

BASIX[®]Certificate

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

Single Dwelling

Certificate number: 1317458S

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: Friday, 24 June 2022

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



Planning,
Industry &
Environment

Project summary		
Project name	Alex and Kirsty House	
Street address	604 Wallawaugh Road Hargraves 2850	
Local Government Area	Mid-Western Regional Council	
Plan type and plan number	deposited 700395	
Lot no.	5	
Section no.	-	
Project type	separate dwelling house - secondary dwelling	
No. of bedrooms	2	
Project score		
Water	✔ 78	Target 30
Thermal Comfort	✔ Pass	Target Pass
Energy	✔ 44	Target 40




Certificate Prepared by

Name / Company Name: William Rix

ABN (if applicable): N/A

Description of project

Project address	
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No. of bedrooms	2
Site details	
Site area (m ²)	1000
Roof area (m ²)	88
Conditioned floor area (m2)	88.0
Unconditioned floor area (m2)	0.0
Total area of garden and lawn (m2)	100
Roof area (m2) of the existing dwelling	130
No. of bedrooms in the existing dwelling	2

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	 78	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 5 square metres of the site.	✓	✓	
Fixtures			
The applicant must install showerheads with a minimum rating of 4 star (> 4.5 but <= 6 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 6 star in each toilet in the development.		✓	✓
The applicant must install taps with a minimum rating of 6 star in the kitchen in the development.		✓	
The applicant must install basin taps with a minimum rating of 6 star in each bathroom in the development.		✓	
Alternative water			
Rainwater tank			
The applicant must install a rainwater tank of at least 54000 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 88 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 • all hot water systems in the development • all indoor cold water taps (not including taps that supply clothes washers) in the development 		✓ ✓ ✓ ✓	✓ ✓ ✓ ✓

Water Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
Greywater treatment system			
The applicant must install a greywater treatment system on the site. This system must meet, and be installed in accordance with, the requirements of all applicable regulatory authorities.		✓	✓
<p>The applicant must configure the greywater treatment system so that greywater for recycling is collected from:</p> <ul style="list-style-type: none"> • the laundry • each bathroom (but not the toilets) • the entire household 		✓ ✓ ✓ ✓	✓ ✓ ✓ ✓
<p>The applicant must connect the greywater treatment system to:</p> <ul style="list-style-type: none"> • a sub-surface or non-aerosol irrigation system, or if the greywater has been appropriately treated in accordance with applicable regulatory requirements, to at least one outdoor tap in the development (Note: NSWHealth does not recommend that greywater be used to irrigate edible plants which are consumed raw.) 		✓	✓

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 - framed (weatherboard, fibre cement, metal clad)	3.20 (or 3.60 including construction)	
ceiling and roof - flat ceiling / flat roof, framed	ceiling: 5 (up), roof: foil/sarking	framed; dark (solar absorptance > 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 For other glass or frame types, each window and glazed door must be accompanied with certification showing a U value no greater than that listed and a Solar Heat Gain Coefficient (SHGC) within the range of those listed. Total system U values and SHGC must be calculated in accordance with National Fenestration Rating Council (NFRC) conditions. Frame and glass types shown in the table below are for reference only. Pergolas with polycarbonate roof or similar translucent material must have a shading coefficient of less than 0.35. 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. 	✓	✓	 ✓ ✓ ✓ ✓ ✓

Window/glazed door no.	Maximum height (mm)	Maximum width (mm)	Type	Shading Device (Dimension within 10%)	Overshadowing
North facing					
W01	790	589	aluminium, single, clear	pergola (fixed battens) 1500 mm, 2300 mm above head of window or glazed door	not overshadowed
W02	790	589	aluminium, single, clear	pergola (fixed battens) 1500 mm, 2300 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
W03	2100	3000	U-value: 6.6, SHGC: 0.441 - 0.539 (aluminium, single, tint)	pergola (fixed battens) 1500 mm, 2300 mm above head of window or glazed door	not overshadowed
South facing					
W04	1800	1100	U-value: 6.6, SHGC: 0.441 - 0.539 (aluminium, single, tint)	pergola (fixed battens) 1500 mm, 2300 mm above head of window or glazed door	not overshadowed
W05	1800	1100	U-value: 6.6, SHGC: 0.441 - 0.539 (aluminium, single, tint)	pergola (fixed battens) 1500 mm, 2300 mm above head of window or glazed door	not overshadowed
W06	790	1731	aluminium, single, clear	pergola (fixed battens) 1500 mm, 2300 mm above head of window or glazed door	not overshadowed
W07	1600	1600	aluminium, single, clear	pergola (fixed battens) 1500 mm, 2300 mm above head 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: solar (gas boosted, flat plate) with a performance of more than 45 STCs.	✓	✓	✓
Cooling system			
The applicant must install the following cooling system, or a system with a higher energy rating, in at least 1 living area: ceiling fans; Energy rating: n/a		✓	✓
The applicant must install the following cooling system, or a system with a higher energy rating, in at least 1 bedroom: ceiling fans; Energy rating: n/a		✓	✓
Heating system			
The applicant must install the following heating system, or a system with a higher energy rating, in at least 1 living area: wood heater; Energy rating: n/a		✓	✓
The bedrooms must not incorporate any heating system, or any ducting which is designed to accommodate a heating system.		✓	✓
The wood heater must have a compliance plate confirming that it complies with the relevant Australian standards, and must be installed in accordance with the requirements of all applicable regulatory authorities.			✓
Ventilation			
<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: interlocked to light</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>
Artificial lighting			
<p>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:</p> <ul style="list-style-type: none"> • at least 2 of the bedrooms / study; dedicated • at least 1 of the living / dining rooms; dedicated 		<p style="text-align: center;">✓</p> <p style="text-align: center;">✓</p>	<p style="text-align: center;">✓</p> <p style="text-align: center;">✓</p>


Energy Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
<ul style="list-style-type: none"> • 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 the kitchen of the dwelling for natural lighting.			
The applicant must install a window and/or skylight in 2 bathroom(s)/toilet(s) in the development for natural lighting.			
Other			
The applicant must install a gas cooktop & electric oven in the kitchen of the dwelling.			
The applicant must construct each refrigerator space in the development so that it is "well ventilated", as defined in the BASIX definitions.			

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.