun	7,490	6,861	9,000	0
Jul	5,218	6,990	9,300	0
Aug	6,749	6,990	9,300	0
Sep	7,123	20,055	9,000	0
Oct	7,984	20,433	9,300	0
Nov	10,787	19,928	9,000	0
Dec	7,879	33,054	9,300	0
Total	87,526	221,713	109,500	0
Equivalent STORM tool		30		0

Tank Sizing



Supply-Demand



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Site Management Statement

Prevention of litter, sediments and pollution entering the stormwater system in the construction phase is to be addressed through introduction of the following initiatives:

- Buffer strips to pervert stormwater runoff.
- Gravel sausage filters at stormwater inlets to prevent silt, mud or any other site contaminant from entering the stormwater system.
- Silt fences under grates at surface entry inlets to prevent sediment from entering the stormwater system.
- Temporary rumble grids to vibrate mud and dirt off vehicles prior to leaving the site.
- The site is to be kept clean from any loose rubbish or rubble.
- Introduction of offsite construction for building elements where deemed appropriate.

The builder is to include these initiatives in the construction management plan and address these during site induction of relevant contractors.

Maintenance Program

The following maintenance requirements are to be programmed to ensure the rainwater tank operates effectively:

Item	Description	Maintenance Interval
Gutters and downpipes	Eave and box gutters are to be inspected and cleaned to prevent large debris from being washed into rainwater tank.	3 monthly
First flush system (as applicable)	Inspect and clean excess sediment from diverter chamber to prevent blockages.	3 monthly
Tank contents	Siphon the tank to inspect contents. If sludge is present, a plumber will be required to drain tank contents and clean the tank.	2 to 3 years
Tank structure	Inspect tank externally for leaks	Yearly
Pump system	Inspect pump wiring, plumbing and check for smooth operation.	6 monthly
Plumbing	Plumbing and fixtures connected to the rainwater tank is to be inspected for leaks.	Yearly

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The following maintenance requirements are to be programmed to ensure the raingarden operates effectively:

Item	Description	Maintenance Interval
Kerbing and paved area	Remove rubbish, leaves and other debris from the surrounding drainage area.	3 monthly
Ponding area	Clear inflow points of built up sediment, rubbish and leaves. Check for erosion or gouging – repair if necessary.	3 monthly
Mulch layer (bark, pebbles, etc.)	Remove rubbish, leaves and other debris. After storm events mulch may need to be redistributed or added around inflow points.	3 monthly
Plants	Water establishing plants monthly during extended dry periods. Check plant health and replace dead plants as necessary. Use native species to suit garden conditions (e.g. full sun or shaded). Remove weeds – do not use herbicides, pesticides and fertilisers as these chemicals will pollute the stormwater runoff.	3 monthly
Rain garden soil mix	Check soil level is below surrounding hard surface level and overflow grate. Use drainage test to check soil is free draining.	Annually
Underdrain system	Use inspection well (if present) to check underdrain is working properly. Check rain garden draining freely using drainage test.	Annually

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PLAN**

49 Newcombe Street, Portarlington (SMP Rev E)

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.

108%

SCORE

Project details

Name	49 Newcombe Street, Portarlington (SMP Rev E)
Project ID	53A66F64
Street address	49 Newcombe St, Portarlington VIC 3223, Australia
Municipality	Greater Geelong
Site area	990 m ²
Planning Number	

Flow and pollutant load reductions

Item	Result	Target	
Mean annual runoff volume harvested or evapotranspired (%)	30%	>32%	✗
Mean annual runoff volume infiltrated or filtered (%)	29%	>3%	✓
Total suspended solids (%)	55%	>80%	✗
Total phosphorus (%)	49%	>45%	✓
Total nitrogen (%)	48%	>45%	✓
Total gross pollutants (%)	57%	>70%	✗

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Configuration 1



Roof Areas 234m2



Rainwater Tank 1
Rainwater tank retention volume in kilolitres: 10

Configuration 2



Green Roof 245m2



Raingarden 1 Area: 4 m², Extended detention depth: 0.1 m,
Submerged zone depth: 0 m, Site soil type: Lined

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Catchments



Roof Areas 234m2



Remaining Terraces & Breezeways Paved, 186m2



Other Impervious Areas Paved, 129m2



Permeable Areas including Decked Areas
Pervious (garden and lawn), 196m2



Green Roof 245m2

Treatments



Rainwater Tank 1
Rainwater tank retention volume in kilolitres: 10

212%



Raingarden 1 Area: 4 m², Extended detention depth: 0.1 m,
Submerged zone depth: 0 m, Site soil type: Lined

149%

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Residential Apartments Residential Apartment,
28 bedroom(s)

Water sources	I want to calculate my water use based on fixtures and fittings
Basin taps - Primary water source	Mains water
Basin taps - Efficiency	5 star WELS rating
Showers - Primary water source	Mains water
Showers - Efficiency	3 star WELS rating (> 6 but < 7.5 litres per minute)
Clothes Washer - Primary water source	Mains water
Clothes Washer - Efficiency	3 star WELS rating (minimum requirement)
Toilets connected to mains water	9
Toilets connected to rainwater	12
Toilets connected to recycled water	0
Toilets efficiency	4 star WELS rating
Garden water use	Garden water demands are in use
Garden primary water source	Rainwater
Irrigated garden area supplied by:	
• Mains	0 m ²
• Rainwater Tank	212 m ²
• Recycled Water	0 m ²
Garden water use efficiency	Medium

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Appendix B: Preliminary FirstRate5 Certificates

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Nationwide House Energy Rating Scheme® NatHERS® Certificate

Generated on 17 Oct 2025 using FirstRate5: 5.5.5a (3.22)

Property

Address 1.2, Newcombe ,
Portarlinton, VIC, 3223

Lot/DP -

NCC Class* Class 2

Floor/all Floors

Type New Home

Plans

Main plan -

Prepared by -

Construction and environment

Assessed floor area [m²]*

Conditioned* 92.4

Unconditioned* 8.2

Total 100.6

Garage -

Exposure type

suburban

NatHERS climate zone

64 Cape Otway



Accredited assessor

Name

Business name

Email

Phone

Accreditation No.

Assessor Accrediting Organisation

Design Matters National

Declaration of interest

No

NCC Requirements

NCC provisions

Volume 1

State/Territory variation

Yes

National Construction Code (NCC) requirements

The NCC allows the use of NatHERS accredited software to comply with the energy efficiency requirements for houses (Class 1 buildings) and apartments (Class 2 sole-occupancy units and Class 4 parts of buildings). The applicable requirements for houses are detailed in Specification 42 of NCC Volume Two. For apartments the requirements are detailed in clauses J3D3 and J3D15 of NCC Volume One.

NCC 2022 includes enhanced thermal performance requirements for houses and apartments. It also includes a new whole-of-home annual energy use budget which applies to the major equipment in the home.

The NCC, and associated ABCB Standards and support material, can be accessed at www.abcb.gov.au.

Note, variations and additions to the NCC energy efficiency requirements may apply in some states and territories.

Thermal performance
star rating



55.4 MJ/m²

Predicted annual energy load for heating and cooling based on standard occupancy assumptions.

For more information on your dwelling's rating see:

www.nathers.gov.au

Thermal performance [MJ/m²]

Limits taken from ABCB Standard 2022

	Heating	Cooling
Modelled	53.3	2.1
Load limits	104	14

Features determining load limits

Floor type (lowest conditioned area)	N/A
NCC climate zone 1 or 2	Y
Outdoor living area	N/A
Outdoor living area ceiling fan	N/A

Whole of Home performance rating

No Whole of Home
performance rating
generated for this
certificate

Verification

To verify this certificate, scan the QR code or visit When using either link, ensure you are visiting www.fr5.com.au

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About the ratings

Thermal performance rating

NatHERS thermal software models the expected heating and cooling energy loads using information about the design, construction, climate and common patterns of household use. The thermal performance rating (shown as a star rating on this Certificate) does not take into account appliances, apart from the airflow impacts from ceiling fans.

Whole of Home performance rating

NatHERS Whole of Home software uses the heating and cooling energy loads combined with the energy performance of the home's appliances (heating, cooling, hot water, lighting, pool/spa pump and onsite renewable energy generation and storage) and models the expected energy value* of the whole home. The Whole of Home performance rating is shown as a score out of 100 on this Certificate.

Heating & Cooling Load Limits

Additional information

In some locations under the NCC NatHERS pathway, separate heating and cooling load limits may apply. Minimum required star ratings in northern parts of Australia may also be affected by the presence or absence of an outdoor living area and/or an outdoor living area ceiling fan. Refer to the ABCB NatHERS heating and cooling load limits Standard 2022 for details or contact the relevant local building regulating authority, noting that State and Territory variations may also apply.

Setting options:

Floor type:

- CSOG – Concrete Slab on Ground
- SF – Suspended Floor (or a mixture of CSOG and SF)
- NA – Not Applicable

NCC climate Zone 1 or 2:

- Yes
- No
- NA – not applicable

Outdoor living area:

- Yes
- No
- NA – not applicable

Outdoor living area ceiling fan:

- Yes
- No
- NA – not applicable

Predicted Whole of Home annual impact by appliance

Shows the contribution each appliance has on the home's annual energy use, greenhouse gas emissions and cost without solar

Energy use:

No Whole of Home performance assessment conducted for this certificate.

Greenhouse gas emissions:

No Whole of Home performance assessment conducted for this certificate.

Cost:

No Whole of Home performance assessment conducted for this certificate.

Graph key:



Predicted onsite renewable energy impact

No Whole of Home performance assessment conducted for this certificate.

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Certificate check

The checklist covers important items impacting the dwelling's ratings. It is recommended that the accuracy of the whole certificate is checked.

Note: The boxes indicate when and who should check each item. It is not mandatory to complete this checklist.

	Approval stage		Construction stage		
	Assessor checked	Consent authority/ surveyor checked	Builder checked	Consent authority/ surveyor checked	Occupancy/other
Genuine certificate check					
Does this Certificate match the one available at the web address or QR code verification link on the front page?		☐	☐	☐	☐
Does the NatHERS certificate number on the NatHERS-stamped plans match the number on this Certificate?		☐	☐	☐	☐
Thermal performance check					
Windows and glazed doors					
Does the window size, opening type and location shown on the NatHERS-stamped plans or as installed match what is shown in 'Window and glazed door schedule' and 'Roof window schedule' tables on this Certificate?	☐	☐	☐	☐	☐
Does the installed windows meet the substitution tolerances (AFRC* based SHGC* and U-values*) as shown in the 'Window and glazed door type and performance' and 'Roof window type and performance' tables on this Certificate?			☐	☐	☐
External walls					
Does the external wall bulk insulation (R-value) shown on the NatHERS-stamped plans or as installed match what is shown in the External wall type table on this Certificate?	☐	☐	☐	☐	☐
Does the external wall shade (colour) match what is shown in the 'External wall type' table on this Certificate?	☐	☐	☐	☐	☐
Floor					
Does the floor insulation (R-value) shown on the NatHERS-stamped plans or as installed match what is shown in the 'Floor type' table on this certificate?	☐	☐	☐	☐	☐
Ceiling penetrations*					
Does the 'quantity' and 'type' of ceiling penetrations* (e.g. downlights, exhaust fans, etc) shown on the NatHERS-stamped plans or as installed match what is shown in the 'Ceiling penetrations' table on this Certificate?	☐	☐	☐	☐	☐
Ceiling					
Does the ceiling insulation (R-value) shown on the NatHERS-stamped plans or as installed match what is shown in the 'Ceiling type' table on this Certificate?	☐	☐	☐	☐	☐
Roof					
Does the external roof shade (colour) on the NatHERS stamped plans or as installed match what is shown in the 'Roof type' table on this Certificate?	☐	☐	☐	☐	☐
Apartment entrance doors (NCC Class 2 assessments only)					
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 type (terrain) (shown on page 1) been applied? For example, it is unlikely that a ground-floor apartment is "exposed" or a top floor high-rise apartment is "protected".	☐	☐		☐	☐
Heating and cooling load limits*					
Do the load limits settings (shown on page 1) match the values in the ABCB Standard 2022: NatHERS heating and cooling load limits for the appropriate climate zone?	☐	☐		☐	☐

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Certificate check

Continued

Approval stage		Construction stage		
Assessor checked	Consent authority/surveyor checked	Builder checked	Consent authority/surveyor checked	Occupancy/other

Additional NCC requirements for thermal performance (not included in the NatHERS assessment)**Thermal bridging**

Does the dwelling meet the NCC requirement for thermal bridging?		☐	☐	☐	☐
--	--	--------------------------	--------------------------	--------------------------	--------------------------

Insulation installation method

Has the insulation been installed according to the NCC requirements?			☐	☐	☐
--	--	--	--------------------------	--------------------------	--------------------------

Building sealing

Does the dwelling meet the NCC requirements for Building Sealing?		☐	☐	☐	☐
---	--	--------------------------	--------------------------	--------------------------	--------------------------

Whole of Home performance check (not applicable if a Whole of Home performance assessment is not conducted)**Appliances**

Does the cooling appliance/s type, location and efficiency/performance shown on the NatHERS-stamped plans or as installed match the location and minimum efficiency/performance requirements shown in the 'Appliance schedule' on this Certificate?	☐	☐	☐	☐	☐
---	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

Does the heating appliance/s type, location and efficiency/performance shown on the NatHERS-stamped plans or installed, match the location and minimum efficiency/performance requirements shown in the 'Appliance schedule' on this Certificate?	☐	☐	☐	☐	☐
---	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

Does the hot water system type and efficiency/performance shown on the NatHERS-stamped plans or as installed match the location and minimum efficiency/performance requirements shown in the 'Appliance schedule' on this Certificate?	☐	☐	☐	☐	☐
--	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

Does the pool pump efficiency/performance shown on the NatHERS-stamped plans or as installed match the minimum efficiency/performance requirements shown in the 'Appliance schedule' on this Certificate?	☐	☐	☐	☐	☐
---	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

Does the onsite renewable energy system type, orientation and system size or generation capacity shown on the NatHERS stamped plans or installed match the 'Onsite Renewable Energy schedule' on this Certificate?	☐	☐	☐	☐	☐
--	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

Additional NCC Requirements for Services (not included in the NatHERS assessment)

Does the lighting meet the artificial lighting requirements specified in the NCC?		☐	☐	☐	☐
---	--	--------------------------	--------------------------	--------------------------	--------------------------

Does the hot water system meet the additional requirements specified in the NCC?		☐	☐	☐	☐
--	--	--------------------------	--------------------------	--------------------------	--------------------------

Provisional values* check

Have provisional values* been used in the assessment and, if so, are they noted in 'Additional notes' table below?	☐	☐			
--	--------------------------	--------------------------	--	--	--

Other NCC requirements

Note: This Certificate only covers the energy efficiency requirements in the NCC. Additional requirements that must also be satisfied include, but are not limited to: condensation, structural and fire safety requirements and any state or territory variations to the NCC energy efficiency requirements.

Additional notes

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Room schedule

Room	Zone Type	Area [m²]
SharedCarPark	basementCarPark	667.7
Kitchen/Living	kitchen	44.1
Ensuite	nightTime	6.1
WIR	nightTime	7.4
Bed 1	bedroom	17.3
Corridor	dayTime	14.7
Bath	unconditioned	8.2
Bed 2	bedroom	11.1

Window and glazed door type and performance

Default* windows

Window ID	Window description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				SHGC lower limit	SHGC upper limit
No Data Available					

Custom* windows

Window ID	Window description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				SHGC lower limit	SHGC upper limit
THC-010-21 A	Series EC95 TB Sliding Door DG 4mmEnTech-12Ar-4mmClr	2.93	0.49	0.47	0.51
THC-033-07 B	EC45TB Fixed Window TPS Spacer DG 6ET/12Ar/6	2.09	0.51	0.48	0.54
THC-023-03 B	Series EC35TB Awning Window DG 4ET-12Ar-4	2.51	0.47	0.45	0.49

Window and glazed door schedule

Location	Window ID	Window no.	Height [mm]	Width [mm]	Window type	Opening %	Orientation	Window shading device*
Kitchen/Living	THC-010-21 A	Opening 19	2550	3380	sliding	45.0	N	No
Kitchen/Living	THC-033-07 B	Opening 20	2550	1745	fixed	0.0	N	No
Kitchen/Living	THC-023-03 B	Opening 16	1000	550	awning	90.0	E	No
Bed 1	THC-010-21 A	Opening 18	2550	4250	sliding	45.0	N	No
Corridor	THC-023-03 B	Opening 11	1000	1200	awning	90.0	E	No
Bath	THC-023-03 B	Opening 14	1000	1000	awning	90.0	E	No
Bed 2	THC-023-03 B	Opening 15	2700	1750	awning	60.0	S	No

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Roof window* *type and performance value*

Default* roof windows

Window ID	Window description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				SHGC lower limit	SHGC upper limit
No Data Available					

Custom* roof windows

Window ID	Window description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				SHGC lower limit	SHGC upper limit
No Data Available					

Roof window* *schedule*

Location	Window ID	Window no.	Opening %	Area [m ²]	Width [mm]	Orientation	Outdoor shade	Indoor shade
No Data Available								

Skylight* *type and performance*

Skylight ID	Skylight description	Skylight shaft reflectance
No Data Available		

Skylight* *schedule*

Location	Skylight ID	Skylight No.	Skylight shaft length [mm]	Area [m ²]	Orient-ation	Outdoor shade	Diffuser
No Data Available							

External door *schedule*

Location	Height [mm]	Width [mm]	Opening %	Orientation
Corridor	2700	960	100.0	S

External wall *type*

Wall ID	Wall type	Solar absorptance	Wall shade [colour]	Bulk insulation [R-value]	Reflective wall wrap*
1	39 Newcombe St Portarlinton - Retaining	0.5	Medium		No
2	39 Newcombe St Portarlinton - Brick Ext	0.5	Medium	Glass fibre batt (k = 0.044 density = 12 kg/m3) (R4.0)	Yes
3	39 Newcombe St Portarlinton - Plasterboard Int	0.5	Medium	Glass fibre batt (k = 0.044 density = 12 kg/m3) (R2.5)	No

External wall *schedule*

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Location	Wall ID	Height [mm]	Width [mm]	Orientation	Horizontal shading feature* maximum projection [mm]	Vertical shading feature* (yes/no)
SharedCarPark	1	2700	18240	N	0	No
SharedCarPark	1	2700	17348	W	0	No
SharedCarPark	1	2700	2358	N	0	No
SharedCarPark	1	2700	17120	W	0	No
SharedCarPark	1	2700	20510	S	0	No
SharedCarPark	1	2700	34517	E	0	No
Kitchen/Living	2	2700	5142	N	2231	Yes
Kitchen/Living	3	2700	8888	W	0	No
Kitchen/Living	2	2700	1545	E	5002	Yes
Ensuite	2	2700	1929	S	10766	Yes
Ensuite	2	2700	3176	E	0	No
WIR	2	2700	2760	S	10767	Yes
Bed 1	2	2700	4015	E	0	No
Bed 1	2	2700	4306	N	0	Yes
Corridor	3	2700	8108	W	0	No
Corridor	2	2700	1288	S	4073	Yes
Corridor	2	2700	1175	E	5021	Yes
Bath	2	2700	2966	E	5003	Yes
Bed 2	2	2700	2987	S	966	Yes
Bed 2	2	2700	3729	E	5040	Yes

Internal wall type

Wall ID	Wall type	Area [m²]	Bulk insulation
1	FR5 - Internal Plasterboard Stud Wall	87.2	

Floor type

Location	Construction	Area [m²]	Sub-floor ventilation	Added insulation [R-value]	Covering
SharedCarPark	FR5 - CSOG: Slab on Ground	508.2	Enclosed	R0.0	none
SharedCarPark	FR5 - CSOG: Slab on Ground	159.5	Enclosed	R0.0	none
Kitchen/Living	FR5 - 225mm concrete slab	44.1	Enclosed	R4.6	Timber
Ensuite	FR5 - 225mm concrete slab	2	Enclosed	R4.6	Tiles
Ensuite	FR5 - 225mm concrete slab	4.1	Enclosed	R4.6	Tiles
WIR	FR5 - 225mm concrete slab	7.4	Enclosed	R4.6	Carpet
Bed 1	FR5 - 225mm concrete slab	5.1	Enclosed	R4.6	Carpet
Bed 1	FR5 - 225mm concrete slab	12.2	Enclosed	R4.6	Carpet
Corridor	FR5 - 225mm concrete slab	14.7	Enclosed	R4.6	Timber

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Bath	FR5 - 225mm concrete slab	8.2	Enclosed	R4.6	Tiles
Bed 2	FR5 - 225mm concrete slab	11.1	Enclosed	R4.6	Carpet

Ceiling type

Location	Construction material/type	Bulk insulation R-value [may include edge batt values]	Reflective wrap*
SharedCarPark	FR5 - 225mm concrete slab	R4.6	No
SharedCarPark	Plasterboard	R0.0	No

Ceiling penetrations*

Location	Quantity	Type	Height [mm]	Width [mm]	Sealed/unsealed
Kitchen/Living	17	Downlights	80	80	Sealed
Kitchen/Living	1	Exhaust Fans	250	250	Sealed
Ensuite	2	Downlights	80	80	Sealed
Ensuite	1	Exhaust Fans	250	250	Sealed
WIR	3	Downlights	80	80	Sealed
Bed 1	7	Downlights	80	80	Sealed
Corridor	6	Downlights	80	80	Sealed
Bath	3	Downlights	80	80	Sealed
Bath	1	Exhaust Fans	250	250	Sealed
Bed 2	4	Downlights	80	80	Sealed

Ceiling fans

Location	Quantity	Diameter [mm]
No Data Available		

Roof type

Construction	Added insulation [R-value]	Solar absorptance	Roof shade [colour]
Slab:Slab - Suspended Slab : 225mm: 225mm Suspended Slab	0.0	0.5	Medium

Thermal bridging schedule for steel frame elements

Building element	Steel section dimensions [height x width, mm]	Frame spacing [mm]	Steel thickness [BMT,mm]	Thermal break [R-value]
External wall	90 x 40	600	0.75	0
Floor	100 x 50	450	1.50	0

Appliance schedule

(not applicable if a Whole of Home performance assessment is not conducted for this certificate)

Note: A flat assumption of 5W/m2 is used for lighting, therefore lighting is not included in the appliance schedule

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NatHERS Certificate

8.3 Star Rating as of 17 Oct 2025

Cooling system

Appliance/ system type	Location	Fuel type	Minimum efficiency/ performance	Recommended capacity
No Whole of Home performance assessment conducted for this certificate.				

Heating system

Appliance/ system type	Location	Fuel type	Minimum efficiency/ performance	Recommended capacity
No Whole of Home performance assessment conducted for this certificate.				

Hot water system

Appliance/ system type	Fuel type	Minimum efficiency/ performance	Hot Water CER Zone	Zone 3 STC	Assessed daily load
No Whole of Home performance assessment conducted for this certificate.					

Pool/spa equipment

Appliance/ system type	Fuel type	Minimum efficiency/ performance	Recommended capacity
No Whole of Home performance assessment conducted for this certificate.			

Onsite renewable energy *schedule*

(not applicable if a Whole of Home performance assessment is not conducted for this certificate)

System type	Orientation	System size or generation capacity
No Whole of Home performance assessment conducted for this certificate.		

Battery *schedule*

(not applicable if a Whole of Home performance assessment is not conducted for this certificate)

System type	Size [battery storage capacity]
No Whole of Home performance assessment conducted for this certificate.	

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Explanatory Notes

About this report

NatHERS ratings are a reliable guide for comparing different dwelling designs and to demonstrate that designs meet the energy efficiency requirements in the National Construction Code.

NatHERS ratings use computer modelling to evaluate a home's energy efficiency and performance. They use localised climate data and standard assumptions on how people use their home to predict the heating and cooling energy loads and energy value* of the whole home. The thermal performance star rating uses the home's building specifications, layout, orientation and fabric (i.e. walls, windows, floors, roofs and ceilings) to predict the heating and cooling energy loads. The Whole of Home performance rating uses information about the home's appliances and onsite energy generation and storage to estimate the homes energy value*.

