

# BASIX<sup>®</sup>Certificate

Building Sustainability Index [www.basix.nsw.gov.au](http://www.basix.nsw.gov.au)

## Single Dwelling

Certificate number: 1751526S

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](http://www.basix.nsw.gov.au)

Secretary

Date of issue: Thursday, 13 June 2024

To be valid, this certificate must be submitted with a development application or lodged with a complying development certificate application within 3 months of the date of issue.



Project summary		
Project name	Gundi House - Secondary Dwelling + Shed	
Street address	10 LOMANDRA Street GUNDAROO 2620	
Local Government Area	Yass Valley Council	
Plan type and plan number	Deposited Plan DP1265264	
Lot no.	20	
Section no.	-	
Project type	dwelling house (detached) - secondary dwelling	
No. of bedrooms	3	
Project score		
Water	✔ 48	Target 40
Thermal Performance	✔ Pass	Target Pass
Energy	✔ 100	Target 60
Materials	✔ -35	Target n/a

Certificate Prepared by
Name / Company Name: Mrs Kendall Gaddes
ABN (if applicable):

# Description of project

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## Site details

Site area (m <sup>2</sup> )	2500
Roof area (m <sup>2</sup> )	140
Conditioned floor area (m <sup>2</sup> )	75.0
Unconditioned floor area (m <sup>2</sup> )	10.0
Total area of garden and lawn (m <sup>2</sup> )	1500
Roof area of the existing dwelling (m <sup>2</sup> )	315
Number of bedrooms in the existing dwelling	4

## Assessor details and thermal loads

Assessor number	n/a
Certificate number	n/a
Climate zone	n/a
Area adjusted cooling load (MJ/m <sup>2</sup> .year)	n/a
Area adjusted heating load (MJ/m <sup>2</sup> .year)	n/a

## Project score

Water	✔ 48	Target 40
Thermal Performance	✔ Pass	Target Pass
Energy	✔ 100	Target 60
Materials	✔ -35	Target n/a

## 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
<b>Landscape</b>			
The applicant must plant indigenous or low water use species of vegetation throughout 500 square metres of the site.	✓	✓	
<b>Fixtures</b>			
The applicant must install showerheads with a minimum rating of 3 star (> 7.5 but ≤ 9 L/min) in all showers in the development.		✓	✓
The applicant must install a toilet flushing system with a minimum rating of 4 star in each toilet in the development.		✓	✓
The applicant must install taps with a minimum rating of 4 star in the kitchen in the development.		✓	
The applicant must install basin taps with a minimum rating of 4 star in each bathroom in the development.		✓	
<b>Alternative water</b>			
<b>Rainwater tank</b>			
The applicant must install a rainwater tank of at least 90000 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 160 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"> <li>all toilets in the development</li> <li>the cold water tap that supplies each clothes washer in the development</li> </ul>		✓ ✓	✓ ✓

## Water Commitments

Show on  
DA plans

Show on CC/CDC  
plans & specs

Certifier  
check

- 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.)
- all hot water systems in the development
- all indoor cold water taps (not including taps that supply clothes washers) in the development



Thermal Performance and Materials commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
<b>Do-it-yourself Method</b>			
General features			
The dwelling must be a Class 1 dwelling according to the National Construction Code, and 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.	✓	✓	✓
The applicant must adopt one of the options listed in the tables below to address thermal bridging in metal framed floor(s), walls and ceiling/roof of the dwelling.	✓	✓	✓
The applicant must show through receipts that the materials purchased for construction are consistent with the specifications listed in the tables below.			✓

Construction	Area - m <sup>2</sup>	Additional insulation required	Options to address thermal bridging	Other specifications
floor - concrete slab on ground, waffle pod slab.	85	nil;not specified	nil	
garage floor - concrete slab on ground.	55	none	nil	

