

BASIX[®]Certificate

Building Sustainability Index www.basix.nsw.gov.au

Single Dwelling

Certificate number: 1258480S_02

This certificate confirms that the proposed development will meet the NSW government's requirements for sustainability, if it is built in accordance with the commitments set out below. Terms used in this certificate, or in the commitments, have the meaning given by the document entitled "BASIX Definitions" dated 10/09/2020 published by the Department. This document is available at www.basix.nsw.gov.au

Secretary

Date of issue: Monday, 25 April 2022

To be valid, this certificate must be lodged within 3 months of the date of issue.



Planning,
Industry &
Environment

Project summary

Project name	McGrath Residence_02
Street address	20 Steel Drive Mudgee 2850
Local Government Area	Mid-Western Regional Council
Plan type and plan number	deposited 1262954
Lot no.	46
Section no.	-
Project type	separate dwelling house
No. of bedrooms	4

Project score

Water	✓ 30	Target 30
Thermal Comfort	✓ Pass	Target Pass
Energy	✓ 44	Target 40

Certificate Prepared by

Name / Company Name: SUNRAI DESIGNS

ABN (if applicable): 92439450078

Description of project

Project address

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Site details

Site area (m ²)	3332
Roof area (m ²)	427
Conditioned floor area (m2)	211.1
Unconditioned floor area (m2)	19.4
Total area of garden and lawn (m2)	1000

Assessor details and thermal loads

Assessor number	n/a
Certificate number	n/a
Climate zone	n/a
Area adjusted cooling load (MJ/m ² .year)	n/a
Area adjusted heating load (MJ/m ² .year)	n/a
Ceiling fan in at least one bedroom	n/a
Ceiling fan in at least one living room or other conditioned area	n/a

Project score

Water	✓ 30	Target 30
Thermal Comfort	✓ Pass	Target Pass
Energy	✓ 44	Target 40

Schedule of BASIX commitments

The commitments set out below regulate how the proposed development is to be carried out. It is a condition of any development consent granted, or complying development certificate issued, for the proposed development, that BASIX commitments be complied with.

Water Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
Landscape			
The applicant must plant indigenous or low water use species of vegetation throughout 150 square metres of the site.	✓	✓	
Fixtures			
The applicant must install showerheads with a minimum rating of 4 star (> 6 but <= 7.5 L/min plus spray force and/or coverage tests) in all showers in the development.		✓	✓
The applicant must install a toilet flushing system with a minimum rating of 5 star in each toilet in the development.		✓	✓
The applicant must install taps with a minimum rating of 5 star in the kitchen in the development.		✓	
The applicant must install basin taps with a minimum rating of 5 star in each bathroom in the development.		✓	
Alternative water			
Rainwater tank			
The applicant must install a rainwater tank of at least 7000 litres on the site. This rainwater tank must meet, and be installed in accordance with, the requirements of all applicable regulatory authorities.	✓	✓	✓
The applicant must configure the rainwater tank to collect rain runoff from at least 427.2 square metres of the roof area of the development (excluding the area of the roof which drains to any stormwater tank or private dam).		✓	✓
The applicant must connect the rainwater tank to: <ul style="list-style-type: none"> all toilets in the development the cold water tap that supplies each clothes washer in the development at least one outdoor tap in the development (Note: NSW Health does not recommend that rainwater be used for human consumption in areas with potable water supply.) 		✓ ✓ ✓	✓ ✓ ✓
Swimming pool			

Water Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
The swimming pool must not have a volume greater than 32 kilolitres.	✓	✓	
The swimming pool must have a pool cover.		✓	
The swimming pool must be outdoors.	✓	✓	

Thermal Comfort Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
General features			
The dwelling must not have more than 2 storeys.	✓	✓	✓
The conditioned floor area of the dwelling must not exceed 300 square metres.	✓	✓	✓
The dwelling must not contain open mezzanine area exceeding 25 square metres.	✓	✓	✓
The dwelling must not contain third level habitable attic room.	✓	✓	✓
Floor, walls and ceiling/roof			
The applicant must construct the floor(s), walls, and ceiling/roof of the dwelling in accordance with the specifications listed in the table below.	✓	✓	✓

