

# Nationwide House Energy Rating Scheme®

## Multiple Class 1 dwellings Summary

### NatHERS® Certificate No. 0012053760

Generated on 16 Jul 2025 using BERS Pro v5.2.4 (3.23)

#### Property

**Address** 139-141 Riverview Road,  
AVALON BEACH , NSW , 2107

**Lot/DP** Lot 1 and 2 DP 833902

**NatHERS Climate Zone** 56 Mascot (Sydney Airport)



**Accredited assessor**

**Name** Joseph Lorriman

**Business name** Evergreen Energy Consultants Pty Ltd

**Email** enquiries@evergreenec.com.au

**Phone** 1300 584 010

**Accreditation No.** DMN/16/1742

**Assessor Accrediting Organisation**  
Design Matters National



#### Verification

To verify this certificate, scan the QR code or visit [hstar.com.au/QR/Generate?p=SwUVHAjwO](https://hstar.com.au/QR/Generate?p=SwUVHAjwO). When using either link, ensure you are visiting [hstar.com.au](https://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](https://www.abcb.gov.au).

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

#### Summary of all dwellings

Certificate number and link	Unit Number	Heating load (load limit) [MJ/m <sup>2</sup> /p.a.]	Cooling load (load limit) [MJ/m <sup>2</sup> /p.a.]	Total load [MJ/m <sup>2</sup> /p.a.]	Star Rating	Whole of Home Rating
<a href="#">0011632841-02</a>		4.1 (N/A)	6.4 (N/A)	10.5	9.3	0



## Explanatory notes

### About this ratings

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. The Whole of Home performance rating uses information about the home's appliances and onsite energy production and storage to estimate the homes societal cost .

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

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® Certificate No. 0011632841-02

Generated on 16 Jul 2025 using BERS Pro v5.2.4 (3.23)

### Property

**Address** 139-141 Riverview Road,  
AVALON BEACH , NSW , 2107

**Lot/DP** Lot 1 and 2 DP 833902

**NCC class\*** 1a

**Floor/all Floors** G of 3 floors

**Type** New Home

### Plans

**Main plan** 2023\_152 Revision 2-22/05/2025

**Prepared by** CM Studio

### Construction and environment

<b>Assessed floor area [m2]*</b>	<b>Exposure type</b>
Conditioned* 484.5	Suburban
Unconditioned* 16.6	<b>NatHERS climate zone</b>
Total 501.2	56 Mascot (Sydney Airport)
Garage 0.0	



### Accredited assessor

**Name** Joseph Lorriman

**Business name** Evergreen Energy Consultants Pty Ltd

**Email** enquiries@evergreenec.com.au

**Phone** 1300 584 010

**Accreditation No.** DMN/16/1742

**Assessor Accrediting Organisation**

Design Matters National

**Declaration of interest** Declaration completed: no conflicts

### NCC Requirements

**NCC provisions** Volume Two

**State/Territory variation** Yes

### National Construction Code (NCC) requirements

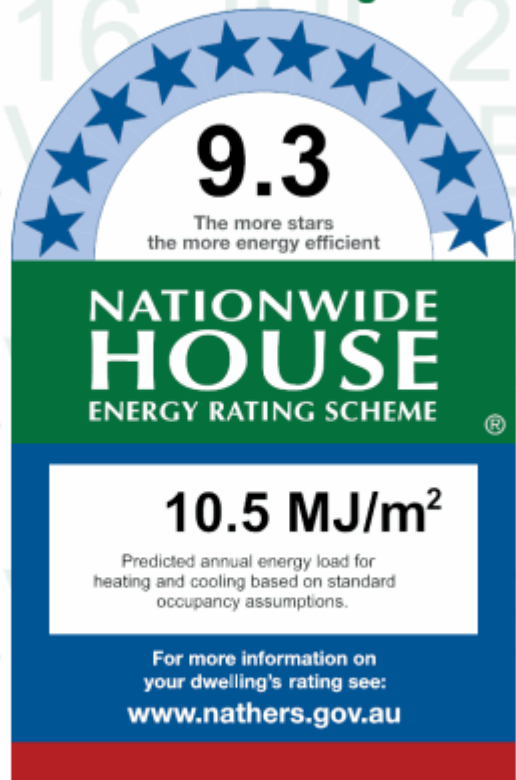
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Note, variations and additions to the NCC energy efficiency requirements may apply in some states and territories.

