	NCC 2022 NatHERS Th	ermal Performance Specification	- St Marys			
		External Walls				
Wall Type	Insulation	Colour	Comments			
Cavity brick	Ametalin sarking foil	Med - SA 0.475 - 0.70	As per elevations			
	S	SA - Solar Absorptance				
		Internal Walls				
Wall Type	Insulation	ulation Comments				
Plasterboard stud (Steel studs)	None		Internally inside units			
Cavity brick	None	F	Party walls between dwellings/lift/stairs			
Cavity brick	None	P	Party walls between dwellings & carpark			
		Floors				
Floor Type	Insulation		Comments			
Concrete slab on ground	None		Units on lower ground floor			
Suspended concrete slab over carpark	R1.5		Parts of upper ground floor			
Concrete	None		Units with adjoining unit below			
		Ceilings				
Ceiling Type	Insulation	Comments				
Plasterboard	None	Unit above				
Plasterboard (Steel frame)	R3.5	Roof/air above				
Insulation loss due to downlights h as	not been modelled in this assessm	nent. A sealed exhaust fan has bee	en included in every kitchen, bathroom, laundry and ensuite.			
		Roof				
Roof Type	Insulation	Colour	Comments			
Metal	R1.3 foil-faced blanket	Med - SA 0.475 - 0.70	Throughout (Unvented cavity)			
	S	SA - Solar Absorptance				
		Glazing				
Opening type	U-Value	SHGC	Glazing & Frame Type			
Sliding + Fixed (Throughout)	4.8	0.59	e.g. Single glazed high performing low-e clear Aluminium frame			
Awning (Throughout)	4.8	0.51	e.g. Single glazed high performing low-e clear Aluminium frame			
U and SHGC values are based on the AFRC Defa	ult Windows Set. Glazing systems to	o be installed must have an equal o	or lower U value and a SHGC value \pm 10% of the above specified values.			
		Skylights				
Skylight Type	Fra	те Туре	Comments			
Fixed + Operable	Timber	& aluminium	Double glazed (Velux)			
		Ceiling fan				
Size	Lo	cation	Comments			
900mm in diameter	All living	g+ bedrooms	All units			

	Greenview Consulting Pty Ltd
greenview	ABN: 32600067338
CONSULTING	Email: dean@greenview.net.au Phone: 0404 649 76

Nationwide House Energy Rating Scheme[®] Class 2 Summary NatHERS[®] Certificate No. 0011514520

Generated on 28 Oct 2024 using BERS Pro v5.2.3 (3.23)

Property

Address

Lot/DP NatHERS Climate Zone

16-18 Stapleton Parade, St Marys, NSW, 2760 Lot 32,33,34 DP 35558 28 Richmond



Accredited assessor

NameDean GormanBusiness nameGreenview Consulting Pty LtdEmaildean@greenview.net.auPhone8544 1683Accreditation No.DMN/13/1645Assessor Accrediting Organisation

Design Matters National

Verification

To verify this certificate, scan the QR code or visit hstar.com.au/QR/Generate? p=NOigHbCKg . When using either link, ensure you are visiting hstar.com.au



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





R

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

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

NCC heating and cooling maximum loads (MJ/m²/p.a.)

Limits taken from ABCB Standard 2022

	Heating	Cooling
Modelled block average	35.5	6.4
Maximum block limit	N/A	N/A

Whole of Home performance rating

No Whole of Home performance rating conducted for this summary certificate or not completed for all dwellings

Summary of all dwellings

Certificate number and link	Unit Number	Heating load (load limit) [MJ/m ² /p.a.]	Cooling load (load limit) [MJ/m ² /p.a.]	Total load [MJ/m²/p.a.]	Star Rating	Whole of Home Rating
0011514502		44.3 (N/A)	1.9 (N/A)	46.2	7.7	0
0011514486	2	35.6 (N/A)	3.1 (N/A)	38.6	8.2	0

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

Generated on 28 Oct 2024 using BERS Pro v5.2.3 (3.23) for 16-18 Stapleton Parade , St Marys , NSW , 2760



Summary of all dwellings (continued)

Certificate number and link	Unit Number	Heating load (load limit) [MJ/m²/p.a.]	Cooling load (load limit) [MJ/m²/p.a.]	Total load [MJ/m²/p.a.]	Star Rating	Whole of Home Rating
0011514452	3	54.9 (N/A)	2.1 (N/A)	57.0	7.2	0
0011514429	4	31.5 (N/A)	8.5 (N/A)	40.1	8.1	0
<u>0011514387</u>	5	22.3 (N/A)	7.8 (N/A)	30.1	8.6	0
0011514353	6	47.6 (N/A)	6.8 (N/A)	54.4	7.3	0
0011514494	7	54.7 (N/A)	3.3 (N/A)	58.0	7.1	0
0011514478	8	51.6 (N/A)	3.0 (N/A)	54.6	7.3	0
0011514460	9	30.5 (N/A)	4.5 (N/A)	35.0	8.4	0
0011514437	10	23.7 (N/A)	3.8 (N/A)	27.5	8.8	0
0011514403	11	12.5 (N/A)	2.7 (N/A)	15.1	9.4	0
0011514379	12	32.8 (N/A)	13.8 (N/A)	46.6	7.7	0
0011514346	13	58.3 (N/A)	10.9 (N/A)	69.2	6.5	0
0011514445	14	40.0 (N/A)	7.9 (N/A)	47.9	7.7	0
0011514411	15	44.6 (N/A)	8.9 (N/A)	53.4	7.4	0
0011514395	16	26.9 (N/A)	9.8 (N/A)	36.6	8.3	0
0011514361	17	17.3 (N/A)	8.9 (N/A)	26.1	8.8	0
0011514338	18	10.4 (N/A)	7.3 (N/A)	17.8	9.3	0

Explanatory notes

About this ratings

The thermal performance star rating in this Certificate is the average rating of all NCC Class 2 dwellings in an apartment block. Individual unit ratings are listed in the 'Summary of all dwellings' section of this Certificate.

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 energy loads and societal cost. 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.

For more details about an individual dwelling's assessment, refer to the individual dwelling's NatHERS Certificate (accessible via link).

Accredited Assessors

For high quality 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.

Licensed assessors in the Australian Capital Territory (ACT) can produce assessments for regulatory purposes only, using endorsed software, as listed on the ACT licensing register.

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

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



The NatHERS Certificate format is developed by the NatHERS Administrator. However, the content in certificates 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 use, 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 while using the NatHERS accredited software tool are presented in this report and further details or data files may be available from the assessor.

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

Nationwide House Energy Rating Scheme[®] NatHERS[®] Certificate No. 0011514502

Generated on 28 Oct 2024 using BERS Pro v5.2.3 (3.23)

Property

Address

Lot/DP NCC class* Floor/all Floors Type St Marys , NSW , 2760 Lot 32,33,34 DP 35558 2 G of 1 floors New Home

Unit 1, 16-18 Stapleton Parade,

Plans

Main plan Prepared by BGZXE DKT Studio

Construction and environment

Assessed floor area [m2]* Conditioned* 66.6

Conditioned* 66.6 Unconditioned* 0.0 Total 66.6 Garage 0.0 Suburban NatHERS climate zone 28 Richmond

Exposure type



Accredited assessor

NameDeaBusiness nameGreeEmaildeaPhone854Accreditation No.DMAssessor Accrediting OrganisationDesign Matters NationalDeclaration of interestDec

Dean Gorman Greenview Consulting Pty Ltd dean@greenview.net.au 8544 1683 DMN/13/1645

Declaration completed: no conflicts

NCC Requirements

NCC provisions Strate/Territory variation Volume One

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

The more stars the more energy efficient

NATIONWIDE HOUSE ENERGY RATING SCHEME

46.2 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	44.3	1.9
Load limits	N/A	N/A

Features determining load limits

Floor Type	N/A
(lowest conditioned area)	
NCC climate zone 1 or 2	No
Outdoor living area	No
Outdoor living area ceiling fan	No

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 hstar.com.au/QR/Generate? p=MbwPCvUMT . When using either link, ensure you are visiting hstar.com.au



Page 1 of 10

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 Standard 2022: NatHERS heating and cooling load limits* 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 onsite renewable energy impact

No Whole of Home performance assessment conducted for this certificate.

Predicted Whole of Home annual impact by appliance

Energy use



Greenhouse gas emissions



Cost



7.7 Star Rating as of 28 Oct 2024

Certificate check	Approva	I Stage	Constru Stage	ction	HOUSE
The checklist covers important items impacting the dwelling's ratings. It is recommended that the accuracy of the whole certificate is checked.	Assessor checked	Consent Authority/ Surveyor checked	Builder checked	Consent Authority Surveyor checked	Occupancy/Other
Note: The boxes indicate when and by whom each item should be checked. It is not mandatory to complete this checklist.	Asses	Conse Surve)	Builde	Conse Surve)	Occup
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 what is shown					

0011514502 NatHERS Certificate 7.7 Star Rating as of 28 Oct 2024					HOUVE
	Approva	I Stage	Constru Stage	ction	
Certificate check	scked	iority/ cked	çeq	nority cked	ther
Continued	Assessor checked	Consent Authority/ Surveyor checked	Builder checked	Consent Authority Surveyor checked	Occupancy/Other
Additional NCC requirements for thermal performance (not inclu	uded in t	he NatHE	RS asse	essment)	
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 Hom	e performa	ance asses	ssment is	not conduc	ted)
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	assessi	nent)		
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



Room schedule

Room	Zone Type	Area [m ²]
Kitchen/Living	Kitchen/Living	30.72
Entry/Hall	Daytime	12.56
Bath/L'dry	Daytime	7.76
Bedroom 1	Bedroom	15.58
Glazed Common Area	Glazed Common Area	26.37

Window and glazed door type and performance

Default windows*

Window ID	Window	Maximum	SHGC*	Substitution to	lerance ranges
window iD	Description	U-value*	3660	SHGC lower limit	SHGC upper limit
ALM-004-01 A	Aluminium B DG Air Fill Clear-Clear	4.8	0.59	0.56	0.62
ALM-003-01 A	Aluminium A DG Air Fill Clear-Clear	4.8	0.51	0.48	0.54

Custom windows*

Window ID	Window	Window Maximum SHG		Substitution tolerance ranges		
willdow iD	Description	n U-value*	3660	SHGC lower limit	SHGC upper limit	
No Data Available						

Window and glazed door schedule

Location	Window ID	Window no.	Height [mm]	Width [mm]	Window type	Opening %	Orientation	Window shading device*
Kitchen/Living	ALM-004-01 A	W7	2700	2630	Sliding	35	W	No
Kitchen/Living	ALM-003-01 A	W8	860	1330	Awning	45	Ν	No
Kitchen/Living	ALM-003-01 A	W9	1550	850	Awning	70	Ν	No
Bedroom 1	ALM-003-01 A	W10	1550	1200	Awning	35	Ν	No
Glazed Common Area	ALM-001-01 A	W36	2700	1700	Casement	45	W	No

Roof window* type and performance value

Default roof windows*

Window ID	Window	Maximum	SHGC*	Substitution to	lerance ranges
Window ID	Description U-value*		3660	SHGC lower limit	SHGC upper limit
No Data Avail	able				



Custom roof windows*

Window ID	Window	Maximum	SHGC*	Substitution to	lerance ranges
	Description	Description U-value*		SHGC lower limit	SHGC upper limit
No Data Avai	lable				

Roof window* schedule

Location	Window ID	Window no.	Opening %	Height [mm]	Width [mm]	Orientation	Outdoor shade	Indoor shade
No Data Ava	ilable							

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]	Outdoor shade	Diffuser
No Data Availa	able					

External door schedule

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

External wall type

Wall	Wall	Solar	Wall shade	Bulk insulation	Reflective
ID	type	absorptance	[colour]	[R-value]	wall wrap*
EW-1	Cavity Brick	0.50		Foil, Reflective both sides	Yes

External wall schedule

Location	Wall ID	Height [mm]	Width [mm]	Orientation	Horizontal shading feature* maximum projection [mm]	Vertical shading feature [yes/no]
Kitchen/Living	EW-1	2700	3800	W	2800	Yes
Kitchen/Living	EW-1	2700	8000	Ν	0	Yes
Kitchen/Living	EW-1	2700	3995	E	0	No
Bath/L'dry	EW-1	2700	3190	E	0	No

0011514502 NatHERS Certificate

7.7 Star Rating as of 28 Oct 2024



Location	Wall ID	Height [mm]	Width [mm]	Orientation	Horizontal shading feature* maximum projection [mm]	Vertical shading feature [yes/no]
Bedroom 1	EW-1	2700	4395	Е	0	No
Bedroom 1	EW-1	2700	3000	Ν	1100	Yes
Glazed Common Area	EW-1	2700	2500	W	2200	Yes

Internal wall type

Wall ID	Wall type	Area [m ²]	Bulk insulation
IW-001	Steel Stud Frame, Direct Fix Plasterboard	46.98	No insulation
IW-002	Cavity brick	83.97	No Insulation

Floor type

Location	Construction	Area [m ²]	Sub-floor ventilation	Added insulation [R-value]	Covering
Kitchen/Living	Concrete Slab on Ground 150mm	30.72	None	No Insulation	Ceramic Tiles 8mm
Entry/Hall	Concrete Slab on Ground 150mm	12.56	None	No Insulation	Ceramic Tiles 8mm
Bath/L'dry	Concrete Slab on Ground 150mm	7.76	None	No Insulation	Ceramic Tiles 8mm
Bedroom 1	Concrete Slab on Ground 150mm	15.58	None	No Insulation	Carpet+Rubber Underlay 18mm
Glazed Common Area	Concrete Slab on Ground 150mm	26.37	None	No Insulation	Ceramic Tiles 8mm

Ceiling type

Location	Construction material/type	Bulk insulation R-value (may include edge batt values)	Reflective wrap* [yes/no]
Kitchen/Living	Concrete, Plasterboard with Steel Frame	No insulation	
Entry/Hall	Concrete, Plasterboard with Steel Frame	No insulation	
Bath/L'dry	Concrete, Plasterboard with Steel Frame	No insulation	
Bedroom 1	Concrete, Plasterboard with Steel Frame	No insulation	
Glazed Common Area	Concrete, Plasterboard with Steel Frame	No insulation	

Ceiling penetrations*

Location	Quantity	Туре	Diameter [mm]	Sealed/unsealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
Bath/L'dry	1	Exhaust Fans	300	Sealed

* Refer to glossary. Generated on 28 Oct 2024 using BERS Pro v5.2.3 (3.23) for Unit 1, 16-18 Stapleton Parade , St Marys , NSW , 2760

Ceiling fans

Location	Quantity	Diameter [mm]
Kitchen/Living	1	900
Bedroom 1	1	900

Roof type

Construction	Added insulation	Solar	Roof shade
	[R-value]	absorptance	[colour]
None Present		0.00	

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]
Ceiling		900	0.75	No
Internal Wall		600	0.75	No

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	Lo	cation	Fuel type	eff	inimum ficiency/ formance		mended acity
No Data Available							
Heating system							
Appliance/ system type	Lo	cation	Fuel type	eff	inimum ficiency/ formance		mended acity
No Data Available							
Hot water system							
Appliance/ system type	Fuel type	Hot Water CER Zone	Minimum efficiency /STC	Zone 3 STC		Ibstitution e ranges upper limit	Assessed daily load [litres]
No Data Available							

0011514502 NatHERS	Certificate	7.7 Star Rating as of 28 Oct 2	024	HOUSE
Pool/spa equipment				
Appliance/ system t	type	Fuel type	Minimum efficiency/ performance	Recommended capacity
No Data Available				
Onsite Renew	able Energy	y Schedule		
System Type	Orientation	1	System Size Or Generati	on Capacity

No Data Available

Battery Schedule

System Type	Size [Battery Storage Capacity]
No Data Available	

.....



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

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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

AFRC	Australian Fenestration Rating Council
Annual energy load	the predicted amount of energy required for heating and cooling, based on standard occupancy assumptions.
	the floor area modelled in the software for the purpose of the NatHERS assessment. Note, this may not be consistent with the
Assessed floor area	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.
COP	Coefficient of performance
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.
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	see exposure categories below.
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 - protected	terrain with numerous, closely spaced obstructions below 10m e.g. suburban housing, heavily vegetated bushland areas.
Exposure category – suburban	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 airgap 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.
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.
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.
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 Regulator (CER)
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 or continuous thermal breaks such as polystyrene insulation sheeting or plastic strips
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	device fixed to windows that provides shading e.g. window awnings or screens but excludes horizontal* or vertical shading features* (eg eaves and balconies)

Nationwide House Energy Rating Scheme[®] NatHERS[®] Certificate No. 0011514486

Generated on 28 Oct 2024 using BERS Pro v5.2.3 (3.23)

Property

Address

Lot/DP NCC class* Floor/all Floors Type

Unit 2, 16-18 Stapleton Parade, St Marys, NSW, 2760 Lot 32.33.34 DP 35558 2 G of 1 floors New Home

Plans

Main plan Prepared by BGZXE DKT Studio

Construction and environment

Assessed floor area [m2]*

Conditioned* 60.3 Unconditioned* 0.0 Total 60.3 Garage 0.0

Exposure type Suburban NatHERS climate zone 28 Richmond



Accredited assessor

Name **Business name** Email Phone Accreditation No. Assessor Accrediting Organisation **Design Matters National**

Dean Gorman Greenview Consulting Pty Ltd dean@greenview.net.au 8544 1683 DMN/13/1645

Declaration completed: no conflicts

Declaration of interest

NCC Requirements

NCC provisions Strate/Territory variation Volume One

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.

Generated on 28 Oct 2024 using BERS Pro v5.2.3 (3.23) for Unit 2, 16-18 Stapleton Parade, St Marys, NSW, 2760

Thermal performance Star rating

The more stars the more energy efficient

NATIONWIDE

38.6 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	35.6	3.1
Load limits	N/A	N/A

Features determining load limits

Floor Type (lowest conditioned area)	N/A
NCC climate zone 1 or 2	No
Outdoor living area	No
Outdoor living area ceiling fan	No

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 hstar.com.au/QR/Generate? p=uNeUcvESJ When using either link, ensure you are visiting hstar.com.au



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 Standard 2022: NatHERS heating and cooling load limits* 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 onsite renewable energy impact

No Whole of Home performance assessment conducted for this certificate.

Predicted Whole of Home annual impact by appliance

Energy use



Greenhouse gas emissions

No Whole of Home performance assessment conducted for this certificate

Cost



8.2 Star Rating as of 28 Oct 2024

······································					HOUSE
Certificate check	Approva	Approval Stage Constr Stage		ction	
The checklist covers important items impacting the dwelling's ratings. It is recommended that the accuracy of the whole certificate is checked.	Assessor checked	Consent Authority/ Surveyor checked	Builder checked	Consent Authority Surveyor checked	Occupancy/Other
Note: The boxes indicate when and by whom each item should be checked. It is not mandatory to complete this checklist.	Assess	Consen Surveyo	Builder	Consen Surveyo	Occupa
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	r	-^	n		
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 what is shown					

0011514486 NatHERS Certificate 8.2 Star Rating as of 28 Oct 2024							
	Approval Stage		Constru Stage	ction			
Certificate check	ecked	hority/ ecked	ked	hority scked	Other		
Continued	Assessor checked	Consent Authority/ Surveyor checked	Builder checked	Consent Authority Surveyor checked	Occupancy/Other		
Additional NCC requirements for thermal performance (not inclu	uded in t	he NatHE	ERS asse	essment)			
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 Hom	e performa	ance asses	ssment is i	not conduc	ted)		
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	S assessi	nent)				
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	ń	ń	n	ſ			
Have provisional values* been used in the assessment and, if so, are they noted in 'Additional notes' table below?							
Other NCC requirements			7				

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



Room schedule

Room	Zone Type	Area [m ²]
Glazed Common Area	Glazed Common Area	23.15
Kitchen/Living	Kitchen/Living	35.89
Bedroom 1	Bedroom	15.08
Bath/Laundry	Daytime	9.33

Window and glazed door type and performance

Default windows*

Window ID	Window Maximum SHGC*		SHCC*	Substitution tolerance ranges		
window ID	Description	U-value*	3666	SHGC lower limit	SHGC upper limit	
ALM-004-01 A	Aluminium B DG Air Fill Clear-Clear	4.8	0.59	0.56	0.62	
ALM-003-01 A	Aluminium A DG Air Fill Clear-Clear	4.8	0.51	0.48	0.54	

Custom windows*

Window ID	Window	SHGC*		Substitution tolerance ranges		
	Description	U-value*	3160	SHGC lower limit SHGC upper limit		
No Data Avail	able					

Window and glazed door schedule

Location	Window ID	Window no.	Height [mm]	Width Window [mm] type	Opening %	Orientation	Window shading device*
Glazed Common Area	ALM-001-01 A	W7	2700	1700 Casement	45	W	No
Kitchen/Living	ALM-004-01 A	n/a	2700	3000 Sliding	35	W	No
Bedroom 1	ALM-003-01 A	W12	1900	1550 Awning	35	W	No

Roof window* type and performance value

Default roof windows*

Window ID	Window	Maximum	SHGC*	Substitution tolerance ranges SHGC lower limit SHGC upper limit	
WINGOW ID	Description	U-value*	31100		
No Data Availa	able				



Custom roof windows*

Window ID	Window	Maximum	SHCC*	Substitution to	lerance ranges
Window ID	Description	U-value*	SHGC*	SHGC lower limit SHGC upper lim	
No Data Avai	lable				

Roof window* schedule

Location	Window ID	Window no.	Opening %	Height [mm]	Width [mm]	Orientation	Outdoor shade	Indoor shade
No Data Avai	lable							

Skylight* type and performance

 Skylight ID
 Skylight description
 Skylight shaft reflectance

 No Data Available
 Volume
 Volum
 Volume
 Volume

Skylight* schedule

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

External door schedule

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

External wall type

Wall	Wall	Solar	Wall shade	Bulk insulation	Reflective
ID	type	absorptance	[colour]	[R-value]	wall wrap*
EW-1	Cavity Brick	0.50		Foil, Reflective both sides	Yes

External wall schedule

Location	Wall ID	Height [mm]	Width [mm]	Orientation	Horizontal shading feature* maximum projection [mm]	Vertical shading feature [yes/no]
Glazed Common Area	EW-1	2700	2300	W	2200	Yes
Kitchen/Living	EW-1	2700	5095	S	0	No
Kitchen/Living	EW-1	2700	4195	W	2700	Yes
Bedroom 1	EW-1	2700	700	S	4200	No

0011514486 NatHERS Certificate

8.2 Star Rating as of 28 Oct 2024



Location	Wall ID	Height [mm]	Width [mm]	Orientation	Horizontal shading feature* maximum projection [mm]	Vertical shading feature [yes/no]
Bedroom 1	EW-1	2700	3400	W	0	No
Bedroom 1	EW-1	2700	2400	Ν	4900	No

Internal wall type

Wall ID	Wall type	Area [m ²]	Bulk insulation
IW-001	Cavity brick	97.47	No Insulation
IW-002	Steel Stud Frame, Direct Fix Plasterboard	36.18	No insulation

Floor type

Location	Construction	Area [m²]	Sub-floor ventilation	Added insulation [R-value]	Covering
Glazed Common Area	Concrete Slab on Ground 150mm	23.15	None	No Insulation	Ceramic Tiles 8mm
Kitchen/Living	Concrete Slab on Ground 150mm	35.89	None	No Insulation	Ceramic Tiles 8mm
Bedroom 1	Concrete Slab on Ground 150mm	15.08	None	No Insulation	Carpet+Rubber Underlay 18mm
Bath/Laundry	Concrete Slab on Ground 150mm	9.33	None	No Insulation	Ceramic Tiles 8mm

Ceiling type

Location	Construction material/type	Bulk insulation R-value (may include edge batt values)	Reflective wrap* [yes/no]
Glazed Common Area	Concrete, Plasterboard with Steel Frame	No insulation	
Kitchen/Living	Concrete, Plasterboard with Steel Frame	No insulation	
Bedroom 1	Concrete, Plasterboard with Steel Frame	No insulation	
Bath/Laundry	Concrete, Plasterboard with Steel Frame	No insulation	

Ceiling penetrations*

Location	Quantity	Туре	Diameter [mm]	Sealed/unsealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
Bath/Laundry	1	Exhaust Fans	300	Sealed



Ceiling fans

Location	Quantity	Diameter [mm]
Kitchen/Living	1	900
Bedroom 1	1	900

Roof type

Construction	Added insulation	Solar	Roof shade
	[R-value]	absorptance	[colour]
None Present		0.00	

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]
Ceiling		900	0.75	No
Internal Wall		600	0.75	No

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 Minimum Recommended Location Appliance/ system type Fuel type efficiency/ capacity performance No Data Available Heating system Minimum Recommended Location Appliance/ system type Fuel type efficiency/ capacity performance No Data Available Hot water system Hot Minimum **Zone 3 Substitution** Assessed Zone 3 Appliance/ system type Fuel type Water efficiency tolerance ranges daily load STC **CER Zone** /STC [litres] lower limit upper limit No Data Available

* Refer to glossary. Generated on 28 Oct 2024 using BERS Pro v5.2.3 (3.23) for Unit 2, 16-18 Stapleton Parade , St Marys , NSW , 2760

Pool/spa equipment	8.2 Star Rating as of 28 Oct 2024		HOT
Appliance/ system type	Fuel type	Minimum efficiency/ performance	Recommended capacity
No Data Available			

System Type	Orientation	System Size Or Generation Capacity
No Data Available		

Battery Schedule

System Type	Size [Battery Storage Capacity]
No Data Available	



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

AFRC	Australian Fenestration Rating Council
Annual energy load	the predicted amount of energy required for heating and cooling, based on standard occupancy assumptions.
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
Assessed noor area	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.
COP	Coefficient of performance
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.
Custom windows	windows listed in NatHERS software that are available on the market in Australia and have a WERS (Window Energy Rating Scheme) rating.
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Exposure	see exposure categories below.
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Exposure category – protected	terrain with numerous, closely spaced obstructions below 10m e.g. suburban housing, heavily vegetated bushland areas.
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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 airgap 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.
Skylight (also known as roof lights	b) for NatHERS this is typically a moulded unit with flexible reflective tubing (light well) and a diffuser at ceiling level.
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.
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 Regulator (CER)
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 or continuous thermal breaks such as polystyrene insulation sheeting or plastic strips
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	device fixed to windows that provides shading e.g. window awnings or screens but excludes horizontal* or vertical shading features* (eg eaves and balconies)

Nationwide House Energy Rating Scheme[®] NatHERS[®] Certificate No. 0011514452

Generated on 28 Oct 2024 using BERS Pro v5.2.3 (3.23)

Property

Address

Lot/DP NCC class* Floor/all Floors Type

Unit 3, 16-18 Stapleton Parade, St Marys, NSW, 2760 Lot 32.33.34 DP 35558 2 G of 1 floors New Home

Plans

Main plan Prepared by BGZXE DKT Studio

Construction and environment

Assessed floor area [m2]*

Conditioned* 85.1 Unconditioned* 0.0 85.1 Total Garage 0.0



Accredited assessor

Name **Business name** Email Phone Accreditation No. Assessor Accrediting Organisation **Design Matters National Declaration of interest**

NCC provisions Strate/Territory variation dean@greenview.net.au 8544 1683 DMN/13/1645

Greenview Consulting Pty Ltd

Exposure type

28 Richmond

NatHERS climate zone

Suburban

Declaration completed: no conflicts

NCC Requirements

Volume One

Yes

Dean Gorman

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

> The more stars the more energy efficient

NATIONWIDE

57.1 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	54.9	2.1
Load limits	N/A	N/A

Features determining load limits

Floor Type (lowest conditioned area)	N/A
NCC climate zone 1 or 2	No
Outdoor living area	No
Outdoor living area ceiling fan	No

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 hstar.com.au/QR/Generate? p=ODuvqcJey When using either link, ensure you are visiting hstar.com.au



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 Standard 2022: NatHERS heating and cooling load limits* 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 onsite renewable energy impact

No Whole of Home performance assessment conducted for this certificate.

Predicted Whole of Home annual impact by appliance

Energy use



Greenhouse gas emissions



Cost





7.2 Star Rating as of 28 Oct 2024

Certificate check	Approva	Il Stage	Constru Stage	HOUSE	
The checklist covers important items impacting the dwelling's ratings. It is recommended that the accuracy of the whole certificate is checked.	Assessor checked	Consent Authority/ Surveyor checked	Builder checked	Consent Authority Surveyor checked	Occupancy/Other
Note: The boxes indicate when and by whom each item should be checked. It is not mandatory to complete this checklist.	Assess	Conser Survey	Builder	Conser Survey	Occupa
Genuine certificate check		1	1	<u>6</u>	
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 what is shown					

<u>.</u>

0011514452 NatHERS Certificate 7.2 Star Rating as of 28 Oct 2024					NHOW WE HOUSE	
	Approval Stage			Construction Stage		
Certificate check	ecked	hority/ ecked	ked	hority ecked	Other	
Continued	Assessor checked	Consent Authority/ Surveyor checked	Builder checked	Consent Authority Surveyor checked	Occupancy/Other	
Additional NCC requirements for thermal performance (not inclu	uded in t	he NatHE	RS asse	ssment)		
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 Hom	e performa	ance asses	ssment is r	not conduc	ted)	
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	assessi	nent)			
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	ň	ň	1			
Note: This Certificate only covers the energy efficiency requirements in the NCC. Addi but are not limited to: condensation, structural and fire safety requirements and any st requirements.						

