Nationwide House Energy Rating Scheme NatHERS Certificate No. 0007124605

Generated on 14 Mar 2022 using BERS Pro v4.4.1.5 (3.21)

Property

Address 33 Sharp Street , Belmore , NSW , 2192

Lot/DP A/365425

NCC Class* 1A

Type New Dwelling

Plans

Main Plan Hee 186670

Prepared by Burbank

Construction and environment

Assessed floor are	a (m²)*	Exposure Type
Conditioned*	208.0	Suburban
Unconditioned*	49.0	NatHERS climate zone
Total	257.0	56
Garage	33.0	



Name lan Fry

Business name Frys Energywise

Email comply@frysenergywise.com.au

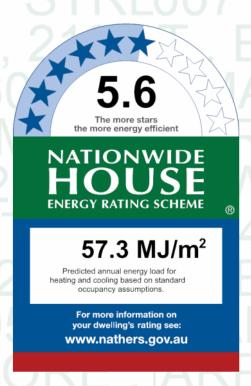
Phone 02 9899 2825

Accreditation No. DMN/12/1441

Assessor Accrediting Organisation

Design Matters National

Declaration of interest Declaration completed: no conflicts



Thermal performance

Heating Cooling
31.7 25.6
MJ/m² MJ/m²

About the rating

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

Verification

To verify this certificate, scan the QR code or visit



hstar.com.au/QR/Generate? p=SaBKVvTFv.

When using either link, ensure you are visiting hstar.com.au

National Construction Code (NCC) requirements

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

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

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



Certificate check

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

Genuine certificate

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

Ceiling penetrations*

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

Windows

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

Apartment entrance doors

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

Exposure*

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

Provisional* values

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

Additional notes

Where not noted on plans, default selections to floor coverings and external colours have been used in this

assessment, as noted in the NatHERS Technical Notes. Alternative selections past this point can be made to floor

coverings and external colours, without requiring an amended certificate.

I have modeled the shading in accordance with NatHERS principles

Window and glazed door type and performance

Default* windows

Window ID	Window	Maximum	SHGC*	Substitution tolerance ranges		
	Description	U-value*	31100	SHGC lower limit	SHGC upper limit	
No Data Availal	ole					

Custom* windows

Window ID	Window	Maximum	SHGC*	Substitution tolerance ranges		
	Description	U-value*	энвс	SHGC lower limit	SHGC upper limit	
AL-027-01 A	AL-027-01 A Al Boutique French Door Open out SG 4Clr	5.9	0.58	0.55	0.61	
AL-001-04 A	AL-001-04 A Al Awning SG 4Clr	5.8	0.65	0.62	0.68	
AL-003-01 A	AL-003-01 A AI Sliding Window SG 3Clr	6.2	0.78	0.74	0.82	

* Refer to glossary.

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Custom* windows

Window ID	Window	Maximum	SHGC*	Substitution tolerance ranges		
Willidow ID	Description U-value*	SIGC	SHGC lower limit	SHGC upper limit		
AL-025-04 A	AL-025-04 A Al Boutique Fixed Lite Window SG 4Clr	5.7	0.75	0.71	0.79	
AL-012-04 A	AL-012-04 A Al Sliding Door SG 4Clr	6.1	0.72	0.68	0.76	
AL-012-13 A	AL-012-13 A Al Sliding Door SG 6.38CP	4.3	0.44	0.42	0.46	
AL-003-13 A	AL-003-13 A AI Sliding Window SG 6.38CP	4.3	0.47	0.45	0.49	
AL-025-13 A	AL-025-13 A Al Boutique Fixed Lite Window SG 6.38CP	3.8	0.46	0.44	0.48	