### Thermal performance Star rating



### Thermal performance [MJ/m²]

Limits taken from ABCB Standard 2022

	Heating	Cooling
<b>Modelled</b>	4.1	6.4
<b>Load limits</b>	N/A	N/A

### Features determining load limits

Floor Type (lowest conditioned area)	CSOG
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?](http://hstar.com.au/QR/Generate?p=BfEntsGHB)  
[p=BfEntsGHB](http://hstar.com.au/QR/Generate?p=BfEntsGHB) .  
When using either link,  
ensure you are visiting  
[hstar.com.au](http://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

No Whole of Home performance assessment conducted for this certificate

### Greenhouse gas emissions

No Whole of Home performance assessment conducted for this certificate

### Cost

No Whole of Home performance assessment conducted for this certificate





## Certificate check

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

Note: The boxes indicate when and by whom each item should be checked. It is not mandatory to complete this checklist.

	Approval Stage		Construction Stage		Occupancy/Other
	Assessor checked	Consent Authority/ Surveyor checked	Builder checked	Consent Authority Surveyor checked	
<b>Genuine certificate check</b>					
Does this Certificate match the one available at the web address or QR code verification link on the front page?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Does the NatHERS certificate number on the NatHERS-stamped plans match the number on this Certificate?		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Thermal performance check</b>					
<b>Windows and glazed doors</b>					
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>External walls</b>					
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Does the external wall shade (colour) match what is shown in the 'External wall type' table on this Certificate?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Floor</b>					
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Ceiling penetrations*</b>					
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Ceiling</b>					
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Roof</b>					
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>Apartment entrance doors (NCC Class 2 assessments only)</b>					
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.	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
<b>Exposure*</b>					
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".	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>
<b>Heating and cooling load limits*</b>					
Do the load limits settings (shown on page 1) match what is shown	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



## Certificate check

Continued

	Approval Stage		Construction Stage		
	Assessor checked	Consent Authority/ Surveyor checked	Builder checked	Consent Authority Surveyor checked	Occupancy/Other

### Additional NCC requirements for thermal performance (not included in the NatHERS assessment)

#### Thermal bridging

Does the dwelling meet the NCC requirement for thermal bridging?

☐ ☐ ☐ ☐

#### Insulation installation method

Has the insulation been installed according to the NCC requirements?

☐ ☐ ☐

#### Building sealing

Does the dwelling meet the NCC requirements for Building Sealing?

☐ ☐ ☐ ☐

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

#### Appliances

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

☐ ☐ ☐ ☐ ☐

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

☐ ☐ ☐ ☐ ☐

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

☐ ☐ ☐ ☐ ☐

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

☐ ☐ ☐ ☐ ☐

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

☐ ☐ ☐ ☐ ☐

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

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

☐ ☐ ☐ ☐

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

☐ ☐ ☐ ☐

#### Provisional values\* check

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

☐ ☐ ☐ ☐

#### Other NCC requirements

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

#### Additional notes



## Room schedule

Room	Zone Type	Area [m <sup>2</sup> ]
Kitchen/Living	Kitchen/Living	123.33
Rumpus	Living	46.43
Pantry	Daytime	14.78
PDR	Daytime	3.51
Gym & Wellness	Daytime	37.33
Bathroom	Daytime	7.07
Sauna	Daytime	4.92
Linen	Daytime	3.51
Lift 1	Unconditioned	3.87
Bedroom 1	Bedroom	17.02
ENS 1	Nighttime	5.34
Bedroom 2	Bedroom	17.31
ENS 2	Nighttime	4.99
Bedroom 3	Bedroom	17.31
ENS 3	Nighttime	4.19
Laundry	Unconditioned	10.8
Master Suite	Bedroom	34.99
WIR	Nighttime	16.2
Master WC	Nighttime	1.69
Master ENS	Nighttime	14.36
Entry	Daytime	34.71
Lift 2	Unconditioned	3.9
Mud Rm	Daytime	4.78
Services/Store	Daytime	8.55
Guest Suite	Bedroom	12.87
WC	Unconditioned	5.83
Library/Study	Living	23.85
Hallway	Daytime	43.48



## Window and glazed door *type and performance*

### Default windows\*

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

### Custom windows\*

Window ID	Window Description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				SHGC lower limit	SHGC upper limit
WDR-012-008	Timber Sliding Door DG AGG PLUS Clr 4/12/4	1.6	0.42	0.40	0.44
TND-212-008	Timber Hinged Door DG 4Clr/12Ar/4ET	1.8	0.43	0.41	0.45
WDR-001-008	Timber Fixed Window DG AGG PLUS Clr 4/12/4	1.5	0.54	0.51	0.56