Additional notes



Room schedule

Room	Zone Type	Area [m ²]
Kitchen/Living	Kitchen/Living	32.77
Bath/L'dry	Daytime	7.89
Hall	Daytime	15.36
Bedroom 2	Bedroom	13.49
Bedroom 1	Bedroom	15.56
Glazed Common Area	Glazed Common Area	16.56

Window and glazed door type and performance

Default windows*

Window ID	Window	Maximum U-value* SHGC*		Substitution tolerance ranges			
	Description			SHGC lower limit	SHGC upper limit		
ALM-003-01 A	Aluminium A DG Air Fill Clear-Clear	4.8	0.51	0.48	0.54		
ALM-004-01 A	Aluminium B DG Air Fill Clear-Clear	4.8	0.59	0.56	0.62		

Custom windows*

Window ID	Window	Maximum	SHGC*	Substitution tolerance ranges		
	Description	U-value*	3600	SHGC lower limit	SHGC upper limit	
No Data Availa	able					

Window and glazed door schedule

Location	Window ID	Window no.	Height [mm]	Width [mm]	Window type	Opening %	Orientation	Window shading device*
Kitchen/Living	ALM-003-01 A	W5	1200	850	Awning	70	S	No
Kitchen/Living	ALM-003-01 A	W4	2150	850	Awning	70	S	No
Kitchen/Living	ALM-004-01 A	W3	2700	3000	Sliding	20	W	No
Kitchen/Living	ALM-003-01 A	W2	2150	850	Awning	70	W	No
Bedroom 2	ALM-003-01 A	W37	1550	1550	Awning	35	S	No
Bedroom 1	ALM-003-01 A	W36	1550	1550	Awning	35	S	No
Glazed Common Area	ALM-003-01 A	W1	2700	1700	Casement	45	W	No



Roof window* type and performance value

Default roof windows*

Window ID	Window	Maximum	SHGC*	Substitution tolerance ranges		
	Description	U-value*	SHGC	SHGC lower limit	SHGC upper limit	
No Data Availa	able					
Custom roof wi	indows*					
Window ID	Window	Maximum	0U00*	Substitution to	lerance ranges	
Window ID	Description	U-value*	SHGC*	SHGC lower limit	SHGC upper limit	
No Data Availa	able					

oor window" schedule

Location	Window ID	Window no.	Opening %	Height [mm]	Width [mm]	Orientation	Outdoor shade	Indoor shade
No Data Avai	lable							

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 Avail	able					

External door schedule

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

External wall type

Wall	Wall	Solar	Wall shade	Bulk insulation	Reflective
ID	type	absorptance	[colour]	[R-value]	wall wrap*
EW-1	Cavity Brick	0.50		Foil, Reflective both sides	Yes



External wall schedule

Location	Wall ID	Height [mm]	Width [mm]	Orientation	Horizontal shading feature* maximum projection [mm]	Vertical shading feature [yes/no]
Kitchen/Living	EW-1	2700	3995	Ν	0	No
Kitchen/Living	EW-1	2700	2795	S	300	No
Kitchen/Living	EW-1	2700	500	W	1800	No
Kitchen/Living	EW-1	2700	1800	S	600	No
Kitchen/Living	EW-1	2700	7200	W	2500	Yes
Bath/L'dry	EW-1	2700	1095	Ν	2400	No
Bedroom 2	EW-1	2700	3700	E	0	No
Bedroom 2	EW-1	2700	3695	S	0	No
Bedroom 1	EW-1	2700	4290	S	300	No
Glazed Common Area	EW-1	2700	2245	W	2400	No

Internal wall type

Wall ID	Wall type	Area [m ²]	Bulk insulation
IW-001	Steel Stud Frame, Direct Fix Plasterboard	59.94	No insulation
IW-002	Cavity brick	59.94	No Insulation

Floor type

Location	Construction	Area [m²]	Sub-floor ventilation	Added insulation [R-value]	Covering
Kitchen/Living	Concrete Slab on Ground 150mm	32.77	None	No Insulation	Ceramic Tiles 8mm
Bath/L'dry	Concrete Slab on Ground 150mm	7.89	None	No Insulation	Ceramic Tiles 8mm
Hall	Concrete Slab on Ground 150mm	15.36	None	No Insulation	Ceramic Tiles 8mm
Bedroom 2	Concrete Slab on Ground 150mm	13.49	None	No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 1	Concrete Slab on Ground 150mm	15.56	None	No Insulation	Carpet+Rubber Underlay 18mm
Glazed Common Area	Concrete Slab on Ground 150mm	16.56	None	No Insulation	Ceramic Tiles 8mm



Ceiling type

Location	Construction material/type	Bulk insulation R-value (may include edge batt values)	Reflective wrap* [yes/no]
Kitchen/Living	Concrete, Plasterboard with Steel Frame	No insulation	
Bath/L'dry	Concrete, Plasterboard with Steel Frame	No insulation	
Hall	Concrete, Plasterboard with Steel Frame	No insulation	
Bedroom 2	Concrete, Plasterboard with Steel Frame	No insulation	
Bedroom 1	Concrete, Plasterboard with Steel Frame	No insulation	
Glazed Common Area	Concrete, Plasterboard with Steel Frame	No insulation	

Ceiling penetrations*

Location	Quantity	Туре	Diameter [mm]	Sealed/unsealed	
Kitchen/Living	1	Exhaust Fans	300	Sealed	
Bath/L'dry	1	Exhaust Fans	300	Sealed	

Ceiling fans

Location	Quantity	Diameter [mm]
Kitchen/Living	1	900
Bedroom 2	1	900
Bedroom 1	1	900

Roof type

Construction	truction [R-value]		Roof shade [colour]
None Present		0.00	

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]
Ceiling		900	0.75	No
Internal Wall		600	0.75	No

Appliance schedule

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

Note: A flat assumption of $5W/m^2$ is used for lighting, therefore lighting is not included in the appliance schedule.

0011514452 NatHERS Certificate	9 7.2 Star	r Rating as of 28	3 Oct 2024				HOUS
Cooling system							
Appliance/ system type	Lo	cation Fu	uel type	eff	nimum iciency/ ormance		mended acity
No Data Available							
Heating system							
Appliance/ system type	Lo	cation Fu	uel type	eff	nimum iciency/ ormance		mended acity
No Data Available							
Hot water system							
Appliance/ system type	Fuel type	Hot Water CER Zone	Minimum efficiency /STC	Zone 3 STC		ubstitution e ranges upper limit	Assessed daily load [litres]
No Data Available							
Pool/spa equipment							
Appliance/ system type		Fuel type		Minimu efficienc performa	cy/	Recomm capac	
No Data Available							
Onsite Renewable E	nergy Sch	edule					
System Type Orio	entation		Syst	em Size O	r Generation	Capacity	

Battery Schedule

No Data Available

System Type	Size [Battery Storage Capacity]	
No Data Available		



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 insert of annual veguined for heating and cooling, based on standard occupancy assumptions. Assessed floor area Assessed floor area in the design documents. Caling penetrations features that require a penetration to the ceiling including downlights, vents, exhaust fans, range hoods, chimneys and flues. Excludes futures attached to the ceiling with small holes through the ceiling for wining, e.g. ceiling fans, pendant lights, and Coefficient of performance 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 gardges. Custom windows windows listed in NaHERS software that are available on the market in Austallia and have a WERS (Window Energy Rating Default windows windows listed in NaHERS software that are available on the market in Austallia and have a WERS (Window Energy Rating Default windows windows listed in NaHERS software that are available on the market in Austallia and have a WERS (Window Energy Rating Default windows windows listed in NaHERS software that are available on the market in Austallia and have a WERS (Window Energy Rating Default windows windows windows windows and the representative of a specific type of window product and whose properties have been derived by statistical methods. It are representative of a specific type of window rotuct and whose more intervised by an air conditioner for a single KWh of electricity input Energy value This is your homes rating without solar or batteries. Energy value This is your homes rating without solar or batteries. Energy value This is your homes rating without solar or batteries. Energy value These signify explores Standard). Exposure category – penceted terrain with numerous, closely papeed obstructions below to the modelied as a door when opening to a minimally verificited corridor in a class 2 building. Exposure category – protected terrain with numerous, closely papeed obstructions periods, devert approach, and yous	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 Earlures that require a penetration to the ceiling, including downlights, wens, exhaust fans, range hoods, chimneys and flues. Conditional Constraint the design documents. Earlures that require a penetration to the ceiling with shall holes through the ceiling for wring, e.g. ceiling fans, benchmark (bits, and ceiling with a sequence). Constraint (bits, and ceiling with a sequence). Conditional a zone within a welling with a lis expected to require heating and cooling based on standard occupancy assumptions. In some circumstances it will include garges. Custom windows Windows listen in welling with shall are representative of a specific type of window product and whose properties have been derived by statistical methods. Default windows This is your homes rating without solar or batteries. Energy value The net cost to societly including, but not limited to costs to the building user, the environment and energy networks (as defined in the ABCB Housing Provisions Standard). Exposure category – open terrain with no obstructions e.g. flig razing allow costs to the building user, the environment and energy networks (as therain system) and the obstructions e.g. glig razing allows with flow well sates of obstructions below 100 floors). Exposure category – open terrain with numerous, closely spaced obstructions below 100 m, cates all				
Assessed hold area floor area in the design documents. Calling penetrations features that require a penetration to the colling, including downlights, wents, exhaust fans, range holds, chimneys and flues. Excludes fittures attached to the celling, including downlights, wents, exhaust fans, range holds, chimneys and flues. COP Coefficient of performance Could on the advelling that is expected to require healing and cooling based on standard occupancy assumptions. In some dircumstances it will include garages. 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. Energy use This is vurthomes 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 AGC Housing Provisions Standard). Exposure category – exposed Emarative that no obstructions e g. and graning land. cosent-drontage, desert. avocal high regional provisions Standard). Exposure category – exposed Errain with numerous, closely spaced obstructions over 10 m e g. of youthorial networks (are defined in the solutions e g. and graning land. cosent-drontage, desert, avocal high regions, having veglated built holds, efficiency and the solution a class 1000 regions (assistication condic).				
COP Coefficient of performance 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. Custom windows Energy Efficiency Ratio, measure of how much cooling can be achieved by an air conditioner for a single kWh of electricity input. Default windows Energy Efficiency Ratio, measure of how much cooling can be achieved by an air conditioner for a single kWh of electricity input. Energy efficiency Ratio, measure of how much cooling can be achieved by an air conditioner for a single kWh of electricity input. Energy efficiency Ratio, measure of how much cooling can be achieved by an air conditioner for a single kWh of electricity input. Energy efficiency ratio a cooling can be achieved by an air conditioner for a single kWh of electricity input. Energy efficiency ratio a cooling can be achieved by an air conditioner for a single kWh of electricity input. Energy end to a cool to accide the solution. The sing sour homes rating without solar or batteries. Energy end to a cool to accide the solution. The sing sour homes rating without solar or batteries. Energy end to a cool to accide the solution. The sing sour homes rating without solar or batteries. Energy end to a cool to accide the solution. The sing source category = solution. Exposure category - protected terrain with ne obstructions below.	Assessed floor area			
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 garges. Custom windows windows listed in Natt/ERS software that are available on the market in Australia and have a WERS (Window Energy Rating Scheme) rating. Default windows mightows that are representative of a specific type of window product and whose properties have been derived by statistical indives. ERR Energy Enclosely Ratio, measure of how much cooling can be achieved by an air conditioner for a single KWh of electricity input. 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 ABCE Housing Provisions Standard). Exposure see signify ventilation benefits in the modelling software and must not be modelled as a door when opening to a minimally traver and the obstructions below thin. See statement with no obstructions below thin the obstructions below thin the obstructions below thin. Exposure see signify ventilation benefits in the modelling software and must not be modelled as a door when opening to a minimally traver and the dow bank constructions below thin. Exposure see signify ventilation beging to gargestands with few well scattered obstructions below tom. Exposure category – open terrain with numerous, closely spaced obstructions below tone s. Exposure category – potenter terain with numerous, closely spaced obstructions ower 10 m e	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.		
Culture circumstances it will include garages. 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 input. ERR Energy Efficiency Ratio, measure of how much ocoling can be achieved by an air conditioner for a single KWh of electricity input. Energy use 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 beeneffits 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 – protected terrain with numerous, closely spaced obstructions below Tom, farmland with few obstructions at a similar height e.g. grasslands with few well scattered obstructions below Tom, farmland with for upper levels. Noticonal Construction Code (NCC) Class 1. terrain with numerous, closely spaced obstructions below Tom e.g. ety and industrial areas. Provisional value terrain with numerous, closely spaced obstructions allow english, exposis, for overhangs or balconies from upper levels.	COP	Coefficient of performance		
Custom Windows 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 2 Efficiency Ratio, measure of how much cooling can be achieved by an air conditioner for a single KWh of electricity input 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 ABCE Housing Provisions Standard). Entrance door the net cost to society including, but not limited to, costs to the building user, the environment and energy networks (as defined in the ABCE Housing Provisions Standard). Exposure see exposure categories below. Exposure see exposure categories below. 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 – ponet terrain with numerous; closely spaced obstructions below 10m e.g. suburban literain with numerous; closely spaced obstructions over 10 m e.g. above 3 floors), and a material ereas. Exposure category – ponet terrain with numerous; closely spaced obstructions over 10 m e.g. above 3 floors), and a standard of the openability preventage or operable (moveable) area of doors or windows that is used in ventilation calculations. Antioner Bhad and floar at a single and attached Class 10 abuildings. Definitions can be found at www.abcb gov.au.	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.		
Data in whore methods. EER 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 ABCE 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 Cast's 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 no obstructions e.g. flat grazing land, ocean-frontage, desert, exposed do bstructions below 10m, familand with texposure category – popen Exposure category – popen terrain with numerous, closely spaced obstructions below 10m e.g. city and industrial areas. Exposure category – suburban terrain with numerous, closely spaced obstructions over 10m e.g. city and industrial areas. Exposure category – suburban terrain with numerous, closely spaced obstructions over 10m e.g. city and industrial areas. Net zero home the openability percentage or operable (moveable) area of doors or windows that is used in ventilation calculations. An one that achieves a net zero energy value. ⁷ openability percentage or operable (moveable) area of doors or windows that is used in ventilation calculations.	Custom windows			
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	Window shading device	device fixed to windows that provides shading e.g. window awnings or screens but excludes horizontal* or vertical shading features* (eg eaves and balconies)		

Nationwide House Energy Rating Scheme[®] NatHERS[®] Certificate No. 0011514429

Generated on 28 Oct 2024 using BERS Pro v5.2.3 (3.23)

Property

Address

Lot/DP NCC class* Floor/all Floors Type St Marys , NSW , 2760 Lot 32,33,34 DP 35558 2 G of 1 floors New Home

Unit 4, 16-18 Stapleton Parade,

Plans

Main plan Prepared by BGZXE DKT Studio

Construction and environment

Assessed floor area [m2]*

Conditioned* 66.9 Unconditioned* 0.0 Total 66.9 Garage 0.0 Exposure type Suburban NatHERS climate zone 28 Richmond



Accredited assessor

NameDeaBusiness nameGreeEmaildeaPhone854Accreditation No.DMAssessor Accrediting OrganisationDesign Matters NationalDesign Construction of interact

Dean Gorman Greenview Consulting Pty Ltd dean@greenview.net.au 8544 1683 DMN/13/1645

Declaration completed: no conflicts

nal

Declaration of interest

NCC Requirements

NCC provisions Strate/Territory variation Volume One

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

The more stars the more energy efficient

NATIONWIDE HOUSE ENERGY RATING SCHEME

40.1 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	31.5	8.5
Load limits	N/A	N/A

Features determining load limits

Floor Type (lowest conditioned area)	N/A
NCC climate zone 1 or 2	
Outdoor living area	No
Outdoor living area ceiling fan	

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 hstar.com.au/QR/Generate? p=ttXHTdzkQ. When using either link, ensure you are visiting hstar.com.au



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 Standard 2022: NatHERS heating and cooling load limits* 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 onsite renewable energy impact

No Whole of Home performance assessment conducted for this certificate.

Predicted Whole of Home annual impact by appliance

Energy use



Greenhouse gas emissions



Cost


8.1 Star Rating as of 28 Oct 2024

Certificate check	Approva	I Stage	Construe Stage	Construction Stage		
The checklist covers important items impacting the dwelling's ratings. It is recommended that the accuracy of the whole certificate is checked.	Assessor checked	Consent Authority/ Surveyor checked	checked	Consent Authority Surveyor checked	Occupancy/Other	
Note: The boxes indicate when and by whom each item should be checked. It is not mandatory to complete this checklist.	Assesso	Consent Surveyo	Builder checked	Consent Surveyo	Occupar	
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 what is shown						

<u>.</u>

0011514429 NatHERS Certificate8.1 Star Rating as of 28 Oct 2024					HOUSE
	Approva	I Stage	Constru Stage	ction	
Certificate check Continued	Assessor checked	Consent Authority/ Surveyor checked	Builder checked	Consent Authority Surveyor checked	Occupancy/Other
Additional NCC requirements for thermal performance (not inclu-	uded in t	he NatHE	RS asse	ssment)	
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 Hom	e performa	ance asses	ssment is r	not conduc	ted)
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	assessi	nent)		
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



Room schedule

Room	Zone Type	Area [m ²]
Kitchen/Living	Kitchen/Living	31.1
Entry/Hall	Daytime	12.73
Bath/L'dry	Daytime	7.44
Bedroom 1	Bedroom	15.58
Glazed Common Area	Glazed Common Area	18.31

Window and glazed door type and performance

Default windows*

Window ID	Window	Maximum	SHGC*	Substitution tolerance ranges		
	Description	U-value*	3660	SHGC lower limit	SHGC upper limit	
ALM-004-01 A	Aluminium B DG Air Fill Clear-Clear	4.8	0.59	0.56	0.62	
ALM-003-01 A	Aluminium A DG Air Fill Clear-Clear	4.8	0.51	0.48	0.54	

Custom windows*

Window ID	Window	Maximum	SHGC*	Substitution to	lerance ranges
	Description	U-value*	3660	SHGC lower limit	SHGC upper limit
No Data Availa	able				

Window and glazed door schedule

Location	Window ID	Window no.	Height [mm]	Width [mm]	Window type	Opening %	Orientation	Window shading device*
Kitchen/Living	ALM-004-01 A	W7	2700	2630	Sliding	35	W	No
Kitchen/Living	ALM-003-01 A	W8	2700	850	Awning	45	Ν	No
Kitchen/Living	ALM-003-01 A	W9	1550	850	Awning	90	Ν	Yes
Bedroom 1	ALM-003-01 A	W10	1700	1210	Awning	30	Ν	No
Glazed Common Area	ALM-004-01 A	W36	2700	2170	Fixed	00	W	No

Roof window* type and performance value

Default roof windows*

Window ID	Window	Maximum	SHGC*	Substitution to	lerance ranges
window iD	w ID Description	U-value*	3660	SHGC lower limit	SHGC upper limit
No Data Avail	able				



Custom roof windows*

Window ID	Window	Maximum	SHGC* -	Substitution tolerance ranges		
	Description U-value*		3160	SHGC lower limit	SHGC upper limit	
No Data Avai	lable					

Roof window* schedule

Location	Window ID	Window no.	Opening %	Height [mm]	Width [mm]	Orientation	Outdoor shade	Indoor shade
No Data Ava	ilable							

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]	Outdoor shade	Diffuser
No Data Availa	able					

External door schedule

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

External wall type

Wall	Wall	Solar	Wall shade	Bulk insulation	Reflective
ID	type	absorptance	[colour]	[R-value]	wall wrap*
EW-1	Cavity Brick	0.50		Foil, Reflective both sides	Yes

External wall schedule

Location	Wall ID	Height [mm]	Width [mm]	Orientation	Horizontal shading feature* maximum projection [mm]	Vertical shading feature [yes/no]
Kitchen/Living	EW-1	2700	3800	W	2700	Yes
Kitchen/Living	EW-1	2700	8100	Ν	0	Yes
Kitchen/Living	EW-1	2700	3995	E	0	No
Bath/L'dry	EW-1	2700	3140	E	0	No

* Refer to glossary. Generated on 28 Oct 2024 using BERS Pro v5.2.3 (3.23) for Unit 4, 16-18 Stapleton Parade , St Marys , NSW , 2760 0011514429 NatHERS Certificate

8.1 Star Rating as of 28 Oct 2024



Location	Wall ID	Height [mm]	Width [mm]	Orientation	Horizontal shading feature* maximum projection [mm]	Vertical shading feature [yes/no]
Bedroom 1	EW-1	2700	4395	E	0	No
Bedroom 1	EW-1	2700	3000	Ν	1100	Yes
Glazed Common Area	EW-1	2700	2300	W	800	No

Internal wall type

Wall ID	Wall type	Area [m ²]	Bulk insulation
IW-001	Steel Stud Frame, Direct Fix Plasterboard	33.75	No insulation
IW-002	Cavity brick	88.29	No Insulation

Floor type

Location	Construction	Area [m²]	Sub-floor ventilation	Added insulation [R-value]	Covering
Kitchen/Living	Concrete Slab, Unit Below 200mm	31.10	None	No Insulation	Ceramic Tiles 8mm
Entry/Hall	Concrete Slab, Unit Below 200mm	12.73	None	No Insulation	Ceramic Tiles 8mm
Bath/L'dry	Concrete Slab, Unit Below 200mm	7.44	None	No Insulation	Ceramic Tiles 8mm
Bedroom 1	Concrete Slab, Unit Below 200mm	15.58	None	No Insulation	Carpet+Rubber Underlay 18mm
Glazed Common Area	Concrete Slab, Unit Below 200mm	18.31	None	No Insulation	Ceramic Tiles 8mm

Ceiling type

Location	Construction material/type	Bulk insulation R-value (may include edge batt values)	Reflective wrap* [yes/no]
Kitchen/Living	Plasterboard on Steel	Bulk Insulation R3.5	
Entry/Hall	Concrete, Plasterboard with Steel Frame	No insulation	
Bath/L'dry	Concrete, Plasterboard with Steel Frame	No insulation	
Bedroom 1	Plasterboard on Steel	Bulk Insulation R3.5	
Glazed Common Area	Concrete, Plasterboard with Steel Frame	No insulation	

Ceiling penetrations*

Location	Quantity	Туре	Diameter [mm]	Sealed/unsealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
Bath/L'dry	1	Exhaust Fans	300	Sealed

* Refer to glossary. Generated on 28 Oct 2024 using BERS Pro v5.2.3 (3.23) for Unit 4, 16-18 Stapleton Parade , St Marys , NSW , 2760

Ceiling fans

Location	Quantity	Diameter [mm]
Kitchen/Living	1	900
Bedroom 1	1	900

Roof type

Construction	Added insulation	Solar	Roof shade
	[R-value]	absorptance	[colour]
Corrugated Iron Steel Frame	Bulk, Reflective Side Down, Anti-glare Up R1.3	0.50	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]
Ceiling		900	0.75	No
Roof		900	1.5	No
Internal Wall		600	0.75	No

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 Data Available				
Heating system				
Appliance/ system type	Location	Fuel type	Minimum efficiency/ performance	Recommended capacity
No Data Available				



Hot water system

Appliance/ system type	Fuel type		Minimum efficiency	Zone 3	Zone 3 Substitution tolerance ranges		Assessed daily load	
		CER Zone	/STC		lower limit	upper limit	[litres]	
No Data Available								
Pool/spa equipment								
Appliance/ system type		Fuel type		Minimu efficienc performa	cy/	Recomm capac		
No Data Available								

Onsite Renewable Energy Schedule

System Type	Orientation	System Size Or Generation Capacity
No Data Available		

Battery Schedule

System Type	Size [Battery Storage Capacity]
No Data Available	



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

AFRC	Australian Fenestration Rating Council
Annual energy load	the predicted amount of energy required for heating and cooling, based on standard occupancy assumptions.
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.
COP	Coefficient of performance
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.
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	see exposure categories below.
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 – protected	terrain with numerous, closely spaced obstructions below 10m e.g. suburban housing, heavily vegetated bushland areas.
Exposure category – suburban	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 airgap 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.
Skylight (also known as roof lights	b) for NatHERS this is typically a moulded unit with flexible reflective tubing (light well) and a diffuser at ceiling level.
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.
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 Regulator (CER)
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 or continuous thermal breaks such as polystyrene insulation sheeting or plastic strips
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	device fixed to windows that provides shading e.g. window awnings or screens but excludes horizontal* or vertical shading features* (eg eaves and balconies)

Nationwide House Energy Rating Scheme[®] NatHERS[®] Certificate No. 0011514387

Generated on 28 Oct 2024 using BERS Pro v5.2.3 (3.23)

Property

Address

Lot/DP NCC class* Floor/all Floors Type St Marys , NSW , 2760 Lot 32,33,34 DP 35558 2 G of 1 floors New Home

Unit 5, 16-18 Stapleton Parade,

Exposure type

28 Richmond

Greenview Consulting Pty Ltd

Declaration completed: no conflicts

dean@greenview.net.au

NatHERS climate zone

Suburban

Plans

Main plan Prepared by BGZXE DKT Studio

Construction and environment

Assessed floor area [m2]*

Conditioned* 60.2 Unconditioned* 0.0 Total 60.2 Garage 0.0

0.0 60.2 0.0



Accredited assessor

NameDeaBusiness nameGreeEmaildeaPhone854Accreditation No.DMAssessor Accrediting OrganisationDesign Matters NationalDeclaration of interestDec

Deciaration of interest

NCC Requirements

NCC provisions Strate/Territory variation Volume One

Yes

Dean Gorman

8544 1683

DMN/13/1645

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

The more stars the more energy efficient

NATIONWIDE HOUSE ENERGY RATING SCHEME

30.1 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
odelled	22.3	7.8
oad limits	N/A	N/A

Features determining load limits

L

Floor Type (lowest conditioned area)	N/A
NCC climate zone 1 or 2	No
Outdoor living area	No
Outdoor living area ceiling fan	No

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 hstar.com.au/QR/Generate? p=UmtqkWlto . When using either link, ensure you are visiting hstar.com.au





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 Standard 2022: NatHERS heating and cooling load limits* 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 onsite renewable energy impact

No Whole of Home performance assessment conducted for this certificate.