The actual energy loads, cost and greenhouse gas emissions of a home may vary from that predicted. This is because the assumptions will not always match the actual occupant usage patterns. For example, the number of occupants and how people use their appliances will vary. Energy efficient homes use less energy, are warmer on cool days, cooler on hot days and cost less to run.

Accredited assessors

For quality assured NatHERS Certificates, always use an accredited or licenced assessor registered with an Assessor Accrediting Organisation (AAO). AAOs have strict quality assurance processes, and professional development requirements ensuring consistently high standards for assessments.

Non-accredited assessors (Raters) have no ongoing training requirements and are not quality assured.

Any queries about this report should be directed to the assessor. If the assessor is unable to address questions or concerns, contact the AAO specified on the front of this certificate.

Disclaimer

The NatHERS Certificate format is developed by the NatHERS Administrator. However, the content in the certificate is entered by the assessor. It is the assessor's responsibility to use NatHERS accredited software correctly and follow the NatHERS Technical Note to produce a NatHERS Certificate.

The predicted annual energy load, cost and greenhouse gas emissions in this NatHERS Certificate are an estimate based on an assessment of the dwelling's design by the assessor. It is not a prediction of actual energy use, cost or emissions. The information and ratings may be used to compare how other dwellings 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, behaviour, appliance performance, indoor air temperature and local climate.

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

Glossary

Annual energy load	the predicted amount of energy required for heating and cooling, based on standard occupancy assumptions.
AFRC	Australian Fenestration Rating Council
Assessed floor area	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.
Ceiling penetrations	features that require a penetration to the ceiling, including downlights, vents, exhaust fans, range hoods, chimneys and flues. Excludes fixtures attached to the ceiling with small holes through the ceiling for wiring, e.g. ceiling fans; pendant lights, and heating and cooling ducts.
Conditioned	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.
COP	Coefficient of performance
Custom windows	windows listed in NatHERS software that are available on the market in Australia and have a WERS (Window Energy Rating Scheme) rating.
Default windows	windows that are representative of a specific type of window product and whose properties have been derived by statistical methods.
EER	Energy Efficiency Ratio, measure of how much cooling can be achieved by an air conditioner for a single kWh of electricity input
Energy use	This is your homes rating without solar or batteries.
Energy value	The net cost to society including, but not limited to, costs to the building user, the environment and energy networks (as defined in the ABCB Housing Provisions Standard).
Entrance door	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.
Exposure category – exposed	terrain with no obstructions e.g. flat grazing land, ocean-frontage, desert, exposed high-rise unit (usually above 10 floors).
Exposure category – open	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).
Exposure category – suburban	terrain with numerous, closely spaced obstructions below 10m e.g. suburban housing, heavily vegetated bushland areas.
Exposure category – protected	terrain with numerous, closely spaced obstructions over 10 m e.g. city and industrial areas.
Horizontal shading feature	provides shading to the building in the horizontal plane, e.g. eaves, verandahs, pergolas, carports, or overhangs or balconies from upper levels.
National Construction Code (NCC) Class	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 www.abcb.gov.au .
Net zero home	a home that achieves a net zero energy value*.
Opening percentage	the openability percentage or operable (moveable) area of doors or windows that is used in ventilation calculations.
Provisional value	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 www.nathers.gov.au
Recommended capacity	this is the capacity or size of equipment that is recommended by NatHERS to achieve the desired comfort conditions in the zone or zones serviced. This is a recommendation and the final selection sizing should be confirmed by a suitably qualified person.
Reflective wrap (also known as foil)	can be applied to walls, roofs and ceilings. When combined with an appropriate air gap and emissivity value, it provides insulative properties.
Roof window	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.
Shading features	includes neighbouring buildings, fences, and wing walls, but excludes eaves.
Solar heat gain coefficient (SHGC)	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.
Skylight (also known as roof lights)	for NatHERS this is typically a moulded unit with flexible reflective tubing (light well) and a diffuser at ceiling level.

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*Refer to glossary.

STCs	Small-scale Technology Certificates, certificates created by the REC registry for renewable energy technologies that may be bought and sold as part of the Small-scale Renewable Energy Scheme operated by the Clean Energy Regulatory
Thermal breaks	are materials with an R-value greater than or equal to 0.2 that must separate the metal frame from the cladding. This includes, but is not limited to, materials such as timber battens greater than or equal to 20mm thick, continuous thermal breaks such as polystyrene insulation sheeting, plastic strips or furring channels.
U-value	the rate of heat transfer through a window. The lower the U-value, the better the insulating ability.
Unconditioned	a zone within a dwelling that is assumed to not require heating and cooling based on standard occupancy assumptions.
Vertical shading features	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).
Window shading device	a device fixed to windows that provides shading e.g. window awnings or screens but excludes horizontal* or vertical shading features* (eg eaves and balconies)

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Nationwide House Energy Rating Scheme® NatHERS® Certificate

Generated on 17 Oct 2025 using FirstRate5: 5.5.5a (3.22)

Property

Address 1.3, Newcombe ,
Portarlinton, VIC, 3223
Lot/DP -
NCC Class* Class 2
Floor/all Floors
Type New Home

Plans

Main plan -
Prepared by -

Construction and environment

Assessed floor area [m²]*		Exposure type
Conditioned*	34.4	suburban
Unconditioned*	2	NatHERS climate zone
Total	36.4	64 Cape Otway
Garage	-	



Accredited assessor

Name Gary Wertheimer
Business name GIW Environmental Solutions
Email gary@giv.com.au
Phone 0390445111
Accreditation No. DMN/10/2024
Assessor Accrediting Organisation
Design Matters National
Declaration of interest No

NCC Requirements

NCC provisions Volume 1
State/Territory variation Yes

National Construction Code (NCC) requirements

The NCC allows the use of NatHERS accredited software to comply with the energy efficiency requirements for houses (Class 1 buildings) and apartments (Class 2 sole-occupancy units and Class 4 parts of buildings). The applicable requirements for houses are detailed in Specification 42 of NCC Volume Two. For apartments the requirements are detailed in clauses J3D3 and J3D15 of NCC Volume One.

NCC 2022 includes enhanced thermal performance requirements for houses and apartments. It also includes a new whole-of-home annual energy use budget which applies to the major equipment in the home.

The NCC, and associated ABCB Standards and support material, can be accessed at www.abcb.gov.au.

Note, variations and additions to the NCC energy efficiency requirements may apply in some states and territories.

Thermal performance
star rating



Thermal performance [MJ/m²]

Limits taken from ABCB Standard 2022

	Heating	Cooling
Modelled	64.7	8.8
Load limits	N/A	N/A
Features determining load limits		
Floor type (lowest conditioned area)		N/A
NCC climate zone 1 or 2		N/A
Outdoor living area		N/A
Outdoor living area ceiling fan		N/A

Whole of Home performance rating

No Whole of Home performance rating generated for this certificate

Verification

To verify this certificate, scan the QR code or visit When using either link, ensure you are visiting www.fr5.com.au

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About the ratings

Thermal performance rating

NatHERS thermal software models the expected heating and cooling energy loads using information about the design, construction, climate and common patterns of household use. The thermal performance rating (shown as a star rating on this Certificate) does not take into account appliances, apart from the airflow impacts from ceiling fans.

Whole of Home performance rating

NatHERS Whole of Home software uses the heating and cooling energy loads combined with the energy performance of the home's appliances (heating, cooling, hot water, lighting, pool/spa pump and onsite renewable energy generation and storage) and models the expected energy value* of the whole home. The Whole of Home performance rating is shown as a score out of 100 on this Certificate.

Heating & Cooling Load Limits

Additional information

In some locations under the NCC NatHERS pathway, separate heating and cooling load limits may apply. Minimum required star ratings in northern parts of Australia may also be affected by the presence or absence of an outdoor living area and/or an outdoor living area ceiling fan. Refer to the ABCB NatHERS heating and cooling load limits Standard 2022 for details or contact the relevant local building regulating authority, noting that State and Territory variations may also apply.

Setting options:

Floor type:

- CSOG – Concrete Slab on Ground
- SF – Suspended Floor (or a mixture of CSOG and SF)
- NA – Not Applicable

NCC climate Zone 1 or 2:

- Yes
- No
- NA – not applicable

Outdoor living area:

- Yes
- No
- NA – not applicable

Outdoor living area ceiling fan:

- Yes
- No
- NA – not applicable

Predicted Whole of Home annual impact by appliance

Shows the contribution each appliance has on the home's annual energy use, greenhouse gas emissions and cost without solar

Energy use:

No Whole of Home performance assessment conducted for this certificate.

Greenhouse gas emissions:

No Whole of Home performance assessment conducted for this certificate.

Cost:

No Whole of Home performance assessment conducted for this certificate.

Graph key:



Predicted onsite renewable energy impact

No Whole of Home performance assessment conducted for this certificate.

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Certificate check

The checklist covers important items impacting the dwelling's ratings. It is recommended that the accuracy of the whole certificate is checked.

Note: The boxes indicate when and who should check each item. It is not mandatory to complete this checklist.

	Approval stage		Construction stage		
	Assessor checked	Consent authority/ surveyor checked	Builder checked	Consent authority/ surveyor checked	Occupancy/other
Genuine certificate check					
Does this Certificate match the one available at the web address or QR code verification link on the front page?		☐	☐	☐	☐
Does the NatHERS certificate number on the NatHERS-stamped plans match the number on this Certificate?		☐	☐	☐	☐
Thermal performance check					
Windows and glazed doors					
Does the window size, opening type and location shown on the NatHERS-stamped plans or as installed match what is shown in 'Window and glazed door schedule' and 'Roof window schedule' tables on this Certificate?	☐	☐	☐	☐	☐
Does the installed windows meet the substitution tolerances (AFRC* based SHGC* and U-values*) as shown in the 'Window and glazed door type and performance' and 'Roof window type and performance' tables on this Certificate?			☐	☐	☐
External walls					
Does the external wall bulk insulation (R-value) shown on the NatHERS-stamped plans or as installed match what is shown in the External wall type table on this Certificate?	☐	☐	☐	☐	☐
Does the external wall shade (colour) match what is shown in the 'External wall type' table on this Certificate?	☐	☐	☐	☐	☐
Floor					
Does the floor insulation (R-value) shown on the NatHERS-stamped plans or as installed match what is shown in the 'Floor type' table on this certificate?	☐	☐	☐	☐	☐
Ceiling penetrations*					
Does the 'quantity' and 'type' of ceiling penetrations* (e.g. downlights, exhaust fans, etc) shown on the NatHERS-stamped plans or as installed match what is shown in the 'Ceiling penetrations' table on this Certificate?	☐	☐	☐	☐	☐
Ceiling					
Does the ceiling insulation (R-value) shown on the NatHERS-stamped plans or as installed match what is shown in the 'Ceiling type' table on this Certificate?	☐	☐	☐	☐	☐
Roof					
Does the external roof shade (colour) on the NatHERS stamped plans or as installed match what is shown in the 'Roof type' table on this Certificate?	☐	☐	☐	☐	☐
Apartment entrance doors (NCC Class 2 assessments only)					
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 type (terrain) (shown on page 1) been applied? For example, it is unlikely that a ground-floor apartment is "exposed" or a top floor high-rise apartment is "protected".	☐	☐		☐	☐
Heating and cooling load limits*					
Do the load limits settings (shown on page 1) match the values in the ABCB Standard 2022: NatHERS heating and cooling load limits for the appropriate climate zone?	☐	☐		☐	☐

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Certificate check

Continued

Approval stage		Construction stage		
Assessor checked	Consent authority/surveyor checked	Builder checked	Consent authority/surveyor checked	Occupancy/other

Additional NCC requirements for thermal performance (not included in the NatHERS assessment)**Thermal bridging**

Does the dwelling meet the NCC requirement for thermal bridging?		☐	☐	☐	☐
--	--	--------------------------	--------------------------	--------------------------	--------------------------

Insulation installation method

Has the insulation been installed according to the NCC requirements?			☐	☐	☐
--	--	--	--------------------------	--------------------------	--------------------------

Building sealing

Does the dwelling meet the NCC requirements for Building Sealing?		☐	☐	☐	☐
---	--	--------------------------	--------------------------	--------------------------	--------------------------

Whole of Home performance check (not applicable if a Whole of Home performance assessment is not conducted)**Appliances**

Does the cooling appliance/s type, location and efficiency/performance shown on the NatHERS-stamped plans or as installed match the location and minimum efficiency/performance requirements shown in the 'Appliance schedule' on this Certificate?	☐	☐	☐	☐	☐
---	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

Does the heating appliance/s type, location and efficiency/performance shown on the NatHERS-stamped plans or installed, match the location and minimum efficiency/performance requirements shown in the 'Appliance schedule' on this Certificate?	☐	☐	☐	☐	☐
---	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

Does the hot water system type and efficiency/performance shown on the NatHERS-stamped plans or as installed match the location and minimum efficiency/performance requirements shown in the 'Appliance schedule' on this Certificate?	☐	☐	☐	☐	☐
--	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

Does the pool pump efficiency/performance shown on the NatHERS-stamped plans or as installed match the minimum efficiency/performance requirements shown in the 'Appliance schedule' on this Certificate?	☐	☐	☐	☐	☐
---	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

Does the onsite renewable energy system type, orientation and system size or generation capacity shown on the NatHERS stamped plans or installed match the 'Onsite Renewable Energy schedule' on this Certificate?	☐	☐	☐	☐	☐
--	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

Additional NCC Requirements for Services (not included in the NatHERS assessment)

Does the lighting meet the artificial lighting requirements specified in the NCC?		☐	☐	☐	☐
---	--	--------------------------	--------------------------	--------------------------	--------------------------

Does the hot water system meet the additional requirements specified in the NCC?		☐	☐	☐	☐
--	--	--------------------------	--------------------------	--------------------------	--------------------------

Provisional values* check

Have provisional values* been used in the assessment and, if so, are they noted in 'Additional notes' table below?	☐	☐			
--	--------------------------	--------------------------	--	--	--

Other NCC requirements

Note: This Certificate only covers the energy efficiency requirements in the NCC. Additional requirements that must also be satisfied include, but are not limited to: condensation, structural and fire safety requirements and any state or territory variations to the NCC energy efficiency requirements.

Additional notes

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Room schedule

Room	Zone Type	Area [m²]
Shared 1	basementCarPark	657.3
Kitchen/Living 2	kitchen	28.3
Bath	dayTime	6.1
Laundry	unconditioned	2

Window and glazed door type and performance

Default* windows

Window ID	Window description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				SHGC lower limit	SHGC upper limit
No Data Available					

Custom* windows

Window ID	Window description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				SHGC lower limit	SHGC upper limit
THC-010-21 A	Series EC95 TB Sliding Door DG 4mmEnTech-12Ar-4mmClr	2.93	0.49	0.47	0.51
THC-023-03 B	Series EC35TB Awning Window DG 4ET-12Ar-4	2.51	0.47	0.45	0.49
THC-033-07 B	EC45TB Fixed Window TPS Spacer DG 6ET/12Ar/6	2.09	0.51	0.48	0.54

Window and glazed door schedule

Location	Window ID	Window no.	Height [mm]	Width [mm]	Window type	Opening %	Orientation	Window shading device*
Kitchen/Living 2	THC-010-21 A	Opening 2	2700	4200	sliding	60.0	W	No
Laundry	THC-023-03 B	Opening 3	2000	1095	awning	90.0	S	No
Laundry	THC-033-07 B	Opening 7	700	1095	fixed	0.0	S	No

Roof window* type and performance value

Default* roof windows

Window ID	Window description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				SHGC lower limit	SHGC upper limit
No Data Available					

Custom* roof windows

Window ID	Window description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				SHGC lower limit	SHGC upper limit

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No Data Available

Roof window* *schedule*

Location	Window ID	Window no.	Opening %	Area [m ²]	Width [mm]	Orientation	Outdoor shade	Indoor shade
No Data Available								

Skylight* *type and performance*

Skylight ID	Skylight description	Skylight shaft reflectance
No Data Available		

Skylight* *schedule*

Location	Skylight ID	Skylight No.	Skylight shaft length [mm]	Area [m ²]	Orientation	Outdoor shade	Diffuser
No Data Available							

External door *schedule*

Location	Height [mm]	Width [mm]	Opening %	Orientation
Kitchen/Living 2	2700	1000	100.0	S

External wall *type*

Wall ID	Wall type	Solar absorptance	Wall shade [colour]	Bulk insulation [R-value]	Reflective wall wrap*
1	39 Newcombe St Portarlinton - Retaining	0.5	Medium		No
2	39 Newcombe St Portarlinton - Brick Ext	0.5	Medium	Glass fibre batt (k = 0.044 density = 12 kg/m3) (R4.0)	Yes
3	39 Newcombe St Portarlinton - Plasterboard Int	0.5	Medium	Glass fibre batt (k = 0.044 density = 12 kg/m3) (R2.5)	No

External wall *schedule*

Location	Wall ID	Height [mm]	Width [mm]	Orientation	Horizontal shading feature* maximum projection [mm]	Vertical shading feature* (yes/no)
Shared 1	1	2700	17931	N	0	No
Shared 1	1	2700	17280	W	0	No
Shared 1	1	2700	2358	N	0	No
Shared 1	1	2700	17120	W	0	No
Shared 1	1	2700	20289	S	0	No
Shared 1	1	2700	34417	E	0	No
Kitchen/Living 2	2	2700	538	W	0	Yes
Kitchen/Living 2	2	2700	4322	W	0	Yes
Kitchen/Living 2	2	2700	5839	S	4099	Yes

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NatHERS Certificate

7.6 Star Rating as of 17 Oct 2025

Kitchen/Living 2	3	2700	5806	N	0	No
Bath	3	2700	3598	E	0	No
Bath	3	2700	1689	N	0	No
Laundry	2	2700	1726	S	4142	Yes
Laundry	3	2700	1197	E	0	No

Internal wall type

Wall ID	Wall type	Area [m²]	Bulk insulation
1	FR5 - Internal Plasterboard Stud Wall	17.5	

Floor type

Location	Construction	Area [m²]	Sub-floor ventilation	Added insulation [R-value]	Covering
Shared 1	FR5 - CSOG: Slab on Ground	657.3	Enclosed	R0.0	none
Kitchen/Living 2	FR5 - 225mm concrete slab	25.2	Enclosed	R4.6	Timber
Kitchen/Living 2	FR5 - 225mm concrete slab	3.1	Enclosed	R0.0	Timber
Bath	FR5 - 225mm concrete slab	6.1	Enclosed	R4.6	Tiles
Laundry	FR5 - 225mm concrete slab	2	Enclosed	R4.6	Timber

Ceiling type

Location	Construction material/type	Bulk insulation R-value [may include edge batt values]	Reflective wrap*
Shared 1	FR5 - 225mm concrete slab	R4.6	No
Shared 1	FR5 - 225mm concrete slab	R0.0	No
Shared 1	Plasterboard	R0.0	No

Ceiling penetrations*

Location	Quantity	Type	Height [mm]	Width [mm]	Sealed/unsealed
Kitchen/Living 2	1	Exhaust Fans	200	200	Sealed
Kitchen/Living 2	12	Downlights	80	80	Sealed
Bath	1	Exhaust Fans	200	200	Sealed
Bath	2	Downlights	80	80	Sealed
Laundry	1	Downlights	80	80	Sealed
Laundry	1	Exhaust Fans	200	200	Sealed

Ceiling fans

Location	Quantity	Diameter [mm]
No Data Available		

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Roof type

Construction	Added insulation [R-value]	Solar absorptance	Roof shade [colour]
Slab:Slab - Suspended Slab : 225mm: 225mm Suspended Slab	0.0	0.5	Medium

Thermal bridging *schedule for steel frame elements*

Building element	Steel section dimensions [height x width, mm]	Frame spacing [mm]	Steel thickness [BMT,mm]	Thermal break [R-value]
External wall	90 x 40	600	0.75	0
Floor	100 x 50	450	1.50	0

Appliance *schedule*

(not applicable if a Whole of Home performance assessment is not conducted for this certificate)

Note: A flat assumption of 5W/m2 is used for lighting, therefore lighting is not included in the appliance schedule.

Cooling system

Appliance/ system type	Location	Fuel type	Minimum efficiency/ performance	Recommended capacity
No Whole of Home performance assessment conducted for this certificate.				

Heating system

Appliance/ system type	Location	Fuel type	Minimum efficiency/ performance	Recommended capacity
No Whole of Home performance assessment conducted for this certificate.				

Hot water system

Appliance/ system type	Fuel type	Minimum efficiency/ performance	Hot Water CER Zone	Zone 3 STC	Assessed daily load
No Whole of Home performance assessment conducted for this certificate.					

Pool/spa equipment

Appliance/ system type	Fuel type	Minimum efficiency/ performance	Recommended capacity
No Whole of Home performance assessment conducted for this certificate.			

Onsite renewable energy *schedule*

(not applicable if a Whole of Home performance assessment is not conducted for this certificate)

System type	Orientation	System size or generation capacity
No Whole of Home performance assessment conducted for this certificate.		

Battery *schedule*

(not applicable if a Whole of Home performance assessment is not conducted for this certificate)

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System type

Size [battery storage capacity]

No Whole of Home performance assessment conducted for this certificate.

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NatHERS Certificate

Explanatory Notes

About this report

NatHERS ratings are a reliable guide for comparing different dwelling designs and to demonstrate that designs meet the energy efficiency requirements in the National Construction Code.

NatHERS ratings use computer modelling to evaluate a home's energy efficiency and performance. They use localised climate data and standard assumptions on how people use their home to predict the heating and cooling energy loads and energy value* of the whole home. The thermal performance star rating uses the home's building specifications, layout, orientation and fabric (i.e. walls, windows, floors, roofs and ceilings) to predict the heating and cooling energy loads. The Whole of Home performance rating uses information about the home's appliances and onsite energy generation and storage to estimate the homes energy value*.

The actual energy loads, cost and greenhouse gas emissions of a home may vary from that predicted. This is because the assumptions will not always match the actual occupant usage patterns. For example, the number of occupants and how people use their appliances will vary. Energy efficient homes use less energy, are warmer on cool days, cooler on hot days and cost less to run.

Accredited assessors

For quality assured NatHERS Certificates, always use an accredited or licenced assessor registered with an Assessor Accrediting Organisation (AAO). AAOs have strict quality assurance processes, and professional development requirements ensuring consistently high standards for assessments.

Non-accredited assessors (Raters) have no ongoing training requirements and are not quality assured.

Any queries about this report should be directed to the assessor. If the assessor is unable to address questions or concerns, contact the AAO specified on the front of this certificate.

Disclaimer

The NatHERS Certificate format is developed by the NatHERS Administrator. However, the content in the certificate is entered by the assessor. It is the assessor's responsibility to use NatHERS accredited software correctly and follow the NatHERS Technical Note to produce a NatHERS Certificate.

The predicted annual energy load, cost and greenhouse gas emissions in this NatHERS Certificate are an estimate based on an assessment of the dwelling's design by the assessor. It is not a prediction of actual energy use, cost or emissions. The information and ratings may be used to compare how other dwellings 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, behaviour, appliance performance, indoor air temperature and local climate.