## Window and glazed door *schedule*

Location	Window ID	Window no.	Height [mm]	Width [mm]	Window type	Opening %	Orientation	Window shading device*
Kitchen/Living	WDR-012-008-001	W22	3400	5280	Sliding	45	N	No
Kitchen/Living	WDR-012-008-001	W21	3400	2250	Sliding	60	E	Yes
Kitchen/Living	TND-212-008-001	W19	3400	1800	Casement	90	N	No
Kitchen/Living	WDR-012-008-001	W20	3400	4180	Sliding	60	N	No
Kitchen/Living	WDR-012-008-001	W24	3400	7800	Sliding	90	W	Yes
Rumpus	WDR-012-008-001	W18	3400	5150	Sliding	60	W	No
Gym & Wellness	WDR-012-008-001	n/a	3400	4660	Sliding	60	W	No
Bedroom 1	WDR-012-008-001	W25	2700	3000	Sliding	45	W	Yes
ENS 1	WDR-012-008-001	n/a	2700	800	Sliding	90	N	Yes
Bedroom 2	WDR-012-008-001	n/a	2700	3000	Sliding	45	W	Yes
Bedroom 3	WDR-012-008-001	n/a	2700	3000	Sliding	45	W	Yes
Laundry	WDR-012-008-001	n/a	2700	1050	Sliding	90	W	Yes
Master Suite	WDR-012-008-001	n/a	2700	1730	Sliding	90	N	Yes
Master Suite	WDR-012-008-001	n/a	2700	4180	Sliding	60	N	Yes
Master Suite	WDR-012-008-001	n/a	2700	4200	Sliding	90	W	Yes
Master Suite	WDR-012-008-001	n/a	2700	4500	Sliding	90	N	Yes
Master ENS	WDR-012-008-001	n/a	2700	1150	Sliding	90	S	Yes

\* Refer to glossary.





Location	Window ID	Window no.	Height [mm]	Width [mm]	Window type	Opening %	Orientation	Window shading device*
Entry	TND-212-008-001	n/a	2700	1940	Casement	90	E	No
Entry	WDR-001-008-002	n/a	2700	1940	Fixed	00	W	Yes
Guest Suite	WDR-012-008-001	n/a	2700	2550	Sliding	45	W	Yes
WC	WDR-012-008-001	n/a	2700	1650	Sliding	90	W	Yes
Library/Study	WDR-012-008-001	n/a	2700	3600	Sliding	90	N	Yes
Library/Study	WDR-012-008-001	W3	2700	4400	Sliding	90	W	Yes

## Roof window\* type and performance value

### Default roof windows\*

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

### Custom roof windows\*

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

## Roof window\* schedule

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

## Skylight\* type and performance

Skylight ID	Skylight description	Skylight shaft reflectance
GEN-04-008a	Double-glazed clear, Timber and Aluminium Frame	0.5

## Skylight\* schedule

Location	Skylight ID	Skylight No.	Skylight shaft length [mm]	Area [m <sup>2</sup> ]	Orientation	Outdoor shade	Diffuser
Pantry	GEN-04-008a	S7	300	1.25	N	None	No
Pantry	GEN-04-008a	S8	300	1.25	N	None	No
Gym & Wellness	GEN-04-008a	S6	300	3.06	N	None	No
Entry	GEN-04-008a	S5	350	10.24	N	None	No



Location	Skylight ID	Skylight No.	Skylight shaft length [mm]	Area [m <sup>2</sup> ]	Orientation	Outdoor shade	Diffuser
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## External door schedule

Location	Height [mm]	Width [mm]	Opening %	Orientation
Bathroom	3400	1100	90	W
Mud Rm	2700	890	90	E
Services/Store	2700	890	90	E

## External wall type

Wall ID	Wall type	Solar absorptance	Wall shade [colour]	Bulk insulation [R-value]	Reflective wall wrap*
EW-1	Cavity Brick	0.30		Foil Anti-glare one side and Reflective other of the Bulk Insulation R2	Yes
EW-2	Earth, internally lined Steel Stud Frame	0.30		Bulk Insulation, Air Gap R2	No