Construction	Area - m <sup>2</sup>	Additional insulation required	Options to address thermal bridging	Other specifications
external wall: framed (metal clad); frame: light steel frame.	all external walls	3.50 (or 4.00 including construction) with one of the measures to address thermal bridging;fibreglass batts or roll	<ul style="list-style-type: none"> <li>Install reflective foil outside the frame to create a minimum 20 mm reflective airspace between frame and veneer, or</li> <li>Install continuous insulation layer with at least R0.3 on the inside or outside of the frame</li> </ul>	wall colour: Light (solar absorptance < 0.48)
internal wall shared with garage: plasterboard; frame: light steel frame.	43	1.08 (or 1.50 including construction);fibreglass batts or roll	nil	
internal wall: plasterboard; frame: light steel frame.	44	fibreglass batts or roll	nil	
ceiling and roof - flat ceiling / pitched roof, framed - metal roof, light steel frame.	80	ceiling: 6.8 (up), roof: foil backed blanket with one of the measures to address thermal bridging;ceiling: fibreglass batts or roll; roof: foil backed blanket.	<ul style="list-style-type: none"> <li>Install additional R0.5 (up) (or R7.3 (up) including the additional insulation), or</li> <li>Install continuous ceiling insulation layer with at least R0.13 above or below the ceiling joists or the bottom chords of the trusses, or</li> <li>Install two layers of insulation immediately on top of each other, with the top layer of at least R0.5 oriented to cover the ceiling joists or bottom chords of the trusses</li> </ul>	roof space ventilation: unventilated; roof colour: medium (solar absorptance 0.6-0.7); 1.5 to ≤ 2.0% of ceiling area uninsulated
ceiling and roof - raked ceiling / pitched or skillion roof, framed - metal roof, light steel frame.	60	ceiling: 6.8 (up), roof: foil backed blanket with the measure to address thermal bridging;ceiling: fibreglass batts or roll; roof: foil backed blanket.	<ul style="list-style-type: none"> <li>Install continuous insulation layer with at least R0.6 above or below the roof frame members</li> </ul>	roof colour: medium (solar absorptance 0.6-0.7); 1.5 to ≤ 2.0% of ceiling area uninsulated

Note	<ul style="list-style-type: none"> <li>Insulation specified in this Certificate must be installed in accordance with the ABCB Housing Provisions (Part 13.2.2) of the National Construction Code.</li> </ul>
Note	<ul style="list-style-type: none"> <li>If the additional ceiling insulation listed in the table above is greater than R3.0, refer to the ABCB Housing Provisions (Part 13.2.3 (6)) of the National Construction Code.</li> </ul>
Note	<ul style="list-style-type: none"> <li>In some climate zones, insulation should be installed with due consideration of condensation and associated interaction with adjoining building materials.</li> </ul>
Note	<ul style="list-style-type: none"> <li>Roof space ventilation needs to meet the condensation management provisions in the ABCB Housing Provisions of the National Construction Code.</li> </ul>
Note	<ul style="list-style-type: none"> <li>Thermal breaks must be installed in metal framed walls and applicable roofs in accordance with the ABCB Housing Provisions of the National Construction Code.</li> </ul>

Thermal Performance and Materials commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
Glazed windows, 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 glazed window and door.	✓	✓	✓
The dwelling may have 1 skylight (<0.7 square metres) which is not listed in the table.	✓	✓	✓
The following requirements must also be satisfied in relation to each window and glazed door:	✓	✓	✓
<ul style="list-style-type: none"> <li>The applicant must install windows and glazed doors in accordance with the height and width, frame and glazing types listed in the table.</li> </ul>	✓	✓	✓
<ul style="list-style-type: none"> <li>Each window and glazed door must have a U- value no greater than that listed and a Solar Heat Gain Coefficient (SHGC) within the range listed. Total system U values and SHGC must be calculated in accordance with National Fenestration Rating Council (NFRC) conditions.</li> </ul>		✓	✓
<ul style="list-style-type: none"> <li>Pergolas with polycarbonate roof or similar translucent material must have a shading coefficient of less than 0.35.</li> </ul>	✓	✓	✓
<ul style="list-style-type: none"> <li>Unless they have adjustable shading, pergolas must have fixed battens parallel to the window or glazed door above which they are situated, unless the pergola also shades a perpendicular window. The spacing between battens must not exceed the height of the battens.</li> </ul>	✓	✓	✓
The applicant must install the skylights described in the table below, in accordance with the specifications listed in the table. Total skylight area must not exceed 3 square metres (the 3 square metre limit does not include the optional additional skylight of less than 0.7 square metres that does not have to be listed in the table).	✓	✓	✓