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

Glossary

Annual energy load	the predicted amount of energy required for heating and cooling, based on standard occupancy assumptions.
AFRC	Australian Fenestration Rating Council
Assessed floor area	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.
Ceiling penetrations	features that require a penetration to the ceiling, including downlights, vents, exhaust fans, range hoods, chimneys and flues. Excludes fixtures attached to the ceiling with small holes through the ceiling for wiring, e.g. ceiling fans; pendant lights, and heating and cooling ducts.
Conditioned	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.
COP	Coefficient of performance
Custom windows	windows listed in NatHERS software that are available on the market in Australia and have a WERS (Window Energy Rating Scheme) rating.
Default windows	windows that are representative of a specific type of window product and whose properties have been derived by statistical methods.
EER	Energy Efficiency Ratio, measure of how much cooling can be achieved by an air conditioner for a single kWh of electricity input
Energy use	This is your homes rating without solar or batteries.
Energy value	The net cost to society including, but not limited to, costs to the building user, the environment and energy networks (as defined in the ABCB Housing Provisions Standard).
Entrance door	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.
Exposure category – exposed	terrain with no obstructions e.g. flat grazing land, ocean-frontage, desert, exposed high-rise unit (usually above 10 floors).
Exposure category – open	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).
Exposure category – suburban	terrain with numerous, closely spaced obstructions below 10m e.g. suburban housing, heavily vegetated bushland areas.
Exposure category – protected	terrain with numerous, closely spaced obstructions over 10 m e.g. city and industrial areas.
Horizontal shading feature	provides shading to the building in the horizontal plane, e.g. eaves, verandahs, pergolas, carports, or overhangs or balconies from upper levels.
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Roof window	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.
Shading features	includes neighbouring buildings, fences, and wing walls, but excludes eaves.
Solar heat gain coefficient (SHGC)	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.
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Thermal breaks	are materials with an R-value greater than or equal to 0.2 that must separate the metal frame from the cladding. This includes, but is not limited to, materials such as timber battens greater than or equal to 20mm thick, continuous thermal breaks such as polystyrene insulation sheeting, plastic strips or furring channels.
U-value	the rate of heat transfer through a window. The lower the U-value, the better the insulating ability.
Unconditioned	a zone within a dwelling that is assumed to not require heating and cooling based on standard occupancy assumptions.
Vertical shading features	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).
Window shading device	a device fixed to windows that provides shading e.g. window awnings or screens but excludes horizontal* or vertical shading features* (eg eaves and balconies)

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Nationwide House Energy Rating Scheme® NatHERS® Certificate

Generated on 17 Oct 2025 using FirstRate5: 5.5.5a (3.22)

Property

Address 2.1, Newcombe ,
Portarlington, VIC, 3223

Lot/DP -

NCC Class* Class 2

Floor/all Floors Type New Home

Plans

Main plan -

Prepared by -

Construction and environment

Assessed floor area [m²]*

Conditioned* 149.5

Unconditioned* 2.3

Total 151.8

Garage -

Exposure type

suburban

NatHERS climate zone

64 Cape Otway



Accredited assessor

Name Gary Wertheimer

Business name GIW Environmental Solutions

Email gary@giv.com.au

Phone 0390445111

Accreditation No. DMN/10/2024

Assessor Accrediting Organisation Design Matters National

Declaration of interest No

NCC Requirements

NCC provisions Volume 1

State/Territory variation Yes

National Construction Code (NCC) requirements

The NCC allows the use of NatHERS accredited software to comply with the energy efficiency requirements for houses (Class 1 buildings) and apartments (Class 2 sole-occupancy units and Class 4 parts of buildings). The applicable requirements for houses are detailed in Specification 42 of NCC Volume Two. For apartments the requirements are detailed in clauses J3D3 and J3D15 of NCC Volume One.

NCC 2022 includes enhanced thermal performance requirements for houses and apartments. It also includes a new whole-of-home annual energy use budget which applies to the major equipment in the home.

The NCC, and associated ABCB Standards and support material, can be accessed at www.abcb.gov.au.

Note, variations and additions to the NCC energy efficiency requirements may apply in some states and territories.

Thermal performance
star rating



37.9 MJ/m²

Predicted annual energy load for
heating and cooling based on standard
occupancy assumptions.

For more information on
your dwelling's rating see:
www.nathers.gov.au

Thermal performance [MJ/m²]

Limits taken from ABCB Standard 2022

	Heating	Cooling
Modelled	31.1	6.8
Load limits	N/A	N/A
Features determining load limits		
Floor type		N/A
(lowest conditioned area)		
NCC climate zone 1 or 2		N/A
Outdoor living area		N/A
Outdoor living area ceiling fan		N/A

Whole of Home performance rating

No Whole of Home
performance rating
generated for this
certificate

Verification

To verify this certificate, scan
the QR code or visit When
using either link, ensure you
are visiting www.fr5.com.au

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About the ratings

Thermal performance rating

NatHERS thermal software models the expected heating and cooling energy loads using information about the design, construction, climate and common patterns of household use. The thermal performance rating (shown as a star rating on this Certificate) does not take into account appliances, apart from the airflow impacts from ceiling fans.

Whole of Home performance rating

NatHERS Whole of Home software uses the heating and cooling energy loads combined with the energy performance of the home's appliances (heating, cooling, hot water, lighting, pool/spa pump and onsite renewable energy generation and storage) and models the expected energy value* of the whole home. The Whole of Home performance rating is shown as a score out of 100 on this Certificate.

Heating & Cooling Load Limits

Additional information

In some locations under the NCC NatHERS pathway, separate heating and cooling load limits may apply. Minimum required star ratings in northern parts of Australia may also be affected by the presence or absence of an outdoor living area and/or an outdoor living area ceiling fan. Refer to the ABCB NatHERS heating and cooling load limits Standard 2022 for details or contact the relevant local building regulating authority, noting that State and Territory variations may also apply.

Setting options:

Floor type:

- CSOG – Concrete Slab on Ground
- SF – Suspended Floor (or a mixture of CSOG and SF)
- NA – Not Applicable

NCC climate Zone 1 or 2:

- Yes
- No
- NA – not applicable

Outdoor living area:

- Yes
- No
- NA – not applicable

Outdoor living area ceiling fan:

- Yes
- No
- NA – not applicable

Predicted Whole of Home annual impact by appliance

Shows the contribution each appliance has on the home's annual energy use, greenhouse gas emissions and cost without solar

Energy use:

No Whole of Home performance assessment conducted for this certificate.

Greenhouse gas emissions:

No Whole of Home performance assessment conducted for this certificate.

Cost:

No Whole of Home performance assessment conducted for this certificate.

Graph key:



Predicted onsite renewable energy impact

No Whole of Home performance assessment conducted for this certificate.

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Certificate check

The checklist covers important items impacting the dwelling's ratings. It is recommended that the accuracy of the whole certificate is checked.

Note: The boxes indicate when and who should check each item. It is not mandatory to complete this checklist.

	Approval stage		Construction stage		
	Assessor checked	Consent authority/ surveyor checked	Builder checked	Consent authority/ surveyor checked	Occupancy/other
Genuine certificate check					
Does this Certificate match the one available at the web address or QR code verification link on the front page?		☐	☐	☐	☐
Does the NatHERS certificate number on the NatHERS-stamped plans match the number on this Certificate?		☐	☐	☐	☐
Thermal performance check					
Windows and glazed doors					
Does the window size, opening type and location shown on the NatHERS-stamped plans or as installed match what is shown in 'Window and glazed door schedule' and 'Roof window schedule' tables on this Certificate?	☐	☐	☐	☐	☐
Does the installed windows meet the substitution tolerances (AFRC* based SHGC* and U-values*) as shown in the 'Window and glazed door type and performance' and 'Roof window type and performance' tables on this Certificate?			☐	☐	☐
External walls					
Does the external wall bulk insulation (R-value) shown on the NatHERS-stamped plans or as installed match what is shown in the External wall type table on this Certificate?	☐	☐	☐	☐	☐
Does the external wall shade (colour) match what is shown in the 'External wall type' table on this Certificate?	☐	☐	☐	☐	☐
Floor					
Does the floor insulation (R-value) shown on the NatHERS-stamped plans or as installed match what is shown in the 'Floor type' table on this certificate?	☐	☐	☐	☐	☐
Ceiling penetrations*					
Does the 'quantity' and 'type' of ceiling penetrations* (e.g. downlights, exhaust fans, etc) shown on the NatHERS-stamped plans or as installed match what is shown in the 'Ceiling penetrations' table on this Certificate?	☐	☐	☐	☐	☐
Ceiling					
Does the ceiling insulation (R-value) shown on the NatHERS-stamped plans or as installed match what is shown in the 'Ceiling type' table on this Certificate?	☐	☐	☐	☐	☐
Roof					
Does the external roof shade (colour) on the NatHERS stamped plans or as installed match what is shown in the 'Roof type' table on this Certificate?	☐	☐	☐	☐	☐
Apartment entrance doors (NCC Class 2 assessments only)					
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 type (terrain) (shown on page 1) been applied? For example, it is unlikely that a ground-floor apartment is "exposed" or a top floor high-rise apartment is "protected".	☐	☐		☐	☐
Heating and cooling load limits*					
Do the load limits settings (shown on page 1) match the values in the ABCB Standard 2022: NatHERS heating and cooling load limits for the appropriate climate zone?	☐	☐		☐	☐

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Certificate check

Continued

Approval stage		Construction stage		
Assessor checked	Consent authority/surveyor checked	Builder checked	Consent authority/surveyor checked	Occupancy/other

Additional NCC requirements for thermal performance (not included in the NatHERS assessment)**Thermal bridging**

Does the dwelling meet the NCC requirement for thermal bridging?	☐	☐	☐	☐
--	--------------------------	--------------------------	--------------------------	--------------------------

Insulation installation method

Has the insulation been installed according to the NCC requirements?	☐	☐	☐	☐
--	--------------------------	--------------------------	--------------------------	--------------------------

Building sealing

Does the dwelling meet the NCC requirements for Building Sealing?	☐	☐	☐	☐
---	--------------------------	--------------------------	--------------------------	--------------------------

Whole of Home performance check (not applicable if a Whole of Home performance assessment is not conducted)**Appliances**

Does the cooling appliance/s type, location and efficiency/performance shown on the NatHERS-stamped plans or as installed match the location and minimum efficiency/performance requirements shown in the 'Appliance schedule' on this Certificate?	☐	☐	☐	☐	☐
---	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

Does the heating appliance/s type, location and efficiency/performance shown on the NatHERS-stamped plans or installed, match the location and minimum efficiency/performance requirements shown in the 'Appliance schedule' on this Certificate?	☐	☐	☐	☐	☐
---	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

Does the hot water system type and efficiency/performance shown on the NatHERS-stamped plans or as installed match the location and minimum efficiency/performance requirements shown in the 'Appliance schedule' on this Certificate?	☐	☐	☐	☐	☐
--	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

Does the pool pump efficiency/performance shown on the NatHERS-stamped plans or as installed match the minimum efficiency/performance requirements shown in the 'Appliance schedule' on this Certificate?	☐	☐	☐	☐	☐
---	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

Does the onsite renewable energy system type, orientation and system size or generation capacity shown on the NatHERS stamped plans or installed match the 'Onsite Renewable Energy schedule' on this Certificate?	☐	☐	☐	☐	☐
--	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

Additional NCC Requirements for Services (not included in the NatHERS assessment)

Does the lighting meet the artificial lighting requirements specified in the NCC?	☐	☐	☐	☐
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Does the hot water system meet the additional requirements specified in the NCC?	☐	☐	☐	☐
--	--------------------------	--------------------------	--------------------------	--------------------------

Provisional values* check

Have provisional values* been used in the assessment and, if so, are they noted in 'Additional notes' table below?	☐	☐		
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Other NCC requirements

Note: This Certificate only covers the energy efficiency requirements in the NCC. Additional requirements that must also be satisfied include, but are not limited to: condensation, structural and fire safety requirements and any state or territory variations to the NCC energy efficiency requirements.

Additional notes

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Room schedule

Room	Zone Type	Area [m²]
Pantry	dayTime	3.9
Powder	dayTime	1.9
Landry	unconditioned	2.3
Kitchen/Living	kitchen	49.5
Bedroom 4	bedroom	11.5
Ensuite	nightTime	7.1
WIR	nightTime	7.3
Bedroom 3	bedroom	11.5
Bedroom 2	bedroom	10.8
Bathroom	dayTime	7.1
Bedroom 1	bedroom	14
Studio	dayTime	8.9
Corridor	dayTime	15.9

Window and glazed door type and performance

Default* windows

Window ID	Window description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				SHGC lower limit	SHGC upper limit
No Data Available					

Custom* windows

Window ID	Window description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				SHGC lower limit	SHGC upper limit
THC-033-07 B	EC45TB Fixed Window TPS Spacer DG 6ET/12Ar/6	2.09	0.51	0.48	0.54
THC-010-21 A	Series EC95 TB Sliding Door DG 4mmEnTech-12Ar-4mmClr	2.93	0.49	0.47	0.51
AWS-034-02 B	729/730 Thermal Heart Bifold Door DG 4Clr/10Ar4ET	2.68	0.44	0.42	0.46

Window and glazed door schedule

Location	Window ID	Window no.	Height [mm]	Width [mm]	Window type	Opening %	Orientation	Window shading device*
Kitchen/Living	THC-033-07 B	Opening 34	2700	1650	fixed	0.0	N	No
Kitchen/Living	THC-010-21 A	Opening 35	2700	3380	sliding	45.0	N	No
Bedroom 4	THC-010-21 A	Opening 17	2700	3460	sliding	45.0	N	No
Bedroom 4	THC-010-21 A	Opening 21	2300	1960	sliding	45.0	W	Yes

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NatHERS Certificate

8.9 Star Rating as of 17 Oct 2025

Ensuite	AWS-034-02 B	Opening 23	2300	1000	other	45.0	W	Yes
Bedroom 3	THC-010-21 A	Opening 24	2300	1960	sliding	45.0	W	Yes
Bedroom 2	THC-010-21 A	Opening 28	2300	1960	sliding	45.0	W	Yes
Bedroom 1	THC-010-21 A	Opening 30	2300	1960	sliding	45.0	W	Yes
Studio	THC-033-07 B	Opening 31	2700	1100	fixed	0.0	S	No

Roof window* *type and performance value*

Default* roof windows

Window ID	Window description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				SHGC lower limit	SHGC upper limit
No Data Available					

Custom* roof windows

Window ID	Window description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				SHGC lower limit	SHGC upper limit
No Data Available					

Roof window* *schedule*

Location	Window ID	Window no.	Opening %	Area [m²]	Width [mm]	Orientation	Outdoor shade	Indoor shade
No Data Available								

Skylight* *type and performance*

Skylight ID	Skylight description	Skylight shaft reflectance
No Data Available		

Skylight* *schedule*

Location	Skylight ID	Skylight No.	Skylight shaft length [mm]	Area [m²]	Orientation	Outdoor shade	Diffuser
No Data Available							

External door *schedule*

Location	Height [mm]	Width [mm]	Opening %	Orientation
Corridor	2400	970	100.0	S

External wall *type*

Wall ID	Wall type	Solar absorptance	Wall shade [colour]	Bulk insulation [R-value]	Reflective wall wrap*
1	39 Newcombe St Portarlington - Plasterboard Int	0.5	Medium	Glass fibre batt (k = 0.044 density = 12 kg/m³) (R2.5)	No

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2 39 Newcombe St Portarlinton - Brick Ext 0.5 Medium Glass fibre batt (k = 0.044 density = 12 kg/m3) Yes (R4.0)

External wall *schedule*

Location	Wall ID	Height [mm]	Width [mm]	Orientation	Horizontal shading feature* maximum projection [mm]	Vertical shading feature* (yes/no)
Kitchen/Living	1	2700	8698	E	0	No
Kitchen/Living	2	2700	5682	N	0	Yes
Bedroom 4	2	2700	3627	N	2277	Yes
Bedroom 4	2	2700	3185	W	0	No
Ensuite	2	2700	1973	W	0	No
WIR	2	2700	2040	W	0	No
Bedroom 3	2	2700	3183	W	0	No
Bedroom 2	2	2700	2971	W	0	No
Bedroom 1	2	2700	2961	W	0	No
Bedroom 1	2	2700	4732	S	4105	Yes
Studio	2	2700	2982	S	4100	Yes
Corridor	2	2700	1481	S	4101	Yes
Corridor	1	2700	8198	E	0	No

Internal wall *type*

Wall ID	Wall type	Area [m²]	Bulk insulation
1	FR5 - Internal Plasterboard Stud Wall	168.4	

Floor *type*

Location	Construction	Area [m²]	Sub-floor ventilation	Added insulation [R-value]	Covering
Pantry	FR5 - 225mm concrete slab	3.9	Enclosed	R0.0	Timber
Powder	FR5 - 225mm concrete slab	1.9	Enclosed	R0.0	Tiles
Landry	FR5 - 225mm concrete slab	2.3	Enclosed	R0.0	Tiles
Kitchen/Living	FR5 - 225mm concrete slab	18	Enclosed	R0.0	Timber
Kitchen/Living	FR5 - 225mm concrete slab	31.5	Enclosed	R0.0	Timber
Bedroom 4	FR5 - 225mm concrete slab	11.5	Enclosed	R0.0	Carpet
Ensuite	FR5 - 225mm concrete slab	7.1	Enclosed	R0.0	Tiles
WIR	FR5 - 225mm concrete slab	7.3	Enclosed	R0.0	Carpet
Bedroom 3	FR5 - 225mm concrete slab	11.5	Enclosed	R0.0	Carpet
Bedroom 2	FR5 - 225mm concrete slab	10.8	Enclosed	R0.0	Carpet
Bathroom	FR5 - 225mm concrete slab	7.1	Enclosed	R0.0	Tiles
Bedroom 1	FR5 - 225mm concrete slab	14	Enclosed	R0.0	Carpet
Studio	FR5 - 225mm concrete slab	8.9	Enclosed	R0.0	Timber

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Corridor	FR5 - 225mm concrete slab	15.9	Enclosed	R0.0	Timber
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Ceiling type

Location	Construction material/type	Bulk insulation R-value [may include edge batt values]	Reflective wrap*
Kitchen/Living	Plasterboard	R1.8	No
Bedroom 4	Plasterboard	R1.8	No

Ceiling penetrations*

Location	Quantity	Type	Height [mm]	Width [mm]	Sealed/unsealed
Pantry	1	Downlights	80	80	Sealed
Powder	1	Downlights	80	80	Sealed
Powder	1	Exhaust Fans	250	250	Sealed
Landry	1	Downlights	80	80	Sealed
Landry	1	Exhaust Fans	250	250	Sealed
Kitchen/Living	20	Downlights	80	80	Sealed
Kitchen/Living	1	Exhaust Fans	250	250	Sealed
Bedroom 4	4	Downlights	80	80	Sealed
Ensuite	3	Downlights	80	80	Sealed
Ensuite	1	Exhaust Fans	250	250	Sealed
WIR	3	Downlights	80	80	Sealed
Bedroom 3	4	Downlights	80	80	Sealed
Bedroom 2	4	Downlights	80	80	Sealed
Bathroom	3	Downlights	80	80	Sealed
Bathroom	1	Exhaust Fans	250	250	Sealed
Bedroom 1	5	Downlights	80	80	Sealed
Studio	3	Downlights	80	80	Sealed
Corridor	6	Downlights	80	80	Sealed

Ceiling fans

Location	Quantity	Diameter [mm]
No Data Available		

Roof type

Construction	Added insulation [R-value]	Solar absorptance	Roof shade [colour]
Slab:Slab - Suspended Slab : 225mm: 225mm Suspended Slab	0.0	0.5	Medium

Thermal bridging schedule for steel frame elements

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NatHERS Certificate

8.9 Star Rating as of 17 Oct 2025

Building element	Steel section dimensions		Steel thickness	Thermal break
	[height x width, mm]	Frame spacing [mm]	[BMT,mm]	[R-value]
External wall	90 x 40	600	0.75	0
Cathedral ceiling/flat roof	200 x 75	900	1.50	0

Appliance schedule

(not applicable if a Whole of Home performance assessment is not conducted for this certificate)

Note: A flat assumption of 5W/m2 is used for lighting, therefore lighting is not included in the appliance schedule.

Cooling system

Appliance/ system type	Location	Fuel type	Minimum efficiency/ performance	Recommended capacity
No Whole of Home performance assessment conducted for this certificate.				

Heating system

Appliance/ system type	Location	Fuel type	Minimum efficiency/ performance	Recommended capacity
No Whole of Home performance assessment conducted for this certificate.				

Hot water system

Appliance/ system type	Fuel type	Minimum efficiency/ performance	Hot Water CER		Assessed daily load
			Zone	Zone 3 STC	
No Whole of Home performance assessment conducted for this certificate.					

Pool/spa equipment

Appliance/ system type	Fuel type	Minimum efficiency/ performance	Recommended capacity
No Whole of Home performance assessment conducted for this certificate.			

Onsite renewable energy schedule

(not applicable if a Whole of Home performance assessment is not conducted for this certificate)

System type	Orientation	System size or generation capacity
No Whole of Home performance assessment conducted for this certificate.		

Battery schedule

(not applicable if a Whole of Home performance assessment is not conducted for this certificate)

System type	Size [battery storage capacity]
No Whole of Home performance assessment conducted for this certificate.	

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Explanatory Notes

About this report

NatHERS ratings are a reliable guide for comparing different dwelling designs and to demonstrate that designs meet the energy efficiency requirements in the National Construction Code.

NatHERS ratings use computer modelling to evaluate a home's energy efficiency and performance. They use localised climate data and standard assumptions on how people use their home to predict the heating and cooling energy loads and energy value* of the whole home. The thermal performance star rating uses the home's building specifications, layout, orientation and fabric (i.e. walls, windows, floors, roofs and ceilings) to predict the heating and cooling energy loads. The Whole of Home performance rating uses information about the home's appliances and onsite energy generation and storage to estimate the homes energy value*.

The actual energy loads, cost and greenhouse gas emissions of a home may vary from that predicted. This is because the assumptions will not always match the actual occupant usage patterns. For example, the number of occupants and how people use their appliances will vary. Energy efficient homes use less energy, are warmer on cool days, cooler on hot days and cost less to run.

Accredited assessors

For quality assured NatHERS Certificates, always use an accredited or licenced assessor registered with an Assessor Accrediting Organisation (AAO). AAOs have strict quality assurance processes, and professional development requirements ensuring consistently high standards for assessments.

Non-accredited assessors (Raters) have no ongoing training requirements and are not quality assured.

Any queries about this report should be directed to the assessor. If the assessor is unable to address questions or concerns, contact the AAO specified on the front of this certificate.

Disclaimer

The NatHERS Certificate format is developed by the NatHERS Administrator. However, the content in the certificate is entered by the assessor. It is the assessor's responsibility to use NatHERS accredited software correctly and follow the NatHERS Technical Note to produce a NatHERS Certificate.

The predicted annual energy load, cost and greenhouse gas emissions in this NatHERS Certificate are an estimate based on an assessment of the dwelling's design by the assessor. It is not a prediction of actual energy use, cost or emissions. The information and ratings may be used to compare how other dwellings 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, behaviour, appliance performance, indoor air temperature and local climate.

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

Glossary

Annual energy load	the predicted amount of energy required for heating and cooling, based on standard occupancy assumptions.
AFRC	Australian Fenestration Rating Council
Assessed floor area	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.
Ceiling penetrations	features that require a penetration to the ceiling, including downlights, vents, exhaust fans, range hoods, chimneys and flues. Excludes fixtures attached to the ceiling with small holes through the ceiling for wiring, e.g. ceiling fans; pendant lights, and heating and cooling ducts.
Conditioned	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.
COP	Coefficient of performance
Custom windows	windows listed in NatHERS software that are available on the market in Australia and have a WERS (Window Energy Rating Scheme) rating.
Default windows	windows that are representative of a specific type of window product and whose properties have been derived by statistical methods.
EER	Energy Efficiency Ratio, measure of how much cooling can be achieved by an air conditioner for a single kWh of electricity input
Energy use	This is your homes rating without solar or batteries.
Energy value	The net cost to society including, but not limited to, costs to the building user, the environment and energy networks (as defined in the ABCB Housing Provisions Standard).
Entrance door	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.
Exposure category – exposed	terrain with no obstructions e.g. flat grazing land, ocean-frontage, desert, exposed high-rise unit (usually above 10 floors).
Exposure category – open	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).
Exposure category – suburban	terrain with numerous, closely spaced obstructions below 10m e.g. suburban housing, heavily vegetated bushland areas.
Exposure category – protected	terrain with numerous, closely spaced obstructions over 10 m e.g. city and industrial areas.
Horizontal shading feature	provides shading to the building in the horizontal plane, e.g. eaves, verandahs, pergolas, carports, or overhangs or balconies from upper levels.
National Construction Code (NCC) Class	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 www.abcb.gov.au .
Net zero home	a home that achieves a net zero energy value*.
Opening percentage	the openability percentage or operable (moveable) area of doors or windows that is used in ventilation calculations.
Provisional value	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 www.nathers.gov.au
Recommended capacity	this is the capacity or size of equipment that is recommended by NatHERS to achieve the desired comfort conditions in the zone or zones serviced. This is a recommendation and the final selection sizing should be confirmed by a suitably qualified person.
Reflective wrap (also known as foil)	can be applied to walls, roofs and ceilings. When combined with an appropriate air gap and emissivity value, it provides insulative properties.
Roof window	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.
Shading features	includes neighbouring buildings, fences, and wing walls, but excludes eaves.
Solar heat gain coefficient (SHGC)	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.
Skylight (also known as roof lights)	for NatHERS this is typically a moulded unit with flexible reflective tubing (light well) and a diffuser at ceiling level.