Construction	Additional insulation required (R-Value)	Other specifications
floor - concrete slab on ground	nil	
external wall - AAC veneer (AAC: 75 mm)	1.79 (or 2.60 including construction)	
internal wall shared with garage - plasterboard	nil	
ceiling and roof - flat ceiling / pitched roof	ceiling: 3.95 (up), roof: foil backed blanket (55 mm)	unventilated; medium (solar absorptance 0.475-0.70)
ceiling and roof - raked ceiling / pitched or skillion roof, framed	ceiling: 4.24 (up), roof: foil backed blanket (55 mm)	framed; medium (solar absorptance 0.475-0.70)

Note	• Insulation specified in this Certificate must be installed in accordance with Part 3.12.1.1 of the Building Code of Australia.
Note	• In some climate zones, insulation should be installed with due consideration of condensation and associated interaction with adjoining building materials.



















Thermal Comfort Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
Windows, glazed doors and skylights			
The applicant must install the windows, glazed doors and shading devices described in the table below, in accordance with the specifications listed in the table. Relevant overshadowing specifications must be satisfied for each window and glazed door.	✓	✓	✓
The dwelling may have 1 skylight (<0.7 square metres) which is not listed in the table.	✓	✓	✓
<p>The following requirements must also be satisfied in relation to each window and glazed door:</p> <ul style="list-style-type: none"> For the following glass and frame types, the certifier check can be performed by visual inspection. <ul style="list-style-type: none"> - Aluminium single clear - Aluminium double (air) clear - Timber/uPVC/fibreglass single clear - Timber/uPVC/fibreglass double (air) clear 	✓	✓	✓ ✓

Window/glazed door no.	Maximum height (mm)	Maximum width (mm)	Type	Shading Device (Dimension within 10%)	Overshadowing
North-East facing					
WC (Ldry)	900	900	aluminium, single, clear	eave 500 mm, 300 mm above head of window or glazed door	not overshadowed
Verandah W	1800	2400	aluminium, single, clear	verandah 5670 mm, 2100 mm above base of window or glazed door	not overshadowed
Seat	1500	900	aluminium, single, clear	eave 500 mm, 300 mm above head of window or glazed door	not overshadowed
Verandah SD	2100	2400	aluminium, single, clear	verandah 5670 mm, 2400 mm above base of window or glazed door	not overshadowed
South-East facing					
WC (Bath)	1200	900	aluminium, single, clear	eave 500 mm, 300 mm above head of window or glazed door	not overshadowed
Bed 2	1500	1800	aluminium, single, clear	eave 500 mm, 300 mm above head of window or glazed door	not overshadowed

Window/glazed door no.	Maximum height (mm)	Maximum width (mm)	Type	Shading Device (Dimension within 10%)	Overshadowing
Rumpus	1500	1800	aluminium, single, clear	eave 500 mm, 300 mm above head of window or glazed door	not overshadowed
Porch 1	1800	900	aluminium, single, clear	verandah 1430 mm, 2100 mm above base of window or glazed door	not overshadowed
Bath	1200	1200	aluminium, single, clear	eave 500 mm, 300 mm above head of window or glazed door	not overshadowed
Garage	1200	1200	aluminium, single, clear	eave 500 mm, 300 mm above head of window or glazed door	not overshadowed
Bed 3	1500	1800	aluminium, single, clear	eave 500 mm, 300 mm above head of window or glazed door	not overshadowed
Bed 4	1500	1800	aluminium, single, clear	eave 500 mm, 300 mm above head of window or glazed door	not overshadowed
South-West facing					
Bed 1	1800	2100	aluminium, single, clear	eave 500 mm, 300 mm above head of window or glazed door	not overshadowed
Study	1800	2100	aluminium, single, clear	verandah 900 mm, 2100 mm above base of window or glazed door	not overshadowed
Entry Door	2100	820	aluminium, single, clear	verandah 2800 mm, 2400 mm above base of window or glazed door	not overshadowed
North-West facing					
Living 2	1800	900	aluminium, single, clear	eave 500 mm, 930 mm above head of window or glazed door	not overshadowed
Living HL	815	5390	aluminium, single, clear	eave 500 mm, 200 mm above head of window or glazed door	not overshadowed
Living 1	1800	900	aluminium, single, clear	eave 500 mm, 930 mm above head of window or glazed door	not overshadowed
WC (Ens)	900	600	aluminium, single, clear	eave 500 mm, 300 mm above head of window or glazed door	not overshadowed
Sitting	1800	2100	aluminium, single, clear	eave 500 mm, 300 mm above head of window or glazed door	not overshadowed
Ens	900	1200	aluminium, single, clear	eave 500 mm, 300 mm above head of window or glazed door	not overshadowed