## External wall schedule

Location	Wall ID	Height [mm]	Width [mm]	Orientation	Horizontal shading feature* maximum projection [mm]	Vertical shading feature [yes/no]
Kitchen/Living	EW-1	3400	5300	N	1600	Yes
Kitchen/Living	EW-1	3400	4500	E	100	Yes
Kitchen/Living	EW-1	3400	7800	N	600	Yes
Kitchen/Living	EW-2	3400	1945	N	100	No
Kitchen/Living	EW-2	3400	3445	E	100	No
Kitchen/Living	EW-2	3400	145	S	100	No
Kitchen/Living	EW-2	3400	1265	E	135	No
Kitchen/Living	EW-2	3400	1131	SE	141	No
Kitchen/Living	EW-2	3400	985	SE	246	No
Kitchen/Living	EW-2	3400	1000	S	400	No
Kitchen/Living	EW-2	3400	1044	S	577	No
Kitchen/Living	EW-2	3400	1345	SW	1788	No
Kitchen/Living	EW-2	3400	949	SW	4696	No
Kitchen/Living	EW-2	3400	5645	S	400	No
Kitchen/Living	EW-1	3400	10200	W	100	Yes



Location	Wall ID	Height [mm]	Width [mm]	Orientation	Horizontal shading feature* maximum projection [mm]	Vertical shading feature [yes/no]
Rumpus	EW-2	3400	5345	E	500	No
Rumpus	EW-1	3400	7440	W	3000	Yes
Pantry	EW-2	3400	2345	E	4900	No
Pantry	EW-2	3400	8100	S	100	No
Pantry	EW-2	3400	300	W	5800	No
PDR	EW-2	3400	1945	S	100	No
PDR	EW-2	3400	1845	E	100	No
Gym & Wellness	EW-2	3400	6300	N	500	No
Gym & Wellness	EW-2	3400	4100	E	100	No
Gym & Wellness	EW-2	3401	1845	E	500	No
Gym & Wellness	EW-1	3400	5945	W	3000	Yes
Bathroom	EW-1	3400	1990	W	3000	No
Sauna	EW-2	3400	1990	E	500	No
Linen	EW-2	2700	1845	E	100	No
Linen	EW-2	2700	1945	S	100	No
Lift 1	EW-2	2700	2045	E	100	No
Lift 1	EW-2	2700	1600	N	6600	No
Bedroom 1	EW-1	2700	3945	N	100	No
Bedroom 1	EW-1	2700	3945	W	100	Yes
ENS 1	EW-1	2700	1845	N	100	No
ENS 1	EW-2	2700	2945	E	100	No
Bedroom 2	EW-1	2700	3990	W	100	Yes
Bedroom 3	EW-1	2700	3990	W	100	Yes
Laundry	EW-1	2700	2190	W	100	Yes
Master Suite	EW-1	2700	3500	E	100	No
Master Suite	EW-1	2700	7500	N	100	Yes
Master Suite	EW-1	2700	4745	W	100	Yes
Master Suite	EW-1	2700	4500	N	600	Yes
WIR	EW-1	2700	600	E	5325	No
WIR	EW-1	2700	7045	S	100	No
Master ENS	EW-1	2700	5845	S	100	No



Location	Wall ID	Height [mm]	Width [mm]	Orientation	Horizontal shading feature* maximum projection [mm]	Vertical shading feature [yes/no]
Master ENS	EW-1	2700	2845	W	100	No
Entry	EW-1	2700	3300	E	100	Yes
Entry	EW-1	2700	200	S	100	No
Entry	EW-1	2700	1265	E	103	No
Entry	EW-1	2700	1131	SE	71	No
Entry	EW-1	2700	985	SE	112	No
Entry	EW-1	2700	1000	S	100	No
Entry	EW-1	2700	1044	S	103	No
Entry	EW-1	2700	1345	SW	141	No
Entry	EW-1	2700	894	SW	112	No
Entry	EW-1	2700	3600	W	100	Yes
Entry	EW-1	2700	800	N	11400	No
Lift 2	EW-1	2700	2045	E	0	No
Lift 2	EW-1	2700	1945	S	100	No
Mud Rm	EW-1	2700	2290	E	0	No
Services/Store	EW-1	2700	4045	E	0	No
Services/Store	EW-1	2700	2145	N	900	No
Guest Suite	EW-1	2700	3690	W	900	Yes
WC	EW-1	2700	2090	W	900	Yes
Library/Study	EW-1	2700	4600	N	100	No
Library/Study	EW-1	2700	2700	E	100	No
Library/Study	EW-1	2700	5245	W	900	Yes
Hallway	EW-2	2700	1045	N	100	No
Hallway	EW-2	2700	2900	E	100	No
Hallway	EW-2	2701	6445	E	1700	No
Hallway	EW-2	2700	1290	E	100	No
Hallway	EW-2	2700	145	S	100	No
Hallway	EW-2	2700	1265	E	135	No
Hallway	EW-2	2700	1131	SE	106	No
Hallway	EW-2	2700	985	SE	79	No
Hallway	EW-2	2700	1000	S	100	No