Predicted Whole of Home annual impact by appliance

Energy use



Greenhouse gas emissions



Cost



8.6 Star Rating as of 28 Oct 2024

			Comotinu		HOUSE .
Certificate check	Approva	I Stage	Construe Stage	cuon	
The checklist covers important items impacting the dwelling's ratings. It is recommended that the accuracy of the whole certificate is checked.	Assessor checked	Consent Authority/ Surveyor checked	Builder checked	Consent Authority Surveyor checked	Occupancy/Other
Note: The boxes indicate when and by whom each item should be checked. It is not mandatory to complete this checklist.	Assesso	Consent	Builder	Consent	Occupa
Genuine certificate check	1	ſı	ſı		
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?					
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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 what is shown					



	Approv	Approval Stage		Construction Stage	
Certificate check Continued	Assessor checked	Consent Authority/ Surveyor checked	Builder checked	Consent Authority Surveyor checked	Occupancy/Other
Additional NCC requirements for thermal performance (not i	included in t	he NatHE	ERS asse	essment)	
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	assessi	ment)	
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				
		1		

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



Room schedule

Room	Zone Type	Area [m ²]
Glazed Common Area	Glazed Common Area	20.31
Kitchen/Living	Kitchen/Living	35.76
Bedroom 1	Bedroom	15.08
Bath/Laundry	Daytime	9.33

Window and glazed door type and performance

Default windows*

Window ID	Window	SHGC*		Substitution tolerance ranges			
window iD	Description			SHGC lower limit	SHGC upper limit		
ALM-004-01 A	Aluminium B DG Air Fill Clear-Clear	4.8	0.59	0.56	0.62		
ALM-003-01 A	Aluminium A DG Air Fill Clear-Clear	4.8	0.51	0.48	0.54		

Custom windows*

Window ID	Window	Maximum	SHGC*	Substitution tolerance ranges		
willdow iD	Description	U-value*	3660	SHGC lower limit	SHGC upper limit	
No Data Avail	able					

Window and glazed door schedule

Location	Window ID	Window no.	Height [mm]	Width [mm]	Window type	Opening %	Orientation	Window shading device*
Glazed Common Area	ALM-002-01 A	W7	2700	1900	Fixed	00	W	No
Kitchen/Living	ALM-004-01 A	W13	2700	3000	Sliding	35	W	No
Bedroom 1	ALM-003-01 A	W12	1900	1550	Awning	60	W	No

Roof window* type and performance value

Default roof windows*

Window ID Window	Window	Maximum	SHGC*	Substitution to	lerance ranges
WINGOW ID	Description	U-value*	31100	SHGC lower limit	SHGC upper limit
No Data Availa	able				



Custom roof windows*

Window ID	Window	Maximum	SUCC*	Substitution to	erance ranges		
Window ID	Description	U-value*	SHGC*	SHGC lower limit	SHGC upper limit		
No Data Avai	No Data Available						

Roof window* schedule

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

Skylight* type and performance

 Skylight ID
 Skylight description
 Skylight shaft reflectance

 No Data Available
 Volume
 Volum
 Volume
 Volume

Skylight* schedule

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

External door schedule

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

External wall type

Wall	Wall	Solar	Wall shade	Bulk insulation	Reflective
ID	type	absorptance	[colour]	[R-value]	wall wrap*
EW-1	Cavity Brick	0.50		Foil, Reflective both sides	Yes

External wall schedule

Location	Wall ID	Height [mm]	Width [mm]	Orientation	Horizontal shading feature* maximum projection [mm]	Vertical shading feature [yes/no]
Glazed Common Area	EW-1	2700	2245	W	800	Yes
Kitchen/Living	EW-1	2700	4500	S	0	No
Kitchen/Living	EW-1	2700	4195	W	2700	Yes
Bedroom 1	EW-1	2700	700	S	4200	No

0011514387 NatHERS Certificate

8.6 Star Rating as of 28 Oct 2024



Location	Wall ID	Height [mm]	Width [mm]	Orientation	Horizontal shading feature* maximum projection [mm]	Vertical shading feature [yes/no]
Bedroom 1	EW-1	2700	3400	W	0	No
Bedroom 1	EW-1	2700	2200	Ν	4900	No

Internal wall type

Wall ID	Wall type	Area [m ²]	Bulk insulation
IW-001	Cavity brick	88.02	No Insulation
IW-002	Steel Stud Frame, Direct Fix Plasterboard	25.92	No insulation

Floor type

Location	Construction	Area [m ²]	Sub-floor ventilation	Added insulation [R-value]	Covering
Glazed Common Area	Concrete Slab, Unit Below 200mm	20.33	None	No Insulation	Ceramic Tiles 8mm
Kitchen/Living	Concrete Slab, Unit Below 200mm	35.76	None	No Insulation	Ceramic Tiles 8mm
Bedroom 1	Concrete Slab, Unit Below 200mm	15.08	None	No Insulation	Carpet+Rubber Underlay 18mm
Bath/Laundry	Concrete Slab, Unit Below 200mm	9.33	None	No Insulation	Ceramic Tiles 8mm

Ceiling type

Location	Construction material/type	Bulk insulation R-value (may include edge batt values)	Reflective wrap* [yes/no]
Glazed Common Area	Concrete, Plasterboard with Steel Frame	No insulation	
Kitchen/Living	Concrete, Plasterboard with Steel Frame	No insulation	
Bedroom 1	Concrete, Plasterboard with Steel Frame	No insulation	
Bath/Laundry	Concrete, Plasterboard with Steel Frame	No insulation	

Ceiling penetrations*

Location	Quantity	Туре	Diameter [mm]	Sealed/unsealed
Kitchen/Living	1	Exhaust Fans	300	Sealed

Ceiling fans

Location	Quantity	Diameter [mm]	
Kitchen/Living	1	900	

* Refer to glossary. Generated on 28 Oct 2024 using BERS Pro v5.2.3 (3.23) for Unit 5, 16-18 Stapleton Parade , St Marys , NSW , 2760

0011514387 NatHERS Certificate	8.6 Star Rating as of 28 Oct 2024		HEORYWIDE
Location	Quantity	Diameter [mm]	
Bedroom 1	1	900	

Roof type

Construction	Added insulation	Solar	Roof shade
	[R-value]	absorptance	[colour]
None Present		0.00	

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]
Ceiling		900	0.75	No
Internal Wall		600	0.75	No

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	Lo	cation	Fuel type	eff	inimum iciency/ ormance		mended acity
No Data Available							
Heating system							
Appliance/ system type	Lo	cation	Fuel type	eff	inimum iciency/ formance		mended acity
No Data Available							
Hot water system							
Appliance/ system type	Fuel type	Hot Water CER Zon	Minimum efficiency e /STC	Zone 3 STC		ibstitution e ranges upper limit	Assessed daily load [litres]
No Data Available						••	

0011514387 NatHERS Certificate	8.6 Star Rating as of 28 Oct 2024		HOUSE
Pool/spa equipment			
Appliance/ system type	Fuel type	Minimum efficiency/ performance	Recommended capacity
No Data Available			
Onsite Renewable Ene	rgy Schedule		

System Type	Orientation	System Size Or Generation Capacity
No Data Available		

Battery Schedule

System Type	Size [Battery Storage Capacity]
No Data Available	



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. Assessed floor area the floor area modelied in the software for the NaIHERS assessment. Note, this may not be consistent with the floor area in the design documents. Ceiling penetrations Excludes futures attached to the ceiling, including downlights, vents, exhaust fans, range hoods, chimneys and flues. Excludes futures attached to the ceiling, including downlights, vents, exhaust fans, range hoods, chimneys and flues. Code Coefficient of performance Coefficient of performance Custom windows windows listed in NaHERS 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 fleargy use. 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 ACC Hoxing Provisions Standard). Exposure category – exposed The net cost to society including, but not limited to, costs to the building user, the environment and energy networks (as defined in the ACC Hoxing Provisions Standard). Exposure category – exposed The net cost to society including, but not limited to, costs the building user, the environment and energy networks (as defined in the ACC Hoxing Provisions Standard). Exposure category – exposed <	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 invition downlights, exclusing thans, range hoods, chimneys and flues. Cool Coefficient of performance azone within a dwelling that is expected to require heating and cooling based on standard occupancy assumptions. In some circumstances it will include garages. Custom windows Software that are available on the market in Australia and have a WERS (Window Energy Rating Scheme) rating. Default windows Energy value The representative of a specific type of window product and whose properties have been derived by statistical methods. Energy value The representative of a specific type of window product and whose properties have been derived by statistical methods. Energy value The representative of specific type of window product and whose properties have been derived by statistical methods. Experime category use This is your homes rating without solar or batteries. Energy value The representative set society functioning, but not limited to cost to the building user, the environment and energy networks (as direct or the cost society noticing, but not limited to cost to the building user, the environment and energy networks (as direct or eacting or eases as direct or ease societ estation with flow wales cattered obstructions so the dowel scattered obstructions so the dowel scattered obstructions so t		
Colling penetrations features that require a penetration to the celling, including downlights, exituals fans, range hoods, chimneys and flues. Excludes futures attached to the celling with small holes through the celling for winds, e.g. celling fans, pendant lights, and healing and cooling ducts. COP Coefficient of performance Conditioned a zone within a dwelling that is expected to require healing and cooling based on standard occupancy assumptions. In some a zone within a dwelling that is expected to require healing and cooling based on standard occupancy assumptions. In some a zone within a dwelling that is expected to require healing and cooling based on standard occupancy assumptions. In some a zone within a dwelling that is expected to require healing and cooling based on standard occupancy assumptions. In some 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 wur homes rating without solita or batteries. Energy value The is social methoding both on tilleng software and must not be modelled as a door when opening to a minimally vehilated corridor in a class 2 building. Exposure eate social methoding base below. Exposure category – protected terrain with no obstructions eg. flat grazing land, ceean-frontage, desert, exposed high-rise unit (usually above 10 floors). terrain with the obstructions or g. flat grazing land, ceean-frontage, desert, exposed high-rise unit (usually above 00 floors). <t< th=""><th></th><th>the floor area modelled in the software for the purpose of the NatHERS assessment. Note, this may not be consistent with the</th></t<>		the floor area modelled in the software for the purpose of the NatHERS assessment. Note, this may not be consistent with the
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Custom windows circumstances it will include garages. 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 use This is your homes rating without solar or batteries. Energy value The is your homes rating without solar or batteries. Energy value The is your homes rating without solar or batteries. Entrance door these signify vertilation costs to solely by reget your homes fait in modelling software and must not be modelled as a door when opening to a minimally vertilated corridor in a Class 2 building. Exposure see exposure categories below. Exposure category – protect terrain with no obstructions e a flat grazing land, ocean-frontage, desert, exposed high-rise unit (usually above 10 floors). Exposure category – protect terrain with numerous, closely spaced obstructions below 10m e.g. subvarial areas. Exposure category – protect terrain with numerous, closely spaced obstructions below 10m e.g. elve and industrial areas. Exposure category – protect terrain with numerous, closely spaced obstructions below 10m e.g. elve and industrial areas. Exposure category – protect terrain with num	COP	
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Exposure category – open terrain with few obstructions at a similar height e.g. grasslands with few well scattered obstructions below 10m, farmland with Exposure category – protected 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 below 10m e.g. suburban housing, heavily vegetated bushland 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 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. an assumed value of medium must be modelled. Acceptable provisional values are cullined in the NatHERS Technical Note and can be found at www.nathers gov.au Reflective wrap (also known as 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 to thave a diffuser. Shading features includes neighbouring buildings, fences, and wing walls, but excludes eaves. <t< th=""><th></th><th></th></t<>		
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Vortical chading features provides shading to the building in the vertical plane and can be parallel or perpendicular to the subject wall/window. Includes	U-value	the rate of heat transfer through a window. The lower the U-value, the better the insulating ability.
Vertical shading features provides shading to the building in the vertical plane and can be parallel or perpendicular to the subject wall/window. Includes	Unconditioned	
privacy screens, other walls in the building (wing walls), fences, other buildings, vegetation (protected or listed heritage trees).	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 device fixed to windows that provides shading e.g. window awnings or screens but excludes horizontal* or vertical shading features* (eg eaves and balconies)	Window shading device	device fixed to windows that provides shading e.g. window awnings or screens but excludes horizontal* or vertical shading features* (eg eaves and balconies)

Nationwide House Energy Rating Scheme[®] NatHERS[®] Certificate No. 0011514353

Generated on 28 Oct 2024 using BERS Pro v5.2.3 (3.23)

Property

Address

Lot/DP NCC class* Floor/all Floors Type

St Marys, NSW, 2760 Lot 32.33.34 DP 35558 2 G of 1 floors New Home

Unit 6, 16-18 Stapleton Parade,

Plans

Main plan Prepared by BGZXE DKT Studio

Construction and environment

Assessed floor area [m2]*

Conditioned* 85.1 Unconditioned* 0.0 85.1 Total Garage 0.0

Exposure type Suburban NatHERS climate zone 28 Richmond



Accredited assessor

Name **Business name** Email Phone Accreditation No. Assessor Accrediting Organisation **Design Matters National**

Dean Gorman Greenview Consulting Pty Ltd dean@greenview.net.au 8544 1683 DMN/13/1645

Declaration completed: no conflicts

Declaration of interest

NCC Requirements

NCC provisions Strate/Territory variation Volume One

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

The more stars the more energy efficient

NATIONWIDE

54.4 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	47.6	6.8
Load limits	N/A	N/A

Features determining load limits

Floor Type (lowest conditioned area)	N/A
NCC climate zone 1 or 2	No
Outdoor living area	No
Outdoor living area ceiling fan	No

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 hstar.com.au/QR/Generate? p=mIIMxcVyi When using either link, ensure you are visiting hstar.com.au



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 Standard 2022: NatHERS heating and cooling load limits* 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 onsite renewable energy impact

No Whole of Home performance assessment conducted for this certificate.

Predicted Whole of Home annual impact by appliance

Energy use



Greenhouse gas emissions



Cost



7.3 Star Rating as of 28 Oct 2024

······································					HOUSE
Certificate check	Approva	Il Stage	Construe Stage		
The checklist covers important items impacting the dwelling's ratings. It is recommended that the accuracy of the whole certificate is checked.	Assessor checked	Consent Authority/ Surveyor checked	Builder checked	Consent Authority Surveyor checked	Occupancy/Other
Note: The boxes indicate when and by whom each item should be checked. It is not mandatory to complete this checklist.	Assess	Consen Survey	Builder	Consen Surveyo	Occupa
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 what is shown					

7.3 Star Rating as of 28 Oct 2024

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	Approva	Approval Stage		Construction Stage			
Certificate check	cked	ority/ cked	eq	ority cked	ther		
Continued	Assessor checked	Consent Authority/ Surveyor checked	Builder checked	Consent Authority Surveyor checked	Occupancy/Other		
Additional NCC requirements for thermal performance (not inclu	uded in ti	he NatHE	RS asse	ssment)			
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	assessi	nent)				
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



Room schedule

Room	Zone Type	Area [m ²]
Kitchen/Living	Kitchen/Living	32.97
Bath/L'dry	Daytime	7.78
Hall	Daytime	14.45
Bedroom 2	Bedroom	15.03
Bedroom 1	Bedroom	14.85
Glazed Common Area	Glazed Common Area	21.37

Window and glazed door type and performance

Default windows*

Window ID	Window Maximum SHGC* -		Substitution to	lerance ranges	
	Description	U-value*		SHGC lower limit	SHGC upper limit
ALM-003-01 A	Aluminium A DG Air Fill Clear-Clear	4.8	0.51	0.48	0.54
ALM-004-01 A	Aluminium B DG Air Fill Clear-Clear	4.8	0.59	0.56	0.62

Custom windows*

Window ID	Window	Window Maximum SHGC*		Substitution tolerance ranges		
WINDOW ID	Description	U-value*	3600	SHGC lower limit	SHGC upper limit	
No Data Available						

Window and glazed door schedule

Location	Window ID	Window no.	Height [mm]	Width [mm]	Window type	Opening %	Orientation	Window shading device*
Kitchen/Living	ALM-003-01 A	W5	1550	850	Awning	70	S	No
Kitchen/Living	ALM-003-01 A	W4	2100	850	Awning	70	S	No
Kitchen/Living	ALM-004-01 A	W3	2700	3000	Sliding	35	W	No
Kitchen/Living	ALM-003-01 A	W2	2100	850	Awning	70	W	No
Bedroom 2	ALM-003-01 A	W7	1550	1570	Awning	10	S	No
Bedroom 1	ALM-003-01 A	W6	1550	1570	Awning	10	S	No
Glazed Common Area	ALM-002-01 A	W1	2700	1900	Fixed	00	W	No



Roof window* type and performance value

Default roof windows*

Window ID Do	escription	U-value*	SHGC*	SHGC lower limit	SHCC upper limit
No Data Available					SHGC upper limit
Custom roof windo	WS*				
Window ID	indow	Maximum	SUCC*	Substitution to	erance ranges
	escription	U-value*	SHGC*	SHGC lower limit	SHGC upper limit
No Data Available					

Window Outdoor Window Opening Height Width Indoor Orientation Location ID % [mm] shade shade [mm] no. 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 Avail	able					

External door schedule

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

External wall type

Wall	Wall	Solar	Wall shade	Bulk insulation	Reflective
ID	type	absorptance	[colour]	[R-value]	wall wrap*
EW-1	Cavity Brick	0.50		Foil, Reflective both sides	Yes



External wall schedule

Location	Wall ID	Height [mm]	Width [mm]	Orientation	Horizontal shading feature* maximum projection [mm]	Vertical shading feature [yes/no]
Kitchen/Living	EW-1	2700	3995	Ν	0	No
Kitchen/Living	EW-1	2700	2795	S	300	No
Kitchen/Living	EW-1	2700	900	W	1800	No
Kitchen/Living	EW-1	2700	1800	S	800	Yes
Kitchen/Living	EW-1	2700	7000	W	2500	Yes
Bath/L'dry	EW-1	2700	395	Ν	2700	No
Bedroom 2	EW-1	2700	3700	E	0	No
Bedroom 2	EW-1	2700	3600	S	0	No
Bedroom 2	EW-1	2700	200	E	300	No
Bedroom 2	EW-1	2700	795	S	300	No
Bedroom 1	EW-1	2700	3590	S	300	No
Glazed Common Area	EW-1	2700	2645	W	800	No

Internal wall type

Wall ID	Wall type	Area [m ²]	Bulk insulation
IW-001	Steel Stud Frame, Direct Fix Plasterboard	62.10	No insulation
IW-002	Cavity brick	63.45	No Insulation

Floor type

Location	Construction	Area [m²]	Sub-floor ventilation	Added insulation [R-value]	Covering
Kitchen/Living	Concrete Slab, Unit Below 200mm	32.97	None	No Insulation	Ceramic Tiles 8mm
Bath/L'dry	Concrete Slab, Unit Below 200mm	7.78	None	No Insulation	Ceramic Tiles 8mm
Hall	Concrete Slab, Unit Below 200mm	14.45	None	No Insulation	Ceramic Tiles 8mm
Bedroom 2	Concrete Slab, Unit Below 200mm	15.03	None	No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 1	Concrete Slab, Unit Below 200mm	14.85	None	No Insulation	Carpet+Rubber Underlay 18mm
Glazed Common Area	Concrete Slab, Unit Below 200mm	21.37	None	No Insulation	Ceramic Tiles 8mm



Ceiling type

Location	Construction material/type	Bulk insulation R-value (may include edge batt values)	Reflective wrap* [yes/no]
Kitchen/Living	Concrete, Plasterboard with Steel Frame	No insulation	
Bath/L'dry	Concrete, Plasterboard with Steel Frame	No insulation	
Hall	Concrete, Plasterboard with Steel Frame	No insulation	
Bedroom 2	Concrete, Plasterboard with Steel Frame	No insulation	
Bedroom 1	Concrete, Plasterboard with Steel Frame	No insulation	
Glazed Common Area	Concrete, Plasterboard with Steel Frame	No insulation	

Ceiling penetrations*

Location	Quantity	Туре	Diameter [mm]	Sealed/unsealed	
Kitchen/Living	1	Exhaust Fans	300	Sealed	
Bath/L'dry	1	Exhaust Fans	300	Sealed	

Ceiling fans

Location	Quantity	Diameter [mm]
Kitchen/Living	1	900
Bedroom 2	1	900
Bedroom 1	1	900

Roof type

Construction	Added insulation	Solar	Roof shade
	[R-value]	absorptance	[colour]
None Present		0.00	

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]
Ceiling		900	0.75	No
Internal Wall		600	0.75	No

Appliance schedule

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

Note: A flat assumption of $5W/m^2$ is used for lighting, therefore lighting is not included in the appliance schedule.

0011514353 NatHERS Certifica	ite 7.3 Sta	r Rating as of 28	3 Oct 2024				HOUS
Cooling system							
Appliance/ system type	Lo	cation F	uel type	eff	nimum iciency/ ormance		mended acity
No Data Available							
Heating system							
Appliance/ system type	Lo	cation Fu	uel type	eff	nimum iciency/ ormance		mended acity
No Data Available							
Hot water system							
Appliance/ system type	Fuel type	Hot Water CER Zone	Minimum efficiency /STC	Zone 3 STC		Ibstitution e ranges upper limit	Assessed daily load [litres]
No Data Available							
Pool/spa equipment							
Appliance/ system type		Fuel type		Minimu efficienc performa	cy/	Recomm capad	
No Data Available							
Onsite Renewable	Energy Sch	edule					
System Type O	rientation		Syst	em Size O	r Generation	Capacity	

Battery Schedule

No Data Available

System Type	Size [Battery Storage Capacity]	
No Data Available		



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 inerate of animal drama visual visualized for heating and cooling, based on standard occupancy assumptions. Assessed floor area Assessed floor area in the design documents. Colling penetrations Confidence of the design documents. Colling penetrations Confidence of the design documents. Colling penetrations Confidence of the design documents. Confidence of the design document document document document document document documents. Confidence of the design document documen	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. Geiling penetrations Earlures that require a penetration to the coiling, including downlights, verts, exhaust fans, range hoods, chimneys and flues. Conditional Constraint in the design documents. Constraint in the design documents. Conditional Constraint is expected to require heating and cooling based on standard occupancy assumptions. In some drown indows Windows listen is expected to require heating and cooling based on standard occupancy assumptions. In some drown indows Default windows Windows listen in NatHERS Software that are available on the market in Australia and have a WERS (Window Energy Rating Scheme) rating. Default windows 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). Exposure category – open terrain with no costructions e.g. flig razing land, occan-frontage, desert, exposed high-rise unit (usually above 10 floors). Exposure category – open terrain with numerous, closely spaced obstructions sore 10 me.g. cut yand industrial areas. Provisional value The refurct as spacing to the functional bading for the noticing, and alcohed Class '04 buildings and alcohed Class '04 buildings.		
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Exposure category – protected terrain with numerous, closely spaced obstructions below 10m e.g. suburban housing, heavily vegetated bushland areas. Exposure category – suburban terrain with numerous, closely spaced obstructions below 10m e.g. city and industrial areas. Provides shading to the building in the horizontal plane, e.g. eaves, verandahs, pergolas, carports, or overhangs or balconies National Construction Code Class 1, 2 or 4 buildings and tatched 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 NCC groups buildings or there are donors or windows that is used in ventilation calculations. 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 cullined in the NatHERS technical Note and be found at www.nathers.gov.au. Recommended capacity can be applied to walls, roofs and ceilings. When combined with an appropriate airgap and emissivity value, it provides insulative properties. Roof window for NatHERS this is typically a moulded unit with flexible reflective tubing (light well) and a diffuser at ceiling level. Stading features includes neighbouring buildings, fences, and wing walls, but excludes eaves. 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. <th>Exposure category – exposed</th> <th></th>	Exposure category – exposed	
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Horizontal shading feature provides shading to the building in the horizontal plane, e.g. eaves, verandahs, pergolas, carports, or overhangs or balconies 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. 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 Reflective wrap (also known as foil) can be applied to walls, roofs and ceilings. When combined with an appropriate airgap and emissivity value, it provides includes neighbouring buildings, fences, and wing walls, but excludes eaves. Skylight (also known as roof lights) 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 subsequently released inward. SHGC is expressed as a number between 0 and 1. The lower a window's SHGC, the less solar the fraction of incident solar radiation admitted fruogy scheme operated by the Clean Energy Regulator (CER) 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 limitled to, materials such as timber battens greater than or equal to 20mm thick or cont		
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Window shading device device fixed to windows that provides shading e.g. window awnings or screens but excludes horizontal* or vertical shading features* (eg eaves and balconies)	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	device fixed to windows that provides shading e.g. window awnings or screens but excludes horizontal* or vertical shading features* (eg eaves and balconies)

Nationwide House Energy Rating Scheme[®] NatHERS[®] Certificate No. 0011514494

Generated on 28 Oct 2024 using BERS Pro v5.2.3 (3.23)

Property

Address

Lot/DP NCC class* Floor/all Floors Type

St Marys, NSW, 2760 Lot 32.33.34 DP 35558 2 G of 1 floors New Home

Unit 7, 16-18 Stapleton Parade,

Exposure type

NatHERS climate zone

Suburban

28 Richmond

Greenview Consulting Pty Ltd

Declaration completed: no conflicts

dean@greenview.net.au

Plans

Main plan Prepared by BGZXE DKT Studio

Construction and environment

Assessed floor area [m2]*

Conditioned* 81.0 Unconditioned* 0.0 Total 81.0 Garage 0.0

Accredited assessor

Name **Business name** Email Phone Accreditation No. Assessor Accrediting Organisation **Design Matters National**

Declaration of interest

NCC Requirements

NCC provisions Strate/Territory variation Volume One

Yes

Dean Gorman

8544 1683

DMN/13/1645

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.

Verification

To verify this certificate, scan the QR code or visit hstar.com.au/QR/Generate? p=PboXOtBRZ When using either link, ensure you are visiting hstar.com.au



Thermal performance Star rating

The more stars

the more energy efficient

NATIONWIDE

58.0 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
lodelled	54.7	3.3
oad limits	N/A	N/A

Features determining load limits

Floor Type	N/A
(lowest conditioned area)	IN/PA
NCC climate zone 1 or 2	No
Outdoor living area	No
Outdoor living area ceiling fan	No

Whole of Home performance rating

No Whole of Home performance rating generated for this certificate.



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 Standard 2022: NatHERS heating and cooling load limits* 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 onsite renewable energy impact

No Whole of Home performance assessment conducted for this certificate.

Predicted Whole of Home annual impact by appliance

Energy use



Greenhouse gas emissions



Cost



7.1 Star Rating as of 28 Oct 2024

······································					HOUSE	
Certificate check	Certificate check Approval Stage					
The checklist covers important items impacting the dwelling's ratings. It is recommended that the accuracy of the whole certificate is checked.	Assessor checked	Consent Authority/ Surveyor checked	Builder checked	Consent Authority Surveyor checked	Occupancy/Other	
Note: The boxes indicate when and by whom each item should be checked. It is not mandatory to complete this checklist.	Assesse	Consen Surveyo	Builder	Consen Surveyo	Occupa	
Genuine certificate check		л	1	ſı		
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		r	n	0		
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 what is shown						

7.1 Star Rating as of 28 Oct 2024

28 Oct 2024					HOUSE	
	Approva	I Stage	Constru Stage	ction		_
	Assessor checked	Consent Authority/ Surveyor checked	Builder checked	Consent Authority Surveyor checked	Occupancy/Other	

Certificate check

Continued

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	e performa	ance asses	ssment is r	not conduc	ted)
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 l	NatHERS	assessi	nent)		
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



Room schedule

Room	Zone Type	Area [m ²]
Kitchen/Living	Kitchen/Living	40.15
Bath/L'dry	Daytime	8.32
Bedroom 1	Bedroom	14.74
Bedroom 2	Bedroom	13.54
Living 2	Daytime	4.29

Window and glazed door type and performance

Default windows*

Window ID	Window	Maximum	SHGC*	Substitution tolerance ranges		
willdow iD	Description	U-value*	3660	SHGC lower limit	SHGC upper limit	
ALM-004-01 A	Aluminium B DG Air Fill Clear-Clear	4.8	0.59	0.56	0.62	
ALM-003-01 A	Aluminium A DG Air Fill Clear-Clear	4.8	0.51	0.48	0.54	

Custom windows*

Window ID	Window	Maximum	SHGC*	Substitution tolerance ranges		
willdow iD	Description	U-value*		SHGC lower limit	SHGC upper limit	
No Data Availa	able					

Window and glazed door schedule

Location	Window ID	Window no.	Height [mm]	Width [mm]	Window type	Opening %	Orientation	Window shading device*
Kitchen/Living	ALM-004-01 A	n/a	2700	1300	Sliding	35	S	No
Bedroom 1	ALM-003-01 A	W19	1550	1570	Awning	10	S	No
Bedroom 2	ALM-003-01 A	W13	1550	1570	Awning	10	S	No
Living 2	ALM-004-01 A	n/a	2700	1700	Sliding	35	S	No
Living 2	ALM-003-01 A	W14	1550	1000	Awning	70	W	No

Roof window* type and performance value

Default roof windows*

Window ID	Window	Maximum	SHGC*	Substitution to	lerance ranges
window iD	Description	U-value*	3660	SHGC lower limit	SHGC upper limit
No Data Avail	able				



Custom roof windows*

Window ID	Window	Maximum	SHGC*	Substitution tolerance ranges		
	Description	U-value*	3160	SHGC lower limit	SHGC upper limit	
No Data Avai	lable					

Roof window* schedule

Location	Window ID	Window no.	Opening %	Height [mm]	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]	Outdoor shade	Diffuser	
No Data Available							

External door schedule

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

External wall type

Wall	Wall	Solar	Wall shade	Bulk insulation	Reflective
ID	type	absorptance	[colour]	[R-value]	wall wrap*
EW-1	Cavity Brick	0.50		Foil, Reflective both sides	Yes

External wall schedule

Location	Wall ID	Height [mm]	Width [mm]	Orientation	Horizontal shading feature* maximum projection [mm]	Vertical shading feature [yes/no]
Kitchen/Living	EW-1	2700	2590	S	3000	No
Bedroom 1	EW-1	2700	3495	S	0	No
Bedroom 1	EW-1	2700	1800	W	4300	No
Bedroom 2	EW-1	2700	2800	Е	0	No

0011514494 NatHERS Certificate

7.1 Star Rating as of 28 Oct 2024



Location	Wall ID	Height [mm]	Width [mm]	Orientation	Horizontal shading feature* maximum projection [mm]	Vertical shading feature [yes/no]	
Bedroom 2	EW-1	2700	3195	S	0	No	
Living 2	EW-1	2700	1695	S	3000	Yes	
Living 2	EW-1	2700	2200	W	0	No	

Internal wall type

Wall ID	Wall type	Area [m ²]	Bulk insulation
IW-001	Steel Stud Frame, Direct Fix Plasterboard	57.24	No insulation
IW-002	Cavity brick	51.84	No Insulation

Floor type

Location	Construction	Area [m²]	Sub-floor ventilation	Added insulation [R-value]	Covering
Kitchen/Living	Suspended Concrete Slab 200mm	40.15	Basement Carpark	Bulk Insulation in Contact with Floor R1.5	Ceramic Tiles 8mm
Bath/L'dry	Suspended Concrete Slab 200mm	8.32	Basement Carpark	Bulk Insulation in Contact with Floor R1.5	Ceramic Tiles 8mm
Bedroom 1	Suspended Concrete Slab 200mm	14.74	Basement Carpark	Bulk Insulation in Contact with Floor R1.5	Carpet+Rubber Underlay 18mm
Bedroom 2	Suspended Concrete Slab 200mm	13.54	Basement Carpark	Bulk Insulation in Contact with Floor R1.5	Carpet+Rubber Underlay 18mm
Living 2	Suspended Concrete Slab 200mm	4.29	Enclosed	Bulk Insulation in Contact with Floor R1.5	Ceramic Tiles 8mm