Window and glazed door schedule

Location	Window ID	Window no.	Height (mm)	Width (mm)	Window type	Opening %	Orientation	Window shading device*
Garage	AL-027-01 A	n/a	2100	850	n/a	90	NW	No
Entry/Study Noo	AL-027-01 A	n/a	2100	850	n/a	90	NE	No
Entry/Study Noo	AL-001-04 A	n/a	2057	610	n/a	90	NE	No
Entry/Study Noo	AL-003-01 A	n/a	1200	610	n/a	45	SE	No
Entry/Study Noo	AL-025-04 A	n/a	1200	610	n/a	00	SE	No
Laundry	AL-012-04 A	n/a	2110	1450	n/a	45	SE	No
Butler	AL-025-04 A	n/a	514	1810	n/a	00	SE	No
Kitchen/Living	AL-025-04 A	n/a	514	1810	n/a	00	SE	No
Kitchen/Living	AL-003-01 A	n/a	2057	850	n/a	30	SW	No
Kitchen/Living	AL-012-13 A	n/a	2110	2410	n/a	45	SE	No
Kitchen/Living	AL-003-13 A	n/a	2057	2170	n/a	30	SW	No
Kitchen/Living	AL-003-01 A	n/a	514	2410	n/a	45	NW	No
Powder	AL-003-01 A	n/a	1027	610	n/a	45	NW	No
Guest	AL-003-01 A	n/a	2057	1810	n/a	30	NW	No
Theatre	AL-003-13 A	n/a	2057	1810	n/a	30	NW	No
Bed 3	AL-003-01 A	n/a	1027	1810	n/a	10	NW	No
WC 2	AL-003-01 A	n/a	1027	610	n/a	45	NW	No
Bath	AL-003-01 A	n/a	1200	1450	n/a	45	NW	No
Bed 2	AL-003-01 A	n/a	1027	1810	n/a	10	NW	No
WC 1	AL-003-01 A	n/a	1027	610	n/a	45	NW	No
Ensuite	AL-001-04 A	n/a	1543	850	n/a	90	NE	No
Bed 1	AL-001-04 A	n/a	1543	850	n/a	10	NE	No
Bed 1	AL-001-04 A	n/a	1543	850	n/a	10	NE	No
Bed 1	AL-001-04 A	n/a	1543	610	n/a	90	NE	No
Bed 1	AL-001-04 A	n/a	1543	610	n/a	90	NE	No
Retreat	AL-003-13 A	n/a	514	1810	n/a	45	SE	No
Retreat	AL-025-13 A	n/a	1200	2410	n/a	00	SE	No



Location	Window ID	Window no.	Height (mm)	Width (mm)	Window type	Opening %	Orientation	Window shading device*
Bed 4	AL-003-01 A	n/a	1027	1810	n/a	10	SE	No

Roof window type and performance

Default* roof windows

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

Custom* roof windows

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

No Data Available

Roof window schedule

Window Outdoor Window Height Width **Opening** Indoor Location Orientation % (mm) shade shade (mm) no.

No Data Available

Skylight type and performance

Skylight ID Skylight description

No Data Available

Skylight schedule

Skylight Skylight **Skylight** Outdoor Skylight shaft **A**rea Location shaft length Orientation Diffuser (m²)No. shade reflectance (mm)

No Data Available

External door schedule

Location	Height (mm)	Width (mm)	Opening %	Orientation
Garage	2150	4810	90	NE

External wall type

Wall ID	Wall type	Solar absorptance	Wall shade (colour)	Bulk insulation (R-value)	Reflective wall wrap*
EW-1	Brick Veneer	0.50	Medium	No insulation	No
EW-2	Single Skin Brick	0.50	Medium	No insulation	No
EW-3	Brick Veneer	0.50	Medium	Anti-glare foil with bulk no gap R2	No