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STCs	Small-scale Technology Certificates, certificates created by the REC registry for renewable energy technologies that may be bought and sold as part of the Small-scale Renewable Energy Scheme operated by the Clean Energy Regulatory
Thermal breaks	are materials with an R-value greater than or equal to 0.2 that must separate the metal frame from the cladding. This includes, but is not limited to, materials such as timber battens greater than or equal to 20mm thick, continuous thermal breaks such as polystyrene insulation sheeting, plastic strips or furring channels.
U-value	the rate of heat transfer through a window. The lower the U-value, the better the insulating ability.
Unconditioned	a zone within a dwelling that is assumed to not require heating and cooling based on standard occupancy assumptions.
Vertical shading features	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).
Window shading device	a device fixed to windows that provides shading e.g. window awnings or screens but excludes horizontal* or vertical shading features* (eg eaves and balconies)

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Nationwide House Energy Rating Scheme[®]

NatHERS[®] Certificate

Generated on 17 Oct 2025 using FirstRate5: 5.5.5a (3.22)

Property

Address 3.3, Newcombe ,
Portarlinton, VIC, 3223

Lot/DP -

NCC Class* Class 2

Floor/all Floors

Type New Home

Plans

Main plan -

Prepared by -

Construction and environment

Assessed floor area [m²]*

Conditioned* 49.6

Unconditioned* 2.8

Total 52.4

Garage -

Exposure type

suburban

NatHERS climate zone

64 Cape Otway



Accredited assessor

Name Gary Wertheimer

Business name GIW Environmental Solutions

Email gary@giv.com.au

Phone 0390445111

Accreditation No. DMN/10/2024

Assessor Accrediting Organisation

Design Matters National

Declaration of interest No

NCC Requirements

NCC provisions Volume 1

State/Territory variation Yes

National Construction Code (NCC) requirements

The NCC allows the use of NatHERS accredited software to comply with the energy efficiency requirements for houses (Class 1 buildings) and apartments (Class 2 sole-occupancy units and Class 4 parts of buildings). The applicable requirements for houses are detailed in Specification 42 of NCC Volume Two. For apartments the requirements are detailed in clauses J3D3 and J3D15 of NCC Volume One.

NCC 2022 includes enhanced thermal performance requirements for houses and apartments. It also includes a new whole-of-home annual energy use budget which applies to the major equipment in the home.

The NCC, and associated ABCB Standards and support material, can be accessed at www.abcb.gov.au.

Note, variations and additions to the NCC energy efficiency requirements may apply in some states and territories.

ADVERTISED
PLAN
Thermal performance
star rating



82.6 MJ/m²

Predicted annual energy load for heating and cooling based on standard occupancy assumptions.

For more information on your dwelling's rating see:
www.nathers.gov.au

Thermal performance [MJ/m²]

Limits taken from ABCB Standard 2022

	Heating	Cooling
Modelled	71.2	11.4
Load limits	N/A	N/A

Features determining load limits

Floor type (lowest conditioned area)	N/A
NCC climate zone 1 or 2	N/A
Outdoor living area	N/A
Outdoor living area ceiling fan	N/A

Whole of Home performance rating

No Whole of Home performance rating generated for this certificate

Verification

To verify this certificate, scan the QR code or visit When using either link, ensure you are visiting www.fr5.com.au

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About the ratings

Thermal performance rating

NatHERS thermal software models the expected heating and cooling energy loads using information about the design, construction, climate and common patterns of household use. The thermal performance rating (shown as a star rating on this Certificate) does not take into account appliances, apart from the airflow impacts from ceiling fans.

Whole of Home performance rating

NatHERS Whole of Home software uses the heating and cooling energy loads combined with the energy performance of the home's appliances (heating, cooling, hot water, lighting, pool/spa pump and onsite renewable energy generation and storage) and models the expected energy value* of the whole home. The Whole of Home performance rating is shown as a score out of 100 on this Certificate.

Heating & Cooling Load Limits

Additional information

In some locations under the NCC NatHERS pathway, separate heating and cooling load limits may apply. Minimum required star ratings in northern parts of Australia may also be affected by the presence or absence of an outdoor living area and/or an outdoor living area ceiling fan. Refer to the ABCB NatHERS heating and cooling load limits Standard 2022 for details or contact the relevant local building regulating authority, noting that State and Territory variations may also apply.

Setting options:

Floor type:

- CSOG – Concrete Slab on Ground
- SF – Suspended Floor (or a mixture of CSOG and SF)
- NA – Not Applicable

NCC climate Zone 1 or 2:

- Yes
- No
- NA – not applicable

Outdoor living area:

- Yes
- No
- NA – not applicable

Outdoor living area ceiling fan:

- Yes
- No
- NA – not applicable

Predicted Whole of Home annual impact by appliance

Shows the contribution each appliance has on the home's annual energy use, greenhouse gas emissions and cost without solar

Energy use:

No Whole of Home performance assessment conducted for this certificate.

Greenhouse gas emissions:

No Whole of Home performance assessment conducted for this certificate.

Cost:

No Whole of Home performance assessment conducted for this certificate.

Graph key:



Predicted onsite renewable energy impact

No Whole of Home performance assessment conducted for this certificate.

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Certificate check

The checklist covers important items impacting the dwelling's ratings. It is recommended that the accuracy of the whole certificate is checked.

Note: The boxes indicate when and who should check each item. It is not mandatory to complete this checklist.

	Approval stage		Construction stage		
	Assessor checked	Consent authority/ surveyor checked	Builder checked	Consent authority/ surveyor checked	Occupancy/other
Genuine certificate check					
Does this Certificate match the one available at the web address or QR code verification link on the front page?		☐	☐	☐	☐
Does the NatHERS certificate number on the NatHERS-stamped plans match the number on this Certificate?		☐	☐	☐	☐
Thermal performance check					
Windows and glazed doors					
Does the window size, opening type and location shown on the NatHERS-stamped plans or as installed match what is shown in 'Window and glazed door schedule' and 'Roof window schedule' tables on this Certificate?	☐	☐	☐	☐	☐
Does the installed windows meet the substitution tolerances (AFRC* based SHGC* and U-values*) as shown in the 'Window and glazed door type and performance' and 'Roof window type and performance' tables on this Certificate?			☐	☐	☐
External walls					
Does the external wall bulk insulation (R-value) shown on the NatHERS-stamped plans or as installed match what is shown in the External wall type table on this Certificate?	☐	☐	☐	☐	☐
Does the external wall shade (colour) match what is shown in the 'External wall type' table on this Certificate?	☐	☐	☐	☐	☐
Floor					
Does the floor insulation (R-value) shown on the NatHERS-stamped plans or as installed match what is shown in the 'Floor type' table on this certificate?	☐	☐	☐	☐	☐
Ceiling penetrations*					
Does the 'quantity' and 'type' of ceiling penetrations* (e.g. downlights, exhaust fans, etc) shown on the NatHERS-stamped plans or as installed match what is shown in the 'Ceiling penetrations' table on this Certificate?	☐	☐	☐	☐	☐
Ceiling					
Does the ceiling insulation (R-value) shown on the NatHERS-stamped plans or as installed match what is shown in the 'Ceiling type' table on this Certificate?	☐	☐	☐	☐	☐
Roof					
Does the external roof shade (colour) on the NatHERS stamped plans or as installed match what is shown in the 'Roof type' table on this Certificate?	☐	☐	☐	☐	☐
Apartment entrance doors (NCC Class 2 assessments only)					
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 type (terrain) (shown on page 1) been applied? For example, it is unlikely that a ground-floor apartment is "exposed" or a top floor high-rise apartment is "protected".	☐	☐		☐	☐
Heating and cooling load limits*					
Do the load limits settings (shown on page 1) match the values in the ABCB Standard 2022: NatHERS heating and cooling load limits for the appropriate climate zone?	☐	☐		☐	☐

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Certificate check

Continued

Approval stage		Construction stage		
Assessor checked	Consent authority/surveyor checked	Builder checked	Consent authority/surveyor checked	Occupancy/other

Additional NCC requirements for thermal performance (not included in the NatHERS assessment)**Thermal bridging**

Does the dwelling meet the NCC requirement for thermal bridging?	☐	☐	☐	☐
--	--------------------------	--------------------------	--------------------------	--------------------------

Insulation installation method

Has the insulation been installed according to the NCC requirements?	☐	☐	☐	☐
--	--------------------------	--------------------------	--------------------------	--------------------------

Building sealing

Does the dwelling meet the NCC requirements for Building Sealing?	☐	☐	☐	☐
---	--------------------------	--------------------------	--------------------------	--------------------------

Whole of Home performance check (not applicable if a Whole of Home performance assessment is not conducted)**Appliances**

Does the cooling appliance/s type, location and efficiency/performance shown on the NatHERS-stamped plans or as installed match the location and minimum efficiency/performance requirements shown in the 'Appliance schedule' on this Certificate?	☐	☐	☐	☐	☐
---	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

Does the heating appliance/s type, location and efficiency/performance shown on the NatHERS-stamped plans or installed, match the location and minimum efficiency/performance requirements shown in the 'Appliance schedule' on this Certificate?	☐	☐	☐	☐	☐
---	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

Does the hot water system type and efficiency/performance shown on the NatHERS-stamped plans or as installed match the location and minimum efficiency/performance requirements shown in the 'Appliance schedule' on this Certificate?	☐	☐	☐	☐	☐
--	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

Does the pool pump efficiency/performance shown on the NatHERS-stamped plans or as installed match the minimum efficiency/performance requirements shown in the 'Appliance schedule' on this Certificate?	☐	☐	☐	☐	☐
---	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

Does the onsite renewable energy system type, orientation and system size or generation capacity shown on the NatHERS stamped plans or installed match the 'Onsite Renewable Energy schedule' on this Certificate?	☐	☐	☐	☐	☐
--	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

Additional NCC Requirements for Services (not included in the NatHERS assessment)

Does the lighting meet the artificial lighting requirements specified in the NCC?	☐	☐	☐	☐
---	--------------------------	--------------------------	--------------------------	--------------------------

Does the hot water system meet the additional requirements specified in the NCC?	☐	☐	☐	☐
--	--------------------------	--------------------------	--------------------------	--------------------------

Provisional values* check

Have provisional values* been used in the assessment and, if so, are they noted in 'Additional notes' table below?	☐	☐		
--	--------------------------	--------------------------	--	--

Other NCC requirements

Note: This Certificate only covers the energy efficiency requirements in the NCC. Additional requirements that must also be satisfied include, but are not limited to: condensation, structural and fire safety requirements and any state or territory variations to the NCC energy efficiency requirements.

Additional notes

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Room schedule

Room	Zone Type	Area [m²]
Kitchen/Living 2	kitchen	31.2
Bedroom 3	bedroom	13.8
Laundry	unconditioned	2.8
Bath	dayTime	4.7

Window and glazed door type and performance

Default* windows

Window ID	Window description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				SHGC lower limit	SHGC upper limit
No Data Available					

Custom* windows

Window ID	Window description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				SHGC lower limit	SHGC upper limit
AWS-034-02 B	729/730 Thermal Heart Bifold Door DG 4Clr/10Ar4ET	2.68	0.44	0.42	0.46
THC-010-21 A	Series EC95 TB Sliding Door DG 4mmEnTech-12Ar-4mmClr	2.93	0.49	0.47	0.51

Window and glazed door schedule

Location	Window ID	Window no.	Height [mm]	Width [mm]	Window type	Opening %	Orientation	Window shading device*
Kitchen/Living 2	AWS-034-02 B	Opening 3	2700	2100	other	45.0	W	No
Kitchen/Living 2	AWS-034-02 B	Opening 4	2700	2100	other	45.0	W	No
Kitchen/Living 2	THC-010-21 A	Opening 1	2700	3033	sliding	60.0	S	No
Bedroom 3	THC-010-21 A	Opening 2	2700	3033	sliding	60.0	S	No

Roof window* type and performance value

Default* roof windows

Window ID	Window description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				SHGC lower limit	SHGC upper limit
No Data Available					

Custom* roof windows

Window ID	Window description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				SHGC lower limit	SHGC upper limit
No Data Available					

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Roof window* *schedule*

Location	Window ID	Window no.	Opening %	Area [m ²]	Width [mm]	Orientation	Outdoor shade	Indoor shade
No Data Available								

Skylight* *type and performance*

Skylight ID	Skylight description	Skylight shaft reflectance
No Data Available		

Skylight* *schedule*

Location	Skylight ID	Skylight No.	Skylight shaft length [mm]	Area [m ²]	Orient-ation	Outdoor shade	Diffuser
No Data Available							

External door *schedule*

Location	Height [mm]	Width [mm]	Opening %	Orientation
Kitchen/Living 2	2700	1000	100.0	N

External wall *type*

Wall ID	Wall type	Solar absorptance	Wall shade [colour]	Bulk insulation [R-value]	Reflective wall wrap*
1	39 Newcombe St Portarlinton - Brick Ext	0.5	Medium	Glass fibre batt (k = 0.044 density = 12 kg/m3) (R4.0)	Yes
2	39 Newcombe St Portarlinton - Plasterboard Int	0.5	Medium	Glass fibre batt (k = 0.044 density = 12 kg/m3) (R2.5)	No

External wall *schedule*

Location	Wall ID	Height [mm]	Width [mm]	Orientation	Horizontal shading feature* maximum projection [mm]	Vertical shading feature* (yes/no)
Kitchen/Living 2	1	2700	8937	W	0	Yes
Kitchen/Living 2	1	2700	3698	S	0	Yes
Kitchen/Living 2	2	2700	2635	E	0	No
Kitchen/Living 2	2	2700	2582	N	0	No
Kitchen/Living 2	2	2700	691	E	0	No
Kitchen/Living 2	1	2700	1094	N	0	Yes
Bedroom 3	1	2700	3900	S	0	Yes
Bedroom 3	2	2700	3541	E	0	No
Laundry	2	2700	1435	N	0	No
Bath	2	2700	1987	E	0	No

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Bath	2	2700	2380	N	0	No
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Internal wall type

Wall ID	Wall type	Area [m²]	Bulk insulation
1	FR5 - Internal Plasterboard Stud Wall	30.5	

Floor type

Location	Construction	Area [m²]	Sub-floor ventilation	Added insulation [R-value]	Covering
Kitchen/Living 2	FR5 - 225mm concrete slab	31.2	Enclosed	R0.0	Timber
Bedroom 3	FR5 - 225mm concrete slab	13.8	Enclosed	R0.0	Carpet
Laundry	FR5 - 225mm concrete slab	2.8	Enclosed	R0.0	Tiles
Bath	FR5 - 225mm concrete slab	4.7	Enclosed	R0.0	Tiles

Ceiling type

Location	Construction material/type	Bulk insulation R-value [may include edge batt values]	Reflective wrap*
No Data Available			

Ceiling penetrations*

Location	Quantity	Type	Height [mm]	Width [mm]	Sealed/unsealed
Kitchen/Living 2	1	Exhaust Fans	200	200	Sealed
Kitchen/Living 2	12	Downlights	80	80	Sealed
Bedroom 3	5	Downlights	80	80	Sealed
Laundry	1	Exhaust Fans	200	200	Sealed
Laundry	1	Downlights	80	80	Sealed
Bath	1	Exhaust Fans	200	200	Sealed
Bath	2	Downlights	80	80	Sealed

Ceiling fans

Location	Quantity	Diameter [mm]
No Data Available		

Roof type

Construction	Added insulation [R-value]	Solar absorptance	Roof shade [colour]
Slab:Slab - Suspended Slab : 225mm: 225mm Suspended Slab	0.0	0.5	Medium

Thermal bridging schedule for steel frame elements

Building element	Steel section dimensions [height x width, mm]	Frame spacing [mm]	Steel thickness [BMT, mm]	Thermal break [R-value]
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NatHERS Certificate

7.2 Star Rating as of 17 Oct 2025

External wall	90 x 40	600	0.75	0
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Appliance *schedule*

(not applicable if a Whole of Home performance assessment is not conducted for this certificate)

Note: A flat assumption of 5W/m2 is used for lighting, therefore lighting is not included in the appliance schedule.

Cooling system

Appliance/ system type	Location	Fuel type	Minimum efficiency/ performance	Recommended capacity
No Whole of Home performance assessment conducted for this certificate.				

Heating system

Appliance/ system type	Location	Fuel type	Minimum efficiency/ performance	Recommended capacity
No Whole of Home performance assessment conducted for this certificate.				

Hot water system

Appliance/ system type	Fuel type	Minimum efficiency/ performance	Hot Water CER Zone	Zone 3 STC	Assessed daily load
No Whole of Home performance assessment conducted for this certificate.					

Pool/spa equipment

Appliance/ system type	Fuel type	Minimum efficiency/ performance	Recommended capacity
No Whole of Home performance assessment conducted for this certificate.			

Onsite renewable energy *schedule*

(not applicable if a Whole of Home performance assessment is not conducted for this certificate)

System type	Orientation	System size or generation capacity
No Whole of Home performance assessment conducted for this certificate.		

Battery *schedule*

(not applicable if a Whole of Home performance assessment is not conducted for this certificate)

System type	Size [battery storage capacity]
No Whole of Home performance assessment conducted for this certificate.	

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Explanatory Notes

About this report

NatHERS ratings are a reliable guide for comparing different dwelling designs and to demonstrate that designs meet the energy efficiency requirements in the National Construction Code.

NatHERS ratings use computer modelling to evaluate a home's energy efficiency and performance. They use localised climate data and standard assumptions on how people use their home to predict the heating and cooling energy loads and energy value* of the whole home. The thermal performance star rating uses the home's building specifications, layout, orientation and fabric (i.e. walls, windows, floors, roofs and ceilings) to predict the heating and cooling energy loads. The Whole of Home performance rating uses information about the home's appliances and onsite energy generation and storage to estimate the homes energy value*.

The actual energy loads, cost and greenhouse gas emissions of a home may vary from that predicted. This is because the assumptions will not always match the actual occupant usage patterns. For example, the number of occupants and how people use their appliances will vary. Energy efficient homes use less energy, are warmer on cool days, cooler on hot days and cost less to run.

Accredited assessors

For quality assured NatHERS Certificates, always use an accredited or licenced assessor registered with an Assessor Accrediting Organisation (AAO). AAOs have strict quality assurance processes, and professional development requirements ensuring consistently high standards for assessments.

Non-accredited assessors (Raters) have no ongoing training requirements and are not quality assured.

Any queries about this report should be directed to the assessor. If the assessor is unable to address questions or concerns, contact the AAO specified on the front of this certificate.

Disclaimer

The NatHERS Certificate format is developed by the NatHERS Administrator. However, the content in the certificate is entered by the assessor. It is the assessor's responsibility to use NatHERS accredited software correctly and follow the NatHERS Technical Note to produce a NatHERS Certificate.

The predicted annual energy load, cost and greenhouse gas emissions in this NatHERS Certificate are an estimate based on an assessment of the dwelling's design by the assessor. It is not a prediction of actual energy use, cost or emissions. The information and ratings may be used to compare how other dwellings 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, behaviour, appliance performance, indoor air temperature and local climate.

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

Glossary

Annual energy load	the predicted amount of energy required for heating and cooling, based on standard occupancy assumptions.
AFRC	Australian Fenestration Rating Council
Assessed floor area	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.
Ceiling penetrations	features that require a penetration to the ceiling, including downlights, vents, exhaust fans, range hoods, chimneys and flues. Excludes fixtures attached to the ceiling with small holes through the ceiling for wiring, e.g. ceiling fans; pendant lights, and heating and cooling ducts.
Conditioned	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.
COP	Coefficient of performance
Custom windows	windows listed in NatHERS software that are available on the market in Australia and have a WERS (Window Energy Rating Scheme) rating.
Default windows	windows that are representative of a specific type of window product and whose properties have been derived by statistical methods.
EER	Energy Efficiency Ratio, measure of how much cooling can be achieved by an air conditioner for a single kWh of electricity input
Energy use	This is your homes rating without solar or batteries.
Energy value	The net cost to society including, but not limited to, costs to the building user, the environment and energy networks (as defined in the ABCB Housing Provisions Standard).
Entrance door	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.
Exposure category – exposed	terrain with no obstructions e.g. flat grazing land, ocean-frontage, desert, exposed high-rise unit (usually above 10 floors).
Exposure category – open	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).
Exposure category – suburban	terrain with numerous, closely spaced obstructions below 10m e.g. suburban housing, heavily vegetated bushland areas.
Exposure category – protected	terrain with numerous, closely spaced obstructions over 10 m e.g. city and industrial areas.
Horizontal shading feature	provides shading to the building in the horizontal plane, e.g. eaves, verandahs, pergolas, carports, or overhangs or balconies from upper levels.
National Construction Code (NCC) Class	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 www.abcb.gov.au .
Net zero home	a home that achieves a net zero energy value*.
Opening percentage	the openability percentage or operable (moveable) area of doors or windows that is used in ventilation calculations.
Provisional value	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 www.nathers.gov.au
Recommended capacity	this is the capacity or size of equipment that is recommended by NatHERS to achieve the desired comfort conditions in the zone or zones serviced. This is a recommendation and the final selection sizing should be confirmed by a suitably qualified person.
Reflective wrap (also known as foil)	can be applied to walls, roofs and ceilings. When combined with an appropriate air gap and emissivity value, it provides insulative properties.
Roof window	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.
Shading features	includes neighbouring buildings, fences, and wing walls, but excludes eaves.
Solar heat gain coefficient (SHGC)	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.
Skylight (also known as roof lights)	for NatHERS this is typically a moulded unit with flexible reflective tubing (light well) and a diffuser at ceiling level.

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Nationwide House Energy Rating Scheme® NatHERS® Certificate

Generated on 17 Oct 2025 using FirstRate5: 5.5.5a (3.22)

Property

Address 3.4, Newcombe ,
Portarlinton, VIC, 3223
Lot/DP -
NCC Class* Class 2
Floor/all Floors
Type New Home

Plans

Main plan -
Prepared by -

Construction and environment

Assessed floor area [m²]*

Conditioned* 89.8

Unconditioned* 4.6

Total 94.4

Garage -

Exposure type

suburban

NatHERS climate zone

64 Cape Otway



Accredited assessor

Name Gary Wertheimer
Business name GIW Environmental Solutions
Email gary@giv.com.au
Phone 0390445111
Accreditation No. DMN/10/2024
Assessor Accrediting Organisation
Design Matters National
Declaration of interest No

NCC Requirements

NCC provisions Volume 1
State/Territory variation Yes

National Construction Code (NCC) requirements

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NCC 2022 includes enhanced thermal performance requirements for houses and apartments. It also includes a new whole-of-home annual energy use budget which applies to the major equipment in the home.

The NCC, and associated ABCB Standards and support material, can be accessed at www.abcb.gov.au.

Note, variations and additions to the NCC energy efficiency requirements may apply in some states and territories.

Thermal performance
star rating



68.2 MJ/m²

Predicted annual energy load for heating and cooling based on standard occupancy assumptions.

