

Nationwide House Energy Rating Scheme

NatHERS Certificate No. 0008205528

Generated on 11 Nov 2022 using AccuRate Sustainability V2.4.3.21

Property

Address Unit 2.01, 396-402 Sydney Road ,
Balgowlah , NSW , 2093

Lot/DP Lot -

NCC Class* 2

Type New Home

Plans

Main Plan November 2022

Prepared by DWA

Construction and environment

Assessed floor area (m²)*	Exposure Type
Conditioned* 49.8	Suburban
Unconditioned* 0.0	NatHERS climate zone
Total 49.8	56
Garage	



Accredited assessor

Name Robert Mallindine

Business name AGA Consultants Pty Ltd

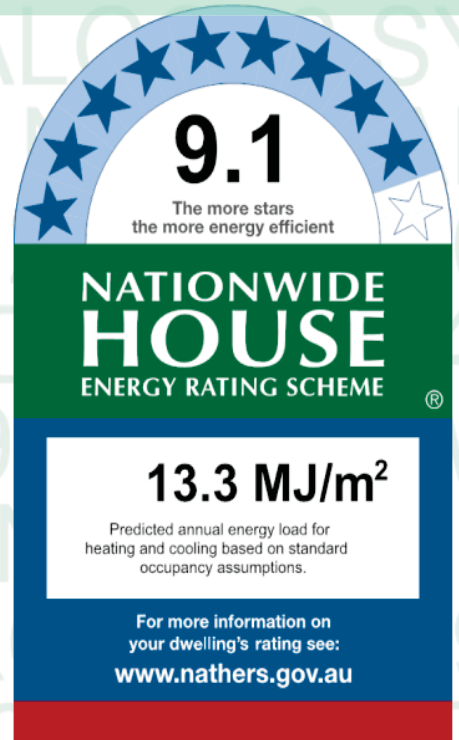
Email rob@agaconsultants.com.au

Phone 02 8859 6563

Accreditation No. DMN/12/1475

Assessor Accrediting Organisation
Design Matters National

Declaration of interest Declaration completed: no conflicts



Thermal performance

Heating	Cooling
2.1	11.3
MJ/m ²	MJ/m ²

About the rating

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Verification

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

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Ceiling penetrations*

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

Windows

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

Apartment entrance doors

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

Exposure*

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

Provisional* values

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

Additional notes

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
ALM-002-03 A	Aluminium B SG High Solar Gain Low-E	5.4	0.58	0.55	0.61

Custom* windows

Window ID	Window Description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				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*
Living / Dining / Kitchen	ALM-002-03 A	01	2800	2800	Sliding	45	N	None

Location	Window ID	Window no.	Height (mm)	Width (mm)	Window type	Opening %	Orientation	Window shading device*
Bedroom 1	ALM-002-03 A	02	2800	2400	Sliding	45	N	None

Roof window type and performance

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
No Data Available	

Skylight schedule

Location	Skylight ID	Skylight No.	Skylight shaft length (mm)	Area (m ²)	Orientation	Outdoor shade	Diffuser	Skylight shaft reflectance
No Data Available								

External door schedule

Location	Height (mm)	Width (mm)	Opening %	Orientation
Living / Dining / Kitchen	2100	900	100	S

External wall type

Wall ID	Wall type	Solar absorptance	Wall shade (colour)	Bulk insulation (R-value)	Reflective wall wrap*
EW-004	Concrete wall/Plasterboard	50	Medium	Glass fibre batt: R2.0	No
EW-008	Plasterboard/AAC block	1	Light	Glass fibre batt: R2.0	No

External wall *schedule*

Location	Wall ID	Height (mm)	Width (mm)	Orientation	Horizontal shading feature* maximum projection (mm)	Vertical shading feature (yes/no)
Living / Dining / Kitchen	EW-004	2800	3400	N	2300	Yes
Living / Dining / Kitchen	EW-004	2800	3000	W	6000	Yes
Living / Dining / Kitchen	EW-008	2800	1700	S	9000	Yes
Bedroom 1	EW-004	2800	3000	N	2100	Yes
Bedroom 1	EW-004	2800	300	W	6000	Yes

Internal wall *type*

Wall ID	Wall type	Area (m ²)	Bulk insulation
IW-001	Plasterboard	29.43	
IW-002	Plasterboard/AAC block	44.55	

Floor *type*

Location	Construction	Area (m ²)	Sub-floor ventilation	Added insulation (R-value)	Covering
Living / Dining / Kitchen/Neighbour	timber - concrete 200mm	22.40			
Living / Dining / Kitchen/Neighbour	timber - concrete 200mm	6.00			
Bedroom 1/Neighbour	carpet - concrete 200mm	11.70			Carpet 10 + rubber underlay 8
Hall / Bathroom/Neighbour	timber - concrete 200mm	4.50			
Hall / Bathroom/Neighbour	tiles - concrete 200mm	5.20			Ceramic tile