Location	Wall ID	Height [mm]	Width [mm]	Orientation	Horizontal shading feature* maximum projection [mm]	Vertical shading feature [yes/no]
Hallway	EW-1	2700	1044	S	79	No
Hallway	EW-1	2700	1345	SW	141	No
Hallway	EW-1	2700	839	SW	671	No

## Internal wall type

Wall ID	Wall type	Area [m <sup>2</sup> ]	Bulk insulation
IW-001	Timber Stud Frame, Direct Fix Plasterboard	0.00	No insulation
IW-002	Single Skin Brick	399.64	No insulation

## Floor type

Location	Construction	Area [m <sup>2</sup> ]	Sub-floor ventilation	Added insulation [R-value]	Covering
Kitchen/Living	Concrete Slab on Ground 100mm	123.33	None	No Insulation	Cork Tiles or Parquetry 8mm
Rumpus	Concrete Slab on Ground 100mm	46.43	None	No Insulation	Cork Tiles or Parquetry 8mm
Pantry	Concrete Slab on Ground 100mm	14.78	None	No Insulation	Cork Tiles or Parquetry 8mm
PDR	Concrete Slab on Ground 100mm	3.51	None	No Insulation	Ceramic Tiles 8mm
Gym & Wellness	Concrete Slab on Ground 100mm	37.33	None	No Insulation	Cork Tiles or Parquetry 8mm
Bathroom	Concrete Slab on Ground 100mm	7.07	None	No Insulation	Ceramic Tiles 8mm
Sauna	Concrete Slab on Ground 100mm	4.92	None	No Insulation	Cork Tiles or Parquetry 8mm
Linen / PDR	Concrete Steel Framed Above Plasterboard 100mm	3.51		No Insulation	Cork Tiles or Parquetry 8mm
Lift 1 / Kitchen/Living	Concrete Steel Framed Above Plasterboard 100mm	0.99		No Insulation	Cork Tiles or Parquetry 8mm
Bedroom 1 / Gym & Wellness	Concrete Steel Framed Above Plasterboard 150mm	15.82		No Insulation	Cork Tiles or Parquetry 8mm
Bedroom 1	Suspended Concrete Slab 150mm	0.32	Totally Open	No Insulation	Cork Tiles or Parquetry 8mm
ENS 1 / Gym & Wellness	Concrete Steel Framed Above Plasterboard 100mm	5.34		No Insulation	Ceramic Tiles 8mm
Bedroom 2 / Rumpus	Concrete Steel Framed Above Plasterboard 150mm	2.89		No Insulation	Cork Tiles or Parquetry 8mm
Bedroom 2 / Gym & Wellness	Concrete Steel Framed Above Plasterboard 150mm	3.86		No Insulation	Cork Tiles or Parquetry 8mm





Location	Construction	Area [m <sup>2</sup> ]	Sub-floor ventilation	Added insulation [R-value]	Covering
Bedroom 2 / Bathroom	Concrete Steel Framed Above Plasterboard 150mm	6.59		No Insulation	Cork Tiles or Parquetry 8mm
Bedroom 2	Suspended Concrete Slab 150mm	0.05	Totally Open	No Insulation	Cork Tiles or Parquetry 8mm
ENS 2 / Rumpus	Concrete Steel Framed Above Plasterboard 100mm	1.38		No Insulation	Ceramic Tiles 8mm
ENS 2 / Sauna	Concrete Steel Framed Above Plasterboard 100mm	2.90		No Insulation	Ceramic Tiles 8mm
Bedroom 3 / Rumpus	Concrete Steel Framed Above Plasterboard 150mm	16.08		No Insulation	Cork Tiles or Parquetry 8mm
Bedroom 3	Suspended Concrete Slab 150mm	0.04	Totally Open	No Insulation	Cork Tiles or Parquetry 8mm
ENS 3 / Rumpus	Concrete Steel Framed Above Plasterboard 100mm	4.23		No Insulation	Ceramic Tiles 8mm
Laundry / Rumpus	Concrete Steel Framed Above Plasterboard 150mm	10.11		No Insulation	Cork Tiles or Parquetry 8mm
Laundry	Suspended Concrete Slab 150mm	0.00	Totally Open	No Insulation	Cork Tiles or Parquetry 8mm
Master Suite / Kitchen/Living	Concrete Steel Framed Above Plasterboard 100mm	34.99		No Insulation	Cork Tiles or Parquetry 8mm
WIR / Kitchen/Living	Concrete Steel Framed Above Plasterboard 100mm	15.24		No Insulation	Cork Tiles or Parquetry 8mm
WIR / Pantry	Concrete Steel Framed Above Plasterboard 100mm	0.12		No Insulation	Cork Tiles or Parquetry 8mm
Master WC / Kitchen/Living	Concrete Steel Framed Above Plasterboard 100mm	1.69		No Insulation	Ceramic Tiles 8mm
Master ENS / Kitchen/Living	Concrete Steel Framed Above Plasterboard 100mm	14.35		No Insulation	Cork Tiles or Parquetry 8mm
Entry / ENS 3	Concrete Steel Framed Above Plasterboard 100mm	0.00		No Insulation	Cork Tiles or Parquetry 8mm
Entry / Hallway	Concrete Steel Framed Above Plasterboard 100mm	23.06		No Insulation	Cork Tiles or Parquetry 8mm
Lift 2 / Lift 1	Concrete Steel Framed Above Plasterboard 100mm	1.02		No Insulation	Cork Tiles or Parquetry 8mm
Mud Rm / Hallway	Concrete Steel Framed Above Plasterboard 100mm	0.94		No Insulation	Cork Tiles or Parquetry 8mm
Mud Rm	Concrete Slab on Ground 100mm	3.34	None	No Insulation	Cork Tiles or Parquetry 8mm
Services/Store / Hallway	Concrete Steel Framed Above Plasterboard 100mm	1.99		No Insulation	Cork Tiles or Parquetry 8mm
Services/Store	Concrete Slab on Ground 100mm	6.10	None	No Insulation	Cork Tiles or Parquetry 8mm
Guest Suite / Bedroom 3	Concrete Steel Framed Above Plasterboard 100mm	2.49		No Insulation	Cork Tiles or Parquetry 8mm
Guest Suite / ENS 3	Concrete Steel Framed Above Plasterboard 100mm	1.06		No Insulation	Cork Tiles or Parquetry 8mm