For more information on your dwelling's rating see:
www.nathers.gov.au

Thermal performance [MJ/m²]

Limits taken from ABCB Standard 2022

	Heating	Cooling
Modelled	60.2	7.9
Load limits	N/A	N/A

Features determining load limits

Floor type (lowest conditioned area)	N/A
NCC climate zone 1 or 2	N/A
Outdoor living area	N/A
Outdoor living area ceiling fan	N/A

Whole of Home performance rating

No Whole of Home performance rating generated for this certificate

Verification

To verify this certificate, scan the QR code or visit When using either link, ensure you are visiting www.fr5.com.au

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About the ratings

Thermal performance rating

NatHERS thermal software models the expected heating and cooling energy loads using information about the design, construction, climate and common patterns of household use. The thermal performance rating (shown as a star rating on this Certificate) does not take into account appliances, apart from the airflow impacts from ceiling fans.

Whole of Home performance rating

NatHERS Whole of Home software uses the heating and cooling energy loads combined with the energy performance of the home's appliances (heating, cooling, hot water, lighting, pool/spa pump and onsite renewable energy generation and storage) and models the expected energy value* of the whole home. The Whole of Home performance rating is shown as a score out of 100 on this Certificate.

Heating & Cooling Load Limits

Additional information

In some locations under the NCC NatHERS pathway, separate heating and cooling load limits may apply. Minimum required star ratings in northern parts of Australia may also be affected by the presence or absence of an outdoor living area and/or an outdoor living area ceiling fan. Refer to the ABCB NatHERS heating and cooling load limits Standard 2022 for details or contact the relevant local building regulating authority, noting that State and Territory variations may also apply.

Setting options:

Floor type:

- CSOG – Concrete Slab on Ground
- SF – Suspended Floor (or a mixture of CSOG and SF)
- NA – Not Applicable

NCC climate Zone 1 or 2:

- Yes
- No
- NA – not applicable

Outdoor living area:

- Yes
- No
- NA – not applicable

Outdoor living area ceiling fan:

- Yes
- No
- NA – not applicable

Predicted Whole of Home annual impact by appliance

Shows the contribution each appliance has on the home's annual energy use, greenhouse gas emissions and cost without solar

Energy use:

No Whole of Home performance assessment conducted for this certificate.

Greenhouse gas emissions:

No Whole of Home performance assessment conducted for this certificate.

Cost:

No Whole of Home performance assessment conducted for this certificate.

Graph key:



Predicted onsite renewable energy impact

No Whole of Home performance assessment conducted for this certificate.

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Certificate check

The checklist covers important items impacting the dwelling's ratings. It is recommended that the accuracy of the whole certificate is checked.

Note: The boxes indicate when and who should check each item. It is not mandatory to complete this checklist.

	Approval stage		Construction stage		
	Assessor checked	Consent authority/ surveyor checked	Builder checked	Consent authority/ surveyor checked	Occupancy/other
Genuine certificate check					
Does this Certificate match the one available at the web address or QR code verification link on the front page?		☐	☐	☐	☐
Does the NatHERS certificate number on the NatHERS-stamped plans match the number on this Certificate?		☐	☐	☐	☐
Thermal performance check					
Windows and glazed doors					
Does the window size, opening type and location shown on the NatHERS-stamped plans or as installed match what is shown in 'Window and glazed door schedule' and 'Roof window schedule' tables on this Certificate?	☐	☐	☐	☐	☐
Does the installed windows meet the substitution tolerances (AFRC* based SHGC* and U-values*) as shown in the 'Window and glazed door type and performance' and 'Roof window type and performance' tables on this Certificate?			☐	☐	☐
External walls					
Does the external wall bulk insulation (R-value) shown on the NatHERS-stamped plans or as installed match what is shown in the External wall type table on this Certificate?	☐	☐	☐	☐	☐
Does the external wall shade (colour) match what is shown in the 'External wall type' table on this Certificate?	☐	☐	☐	☐	☐
Floor					
Does the floor insulation (R-value) shown on the NatHERS-stamped plans or as installed match what is shown in the 'Floor type' table on this certificate?	☐	☐	☐	☐	☐
Ceiling penetrations*					
Does the 'quantity' and 'type' of ceiling penetrations* (e.g. downlights, exhaust fans, etc) shown on the NatHERS-stamped plans or as installed match what is shown in the 'Ceiling penetrations' table on this Certificate?	☐	☐	☐	☐	☐
Ceiling					
Does the ceiling insulation (R-value) shown on the NatHERS-stamped plans or as installed match what is shown in the 'Ceiling type' table on this Certificate?	☐	☐	☐	☐	☐
Roof					
Does the external roof shade (colour) on the NatHERS stamped plans or as installed match what is shown in the 'Roof type' table on this Certificate?	☐	☐	☐	☐	☐
Apartment entrance doors (NCC Class 2 assessments only)					
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 type (terrain) (shown on page 1) been applied? For example, it is unlikely that a ground-floor apartment is "exposed" or a top floor high-rise apartment is "protected".	☐	☐		☐	☐
Heating and cooling load limits*					
Do the load limits settings (shown on page 1) match the values in the ABCB Standard 2022: NatHERS heating and cooling load limits for the appropriate climate zone?	☐	☐		☐	☐

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Certificate check

Continued

Approval stage		Construction stage		
Assessor checked	Consent authority/surveyor checked	Builder checked	Consent authority/surveyor checked	Occupancy/other

Additional NCC requirements for thermal performance (not included in the NatHERS assessment)**Thermal bridging**

Does the dwelling meet the NCC requirement for thermal bridging?		☐	☐	☐	☐
--	--	--------------------------	--------------------------	--------------------------	--------------------------

Insulation installation method

Has the insulation been installed according to the NCC requirements?			☐	☐	☐
--	--	--	--------------------------	--------------------------	--------------------------

Building sealing

Does the dwelling meet the NCC requirements for Building Sealing?		☐	☐	☐	☐
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Whole of Home performance check (not applicable if a Whole of Home performance assessment is not conducted)**Appliances**

Does the cooling appliance/s type, location and efficiency/performance shown on the NatHERS-stamped plans or as installed match the location and minimum efficiency/performance requirements shown in the 'Appliance schedule' on this Certificate?	☐	☐	☐	☐	☐
---	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

Does the heating appliance/s type, location and efficiency/performance shown on the NatHERS-stamped plans or installed, match the location and minimum efficiency/performance requirements shown in the 'Appliance schedule' on this Certificate?	☐	☐	☐	☐	☐
---	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

Does the hot water system type and efficiency/performance shown on the NatHERS-stamped plans or as installed match the location and minimum efficiency/performance requirements shown in the 'Appliance schedule' on this Certificate?	☐	☐	☐	☐	☐
--	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

Does the pool pump efficiency/performance shown on the NatHERS-stamped plans or as installed match the minimum efficiency/performance requirements shown in the 'Appliance schedule' on this Certificate?	☐	☐	☐	☐	☐
---	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

Does the onsite renewable energy system type, orientation and system size or generation capacity shown on the NatHERS stamped plans or installed match the 'Onsite Renewable Energy schedule' on this Certificate?	☐	☐	☐	☐	☐
--	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

Additional NCC Requirements for Services (not included in the NatHERS assessment)

Does the lighting meet the artificial lighting requirements specified in the NCC?		☐	☐	☐	☐
---	--	--------------------------	--------------------------	--------------------------	--------------------------

Does the hot water system meet the additional requirements specified in the NCC?		☐	☐	☐	☐
--	--	--------------------------	--------------------------	--------------------------	--------------------------

Provisional values* check

Have provisional values* been used in the assessment and, if so, are they noted in 'Additional notes' table below?	☐	☐			
--	--------------------------	--------------------------	--	--	--

Other NCC requirements

Note: This Certificate only covers the energy efficiency requirements in the NCC. Additional requirements that must also be satisfied include, but are not limited to: condensation, structural and fire safety requirements and any state or territory variations to the NCC energy efficiency requirements.

Additional notes

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Room schedule

Room	Zone Type	Area [m²]
Bedroom 2	bedroom	14.1
Ensuite	nightTime	4
Bedroom 1	bedroom	12.4
Kitchen/Living 4	kitchen	43.2
Bath	unconditioned	4.6
Bedroom 3	bedroom	11.5
Hall	dayTime	4.6

Window and glazed door type and performance

Default* windows

Window ID	Window description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				SHGC lower limit	SHGC upper limit
No Data Available					

Custom* windows

Window ID	Window description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				SHGC lower limit	SHGC upper limit
THC-023-03 B	Series EC35TB Awning Window DG 4ET-12Ar-4	2.51	0.47	0.45	0.49
THC-033-07 B	EC45TB Fixed Window TPS Spacer DG 6ET/12Ar/6	2.09	0.51	0.48	0.54
THC-010-21 A	Series EC95 TB Sliding Door DG 4mmEnTech-12Ar-4mmClr	2.93	0.49	0.47	0.51
AWS-034-02 B	729/730 Thermal Heart Bifold Door DG 4Clr/10Ar4ET	2.68	0.44	0.42	0.46

Window and glazed door schedule

Location	Window ID	Window no.	Height [mm]	Width [mm]	Window type	Opening %	Orientation	Window shading device*
Bedroom 2	THC-023-03 B	Opening 11	2000	1000	awning	90.0	N	No
Bedroom 2	THC-033-07 B	Opening 17	700	1000	fixed	0.0	N	No
Bedroom 1	THC-010-21 A	Opening 1	2700	3033	sliding	60.0	S	No
Kitchen/Living 4	THC-010-21 A	Opening 2	2700	2545	sliding	60.0	S	No
Kitchen/Living 4	THC-010-21 A	Opening 3	2700	2545	sliding	60.0	S	No
Kitchen/Living 4	AWS-034-02 B	Opening 10	2700	2836	other	45.0	E	No
Kitchen/Living 4	THC-033-07 B	Opening 14	2700	800	fixed	0.0	N	No
Bath	AWS-034-02 B	Opening 16	2700	900	other	45.0	N	No

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NatHERS Certificate

7.8 Star Rating as of 17 Oct 2025

Bedroom 3	THC-010-21 A	Opening 13	2700	3345	sliding	60.0	E	No
Bedroom 3	THC-033-07 B	Opening 12	2700	2000	fixed	0.0	N	No

Roof window* *type and performance value*

Default* roof windows

Window ID	Window description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				SHGC lower limit	SHGC upper limit
No Data Available					

Custom* roof windows

Window ID	Window description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				SHGC lower limit	SHGC upper limit
No Data Available					

Roof window* *schedule*

Location	Window ID	Window no.	Opening %	Area [m²]	Width [mm]	Orientation	Outdoor shade	Indoor shade
No Data Available								

Skylight* *type and performance*

Skylight ID	Skylight description	Skylight shaft reflectance
No Data Available		

Skylight* *schedule*

Location	Skylight ID	Skylight No.	Skylight shaft length [mm]	Area [m²]	Orient-ation	Outdoor shade	Diffuser
No Data Available							

External door *schedule*

Location	Height [mm]	Width [mm]	Opening %	Orientation
Hall	2700	1000	100.0	N

External wall *type*

Wall ID	Wall type	Solar absorptance	Wall shade [colour]	Bulk insulation [R-value]	Reflective wall wrap*
1	39 Newcombe St Portarlinton - Plasterboard Int	0.5	Medium	Glass fibre batt (k = 0.044 density = 12 kg/m3) (R2.5)	No
2	39 Newcombe St Portarlinton - Brick Ext	0.5	Medium	Glass fibre batt (k = 0.044 density = 12 kg/m3) (R4.0)	Yes

External wall *schedule*

Location	Wall ID	Height [mm]	Width [mm]	Orientation	Horizontal shading feature* maximum projection [mm]	Vertical shading feature* (yes/no)
Bedroom 2	1	2700	3818	W	0	No
Bedroom 2	2	2700	201	E	0	Yes
Bedroom 2	2	2700	973	N	3849	Yes
Bedroom 2	2	2700	192	W	0	Yes
Bedroom 2	2	2700	2666	N	4042	Yes
Ensuite	1	2700	1493	W	0	No
Bedroom 1	1	2700	3359	W	0	No
Bedroom 1	2	2700	3696	S	0	Yes
Kitchen/Living 4	2	2700	7392	S	0	Yes
Kitchen/Living 4	2	2700	5774	E	0	Yes
Kitchen/Living 4	2	2700	893	N	3139	Yes
Bath	2	2700	1505	N	0	Yes
Bedroom 3	2	2700	3216	E	856	Yes
Bedroom 3	2	2700	3047	N	0	Yes
Bedroom 3	2	2700	216	W	0	Yes
Bedroom 3	2	2700	555	N	0	Yes
Hall	2	2700	1215	N	4051	Yes

Internal wall type

Wall ID	Wall type	Area [m²]	Bulk insulation
1	FR5 - Internal Plasterboard Stud Wall	77.8	

Floor type

Location	Construction	Area [m²]	Sub-floor ventilation	Added insulation [R-value]	Covering
Bedroom 2	FR5 - 225mm concrete slab	14.1	Enclosed	R0.0	Carpet
Ensuite	FR5 - 225mm concrete slab	4	Enclosed	R0.0	Tiles
Bedroom 1	FR5 - 225mm concrete slab	12.4	Enclosed	R0.0	Carpet
Kitchen/Living 4	FR5 - 225mm concrete slab	31	Elevated	R4.6	Timber
Kitchen/Living 4	FR5 - 225mm concrete slab	12.2	Enclosed	R0.0	Timber
Bath	FR5 - 225mm concrete slab	0.6	Elevated	R4.6	Tiles
Bath	FR5 - 225mm concrete slab	4	Enclosed	R0.0	Tiles
Bedroom 3	FR5 - 225mm concrete slab	11.5	Elevated	R4.6	Carpet
Hall	FR5 - 225mm concrete slab	4.6	Enclosed	R0.0	Timber

Ceiling type

Location	Construction material/type	Bulk insulation [may include edge batt values]	Reflective wrap*
No Data Available			

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Ceiling penetrations*

Location	Quantity	Type	Height [mm]	Width [mm]	Sealed/unsealed
Bedroom 2	6	Downlights	80	80	Sealed
Ensuite	1	Exhaust Fans	200	200	Sealed
Ensuite	2	Downlights	80	80	Sealed
Bedroom 1	5	Downlights	80	80	Sealed
Kitchen/Living 4	1	Exhaust Fans	200	200	Sealed
Kitchen/Living 4	16	Downlights	80	80	Sealed
Bath	1	Exhaust Fans	200	200	Sealed
Bath	2	Downlights	80	80	Sealed
Bedroom 3	5	Downlights	80	80	Sealed
Hall	2	Downlights	80	80	Sealed

Ceiling fans

Location	Quantity	Diameter [mm]
No Data Available		

Roof type

Construction	Added insulation [R-value]	Solar absorptance	Roof shade [colour]
Slab:Slab - Suspended Slab : 225mm: 225mm Suspended Slab	0.0	0.5	Medium

Thermal bridging schedule for steel frame elements

Building element	Steel section dimensions [height x width, mm]	Frame spacing [mm]	Steel thickness [BMT,mm]	Thermal break [R-value]
External wall	90 x 40	600	0.75	0
Floor	100 x 50	450	1.50	0

Appliance schedule

(not applicable if a Whole of Home performance assessment is not conducted for this certificate)

Note: A flat assumption of 5W/m2 is used for lighting, therefore lighting is not included in the appliance schedule.

Cooling system

Appliance/ system type	Location	Fuel type	Minimum efficiency/ performance	Recommended capacity
No Whole of Home performance assessment conducted for this certificate.				

Heating system

Appliance/ system type	Location	Fuel type	Minimum efficiency/ performance	Recommended capacity
No Whole of Home performance assessment conducted for this certificate.				

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NatHERS Certificate

7.8 Star Rating as of 17 Oct 2025

Hot water system

Appliance/ system type	Fuel type	Minimum efficiency/ performance	Hot Water CER Zone	Zone 3 STC	Assessed daily load
No Whole of Home performance assessment conducted for this certificate.					

Pool/spa equipment

Appliance/ system type	Fuel type	Minimum efficiency/ performance	Recommended capacity
No Whole of Home performance assessment conducted for this certificate.			

Onsite renewable energy *schedule*

(not applicable if a Whole of Home performance assessment is not conducted for this certificate)

System type	Orientation	System size or generation capacity
No Whole of Home performance assessment conducted for this certificate.		

Battery *schedule*

(not applicable if a Whole of Home performance assessment is not conducted for this certificate)

System type	Size [battery storage capacity]
No Whole of Home performance assessment conducted for this certificate.	

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Explanatory Notes

About this report

NatHERS ratings are a reliable guide for comparing different dwelling designs and to demonstrate that designs meet the energy efficiency requirements in the National Construction Code.

NatHERS ratings use computer modelling to evaluate a home's energy efficiency and performance. They use localised climate data and standard assumptions on how people use their home to predict the heating and cooling energy loads and energy value* of the whole home. The thermal performance star rating uses the home's building specifications, layout, orientation and fabric (i.e. walls, windows, floors, roofs and ceilings) to predict the heating and cooling energy loads. The Whole of Home performance rating uses information about the home's appliances and onsite energy generation and storage to estimate the homes energy value*.

The actual energy loads, cost and greenhouse gas emissions of a home may vary from that predicted. This is because the assumptions will not always match the actual occupant usage patterns. For example, the number of occupants and how people use their appliances will vary. Energy efficient homes use less energy, are warmer on cool days, cooler on hot days and cost less to run.

Accredited assessors

For quality assured NatHERS Certificates, always use an accredited or licenced assessor registered with an Assessor Accrediting Organisation (AAO). AAOs have strict quality assurance processes, and professional development requirements ensuring consistently high standards for assessments.

Non-accredited assessors (Raters) have no ongoing training requirements and are not quality assured.

Any queries about this report should be directed to the assessor. If the assessor is unable to address questions or concerns, contact the AAO specified on the front of this certificate.

Disclaimer

The NatHERS Certificate format is developed by the NatHERS Administrator. However, the content in the certificate is entered by the assessor. It is the assessor's responsibility to use NatHERS accredited software correctly and follow the NatHERS Technical Note to produce a NatHERS Certificate.

The predicted annual energy load, cost and greenhouse gas emissions in this NatHERS Certificate are an estimate based on an assessment of the dwelling's design by the assessor. It is not a prediction of actual energy use, cost or emissions. The information and ratings may be used to compare how other dwellings 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, behaviour, appliance performance, indoor air temperature and local climate.

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

Glossary

Annual energy load	the predicted amount of energy required for heating and cooling, based on standard occupancy assumptions.
AFRC	Australian Fenestration Rating Council
Assessed floor area	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.
Ceiling penetrations	features that require a penetration to the ceiling, including downlights, vents, exhaust fans, range hoods, chimneys and flues. Excludes fixtures attached to the ceiling with small holes through the ceiling for wiring, e.g. ceiling fans; pendant lights, and heating and cooling ducts.
Conditioned	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.
COP	Coefficient of performance
Custom windows	windows listed in NatHERS software that are available on the market in Australia and have a WERS (Window Energy Rating Scheme) rating.
Default windows	windows that are representative of a specific type of window product and whose properties have been derived by statistical methods.
EER	Energy Efficiency Ratio, measure of how much cooling can be achieved by an air conditioner for a single kWh of electricity input
Energy use	This is your homes rating without solar or batteries.
Energy value	The net cost to society including, but not limited to, costs to the building user, the environment and energy networks (as defined in the ABCB Housing Provisions Standard).
Entrance door	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.
Exposure category – exposed	terrain with no obstructions e.g. flat grazing land, ocean-frontage, desert, exposed high-rise unit (usually above 10 floors).
Exposure category – open	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).
Exposure category – suburban	terrain with numerous, closely spaced obstructions below 10m e.g. suburban housing, heavily vegetated bushland areas.
Exposure category – protected	terrain with numerous, closely spaced obstructions over 10 m e.g. city and industrial areas.
Horizontal shading feature	provides shading to the building in the horizontal plane, e.g. eaves, verandahs, pergolas, carports, or overhangs or balconies from upper levels.
National Construction Code (NCC) Class	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 www.abcb.gov.au .
Net zero home	a home that achieves a net zero energy value*.
Opening percentage	the openability percentage or operable (moveable) area of doors or windows that is used in ventilation calculations.
Provisional value	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 www.nathers.gov.au
Recommended capacity	this is the capacity or size of equipment that is recommended by NatHERS to achieve the desired comfort conditions in the zone or zones serviced. This is a recommendation and the final selection sizing should be confirmed by a suitably qualified person.
Reflective wrap (also known as foil)	can be applied to walls, roofs and ceilings. When combined with an appropriate air gap and emissivity value, it provides insulative properties.
Roof window	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.
Shading features	includes neighbouring buildings, fences, and wing walls, but excludes eaves.
Solar heat gain coefficient (SHGC)	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.
Skylight (also known as roof lights)	for NatHERS this is typically a moulded unit with flexible reflective tubing (light well) and a diffuser at ceiling level.

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STCs	Small-scale Technology Certificates, certificates created by the REC registry for renewable energy technologies that may be bought and sold as part of the Small-scale Renewable Energy Scheme operated by the Clean Energy Regulatory
Thermal breaks	are materials with an R-value greater than or equal to 0.2 that must separate the metal frame from the cladding. This includes, but is not limited to, materials such as timber battens greater than or equal to 20mm thick, continuous thermal breaks such as polystyrene insulation sheeting, plastic strips or furring channels.
U-value	the rate of heat transfer through a window. The lower the U-value, the better the insulating ability.
Unconditioned	a zone within a dwelling that is assumed to not require heating and cooling based on standard occupancy assumptions.
Vertical shading features	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).
Window shading device	a device fixed to windows that provides shading e.g. window awnings or screens but excludes horizontal* or vertical shading features* (eg eaves and balconies)

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Nationwide House Energy Rating Scheme® NatHERS® Certificate

Generated on 17 Oct 2025 using FirstRate5: 5.5.5a (3.22)

Property

Address 4.1, Newcombe ,
Portarlinton, VIC, 3223
Lot/DP -
NCC Class* Class 2
Floor/all Floors
Type New Home

Plans

Main plan -
Prepared by -

Construction and environment

Assessed floor area [m²]*		Exposure type
Conditioned*	140.9	suburban
Unconditioned*	2.7	NatHERS climate zone
Total	143.6	64 Cape Otway
Garage	-	



Accredited assessor

Name Gary Wertheimer
Business name GIW Environmental Solutions
Email gary@giv.com.au
Phone 0390445111
Accreditation No. DMN/10/2024
Assessor Accrediting Organisation
Design Matters National
Declaration of interest No

NCC Requirements

NCC provisions Volume 1
State/Territory variation Yes

National Construction Code (NCC) requirements

The NCC allows the use of NatHERS accredited software to comply with the energy efficiency requirements for houses (Class 1 buildings) and apartments (Class 2 sole-occupancy units and Class 4 parts of buildings). The applicable requirements for houses are detailed in Specification 42 of NCC Volume Two. For apartments the requirements are detailed in clauses J3D3 and J3D15 of NCC Volume One.

NCC 2022 includes enhanced thermal performance requirements for houses and apartments. It also includes a new whole-of-home annual energy use budget which applies to the major equipment in the home.

The NCC, and associated ABCB Standards and support material, can be accessed at www.abcb.gov.au.

Note, variations and additions to the NCC energy efficiency requirements may apply in some states and territories.

ADVERTISED
Thermal performance
star rating
PLAN



Thermal performance [MJ/m²]

Limits taken from ABCB Standard 2022

	Heating	Cooling
Modelled	54.9	9.5
Load limits	N/A	N/A

Features determining load limits

Floor type (lowest conditioned area)	N/A
NCC climate zone 1 or 2	N/A
Outdoor living area	N/A
Outdoor living area ceiling fan	N/A

Whole of Home performance rating

No Whole of Home
performance rating
generated for this
certificate

Verification

To verify this certificate, scan
the QR code or visit When
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About the ratings

Thermal performance rating

NatHERS thermal software models the expected heating and cooling energy loads using information about the design, construction, climate and common patterns of household use. The thermal performance rating (shown as a star rating on this Certificate) does not take into account appliances, apart from the airflow impacts from ceiling fans.