Ceiling *type*

Location	Construction material/type	Bulk insulation R-value (may include edge batt values)	Reflective wrap*
Neighbour/Living / Dining / Kitchen	timber - concrete 200mm		No
Neighbour/Bedroom 1	timber - concrete 200mm		No
Neighbour/Hall / Bathroom	timber - concrete 200mm		No

Ceiling *penetrations**

Location	Quantity	Type	Diameter (mm ²)	Sealed/unsealed
Living / Dining / Kitchen	10	Downlight		Sealed
Living / Dining / Kitchen	1	Ceiling exhaust fan	160	Sealed
Bedroom 1	4	Downlight		Sealed
Hall / Bathroom	4	Downlight		Sealed
Hall / Bathroom	1	Ceiling exhaust fan	160	Sealed

Ceiling *fans*

Location	Quantity	Diameter (mm)
No Data Available		

Roof *type*

Construction	Added insulation (R-value)	Solar absorptance	Roof shade
none - Concrete slab 200mm		30	Light

Explanatory notes

About this report

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

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

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Glossary

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Ceiling penetrations	features that require a penetration to the ceiling, including downlights, vents, exhaust fans, rangehoods, chimneys and flues. Excludes fixtures attached to the ceiling with small holes through the ceiling for wiring, e.g. ceiling fans; pendant lights, and heating and cooling ducts.
Conditioned	a zone within a dwelling that is expected to require heating and cooling based on standard occupancy assumptions. In some circumstances it will include garages.
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).
Exposure category – open	terrain with few obstructions at a similar height e.g. grasslands with few well scattered obstructions below 10m; farmland with scattered sheds, lightly vegetated bush blocks, elevated units (e.g. above 3 floors).
Exposure category – suburban	terrain with numerous, closely spaced obstructions below 10m e.g. suburban housing, heavily vegetated bushland areas.
Exposure category – protected	terrain with numerous, closely spaced obstructions over 10m 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 .
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
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 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.
Solar heat gain coefficient (SHGC)	the fraction of incident solar radiation admitted through a window, both directly transmitted as well as absorbed and subsequently released inward. SHGC is expressed as a number between 0 and 1. The lower a window's SHGC, the less solar heat it transmits.
Skylight (also known as roof lights)	for NatHERS this is typically a moulded unit with flexible reflective tubing (light well) and a diffuser at ceiling level.
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).

Nationwide House Energy Rating Scheme

NatHERS Certificate No. 0008205544

Generated on 11 Nov 2022 using AccuRate Sustainability V2.4.3.21

Property

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Lot/DP Lot -

NCC Class* 2

Type New Home

Plans

Main Plan November 2022

Prepared by DWA

Construction and environment

Assessed floor area (m²)*	Exposure Type
Conditioned* 77.9	Suburban
Unconditioned* 0.0	NatHERS climate zone
Total 77.9	56
Garage	



Accredited assessor

Name Robert Mallindine

Business name AGA Consultants Pty Ltd

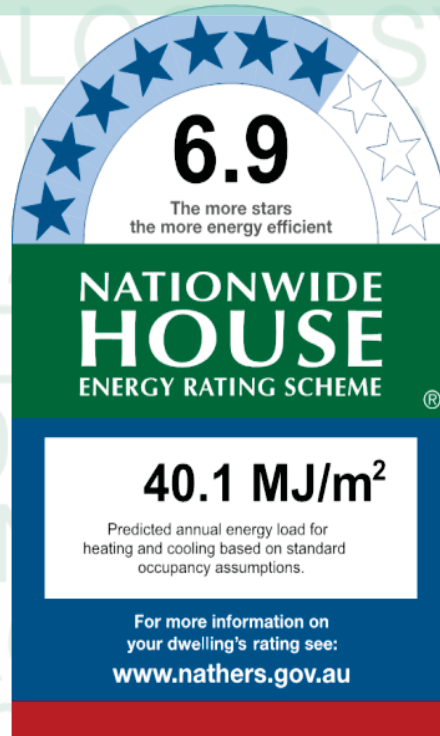
Email rob@agaconsultants.com.au

Phone 02 8859 6563

Accreditation No. DMN/12/1475

Assessor Accrediting Organisation
Design Matters National

Declaration of interest Declaration completed: no conflicts



Thermal performance

Heating	Cooling
30.1	10.0
MJ/m ²	MJ/m ²

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Additional notes

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
ALM-002-03 A	Aluminium A SG High Solar Gain Low-E	B.5	0.54	0.58	0.B2
ALM-006-03 A	Aluminium 1 SG High Solar Gain Low-E	B.5	0.B/	0.BB	0.K2