Location	Construction	Area [m <sup>2</sup> ]	Sub-floor ventilation	Added insulation [R-value]	Covering
Guest Suite / Laundry	Concrete Steel Framed Above Plasterboard 100mm	6.77		No Insulation	Cork Tiles or Parquetry 8mm
Guest Suite / Hallway	Concrete Steel Framed Above Plasterboard 100mm	0.11		No Insulation	Cork Tiles or Parquetry 8mm
WC / Bedroom 3	Concrete Steel Framed Above Plasterboard 100mm	5.13		No Insulation	Ceramic Tiles 8mm
WC / ENS 3	Concrete Steel Framed Above Plasterboard 100mm	0.01		No Insulation	Ceramic Tiles 8mm
Library/Study / Bedroom 1	Concrete Steel Framed Above Plasterboard 100mm	2.75		No Insulation	Cork Tiles or Parquetry 8mm
Library/Study / Bedroom 2	Concrete Steel Framed Above Plasterboard 100mm	10.58		No Insulation	Cork Tiles or Parquetry 8mm
Library/Study / ENS 2	Concrete Steel Framed Above Plasterboard 100mm	5.17		No Insulation	Cork Tiles or Parquetry 8mm
Library/Study / Bedroom 3	Concrete Steel Framed Above Plasterboard 100mm	1.11		No Insulation	Cork Tiles or Parquetry 8mm
Library/Study / Hallway	Concrete Steel Framed Above Plasterboard 100mm	2.11		No Insulation	Cork Tiles or Parquetry 8mm
Hallway / Kitchen/Living	Concrete Steel Framed Above Plasterboard 100mm	20.16		No Insulation	Cork Tiles or Parquetry 8mm
Hallway / Rumpus	Concrete Steel Framed Above Plasterboard 100mm	0.00		No Insulation	Cork Tiles or Parquetry 8mm
Hallway / Gym & Wellness	Concrete Steel Framed Above Plasterboard 100mm	0.00		No Insulation	Cork Tiles or Parquetry 8mm
Hallway / Sauna	Concrete Steel Framed Above Plasterboard 100mm	0.00		No Insulation	Cork Tiles or Parquetry 8mm
Hallway	Concrete Slab on Ground 100mm	1.60	None	No Insulation	Cork Tiles or Parquetry 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	Bulk Insulation R3	
Kitchen/Living	Concrete Steel Framed Above Plasterboard	No Insulation	
Rumpus	Concrete, Plasterboard with Steel Frame	Bulk Insulation R3	
Rumpus	Concrete Steel Framed Above Plasterboard	No Insulation	
Pantry	Concrete, Plasterboard with Steel Frame	Bulk Insulation R3	
Pantry	Concrete Steel Framed Above Plasterboard	No Insulation	
PDR	Concrete, Plasterboard with Steel Frame	Bulk Insulation R3	
PDR	Concrete Steel Framed Above Plasterboard	No Insulation	
Gym & Wellness	Concrete, Plasterboard with Steel Frame	Bulk Insulation R3	