Whole of Home performance rating

NatHERS Whole of Home software uses the heating and cooling energy loads combined with the energy performance of the home's appliances (heating, cooling, hot water, lighting, pool/spa pump and onsite renewable energy generation and storage) and models the expected energy value* of the whole home. The Whole of Home performance rating is shown as a score out of 100 on this Certificate.

Heating & Cooling Load Limits

Additional information

In some locations under the NCC NatHERS pathway, separate heating and cooling load limits may apply. Minimum required star ratings in northern parts of Australia may also be affected by the presence or absence of an outdoor living area and/or an outdoor living area ceiling fan. Refer to the ABCB NatHERS heating and cooling load limits Standard 2022 for details or contact the relevant local building regulating authority, noting that State and Territory variations may also apply.

Setting options:

Floor type:

- CSOG – Concrete Slab on Ground
- SF – Suspended Floor (or a mixture of CSOG and SF)
- NA – Not Applicable

NCC climate Zone 1 or 2:

- Yes
- No
- NA – not applicable

Outdoor living area:

- Yes
- No
- NA – not applicable

Outdoor living area ceiling fan:

- Yes
- No
- NA – not applicable

Predicted Whole of Home annual impact by appliance

Shows the contribution each appliance has on the home's annual energy use, greenhouse gas emissions and cost without solar

Energy use:

No Whole of Home performance assessment conducted for this certificate.

Greenhouse gas emissions:

No Whole of Home performance assessment conducted for this certificate.

Cost:

No Whole of Home performance assessment conducted for this certificate.

Graph key:



Predicted onsite renewable energy impact

No Whole of Home performance assessment conducted for this certificate.

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Certificate check

The checklist covers important items impacting the dwelling's ratings. It is recommended that the accuracy of the whole certificate is checked.

Note: The boxes indicate when and who should check each item. It is not mandatory to complete this checklist.

	Approval stage		Construction stage		
	Assessor checked	Consent authority/ surveyor checked	Builder checked	Consent authority/ surveyor checked	Occupancy/other
Genuine certificate check					
Does this Certificate match the one available at the web address or QR code verification link on the front page?		☐	☐	☐	☐
Does the NatHERS certificate number on the NatHERS-stamped plans match the number on this Certificate?		☐	☐	☐	☐
Thermal performance check					
Windows and glazed doors					
Does the window size, opening type and location shown on the NatHERS-stamped plans or as installed match what is shown in 'Window and glazed door schedule' and 'Roof window schedule' tables on this Certificate?	☐	☐	☐	☐	☐
Does the installed windows meet the substitution tolerances (AFRC* based SHGC* and U-values*) as shown in the 'Window and glazed door type and performance' and 'Roof window type and performance' tables on this Certificate?			☐	☐	☐
External walls					
Does the external wall bulk insulation (R-value) shown on the NatHERS-stamped plans or as installed match what is shown in the External wall type table on this Certificate?	☐	☐	☐	☐	☐
Does the external wall shade (colour) match what is shown in the 'External wall type' table on this Certificate?	☐	☐	☐	☐	☐
Floor					
Does the floor insulation (R-value) shown on the NatHERS-stamped plans or as installed match what is shown in the 'Floor type' table on this certificate?	☐	☐	☐	☐	☐
Ceiling penetrations*					
Does the 'quantity' and 'type' of ceiling penetrations* (e.g. downlights, exhaust fans, etc) shown on the NatHERS-stamped plans or as installed match what is shown in the 'Ceiling penetrations' table on this Certificate?	☐	☐	☐	☐	☐
Ceiling					
Does the ceiling insulation (R-value) shown on the NatHERS-stamped plans or as installed match what is shown in the 'Ceiling type' table on this Certificate?	☐	☐	☐	☐	☐
Roof					
Does the external roof shade (colour) on the NatHERS stamped plans or as installed match what is shown in the 'Roof type' table on this Certificate?	☐	☐	☐	☐	☐
Apartment entrance doors (NCC Class 2 assessments only)					
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 type (terrain) (shown on page 1) been applied? For example, it is unlikely that a ground-floor apartment is "exposed" or a top floor high-rise apartment is "protected".	☐	☐		☐	☐
Heating and cooling load limits*					
Do the load limits settings (shown on page 1) match the values in the ABCB Standard 2022: NatHERS heating and cooling load limits for the appropriate climate zone?	☐	☐		☐	☐

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Certificate check

Continued

Approval stage		Construction stage		
Assessor checked	Consent authority/surveyor checked	Builder checked	Consent authority/surveyor checked	Occupancy/other

Additional NCC requirements for thermal performance (not included in the NatHERS assessment)**Thermal bridging**

Does the dwelling meet the NCC requirement for thermal bridging?		☐	☐	☐	☐
--	--	--------------------------	--------------------------	--------------------------	--------------------------

Insulation installation method

Has the insulation been installed according to the NCC requirements?			☐	☐	☐
--	--	--	--------------------------	--------------------------	--------------------------

Building sealing

Does the dwelling meet the NCC requirements for Building Sealing?		☐	☐	☐	☐
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Whole of Home performance check (not applicable if a Whole of Home performance assessment is not conducted)**Appliances**

Does the cooling appliance/s type, location and efficiency/performance shown on the NatHERS-stamped plans or as installed match the location and minimum efficiency/performance requirements shown in the 'Appliance schedule' on this Certificate?	☐	☐	☐	☐	☐
---	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

Does the heating appliance/s type, location and efficiency/performance shown on the NatHERS-stamped plans or installed, match the location and minimum efficiency/performance requirements shown in the 'Appliance schedule' on this Certificate?	☐	☐	☐	☐	☐
---	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

Does the hot water system type and efficiency/performance shown on the NatHERS-stamped plans or as installed match the location and minimum efficiency/performance requirements shown in the 'Appliance schedule' on this Certificate?	☐	☐	☐	☐	☐
--	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

Does the pool pump efficiency/performance shown on the NatHERS-stamped plans or as installed match the minimum efficiency/performance requirements shown in the 'Appliance schedule' on this Certificate?	☐	☐	☐	☐	☐
---	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

Does the onsite renewable energy system type, orientation and system size or generation capacity shown on the NatHERS stamped plans or installed match the 'Onsite Renewable Energy schedule' on this Certificate?	☐	☐	☐	☐	☐
--	--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

Additional NCC Requirements for Services (not included in the NatHERS assessment)

Does the lighting meet the artificial lighting requirements specified in the NCC?		☐	☐	☐	☐
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Does the hot water system meet the additional requirements specified in the NCC?		☐	☐	☐	☐
--	--	--------------------------	--------------------------	--------------------------	--------------------------

Provisional values* check

Have provisional values* been used in the assessment and, if so, are they noted in 'Additional notes' table below?	☐	☐			
--	--------------------------	--------------------------	--	--	--

Other NCC requirements

Note: This Certificate only covers the energy efficiency requirements in the NCC. Additional requirements that must also be satisfied include, but are not limited to: condensation, structural and fire safety requirements and any state or territory variations to the NCC energy efficiency requirements.

Additional notes

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Room schedule

Room	Zone Type	Area [m ²]
Bedroom 3	bedroom	11.9
Bathroom 2	dayTime	5.3
Bedroom 4	bedroom	11.5
Bedroom 2	bedroom	11.5
Bathroom 1	nightTime	9
WIR	nightTime	7.2
Bedroom 1	bedroom	12.2
Corridor 1	dayTime	2.1
Kitchen/Living	kitchen	55.9
Corridor 2	dayTime	9.1
Laundry	dayTime	5.1
Pantry	unconditioned	2.7

Window and glazed door type and performance

Default* windows

Window ID	Window description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				SHGC lower limit	SHGC upper limit
No Data Available					

Custom* windows

Window ID	Window description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				SHGC lower limit	SHGC upper limit
AWS-034-02 B	729/730 Thermal Heart Bifold Door DG 4Clr/10Ar4ET	2.68	0.44	0.42	0.46
THC-023-03 B	Series EC35TB Awning Window DG 4ET-12Ar-4	2.51	0.47	0.45	0.49
THC-010-21 A	Series EC95 TB Sliding Door DG 4mmEnTech-12Ar-4mmClr	2.93	0.49	0.47	0.51
THC-033-07 B	EC45TB Fixed Window TPS Spacer DG 6ET/12Ar/6	2.09	0.51	0.48	0.54

Window and glazed door schedule

Location	Window ID	Window no.	Height [mm]	Width [mm]	Window type	Opening %	Orientation	Window shading device*
Bedroom 3	AWS-034-02 B	Opening 17	2700	1050	other	45.0	W	No
Bedroom 3	AWS-034-02 B	Opening 62	2700	1050	other	45.0	W	No
Bedroom 3	THC-023-03 B	Opening 16	2700	900	awning	90.0	N	No

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NatHERS Certificate

7.9 Star Rating as of 17 Oct 2025

Bedroom 3	THC-023-03 B	Opening 61	2700	900	awning	90.0	N	No
Bathroom 2	AWS-034-02 B	Opening 18	2700	780	other	45.0	W	No
Bedroom 4	THC-023-03 B	Opening 20	2700	1050	awning	90.0	S	No
Bedroom 4	THC-023-03 B	Opening 21	2700	1050	awning	90.0	S	No
Bedroom 4	AWS-034-02 B	Opening 19	2700	780	other	45.0	W	No
Bedroom 2	THC-023-03 B	Opening 23	2700	900	awning	90.0	S	No
Bedroom 2	THC-023-03 B	Opening 63	2700	900	awning	90.0	S	No
Bathroom 1	THC-023-03 B	Opening 29	2700	900	awning	90.0	S	No
Bathroom 1	THC-023-03 B	Opening 65	2700	900	awning	90.0	S	No
Bathroom 1	AWS-034-02 B	Opening 66	2700	1000	other	45.0	E	No
WIR	AWS-034-02 B	Opening 30	2700	950	other	45.0	E	No
Bedroom 1	AWS-034-02 B	Opening 32	2700	650	other	45.0	N	No
Bedroom 1	AWS-034-02 B	Opening 67	2700	650	other	45.0	N	No
Bedroom 1	AWS-034-02 B	Opening 68	2700	650	other	45.0	N	No
Corridor 1	THC-023-03 B	Opening 34	2700	900	awning	90.0	N	No
Corridor 1	THC-023-03 B	Opening 69	2700	900	awning	90.0	N	No
Kitchen/Living	THC-010-21 A	Opening 51	2700	3250	sliding	45.0	N	No
Kitchen/Living	THC-033-07 B	Opening 52	2700	1600	fixed	0.0	N	No
Kitchen/Living	THC-023-03 B	Opening 48	2700	1050	awning	90.0	S	No
Kitchen/Living	THC-023-03 B	Opening 49	2700	1050	awning	90.0	S	No
Kitchen/Living	THC-023-03 B	Opening 50	2700	900	awning	90.0	S	No
Kitchen/Living	THC-023-03 B	Opening 64	2700	900	awning	90.0	S	No

Roof window* type and performance value

Default* roof windows

Window ID	Window description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				SHGC lower limit	SHGC upper limit
No Data Available					

Custom* roof windows

Window ID	Window description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				SHGC lower limit	SHGC upper limit
No Data Available					

Roof window* schedule

Location	Window ID	Window no.	Opening %	Area [m ²]	Width [mm]	Orientation	Outdoor shade	Indoor shade
No Data Available								

Skylight* type and performance

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Skylight ID	Skylight description	Skylight shaft reflectance
No Data Available		

Skylight* *schedule*

Location	Skylight ID	Skylight No.	Skylight shaft length [mm]	Area [m²]	Orientation	Outdoor shade	Diffuser
No Data Available							

External door *schedule*

Location	Height [mm]	Width [mm]	Opening %	Orientation
No Data Available				

External wall *type*

Wall ID	Wall type	Solar absorptance	Wall shade [colour]	Bulk insulation [R-value]	Reflective wall wrap*
1	39 Newcombe St Portarlinton - Brick Ext	0.5	Medium	Glass fibre batt (k = 0.044 density = 12 kg/m3) (R4.0)	Yes
2	39 Newcombe St Portarlinton - Concrete Int	0.5	Medium	Glass fibre batt (k = 0.044 density = 12 kg/m3) (R1.8)	No

External wall *schedule*

Location	Wall ID	Height [mm]	Width [mm]	Orientation	Horizontal shading feature* maximum projection [mm]	Vertical shading feature* (yes/no)
Bedroom 3	1	2700	3220	W	0	Yes
Bedroom 3	2	2700	3225	E	0	No
Bedroom 3	1	2700	3687	N	0	Yes
Bathroom 2	1	2700	2055	W	0	Yes
Bedroom 4	1	2700	3601	S	0	Yes
Bedroom 4	1	2700	3001	W	0	Yes
Bedroom 2	1	2700	3588	S	0	Yes
Bathroom 1	1	2700	3424	S	0	Yes
Bathroom 1	1	2700	2642	E	0	Yes
WIR	1	2700	2096	E	0	Yes
Bedroom 1	1	2700	3585	E	0	No
Bedroom 1	1	2700	3424	N	0	Yes
Corridor 1	1	2700	2260	N	0	Yes
Kitchen/Living	1	2700	5329	N	8271	Yes
Kitchen/Living	2	2700	3357	W	0	No
Kitchen/Living	1	2700	8243	S	0	Yes
Corridor 2	2	2700	4144	N	0	No

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Internal wall type

Wall ID	Wall type	Area [m ²]	Bulk insulation
1	FR5 - Internal Plasterboard Stud Wall	130.4	

Floor type

Location	Construction	Area [m ²]	Sub-floor ventilation	Added insulation [R-value]	Covering
Bedroom 3	FR5 - 225mm concrete slab	11.9	Enclosed	R0.0	Carpet
Bathroom 2	FR5 - 225mm concrete slab	5.3	Enclosed	R0.0	Tiles
Bedroom 4	FR5 - 225mm concrete slab	11.5	Enclosed	R0.0	Carpet
Bedroom 2	FR5 - 225mm concrete slab	11.5	Enclosed	R0.0	Carpet
Bathroom 1	FR5 - 225mm concrete slab	9	Enclosed	R0.0	Tiles
WIR	FR5 - 225mm concrete slab	7.2	Enclosed	R0.0	Carpet
Bedroom 1	FR5 - 225mm concrete slab	3	Enclosed	R4.6	Carpet
Bedroom 1	FR5 - 225mm concrete slab	9.2	Enclosed	R0.0	Carpet
Corridor 1	FR5 - 225mm concrete slab	2.1	Enclosed	R0.0	Timber
Kitchen/Living	FR5 - 225mm concrete slab	55.9	Enclosed	R0.0	Timber
Corridor 2	FR5 - 225mm concrete slab	9.1	Enclosed	R0.0	Timber
Laundry	FR5 - 225mm concrete slab	5.1	Enclosed	R0.0	Tiles
Pantry	FR5 - 225mm concrete slab	2.7	Enclosed	R0.0	Timber

Ceiling type

Location	Construction material/type	Bulk insulation R-value [may include edge batt values]	Reflective wrap*
Bedroom 3	Plasterboard	R8.3	No
Bathroom 2	Plasterboard	R8.3	No
Bedroom 4	Plasterboard	R8.3	No
Bedroom 2	Plasterboard	R8.3	No
Bathroom 1	Plasterboard	R8.3	No
WIR	Plasterboard	R8.3	No
Bedroom 1	Plasterboard	R8.3	No
Bedroom 1	Plasterboard	R8.3	No
Corridor 1	Plasterboard	R8.3	No
Kitchen/Living	Plasterboard	R8.3	No
Corridor 2	Plasterboard	R8.3	No
Laundry	Plasterboard	R8.3	No
Pantry	Plasterboard	R8.3	No

Ceiling penetrations*

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Location	Quantity	Type	Height [mm]	Width [mm]	Sealed/unsealed
Bedroom 3	4	Downlights	80	80	Sealed
Bathroom 2	2	Downlights	80	80	Sealed
Bathroom 2	1	Exhaust Fans	250	250	Sealed
Bedroom 4	5	Downlights	80	80	Sealed
Bedroom 2	5	Downlights	80	80	Sealed
Bathroom 1	3	Downlights	80	80	Sealed
Bathroom 1	1	Exhaust Fans	250	250	Sealed
WIR	2	Downlights	80	80	Sealed
Bedroom 1	5	Downlights	80	80	Sealed
Corridor 1	1	Downlights	80	80	Sealed
Kitchen/Living	22	Downlights	80	80	Sealed
Kitchen/Living	1	Exhaust Fans	250	250	Sealed
Corridor 2	3	Downlights	80	80	Sealed
Laundry	2	Downlights	80	80	Sealed
Laundry	1	Exhaust Fans	250	250	Sealed
Pantry	1	Downlights	80	80	Sealed

Ceiling fans

Location	Quantity	Diameter [mm]
No Data Available		

Roof type

Construction	Added insulation [R-value]	Solar absorptance	Roof shade [colour]
Framed:Flat - Flat Framed (Metal Deck)	0.0	0.5	Medium

Thermal bridging schedule for steel frame elements

Building element	Steel section dimensions [height x width, mm]	Frame spacing [mm]	Steel thickness [BMT,mm]	Thermal break [R-value]
External wall	90 x 40	600	0.75	0
Cathedral ceiling/flat roof	200 x 75	900	1.50	0

Appliance schedule

(not applicable if a Whole of Home performance assessment is not conducted for this certificate)

Note: A flat assumption of 5W/m2 is used for lighting, therefore lighting is not included in the appliance schedule.

Cooling system

Appliance/ system type	Location	Fuel type	Minimum efficiency/ performance	Recommended capacity
No Whole of Home performance assessment conducted for this certificate.				

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NatHERS Certificate

7.9 Star Rating as of 17 Oct 2025

Heating system

Appliance/ system type	Location	Fuel type	Minimum efficiency/ performance	Recommended capacity
No Whole of Home performance assessment conducted for this certificate.				

Hot water system

Appliance/ system type	Fuel type	Minimum efficiency/ performance	Hot Water CER Zone	Zone 3 STC	Assessed daily load
No Whole of Home performance assessment conducted for this certificate.					

Pool/spa equipment

Appliance/ system type	Fuel type	Minimum efficiency/ performance	Recommended capacity
No Whole of Home performance assessment conducted for this certificate.			

Onsite renewable energy *schedule*

(not applicable if a Whole of Home performance assessment is not conducted for this certificate)

System type	Orientation	System size or generation capacity
No Whole of Home performance assessment conducted for this certificate.		

Battery *schedule*

(not applicable if a Whole of Home performance assessment is not conducted for this certificate)

System type	Size [battery storage capacity]
No Whole of Home performance assessment conducted for this certificate.	

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Explanatory Notes

About this report

NatHERS ratings are a reliable guide for comparing different dwelling designs and to demonstrate that designs meet the energy efficiency requirements in the National Construction Code.

NatHERS ratings use computer modelling to evaluate a home's energy efficiency and performance. They use localised climate data and standard assumptions on how people use their home to predict the heating and cooling energy loads and energy value* of the whole home. The thermal performance star rating uses the home's building specifications, layout, orientation and fabric (i.e. walls, windows, floors, roofs and ceilings) to predict the heating and cooling energy loads. The Whole of Home performance rating uses information about the home's appliances and onsite energy generation and storage to estimate the homes energy value*.

The actual energy loads, cost and greenhouse gas emissions of a home may vary from that predicted. This is because the assumptions will not always match the actual occupant usage patterns. For example, the number of occupants and how people use their appliances will vary. Energy efficient homes use less energy, are warmer on cool days, cooler on hot days and cost less to run.

Accredited assessors

For quality assured NatHERS Certificates, always use an accredited or licenced assessor registered with an Assessor Accrediting Organisation (AAO). AAOs have strict quality assurance processes, and professional development requirements ensuring consistently high standards for assessments.

Non-accredited assessors (Raters) have no ongoing training requirements and are not quality assured.

Any queries about this report should be directed to the assessor. If the assessor is unable to address questions or concerns, contact the AAO specified on the front of this certificate.

Disclaimer

The NatHERS Certificate format is developed by the NatHERS Administrator. However, the content in the certificate is entered by the assessor. It is the assessor's responsibility to use NatHERS accredited software correctly and follow the NatHERS Technical Note to produce a NatHERS Certificate.

The predicted annual energy load, cost and greenhouse gas emissions in this NatHERS Certificate are an estimate based on an assessment of the dwelling's design by the assessor. It is not a prediction of actual energy use, cost or emissions. The information and ratings may be used to compare how other dwellings 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, behaviour, appliance performance, indoor air temperature and local climate.

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

Glossary

Annual energy load	the predicted amount of energy required for heating and cooling, based on standard occupancy assumptions.
AFRC	Australian Fenestration Rating Council
Assessed floor area	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.
Ceiling penetrations	features that require a penetration to the ceiling, including downlights, vents, exhaust fans, range hoods, chimneys and flues. Excludes fixtures attached to the ceiling with small holes through the ceiling for wiring, e.g. ceiling fans; pendant lights, and heating and cooling ducts.
Conditioned	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.
COP	Coefficient of performance
Custom windows	windows listed in NatHERS software that are available on the market in Australia and have a WERS (Window Energy Rating Scheme) rating.
Default windows	windows that are representative of a specific type of window product and whose properties have been derived by statistical methods.
EER	Energy Efficiency Ratio, measure of how much cooling can be achieved by an air conditioner for a single kWh of electricity input
Energy use	This is your homes rating without solar or batteries.
Energy value	The net cost to society including, but not limited to, costs to the building user, the environment and energy networks (as defined in the ABCB Housing Provisions Standard).
Entrance door	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.
Exposure category – exposed	terrain with no obstructions e.g. flat grazing land, ocean-frontage, desert, exposed high-rise unit (usually above 10 floors).
Exposure category – open	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).
Exposure category – suburban	terrain with numerous, closely spaced obstructions below 10m e.g. suburban housing, heavily vegetated bushland areas.
Exposure category – protected	terrain with numerous, closely spaced obstructions over 10 m e.g. city and industrial areas.
Horizontal shading feature	provides shading to the building in the horizontal plane, e.g. eaves, verandahs, pergolas, carports, or overhangs or balconies from upper levels.
National Construction Code (NCC) Class	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 www.abcb.gov.au .
Net zero home	a home that achieves a net zero energy value*.
Opening percentage	the openability percentage or operable (moveable) area of doors or windows that is used in ventilation calculations.
Provisional value	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 www.nathers.gov.au
Recommended capacity	this is the capacity or size of equipment that is recommended by NatHERS to achieve the desired comfort conditions in the zone or zones serviced. This is a recommendation and the final selection sizing should be confirmed by a suitably qualified person.
Reflective wrap (also known as foil)	can be applied to walls, roofs and ceilings. When combined with an appropriate air gap and emissivity value, it provides insulative properties.
Roof window	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.
Shading features	includes neighbouring buildings, fences, and wing walls, but excludes eaves.
Solar heat gain coefficient (SHGC)	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.
Skylight (also known as roof lights)	for NatHERS this is typically a moulded unit with flexible reflective tubing (light well) and a diffuser at ceiling level.