Ceiling type

Location	Construction material/type	Bulk insulation R-value (may include edge batt values)	Reflective wrap* [yes/no]
Kitchen/Living	Concrete, Plasterboard with Steel Frame	No insulation	
Bath/L'dry	Concrete, Plasterboard with Steel Frame	No insulation	
Bedroom 1	Concrete, Plasterboard with Steel Frame	No insulation	
Bedroom 2	Concrete, Plasterboard with Steel Frame	No insulation	
Living 2	Concrete, Plasterboard with Steel Frame	No insulation	

Ceiling penetrations*

Location	Quantity	Туре	Diameter [mm]	Sealed/unsealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
Bath/L'dry	1	Exhaust Fans	300	Sealed

Ceiling fans

Location	Quantity	Diameter [mm]
Kitchen/Living	1	900
Bedroom 1	1	900
Bedroom 2	1	900

Roof type

Construction	Added insulation	Solar	Roof shade
	[R-value]	absorptance	[colour]
None Present		0.00	

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]
Ceiling		900	0.75	No
Internal Wall		600	0.75	No

Appliance schedule

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

Note: A flat assumption of $5W/m^2$ is used for lighting, therefore lighting is not included in the appliance schedule.
0011514494 NatHERS Certificate	7.1 Star	Rating as of 2	28 Oct 2024				HOUSE	
Cooling system								
Appliance/ system type	Loo	cation F	uel type	eff	nimum iciency/ ormance		mended acity	
No Data Available				·				
Heating system								
Appliance/ system type	Loc	cation F	Fuel type	Minimum efficiency/ performance			ecommended capacity	
No Data Available								
Hot water system								
Appliance/ system type	Fuel type	Hot Water CER Zone	Minimum efficiency /STC	Zone 3 STC		ibstitution e ranges upper limit	Assessed daily load [litres]	
No Data Available								
Pool/spa equipment								
Appliance/ system type		Fuel type		Minimu efficienc performa	cy/	Recomm capac		
No Data Available								
Onsite Renewable E	nergy Sch	edule						
System Type Ori	entation		Syst	em Size O	r Generation	Capacity		

Battery Schedule

System Type
No Data Available

System Type	Size [Battery Storage Capacity]
No Data Available	



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

an Fenestration Rating Council icted amount of energy required for heating and cooling, based on standard occupancy assumptions. area modelled in the software for the purpose of the NatHERS assessment. Note, this may not be consistent with the a in the design documents. that require a penetration to the ceiling, including downlights, vents, exhaust fans, range hoods, chimneys and flues. s fixtures attached to the ceiling with small holes through the ceiling for wiring, e.g. ceiling fans; pendant lights, and and cooling ducts. ent of performance within a dwelling that is expected to require heating and cooling based on standard occupancy assumptions. In some ances it will include garages. I isted in NatHERS software that are available on the market in Australia and have a WERS (Window Energy Rating) rating.
area modelled in the software for the purpose of the NatHERS assessment. Note, this may not be consistent with the a in the design documents. that require a penetration to the ceiling, including downlights, vents, exhaust fans, range hoods, chimneys and flues. s fixtures attached to the ceiling with small holes through the ceiling for wiring, e.g. ceiling fans; pendant lights, and and cooling ducts. ent of performance vithin a dwelling that is expected to require heating and cooling based on standard occupancy assumptions. In some ances it will include garages. I listed in NatHERS software that are available on the market in Australia and have a WERS (Window Energy Rating) rating.
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ances it will include garages. Isted in NatHERS software that are available on the market in Australia and have a WERS (Window Energy Rating) rating.
) rating.
that are representative of a specific type of window product and whose properties have been derived by statistical
Efficiency Ratio, measure of how much cooling can be achieved by an air conditioner for a single kWh of electricity
our homes rating without solar or batteries.
cost to society including, but not limited to, costs to the building user, the environment and energy networks (as in the ABCB Housing Provisions Standard).
gnify ventilation benefits in the modelling software and must not be modelled as a door when opening to a minimally d corridor in a Class 2 building.
osure categories below.
ith no obstructions e.g. flat grazing land, ocean-frontage, desert, exposed high-rise unit (usually above 10 floors).
rith few obstructions at a similar height e.g. grasslands with few well scattered obstructions below 10m, farmland with d sheds, lightly vegetated bush blocks, elevated units (e.g. above 3 floors).
ith numerous, closely spaced obstructions below 10m e.g. suburban housing, heavily vegetated bushland areas.
/ith numerous, closely spaced obstructions over 10 m e.g. city and industrial areas.
shading to the building in the horizontal plane, e.g. eaves, verandahs, pergolas, carports, or overhangs or balconies per levels.
c groups buildings by their function and use, and assigns a classification code. NatHERS software models NCC 2 or 4 buildings and attached Class 10a buildings. Definitions can be found at www.abcb.gov.au.
that achieves a net zero energy value*.
ability percentage or operable (moveable) area of doors or windows that is used in ventilation calculations.
med value that does not represent an actual value. For example, if the wall colour is unspecified in the documentation, onal value of 'medium' must be modelled. Acceptable provisional values are outlined in the NatHERS Technical Note be found at www.nathers.gov.au
e capacity or size of equipment that is recommended by NatHERS to achieve the desired comfort conditions in the zones serviced. This is a recommendation and the final selection sizing should be confirmed by a suitably qualified
pplied to walls, roofs and ceilings. When combined with an appropriate airgap and emissivity value, it provides e properties.
ERS this is typically an operable window (i.e. can be opened), will have a plaster or similar light well if there is an attic ind generally does not have a diffuser.
neighbouring buildings, fences, and wing walls, but excludes eaves.
ERS this is typically a moulded unit with flexible reflective tubing (light well) and a diffuser at ceiling level.
ion of incident solar radiation admitted through a window, both directly transmitted as well as absorbed and iently released inward. SHGC is expressed as a number between 0 and 1. The lower a window's SHGC, the less solar ansmits.
cale Technology Certificates, certificates created by the REC registry for renewable energy technologies that may be and sold as part of the Small-scale Renewable Energy Scheme operated by the Clean Energy Regulator (CER)
srials with an R-value greater than or equal to 0.2 that must separate the metal frame from the cladding. This includes, t limited to, materials such as timber battens greater than or equal to 20mm thick or continuous thermal breaks such tyrene insulation sheeting or plastic strips
of heat transfer through a window. The lower the U-value, the better the insulating ability.
vithin a dwelling that is assumed to not require heating and cooling based on standard occupancy assumptions.
schading to the building in the vertical plane and can be parallel or perpendicular to the subject wall/window. Includes screens, other walls in the building (wing walls), fences, other buildings, vegetation (protected or listed heritage trees).
xed to windows that provides shading e.g. window awnings or screens but excludes horizontal* or vertical shading * (eg eaves and balconies)

Nationwide House Energy Rating Scheme[®] NatHERS[®] Certificate No. 0011514478

Generated on 28 Oct 2024 using BERS Pro v5.2.3 (3.23)

Property

Address

Lot/DP NCC class* Floor/all Floors Type Unit 8, 16-18 Stapleton Parade, St Marys , NSW , 2760 Lot 32,33,34 DP 35558 2 G of 1 floors New Home

Plans

Main plan Prepared by BGZXE DKT Studio

Construction and environment

Assessed floor area [m2]*

Conditioned* 80.9 Unconditioned* 0.0 Total 80.9 Garage 0.0 Exposure type Suburban NatHERS climate zone

28 Richmond

Greenview Consulting Pty Ltd

Declaration completed: no conflicts

dean@greenview.net.au



Accredited assessor

NameDeaBusiness nameGreeEmaildeaPhone854Accreditation No.DMAssessor Accrediting OrganisationDesign Matters National

Declaration of interest

NCC Requirements

NCC provisions Strate/Territory variation tU

Dean Gorman

8544 1683

DMN/13/1645

Volume One

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

The more stars the more energy efficient

NATIONWIDE HOUSE ENERGY RATING SCHEME

54.6 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
odelled	51.6	3.0
ad limits	N/A	N/A

Features determining load limits

M

Lo

Floor Type (lowest conditioned area)	N/A
NCC climate zone 1 or 2	No
Outdoor living area	No
Outdoor living area ceiling fan	No

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 hstar.com.au/QR/Generate? p=FXStjHUgg . When using either link, ensure you are visiting hstar.com.au



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 Standard 2022: NatHERS heating and cooling load limits* 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 onsite renewable energy impact

No Whole of Home performance assessment conducted for this certificate.

Predicted Whole of Home annual impact by appliance

Energy use



Greenhouse gas emissions



Cost



7.3 Star Rating as of 28 Oct 2024

······································	_				HOUSE
Certificate check	Approva	I Stage	Constru Stage		
The checklist covers important items impacting the dwelling's ratings. It is recommended that the accuracy of the whole certificate is checked.	Assessor checked	Consent Authority/ Surveyor checked	Builder checked	Consent Authority Surveyor checked	Occupancy/Other
Note: The boxes indicate when and by whom each item should be checked. It is not mandatory to complete this checklist.	Assess	Consen Surveyo	Builder	Consen Surveyo	Occupa
Genuine certificate check		л	1	ſı	
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		л	1	ſı	
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 what is shown					

7.3 Star Rating as of 28 Oct 2024

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L HO	öÙ	SE

					HOUSE
	Approva	I Stage	Constru Stage	ction	
Certificate check	scked	iority/ cked	bey	iority cked	ther
Continued	Assessor checked	Consent Authority/ Surveyor checked	Builder checked	Consent Authority Surveyor checked	Occupancy/Other
Additional NCC requirements for thermal performance (not inclu	uded in t	he NatHE	ERS asse	ssment)	
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 Hom	e performa	ance asses	ssment is r	not conduc	ted)
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	assessi	ment)		
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



Room schedule

Room	Zone Type	Area [m ²]
Bedroom 1	Bedroom	14.41
Bedroom 2	Bedroom	12.47
Hall	Daytime	5.02
Bath/L'dry	Daytime	7.3
Kitchen/Living	Kitchen/Living	41.66
Glazed Common Area	Glazed Common Area	25.09

Window and glazed door type and performance

Default windows*

Window ID	Window	Maximum SHGC*		Substitution tolerance ranges			
	Description	U-value*	3660	SHGC lower limit	SHGC upper limit		
ALM-004-01 A	Aluminium B DG Air Fill Clear-Clear	4.8	0.59	0.56	0.62		
ALM-003-01 A	Aluminium A DG Air Fill Clear-Clear	4.8	0.51	0.48	0.54		

Custom windows*

Window ID	Window	Maximum		Substitution tolerance ranges			
	Description	U-value*	SHGC* SHGC lower limit SHGC upper		SHGC upper limit		
No Data Availa	able						

Window and glazed door schedule

Location	Window ID	Window no.	Height [mm]	Width [mm]	Window type	Opening %	Orientation	Window shading device*
Bedroom 1	ALM-004-01 A	W24	1550	1550	Awning	35	S	No
Bedroom 2	ALM-003-01 A	W18	1550	1550	Awning	35	S	No
Kitchen/Living	ALM-004-01 A	W23	1550	1210	Awning	70	Ν	No
Kitchen/Living	ALM-004-01 A	W1	850	1800	Sliding	45	E	No
Kitchen/Living	ALM-004-01 A	W14	2700	3000	Sliding	35	S	No
Glazed Common Area	ALM-001-01 A	W22	2700	2550	Casement	45	S	No
Glazed Common Area	ALM-003-01 A	W21	2700	1900	Casement	45	Ν	No



Roof window* type and performance value

Default roof windows*

Window ID	Window	Maximum	SHCC*	Substitution tolerance ranges		
	Description	U-value*	SHGC*	SHGC lower limit	SHGC upper limit	
No Data Avail	able					
Custom roof v	vindows*					
Mindow ID	Window	Maximum	CUCC*	Substitution to	lerance ranges	
Window ID	Description	U-value*	SHGC*	SHGC lower limit	SHGC upper limit	
No Data Avail	able					
	dow* schedule					

Location	Window ID	Window no.	Opening %	Height [mm]	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
No Data Available				

External wall type

Wall	Wall	Solar	Wall shade	Bulk insulation	Reflective
ID	type	absorptance	[colour]	[R-value]	wall wrap*
EW-1	Cavity Brick	0.50		Foil, Reflective both sides	Yes



External wall schedule

Location	Wall ID	Height [mm]	Width [mm]	Orientation	Horizontal shading feature* maximum projection [mm]	Vertical shading feature [yes/no]
Bedroom 1	EW-1	2700	1700	Е	4400	No
Bedroom 1	EW-1	2700	3400	S	0	No
Bedroom 2	EW-1	2700	3200	S	0	No
Bedroom 2	EW-1	2700	2800	W	0	No
Kitchen/Living	EW-1	2700	1800	Ν	0	Yes
Kitchen/Living	EW-1	2700	6500	E	0	No
Kitchen/Living	EW-1	2700	4400	S	2700	No
Glazed Common Area	EW-1	2700	2845	S	900	No
Glazed Common Area	EW-1	2700	2000	Ν	1500	No

Internal wall type

Wall ID	Wall type	Area [m ²]	Bulk insulation
IW-001	Steel Stud Frame, Direct Fix Plasterboard	44.82	No insulation
IW-002	Cavity brick	74.25	No Insulation

Floor type

Location	Construction	Area [m²]	Sub-floor ventilation	Added insulation [R-value]	Covering
Bedroom 1	Suspended Concrete Slab 200mm	14.41	Basement Carpark	Bulk Insulation in Contact with Floor R1.5	Carpet+Rubber Underlay 18mm
Bedroom 2	Suspended Concrete Slab 200mm	12.47	Basement Carpark	Bulk Insulation in Contact with Floor R1.5	Carpet+Rubber Underlay 18mm
Hall	Suspended Concrete Slab 200mm	5.02	Basement Carpark	Bulk Insulation in Contact with Floor R1.5	Ceramic Tiles 8mm

0011514478 NatHERS Certificate

7.3 Star Rating as of 28 Oct 2024



Location	Construction	Area [m²]	Sub-floor ventilation	Added insulation [R-value]	Covering
Bath/L'dry	Suspended Concrete Slab 200mm	7.30	Basement Carpark	Bulk Insulation in Contact with Floor R1.5	n Ceramic Tiles 8mm
Kitchen/Living	Suspended Concrete Slab 200mm	41.66	Basement Carpark	Bulk Insulation ir Contact with Floor R1.5	າ Ceramic Tiles 8mm
Glazed Common Area	Suspended Concrete Slab 200mm	25.09	Basement Carpark	Bulk Insulation in Contact with Floor R1.5	n Ceramic Tiles 8mm

Ceiling type

Location	Construction material/type	Bulk insulation R-value (may include edge batt values)	Reflective wrap* [yes/no]
Bedroom 1	Concrete, Plasterboard with Steel Frame	No insulation	
Bedroom 2	Concrete, Plasterboard with Steel Frame	No insulation	
Hall	Concrete, Plasterboard with Steel Frame	No insulation	
Bath/L'dry	Concrete, Plasterboard with Steel Frame	No insulation	
Kitchen/Living	Concrete, Plasterboard with Steel Frame	No insulation	
Glazed Common Area	Concrete, Plasterboard with Steel Frame	No insulation	

Ceiling penetrations*

Location	Quantity	Туре	Diameter [mm]	Sealed/unsealed
Bath/L'dry	1	Exhaust Fans	300	Sealed

Ceiling fans

Location	Quantity	Diameter [mm]
Bedroom 1	1	900
Bedroom 2	1	900
Kitchen/Living	1	900



Roof type

Construction	Added insulation	Solar	Roof shade
	[R-value]	absorptance	[colour]
None Present		0.00	

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]
Ceiling		900	0.75	No
Internal Wall		600	0.75	No

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	Lo	cation F	Fuel type	eff	nimum iciency/ ormance		mended acity
No Data Available							
Heating system							
Appliance/ system type	Lo	cation F	Fuel type	eff	nimum iciency/ ormance		mended acity
No Data Available							
Hot water system							
Appliance/ system type	Fuel type	Hot Water CER Zone	Minimum efficiency /STC	Zone 3 STC		ibstitution e ranges upper limit	Assessed daily load [litres]
No Data Available							
Pool/spa equipment							
Appliance/ system type		Fuel type		Minimu efficienc performa	cy/	Recomm capad	
No Data Available							



Onsite Renewable Energy Schedule

System Type	Orientation	System Size Or Generation Capacity
No Data Available		

Battery Schedule

System Type	Size [Battery Storage Capacity]
No Data Available	



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

AFRC	Australian Fenestration Rating Council
Annual energy load	the predicted amount of energy required for heating and cooling, based on standard occupancy assumptions.
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.
COP	Coefficient of performance
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.
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	see exposure categories below.
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 – protected	terrain with numerous, closely spaced obstructions below 10m e.g. suburban housing, heavily vegetated bushland areas.
Exposure category – suburban	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 airgap 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.
Skylight (also known as roof lights	b) for NatHERS this is typically a moulded unit with flexible reflective tubing (light well) and a diffuser at ceiling level.
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.
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 Regulator (CER)
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 or continuous thermal breaks such as polystyrene insulation sheeting or plastic strips
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	device fixed to windows that provides shading e.g. window awnings or screens but excludes horizontal* or vertical shading features* (eg eaves and balconies)

Nationwide House Energy Rating Scheme[®] NatHERS[®] Certificate No. 0011514460

Generated on 28 Oct 2024 using BERS Pro v5.2.3 (3.23)

Property

Address

Lot/DP NCC class* Floor/all Floors Type

Unit 9, 16-18 Stapleton Parade, St Marys, NSW, 2760 Lot 32.33.34 DP 35558 2 G of 1 floors New Home

Exposure type

28 Richmond

Greenview Consulting Pty Ltd

Declaration completed: no conflicts

dean@greenview.net.au

NatHERS climate zone

Suburban

Plans

Main plan Prepared by BGZXE DKT Studio

Construction and environment

Assessed floor area [m2]*

Conditioned* 50.2 Unconditioned* 7.5 Total 57.7 Garage 0.0

Accredited assessor

Name **Business name** Email Phone Accreditation No. Assessor Accrediting Organisation **Design Matters National**

Declaration of interest

NCC Requirements

NCC provisions Strate/Territory variation Volume One

Yes

Dean Gorman

8544 1683

DMN/13/1645

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

The more stars the more energy efficient

NATIONWID

35.0 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	30.5	4.5
Load limits	N/A	N/A

Features determining load limits

Floor Type (lowest conditioned area)	N/A
NCC climate zone 1 or 2	No
Outdoor living area	No
Outdoor living area ceiling fan	No

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 hstar.com.au/QR/Generate? p=GcazThcAn When using either link, ensure you are visiting hstar.com.au





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 Standard 2022: NatHERS heating and cooling load limits* 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 onsite renewable energy impact

No Whole of Home performance assessment conducted for this certificate.

Predicted Whole of Home annual impact by appliance

Energy use



Greenhouse gas emissions



Cost



8.4 Star Rating as of 28 Oct 2024

			1		HOUSE
Certificate check	Approva	I Stage	Constru Stage	ction	
The checklist covers important items impacting the dwelling's ratings. It is recommended that the accuracy of the whole certificate is checked.	Assessor checked	Consent Authority/ Surveyor checked	Builder checked	Consent Authority Surveyor checked	Occupancy/Other
Note: The boxes indicate when and by whom each item should be checked. It is not mandatory to complete this checklist.	Assess	Consen Surveyo	Builder	Consen Surveyo	Occupa
Genuine certificate check	1	ſı	1		
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 what is shown					



0011514460 NatHERS Certificate8.4 Star Rating as of 28 Oct 2024					HOUSE
	Approva	l Stage	Construe Stage	ction	
Certificate check	lecked	thority/ ecked	cked	thority ecked	Other
Continued	Assessor checked	Consent Authority Surveyor checked	Builder checked	Consent Authority Surveyor checked	Occupancy/Other
Additional NCC requirements for thermal performance (not inclu	uded in tl	he NatHE	RS asse	ssment)	
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	e performa	ance asses	ssment is r	not conduc	ted)
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	assessi	nent)		
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	n	n	n	n	

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



Room schedule

Room	Zone Type	Area [m ²]
Kitchen/Living	Kitchen/Living	30.6
Bedroom 1	Bedroom	15.1
Hall	Daytime	4.52
Bath/L'dry	Unconditioned	7.51
Glazed Common Area	Glazed Common Area	25.26

Window and glazed door type and performance

Default windows*

Window ID	Window	Maximum	SHGC*	Substitution to	lerance ranges
window iD	Description	U-value*	SHGC lower limit	SHGC upper limit	
ALM-004-01 A	Aluminium B DG Air Fill Clear-Clear	4.8	0.59	0.56	0.62
ALM-003-01 A	Aluminium A DG Air Fill Clear-Clear	4.8	0.51	0.48	0.54

Custom windows*

Window ID	Window Maximum SHGC* ——	Substitution to	lerance ranges			
window ID	Description	Description U-value*		SHGC lower limit SHGC upper limit		
No Data Availa	able					

Window and glazed door schedule

Location	Window ID	Window no.	Height [mm]	Width W [mm] ty		Opening %	Orientation	Window shading device*
Kitchen/Living	ALM-004-01 A	W7	2700	3000 S	Bliding	35	Ν	No
Bedroom 1	ALM-003-01 A	W27	1550	1550 A	wning	35	Ν	No
Bath/L'dry	ALM-003-01 A	W26	1000	600 A	wning	90	E	No
Glazed Common Area	ALM-003-01 A	W24	2700	1800 C	Casement	40	Ν	No
Glazed Common Area	ALM-003-01 A	W25	2700	2540 C	Casement	40	S	No

Roof window* type and performance value

Default roof windows*

Window ID	Window	Maximum	SHGC*	Substitution to	lerance ranges		
WINdow ID	Description U-value*		3660	SHGC lower limit SHGC upper limit			
No Data Avail	able						



Custom roof windows*

Window ID	Window	Maximum	SHGC*	Substitution tolerance ranges		
	Description U-value*		3160	SHGC lower limit	SHGC upper limit	
No Data Avai	lable					

Roof window* schedule

Location	Window ID	Window no.	Opening %	Height [mm]	Width [mm]	Orientation	Outdoor shade	Indoor shade
No Data Ava	ilable							

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]	Outdoor shade	Diffuser
No Data Availa	able					

External door schedule

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

External wall type

Wall	Wall	Solar	Wall shade	Bulk insulation	Reflective
ID	type	absorptance	[colour]	[R-value]	wall wrap*
EW-1	Cavity Brick	0.50		Foil, Reflective both sides	Yes

External wall schedule

Location	Wall ID	Height [mm]	Width [mm]	Orientation	Horizontal shading feature* maximum projection [mm]	Vertical shading feature [yes/no]
Kitchen/Living	EW-1	2700	4395	Ν	2500	Yes
Kitchen/Living	EW-1	2700	4100	W	0	No
Bedroom 1	EW-1	2700	1300	W	4400	No
Bedroom 1	EW-1	2700	3400	Ν	0	No

* Refer to glossary. Generated on 28 Oct 2024 using BERS Pro v5.2.3 (3.23) for Unit 9, 16-18 Stapleton Parade , St Marys , NSW , 2760 0011514460 NatHERS Certificate

8.4 Star Rating as of 28 Oct 2024



Location	Wall ID	Height [mm]	Width [mm]	Orientation	Horizontal shading feature* maximum projection [mm]	Vertical shading feature [yes/no]
Bedroom 1	EW-1	2700	4495	E	0	No
Hall	EW-1	2700	1390	Е	0	No
Bath/L'dry	EW-1	2700	2395	Е	0	No
Glazed Common Area	EW-1	2700	1945	Ν	1400	Yes
Glazed Common Area	EW-1	2700	2900	S	1200	Yes
Glazed Common Area	EW-1	2700	1800	W	100	No

Internal wall type

Wall ID	Wall type	Area [m ²]	Bulk insulation
IW-001	Steel Stud Frame, Direct Fix Plasterboard	28.62	No insulation
IW-002	Cavity brick	59.67	No Insulation

Floor type

Location	Construction	Area [m ²]	Sub-floor ventilation	Added insulation [R-value]	Covering
Kitchen/Living	Suspended Concrete Slab 200mm	30.60	Basement Carpark	Bulk Insulation in Contact with Floor R1.5	Ceramic Tiles 8mm
Bedroom 1	Suspended Concrete Slab 200mm	15.10	Basement Carpark	Bulk Insulation in Contact with Floor R1.5	Carpet+Rubber Underlay 18mm
Hall	Suspended Concrete Slab 200mm	4.52	Basement Carpark	Bulk Insulation in Contact with Floor R1.5	Ceramic Tiles 8mm
Bath/L'dry	Suspended Concrete Slab 200mm	7.51	Basement Carpark	Bulk Insulation in Contact with Floor R1.5	Ceramic Tiles 8mm
Glazed Common Area	Suspended Concrete Slab 200mm	25.26	Basement Carpark	Bulk Insulation in Contact with Floor R1.5	Ceramic Tiles 8mm



Ceiling type

Location	Construction material/type	Bulk insulation R-value (may include edge batt values)	Reflective wrap* [yes/no]
Kitchen/Living	Concrete, Plasterboard with Steel Frame	No insulation	
Bedroom 1	Concrete, Plasterboard with Steel Frame	No insulation	
Hall	Concrete, Plasterboard with Steel Frame	No insulation	
Bath/L'dry	Concrete, Plasterboard with Steel Frame	No insulation	
Glazed Common Area	Concrete, Plasterboard with Steel Frame	No insulation	

Ceiling penetrations*

Location	Quantity	Туре	Diameter [mm]	Sealed/unsealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
Bath/L'dry	1	Exhaust Fans	300	Sealed

Ceiling fans

Location	Quantity	Diameter [mm]	
Kitchen/Living	1	900	
Bedroom 1	1	900	

Roof type

Construction	Added insulation	Solar	Roof shade
	[R-value]	absorptance	[colour]
None Present		0.00	

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]
Ceiling		900	0.75	No
Internal Wall		600	0.75	No

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.

0011514460 NatHERS Certificate	8.4 Sta	r Rating as of 2	28 Oct 2024				HOUSE
Cooling system							
Appliance/ system type	Lo	cation	Fuel type	eff	nimum iciency/ ormance		mended acity
No Data Available				•			
Heating system							
Appliance/ system type	Lo	cation	Fuel type	eff	nimum iciency/ ormance		mended acity
No Data Available							
Hot water system							
Appliance/ system type	Fuel type	Hot Water CER Zone	Minimum efficiency /STC	Zone 3 STC		Ibstitution e ranges upper limit	Assessed daily load [litres]
No Data Available							
Pool/spa equipment							
Appliance/ system type		Fuel type		Minimu efficienc performa	cy/	Recomm capac	
No Data Available							
Onsite Renewable E	nergy Sch	edule					
System Type Orie	entation		Syst	em Size O	r Generation	Capacity	

Battery Schedule

No Data Available

System Type	Size [Battery Storage Capacity]
No Data Available	



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. Assessed floor area the floor area modelied in the software for the NaIHERS assessment. Note, this may not be consistent with the floor area in the design documents. Ceiling penetrations Excludes futures attached to the ceiling, including downlights, vents, exhaust fans, range hoods, chimneys and flues. Excludes futures attached to the ceiling, including downlights, vents, exhaust fans, range hoods, chimneys and flues. Code Coefficient of performance Coefficient of performance Custom windows windows listed in NaHERS 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 fleargy use. 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 ABCE Housing Provisions Standard). Exposure category – exposed The net cost to society including, but not limited to, costs to the building user, the environment and energy networks (as defined in the ABCE Housing Provisions Standard). Exposure category – exposed The net cost to society including, but not limited to, costs the building user, the environment and energy networks (as defined in the ABCE Housing Provisions Standard). Exposure category – exposed	AFRC	Australian Fenestration Rating Council
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Provisional value 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 airgap 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. 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. Stores Shading features StrCs 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 Regulator (CER) 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 or continuous thermal breaks such as pol	Opening percentage	
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Thermal breaks but is not limited to, materials such as timber battens greater than or equal to 20mm thick or continuous thermal breaks such as polystyrene insulation sheeting or plastic strips 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. Verticel abdding features provides shading to the building in the vertical plane and can be parallel or perpendicular to the subject wall/window. Includes	STCs	bought and sold as part of the Small-scale Renewable Energy Scheme operated by the Clean Energy Regulator (CER)
Unconditioned a zone within a dwelling that is assumed to not require heating and cooling based on standard occupancy assumptions.	Thermal breaks	but is not limited to, materials such as timber battens greater than or equal to 20mm thick or continuous thermal breaks such
Vortical chading features provides shading to the building in the vertical plane and can be parallel or perpendicular to the subject wall/window. Includes	U-value	the rate of heat transfer through a window. The lower the U-value, the better the insulating ability.
Vertical shading features provides shading to the building in the vertical plane and can be parallel or perpendicular to the subject wall/window. Includes	Unconditioned	
privacy screens, other walls in the building (wing walls), fences, other buildings, vegetation (protected or listed heritage trees).	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 device fixed to windows that provides shading e.g. window awnings or screens but excludes horizontal* or vertical shading features* (eg eaves and balconies)	Window shading device	device fixed to windows that provides shading e.g. window awnings or screens but excludes horizontal* or vertical shading features* (eg eaves and balconies)

Nationwide House Energy Rating Scheme[®] NatHERS[®] Certificate No. 0011514437

Generated on 28 Oct 2024 using BERS Pro v5.2.3 (3.23)

Property

Address

Lot/DP NCC class* Floor/all Floors Type

St Marys , NSW , 2760 Lot 32.33.34 DP 35558 2 G of 1 floors New Home

Unit 10, 16-18 Stapleton Parade,

Plans

Main plan Prepared by BGZXE DKT Studio

Construction and environment

Assessed floor area [m2]*

Conditioned* 50.5 Unconditioned* 8.3 58.8 Total Garage 0.0

Exposure type Suburban NatHERS climate zone 28 Richmond



Accredited assessor

Name **Business name** Email Phone Accreditation No. Assessor Accrediting Organisation **Design Matters National Declaration of interest**

Dean Gorman Greenview Consulting Pty Ltd dean@greenview.net.au 8544 1683 DMN/13/1645

Declaration completed: no conflicts

NCC Requirements

NCC provisions Strate/Territory variation Volume One

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

The more stars the more energy efficient

NATIONWID

27.6 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	23.7	3.8
Load limits	N/A	N/A

Features determining load limits

Floor Type (lowest conditioned area)	N/A
NCC climate zone 1 or 2	No
Outdoor living area	No
Outdoor living area ceiling fan	No

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 hstar.com.au/QR/Generate? p=IMMDfBwmN When using either link, ensure you are visiting hstar.com.au





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 Standard 2022: NatHERS heating and cooling load limits* 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 onsite renewable energy impact

No Whole of Home performance assessment conducted for this certificate.