Location	Construction material/type	Bulk insulation R-value (may include edge batt values)	Reflective wrap* [yes/no]
Gym & Wellness	Concrete Steel Framed Above Plasterboard	No Insulation	
Bathroom	Concrete, Plasterboard with Steel Frame	Bulk Insulation R3	
Bathroom	Concrete Steel Framed Above Plasterboard	No Insulation	
Sauna	Concrete, Plasterboard with Steel Frame	Bulk Insulation R3	
Sauna	Concrete Steel Framed Above Plasterboard	No Insulation	
Linen	Concrete, Plasterboard with Steel Frame	Bulk Insulation R3	
Lift 1	Concrete, Plasterboard with Steel Frame	Bulk Insulation R3	
Lift 1	Concrete Steel Framed Above Plasterboard	No Insulation	
Bedroom 1	Concrete, Plasterboard with Steel Frame	Bulk Insulation R3	
Bedroom 1	Concrete Steel Framed Above Plasterboard	No Insulation	
ENS 1	Concrete, Plasterboard with Steel Frame	Bulk Insulation R3	
Bedroom 2	Concrete, Plasterboard with Steel Frame	Bulk Insulation R3	
Bedroom 2	Concrete Steel Framed Above Plasterboard	No Insulation	
ENS 2	Concrete, Plasterboard with Steel Frame	Bulk Insulation R3	
ENS 2	Concrete Steel Framed Above Plasterboard	No Insulation	
Bedroom 3	Concrete, Plasterboard with Steel Frame	Bulk Insulation R3	
Bedroom 3	Concrete Steel Framed Above Plasterboard	No Insulation	
ENS 3	Concrete, Plasterboard with Steel Frame	Bulk Insulation R3	
ENS 3	Concrete Steel Framed Above Plasterboard	No Insulation	
Laundry	Concrete, Plasterboard with Steel Frame	Bulk Insulation R3	
Laundry	Concrete Steel Framed Above Plasterboard	No Insulation	
Master Suite	Concrete, Plasterboard with Steel Frame	Bulk Insulation R3	
WIR	Concrete, Plasterboard with Steel Frame	Bulk Insulation R3	
Master WC	Concrete, Plasterboard with Steel Frame	Bulk Insulation R3	
Master ENS	Concrete, Plasterboard with Steel Frame	Bulk Insulation R3	
Entry	Concrete, Plasterboard with Steel Frame	Bulk Insulation R3	
Lift 2	Concrete, Plasterboard with Steel Frame	Bulk Insulation R3	
Mud Rm	Concrete, Plasterboard with Steel Frame	Bulk Insulation R3	
Services/Store	Concrete, Plasterboard with Steel Frame	Bulk Insulation R3	
Guest Suite	Concrete, Plasterboard with Steel Frame	Bulk Insulation R3	
WC	Concrete, Plasterboard with Steel Frame	Bulk Insulation R3	
Library/Study	Concrete, Plasterboard with Steel Frame	Bulk Insulation R3	

\* Refer to glossary.



Location	Construction material/type	Bulk insulation R-value (may include edge batt values)	Reflective wrap* [yes/no]
Hallway	Concrete, Plasterboard with Steel Frame	Bulk Insulation R3	
Hallway	Concrete Steel Framed Above Plasterboard	No Insulation	

### Ceiling penetrations\*

Location	Quantity	Type	Diameter [mm]	Sealed/unsealed
Kitchen/Living	1	Exhaust Fans	300	Sealed
PDR	1	Exhaust Fans	300	Sealed
Bathroom	1	Exhaust Fans	300	Sealed
ENS 1	1	Exhaust Fans	300	Sealed
ENS 2	1	Exhaust Fans	300	Sealed
ENS 3	1	Exhaust Fans	300	Sealed
Laundry	1	Exhaust Fans	300	Sealed
Master WC	1	Exhaust Fans	300	Sealed
Master ENS	1	Exhaust Fans	300	Sealed
WC	1	Exhaust Fans	300	Sealed

### Ceiling fans

Location	Quantity	Diameter [mm]
No Data Available		

### Roof type

Construction	Added insulation [R-value]	Solar absorptance	Roof shade [colour]
Waterproofing Membrane	No Added Insulation, No air Gap	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]
External Wall		600	0.75	R0.2
Ceiling		900	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<sup>2</sup> 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 Water	Minimum efficiency /STC	Zone 3 STC	Zone 3 Substitution tolerance ranges		Assessed daily load [litres]
		CER Zone			lower limit	upper limit	
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 home's 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