Wall ID	Wall type	Solar absorptance	Wall shade (colour)	Bulk insulation (R-value)	Reflective wall wrap*
EW-4	Brick Veneer	0.50	Medium	Anti-glare foil with bulk no gap R2	No
EW-5	Fibro Cavity Panel Direct Fix	0.50	Medium	Anti-glare foil with bulk no 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)
Garage	EW-1	2826	6000	NW	100	NO
Garage	EW-2	2826	5495	NE	700	YES
Garage	EW-1	2826	1100	SW	100	YES
Entry/Study Noo	EW-3	2740	1100	NW	4500	YES
Entry/Study Noo	EW-3	2741	1400	NE	1300	NO
Entry/Study Noo	EW-3	2740	800	NE	100	NO
Entry/Study Noo	EW-3	2740	10195	SE	100	NO
Laundry	EW-3	2740	1890	SE	100	NO
Butler	EW-3	2740	3090	SE	100	NO
Kitchen/Living	EW-3	2740	3795	SE	100	NO
Kitchen/Living	EW-3	2740	3000	SW	6100	YES
Kitchen/Living	EW-3	2741	200	SE	3100	YES
Kitchen/Living	EW-3	2740	5300	SE	3600	NO
Kitchen/Living	EW-3	2740	3600	SW	600	NO
Kitchen/Living	EW-3	2741	5300	NW	600	NO
Kitchen/Living	EW-3	2740	3995	NW	100	NO
Powder	EW-3	2740	1990	NW	100	NO
Guest	EW-3	2740	2990	NW	100	NO
Theatre	EW-3	2740	3090	NW	100	YES
Bed 3	EW-4	257	5595	NW	0	NO
Bed 3	EW-5	2333	5595	NW	700	NO
Bed 3	EW-5	2590	3295	SW	700	NO
WC 2	EW-4	257	990	NW	0	NO
WC 2	EW-5	2333	990	NW	700	NO
Bath	EW-4	257	2090	NW	0	NO
Bath	EW-5	2333	2090	NW	700	NO
Bed 2	EW-4	257	3195	NW	0	NO
Bed 2	EW-5	2333	3195	NW	700	NO
Bed 2	EW-5	2590	1995	NW	700	NO
WC 1	EW-5	2590	990	NW	700	NO
Ensuite	EW-5	2590	3595	NW	700	NO
Ensuite	EW-5	2590	1895	NE	700	NO
Bed 1	EW-5	2590	2490	NE	700	YES



Location	Wall ID	Height (mm)	Width (mm)	Orientation	Horizontal shading feature* maximum projection (mm)	Vertical shading feature (yes/no)
Bed 1	EW-4	432	495	NW	0	YES
Bed 1	EW-5	2158	495	NW	5100	YES
Bed 1	EW-4	278	2200	NE	0	NO
Bed 1	EW-5	2312	2200	NE	700	NO
Bed 1	EW-4	278	3295	SE	0	NO
Bed 1	EW-5	2312	3295	SE	700	NO
Retreat	EW-4	278	10090	SE	0	NO
Retreat	EW-5	2312	10090	SE	700	NO
Bed 4	EW-4	278	5595	SE	0	NO
Bed 4	EW-5	2312	5595	SE	700	NO
Bed 4	EW-5	2590	3295	SW	700	NO

Internal wall type

Wall ID	Wall type	Area (m²)	Bulk insulation
IW-1 - Cavity wall, direct fix plasterboard, single gap		62.00	Bulk Insulation, No Air Gap R2
IW-2 - Cavity wall, direct fix plasterboard, single gap		171.00	No insulation