Predicted Whole of Home annual impact by appliance

Energy use



Greenhouse gas emissions



Cost



8.8 Star Rating as of 28 Oct 2024

Certificate check	Approva	I Stage	Constru Stage				
The checklist covers important items impacting the dwelling's ratings. It is recommended that the accuracy of the whole certificate is checked.	Assessor checked	Consent Authority/ Surveyor checked	Builder checked	Consent Authority Surveyor checked	Occupancy/Other		
Note: The boxes indicate when and by whom each item should be checked. It is not mandatory to complete this checklist.	Assesso	Consen	Builder	Consent	Occupa		
Genuine certificate check		Т	Т				
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 what is shown							



	Approva	I Stage	Construction Stage		
Certificate check Continued	Assessor checked	Consent Authority/ Surveyor checked	Builder checked	Consent Authority Surveyor checked	Occupancy/Other
Additional NCC requirements for thermal performance (not inclu	uded in ti	he NatHE	ERS asse	ssment)	
Thermal bridging					
Does the dwelling meet the NCC requirement for thermal bridging?					
Insulation installation method					

Building sealing

Does the dwelling meet the NCC requirements for Building Sealing?	

Has the insulation been installed according to the NCC requirements?

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	assessi	nent)	
Deep the lighting most the artificial lighting requirements aposition in the NCC2				

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



Room schedule

Room	oom Zone Type	
Kitchen/Living	Kitchen/Living	30.69
Bedroom 1	Bedroom	15.18
Hall	Daytime	4.65
Bath/L'dry	Unconditioned	8.26
Glazed Common Area	Glazed Common Area	30.23

Window and glazed door type and performance

Default windows*

Window ID	Window	Maximum SHGC* U-value*		Substitution to	olerance ranges	
	Description			SHGC lower limit	SHGC upper limit	
ALM-004-01 A	Aluminium B DG Air Fill Clear-Clear	4.8	0.59	0.56	0.62	
ALM-003-01 A	Aluminium A DG Air Fill Clear-Clear	4.8	0.51	0.48	0.54	

Custom windows*

Window ID	Window	Maximum	SHGC*	Substitution to	lerance ranges
	Description	U-value*	3660	SHGC lower limit	SHGC upper limit
No Data Availa	able				

Window and glazed door schedule

Location	Window ID	Window no.	Height [mm]	Width [mm]	Window type	Opening %	Orientation	Window shading device*
Kitchen/Living	ALM-004-01 A	W7	2700	3000	Sliding	35	Ν	No
Bedroom 1	ALM-003-01 A	W29	1550	1650	Awning	35	Ν	No
Bath/L'dry	ALM-003-01 A	W28	1000	850	Awning	90	E	No
Glazed Common Area	ALM-003-01 A	W14	2700	2400	Casement	40	S	No
Glazed Common Area	ALM-003-01 A	W30	2700	2050	Casement	45	Ν	No

Roof window* type and performance value

Default roof windows*

Window ID	Window	Maximum	SHGC*	Substitution to	lerance ranges
	Description	ion U-value*		SHGC lower limit	SHGC upper limit
No Data Avail	able				



Custom roof windows*

Window ID	Window	Maximum	SHGC* –	Substitution tolerance ranges		
	Description	ription U-value*		SHGC lower limit	SHGC upper limit	
No Data Avai	lable					

Roof window* schedule

Location	Window ID	Window no.	Opening %	Height [mm]	Width [mm]	Orientation	Outdoor shade	Indoor shade
No Data Ava	ilable							

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 Availa	able					

External door schedule

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

External wall type

Wall	Wall	Solar	Wall shade	Bulk insulation	Reflective
ID	type	absorptance	[colour]	[R-value]	wall wrap*
EW-1	Cavity Brick	0.50		Foil, Reflective both sides	Yes

External wall schedule

Location	Wall ID	Height [mm]	Width [mm]	Orientation	Horizontal shading feature* maximum projection [mm]	Vertical shading feature [yes/no]
Kitchen/Living	EW-1	2700	4095	Ν	2600	Yes
Bedroom 1	EW-1	2700	700	W	4100	No
Bedroom 1	EW-1	2700	3500	Ν	0	Yes
Bedroom 1	EW-1	2700	4395	E	0	No

0011514437 NatHERS Certificate

8.8 Star Rating as of 28 Oct 2024



Location	Wall ID	Height [mm]	Width [mm]	Orientation	Horizontal shading feature* maximum projection [mm]	Vertical shading feature [yes/no]
Hall	EW-1	2700	1390	Е	0	No
Bath/L'dry	EW-1	2700	1795	E	0	No
Glazed Common Area	EW-1	2700	2600	S	1600	Yes
Glazed Common Area	EW-1	2700	245	W	0	No
Glazed Common Area	EW-1	2700	2045	Ν	600	Yes

Internal wall type

Wall ID	Wall type	Area [m ²]	Bulk insulation
IW-001	Steel Stud Frame, Direct Fix Plasterboard	29.70	No insulation
IW-002	Cavity brick	91.80	No Insulation

Floor type

Location	Construction	Area [m²]	Sub-floor ventilation	Added insulation [R-value]	Covering
Kitchen/Living	Suspended Concrete Slab 200mm	30.69	Basement Carpark	Bulk Insulation in Contact with Floor R1.5	Ceramic Tiles 8mm
Bedroom 1	Suspended Concrete Slab 200mm	15.18	Basement Carpark	Bulk Insulation in Contact with Floor R1.5	Carpet+Rubber Underlay 18mm
Hall	Suspended Concrete Slab 200mm	4.65	Basement Carpark	Bulk Insulation in Contact with Floor R1.5	Ceramic Tiles 8mm
Bath/L'dry	Suspended Concrete Slab 200mm	8.26	Basement Carpark	Bulk Insulation in Contact with Floor R1.5	Ceramic Tiles 8mm
Glazed Common Area	Suspended Concrete Slab 200mm	30.23	Basement Carpark	Bulk Insulation in Contact with Floor R1.5	Ceramic Tiles 8mm



Ceiling type

Location	Construction material/type	Bulk insulation R-value (may include edge batt values)	Reflective wrap* [yes/no]
Kitchen/Living	Concrete, Plasterboard with Steel Frame	No insulation	
Bedroom 1	Concrete, Plasterboard with Steel Frame	No insulation	
Hall	Concrete, Plasterboard with Steel Frame	No insulation	
Bath/L'dry	Concrete, Plasterboard with Steel Frame	No insulation	
Glazed Common Area	Concrete, Plasterboard with Steel Frame	No insulation	

Ceiling penetrations*

Location	Quantity	Туре	Diameter [mm]	Sealed/unsealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
Bath/L'dry	1	Exhaust Fans	300	Sealed

Ceiling fans

Location	Quantity	Diameter [mm]	
Kitchen/Living	1	900	
Bedroom 1	1	900	

Roof type

Construction	Added insulation	Solar	Roof shade
	[R-value]	absorptance	[colour]
None Present		0.00	

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]
Ceiling		900	0.75	No
Internal Wall		600	0.75	No

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.

0011514437 NatHERS Certificate	e 8.8 Star Rating as of 28 Oct 2024				HOUSE			
Cooling system								
Appliance/ system type	Location		Fuel type	eff	Minimum efficiency/ performance		Recommended capacity	
No Data Available				•				
Heating system								
Appliance/ system type	e/ system type Location F		Fuel type	Minimum efficiency/ performance		Recommended capacity		
No Data Available								
Hot water system								
Appliance/ system type	Fuel type	Hot Water CER Zone	Minimum efficiency /STC	Zone 3		Assessed daily load [litres]		
No Data Available								
Pool/spa equipment								
Appliance/ system type	system type Fuel type		Minimum efficiency/ performance		Recommended capacity			
No Data Available								
Onsite Renewable E	nergy Sch	edule						
System Type Orie	entation		Syst	em Size O	r Generation	Capacity		

Battery Schedule

No Data Available

System Type	Size [Battery Storage Capacity]
No Data Available	



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 p Assessed floor area the floor floor	ralian Fenestration Rating Council redicted amount of energy required for heating and cooling, based on standard occupancy assumptions. oor area modelled in the software for the purpose of the NatHERS assessment. Note, this may not be consistent with the
Assessed floor area the floor	oor area modelled in the software for the purpose of the NatHERS assessment. Note, this may not be consistent with the
Assessed noor area floor	
Ceiling penetrations Exclu	area in the design documents.
heati	res that require a penetration to the ceiling, including downlights, vents, exhaust fans, range hoods, chimneys and flues. Ides fixtures attached to the ceiling with small holes through the ceiling for wiring, e.g. ceiling fans; pendant lights, and ng and cooling ducts.
COP Coef	ficient of performance
Conditioned a zor circuit	ne within a dwelling that is expected to require heating and cooling based on standard occupancy assumptions. In some mstances it will include garages.
	ows listed in NatHERS software that are available on the market in Australia and have a WERS (Window Energy Rating me) rating.
Default windows windows meth	ows that are representative of a specific type of window product and whose properties have been derived by statistical ods.
EER Energy input	gy Efficiency Ratio, measure of how much cooling can be achieved by an air conditioner for a single kWh of electricity
Energy use This	is your homes rating without solar or batteries.
Energy value The r	net cost to society including, but not limited to, costs to the building user, the environment and energy networks (as ed in the ABCB Housing Provisions Standard).
Entrance door these ventil	e signify ventilation benefits in the modelling software and must not be modelled as a door when opening to a minimally lated corridor in a Class 2 building.
Exposure see e	exposure categories below.
	in with no obstructions e.g. flat grazing land, ocean-frontage, desert, exposed high-rise unit (usually above 10 floors).
Exposure category – open terrai scatte	in with few obstructions at a similar height e.g. grasslands with few well scattered obstructions below 10m, farmland with ered sheds, lightly vegetated bush blocks, elevated units (e.g. above 3 floors).
Exposure category – protected terrai	in with numerous, closely spaced obstructions below 10m e.g. suburban housing, heavily vegetated bushland areas.
Exposure category – suburban terrai	in with numerous, closely spaced obstructions over 10 m e.g. city and industrial areas.
Horizontal shading feature provi	des shading to the building in the horizontal plane, e.g. eaves, verandahs, pergolas, carports, or overhangs or balconies upper levels.
National Construction Code the N (NCC) Class Class	ICC groups buildings by their function and use, and assigns a classification code. NatHERS software models NCC s 1, 2 or 4 buildings and attached Class 10a buildings. Definitions can be found at www.abcb.gov.au.
	ne that achieves a net zero energy value*.
Opening percentage the o	penability percentage or operable (moveable) area of doors or windows that is used in ventilation calculations.
Provisional value a pro	ssumed value that does not represent an actual value. For example, if the wall colour is unspecified in the documentation, visional value of 'medium' must be modelled. Acceptable provisional values are outlined in the NatHERS Technical Note can be found at www.nathers.gov.au
Recommended capacity this is zone person	s the capacity or size of equipment that is recommended by NatHERS to achieve the desired comfort conditions in the or zones serviced. This is a recommendation and the final selection sizing should be confirmed by a suitably qualified on.
	be applied to walls, roofs and ceilings. When combined with an appropriate airgap and emissivity value, it provides ative properties.
Roof window for Naspace	atHERS this is typically an operable window (i.e. can be opened), will have a plaster or similar light well if there is an attic e, and generally does not have a diffuser.
Shading features inclue	des neighbouring buildings, fences, and wing walls, but excludes eaves.
	atHERS this is typically a moulded unit with flexible reflective tubing (light well) and a diffuser at ceiling level.
(SUCC) subs	action of incident solar radiation admitted through a window, both directly transmitted as well as absorbed and equently released inward. SHGC is expressed as a number between 0 and 1. The lower a window's SHGC, the less solar it transmits.
boug	Il-scale Technology Certificates, certificates created by the REC registry for renewable energy technologies that may be ht and sold as part of the Small-scale Renewable Energy Scheme operated by the Clean Energy Regulator (CER)
I hermal breaks but is	naterials with an R-value greater than or equal to 0.2 that must separate the metal frame from the cladding. This includes, not limited to, materials such as timber battens greater than or equal to 20mm thick or continuous thermal breaks such dystyrene insulation sheeting or plastic strips
U-value the ra	ate of heat transfer through a window. The lower the U-value, the better the insulating ability.
	ne within a dwelling that is assumed to not require heating and cooling based on standard occupancy assumptions.
Vertical shading features proving river	des shading to the building in the vertical plane and can be parallel or perpendicular to the subject wall/window. Includes cy screens, other walls in the building (wing walls), fences, other buildings, vegetation (protected or listed heritage trees).
Window shading device device feature	e fixed to windows that provides shading e.g. window awnings or screens but excludes horizontal* or vertical shading res* (eg eaves and balconies)

Nationwide House Energy Rating Scheme[®] NatHERS[®] Certificate No. 0011514403

Generated on 28 Oct 2024 using BERS Pro v5.2.3 (3.23)

Property

Address

Lot/DP NCC class* Floor/all Floors Type St Marys , NSW , 2760 Lot 32,33,34 DP 35558 2 G of 1 floors New Home

Unit 11, 16-18 Stapleton Parade,

Plans

Main plan Prepared by BGZXE DKT Studio

Construction and environment

Assessed floor area [m2]*

Conditioned* 60.1 Unconditioned* 0.0 Total 60.1 Garage 0.0



Accredited assessor

NameDeaBusiness nameGreeEmaildeaPhone854Accreditation No.DMAssessor Accrediting OrganisationDesign Matters NationalDeclaration of interestDec

Dean Gorman Greenview Consulting Pty Ltd dean@greenview.net.au 8544 1683 DMN/13/1645

Exposure type

28 Richmond

NatHERS climate zone

Suburban

Declaration completed: no conflicts

NCC Requirements

NCC provisions Strate/Territory variation Volume One

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

The more stars the more energy efficient

NATIONWIDE HOUSE ENERGY RATING SCHEME

15.1 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		
lodelled	12.5	2.7		
oad limits	N/A	N/A		

Features determining load limits

Floor Type (lowest conditioned area)	N/A
NCC climate zone 1 or 2	No
Outdoor living area	No
Outdoor living area ceiling fan	No

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 hstar.com.au/QR/Generate? p=PsRVfTzvL . When using either link, ensure you are visiting hstar.com.au



* Refer to glossary Generated on 28 Oct 2024 using BERS Pro v5.2.3 (3.23) for Unit 11, 16-18 Stapleton Parade , St Marys , NSW , 2760

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 Standard 2022: NatHERS heating and cooling load limits* 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 onsite renewable energy impact

No Whole of Home performance assessment conducted for this certificate.

Predicted Whole of Home annual impact by appliance

Energy use



Greenhouse gas emissions



Cost



9.4 Star Rating as of 28 Oct 2024

Certificate check	Approval Stage		Construction Stage		HOUSE a	
The checklist covers important items impacting the dwelling's ratings. It is recommended that the accuracy of the whole certificate is checked.	Assessor checked	Consent Authority/ Surveyor checked	checked	Consent Authority Surveyor checked	Occupancy/Other	
Note: The boxes indicate when and by whom each item should be checked. It is not mandatory to complete this checklist.	Assesso	Consent Surveyo	Builder checked	Consent Surveyo	Occupar	
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 what is shown						

<u>.</u>
0011514403 NatHERS Certificate9.4 Star Rating as of 28 Oct 2024					HIGHNEE
	Approva	Il Stage	Constru Stage	ction	
Certificate check	ecked	hority/ ecked	ked	hority ecked	Other
Continued	Assessor checked	Consent Authority/ Surveyor checked	Builder checked	Consent Authority Surveyor checked	Occupancy/Other
Additional NCC requirements for thermal performance (not inclu	uded in t	he NatHE	RS asse	essment)	
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 Hom	e perform	ance asses	ssment is i	not conduc	ted)
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	S assessi	nent)		
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. Addi but are not limited to: condensation, structural and fire safety requirements and any st requirements.					

Additional notes



Room schedule

Room	Zone Type	Area [m ²]
Kitchen/Living	Kitchen/Living	31.34
Bedroom 1	Bedroom	15.18
Hall	Daytime	4.65
Bath/L'dry	Daytime	8.92

Window and glazed door type and performance

Default windows*

Window ID	Window	SHGC		Substitution tolerance ranges		
	Description	U-value*	3660	SHGC lower limit	SHGC upper limit	
ALM-004-01 A	Aluminium B DG Air Fill Clear-Clear	4.8	0.59	0.56	0.62	
ALM-003-01 A	Aluminium A DG Air Fill Clear-Clear	4.8	0.51	0.48	0.54	

Custom windows*

Window ID	window Maximum SHGC* -		Substitution tolerance ranges			
	Description	U-value*	3160	SHGC lower limit SHGC upper limit		
No Data Avail	able					

Window and glazed door schedule

Location	Window ID	Window no.	Height [mm]	Width [mm]	Window type	Opening %	Orientation	Window shading device*
Kitchen/Living	ALM-004-01 A	W24	2700	3000	Sliding	35	Ν	No
Bedroom 1	ALM-003-01 A	W24	1550	1550	Awning	35	Ν	No

Roof window* type and performance value

Default roof windows*

Window ID	Window	Maximum	Maximum SHGC* Substitution tolerance ran		SHGC* SHGC*		lerance ranges
	Description	U-value*	3660	SHGC lower limit	SHGC upper limit		
No Data Avail	lable						
Custom roof w	vindows*						
Custom roof w Window ID	vindows* Window	Maximum	SHGC*	Substitution to	lerance ranges		

* Refer to glossary. Generated on 28 Oct 2024 using BERS Pro v5.2.3 (3.23) for Unit 11, 16-18 Stapleton Parade , St Marys , NSW , 2760



Roof window* schedule

Location	Window ID	Window no.	Opening %	Height [mm]	Width [mm]	Orientation	Outdoor shade	Indoor shade
No Data Avai	lable							

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 Avail	able						

External door schedule

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

External wall type

Wall	Wall	Solar	Wall shade	Bulk insulation	Reflective
ID	type	absorptance	[colour]	[R-value]	wall wrap*
EW-1	Cavity Brick	0.50		Foil, Reflective both sides	Yes

External wall schedule

Location	Wall ID	Height [mm]	Width [mm]	Orientation	Horizontal shading feature* maximum projection [mm]	Vertical shading feature [yes/no]
Kitchen/Living	EW-1	2700	4095	Ν	2600	Yes
Bedroom 1	EW-1	2700	500	W	100	No
Bedroom 1	EW-1	2700	3500	Ν	0	Yes
Bedroom 1	EW-1	2700	700	Е	4200	No

Internal wall type

Wall ID	Wall type	Area [m ²]	Bulk insulation
IW-001	Cavity brick	41.85	No Insulation

9.4 Star Rating as of 28 Oct 2024

Wall ID	Wall type	Area [m ²]	Bulk insulation	CORTINUES SING
IW-002	Steel Stud Frame, Direct Fix Plasterboard	32.67	No insulation	

Floor type

Location	Construction	Area [m²]	Sub-floor ventilation	Added insulation [R-value]	Covering
Kitchen/Living	Suspended Concrete Slab 200mm	31.34	Basement Carpark	Bulk Insulation in Contact with Floor R1.5	Ceramic Tiles 8mm
Bedroom 1	Suspended Concrete Slab 200mm	15.18	Basement Carpark	Bulk Insulation in Contact with Floor R1.5	Carpet+Rubber Underlay 18mm
Hall	Suspended Concrete Slab 200mm	4.65	Basement Carpark	Bulk Insulation in Contact with Floor R1.5	Ceramic Tiles 8mm
Bath/L'dry	Suspended Concrete Slab 200mm	8.92	Basement Carpark	Bulk Insulation in Contact with Floor R1.5	Ceramic Tiles 8mm

Ceiling type

Location	Construction material/type	Bulk insulation R-value (may include edge batt values)	Reflective wrap* [yes/no]
Kitchen/Living	Concrete, Plasterboard with Steel Frame	No insulation	
Bedroom 1	Concrete, Plasterboard with Steel Frame	No insulation	
Hall	Concrete, Plasterboard with Steel Frame	No insulation	
Bath/L'dry	Concrete, Plasterboard with Steel Frame	No insulation	

Ceiling penetrations*

Location	Quantity	Туре	Diameter [mm]	Sealed/unsealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
Bath/L'dry	1	Exhaust Fans	300	Sealed



Ceiling fans

Location	Quantity	Diameter [mm]
Kitchen/Living	1	900
Bedroom 1	1	900

Roof type

Construction	Added insulation	Solar	Roof shade
	[R-value]	absorptance	[colour]
None Present		0.00	

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]
Ceiling		900	0.75	No
Internal Wall		600	0.75	No

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 Minimum Recommended Location Appliance/ system type Fuel type efficiency/ capacity performance No Data Available Heating system Minimum Recommended Location Appliance/ system type Fuel type efficiency/ capacity performance No Data Available Hot water system Hot Minimum **Zone 3 Substitution** Assessed Zone 3 Appliance/ system type Fuel type Water efficiency tolerance ranges daily load STC **CER Zone** /STC [litres] lower limit upper limit

No Data Available

0011514403 NatHERS Certificate	9.4 Star Rating as of 28 Oct 2024		HOUSE		
Pool/spa equipment					
Appliance/ system type	Fuel type	Minimum efficiency/ performance	Recommended capacity		
No Data Available					
Onsite Renewable Energy Schedule					

System Type	Orientation	System Size Or Generation Capacity
No Data Available		

Battery Schedule

System Type	Size [Battery Storage Capacity]
No Data Available	



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. Assessed floor area the floor area modelied in the software for the NaIHERS assessment. Note, this may not be consistent with the floor area in the design documents. Ceiling penetrations Excludes futures attached to the ceiling, including downlights, vents, exhaust fans, range hoods, chimneys and flues. Excludes futures attached to the ceiling, including downlights, vents, exhaust fans, range hoods, chimneys and flues. Code Coefficient of performance Coefficient of performance Custom windows windows listed in NaHERS 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 fleargy use. 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 ACC Hoxing Provisions Standard). Exposure category – exposed The net cost to society including, but not limited to, costs to the building user, the environment and energy networks (as defined in the ACC Hoxing Provisions Standard). Exposure category – exposed The net cost to society including, but not limited to, costs the building user, the environment and energy networks (as defined in the ACC Hoxing Provisions Standard). Exposure category – exposed <	AFRC	Australian Fenestration Rating Council
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Colling penetrations features that require a penetration to the celling, including downlights, exituals fans, range hoods, chimneys and flues. Excludes futures attached to the celling with small holes through the celling for winds, e.g. celling fans, pendant lights, and healing and cooling ducts. COP Coefficient of performance Conditioned a zone within a dwelling that is expected to require healing and cooling based on standard occupancy assumptions. In some a zone within a dwelling that is expected to require healing and cooling based on standard occupancy assumptions. In some a zone within a dwelling that is expected to require healing and cooling based on standard occupancy assumptions. In some a zone within a dwelling that is expected to require healing and cooling based on standard occupancy assumptions. In some 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 wur homes rating without solita or batteries. Energy value The is social methoding both on tilleng software and must not be modelled as a door when opening to a minimally vehilated corridor in a class 2 building. Exposure eate social methoding base below. Exposure category – protected terrain with no obstructions eg. flat grazing land, ceean-frontage, desert, exposed high-rise unit (usually above 10 floors). terrain with the obstructions or g. flat grazing land, ceean-frontage, desert, exposed high-rise unit (usually above 00 floors). <t< th=""><th></th><th>the floor area modelled in the software for the purpose of the NatHERS assessment. Note, this may not be consistent with the</th></t<>		the floor area modelled in the software for the purpose of the NatHERS assessment. Note, this may not be consistent with the
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Custom windows circumstances it will include garages. 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 use This is your homes rating without solar or batteries. Energy value The is your homes rating without solar or batteries. Energy value The is your homes rating without solar or batteries. Entrance door these signify vertilation costs to solely by reget your homes fait in modelling software and must not be modelled as a door when opening to a minimally vertilated corridor in a Class 2 building. Exposure see exposure categories below. Exposure category – protect terrain with no obstructions e a flat grazing land, ocean-frontage, desert, exposed high-rise unit (usually above 10 floors). Exposure category – protect terrain with numerous, closely spaced obstructions below 10m e.g. subvarial areas. Exposure category – protect terrain with numerous, closely spaced obstructions below 10m e.g. elve and industrial areas. Exposure category – protect terrain with numerous, closely spaced obstructions below 10m e.g. elve and industrial areas. Exposure category – protect terrain with num	COP	
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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. 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 Regulator (CER) 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 or continuous thermal breaks such as polystyrene insulation sheeting or plastic strips 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. Vorticel abading features provides shading to the building in the vertical plane and can be parallel or perpendicular to the subject wall/window. Includes		
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Original bought and sold as part of the Small-scale Renewable Energy Scheme operated by the Clean Energy Regulator (CER) ¹ 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 or continuous thermal breaks such as polystyrene insulation sheeting or plastic strips 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 badding features provides shading to the building in the vertical plane and can be parallel or perpendicular to the subject wall/window. Includes		subsequently released inward. SHGC is expressed as a number between 0 and 1. The lower a window's SHGC, the less solar
Thermal breaks but is not limited to, materials such as timber battens greater than or equal to 20mm thick or continuous thermal breaks such as polystyrene insulation sheeting or plastic strips 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. Verticel abdding features provides shading to the building in the vertical plane and can be parallel or perpendicular to the subject wall/window. Includes	STCs	bought and sold as part of the Small-scale Renewable Energy Scheme operated by the Clean Energy Regulator (CER)
Unconditioned a zone within a dwelling that is assumed to not require heating and cooling based on standard occupancy assumptions.	Thermal breaks	but is not limited to, materials such as timber battens greater than or equal to 20mm thick or continuous thermal breaks such
Vortical chading features provides shading to the building in the vertical plane and can be parallel or perpendicular to the subject wall/window. Includes	U-value	the rate of heat transfer through a window. The lower the U-value, the better the insulating ability.
Vertical shading features provides shading to the building in the vertical plane and can be parallel or perpendicular to the subject wall/window. Includes	Unconditioned	
privacy screens, other walls in the building (wing walls), fences, other buildings, vegetation (protected or listed heritage trees).	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 device fixed to windows that provides shading e.g. window awnings or screens but excludes horizontal* or vertical shading features* (eg eaves and balconies)	Window shading device	device fixed to windows that provides shading e.g. window awnings or screens but excludes horizontal* or vertical shading features* (eg eaves and balconies)

Nationwide House Energy Rating Scheme[®] NatHERS[®] Certificate No. 0011514379

Generated on 28 Oct 2024 using BERS Pro v5.2.3 (3.23)

Property

Address

Lot/DP NCC class* Floor/all Floors Type

St Marys , NSW , 2760 Lot 32.33.34 DP 35558 2 G of 1 floors New Home

Unit 12, 16-18 Stapleton Parade,

Plans

Main plan Prepared by BGZXE DKT Studio

Construction and environment

Assessed floor area [m2]*

Conditioned* 75.6 Unconditioned* 8.5 Total 84.1 Garage 0.0

Exposure type Suburban NatHERS climate zone 28 Richmond



Accredited assessor

Name **Business name** Email Phone Accreditation No. Assessor Accrediting Organisation **Design Matters National**

Declaration completed: no conflicts

Greenview Consulting Pty Ltd

dean@greenview.net.au

Declaration of interest

NCC Requirements

NCC provisions Strate/Territory variation Volume One

Yes

Dean Gorman

8544 1683

DMN/13/1645

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

The more stars the more energy efficient

NATIONWIDE

46.6 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	32.8	13.8
Load limits	N/A	N/A

Features determining load limits

Floor Type (lowest conditioned area)	N/A
NCC climate zone 1 or 2	No
Outdoor living area	No
Outdoor living area ceiling fan	No

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 hstar.com.au/QR/Generate? p=iNdHpdinF When using either link, ensure you are visiting hstar.com.au



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 Standard 2022: NatHERS heating and cooling load limits* 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 onsite renewable energy impact

No Whole of Home performance assessment conducted for this certificate.