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STCs	Small-scale Technology Certificates, certificates created by the REC registry for renewable energy technologies that may be bought and sold as part of the Small-scale Renewable Energy Scheme operated by the Clean Energy Regulatory
Thermal breaks	are materials with an R-value greater than or equal to 0.2 that must separate the metal frame from the cladding. This includes, but is not limited to, materials such as timber battens greater than or equal to 20mm thick, continuous thermal breaks such as polystyrene insulation sheeting, plastic strips or furring channels.
U-value	the rate of heat transfer through a window. The lower the U-value, the better the insulating ability.
Unconditioned	a zone within a dwelling that is assumed to not require heating and cooling based on standard occupancy assumptions.
Vertical shading features	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).
Window shading device	a device fixed to windows that provides shading e.g. window awnings or screens but excludes horizontal* or vertical shading features* (eg eaves and balconies)

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Appendix C: Preliminary J4D6 Façade Calculator

J4D6 Façade Calculator

Address	49 Newcombe Street, Portarlinton
Climate Zone	6
Building Classification	Class 6
Level	UG

	North	East	South	West	Internal
Façade area (m2)	9.8	33.1	32.7	22.3	0.0

Number of Rows	12
----------------	----

Window No.	Orientation	Dimensions		Area (m2)	Shading (m)	
		Height (m)	Width (m)		P	H
South Entry	South	2.85	1.62	4.617	2.7	2.85
South Window	South	2.4	5.98	14.352	1	2.4

RESULTS

Method 1	U-Value	SHGC	Min. Wall R-values
North	7.50	0.87	1.4
East	7.50	0.87	1.4
South	2.73	0.31	1
West	7.50	0.87	1.4
Internal	7.50		1.4

	U-Value	SHGC
Method 2	7.14	0.31

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Appendix D: Renewable Energy

Inputs Solar PV

Peak Wattage of System	11.8 kWp
Azimuth	0 degrees
Inclination	10 degrees

Outputs Solar PV

Electricity Produced per Year	15,760 kWh
No. Panels Required	28
Total Roof Area Required	68 sqm
Annual Carbon Savings	17,651 kg CO ₂

Economic Output

Cost of System	17,640 \$
Annual Savings	3,152 \$
Simple Payback	6 Years

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Appendix E: Daylight Modelling

Scope of Modelling

We have undertaken daylight modelling for 5 sample apartments assessing both living and bedroom areas. Apartment 1.1, 1.2, 1.3, 2.2 and 3.4 have been selected with consideration of internal layout, inherent and adjacent building shading features. These apartments reflect a worst-case scenario with all other units anticipated to achieve the BESS performance requirements.

The development has been modelled under an existing scenario with the following massing:

- North: Portarlington Foreshore Reserve
- East: Single Storey Brick Pre-School at 51 Newcombe Street
- South: Newcombe Street
- West: Existing double storey dwelling and single storey restaurant at 1 Harding Street

Methodology

The daylight levels in apartments are benchmarked against the best practice requirements as set out under the Built Environment Sustainability Scorecard (BESS) tool: Indoor Environment Quality (IEQ) – Daylight Access Living Areas and Bedrooms. These levels are as follows:

"Dwellings should achieve the following daylight factors (DF)

- *80% of the total number of living rooms achieve a daylight factor greater than 1% to 90% of the floor area of each living area, including kitchens.*
- *80% of the total number of bedrooms achieve a daylight factor greater than 0.5% to 90% of the floor area in each room."*

The daylight modelling has been completed using the Radiance software suite, an accurate computing program used to predict light levels in a space prior to construction. Scene geometric data and material properties are interfaced into the Radiance software using DesignBuilder.

Daylight Factor has been calculated using a CIE uniform cloudy sky.

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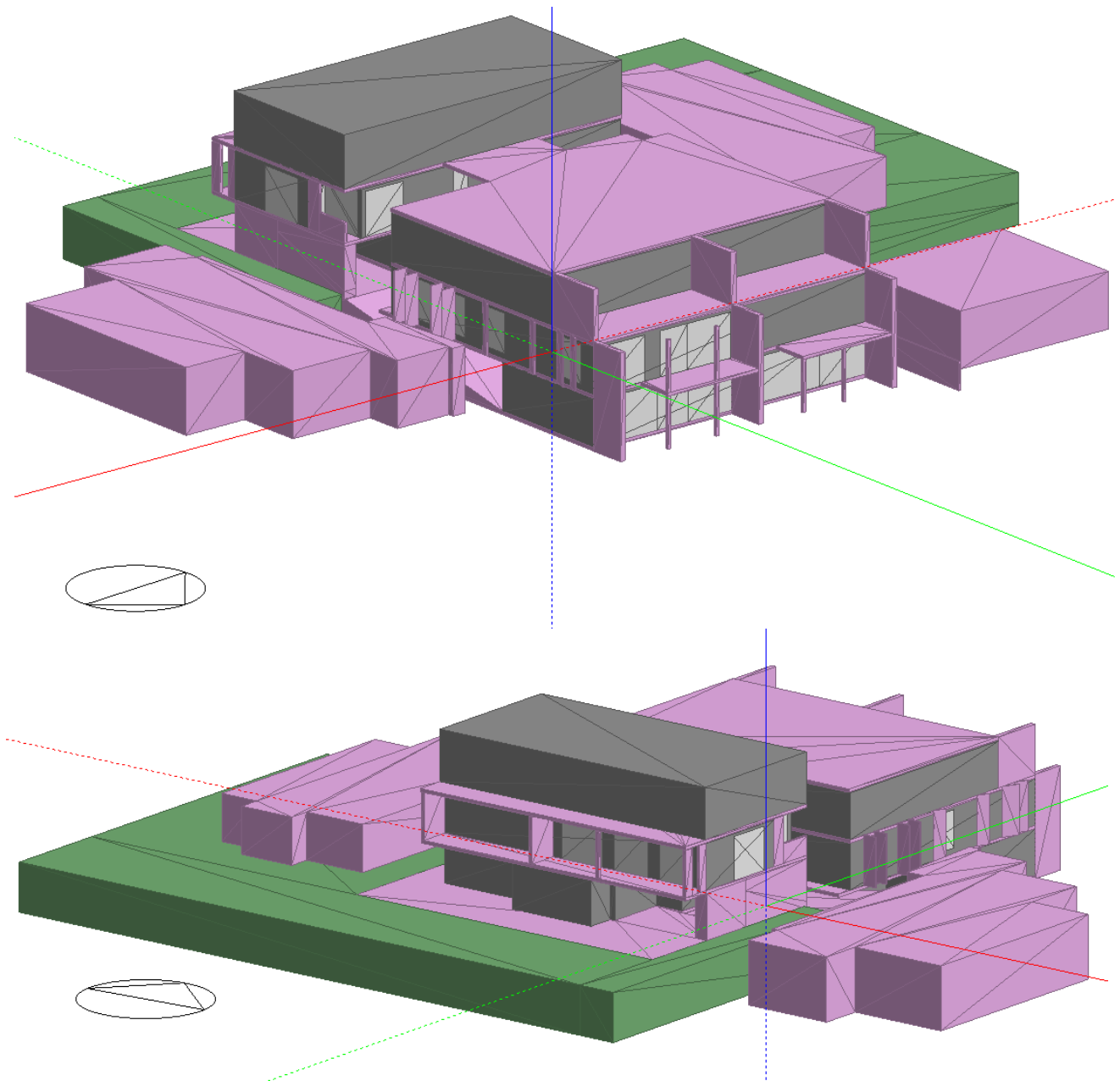


Figure 6 – DesignBuilder model of proposed and adjacent buildings

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Modelling Assumptions

The following assumptions have been made with respect to the modelling:

- Modelled window dimensions and shading structures are as depicted on the Architectural drawings.
- The glazing performance used for external windows is as follows:
 - Clear Windows: double glazed, low-e, clear window with a total system VLT of 0.61.
 - Obscure/Reeded Windows: double glazed, low-e, obscured windows with a total system VLT of 0.61.
 - East and west windows behind 'hit and miss brick': double glazed, low-e, clear window with a total system VLT of 0.305.
 - North oriented windows behind slatted screen: double glazed, low-e, clear window with a total system VLT of 0.305.
- The reflectance of all materials is in accordance with the below:
 - Floors: 0.3
 - Internal Walls: 0.7
 - Ceilings: 0.8
- Transient and unoccupied spaces such as corridors and wardrobes have been excluded from the modelled area.
- The reflectance of external buildings and structures is assumed to be 0.4.

Daylight Results – Numerical

The daylight results for living areas of 49 Newcombe Street, Portarlinton can be summarised as follows:

Area	Floor Area (m ²)	Floor Area above DF1 (m ²)	% of floor area above DF1	Status
Apt 1.1 - Living	49.8	49.8	100.0	Compliant
Apt 1.2 - Living	43.9	40.7	92.7	Compliant
Apt 1.3 - Living / Bed	26.6	25.4	95.5	Compliant
Apt 2.2 - Living	49.3	47.8	96.9	Compliant
Apt 3.4 - Living	38.1	37.9	99.7	Compliant

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The daylight results for bedrooms of 49 Newcombe Street, Portarlington can be summarised as follows:

Area	Floor Area (m ²)	Floor Area above DF0.5 (m ²)	% of floor area above DF0.5	Status
Apt 1.1 - Bed 1	11.0	11.0	100.0	Compliant
Apt 1.1 - Bed 2	8.7	8.7	100.0	Compliant
Apt 1.1 - Bed 3	11.5	11.4	99.6	Compliant
Apt 1.2 - Bed 1	16.4	16.4	100.0	Compliant
Apt 1.2 - Bed 2	8.4	0.0	0.0	Non-compliant
Apt 1.3 - Living / Bed	26.6	26.5	99.7	Compliant
Apt 2.2 - Bed 1	11.9	11.9	100.0	Compliant
Apt 2.2 - Bed 2	8.1	8.0	99.0	Compliant
Apt 2.2 - Bed 3	11.2	11.2	100.0	Compliant
Apt 2.2 - Bed 4	10.2	10.2	100.0	Compliant
Apt 3.4 - Bed 1	9.6	9.6	100.0	Compliant
Apt 3.4 - Bed 2	11.7	2.2	19.1	Non-compliant
Apt 3.4 - Bed 3	7.5	7.5	100.0	Compliant

Daylight Results – Visual

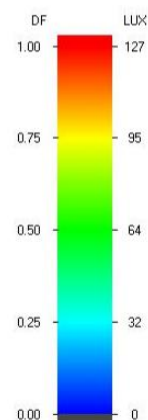
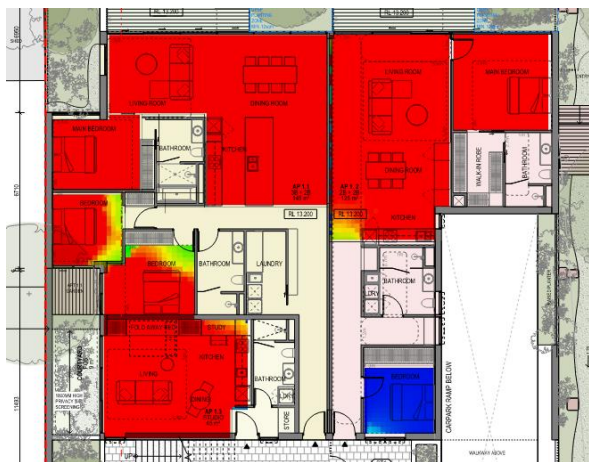


Figure 7 - Daylight Map – LG

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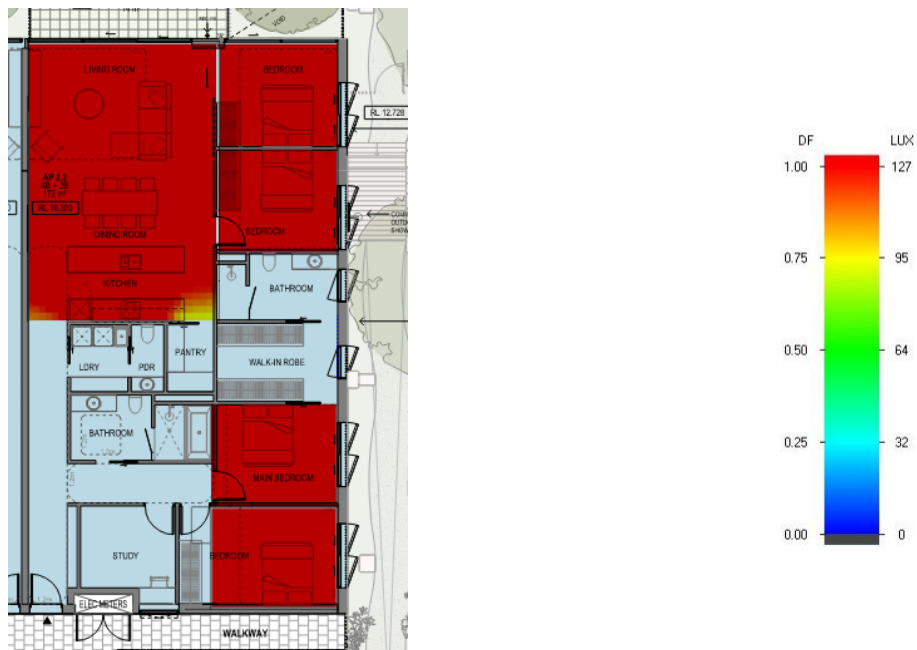


Figure 8 - Daylight Map - Apt 2.2

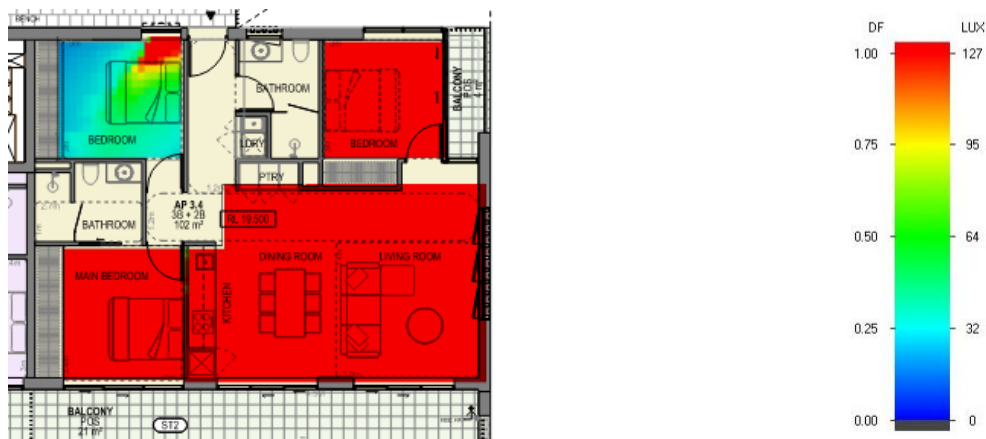


Figure 9 - Daylight Map - Apt 3.4

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Overall Building Results

Apartment No.	Total Living Areas	Living Areas Compliant	Total Bedrooms	Bedrooms Compliant
1.1	1	1	3	3
1.2	1	1	2	1
1.3	1	1	1	1
2.1	1	1	4	4
2.2	1	1	4	4
3.1	1	1	3	3
3.2	1	1	3	3
3.3	1	1	1	1
3.4	1	1	3	2
4.1	1	1	4	4
TOTAL	10	10	28	26
Percentage	100%		93%	

Conclusion

The development has been assessed and it has been determined that 100% of living areas and 93% of bedrooms will achieve the daylight factors as prescribed under BESS and therefore the development will meet the BESS IEQ guidelines for daylight.

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Appendix F: BESS Assessment

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BESS Buildings Report

Built Environment Sustainability Scorecard

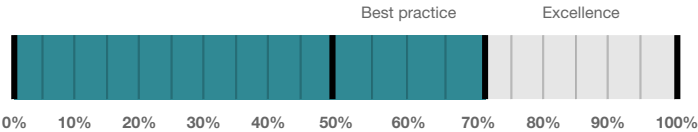
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This BESS report outlines the sustainable design commitments of the proposed development at 49 Newcombe St Portarlington Victoria 3223. The BESS report and accompanying documents and evidence are submitted in response to the requirement for a Sustainable Design Assessment or Sustainability Management Plan at Greater Geelong 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



71%

Project details

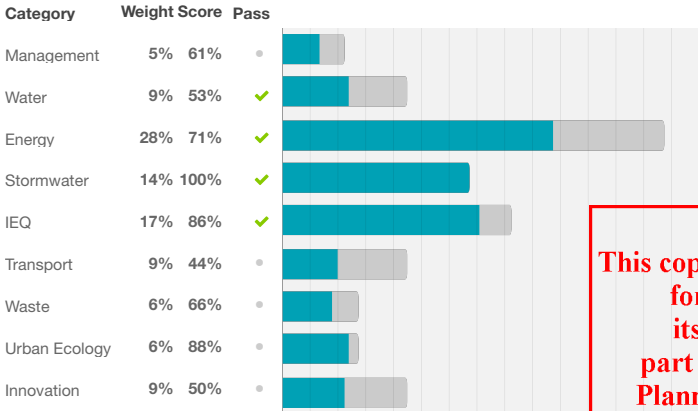
Name 49 Newcombe St, Portarlington VIC 3223, Australia
Address 49 Newcombe St Portarlington Victoria 3223
Project ID 2483B057-R4
BESS Version BESS-8
Date 01 July 2026
Software version 2.3.0-B.654



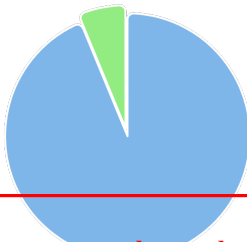
Site type Mixed use development
Account info@giw.com.au
Application no.
Site area 990 m²
Building floor area 1,346 m²

Performance by category

● This project ● Maximum available



Project composition



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Buildings

Name	Height	Footprint	% of total footprint
Building 1	4	2,086 m²	100%

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Dwellings & Non Res Spaces

Dwellings

Name	Quantity	Area	Building	% of total area
Apartment				
AP 4.1	1	165 m²	Building 1	12%
AP 2.2	1	172 m²	Building 1	12%
AP 2.1	1	174 m²	Building 1	12%
AP 3.2	1	138 m²	Building 1	10%
AP 3.1	1	139 m²	Building 1	10%
AP 1.1	1	145 m²	Building 1	10%
AP 1.2	1	125 m²	Building 1	9%
AP 3.4	1	102 m²	Building 1	7%
AP 3.3	1	57.0 m²	Building 1	4%
AP 1.3	1	45.0 m²	Building 1	3%
Total	10	1,262 m²	93%	

Non-Res Spaces

Name	Quantity	Area	Building	% of total area
Shop				
Retail	1	84.0 m²	Building 1	6%
Total	1	84 m²	6%	

Supporting Evidence

Shown on Floor Plans

Credit	Requirement	Response	Status
Management 3.1	Annotation: Individual utility meters to be provided to all individual dwellings		-
Management 3.2	Annotation: Individual utility meters to be provided to all individual commercial tenancies		-
Management 3.3	Annotation: Sub-meters to be provided to all major common area services (list each)		-
Water 3.1	Annotation: Water efficient garden details		-
Energy 3.1	Carpark with natural ventilation or CO monitoring system		
Energy 4.2	Location and size of solar photovoltaic system		
Stormwater 1.1	Location of any stormwater management systems (rainwater tanks, raingardens, buffer strips)		
IEQ 1.1	If using BESS daylight calculator, references to floorplans and elevations showing window sizes and sky angles.		

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Credit	Requirement	Response	Status
IEQ 1.2	If using BESS daylight calculator, references to floorplans and elevations showing window sizes and sky angles.		-
IEQ 1.3	If using BESS daylight calculator, references to floorplans and elevations showing window sizes and sky angles.		-
IEQ 1.5	Floor plans with compliant bedrooms marked		-
IEQ 2.1	Dwellings meeting the requirements for being 'naturally ventilated'		-
Transport 1.1	Location of residential bicycle parking spaces		-
Transport 1.2	Location of residential visitor bicycle parking spaces		-
Transport 1.4	Location of non-residential bicycle parking spaces		-
Transport 1.5	Location of non-residential visitor bicycle parking spaces		-
Waste 2.1	Location of food and garden waste facilities		-
Waste 2.2	Location of recycling facilities		-
Urban Ecology 1.1	Location and size of communal spaces		-
Urban Ecology 2.1	Location and size of vegetated areas		-
Urban Ecology 2.2	Location and size of green roof		-
Urban Ecology 2.3	Location and size of green facade		-
Urban Ecology 2.4	Location of taps and floor waste on balconies / courtyards		-

Supporting Documentation

Credit	Requirement	Response	Status
Management 2.2	Preliminary NatHERS assessments		-
Management 2.3a	Section J glazing assessment		-
Energy 1.1	Energy Report showing calculations of reference case and proposed buildings		-
Energy 3.1	Details of either the fully natural carpark ventilation or CO monitoring system proposed		-
Energy 3.6	Average lighting power density and lighting type(s) to be used		-
Energy 3.7	Average lighting power density and lighting type(s) to be used		-
Energy 4.2	Specifications of the solar photovoltaic system(s)		-
Stormwater 1.1	STORM report or MUSIC model		-
IEQ 1.1	If using an alternative daylight modelling program, a short report detailing assumptions used and results achieved.		-
IEQ 1.2	If using an alternative daylight modelling program, a short report detailing assumptions used and results achieved.		-
IEQ 1.3	If using an alternative daylight modelling program, a short report detailing assumptions used and results achieved.		-
IEQ 1.4	A short report detailing assumptions used and results achieved.		-
IEQ 1.5	A list of compliant bedrooms		-
IEQ 2.1	A list of naturally ventilated dwellings		-

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Credit summary

Management Overall contribution 4.5%

		61%
1.1 Pre-Application Meeting		0%
2.2 Thermal Performance Modelling - Multi-Dwelling Residential		100%
2.3 Thermal Performance Modelling - Non-Residential		50%
3.1 Metering - Residential		100%
3.2 Metering - Non-Residential		100%
3.3 Metering - Common Areas		100%
4.1 Building Users Guide		100%

Water Overall contribution 9.0%

	Minimum required 50%	53%	✓ Pass
1.1 Potable Water Use Reduction		44%	
3.1 Water Efficient Landscaping		100%	
4.1 Building Systems Water Use Reduction		N/A	✦ Scoped Out
Small development			

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Energy Overall contribution 27.5%

		Minimum required 50%	71% ✓ Pass
1.1 Thermal Performance Rating - Non-Residential		12%	
1.2 Thermal Performance Rating - Residential		75% ✓ Achieved	
2.1 Greenhouse Gas Emissions		4%	
2.2 Peak Demand		0%	
2.6 Electrification		100%	
2.7 Energy consumption		100%	
3.1 Carpark Ventilation		100%	
3.2 Hot Water		100%	
3.4 Clothes Drying		0%	
3.6 Internal Lighting - Apartments		100%	
3.7 Internal Lighting - Non-Residential		100%	
4.1 Combined Heat and Power (cogeneration / trigeneration)		N/A ✦ Scoped Out	
No cogeneration or trigeneration system in use.			
4.2 Renewable Energy Systems - Solar		93%	
4.4 Renewable Energy Systems - Other		N/A ✦ Scoped Out	
No other (non-solar PV) renewable energy is in use.			