Floor type

Location	Construction	Area Sub-floor (m²) ventilation	Added insulation (R-value)	Covering
Garage	Waffle pod slab 175 mm 100mm	32.50 None	Waffle Pod 175mm	Bare
Entry/Study Noo	Waffle pod slab 225 mm 100mm	29.90 None	Waffle Pod 225mm	Cork Tiles or Parquetry 8mm
Laundry	Waffle pod slab 225 mm 100mm	2.60 None	Waffle Pod 225mm	Ceramic Tiles 8mm
Butler	Waffle pod slab 225 mm 100mm	4.40 None	Waffle Pod 225mm	Cork Tiles or Parquetry 8mm
Kitchen/Living	Waffle pod slab 225 mm 100mm	45.30 None	Waffle Pod 225mm	Cork Tiles or Parquetry 8mm
Powder	Waffle pod slab 225 mm 100mm	5.10 None	Waffle Pod 225mm	Ceramic Tiles 8mm
Guest	Waffle pod slab 225 mm 100mm	11.50 None	Waffle Pod 225mm	Carpet+Rubber Underlay 18mm
Theatre	Waffle pod slab 225 mm 100mm	11.90 None	Waffle Pod 225mm	Cork Tiles or Parquetry 8mm
Bed 3/Entry/Study Noo	Timber Above Plasterboard 19mm	0.70	No Insulation	Carpet+Rubber Underlay 18mm
Bed 3/Kitchen/Living	Timber Above Plasterboard 19mm	12.30	No Insulation	Carpet+Rubber Underlay 18mm
Bed 3/Powder	Timber Above Plasterboard 19mm	4.30	No Insulation	Carpet+Rubber Underlay 18mm
WC 2/Guest	Timber Above Plasterboard 19mm	1.40	No Insulation	Ceramic Tiles 8mm
Bath/Guest	Timber Above Plasterboard 19mm	6.50	No Insulation	Ceramic Tiles 8mm
Bed 2/Garage	Timber Above Plasterboard 19mm	6.40	No Insulation	Carpet+Rubber Underlay 18mm
Bed 2/Theatre	Timber Above Plasterboard 19mm	9.90	No Insulation	Carpet+Rubber Underlay 18mm
WC 1/Garage	Timber Above Plasterboard 19mm	1.70	No Insulation	Ceramic Tiles 8mm
Ensuite/Garage	Timber Above Plasterboard 19mm	5.50	No Insulation	Ceramic Tiles 8mm
Ensuite	Suspended Timber Floor 19mm	1.10 Totally Open	No Insulation	Ceramic Tiles 8mm



Location	Construction	Area Sub-floor (m) ventilation	Added insulation (R-value)	Covering
Bed 1/Garage	Timber Above Plasterboard 19mm	9.60	No Insulation	Carpet+Rubber Underlay 18mm
Bed 1/Entry/Study Noo	Timber Above Plasterboard 19mm	3.00	No Insulation	Carpet+Rubber Underlay 18mm
Bed 1	Suspended Timber Floor 19mm	1.40 Totally Open	No Insulation	Carpet+Rubber Underlay 18mm
Bed 1/Entry/Study Noo	Timber Above Plasterboard 19mm	5.20	No Insulation	Carpet+Rubber Underlay 18mm
Retreat/Garage	Timber Above Plasterboard 19mm	2.10	No Insulation	Carpet+Rubber Underlay 18mm
Retreat/Entry/Study Noo	Timber Above Plasterboard 19mm	19.50	No Insulation	Carpet+Rubber Underlay 18mm
Retreat/Laundry	Timber Above Plasterboard 19mm	2.80	No Insulation	Carpet+Rubber Underlay 18mm
Retreat/Butler	Timber Above Plasterboard 19mm	1.90	No Insulation	Carpet+Rubber Underlay 18mm
Retreat/Powder	Timber Above Plasterboard 19mm	0.50	No Insulation	Carpet+Rubber Underlay 18mm
Retreat/Guest	Timber Above Plasterboard 19mm	3.00	No Insulation	Carpet+Rubber Underlay 18mm
Retreat/Theatre	Timber Above Plasterboard 19mm	2.10	No Insulation	Carpet+Rubber Underlay 18mm
Bed 4/Entry/Study Noo	Timber Above Plasterboard 19mm	1.70	No Insulation	Carpet+Rubber Underlay 18mm
Bed 4/Butler	Timber Above Plasterboard 19mm	2.60	No Insulation	Carpet+Rubber Underlay 18mm
Bed 4/Kitchen/Living	Timber Above Plasterboard 19mm	13.00	No Insulation	Carpet+Rubber Underlay 18mm