Predicted Whole of Home annual impact by appliance

Energy use



Greenhouse gas emissions



Cost





7.7 Star Rating as of 28 Oct 2024

Certificate check	Approva	I Stage	Construction Stage		HIOUSE
The checklist covers important items impacting the dwelling's ratings. It is recommended that the accuracy of the whole certificate is checked.	Assessor checked	Consent Authority/ Surveyor checked	Builder checked	Consent Authority Surveyor checked	Occupancy/Other
Note: The boxes indicate when and by whom each item should be checked. It is not mandatory to complete this checklist.	Assesso	Consent Surveyo	Builder o	Consent Surveyo	Occupar
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 what is shown					

0011514379 NatHERS Certificate7.7 Star Rating as of 28 Oct 2024					HOUVE
	Approva	I Stage	Constru Stage	ction	
Certificate check	cked	ority/ cked	be	ority cked	ther
Continued	Assessor checked	Consent Authority/ Surveyor checked	Builder checked	Consent Authority Surveyor checked	Occupancy/Other
Additional NCC requirements for thermal performance (not inclu	uded in t	he NatHE	RS asse	ssment)	
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 Hom	e performa	ance asses	sment is r	not conduc	ted)
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	assessi	nent)		
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					

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



Room schedule

Room	Zone Type	Area [m ²]
Glazed Common Area	Glazed Common Area	15.1
Kitchen/Living	Kitchen/Living	43.27
Hall	Daytime	4.85
Bedroom 1	Bedroom	14.73
Bedroom 2	Bedroom	12.7
Bath/L'dry	Unconditioned	8.5

Window and glazed door type and performance

Default windows*

Window ID	Window	Maximum U-value* SHGC*		Substitution tolerance ranges		
window iD	Description			SHGC lower limit	SHGC upper limit	
ALM-004-01 A	Aluminium B DG Air Fill Clear-Clear	4.8	0.59	0.56	0.62	
ALM-003-01 A	Aluminium A DG Air Fill Clear-Clear	4.8	0.51	0.48	0.54	

Custom windows*

Window ID	Window	Window Maximum SHGC*		* Substitution tolerance ranges		
	Description	U-value*	3160	SHGC lower limit	SHGC upper limit	
No Data Availa	able					

Window and glazed door schedule

Location	Window ID	Window no.	Height [mm]	Width [mm]	Window type	Opening %	Orientation	Window shading device*
Glazed Common Area	ALM-004-01 A	W7	2700	2170	Fixed	00	W	No
Kitchen/Living	ALM-004-01 A	W18	2700	3000	Sliding	35	W	No
Bedroom 1	ALM-003-01 A	W17	1550	1550	Awning	10	W	Yes
Bedroom 1	ALM-003-01 A	W14	1550	850	Awning	10	Ν	Yes
Bedroom 2	ALM-003-01 A	W15	1550	1550	Awning	10	Ν	Yes
Bath/L'dry	ALM-003-01 A	W16	1100	900	Awning	90	Ν	No



Roof window* type and performance value

Default roof windows*

Window ID C	Description	U-value*	SHGC*	SHGC lower limit	
No Data Available				SHOC lower lillin	SHGC upper limit
	e				
Custom roof wind	ows*				
Window ID	Vindow	Maximum	0U00t	Substitution to	lerance ranges
	Description	U-value*	SHGC*	SHGC lower limit	SHGC upper limit
No Data Available	e				

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

External wall type

Wall	Wall	Solar	Wall shade	Bulk insulation	Reflective
ID	type	absorptance	[colour]	[R-value]	wall wrap*
EW-1	Cavity Brick	0.50		Foil, Reflective both sides	Yes



External wall schedule

Location	Wall ID	Height [mm]	Width [mm]	Orientation	Horizontal shading feature* maximum projection [mm]	Vertical shading feature [yes/no]
Glazed Common Area	EW-1	2700	2145	W	2400	No
Kitchen/Living	EW-1	2700	4395	W	2300	Yes
Kitchen/Living	EW-1	2700	400	Ν	100	No
Kitchen/Living	EW-1	2700	800	E	2500	No
Kitchen/Living	EW-1	2700	5200	S	0	No
Hall	EW-1	2700	1490	Ν	0	No
Bedroom 1	EW-1	2700	3395	W	0	No
Bedroom 1	EW-1	2700	4395	Ν	0	No
Bedroom 2	EW-1	2700	3795	Ν	500	No
Bedroom 2	EW-1	2700	3395	E	0	No
Bath/L'dry	EW-1	2700	2495	Ν	900	Yes

Internal wall type

Wall ID	Wall type	Area [m ²]	Bulk insulation
IW-001	Cavity brick	42.39	No Insulation
IW-002	Steel Stud Frame, Direct Fix Plasterboard	42.39	No insulation

Floor type

Location	Construction	Area [m²]	Sub-floor ventilation	Added insulation [R-value]	Covering
Glazed Common Area	Concrete Slab, Unit Below 150mm	15.24	None	No Insulation	Ceramic Tiles 8mm
Kitchen/Living	Concrete Slab, Unit Below 150mm	43.27	None	No Insulation	Ceramic Tiles 8mm
Hall	Concrete Slab, Unit Below 150mm	4.85	None	No Insulation	Ceramic Tiles 8mm
Bedroom 1	Concrete Slab, Unit Below 150mm	14.73	None	No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 2	Concrete Slab, Unit Below 150mm	12.70	None	No Insulation	Carpet+Rubber Underlay 18mm
Bath/L'dry	Concrete Slab, Unit Below 150mm	8.50	None	No Insulation	Ceramic Tiles 8mm



Ceiling type

Location	Construction material/type	Bulk insulation R-value (may include edge batt values)	Reflective wrap* [yes/no]
Glazed Common Area	Plasterboard on Steel	Bulk Insulation R3.5	
Kitchen/Living	Plasterboard on Steel	Bulk Insulation R3.5	
Hall	Plasterboard on Steel	Bulk Insulation R3.5	
Bedroom 1	Plasterboard on Steel	Bulk Insulation R3.5	
Bedroom 2	Plasterboard on Steel	Bulk Insulation R3.5	
Bath/L'dry	Plasterboard on Steel	Bulk Insulation R3.5	

Ceiling penetrations*

Location	Quantity	Туре	Diameter [mm]	Sealed/unsealed	
Kitchen/Living	1	Exhaust Fans	300	Sealed	
Bath/L'dry	1	Exhaust Fans	300	Sealed	

Ceiling fans

Location	Quantity	Diameter [mm]
Kitchen/Living	1	900
Bedroom 1	1	900
Bedroom 2	1	900

Roof type

Construction	Added insulation	Solar	Roof shade
	[R-value]	absorptance	[colour]
Corrugated Iron Steel Frame	Bulk, Reflective Side Down, Anti-glare Up R1.3	0.50	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]
Ceiling		900	0.75	No
Roof		900	1.5	No
Internal Wall		600	0.75	No

Appliance schedule

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

0011514379 NatHERS 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	Lo	cation F	uel type	eff	inimum ïciency/ formance		mended acity
No Data Available							
Heating system							
Appliance/ system type	Lo	cation F	uel type	eff	inimum iciency/ formance		mended acity
No Data Available							
Hot water system							
Appliance/ system type	Fuel type	Hot Water CER Zone	Minimum efficiency /STC	Zone 3 STC		ubstitution e ranges upper limit	Assessed daily load [litres]
No Data Available							
Pool/spa equipment							
Appliance/ system type		Fuel type		Minimu efficienc performa	cy/	Recomm capac	
No Data Available							

Onsite Renewable Energy Schedule

System Type	Orientation	System Size Or Generation Capacity
No Data Available		

Battery Schedule

System Type	Size [Battery Storage Capacity]
No Data Available	



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

an Fenestration Rating Council icted amount of energy required for heating and cooling, based on standard occupancy assumptions. area modelled in the software for the purpose of the NatHERS assessment. Note, this may not be consistent with the a in the design documents. that require a penetration to the ceiling, including downlights, vents, exhaust fans, range hoods, chimneys and flues. s fixtures attached to the ceiling with small holes through the ceiling for wiring, e.g. ceiling fans; pendant lights, and and cooling ducts. ent of performance within a dwelling that is expected to require heating and cooling based on standard occupancy assumptions. In some ances it will include garages. I isted in NatHERS software that are available on the market in Australia and have a WERS (Window Energy Rating) rating.
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) rating.
that are representative of a specific type of window product and whose properties have been derived by statistical
Efficiency Ratio, measure of how much cooling can be achieved by an air conditioner for a single kWh of electricity
our homes rating without solar or batteries.
cost to society including, but not limited to, costs to the building user, the environment and energy networks (as in the ABCB Housing Provisions Standard).
gnify ventilation benefits in the modelling software and must not be modelled as a door when opening to a minimally d corridor in a Class 2 building.
osure categories below.
ith no obstructions e.g. flat grazing land, ocean-frontage, desert, exposed high-rise unit (usually above 10 floors).
rith few obstructions at a similar height e.g. grasslands with few well scattered obstructions below 10m, farmland with d sheds, lightly vegetated bush blocks, elevated units (e.g. above 3 floors).
ith numerous, closely spaced obstructions below 10m e.g. suburban housing, heavily vegetated bushland areas.
/ith numerous, closely spaced obstructions over 10 m e.g. city and industrial areas.
shading to the building in the horizontal plane, e.g. eaves, verandahs, pergolas, carports, or overhangs or balconies per levels.
c groups buildings by their function and use, and assigns a classification code. NatHERS software models NCC 2 or 4 buildings and attached Class 10a buildings. Definitions can be found at www.abcb.gov.au.
that achieves a net zero energy value*.
ability percentage or operable (moveable) area of doors or windows that is used in ventilation calculations.
med value that does not represent an actual value. For example, if the wall colour is unspecified in the documentation, onal value of 'medium' must be modelled. Acceptable provisional values are outlined in the NatHERS Technical Note be found at www.nathers.gov.au
e capacity or size of equipment that is recommended by NatHERS to achieve the desired comfort conditions in the zones serviced. This is a recommendation and the final selection sizing should be confirmed by a suitably qualified
pplied to walls, roofs and ceilings. When combined with an appropriate airgap and emissivity value, it provides e properties.
ERS this is typically an operable window (i.e. can be opened), will have a plaster or similar light well if there is an attic ind generally does not have a diffuser.
neighbouring buildings, fences, and wing walls, but excludes eaves.
ERS this is typically a moulded unit with flexible reflective tubing (light well) and a diffuser at ceiling level.
ion of incident solar radiation admitted through a window, both directly transmitted as well as absorbed and iently released inward. SHGC is expressed as a number between 0 and 1. The lower a window's SHGC, the less solar ansmits.
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xed to windows that provides shading e.g. window awnings or screens but excludes horizontal* or vertical shading * (eg eaves and balconies)

Nationwide House Energy Rating Scheme[®] NatHERS[®] Certificate No. 0011514346

Generated on 28 Oct 2024 using BERS Pro v5.2.3 (3.23)

Property

Address

Lot/DP NCC class* Floor/all Floors Type Unit 13, 16-18 Stapleton Parade, St Marys , NSW , 2760 Lot 32,33,34 DP 35558 2 G of 1 floors New Home

Plans

Main plan Prepared by BGZXE DKT Studio

Construction and environment

Assessed floor area [m2]*

Conditioned* 86.3 Unconditioned* 0.0 Total 86.3 Garage 0.0 Exposure type Suburban NatHERS climate zone 28 Richmond

Greenview Consulting Pty Ltd

Declaration completed: no conflicts

dean@greenview.net.au



Accredited assessor

NameDeaBusiness nameGreeEmaildeaPhone854Accreditation No.DMAssessor Accrediting OrganisationDesign Matters National

Declaration of interest

NCC Requirements

NCC provisions Strate/Territory variation Valuma One

Dean Gorman

8544 1683

DMN/13/1645

Volume One

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 <u>www.abcb.gov.au.</u>

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

Thermal performance Star rating

D.J. The more stars the more energy efficient

NATIONWIDE HOUSE ENERGY RATING SCHEME

69.2 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
odelled	58.3	10.9
oad limits	N/A	N/A

Features determining load limits

L

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 hstar.com.au/QR/Generate? p=xLicHwGGO . When using either link, ensure you are visiting hstar.com.au



* Refer to glossary Generated on 28 Oct 2024 using BERS Pro v5.2.3 (3.23) for Unit 13, 16-18 Stapleton Parade , St Marys , NSW , 2760



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 Standard 2022: NatHERS heating and cooling load limits* 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 onsite renewable energy impact

No Whole of Home performance assessment conducted for this certificate.

Predicted Whole of Home annual impact by appliance

Energy use



Greenhouse gas emissions



Cost



6.5 Star Rating as of 28 Oct 2024

Certificate check	Approva	I Stage	Construe Stage	ction	HOUSE
The checklist covers important items impacting the dwelling's ratings. It is recommended that the accuracy of the whole certificate is checked.	Assessor checked	Consent Authority/ Surveyor checked	checked	Consent Authority Surveyor checked	Occupancy/Other
Note: The boxes indicate when and by whom each item should be checked. It is not mandatory to complete this checklist.	Assesso	Consent Surveyo	Builder checked	Consent Surveyo	Occupar
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 what is shown					

0011514346 NatHERS Certificate6.5 Star Rating as of 28 Oct 2024					HEONWARE
	Approva	I Stage	Constru Stage	ction	
Certificate check	scked	iority/ cked	ted	lority cked	ther
Continued	Assessor checked	Consent Authority/ Surveyor checked	Builder checked	Consent Authority Surveyor checked	Occupancy/Other
Additional NCC requirements for thermal performance (not inclu	uded in t	he NatHE	RS asse	essment)	
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 Hom	e performa	ance asses	ssment is	not conduc	ted)
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	assessi	nent)		
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



Room schedule

Room	Zone Type	Area [m ²]
Kitchen/Living	Kitchen/Living	33.19
Bath/L'dry	Daytime	8.15
Hall	Daytime	15.07
Bedroom 2	Bedroom	14.39
Bedroom 1	Bedroom	15.49
Glazed Common Area	Glazed Common Area	15.41

Window and glazed door type and performance

Default windows*

Window ID	Window	Maximum SHGC*		ow Maximum Substitution		Substitution to	n tolerance ranges	
	Description	U-value*	3666	SHGC lower limit	SHGC upper limit			
ALM-003-01 A	Aluminium A DG Air Fill Clear-Clear	4.8	0.51	0.48	0.54			
ALM-004-01 A	Aluminium B DG Air Fill Clear-Clear	4.8	0.59	0.56	0.62			

Custom windows*

Window ID	Window	Maximum	SHGC*	Substitution tolerance ranges			
WINDOW ID	Description	U-value*	3160	SHGC lower limit	SHGC upper limit		
No Data Availa	able						

Window and glazed door schedule

Location	Window ID	Window no.	Height [mm]	Width [mm]	Window type	Opening %	Orientation	Window shading device*
Kitchen/Living	ALM-003-01 A	W24	1550	850	Awning	70	S	No
Kitchen/Living	ALM-003-01 A	W4	2000	850	Awning	70	S	No
Kitchen/Living	ALM-004-01 A	W4	2700	3000	Sliding	35	W	No
Kitchen/Living	ALM-003-01 A	n/a	2100	850	Awning	70	W	No
Bedroom 2	ALM-003-01 A	W2	1550	1550	Awning	10	S	No
Bedroom 1	ALM-003-01 A	W1	1550	1550	Awning	10	S	No
Glazed Common Area	ALM-002-01 A	W16	2700	1930	Fixed	00	W	No

Roof window* type and performance value

Default roof windows*

Window ID Description U-value* SHGC* SHGC lower limit SHGC upper lin No Data Available Custom roof windows* Maximum SHGC* Substitution tolerance ranges Window ID Window Maximum SHGC* Substitution tolerance ranges No Data Available U-value* SHGC* SHGC lower limit SHGC upper lin	Window ID	Window	Maximum	Maximum SHGC* -		lerance ranges
Custom roof windows* Window ID Window Maximum SHGC* SHGC Iower limit SHGC upper lir	window ID	Description	U-value*	SHGC	SHGC lower limit	SHGC upper limit
Window ID Window Maximum SHGC* Substitution tolerance ranges Description U-value* SHGC lower limit SHGC upper lir	No Data Avail	able				
Window ID Description U-value* SHGC* SHGC lower limit SHGC upper lin	Custom roof w	/indows*				
Description U-value* SHGC lower limit SHGC upper lin		Window	Maximum	81100*	Substitution to	lerance ranges
No Data Available	Mindaw ID	THINGON .		SHGU		
	Window ID		U-value*	000	SHGC lower limit	SHGC upper limit
		Description	U-value*		SHGC lower limit	SHGC upper limit

oor window" schedule

Location	Window ID	Window no.	Opening %	Height [mm]	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 Availa	able					

External door schedule

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

External wall type

Wall	Wall	Solar	Wall shade	Bulk insulation	Reflective
ID	type	absorptance	[colour]	[R-value]	wall wrap*
EW-1	Cavity Brick	0.50		Foil, Reflective both sides	Yes



External wall schedule

Location	Wall ID	Height [mm]	Width [mm]	Orientation	Horizontal shading feature* maximum projection [mm]	Vertical shading feature [yes/no]
Kitchen/Living	EW-1	2700	3995	Ν	100	No
Kitchen/Living	EW-1	2700	2595	S	100	No
Kitchen/Living	EW-1	2700	700	W	2000	No
Kitchen/Living	EW-1	2700	2000	S	800	Yes
Kitchen/Living	EW-1	2700	7200	W	1900	Yes
Bath/L'dry	EW-1	2700	1295	Ν	2400	No
Bedroom 2	EW-1	2700	3700	E	100	No
Bedroom 2	EW-1	2700	3600	S	100	No
Bedroom 2	EW-1	2700	200	E	3700	No
Bedroom 2	EW-1	2700	595	S	100	No
Bedroom 1	EW-1	2700	3790	S	100	No
Glazed Common Area	EW-1	2700	2345	W	2600	No

Internal wall type

Wall ID	Wall type	Area [m ²]	Bulk insulation
IW-001	Steel Stud Frame, Direct Fix Plasterboard	62.10	No insulation
IW-002	Cavity brick	55.89	No Insulation

Floor type

Location	Construction	Area [m²]	Sub-floor ventilation	Added insulation [R-value]	Covering
Kitchen/Living	Concrete Slab, Unit Below 150mm	33.19	None	No Insulation	Ceramic Tiles 8mm
Bath/L'dry	Concrete Slab, Unit Below 150mm	8.15	None	No Insulation	Ceramic Tiles 8mm
Hall	Concrete Slab, Unit Below 150mm	15.07	None	No Insulation	Ceramic Tiles 8mm
Bedroom 2	Concrete Slab, Unit Below 150mm	14.39	None	No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 1	Concrete Slab, Unit Below 150mm	15.49	None	No Insulation	Carpet+Rubber Underlay 18mm
Glazed Common Area	Concrete Slab, Unit Below 150mm	15.41	None	No Insulation	Ceramic Tiles 8mm



Ceiling type

Location	Construction material/type	Bulk insulation R-value (may include edge batt values)	Reflective wrap* [yes/no]
Kitchen/Living	Plasterboard on Steel	Bulk Insulation R3.5	
Bath/L'dry	Plasterboard on Steel	Bulk Insulation R3.5	
Hall	Plasterboard on Steel	Bulk Insulation R3.5	
Bedroom 2	Plasterboard on Steel	Bulk Insulation R3.5	
Bedroom 1	Plasterboard on Steel	Bulk Insulation R3.5	
Glazed Common Area	Plasterboard on Steel	Bulk Insulation R3.5	

Ceiling penetrations*

Location	Quantity	Туре	Diameter [mm]	Sealed/unsealed	
Kitchen/Living	1	Exhaust Fans	300	Sealed	
Bath/L'dry	1	Exhaust Fans	300	Sealed	

Ceiling fans

Location	Quantity	Diameter [mm]
Kitchen/Living	1	900
Bedroom 2	1	900
Bedroom 1	1	900

Roof type

Construction	Added insulation	Solar	Roof shade
	[R-value]	absorptance	[colour]
Corrugated Iron Steel Frame	Bulk, Reflective Side Down, Anti-glare Up R1.3	0.50	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]
Ceiling		900	0.75	No
Roof		900	1.5	No
Internal Wall		600	0.75	No

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	Lo	Location Fuel type		Minimum efficiency/ performance		Recommended capacity	
No Data Available							
Heating system							
Appliance/ system type	Location Fuel type		Minimum efficiency/ performance		Recommended capacity		
No Data Available							
Hot water system							
Appliance/ system type	Fuel type	Hot Water CER Zone	Minimum efficiency /STC	Zone 3 STC		ubstitution e ranges upper limit	Assessed daily load [litres]
No Data Available							
Pool/spa equipment							
Appliance/ system type		Fuel type		Minimum efficiency/ performance		Recommended capacity	
No Data Available							

Onsite Renewable Energy Schedule

System Type	Orientation	System Size Or Generation Capacity
No Data Available		

Battery Schedule

System Type	Size [Battery Storage Capacity]
No Data Available	



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 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. 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 the design documents. explore the purpose of the NatHERS assessment. Note, this may not be consistent with the floor area in the design documents. Conditioned constraints and the design documents. explore the software floor area in the design documents. 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. 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 ABCE Housing Provisions Standard). Exposure category – exposet The net cost to society including, but not limited to, costs to the building user, the environment and energy networks (as defined in the obstructions as a fluid rang land, ocean-frontage, desert, exposed high-rise unit (usually above 10 floors). Exposure category – oceand terrain with no dostructions as a fluid rang land, ocean-frontage, desert, exposed high-rise unit (usually above 10 floors). </th <th>AFRC</th> <th>Australian Fenestration Rating Council</th>	AFRC	Australian Fenestration Rating Council
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COP Coefficient of performance COP Coefficient of performance Continued a zone within a dwelling that is expected to require heating and cooling based on standard occupancy assumptions. In some circumstaticals within dwelling garages. Custom windows Encryp Efficiency Ratio, measure of how much cooling can be achieved by an air conditioner for a single KWh of electricity input. Default windows Encryp Efficiency Ratio, measure of how much cooling can be achieved by an air conditioner for a single KWh of electricity input. Energy Efficiency Ratio, measure of how much cooling can be achieved by an air conditioner for a single KWh of electricity input. Energy Value Thesi is your homes rating without solar or batteries. Energy Value Thesi expected by including, but not innited to costs to the building user, the environment and energy networks (as Entrance door these signify ventilation benefits in the modelling software and must not be modeled as a door when opening to a minimally ventilated corridor in a Class 2 building. Exposure category - protected terrain with we obstructions as a similar height e.g. grassinas with few well scattered obstructions below 10m, farmland with scattered sheads, lightly vegetated bushland areas. Exposure category - protected terrain with numerous, closely spaced obstructions below 3 hoors). Exposure category - suburban the obstholing in the horizontal plane, e.g. eaves, vernadhsb, perposites		the floor area modelled in the software for the purpose of the NatHERS assessment. Note, this may not be consistent with the
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Continuinal circumstances it will include garages. Custom windows windows their 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 input. ERR Energy Efficiency Ratio, measure of how much cooling can be achieved by an air conditioner for a single KWh of electricity input. Energy use The net cool 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). Exposure category – exposed Errain with no obstructions e.g. Ital grazing land, ocean-frontage, desert, exposed high-rise unit (usually above 10 floors). Exposure category – protected terrain with no costruction se g. Ital grazing land, ocean-frontage, desert, exposed high-rise unit (usually above 10 floors). Exposure category – protected terrain with numerous, closely spaced obstructions ver 10 m e.g. elyu and industrial areas. Exposure category – protected terrain with numerous, closely spaced obstructions ver 10 m e.g. elyu and industrial areas. Exposure category = orboted terrain with numerous, closely spaced obstructions ver 10 m e.g. elyu and industrial areas. Exposure category = orboted terrain with numerous, closely spaced obstructions selow 07m e.g. elyu and industrial areas.	COP	Coefficient of performance
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Detailst windows methods. EER 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). Exposure Standard). Exposure terrain with no obstructions e.g. flat grazing land, cocan-frontage, desert, exposed the unit (usually above 10 floors). Exposure category – open terrain with no obstructions e.g. flat grazing land, cocan-frontage, desert, exposed the building heavily vegtated bushind areas. Exposure category – open terrain with no obstructions e.g. flat grazing land, cocan-frontage, desert, exposed the studies with flow well floared obstructions below 10m, familand with texposure category – potent Exposure category – open terrain with numerous, closely spaced obstructions below 10m e.g. city and industrial areas. Exposure category – use to the desert desert exposed the the standard bar exposed the transmost in the openability percentage or operable (moveable) area of doors or windows that is used in ventilation calculations. National Construction Code (NCC) Class the MCC groups building in the horizontal plane, e.g. eaves, verandarb, pergolas, carports, or overhangs or balconies from upper levels. Provisional value a home that calcieves an at zero energy value. Opening percentage the openability percentage or op	Custom windows	
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	Window shading device	device fixed to windows that provides shading e.g. window awnings or screens but excludes horizontal* or vertical shading features* (eg eaves and balconies)

Nationwide House Energy Rating Scheme[®] NatHERS[®] Certificate No. 0011514445

Generated on 28 Oct 2024 using BERS Pro v5.2.3 (3.23)

Property

Address

Lot/DP NCC class* Floor/all Floors Type

St Marys , NSW , 2760 Lot 32.33.34 DP 35558 2 G of 1 floors New Home

Unit 14, 16-18 Stapleton Parade,

Exposure type

28 Richmond

Greenview Consulting Pty Ltd

Declaration completed: no conflicts

dean@greenview.net.au

NatHERS climate zone

Suburban

Plans

Main plan Prepared by BGZXE DKT Studio

Construction and environment

Assessed floor area [m2]*

Conditioned* 81.3 Unconditioned* 0.0 Total 81.3 Garage 0.0

Accredited assessor

Name **Business name** Email Phone Accreditation No. Assessor Accrediting Organisation **Design Matters National**

Declaration of interest

NCC Requirements

NCC provisions Strate/Territory variation

Yes

Volume One

Dean Gorman

8544 1683

DMN/13/1645

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.

The more stars the more energy efficient

NATIONWIDE

47.9 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	40.0	7.9
Load limits	N/A	N/A

Features determining load limits

Floor Type	N/A
(lowest conditioned area)	
NCC climate zone 1 or 2	No
Outdoor living area	No
Outdoor living area ceiling fan	No

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 hstar.com.au/QR/Generate? p=woAnnIVvt When using either link, ensure you are visiting hstar.com.au



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 Standard 2022: NatHERS heating and cooling load limits* 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 onsite renewable energy impact

No Whole of Home performance assessment conducted for this certificate.