Custom* windows

Window ID	Window Description	Maximum U-value*	SHGC*	Substitution tolerance ranges	
				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*
Living 9Dining 9: itchen	ALM-006-03 A	02	6/ 00	5000	Sliding	5B	N	None
1edroom 2	ALM-002-03 A	06	2/ 00	400	Awning	K0	S	None
1edroom 6	ALM-002-03 A	05	2/ 00	/ 00	Awning	K0	S	None

Roof window *type and performance*

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
No Data Available	

Skylight *schedule*

Location	Skylight ID	Skylight No.	Skylight shaft length (mm)	Area (m ²)	Orientation	Outdoor shade	Diffuser	Skylight shaft reflectance
No Data Available								

External door *schedule*

Location	Height (mm)	Width (mm)	Opening %	Orientation
Hall 91 athroom	6200	4B0	200	W

External wall type

Wall ID	Wall type	Solar absorptance	Wall shade (colour)	Bulk insulation (R-value)	Reflective wall wrap*
EW-005	Concrete wallPlasterboard	B0	Medium	Glass fibre battYR6.0	No
EW-00K	Plasterboard	/ B	Dark	Glass fibre battYR6.0	No
EW-00/	PlasterboardAAC block	2	Light	Glass fibre battYR6.0	No
EW-026	Concrete wallPlasterboard	2	Light	Glass fibre battYR2.0	No

External wall schedule

Location	Wall ID	Height (mm)	Width (mm)	Orientation	Horizontal shading feature* maximum projection (mm)	Vertical shading feature (yes/no)
Living 9Dining 9: itchen	EW-005	6/ 00	5000	N	6800	7es
Living 9Dining 9: itchen	EW-005	6/ 00	/ 800	E		No
1edroom 2	EW-00K	6/ 00	6200	S		No
1edroom 2	EW-00K	6/ 00	400	S		No
1edroom 2	EW-026	6800	6600	S		No
1edroom 2	EW-00/	6/ 00	2800	W	2800	7es
1edroom 6	EW-00K	6/ 00	6000	S		No
1edroom 6	EW-00K	6/ 00	/ 00	S		No
1edroom 6	EW-005	6/ 00	3/ 00	E		No
Hall 91 athroom	EW-005	6/ 00	2600	E		No
Hall 91 athroom	EW-00/	6/ 00	3/ 00	W	2800	7es

Internal wall type

Wall ID	Wall type	Area (m ²)	Bulk insulation
IW-002	Plasterboard	BK.80	
IW-006	PlasterboardAAC block	3K.86	

Floor type

Location	Construction	Area (m ²)	Sub-floor ventilation	Added insulation (R-value)	Covering
Living 9Dining 9: itchen9Neighbour	timber - concrete 600mm	6K.40			
Living 9Dining 9: itchen9Neighbour	timber - concrete 600mm	K.00			
1edroom 29Neighbour	carpet - concrete 600mm	22.60			Carpet 20 + rubber underlay /
1edroom 29Neighbour	tiles - concrete 600mm	5.60			Ceramic tile
1edroom 69Neighbour	carpet - concrete 600mm	26.00			Carpet 20 + rubber underlay /
Hall 91 athroom9Neighbour	timber - concrete 600mm	22.20			
Hall 91 athroom9Neighbour	tiles - concrete 600mm	K.B0			Ceramic tile

Ceiling type

Location	Construction material/type	Bulk insulation R-value (may include edge batt values)	Reflective wrap*
Neighbour 9 Living 9 Dining 9: itchen	timber - concrete 600mm		No
Neighbour 9 1 edroom 2	timber - concrete 600mm		No
Neighbour 9 1 edroom 6	timber - concrete 600mm		No
Neighbour 9 Hall 9 1 athroom	timber - concrete 600mm		No

Ceiling penetrations*

Location	Quantity	Type	Diameter (mm ²)	Sealed/unsealed
Living 9 Dining 9: itchen	23	Downlight		Sealed
Living 9 Dining 9: itchen	2	Ceiling exhaust fan	2K0	Sealed
1 edroom 2	B	Downlight		Sealed
1 edroom 2	2	Ceiling exhaust fan	2K0	Sealed
1 edroom 6	5	Downlight		Sealed
Hall 9 1 athroom	K	Downlight		Sealed
Hall 9 1 athroom	6	Ceiling exhaust fan	2K0	Sealed

Ceiling fans

Location	Quantity	Diameter (mm)
No Data Available		

Roof type

Construction	Added insulation (R-value)	Solar absorptance	Roof shade
none - Concrete slab 600mm		30	Light

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Roof window	for NatHERS this is typically an operable window (i.e. can be opened), will have a plaster or similar light well if there is an attic space, and generally does not have a diffuser.
Shading 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.
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 2. 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).