Ceiling type

Location	Construction material/type	Bulk insulation R-value (may include edge batt values)	Reflective wrap*
Garage	Plasterboard	No insulation	No
Garage	Timber Above Plasterboard	No Insulation	No
Entry/Study Noo	Timber Above Plasterboard	No Insulation	No
Laundry	Timber Above Plasterboard	No Insulation	No
Butler	Timber Above Plasterboard	No Insulation	No
Kitchen/Living	Plasterboard	Bulk Insulation R4	No
Kitchen/Living	Timber Above Plasterboard	No Insulation	No
Powder	Timber Above Plasterboard	No Insulation	No
Guest	Timber Above Plasterboard	No Insulation	No
Theatre	Timber Above Plasterboard	No Insulation	No
Bed 3	Plasterboard	Bulk Insulation R4	No
WC 2	Plasterboard	Bulk Insulation R4	No
Bath	Plasterboard	Bulk Insulation R4	No
Bed 2	Plasterboard	Bulk Insulation R4	No
WC 1	Plasterboard	Bulk Insulation R4	No
Ensuite	Plasterboard	Bulk Insulation R4	No
Bed 1	Plasterboard	Bulk Insulation R4	No
Bed 1	Plasterboard	Bulk Insulation R4	No
Retreat	Plasterboard	Bulk Insulation R4	No
Bed 4	Plasterboard	Bulk Insulation R4	No



Ceiling penetrations*

Location	Quantity	Туре	Diameter (mm²)	Sealed/unsealed	
Powder	1	Exhaust Fans	0	Sealed	
WC 2	1	Exhaust Fans	300	Sealed	
Bath	1	Exhaust Fans	300	Sealed	
WC 1	1	Exhaust Fans	300	Sealed	
Ensuite	1	Exhaust Fans	300	Sealed	

Ceiling fans

Location	Quantity	Diameter (mm)
Kitchen/Living	1	1200

Roof type

Construction	Added insulation (R-value)	Solar absorptance	Roof shade
Roof Tiles	Foil, Gap Above, Reflective Side Down, Anti-glare Up	0.85	Dark
Roof Tiles	Foil, Gap Above, Reflective Side Down, Anti-glare Up	0.85	Dark



Explanatory notes

About this report

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

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

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

Accredited assessors

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

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

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

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

Disclaimer

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

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

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

Not all assumptions that may have been made by the assessor while using the Nath—ERS accredited software tool are presented in this report and further details or data files may be available 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 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, rangehoods, chirmeys and flues. Excludes		
	fixtures attached to the ceiling with small holes through the ceiling for wiring, e.g. ceiling fans; pendant lights, and heating and cooling ducts.		
Conditioned	a zone within a dwelling that is expected to require heating and cooling based on standard occupancy assumptions. In some circumstances it		
Conditioned	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.		
Entrance door	these signify ventilation benefits in the modelling software and must not be modelled as a door when opening to a minimally ventilated corridor in a Class 2 building.		
Exposure category – exposed	terrain with no obstructions e.g. flat grazing land, ocean-frontage, desert, exposed high-rise unit (usually above 10 floors).		
Eveneure esteriory coop	terrain with few obstructions at a similar height e.g. grasslands with few well scattered obstructions below 10m, farmland with scattered		
Exposure category – open	sheds, lightly vegetated bush blocks, elevated units (e.g. above 3 floors).		
Exposure category – suburban	terrain with numerous, closely spaced obstructions below 10me.g. suburban housing, heavily vegetated bushland areas.		
Exposure category – protected	terrain with numerous, closely spaced obstructions over 10 me.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. NatHEPS software models NCC Class 1, 2 or 4		
(NOC) Class	buildings and attached Class 10a buildings. Definitions can be found at www.abcb.gov.au.		
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		
Provisional value	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 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		
NOOI WIIIdOW	generally does not have a diffuser.		
Shading device	a device fixed to windows that provides shading e.g. window awnings or screens but excludes eaves.		
Shading features	includes neighbouring buildings, fences, and wing walls, but excludes eaves.		
Salar hast gain apoliticiant (SLCC)	the fraction of incident solar radiation admitted through a window, both directly transmitted as well as absorbed and subsequently released		
Solar heat gain coefficient (SHGC)	inward. SHGC is expressed as a number between 0 and 1. The lower a window's SHGC, the less solar heat it transmits.		
Skylight (also known as roof lights)	for Nathers this is typically a moulded unit with flexible reflective tubing (light well) and a diffuser at ceiling level.		
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).		
	Colora, Caro, Walle in the Sellining (William Walley), To look, Other Sellinings, Vogetation (protected or linear hallinge trees).		