<b>AFRC</b>	Australian Fenestration Rating Council
<b>Annual energy load</b>	the predicted amount of energy required for heating and cooling, based on standard occupancy assumptions.
<b>Assessed floor area</b>	the floor area modelled in the software for the purpose of the NatHERS assessment. Note, this may not be consistent with the floor area in the design documents.
<b>Ceiling penetrations</b>	features that require 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.
<b>COP</b>	Coefficient of performance
<b>Conditioned</b>	a zone within a dwelling that is expected to require heating and cooling based on standard occupancy assumptions. In some circumstances it will include garages.
<b>Custom windows</b>	windows listed in NatHERS software that are available on the market in Australia and have a WERS (Window Energy Rating Scheme) rating.
<b>Default windows</b>	windows that are representative of a specific type of window product and whose properties have been derived by statistical methods.
<b>EER</b>	Energy Efficiency Ratio, measure of how much cooling can be achieved by an air conditioner for a single kWh of electricity input
<b>Energy use</b>	This is your home's rating without solar or batteries.
<b>Energy value</b>	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).
<b>Entrance door</b>	these signify ventilation benefits in the modelling software and must not be modelled as a door when opening to a minimally ventilated corridor in a Class 2 building.
<b>Exposure</b>	see exposure categories below.
<b>Exposure category – exposed</b>	terrain with no obstructions e.g. flat grazing land, ocean-frontage, desert, exposed high-rise unit (usually above 10 floors).
<b>Exposure category – open</b>	terrain with few obstructions at a similar height e.g. grasslands with few well scattered obstructions below 10m, farmland with scattered sheds, lightly vegetated bush blocks, elevated units (e.g. above 3 floors).
<b>Exposure category – protected</b>	terrain with numerous, closely spaced obstructions below 10m e.g. suburban housing, heavily vegetated bushland areas.
<b>Exposure category – suburban</b>	terrain with numerous, closely spaced obstructions over 10 m e.g. city and industrial areas.
<b>Horizontal shading feature</b>	provides shading to the building in the horizontal plane, e.g. eaves, verandahs, pergolas, carports, or overhangs or balconies from upper levels.
<b>National Construction Code (NCC) Class</b>	the NCC groups buildings by their function and use, and assigns a classification code. NatHERS software models NCC Class 1, 2 or 4 buildings and attached Class 10a buildings. Definitions can be found at <a href="http://www.abcb.gov.au">www.abcb.gov.au</a> .
<b>Net zero home</b>	a home that achieves a net zero energy value*.
<b>Opening percentage</b>	the operability percentage or operable (moveable) area of doors or windows that is used in ventilation calculations.
<b>Provisional value</b>	an assumed value that does not represent an actual value. For example, if the wall colour is unspecified in the documentation, a provisional value of 'medium' must be modelled. Acceptable provisional values are outlined in the NatHERS Technical Note and can be found at <a href="http://www.nathers.gov.au">www.nathers.gov.au</a>
<b>Recommended capacity</b>	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.
<b>Reflective wrap</b> (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.
<b>Roof window</b>	for NatHERS this is typically an operable window (i.e. can be opened), will have a plaster or similar light well if there is an attic space, and generally does not have a diffuser.
<b>Shading features</b>	includes neighbouring buildings, fences, and wing walls, but excludes eaves.
<b>Skylight</b> (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.
<b>Solar heat gain coefficient (SHGC)</b>	the fraction of incident solar radiation admitted through a window, both directly transmitted as well as absorbed and subsequently released inward. SHGC is expressed as a number between 0 and 1. The lower a window's SHGC, the less solar heat it transmits.
<b>STCs</b>	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)
<b>Thermal breaks</b>	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 sheathing or plastic strips
<b>U-value</b>	the rate of heat transfer through a window. The lower the U-value, the better the insulating ability.
<b>Unconditioned</b>	a zone within a dwelling that is assumed to not require heating and cooling based on standard occupancy assumptions.
<b>Vertical shading features</b>	provides shading to the building in the vertical plane and can be parallel or perpendicular to the subject wall/window. Includes privacy screens, other walls in the building (wing walls), fences, other buildings, vegetation (protected or listed heritage trees).
<b>Window shading device</b>	device fixed to windows that provides shading e.g. window awnings or screens but excludes horizontal* or vertical shading features* (eg eaves and balconies)

\* Refer to glossary.