Window/glazed door no.	Maximum height (mm)	Maximum width (mm)	Type	Shading Device (Dimension within 10%)	Overshadowing
Bed 1	600	2100	aluminium, single, clear	eave 500 mm, 300 mm above head of window or glazed door	not overshadowed
Ldry	600	1800	aluminium, single, clear	verandah 6870 mm, 900 mm above base of window or glazed door	not overshadowed
Ldry Door	2100	820	aluminium, single, clear	verandah 6870 mm, 2400 mm above base of window or glazed door	not overshadowed


Energy Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
Hot water			
The applicant must install the following hot water system in the development, or a system with a higher energy rating: gas instantaneous with a performance of 5 stars.	✓	✓	✓
Cooling system			
The applicant must install the following cooling system, or a system with a higher energy rating, in at least 1 living area: 1-phase airconditioning; Energy rating: 7 star (cold zone)		✓	✓
The applicant must install the following cooling system, or a system with a higher energy rating, in at least 1 bedroom: 1-phase airconditioning; Energy rating: 7 star (cold zone)		✓	✓
The cooling system must provide for day/night zoning between living areas and bedrooms.		✓	✓
Heating system			
The applicant must install the following heating system, or a system with a higher energy rating, in at least 1 living area: 1-phase airconditioning; Energy rating: 7 star (cold zone)		✓	✓
The applicant must install the following heating system, or a system with a higher energy rating, in at least 1 bedroom: 1-phase airconditioning; Energy rating: 7 star (cold zone)		✓	✓
The heating system must provide for day/night zoning between living areas and bedrooms.		✓	✓
Ventilation			
The applicant must install the following exhaust systems in the development:			
At least 1 Bathroom: individual fan, not ducted; Operation control: manual switch on/off		✓	✓
Kitchen: individual fan, ducted to façade or roof; Operation control: manual switch on/off		✓	✓
Laundry: natural ventilation only, or no laundry; Operation control: n/a		✓	✓
Artificial lighting			
The applicant must ensure that the "primary type of artificial lighting" is fluorescent or light emitting diode (LED) lighting in each of the following rooms, and where the word "dedicated" appears, the fittings for those lights must only be capable of accepting fluorescent or light emitting diode (LED) lamps:			
<ul style="list-style-type: none"> at least 5 of the bedrooms / study; dedicated 		✓	✓


Energy Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
<ul style="list-style-type: none"> at least 3 of the living / dining rooms; dedicated the kitchen; dedicated all bathrooms/toilets; dedicated the laundry; dedicated all hallways; dedicated 		    	    
Natural lighting			
The applicant must install a window and/or skylight in 3 bathroom(s)/toilet(s) in the development for natural lighting.			
Swimming pool			
The development must not incorporate any heating system for the swimming pool.			
The applicant must install a timer for the swimming pool pump in the development.			
Other			
The applicant must install a gas cooktop & electric oven in the kitchen of the dwelling.			
The applicant must install a fixed outdoor clothes drying line as part of the development.			
The applicant must install a fixed indoor or sheltered clothes drying line as part of the development.			

Legend

In these commitments, "applicant" means the person carrying out the development.

Commitments identified with a  in the "Show on DA plans" column must be shown on the plans accompanying the development application for the proposed development (if a development application is to be lodged for the proposed development).

Commitments identified with a  in the "Show on CC/CDC plans and specs" column must be shown in the plans and specifications accompanying the application for a construction certificate / complying development certificate for the proposed development.

Commitments identified with a  in the "Certifier check" column must be certified by a certifying authority as having been fulfilled, before a final occupation certificate (either interim or final) for the development may be issued.