Stormwater Overall contribution 13.5%

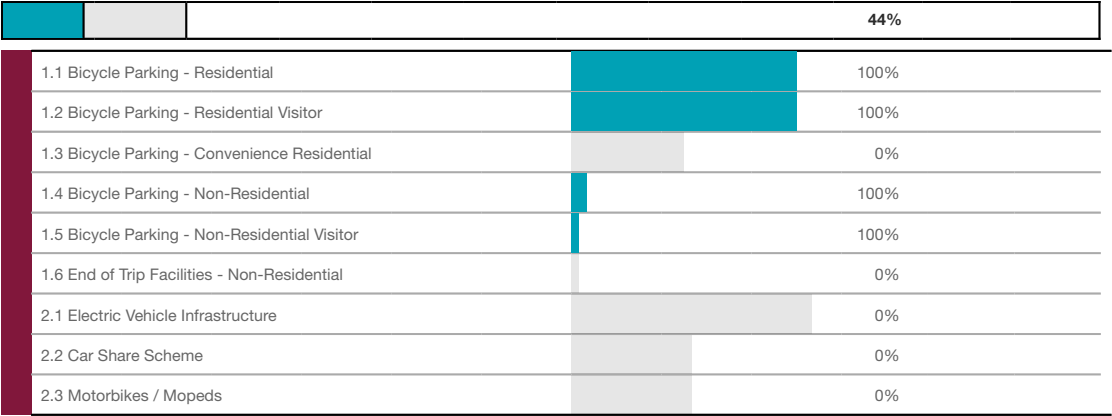
		Minimum required 100%	100% ✓ Pass
1.1 Stormwater Treatment		100%	

IEQ Overall contribution 16.5%

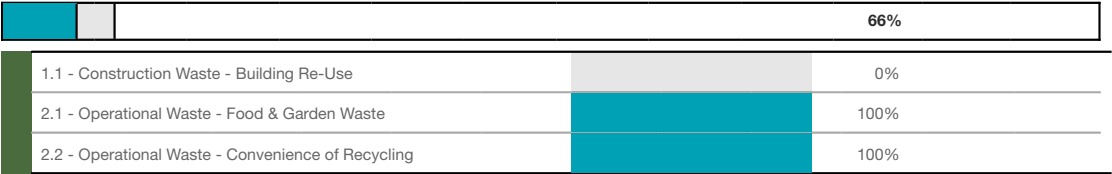
		Minimum required 50%	86% ✓ Pass
1.1 Daylight Access - Living Areas		100%	
1.2 Daylight Access - Bedrooms		66%	
1.3 Winter Sunlight		100%	
1.4 Daylight Access - Non-Residential		33% ✓ Achieved	
1.5 Daylight Access - Minimal Internal Bedrooms		100%	
2.1 Effective Natural Ventilation		100%	
2.3 Ventilation - Non-Residential		33% ✓ Achieved	
3.4 Thermal comfort - Shading - Non-Residential		100%	
3.5 Thermal Comfort - Ceiling Fans - Non-Residential		0%	
4.1 Air Quality - Non-Residential		93%	

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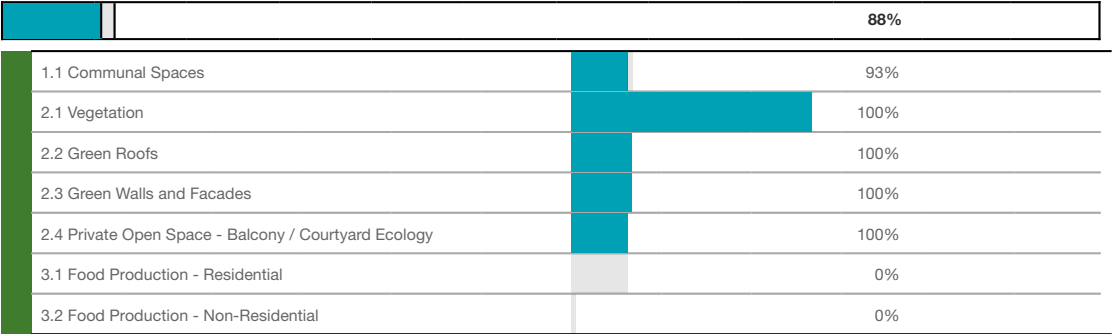
Transport Overall contribution 9.0%



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%

		61%
--	--	-----

1.1 Pre-Application Meeting		0%
-----------------------------	--	----

Score Contribution	This credit contributes 37.5% 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?	
Question	Criteria Achieved ?	
Project	No	

2.2 Thermal Performance Modelling - Multi-Dwelling Residential		100%
--	--	------

Score Contribution	This credit contributes 23.4% towards the category score.	
Criteria	Have preliminary NatHERS ratings been undertaken for all thermally unique dwellings?	
Question	Criteria Achieved ?	
Apartment	Yes	

2.3 Thermal Performance Modelling - Non-Residential		50%
---	--	-----

Score Contribution	This credit contributes 1.6% towards the category score.	
--------------------	--	--

Criteria	Has a preliminary facade assessment been undertaken in accordance with NCC2022 Section J4D6?	
Question	Criteria Achieved ?	
Shop	Yes	

Criteria	Has preliminary modelling been undertaken in accordance with either NCC2022 Section J (Energy Efficiency), NABERS or Green Star?	
Question	Criteria Achieved ?	
Shop	No	

3.1 Metering - Residential		100%
----------------------------	--	------

Score Contribution	This credit contributes 11.7% towards the category score.	
Criteria	Have utility meters been provided for all individual dwellings?	
Question	Criteria Achieved ?	
Apartment	Yes	

3.2 Metering - Non-Residential		100%
--------------------------------	--	------

Score Contribution	This credit contributes 0.8% towards the category score.	
Criteria	Have utility meters been provided for all individual commercial tenants?	
Question	Criteria Achieved ?	
Shop	Yes	

3.3 Metering - Common Areas		100%
-----------------------------	--	------

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Score Contribution	This credit contributes 12.5% towards the category score.	
Criteria	Have all major common area services been separately submetered?	
Question	Criteria Achieved ?	
Apartment	Yes	
Shop	Yes	
4.1 Building Users Guide		100%
Score Contribution	This credit contributes 12.5% towards the category score.	
Criteria	Will a building users guide be produced and issued to occupants?	
Question	Criteria Achieved ?	
Project	Yes	

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Water Overall contribution 9.0%

		Minimum required 50%	53%  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: All	Scope out
Kitchen Taps: All	>= 5 Star WELS rating
Bathroom Taps: All	>= 6 Star WELS rating
Dishwashers: All	>= 5 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?:	
AP 1.1	Tank 1
AP 1.2	
AP 1.3	
AP 2.1	
AP 2.2	
Retail	
AP 3.1	-
AP 3.2	
AP 3.4	
AP 3.3	
AP 4.1	
Non-potable water source connected to Toilets: All	Yes
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?:	
Tank 1	234 m²
	-
Tank Size:	
Tank 1	10,000 Litres
	-
Irrigation area connected to tank:	
Tank 1	0.0 m²
	-

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Is connected irrigation area a water efficient garden?:		
Tank 1	Yes	
	-	
Other external water demand connected to tank?:		
Tank 1	0.0 Litres/Day	
	-	
1.1 Potable Water Use Reduction		44%
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	1822 kL	
Output	Proposed (excluding rainwater and recycled water use)	
Project	1408 kL	
Output	Proposed (including rainwater and recycled water use)	
Project	1302 kL	
Output	% Reduction in Potable Water Consumption	
Project	28 %	
Output	% of connected demand met by rainwater	
Project	100 %	
Output	How often does the tank overflow?	
Project	Never / Rarely	
Output	Opportunity for additional rainwater connection	
Project	800 kL	
3.1 Water Efficient Landscaping		100%
Score Contribution	This credit contributes 16.7% towards the category score.	
Criteria	Will water efficient landscaping be installed?	
Question	Criteria Achieved ?	
Project	Yes	
4.1 Building Systems Water Use Reduction		N/A ✦ Scoped Out
Small development		
This credit was scoped out	Small development	

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Energy Overall contribution 27.5%

		Minimum required 50%	71%  Pass
--	--	----------------------	---

Use the BESS Deem to Satisfy (DtS) method for Non-residential No spaces?:		
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		
Building: All	Building 1	
Below the floor is:		
AP 1.1	Ground or Carpark	
AP 1.2		
AP 1.3		
AP 2.1	Another Occupancy	
AP 2.2		
AP 3.1		
AP 3.2		
AP 3.4		
AP 3.3		
AP 4.1		
Above the ceiling is:		
AP 1.1	Another Occupancy	
AP 1.2		
AP 1.3		
AP 2.1		
AP 2.2		
AP 3.1		
AP 3.2		
AP 3.4		
AP 3.3		
AP 4.1	Outside	
Exposed sides:		
AP 1.1	3	
AP 1.2		
AP 2.1		
AP 2.2		
AP 3.1		
AP 3.2		
AP 3.4		
AP 3.3		
AP 1.3	2	
AP 4.1	4	
NatHERS Annual Energy Loads - Heat: All		
	55.9	MJ/sqm
NatHERS Annual Energy Loads - Cool: All		
	7.8	MJ/sqm

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NatHERS star rating:	All	8.0
Type of Heating System:	All	Reverse cycle space
Heating System Efficiency:	All	2.5 Stars (2019 MEPS)
Type of Cooling System:	All	Refrigerative space
Cooling System Efficiency:	All	4 Stars (2019 MEPS)
Type of Hot Water System:	All	Electric Instantaneous
% Contribution from solar hot water system:	All	0 %
Is the hot water system shared by multiple dwellings?:	All	No
Clothes Line:	All	No drying facilities
Clothes Dryer:	All	Occupant to install

Non-residential buildings profile		
Heating, Cooling & Comfort Ventilation - Electricity		1,000 kWh
Reference fabric & services:		
Heating, Cooling & Comfort Ventilation - Electricity - proposed fabric and reference services:		1,000 kWh
Heating, Cooling & Comfort Ventilation - Electricity		1,000 kWh
Proposed fabric & services:		
Heating - Wood - reference fabric and services:		-
Heating - Wood - proposed fabric and reference services:		-
Heating - Wood - proposed fabric and services:		-
Hot Water - Electricity - Reference:		1,000 kWh
Hot Water - Electricity - Proposed:		1,000 kWh
Lighting - Reference:		1,000 kWh
Lighting - Proposed:		1,000 kWh
Peak Thermal Cooling Load - Reference:		-
Peak Thermal Cooling Load - Proposed:		-

Solar Photovoltaic system profile		
System Size (lesser of inverter and panel capacity):	PV 1	11.8 kW peak
Orientation (which way is the system facing)?:	PV 1	North
Inclination (angle from horizontal):	PV 1	10.0 Angle (degrees)
Which Building Class does this apply to?:	PV 1	Apartment

1.1 Thermal Performance Rating - Non-Residential		12%
--	------------------------	-----

Score Contribution	This credit contributes 2.9% towards the category score.
Criteria	What is the % reduction in heating and cooling energy consumption against the reference case (NCC2022 Section J)?
Output	Total Improvement
Shop	0 %

1.2 Thermal Performance Rating - Residential		75% ✓ Achieved
--	------------------------	-----------------------------

Score Contribution	This credit contributes 16.2% towards the category score.
Criteria	What is the average NatHERS rating?
Output	Average NATHERS Rating (Weighted)
Apartment	8.0 Stars

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2.1 Greenhouse Gas Emissions		4%
Score Contribution	This credit contributes 16.9% 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)	
Apartment	24,822 kg CO ₂	
Shop	106 kg CO ₂	
Output	Proposed Building with Proposed Services (Actual Building)	
Apartment	28,237 kg CO ₂	
Shop	106 kg CO ₂	
Output	% Reduction in GHG Emissions	
Apartment	-14 %	
Shop	0 %	
2.2 Peak Demand		0%
Score Contribution	This credit contributes 0.4% towards the category score.	
Criteria	What is the % reduction in the instantaneous (peak-hour) demand against the benchmark?	
2.6 Electrification		100%
Score Contribution	This credit contributes 17.3% towards the category score.	
Criteria	Is the development all-electric?	
Question	Criteria Achieved?	
Project	Yes	
2.7 Energy consumption		100%
Score Contribution	This credit contributes 23% towards the category score.	
Criteria	What is the % reduction in annual energy consumption against the benchmark?	
Output	Reference Building with Reference Services (BCA only)	
Apartment	212,945 MJ	
Shop	449 MJ	
Output	Proposed Building with Proposed Services (Actual Building)	
Apartment	119,590 MJ	
Shop	449 MJ	
Output	% Reduction in total energy	
Apartment	43 %	
Shop	0 %	
3.1 Carpark Ventilation		100%
Score Contribution	This credit contributes 5.8% towards the category score.	
Criteria	If you have an enclosed carpark: is it: (a) fully naturally ventilated (no mechanical ventilation system) or (b) 40 car spaces or less with Carbon Monoxide monitoring to control the operation and speed of the ventilation fans?	
Question	Criteria Achieved ?	
Project	Yes	

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3.2 Hot Water		100%
Score Contribution	This credit contributes 0.4% 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	
Shop	225 MJ	
Output	Proposed	
Shop	225 MJ	
Output	Improvement	
Shop	0 %	
3.4 Clothes Drying		0%
Score Contribution	This credit contributes 5.4% 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	
Apartment	5,075 kWh	
Output	Proposed	
Apartment	5,075 kWh	
Output	Improvement	
Apartment	0 %	
3.6 Internal Lighting - Apartments		100%
Score Contribution	This credit contributes 5.4% towards the category score.	
Criteria	Is the maximum illumination power density (W/m2) in at least 90% of the relevant building class at least 20% lower than required by clause J7D3(1)(a) and Table J6.2a of the NCC 2022 Vol 1 (Class 2-9)?	
Question	Criteria Achieved ?	
Apartment	Yes	
3.7 Internal Lighting - Non-Residential		100%
Score Contribution	This credit contributes 0.7% towards the category score.	
Criteria	Does the maximum illumination power density (W/m2) in at least 90% of the area of the relevant building class meet the requirements in Table J7D3a of the NCC 2022 Vol 1?	
Question	Criteria Achieved ?	
Shop	Yes	
4.1 Combined Heat and Power (cogeneration / trigeneration)		N/A ✚ Scoped Out
No cogeneration or trigeneration system in use.		
This credit was scoped out		No cogeneration or trigeneration system in use.
4.2 Renewable Energy Systems - Solar		

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Score Contribution	This credit contributes 5.8% 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		
Apartment	14,300 kWh		
Output	% of Building's Energy		
Apartment	43 %		
4.4 Renewable Energy Systems - Other		N/A	✦ Scoped Out
No other (non-solar PV) renewable energy is in use.			
This credit was scoped out		No other (non-solar PV) renewable energy is in use.	

Stormwater Overall contribution 13.5%

	Minimum required 100%	100%	✔ Pass
--	-----------------------	------	--------

Which stormwater modelling software are you using?:	Melbourne Water STORM tool		
1.1 Stormwater Treatment		100%	
Score Contribution	This credit contributes 100% towards the category score.		
Criteria	Has best practice stormwater management been demonstrated?		
Question	STORM score achieved		
Project	108		
Output	Min STORM Score		
Project	100		

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IEQ Overall contribution 16.5%

		Minimum required 50%	86% ✓ Pass
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Use the BESS Deemed to Satisfy (DtS) method for daylight to Dwellings?:	No
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What approach do you want to use for daylight to Dwellings?:	Provide our own calculations
--	------------------------------

1.1 Daylight Access - Living Areas		100%
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Score Contribution	This credit contributes 24.7% towards the category score.
Criteria	What % of living areas achieve a daylight factor greater than 1%
Question	Percentage Achieved ?
Apartment	100 %

1.2 Daylight Access - Bedrooms		66%
--------------------------------	-------------	-----

Score Contribution	This credit contributes 24.7% towards the category score.
Criteria	What % of bedrooms achieve a daylight factor greater than 0.5%
Question	Percentage Achieved ?
Apartment	93 %

1.3 Winter Sunlight		100%
---------------------	-------------	------

Score Contribution	This credit contributes 8.2% towards the category score.
Criteria	Do 70% of dwellings receive at least 3 hours of direct sunlight in all Living areas between 9am and 3pm in mid-winter?
Question	Criteria Achieved ?
Apartment	Yes

1.4 Daylight Access - Non-Residential		33% ✓ Achieved
---------------------------------------	-------------	-----------------------------

Score Contribution	This credit contributes 3.3% towards the category score.
Criteria	What % of the nominated floor area has at least 2% daylight factor?
Question	Percentage Achieved?
Shop	33 %

1.5 Daylight Access - Minimal Internal Bedrooms		100%
---	-------------	------

Score Contribution	This credit contributes 8.2% towards the category score.
Criteria	Do at least 90% of dwellings have an external window in all bedrooms?
Question	Criteria Achieved ?
Apartment	Yes

2.1 Effective Natural Ventilation		100%
-----------------------------------	-------------	------

Score Contribution	This credit contributes 24.7% towards the category score.
Criteria	What % of dwellings are effectively naturally ventilated?
Question	Percentage Achieved?
Apartment	100 %

2.3 Ventilation - Non-Residential		33% ✓ Achieved
-----------------------------------	-------------	-----------------------------

Score Contribution	This credit contributes 3.3% towards the category score.
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Criteria	What % of the regular use areas are effectively naturally ventilated?
----------	---

Question	Percentage Achieved?
----------	----------------------

Shop	0 %
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Criteria	What increase in outdoor air is available to regular use areas compared to the minimum required by AS 1668.2:2012?
----------	--

Question	Percentage Achieved?
----------	----------------------

Shop	50 %
------	------

Criteria	What CO2 concentrations are the ventilation systems designed to achieve, to monitor and to maintain?
----------	--

Question	Value
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Shop	0 ppm
------	-------

3.4 Thermal comfort - Shading - Non-Residential	100%
--	------

Score Contribution	This credit contributes 1.6% towards the category score.
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Criteria	What percentage of east, north and west glazing to regular use areas is effectively shaded?
----------	---

Question	Percentage Achieved?
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Shop	100 %
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3.5 Thermal Comfort - Ceiling Fans - Non-Residential	0%
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Score Contribution	This credit contributes 0.5% towards the category score.
--------------------	--

Criteria	What percentage of regular use areas in tenancies have ceiling fans?
----------	--

Question	Percentage Achieved?
----------	----------------------

Shop	-
------	---

4.1 Air Quality - Non-Residential	100%
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Score Contribution	This credit contributes 0.5% towards the category score.
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Criteria	Do all paints, sealants and adhesives meet the maximum total indoor pollutant emission limits?
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Question	Criteria Achieved ?
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Shop	Yes
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Criteria	Does all carpet meet the maximum total indoor pollutant emission limits?
----------	--

Question	Criteria Achieved ?
----------	---------------------

Shop	Yes
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Criteria	Does all engineered wood meet the maximum total indoor pollutant emission limits?
----------	---

Question	Criteria Achieved ?
----------	---------------------

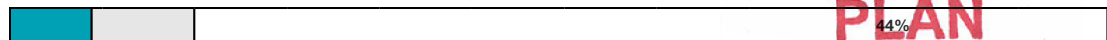
Shop	Yes
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Transport Overall contribution 9.0%



1.1 Bicycle Parking - Residential		100%
Score Contribution	This credit contributes 20% towards the category score.	
Criteria	How many secure and undercover bicycle spaces are there for residents?	
Question	Bicycle Spaces Provided ?	
Apartment	17	
Output	Min Bicycle Spaces Required	
Apartment	10	
1.2 Bicycle Parking - Residential Visitor		100%
Score Contribution	This credit contributes 20% towards the category score.	
Criteria	How many secure bicycle spaces are there for visitors?	
Question	Visitor Bicycle Spaces Provided ?	
Apartment	2	
Output	Min Visitor Bicycle Spaces Required	
Apartment	2	
1.3 Bicycle Parking - Convenience Residential		0%
Score Contribution	This credit contributes 10.5% towards the category score.	
Criteria	Are bike parking facilities for residents located at ground or entry level?	
Question	Criteria Achieved ?	
Apartment	No	
1.4 Bicycle Parking - Non-Residential		100%
Score Contribution	This credit contributes 1.4% towards the category score.	
Criteria	Have the planning scheme requirements for employee bicycle parking been exceeded by at least 50% (or a minimum of 2 where there is no planning scheme requirement)?	
Question	Criteria Achieved ?	
Shop	Yes	
Question	Bicycle Spaces Provided ?	
Shop	2	
1.5 Bicycle Parking - Non-Residential Visitor		100%
Score Contribution	This credit contributes 0.7% towards the category score.	
Criteria	Have the planning scheme requirements for visitor bicycle parking been exceeded by at least 50% (or a minimum of 1 where there is no planning scheme requirement)?	
Question	Criteria Achieved ?	
Shop	Yes	
Question	Bicycle Spaces Provided ?	
Shop	1	
1.6 End of Trip Facilities - Non-Residential		

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Score Contribution	This credit contributes 0.7% towards the category score.
Criteria	Where adequate bicycle parking has been provided. Is there also: * 1 shower for the first 5 employee bicycle spaces plus 1 to each 10 employee bicycles spaces thereafter, * changing facilities adjacent to showers, and * one secure locker per employee bicycle space in the vicinity of the changing / shower facilities?
Question	Number of showers provided ?
Shop	-
Question	Number of lockers provided ?
Shop	-
Output	Min Showers Required
Shop	1
Output	Min Lockers Required
Shop	2
2.1 Electric Vehicle Infrastructure	0%
Score Contribution	This credit contributes 22.4% towards the category score.
Criteria	Are facilities provided for the charging of electric vehicles?
Question	Criteria Achieved ?
Project	No
2.2 Car Share Scheme	0%
Score Contribution	This credit contributes 11.2% towards the category score.
Criteria	Has a formal car sharing scheme been integrated into the development?
Question	Criteria Achieved ?
Project	No
2.3 Motorbikes / Mopeds	0%
Score Contribution	This credit contributes 11.2% towards the category score.
Criteria	Are a minimum of 5% of vehicle parking spaces designed and labelled for motorbikes (must be at least 5 motorbike spaces)?
Question	Criteria Achieved ?
Project	No

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Waste Overall contribution 5.5%

		66%
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1.1 - Construction Waste - Building Re-Use		0%
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Score Contribution	This credit contributes 33.3% 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 33.3% towards the category score.
Criteria	Are facilities provided for on-site management of food and garden waste?
Question	Criteria Achieved ?
Project	Yes

2.2 - Operational Waste - Convenience of Recycling		100%
--	--	------

Score Contribution	This credit contributes 33.3% towards the category score.
Criteria	Are the recycling facilities at least as convenient for occupants as facilities for general waste?
Question	Criteria Achieved ?
Project	Yes

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Urban Ecology Overall contribution 5.5%

		88%
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1.1 Communal Spaces		93%
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Score Contribution	This credit contributes 11.2% towards the category score.
Criteria	Is there at least the following amount of common space measured in square meters : * 1m² for each of the first 50 occupants * Additional 0.5m² for each occupant between 51 and 250 * Additional 0.25m² for each occupant above 251?
Question	Common space provided
Apartment	26.0 m²
Shop	-
Output	Minimum Common Space Required
Apartment	26 m²
Shop	8 m²

2.1 Vegetation		100%
----------------	--	------

Score Contribution	This credit contributes 44.8% 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	43 %

2.2 Green Roofs		100%
-----------------	--	------

Score Contribution	This credit contributes 11.2% towards the category score.
Criteria	Does the development incorporate a green roof?
Question	Criteria Achieved ?
Project	Yes

2.3 Green Walls and Facades		100%
-----------------------------	--	------

Score Contribution	This credit contributes 11.2% towards the category score.
Criteria	Does the development incorporate a green wall or green façade?
Question	Criteria Achieved ?
Project	Yes

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

Score Contribution	This credit contributes 10.5% towards the category score.
Criteria	Is there a tap and floor waste on every balcony and courtyard (including any roof terraces)?
Question	Criteria Achieved ?
Apartment	Yes

3.1 Food Production - Residential		100%
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Score Contribution	This credit contributes 10.5% towards the category score.
Criteria	What area of space per resident is dedicated to food production?
Question	Food Production Area
Apartment	-
Output	Min Food Production Area
Apartment	7 m²
3.2 Food Production - Non-Residential	
0%	
Score Contribution	This credit contributes 0.7% towards the category score.
Criteria	What area of space per occupant is dedicated to food production?
Question	Food Production Area
Shop	-
Output	Min Food Production Area
Shop	3 m²

Innovation Overall contribution 9.0%

		50%
--	--	-----

Innovations		
Description:		
Construction Waste		At least 90% of the waste generated during construction and demolition has been diverted from landfill.
Air Tightness Testing		Air tightness testing for a sample of the apartments is to be undertaken mid-construction and post-construction.
Carbon Neutral Ready Development		The proposed development will be established with a carbon neutral power agreement between developer, owner's corporation, and electrical retailer to provide GreenPower for the base building. It is the intent to maintain this agreement for a minimum of 10 years. Future occupants will be provided with GreenPower options within their welcome pack.
ESD Checkpoint during Construction Phase		An ESD professional will be engaged throughout the design and construction process. The ESD professional will perform a minimum of 2 site inspections during the construction phase to ensure suitable implementation of the ESD initiatives. Any deficiencies compared to the endorsed SMP will be escalated to the project manager and resolved.
Points Targeted:		
Construction Waste	1	
Air Tightness Testing	1	
Carbon Neutral Ready Development	2	
ESD Checkpoint during Construction Phase	1	
1.1 Innovation		
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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