Predicted Whole of Home annual impact by appliance

Energy use



Greenhouse gas emissions

No Whole of Home performance assessment conducted for this certificate

Cost



7.7 Star Rating as of 28 Oct 2024

Certificate check	Approva	Il Stage	Constru Stage	ction	HOUSE	
The checklist covers important items impacting the dwelling's ratings. It is recommended that the accuracy of the whole certificate is checked.	Assessor checked	Consent Authority/ Surveyor checked	Builder checked	Consent Authority Surveyor checked	Occupancy/Other	
Note: The boxes indicate when and by whom each item should be checked. It is not mandatory to complete this checklist.	Assess	Conser Survey	Builder	Conser Survey	Occupa	
Genuine certificate check		1	1	<u>6</u>		
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 what is shown						

0011514445 NatHERS Certificate 7.7 Star Rating as of 28 Oct 2024					HOUVE
	Approva	I Stage	Constru Stage	ction	
Certificate check	ecked	hority/ scked	ked	hority scked	Other
Continued	Assessor checked	Consent Authority/ Surveyor checked	Builder checked	Consent Authority Surveyor checked	Occupancy/Other
Additional NCC requirements for thermal performance (not inclu	uded in t	he NatHE	RS asse	ssment)	
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 Hom	e performa	ance asses	ssment is i	not conduc	ted)
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	S assessi	nent)		
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 Cartificate only anyone the anergy officiancy requirements in the NCC Add		romonto the	4	he estisfied	include

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



Room schedule

Room	Zone Type	Area [m²]
Kitchen/Living	Kitchen/Living	44.7
Bath/L'dry	Daytime	8.32
Bedroom 1	Bedroom	14.74
Bedroom 2	Bedroom	13.54

Window and glazed door type and performance

Default windows*

Window ID	Window	Maximum	SHGC*	Substitution tolerance ranges		
	Description U-value*		3660	SHGC lower limit	SHGC upper limit	
ALM-004-01 A	Aluminium B DG Air Fill Clear-Clear	4.8	0.59	0.56	0.62	
ALM-003-01 A	Aluminium A DG Air Fill Clear-Clear	4.8	0.51	0.48	0.54	

Custom windows*

Window ID	Window	Maximum	SHGC*	Substitution tolerance ranges		
window iD	Description	U-value*	3660	SHGC lower limit	SHGC upper limit	
No Data Available						

Window and glazed door schedule

Location	Window ID	Window no.	Height [mm]	Width [mm]	Window type	Opening %	Orientation	Window shading device*
Kitchen/Living	ALM-004-01 A	W15	2700	3000	Sliding	35	S	No
Kitchen/Living	ALM-004-01 A	W17	1550	1000	Awning	90	W	No
Bedroom 1	ALM-003-01 A	W16	1550	1550	Awning	10	S	No
Bedroom 2	ALM-004-01 A	W13	1550	1550	Awning	10	S	No

Roof window* type and performance value

Default roof windows*

Window ID	Window	Maximum	imum SHGC* Su		Substitution tolerance ranges		
WINGOW ID	Description	U-value*	51160	SHGC lower limit	SHGC upper limit		
No Data Available							

* Refer to glossary. Generated on 28 Oct 2024 using BERS Pro v5.2.3 (3.23) for Unit 14, 16-18 Stapleton Parade , St Marys , NSW , 2760



Custom roof windows*

Window ID	Window	Maximum		Substitution to	olerance ranges	
	Description	U-value*	SHGC*	SHGC lower limit	SHGC upper limit	
	VEL-010-02 W VELUX VS - Ventilating		0.04			
VEL-010-02 W	Skylight DG 3mm LoE 366 / 10.5mm Argon Gap / 3mm Clear	2.6	0.21	0.20	0.22	

Roof window* schedule

Location	Window ID	Window no.	Opening %	Height [mm]	Width [mm]	Orientation	Outdoor shade	Indoor shade
Kitchen/Living	VEL-010-02 W	S1	10	800	3600	S	No	Yes

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	
No Data Available					

External wall type

Wall	Wall	Solar	Wall shade	Bulk insulation	Reflective
ID	type	absorptance	[colour]	[R-value]	wall wrap*
EW-1	Cavity Brick	0.50		Foil, Reflective both sides	Yes

External wall schedule

Location	Wall ID	Height [mm]	Width [mm]	Orientation	Horizontal shading feature* maximum projection [mm]	Vertical shading feature [yes/no]
Kitchen/Living	EW-1	2700	4295	S	3000	Yes
Kitchen/Living	EW-1	2700	2000	W	0	No

0011514445 NatHERS Certificate

7.7 Star Rating as of 28 Oct 2024



Location	Wall ID	Height [mm]	Width [mm]	Orientation	Horizontal shading feature* maximum projection [mm]	Vertical shading feature [yes/no]
Bedroom 1	EW-1	2700	3495	S	0	No
Bedroom 1	EW-1	2700	1800	W	4300	No
Bedroom 2	EW-1	2700	1200	Е	0	No
Bedroom 2	EW-1	2700	3195	S	0	No

Internal wall type

Wall ID	Wall type	Area [m ²]	Bulk insulation
IW-001	Steel Stud Frame, Direct Fix Plasterboard	45.63	No insulation
IW-002	Cavity brick	56.70	No Insulation

Floor type

Location	Construction	Area [m²]	Sub-floor ventilation	Added insulation [R-value]	Covering
Kitchen/Living	Concrete Slab, Unit Below 150mm	44.70	None	No Insulation	Ceramic Tiles 8mm
Bath/L'dry	Concrete Slab, Unit Below 150mm	8.32	None	No Insulation	Ceramic Tiles 8mm
Bedroom 1	Concrete Slab, Unit Below 150mm	14.74	None	No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 2	Concrete Slab, Unit Below 150mm	13.54	None	No Insulation	Carpet+Rubber Underlay 18mm

Ceiling type

Location	Construction material/type	Bulk insulation R-value (may include edge batt values)	Reflective wrap* [yes/no]
Kitchen/Living	Plasterboard on Steel	Bulk Insulation R3.5	
Bath/L'dry	Plasterboard on Steel	Bulk Insulation R3.5	
Bedroom 1	Plasterboard on Steel	Bulk Insulation R3.5	
Bedroom 2	Plasterboard on Steel	Bulk Insulation R3.5	

Ceiling penetrations*

Location	Quantity	Туре	Diameter [mm]	Sealed/unsealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
Bath/L'dry	1	Exhaust Fans	300	Sealed



Ceiling fans

Location	Quantity	Diameter [mm]
Kitchen/Living	1	900
Bedroom 1	1	900
Bedroom 2	1	900

Roof type

Construction	Added insulation	Solar	Roof shade
	[R-value]	absorptance	[colour]
Corrugated Iron Steel Frame	Bulk, Reflective Side Down, Anti-glare Up R1.3	0.30	Light

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]
Ceiling		900	0.75	No
Roof		900	1.5	No
Internal Wall		600	0.75	No

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 Data Available				
Heating system				
Appliance/ system type	Location	Fuel type	Minimum efficiency/ performance	Recommended capacity
No Data Available				



Hot water system

Appliance/ system type	Fuel type	Hot Fuel type Water	Minimum efficiency /STC	Zone 3 STC	Zone 3 Substitution tolerance ranges		Assessed daily load
		CER Zone			lower limit	upper limit	[litres]
No Data Available							
Pool/spa equipment							
Appliance/ system type		Fuel type		Minimu efficienc performa	cy/	Recomm capac	
No Data Available							

Onsite Renewable Energy Schedule

System Type	Orientation	System Size Or Generation Capacity
No Data Available		

Battery Schedule

System Type	Size [Battery Storage Capacity]
No Data Available	


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

AFRC	Australian Fenestration Rating Council
Annual energy load	the predicted amount of energy required for heating and cooling, based on standard occupancy assumptions.
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.
COP	Coefficient of performance
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.
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	see exposure categories below.
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 – protected	terrain with numerous, closely spaced obstructions below 10m e.g. suburban housing, heavily vegetated bushland areas.
Exposure category – suburban	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 airgap 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.
Skylight (also known as roof lights	
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.
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 Regulator (CER)
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 or continuous thermal breaks such as polystyrene insulation sheeting or plastic strips
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	device fixed to windows that provides shading e.g. window awnings or screens but excludes horizontal* or vertical shading features* (eg eaves and balconies)

Nationwide House Energy Rating Scheme[®] NatHERS[®] Certificate No. 0011514411

Generated on 28 Oct 2024 using BERS Pro v5.2.3 (3.23)

Property

Address

Lot/DP NCC class* Floor/all Floors Type Unit 15, 16-18 Stapleton Parade, St Marys , NSW , 2760 Lot 32,33,34 DP 35558 2 G of 1 floors New Home

Plans

Main plan Prepared by BGZXE DKT Studio

Construction and environment

Assessed floor area [m2]*

Conditioned* 76.8 Unconditioned* 0.0 Total 76.8 Garage 0.0

8 Suburban 8 NatHERS climate zone 28 Richmond



Accredited assessor

NameDeaBusiness nameGreeEmaildeaPhone854Accreditation No.DMAssessor Accrediting OrganisationDesign Matters NationalDeclaration of interestDec

Dean Gorman Greenview Consulting Pty Ltd dean@greenview.net.au 8544 1683 DMN/13/1645

Exposure type

Declaration completed: no conflicts

NCC Requirements

NCC provisions Strate/Territory variation Volume One

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

The more stars the more energy efficient

NATIONWIDE HOUSE ENERGY RATING SCHEME

53.4 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
odelled	44.6	8.9
ad limits	N/A	N/A

Features determining load limits

M

Lo

Floor Type (lowest conditioned area)	N/A
NCC climate zone 1 or 2	No
Outdoor living area	No
Outdoor living area ceiling fan	No

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 hstar.com.au/QR/Generate? p=ZJcaVmSOe . When using either link, ensure you are visiting hstar.com.au



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 Standard 2022: NatHERS heating and cooling load limits* 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 onsite renewable energy impact

No Whole of Home performance assessment conducted for this certificate.

Predicted Whole of Home annual impact by appliance

Energy use



Greenhouse gas emissions



Cost



7.4 Star Rating as of 28 Oct 2024

					HOUSE
Certificate check	Approva	I Stage	Constru Stage	ction	
The checklist covers important items impacting the dwelling's ratings. It is recommended that the accuracy of the whole certificate is checked.	Assessor checked	Consent Authority/ Surveyor checked	Builder checked	Consent Authority Surveyor checked	Occupancy/Other
Note: The boxes indicate when and by whom each item should be checked. It is not mandatory to complete this checklist.	Assesso	Consent Surveyo	Builder o	Consent Surveyo	Occupar
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 what is shown					

7 4 Star Ratin of 28 Oct 2024

HOUSE

0011514411 Nathers Certificate 7.4 Star Rating as of 28 Oct 2024					HOUSE
	Approva	al Stage	Constru Stage	ction	
Certificate check	lecked	thority/ ecked	ked	thority ecked	Other
Continued	Assessor checked	Consent Authority/ Surveyor checked	Builder checked	Consent Authority Surveyor checked	Occupancy/Other
Additional NCC requirements for thermal performance (not inclu	uded in t	he NatHE	ERS asse	ssment)	
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 Hom	e performa	ance asse	ssment is r	not conduc	ted)
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	S assessi	ment)		
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. Add	itional requi	rements the	t must also	be satisfied	include

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



Room schedule

Room	Zone Type	Area [m ²]
Bedroom 1	Bedroom	14.32
Bedroom 2	Bedroom	12.16
Hall	Daytime	4.94
Bath/L'dry	Daytime	7.24
Kitchen/Living	Kitchen/Living	38.17
Glazed Common Area	Glazed Common Area	28.2

Window and glazed door type and performance

Default windows*

Window ID	Window	Maximum SHGC*		Substitution tolerance ranges		
	Description	U-value*	3660	SHGC lower limit	SHGC upper limit	
ALM-003-01 A	Aluminium A DG Air Fill Clear-Clear	4.8	0.51	0.48	0.54	
ALM-004-01 A	Aluminium B DG Air Fill Clear-Clear	4.8	0.59	0.56	0.62	

Custom windows*

Window ID	Window	Maximum	SHGC* -	Substitution tolerance range		
WINDOW ID	Description	U-value*	3160	SHGC lower limit	SHGC upper limit	
No Data Availa	able					

Window and glazed door schedule

Location	Window ID	Window no.	Height [mm]	Width [mm]	Window type	Opening %	Orientation	Window shading device*
Bedroom 1	ALM-003-01 A	W24	1550	1550	Awning	10	S	No
Bedroom 2	ALM-003-01 A	W18	1550	1550	Awning	10	S	No
Kitchen/Living	ALM-003-01 A	W23	1550	1210	Awning	70	Ν	No
Kitchen/Living	ALM-004-01 A	W1	850	1800	Sliding	45	E	No
Kitchen/Living	ALM-004-01 A	W14	2700	3000	Sliding	35	S	No
Glazed Common Area	ALM-002-01 A	W22	2700	2700	Fixed	00	S	No
Glazed Common Area	ALM-002-01 A	W21	2700	1900	Fixed	00	Ν	No



Indoor

shade

Roof window* type and performance value

Default roof windows*

Window ID	Window	Maximum	SHGC*	Substitution tolerance ranges		
	Description	U-value*	U-value* SHGC* -	SHGC lower limit	SHGC upper limit	
No Data Availa	able					
Custom roof w	indows*					
Window ID	Window	Maximum	SUCC*	Substitution tolerance ranges		
Window ID	Description	U-value*	SHGC*	SHGC lower limit	SHGC upper limit	
No Data Availa	able					
NO Data Availa	able					

LocationWindow
IDWindow
no.Opening
Opening
%Height
[mm]Width
OrientationOutdoor
shadeNo 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] Or	Drientation	Outdoor shade	Diffuser
No Data Avail	No Data Available						

External door schedule

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

External wall type

Wall	Wall	Solar	Wall shade	Bulk insulation	Reflective
ID	type	absorptance	[colour]	[R-value]	wall wrap*
EW-1	Cavity Brick	0.50		Foil, Reflective both sides	Yes



External wall schedule

Location	Wall ID	Height [mm]	Width [mm]	Orientation	Horizontal shading feature* maximum projection [mm]	Vertical shading feature [yes/no]
Bedroom 1	EW-1	2700	1900	Е	4400	No
Bedroom 1	EW-1	2700	3395	S	0	No
Bedroom 2	EW-1	2700	3195	S	0	No
Bedroom 2	EW-1	2700	1300	W	0	No
Kitchen/Living	EW-1	2700	1600	Ν	0	No
Kitchen/Living	EW-1	2700	6300	E	400	No
Kitchen/Living	EW-1	2700	3995	S	2900	No
Glazed Common Area	EW-1	2700	2845	S	0	No
Glazed Common Area	EW-1	2700	2000	Ν	2000	No

Internal wall type

Wall ID	Wall type	Area [m ²]	Bulk insulation
IW-001	Steel Stud Frame, Direct Fix Plasterboard	44.28	No insulation
IW-002	Cavity brick	75.06	No Insulation

Floor type

Location	Construction	Area [m²]	Sub-floor ventilation	Added insulation [R-value]	Covering
Bedroom 1	Concrete Slab, Unit Below 150mm	14.32	None	No Insulation	Carpet+Rubber Underlay 18mm
Bedroom 2	Concrete Slab, Unit Below 150mm	12.16	None	No Insulation	Carpet+Rubber Underlay 18mm
Hall	Concrete Slab, Unit Below 150mm	4.94	None	No Insulation	Ceramic Tiles 8mm
Bath/L'dry	Concrete Slab, Unit Below 150mm	7.24	None	No Insulation	Ceramic Tiles 8mm
Kitchen/Living	Concrete Slab, Unit Below 150mm	38.17	None	No Insulation	Ceramic Tiles 8mm
Glazed Common Area	Concrete Slab, Unit Below 150mm	28.20	None	No Insulation	Ceramic Tiles 8mm

Ceiling type

Location	Construction	Bulk insulation R-value	Reflective
	material/type	(may include edge batt values)	wrap* [yes/no]
Bedroom 1	Plasterboard on Steel	Bulk Insulation R3.5	

0011514411 NatHERS Certificate 7.4 Star Rating as of 28 Oct 2024 **Bulk insulation R-value** Reflective Construction Location (may include edge batt values) material/type wrap* [yes/no] Bedroom 2 Plasterboard on Steel **Bulk Insulation R3.5** Hall Plasterboard on Steel **Bulk Insulation R3.5** Bath/L'dry **Bulk Insulation R3.5** Plasterboard on Steel Kitchen/Living **Bulk Insulation R3.5** Plasterboard on Steel Glazed Common Area Plasterboard on Steel Bulk Insulation R3.5

Ceiling penetrations*

Location	Quantity	Туре	Diameter [mm]	Sealed/unsealed	
Bath/L'dry	1	Exhaust Fans	300	Sealed	
Kitchen/Living	1	Exhaust Fans	300	Sealed	

Ceiling fans

Location	Quantity	Diameter [mm]
Bedroom 1	1	900
Bedroom 2	1	900
Kitchen/Living	1	900

Roof type

Construction	Added insulation	Solar	Roof shade
	[R-value]	absorptance	[colour]
Corrugated Iron Steel Frame	Bulk, Reflective Side Down, Anti-glare Up R1.3	0.50	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]
Ceiling		900	0.75	No
Roof		900	1.5	No
Internal Wall		600	0.75	No

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.

0011514411 NatHERS Certificate	e 7.4 Star	r Rating as of 2	8 Oct 2024				HOUSE
Cooling system							
Appliance/ system type	Lo	cation F	uel type	eff	nimum iciency/ ormance		mended acity
No Data Available				•			
Heating system							
Appliance/ system type	Lo	cation F	uel type	eff	nimum iciency/ ormance		mended acity
No Data Available							
Hot water system							
Appliance/ system type	Fuel type	Hot Water CER Zone	Minimum efficiency /STC	Zone 3 STC		ibstitution e ranges upper limit	Assessed daily load [litres]
No Data Available							
Pool/spa equipment							
Appliance/ system type		Fuel type		Minimu efficienc performa	cy/	Recomm capac	
No Data Available							
Onsite Renewable E	nergy Sch	edule					
System Type Ori	entation		Syst	em Size O	r Generation	Capacity	

Battery Schedule

System Type
No Data Available

System Type	Size [Battery Storage Capacity]
No Data Available	



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. Assessed floor area The floor area in the design documents. Coiling penetrations Eastures that require a penetration to the calling, including downlights, vents, exhaust fans, range hoods, chinneys and flues. Exhausta fans trange hoods without solar on the market in Australia and have a WERS (Window Energy Rating Window Energy Rating Window Energy Rating Window Energy Rating Or Mining flue to contain the market in Australia and have a WERS (Window Energy Rating Default windows the advert on banding or not fining to cost on the market in Australia and have a WERS (Window Energy Rating Or Mining etha advert on banding	AFRC	Australian Fenestration Rating Council
Assessed floor area The floor area in odelled in the software for the purpose of the NatHERS assessment. Note, this may not be consistent with the floor area in the design documents. Colling penetrations Eastures that require a penetration to the celling, including downlights, vents, extaust fans, range hoods, chinneys and fluos. COP Coefficient of performance Sectors and the celling with small holes through the celling for wirns, e.g. celling fans, pendant lights, and occupancy assumptions. In some circumstances it will include garages. Custom windows Windows listen in NatHERS Software that are available on the market in Australia and have a WERS (Window Energy Rating Schemar) rating. Default windows Energy Selficiency Ratio, measure of how much cooling can be achieved by an air conditioner for a single kWh of electricity input. Energy value The site your homes rating without solar or batteries. Energy value The site your boards the society including, but not limited to costs to the building user, the environment and energy networks (as defined in the ASCB Housing Provisous Standard). Exposure category - ponetexted Terrare door Terrare with workshow on obstructions as grid grazing and ocean-frontage, desert, exposed high-rise unit (usually above 10 floors). Exposure category - ponetexted Terrare througes shading to the building in the hortzontal plane, e.g. eaves, venandains, pergolas, carports, or overhangs or balconies (MCC) Class Not zero to measure Terrare the funct		M. A Contract of the second seco
COP Coefficient of performance 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. Custom windows methods. Default windows methods. Default windows windows that are representative of a specific type of window product and whose properties have been derived by statistical methods. EFR Energy Efficiency Ratio, measure of how much cooling can be achieved by an air conditioner for a single KWh of electricity input for the single without solar or batteries. Energy value The at cost to society including, but not limited to costs to the building user, the environment and energy networks (as Entrance door these signify worthing to the modelling software and must not be modelled as a door when opening to a minimally very worthing benefits in the modelling software and must not be modelled as a door when opening to a minimally 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 – protected terrain with worth worthing in the horizottom below 10m. farmland with scattered sheading feature of basic spaced obstructions below 10m. farmland with scattered sheading feature of the worthing and alcohed dass to babidings. Definitions can be found industrial areas. Provisional Construction Code terrain with numerous, closely spaced obstructions below 10m. farmland with acstared shead, ligh		the floor area modelled in the software for the purpose of the NatHERS assessment. Note, this may not be consistent with the
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Continuination circumstances it will include garages. Include garages. Custom windows windows tisted in NaHERS software that are available on the market in Australia and have a VERS (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 products. ERR Energy use Energy use This is your homes rating without solar or batteries. Energy use 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). Exposure category – exposed these signify ventilation been filts in the modelling software and must not be modelled as a door whon opening to a minimally ventilated corridor in a Class 2 building. Exposure category – protected terrain with nonecost, closely spaced obstructions below Tom e.g. suburban housing, heavily vegatated bushhand areas. Exposure category – protected terrain with numerous, closely spaced obstructions and the garages and industrial areas. Horizontal shanding feature the NCC groups building in the horizontal plane, e.g. arease, verandaha, pergolas, caports, or overhangs or balconies through the work schedule with a databace Class 120 buildings. Definitions can be found at www.abcle.gov.au. National Construction Code the NCC groups building in the horizontal plane, e.g. areases, verandaha, pergol	COP	Coefficient of performance
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Exposure category – protected Etrain with numerous, closely spaced obstructions below 10m e.g. cuby and industrial areas. Exposure category – suburban terrain with numerous, closely spaced obstructions over 10 m e.g. city and industrial areas. National Construction Code the NCC Circus NACC (Lass the NCC groups buildings by their function and use, and assigns a classification code. NatHERS software models NCC 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 that does not represent an actual value. For example, if the wall colour is unspecified in the Not the documentation, a provisional value that does not represent an actual value. For example, if the wall colour is unspecified in the documentation, a provisional value that does not represent an actual value. For example, if the wall colour is unspecified in the NatHERS trechnical 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 recommended to naid sevent and appropriate airgap and emissivity value, it provides insulative properties. Reflective wrap (also known as roof lights) for NatHERS this is typically an operable window (i.e. can be openeld), will have a plaster or	Exposure category – exposed	
Exposure category – suburban 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 (NCC) Class National Construction Code 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 10 buildings. Definitions can be found at www.abcd.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 model. Acceptable provisional values are outlined in the NatHERS Technical Note and can be found at www.nathers.gov.au Recommended capacity can be applied to walls, roofs and ceilings. When combined with an appropriate airgap 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 area diffuser. Shading features includes neighbouring buildings, fences, and wing walls, but excludes eaves. Stylight (also known as roof lights) for NatHERS this is typica		scattered sheds, lightly vegetated bush blocks, elevated units (e.g. above 3 floors).
Horizontal shading feature provides shading to the building in the horizontal plane, e.g. eaves, verandahs, pergolas, carports, or overhangs or balconies 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. an assumed 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 the openability percentage or operable (moveable) area of doors or windows that is used in ventilation calculations. an assumed 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 Reflective wrap (also known as foil) can be applied to walls, roofs and ceilings. When combined with an appropriate airgap and emissivity value, it provides includes neighbouring buildings, fences, and wing walls, but excludes eaves. Skylight (also known as roof lights) 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 radifuser. Stors Small-scale Technology Certificates, certificates created by the Clean Energy Regulator (CER) the fraction of incident solar radiation admitte		
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Window shading device Window shading device Window shading device device fixed to windows that provides shading e.g. window awnings or screens but excludes horizontal* or vertical shading	Unconditioned	
Window shading device device fixed to windows that provides shading e.g. window awnings or screens but excludes horizontal* or vertical shading features* (eg eaves and balconies)	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	device fixed to windows that provides shading e.g. window awnings or screens but excludes horizontal* or vertical shading features* (eg eaves and balconies)

Nationwide House Energy Rating Scheme[®] NatHERS[®] Certificate No. 0011514395

Generated on 28 Oct 2024 using BERS Pro v5.2.3 (3.23)

Property

Address

Lot/DP NCC class* Floor/all Floors Type St Marys , NSW , 2760 Lot 32,33,34 DP 35558 2 G of 1 floors New Home

Unit 16, 16-18 Stapleton Parade,

Plans

Main plan Prepared by BGZXE DKT Studio

Construction and environment

Assessed floor area [m2]*

Conditioned* 50.5 Unconditioned* 7.6 Total 58.1 Garage 0.0 Exposure type Suburban NatHERS climate zone

28 Richmond



Accredited assessor

NameDeaBusiness nameGreeEmaildeaPhone854Accreditation No.DMAssessor Accrediting OrganisationDesign Matters NationalDeclaration of interestDec

Dean Gorman Greenview Consulting Pty Ltd dean@greenview.net.au 8544 1683 DMN/13/1645

Declaration completed: no conflicts

NCC Requirements

NCC provisions Strate/Territory variation Volume One

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.

Star rating

The more stars the more energy efficient

Thermal performance

NATIONWIDE HOUSE ENERGY RATING SCHEME

36.6 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	26.9	9.8
Load limits	N/A	N/A

Features determining load limits

Floor Type	N/A
(lowest conditioned area)	
NCC climate zone 1 or 2	No
Outdoor living area	No
Outdoor living area ceiling fan	No

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 hstar.com.au/QR/Generate? p=nqhaZorma . When using either link, ensure you are visiting hstar.com.au



* Refer to glossary Generated on 28 Oct 2024 using BERS Pro v5.2.3 (3.23) for Unit 16, 16-18 Stapleton Parade , St Marys , NSW , 2760



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 Standard 2022: NatHERS heating and cooling load limits* 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 onsite renewable energy impact

No Whole of Home performance assessment conducted for this certificate.

Predicted Whole of Home annual impact by appliance

Energy use



Greenhouse gas emissions



Cost



8.3 Star Rating as of 28 Oct 2024

Certificate check	Approva	I Stage	Construe Stage	ction	HIOUSE a	
The checklist covers important items impacting the dwelling's ratings. It is recommended that the accuracy of the whole certificate is checked.	Assessor checked	Consent Authority/ Surveyor checked	checked	Consent Authority Surveyor checked	Occupancy/Other	
Note: The boxes indicate when and by whom each item should be checked. It is not mandatory to complete this checklist.	Assesso	Consent Surveyo	Builder checked	Consent Surveyo	Occupar	
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 what is shown						



0011514395 NatHERS Certificate8.3 Star Rating as of 28 Oct 2024					HOUSE
	Approva	I Stage	Constru Stage	ction	
Certificate check	lecked	thority/ ecked	ked	thority ecked	Other
Continued	Assessor checked	Consent Authority/ Surveyor checked	Builder checked	Consent Authority Surveyor checked	Occupancy/Other
Additional NCC requirements for thermal performance (not inclu-	uded in t	he NatHE	ERS asse	essment)	
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 Hom	e performa	ance asses	ssment is i	not conduc	ted)
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	assessi	ment)		
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



Room schedule

Room Zone Type		Area [m ²]
Kitchen/Living	Kitchen/Living	30.75
Bedroom 1	Bedroom	15.17
Hall	Daytime	4.6
Bath/L'dry	Unconditioned	7.57
Glazed Common Area	Glazed Common Area	28.82

Window and glazed door type and performance

Default windows*

Window ID	Window	Maximum	SHCC*	Substitution tolerance ranges		
window iD	Description	U-value* SHGC* —		SHGC lower limit	SHGC upper limit	
ALM-004-01 A	Aluminium B DG Air Fill Clear-Clear	4.8	0.59	0.56	0.62	
ALM-003-01 A	Aluminium A DG Air Fill Clear-Clear	4.8	0.51	0.48	0.54	

Custom windows*

Window ID	Window	Maximum	SHGC*	Substitution tolerance ranges			
willdow iD	Description	U-value*	3660	SHGC lower limit	SHGC upper limit		
No Data Availa	able						

Window and glazed door schedule

Location	Window ID	Window no.	Height [mm]	Width [mm]	Window type	Opening %	Orientation	Window shading device*
Kitchen/Living	ALM-004-01 A	W7	2700	3000	Sliding	35	Ν	No
Bedroom 1	ALM-003-01 A	W27	1550	1550	Awning	35	Ν	No
Bath/L'dry	ALM-003-01 A	W26	1000	600	Awning	90	E	No
Glazed Common Area	ALM-002-01 A	W24	2700	1800	Fixed	00	Ν	No
Glazed Common Area	ALM-002-01 A	W25	2700	2530	Fixed	00	S	No

Roof window* type and performance value

Default roof windows*

Window ID	Window	Maximum	SHGC*	Substitution tolerance ranges SHGC lower limit SHGC upper limit	
window iD	Description	U-value*	3660		
No Data Avail	able				



Custom roof windows*

Window ID	Window	Maximum	SHGC*	Substitution tolerance ranges SHGC lower limit SHGC upper lim	
	Description	U-value*	SHGC" -		
No Data Avai	lable				

Roof window* schedule

Location	Window ID	Window no.	Opening %	Height [mm]	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	
No Data Available					

External wall type

Wall	Wall	Solar	Wall shade	Bulk insulation	Reflective
ID	type	absorptance	[colour]	[R-value]	wall wrap*
EW-1	Cavity Brick	0.50		Foil, Reflective both sides	Yes

External wall schedule

Location	Wall ID	Height [mm]	Width [mm]	Orientation	Horizontal shading feature* maximum projection [mm]	Vertical shading feature [yes/no]
Kitchen/Living	EW-1	2700	4400	Ν	2500	Yes
Kitchen/Living	EW-1	2700	4600	W	0	No
Bedroom 1	EW-1	2700	1300	W	4400	No
Bedroom 1	EW-1	2700	3400	Ν	0	No

* Refer to glossary. Generated on 28 Oct 2024 using BERS Pro v5.2.3 (3.23) for Unit 16, 16-18 Stapleton Parade , St Marys , NSW , 2760 0011514395 NatHERS Certificate

8.3 Star Rating as of 28 Oct 2024



Location	Wall ID	Height [mm]	Width [mm]	Orientation	Horizontal shading feature* maximum projection [mm]	Vertical shading feature [yes/no]
Bedroom 1	EW-1	2700	4500	E	0	No
Hall	EW-1	2700	1400	Е	0	No
Bath/L'dry	EW-1	2700	2400	Е	0	No
Glazed Common Area	EW-1	2700	1945	Ν	1900	Yes
Glazed Common Area	EW-1	2700	2900	S	1100	Yes
Glazed Common Area	EW-1	2700	1800	W	800	No

Internal wall type

Wall ID	Wall type	Area [m ²]	Bulk insulation
IW-001	Steel Stud Frame, Direct Fix Plasterboard	28.62	No insulation
IW-002	Cavity brick	65.07	No Insulation