Glazed window/door no.	Maximum height (mm)	Maximum width (mm)	Frame and glass specification	Shading device (Dimension within 10%)	Overshadowing
<b>North facing</b>					
W18	1200.00	1500.00	aluminium, double glazed (U-value: <=4.5, SHGC: >0.49)	pergola (fixed battens) 2500 mm, 2700 mm above head of window or glazed door	not overshadowed
W14	1200.00	1500.00	aluminium, double glazed (U-value: <=4.5, SHGC: >0.49)	pergola (fixed battens) 2500 mm, 2700 mm above head of window or glazed door	not overshadowed

Glazed window/door no.	Maximum height (mm)	Maximum width (mm)	Frame and glass specification	Shading device (Dimension within 10%)	Overshadowing
W15	1200.00	1500.00	aluminium, double glazed (U-value: <=4.5, SHGC: >0.49)	pergola (fixed battens) 2500 mm, 2700 mm above head of window or glazed door	not overshadowed
D08	2100.00	2400.00	aluminium, double glazed (U-value: <=4, SHGC: >0.6)	pergola (fixed battens) 2500 mm, 2700 mm above head of window or glazed door	not overshadowed
<b>South facing</b>					
W17	1200.00	1500.00	aluminium, double glazed (U-value: <=4.5, SHGC: >0.49)	none	not overshadowed
<b>West facing</b>					
W16	1800.00	600.00	aluminium, double glazed (U-value: <=4.5, SHGC: >0.49)	none	not overshadowed





Energy Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
<b>Hot water</b>			
The applicant must install the following hot water system in the development, or a system with a higher energy rating: electric storage.	✓	✓	✓
<b>Cooling system</b>			
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 - non ducted; Energy rating: 3.5 star (cold zone)		✓	✓
The bedrooms must not incorporate any cooling system, or any ducting which is designed to accommodate a cooling system.		✓	✓
<b>Heating system</b>			
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 - non ducted; Energy rating: 2.5 star (cold zone)		✓	✓
The bedrooms must not incorporate any heating system, or any ducting which is designed to accommodate a heating system.		✓	✓
<b>Ventilation</b>			
<p>The applicant must install the following exhaust systems in the development:</p> <p>At least 1 Bathroom: individual fan, ducted to façade or roof; Operation control: manual switch on/off</p> <p>Kitchen: individual fan, ducted to façade or roof; Operation control: manual switch on/off</p> <p>Laundry: natural ventilation only, or no laundry; Operation control: n/a</p>		<p style="text-align: center;">✓</p> <p style="text-align: center;">✓</p> <p style="text-align: center;">✓</p>	<p style="text-align: center;">✓</p> <p style="text-align: center;">✓</p> <p style="text-align: center;">✓</p>
<b>Artificial lighting</b>			
The applicant must ensure that a minimum of 80% of light fixtures are fitted with fluorescent, compact fluorescent, or light-emitting-diode (LED) lamps.		✓	✓
<b>Natural lighting</b>			
The applicant must install a window and/or skylight in the kitchen of the dwelling for natural lighting.	✓	✓	✓


Energy Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
The applicant must install a window and/or skylight in 1 bathroom(s)/toilet(s) in the development for natural lighting.	✓	✓	✓
<b>Alternative energy</b>			
The applicant must install a photovoltaic system as part of the development. The applicant must connect this system to the development's electrical system.	✓	✓	✓
The photovoltaic system must consist of: <ul style="list-style-type: none"> <li>• photovoltaic collectors with the capacity to generate at least 5 peak kilowatts of electricity, installed at an angle between 25 degrees and 35 degrees to the horizontal facing north</li> </ul>	✓	✓	✓
<b>Other</b>			
The applicant must install an induction cooktop & electric oven in the kitchen of the dwelling.		✓	
The applicant must install a fixed outdoor 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.