Floor type

Location	Construction	Area [m²]	Sub-floor ventilation	Added insulation [R-value]	Covering
Kitchen/Living	Concrete Slab, Unit Below 200mm	30.75	None	No Insulation	Ceramic Tiles 8mm
Bedroom 1	Concrete Slab, Unit Below 200mm	15.17	None	No Insulation	Carpet+Rubber Underlay 18mm
Hall	Concrete Slab, Unit Below 200mm	4.60	None	No Insulation	Ceramic Tiles 8mm
Bath/L'dry	Concrete Slab, Unit Below 200mm	7.57	None	No Insulation	Ceramic Tiles 8mm
Glazed Common Area	Concrete Slab, Unit Below 200mm	28.82	None	No Insulation	Ceramic Tiles 8mm

Ceiling type

Location	Construction material/type	Bulk insulation R-value (may include edge batt values)	Reflective wrap* [yes/no]
Kitchen/Living	Plasterboard on Steel	Bulk Insulation R3.5	
Bedroom 1	Plasterboard on Steel	Bulk Insulation R3.5	
Hall	Plasterboard on Steel	Bulk Insulation R3.5	
Bath/L'dry	Plasterboard on Steel	Bulk Insulation R3.5	
Glazed Common Area	Plasterboard on Steel	Bulk Insulation R3.5	



Ceiling penetrations*

Location	Quantity	Туре	Diameter [mm]	Sealed/unsealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
Bath/L'dry	1	Exhaust Fans	300	Sealed

Ceiling fans

Location	Quantity	Diameter [mm]
Kitchen/Living	1	900
Bedroom 1	1	900

Roof type

Construction	Added insulation	Solar	Roof shade
	[R-value]	absorptance	[colour]
Corrugated Iron Steel Frame	Bulk, Reflective Side Down, Anti-glare Up R1.3	0.50	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]
Ceiling		900	0.75	No
Roof		900	1.5	No
Internal Wall		600	0.75	No

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 Data Available				
Heating system				
Appliance/ system type	Location	Fuel type	Minimum efficiency/ performance	Recommended capacity
No Data Available			•	

* Refer to glossary. Generated on 28 Oct 2024 using BERS Pro v5.2.3 (3.23) for Unit 16, 16-18 Stapleton Parade , St Marys , NSW , 2760



Hot water system

Appliance/ system type	Hot Fuel type Water	Minimum efficiency	Zone 3	Zone 3 Substitution tolerance ranges		Assessed daily load	
		CER Zone	/STC	STC	lower limit	upper limit	[litres]
No Data Available							
Pool/spa equipment							
Appliance/ system type		Fuel type		Minimu efficienc performa	cy/	Recomm capac	
No Data Available							

Onsite Renewable Energy Schedule

System Type	Orientation	System Size Or Generation Capacity
No Data Available		

Battery Schedule

System Type	Size [Battery Storage Capacity]
No Data Available	



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. Assessed floor area the floor area modelied in the software for the NaIHERS assessment. Note, this may not be consistent with the floor area in the design documents. Ceiling penetrations Excludes futures attached to the ceiling, including downlights, vents, exhaust fans, range hoods, chimneys and flues. Excludes futures attached to the ceiling, including downlights, vents, exhaust fans, range hoods, chimneys and flues. Code Coefficient of performance Coefficient of performance Custom windows windows listed in NaHERS 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 fleargy use. 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 ACC Housing Provisions Standard). Exposure category – exposed The net cost to society including, but not limited to, costs to the building user, the environment and energy networks (as defined in the ACC Housing Provisions Standard). Exposure category – exposed The net cost to society including, but not limited to, costs the building user, the environment and energy networks (as defined in the ACC Housing Provisions Standard). Exposure category – exposed	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 invition downlights, exclusing thans, range hoods, chimmeys and flues. Cool Coefficient of performance 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. Custom windows Software that are available on the market in Australia and have a WERS (Window Energy Rating Scheme) rating. Default windows Energy value The representative of a specific type of window product and whose properties have been derived by statistical methods. Energy value The representative of a specific type of window product and whose properties have been derived by statistical methods. Energy value The representative of specific type of window product and whose properties have been derived by statistical methods. Experime category use This is your homes rating without solar or batteries. Energy value The representative set operice your topic statistical product set operice your how as that and the specific set operice your how as that and the specific set operice your how as that and the product set operice your how as that and the product set operice your how as that and the product set operice your how as that and the product set operice your how as that and thow and the product set operice your howes set operice topi		
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Custom windows circumstances it will include garages. 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 use This is your homes rating without solar or batteries. Energy value The is your homes rating without solar or batteries. Energy value The is your homes rating without solar or batteries. Entrance door these signify vertilation costs to solely by reget your homes fait in modelling software and must not be modelled as a door when opening to a minimally vertilated corridor in a Class 2 building. Exposure see exposure categories below. Exposure category – protect terrain with no obstructions e a flat grazing land, ocean-frontage, desert, exposed high-rise unit (usually above 10 floors). Exposure category – protect terrain with numerous, closely spaced obstructions below 10m e.g. subvarial areas. Exposure category – protect terrain with numerous, closely spaced obstructions below 10m e.g. elve and industrial areas. Exposure category – protect terrain with numerous, closely spaced obstructions below 10m e.g. elve and industrial areas. Exposure category – protect terrain with num	COP	
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Exposure category – open terrain with few obstructions at a similar height e.g. grasslands with few well scattered obstructions below 10m, farmland with Exposure category – protected 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 below 10m e.g. suburban housing, heavily vegetated bushland 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 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. an assumed value of medium must be modelled. Acceptable provisional values are cullined in the NatHERS Technical Note and can be found at www.nathers gov.au Reflective wrap (also known as 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 to thave a diffuser. Shading features includes neighbouring buildings, fences, and wing walls, but excludes eaves. <t< th=""><th></th><th></th></t<>		
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Vortical chading features provides shading to the building in the vertical plane and can be parallel or perpendicular to the subject wall/window. Includes	U-value	the rate of heat transfer through a window. The lower the U-value, the better the insulating ability.
Vertical shading features provides shading to the building in the vertical plane and can be parallel or perpendicular to the subject wall/window. Includes	Unconditioned	
privacy screens, other walls in the building (wing walls), fences, other buildings, vegetation (protected or listed heritage trees).	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 device fixed to windows that provides shading e.g. window awnings or screens but excludes horizontal* or vertical shading features* (eg eaves and balconies)	Window shading device	device fixed to windows that provides shading e.g. window awnings or screens but excludes horizontal* or vertical shading features* (eg eaves and balconies)

Nationwide House Energy Rating Scheme[®] NatHERS[®] Certificate No. 0011514361

Generated on 28 Oct 2024 using BERS Pro v5.2.3 (3.23)

Property

Address

Lot/DP NCC class* Floor/all Floors Type

St Marys , NSW , 2760 Lot 32.33.34 DP 35558 2 G of 1 floors New Home

Unit 17, 16-18 Stapleton Parade,

Plans

Main plan Prepared by BGZXE DKT Studio

Construction and environment

Assessed floor area [m2]*

Conditioned* 51.2 Unconditioned* 8.9 Total 60.1 Garage 0.0

Exposure type Suburban NatHERS climate zone 28 Richmond



Accredited assessor

Name **Business name** Email Phone Accreditation No. Assessor Accrediting Organisation **Design Matters National Declaration of interest**

Dean Gorman Greenview Consulting Pty Ltd dean@greenview.net.au 8544 1683 DMN/13/1645

Declaration completed: no conflicts

NCC Requirements

NCC provisions Strate/Territory variation Volume One

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

The more stars the more energy efficient

NATIONWIDE

26.1 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	17.3	8.9
Load limits	N/A	N/A

Features determining load limits

Floor Type	N/A
(lowest conditioned area)	IN/A
NCC climate zone 1 or 2	No
Outdoor living area	No
Outdoor living area ceiling fan	No

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 hstar.com.au/QR/Generate? p=whlhkOJzB When using either link, ensure you are visiting hstar.com.au



* Refer to glossary Generated on 28 Oct 2024 using BERS Pro v5.2.3 (3.23) for Unit 17, 16-18 Stapleton Parade, St Marys, NSW, 2760



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 Standard 2022: NatHERS heating and cooling load limits* 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 onsite renewable energy impact

No Whole of Home performance assessment conducted for this certificate.

Predicted Whole of Home annual impact by appliance

Energy use



Greenhouse gas emissions



Cost



8.8 Star Rating as of 28 Oct 2024

······································					HOUSE
Certificate check	Approva	Approval Stage Construction Stage			
The checklist covers important items impacting the dwelling's ratings. It is recommended that the accuracy of the whole certificate is checked.	Assessor checked	Consent Authority/ Surveyor checked	Builder checked	Consent Authority Surveyor checked	Occupancy/Other
Note: The boxes indicate when and by whom each item should be checked. It is not mandatory to complete this checklist.	Assesso	Consen	Builder	Consent	Occupa
Genuine certificate check		r			
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 what is shown					



Certificate check Continued		Approval Stage		Construction Stage	
		Consent Authority/ Surveyor checked	Builder checked	Consent Authority Surveyor checked	Occupancy/Other
Additional NCC requirements for thermal performance (not inclu	ided in tl	he NatHE	RS asse	essment)	
Thermal bridging					
Does the dwelling meet the NCC requirement for thermal bridging?					
Insulation installation method					

Building sealing

Has the insulation been installed according to the NCC requirements?

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	assessi	nent)	
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



Room schedule

Room	Zone Type	Area [m ²]
Kitchen/Living	Kitchen/Living	31.74
Bedroom 1	Bedroom	15.18
Hall	Daytime	4.25
Bath/L'dry	Unconditioned	8.92

Window and glazed door type and performance

Default windows*

Window ID	Window Maximum		SHGC*	Substitution tolerance ranges		
WINDOW ID	Description	U-value*		SHGC lower limit	SHGC upper limit	
ALM-004-01 A	Aluminium B DG Air Fill Clear-Clear	4.8	0.59	0.56	0.62	
ALM-003-01 A	Aluminium A DG Air Fill Clear-Clear	4.8	0.51	0.48	0.54	

Custom windows*

Window ID	Window	Maximum SHGC*		Substitution to	Substitution tolerance ranges		
window iD	Description	U-value*	3660	SHGC lower limit	SHGC upper limit		
No Data Avail	able						

Window and glazed door schedule

Location	Window ID	Window no.	Height [mm]	Width [mm]	Window type	Opening %	Orientation	Window shading device*
Kitchen/Living	ALM-004-01 A	W7	2700	3000	Sliding	35	Ν	No
Bedroom 1	ALM-003-01 A	W29	1550	1550	Awning	10	Ν	No
Bath/L'dry	ALM-003-01 A	W31	1000	850	Awning	70	E	No

Roof window* type and performance value

Default roof windows*

Window ID	Window	Maximum	SHGC*	Substitution to	lerance ranges
Window ID	Description	U-value*	3160	SHGC lower limit	SHGC upper limit
No Data Availa	able				



Custom roof windows*

Window ID	Window	Maximum	SHCC*	Substitution to	lerance ranges	
Window ID	Description	U-value*	SHGC*	SHGC lower limit SHGC upper li		
No Data Available						

Roof window* schedule

Location	Window ID	Window no.	Opening %	Height [mm]	Width [mm]	Orientation	Outdoor shade	Indoor shade
No Data Avai	lable							

Skylight* type and performance

 Skylight ID
 Skylight description
 Skylight shaft reflectance

 No Data Available
 Volume
 Volum
 Volume
 Volume

Skylight* schedule

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

External door schedule

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

External wall type

Wall	Wall	Solar	Wall shade	Bulk insulation	Reflective
ID	type	absorptance	[colour]	[R-value]	wall wrap*
EW-1	Cavity Brick	0.50		Foil, Reflective both sides	Yes

External wall schedule

Location	Wall ID	Height [mm]	Width [mm]	Orientation	Horizontal shading feature* maximum projection [mm]	Vertical shading feature [yes/no]
Kitchen/Living	EW-1	2700	4095	Ν	2600	Yes
Bedroom 1	EW-1	2700	700	W	4100	No
Bedroom 1	EW-1	2700	3500	Ν	0	Yes
Bedroom 1	EW-1	2700	4395	E	0	No

0011514361 NatHERS Certificate

8.8 Star Rating as of 28 Oct 2024



Location	Wall ID	Height [mm]	Width [mm]	Orientation	Horizontal shading feature* maximum projection [mm]	Vertical shading feature [yes/no]
Hall	EW-1	2700	1390	E	0	No
Bath/L'dry	EW-1	2700	1795	E	2300	No

Internal wall type

Wall ID	Wall type	Area [m ²]	Bulk insulation
IW-001	Steel Stud Frame, Direct Fix Plasterboard	29.70	No insulation
IW-002	Cavity brick	32.40	No Insulation

Floor type

Location	Construction	Area [m²]	Sub-floor ventilation	Added insulation [R-value]	Covering
Kitchen/Living	Concrete Slab, Unit Below 200mm	31.74	None	No Insulation	Ceramic Tiles 8mm
Bedroom 1	Concrete Slab, Unit Below 200mm	15.18	None	No Insulation	Carpet+Rubber Underlay 18mm
Hall	Concrete Slab, Unit Below 200mm	4.25	None	No Insulation	Ceramic Tiles 8mm
Bath/L'dry	Concrete Slab, Unit Below 200mm	8.92	None	No Insulation	Ceramic Tiles 8mm

Ceiling type

Location	Construction material/type	Bulk insulation R-value (may include edge batt values)	Reflective wrap* [yes/no]
Kitchen/Living	Plasterboard on Steel	Bulk Insulation R3.5	
Bedroom 1	Plasterboard on Steel	Bulk Insulation R3.5	
Hall	Plasterboard on Steel	Bulk Insulation R3.5	
Bath/L'dry	Plasterboard on Steel	Bulk Insulation R3.5	

Ceiling penetrations*

Location	Quantity	Туре	Diameter [mm]	Sealed/unsealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
Bath/L'dry	1	Exhaust Fans	300	Sealed



Ceiling fans

Location	Quantity	Diameter [mm]
Kitchen/Living	1	900
Bedroom 1	1	900

Roof type

Construction	Added insulation	Solar	Roof shade
	[R-value]	absorptance	[colour]
Corrugated Iron Steel Frame	Bulk, Reflective Side Down, Anti-glare Up R1.3	0.50	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]
Ceiling		900	0.75	No
Roof		900	1.5	No
Internal Wall		600	0.75	No

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	Lo	cation	Fuel type	eff	nimum iciency/ ormance		mended acity
No Data Available							
Heating system							
Appliance/ system type	Lo	cation	Fuel type	eff	nimum iciency/ ormance		mended acity
No Data Available							
Hot water system							
Appliance/ system type	Fuel type	Hot Water CER Zone	Minimum efficiency /STC	Zone 3 STC		ubstitution e ranges upper limit	Assessed daily load [litres]

No Data Available

0011514361 NatHERS Certificate	8.8 Star Rating as of 28 Oct 2024		HOUSE		
Pool/spa equipment					
Appliance/ system type	Fuel type	Minimum efficiency/ performance	Recommended capacity		
No Data Available					
Onsite Renewable Energy Schedule					

System Type	Orientation	System Size Or Generation Capacity
No Data Available		

Battery Schedule

System Type	Size [Battery Storage Capacity]
No Data Available	



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. Assessed floor area 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 futures attached to the ceiling, including downlights, vents, exhaust fans, range hoods, chimneys and flues. COP Coefficient of performance 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 grages. Custom windows windows listed in NaHERS 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 feargy value 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 ACC Hoxing Provisions Standard). Exposure category – exposed The net cost to society including, but not limited to, costs to the building user, the environment and energy networks (as defined in the ACC Hoxing Provisions Standard). Exposure category – exposed The net cost to society including, but not limited to, costs the building in the inventions below 10 flooros). Exposure catego	AFRC	Australian Fenestration Rating Council
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Custom windows circumstances it will include garages. 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 use This is your homes rating without solar or batteries. Energy value The is your homes rating without solar or batteries. Energy value The is your homes rating without solar or batteries. Entrance door these signify vertilation costs to solely by reget your homes fait in modelling software and must not be modelled as a door when opening to a minimally vertilated corridor in a Class 2 building. Exposure see exposure categories below. Exposure category – protect terrain with no obstructions e a flat grazing land, ocean-frontage, desert, exposed high-rise unit (usually above 10 floors). Exposure category – protect terrain with numerous, closely spaced obstructions below 10m e.g. subvarial areas. Exposure category – protect terrain with numerous, closely spaced obstructions below 10m e.g. elve and industrial areas. Exposure category – protect terrain with numerous, closely spaced obstructions below 10m e.g. elve and industrial areas. Exposure category – protect terrain with num	COP	
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Default withows methods. EER Energy Value 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 – exposure categories below. Exposure category – exposure category = open Exposure category – open 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 no obstructions e.g. flat grazing land, ocean-frontage, desert, exposed high-rise unit (usually above 10 floors). Exposure category – protected terrain with numerous, closely spaced obstructions over 10 m.g. guidy 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 the NCC groups buildings of attached Class 10a buildings. Definiton: all energities on ear on assumed value flat does not represent an actual value. For example, if the wall colour is unspecified in the documentation, a provisional value of medium 'must's the medelled corra ane bequid at Www.abcLego vo.a.	Custom windows	windows listed in NatHERS software that are available on the market in Australia and have a WERS (Window Energy Rating Scheme) rating.
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Exposure category – open terrain with few obstructions at a similar height e.g. grasslands with few well scattered obstructions below 10m, farmland with Exposure category – protected 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 below 10m e.g. suburban housing, heavily vegetated bushland 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 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. an assumed value of medium must be modelled. Acceptable provisional values are cullined in the NatHERS Technical Note and can be found at www.nathers gov.au Reflective wrap (also known as 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 to thave a diffuser. Shading features includes neighbouring buildings, fences, and wing walls, but excludes eaves. <t< th=""><th></th><th></th></t<>		
Exposure category - protected terrain with numerous, closely spaced obstructions below 10m e.g. suburban housing, heavily vegetated bushland 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 (Dass 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 modeled. Acceptable provisional values are outlined in the NatHERS technical Note and can be found at www.abct.gov.au Recommended capacity can be applied to walls, roofs and ceilings. When combined with an appropriate airgap and emissivity value, it provides insulative properties. Rof 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. Stading features includes neighbouring buildings, fences, and wing walls, but excludes eaves. Skylight (also known as roof lights) for NatH	Exposure category – exposed	
Exposure category – suburban 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 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 10 a 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. an assumed value that does not represent an actual value. For example, if the well colour is unspecified in the documentation, a provisional value of fmedium must be modelled. Acceptable provisional values are outlined in the NatHERS Technical Note and can be found at www.anthers.gov.au Recommended capacity can be applied to walls, roofs and ceilings. When combined with an appropriate airgap and emissivity value, it provides insulative properties. Roof window for NatHERS this is typically a moulded unit with flexible reflective tubing (light well) and a diffuser at ceiling level. Shading features includes neighbouring buildings, fences, and wing walls, but excludes eaves. Skylight (also known as roof lights) for NatHERS this is typically a moulded uni with flexible reflective tubing (light well) and a diffuser at		scattered sheds, lightly vegetated bush blocks, elevated units (e.g. above 3 floors).
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Vortical chading features provides shading to the building in the vertical plane and can be parallel or perpendicular to the subject wall/window. Includes	U-value	the rate of heat transfer through a window. The lower the U-value, the better the insulating ability.
Vertical shading features provides shading to the building in the vertical plane and can be parallel or perpendicular to the subject wall/window. Includes	Unconditioned	
privacy screens, other walls in the building (wing walls), fences, other buildings, vegetation (protected or listed heritage trees).	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 device fixed to windows that provides shading e.g. window awnings or screens but excludes horizontal* or vertical shading features* (eg eaves and balconies)	Window shading device	device fixed to windows that provides shading e.g. window awnings or screens but excludes horizontal* or vertical shading features* (eg eaves and balconies)

Nationwide House Energy Rating Scheme[®] NatHERS[®] Certificate No. 0011514338

Generated on 28 Oct 2024 using BERS Pro v5.2.3 (3.23)

Property

Address

Lot/DP NCC class* Floor/all Floors Type

St Marys , NSW , 2760 Lot 32.33.34 DP 35558 2 G of 1 floors New Home

Unit 18, 16-18 Stapleton Parade,

Plans

Main plan Prepared by BGZXE DKT Studio

Construction and environment

Assessed floor area [m2]*

Conditioned* 60.1 Unconditioned* 0.0 60.1 Total Garage 0.0

Exposure type Suburban NatHERS climate zone 28 Richmond



Accredited assessor

Name **Business name** Email Phone Accreditation No. Assessor Accrediting Organisation **Design Matters National Declaration of interest**

NCC provisions Strate/Territory variation DMN/13/1645

dean@greenview.net.au

Greenview Consulting Pty Ltd

Declaration completed: no conflicts

NCC Requirements

Volume One

Yes

Dean Gorman

8544 1683

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

The more stars the more energy efficient

NATIONWIDE

17.8 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
odelled	10.4	7.3
oad limits	N/A	N/A

Features determining load limits

L

Floor Type	N/A
(lowest conditioned area)	IN/A
NCC climate zone 1 or 2	No
Outdoor living area	No
Outdoor living area ceiling fan	No

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 hstar.com.au/QR/Generate? p=IVuBxigQJ When using either link, ensure you are visiting hstar.com.au



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 Standard 2022: NatHERS heating and cooling load limits* 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 onsite renewable energy impact

No Whole of Home performance assessment conducted for this certificate.

Predicted Whole of Home annual impact by appliance

Energy use



Greenhouse gas emissions

No Whole of Home performance assessment conducted for this certificate

Cost



9.3 Star Rating as of 28 Oct 2024

Certificate check	Approva	I Stage	Construe Stage	ction	HOUSE
The checklist covers important items impacting the dwelling's ratings. It is recommended that the accuracy of the whole certificate is checked.	Assessor checked	Consent Authority/ Surveyor checked	checked	Consent Authority Surveyor checked	Occupancy/Other
Note: The boxes indicate when and by whom each item should be checked. It is not mandatory to complete this checklist.	Assesso	Consent Surveyo	Builder checked	Consent Surveyo	Occupar
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 what is shown					



				HOUNDE
Approva	I Stage	Constru Stage	ction	
checked	uthority/ checked	ecked	uthority checked	y/Other
Assessor	Consent A Surveyor c	Builder ch	Consent A Surveyor o	Occupancy/Other
uded in t	he NatHE	RS asse	ssment)	
e performa	ance asses	ssment is i	not conduc	ted)
NatHERS	assessi	nent)		
	e performa	Ided in the NatHE Identities Identities	Approval Stage Stage Approval Stage Stage <	Stage Stage

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



Room schedule

Room	Zone Type	Area [m ²]
Kitchen/Living	Kitchen/Living	32
Bedroom 1	Bedroom	15.19
Hall	Daytime	4.25
Bath/L'dry	Daytime	8.66

Window and glazed door type and performance

Default windows*

Window ID	Window	Maximum SHGC* -		Substitution to	lerance ranges
	Description	U-value*	3660	SHGC lower limit	SHGC upper limit
ALM-004-01 A	Aluminium B DG Air Fill Clear-Clear	4.8	0.59	0.56	0.62
ALM-003-01 A	Aluminium A DG Air Fill Clear-Clear	4.8	0.51	0.48	0.54

Custom windows*

Window ID	Window	Maximum	SHGC*	Substitution to	lerance ranges
	Description	U-value*	3160	SHGC lower limit	SHGC upper limit
No Data Avail	able				

Window and glazed door schedule

Location	Window ID	Window no.	Height [mm]	Width [mm]	Window type	Opening %	Orientation	Window shading device*
Kitchen/Living	ALM-004-01 A	W17	2700	3000	Sliding	35	Ν	No
Bedroom 1	ALM-003-01 A	W24	1550	1650	Awning	10	Ν	No

Roof window* type and performance value

Default roof windows*

Vindow ID	Window	Maximum	SHGC*	Substitution tolerance ranges	
	Description	U-value*	3660	SHGC lower limit	SHGC upper limit
No Data Avail	lable				
Custom roof w	vindows*				
Custom roof w	vindows* Window	Maximum	SHGC*	Substitution to	lerance ranges



Roof window* schedule

Location	Window ID	Window no.	Opening %	Height [mm]	Width [mm]	Orientation	Outdoor shade	Indoor shade
No Data Avai	lable							

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 Avail	able					

External door schedule

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

External wall type

Wall	Wall	Solar	Wall shade	Bulk insulation	Reflective
ID	type	absorptance	[colour]	[R-value]	wall wrap*
EW-1	Cavity Brick	0.50		Foil, Reflective both sides	Yes

External wall schedule

Location	Wall ID	Height [mm]	Width [mm]	Orientation	Horizontal shading feature* maximum projection [mm]	Vertical shading feature [yes/no]
Kitchen/Living	EW-1	2700	4095	Ν	2600	Yes
Bedroom 1	EW-1	2700	4400	W	0	No
Bedroom 1	EW-1	2700	3500	Ν	0	Yes
Bedroom 1	EW-1	2700	700	E	4100	No

Internal wall type

Wall ID	Wall type	Area [m ²]	Bulk insulation
IW-001	Cavity brick	31.32	No Insulation

Wall ID	Wall type	Area [m ²]	Bulk insulation	UNREA EN AN SURIA
IW-002	Steel Stud Frame, Direct Fix Plasterboard	32.40	No insulation	

Floor type

Location	Construction	Area [m²]	Sub-floor ventilation	Added insulation [R-value]	Covering
Kitchen/Living	Concrete Slab, Unit Below 200mm	32.00	None	No Insulation	Ceramic Tiles 8mm
Bedroom 1	Concrete Slab, Unit Below 200mm	15.19	None	No Insulation	Carpet+Rubber Underlay 18mm
Hall	Concrete Slab, Unit Below 200mm	4.25	None	No Insulation	Ceramic Tiles 8mm
Bath/L'dry	Concrete Slab, Unit Below 200mm	8.66	None	No Insulation	Ceramic Tiles 8mm

Ceiling type

Location	Construction material/type	Bulk insulation R-value (may include edge batt values)	Reflective wrap* [yes/no]
Kitchen/Living	Plasterboard on Steel	Bulk Insulation R3.5	
Bedroom 1	Plasterboard on Steel	Bulk Insulation R3.5	
Hall	Plasterboard on Steel	Bulk Insulation R3.5	
Bath/L'dry	Plasterboard on Steel	Bulk Insulation R3.5	

Ceiling penetrations*

Location	Quantity	Туре	Diameter [mm]	Sealed/unsealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
Bath/L'dry	1	Exhaust Fans	300	Sealed

Ceiling fans

Location	Quantity	Diameter [mm]
Kitchen/Living	1	900
Bedroom 1	1	900

Roof type

Construction	Added insulation	Solar	Roof shade
	[R-value]	absorptance	[colour]
Corrugated Iron Steel Frame	Bulk, Reflective Side Down, Anti-glare Up R1.3	0.50	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]
Ceiling		900	0.75	No
Roof		900	1.5	No
Internal Wall		600	0.75	No

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	Lo	Location Fuel type		Minimum efficiency/ performance		Recommended capacity	
No Data Available							
Heating system							
Appliance/ system type	Lo	Minimum Location Fuel type efficiency performan		ciency/	Recommended capacity		
No Data Available							
Hot water system							
Appliance/ system type	Fuel type	Hot Water CER Zone	Minimum efficiency /STC	Zone 3 STC -		ubstitution e ranges upper limit	Assessed daily load [litres]
No Data Available							
Pool/spa equipment							
Appliance/ system type		Fuel type		Minimum efficiency/ performance		Recommended capacity	
No Data Available							
Onsite Renewable	Energy Sch	edule					
System Type O	ientation System Size Or Generation Capacity						

No Data Available



Battery Schedule

System Type

Size [Battery Storage Capacity]

No Data Available



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. Assessed floor area The floor area in the design documents. Ceiling penetrations Features hit require a penetration to the ceiling with small holes Innucly the ceiling for wining, e.g. ceiling fans; pendaril lights, and Cooling based on standard occupancy assumptions. In some circumstances till include garages. Conditioned a zone within a dwelling that is expected to require heating and cooling based on standard occupancy assumptions. In some circumstances till include garages. Custom windows windows listed in NatHERS software that are available on the market in Australia and have a WERS (Window Energy Rating windows that are representative of a specific type of window product and whose properties have been derived by statistical methods. ER Energy Efficiency Ratio, measure of how much cooling can be achieved by an air conditioner for a single KWh of electricity input Energy walue Thesis your homes rating without solar or batteries. Entrance door these signify evolution Standard). Exposure category – exposed terrain with numerous, closely spaced obstructions being marking desert, exposed high-rise unit (usualy above 10 floors). Exposure category – protected terrain with numerous, closely spaced obstructions being marking desert, exposed, norwing, e.g. evolution the working e.g. evolution the working e.g. evolution the working e.g. evolution the working e.g. evolutindustation e.g. e	AFRC	Australian Fenestration Rating Council	
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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 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 foll) can be applied to walls, roofs and ceilings. When combined with an appropriate airgap and emissivity value, it provides insulative properties. Shading features includes neighbouring buildings, fences, and wing walls, but excludes eaves. 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. 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. 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	(NCC) Class		
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