

BASIX[®]Certificate

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

Single Dwelling

Certificate number: 1023645S

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 06/10/2017 published by the Department. This document is available at www.basix.nsw.gov.au

Secretary

Date of issue: Tuesday, 16 July 2019

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



Project summary		
Project name	19 Kooloora	
Street address	19 Kooloora Avenue Freshwater 2099	
Local Government Area	Northern Beaches Council	
Plan type and plan number	deposited 7022	
Lot no.	16	
Section no.	2	
Project type	separate dwelling house	
No. of bedrooms	4	
Project score		
Water	 40	Target 40
Thermal Comfort	 Pass	Target Pass
Energy	 73	Target 50

Certificate Prepared by
Name / Company Name: Playoustchurcher Architects
ABN (if applicable): 43709527294

Description of project

Project address

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Site details

Site area (m ²)	377
Roof area (m ²)	210
Conditioned floor area (m2)	182.38
Unconditioned floor area (m2)	10.82
Total area of garden and lawn (m2)	121

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

Project score

Water	✓ 40	Target 40
Thermal Comfort	✓ Pass	Target Pass
Energy	✓ 73	Target 50

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 25 square metres of the site.	✓	✓	
Fixtures			
The applicant must install showerheads with a minimum rating of 3 star (> 4.5 but ≤ 6 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.		✓	
Alternative water			
Rainwater tank			
The applicant must install a rainwater tank of at least 4000 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 210.18 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: - 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.) - a tap that is located within 10 metres of the swimming pool in the development		✓ ✓	✓ ✓
Swimming pool			
The swimming pool must not have a volume greater than 17.5 kilolitres.	✓	✓	

Water Commitments

Show on
DA plans

Show on CC/CDC
plans & specs

Certifier
check

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 - above habitable rooms or mezzanine, framed	nil	
floor - suspended floor above garage, framed	nil	
external wall - framed (weatherboard, fibre cement, metal clad)	3.00 (or 3.40 including construction)	
internal wall shared with garage - cavity brick wall	nil	
ceiling and roof - flat ceiling / pitched roof	ceiling: 3.5 (up), roof: foil/sarking	unventilated; 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.

Window/glazed door no.	Maximum height (mm)	Maximum width (mm)	Type	Shading Device (Dimension within 10%)	Overshadowing
W03	3520	600	U-value: 3.7, SHGC: 0.342 - 0.418 (timber/UPVC/fibreglass, single, Lo-Tsol Low-e)	eave 2400 mm, 2100 mm above head of window or glazed door	not overshadowed
W04	1200	2800	U-value: 3.7, SHGC: 0.342 - 0.418 (timber/UPVC/fibreglass, single, Lo-Tsol Low-e)	eave 850 mm, 150 mm above head of window or glazed door	not overshadowed
W05	2140	900	timber/UPVC/fibreglass, single, clear	eave 850 mm, 125 mm above head of window or glazed door	not overshadowed
W06	1750	860	U-value: 3.7, SHGC: 0.342 - 0.418 (timber/UPVC/fibreglass, single, Lo-Tsol Low-e)	eave 2400 mm, 450 mm above head of window or glazed door	not overshadowed
W07	800	460	timber/UPVC/fibreglass, single, clear	eave 1800 mm, 400 mm above head of window or glazed door	not overshadowed
South-East facing					
W08	680	1800	timber/UPVC/fibreglass, single, clear	eave 500 mm, 1150 mm above head of window or glazed door	>4 m high, 2-5 m away
W09	680	1500	timber/UPVC/fibreglass, single, clear	eave 500 mm, 1150 mm above head of window or glazed door	>4 m high, 2-5 m away
W10	1540	900	timber/UPVC/fibreglass, single, clear	eave 500 mm, 300 mm above head of window or glazed door	>4 m high, 2-5 m away
W11	1540	900	timber/UPVC/fibreglass, single, clear	eave 500 mm, 300 mm above head of window or glazed door	>4 m high, 2-5 m away
W12	1200	2000	U-value: 3.7, SHGC: 0.342 - 0.418 (timber/UPVC/fibreglass, single, Lo-Tsol Low-e)	eave 550 mm, 100 mm above head of window or glazed door	not overshadowed
W13	1200	1600	U-value: 3.7, SHGC: 0.342 - 0.418 (timber/UPVC/fibreglass, single, Lo-Tsol Low-e)	eave 850 mm, 100 mm above head of window or glazed door	not overshadowed
W14	1200	1600	U-value: 3.7, SHGC: 0.342 - 0.418 (timber/UPVC/fibreglass, single, Lo-Tsol Low-e)	eave 850 mm, 100 mm above head of window or glazed door	not overshadowed
W15	1200	600	timber/UPVC/fibreglass, single, clear	eave 850 mm, 100 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
W16	1200	600	timber/UPVC/fibreglass, single, clear	eave 850 mm, 100 mm above head of window or glazed door	not overshadowed
South-West facing					
W17	3520	600	U-value: 3.7, SHGC: 0.342 - 0.418 (timber/UPVC/fibreglass, single, Lo-Tsol Low-e)	eave 3000 mm, 2100 mm above head of window or glazed door	not overshadowed
W18	1600	800	U-value: 3.7, SHGC: 0.342 - 0.418 (timber/UPVC/fibreglass, single, Lo-Tsol Low-e)	eave 2000 mm, 600 mm above head of window or glazed door	not overshadowed
W19	2700	4800	U-value: 3.7, SHGC: 0.342 - 0.418 (timber/UPVC/fibreglass, single, Lo-Tsol Low-e)	eave 6000 mm, 0 mm above head of window or glazed door	not overshadowed
W20	1750	860	U-value: 3.7, SHGC: 0.342 - 0.418 (timber/UPVC/fibreglass, single, Lo-Tsol Low-e)	eave 2000 mm, 400 mm above head of window or glazed door	not overshadowed
W21	800	460	timber/UPVC/fibreglass, single, clear	eave 1300 mm, 200 mm above head of window or glazed door	not overshadowed
W22	2100	3320	U-value: 2.3, SHGC: 0.171 - 0.209 (timber/UPVC/fibreglass, double (air), Lo-Tsol Low-e/clear)	eave 850 mm, 100 mm above head of window or glazed door	not overshadowed
North-West facing					
W23	500	2130	timber/UPVC/fibreglass, single, clear	external louvre/vertical blind (adjustable)	not overshadowed
W24	400	2710	timber/UPVC/fibreglass, single, clear	external louvre/vertical blind (adjustable)	not overshadowed
W25	2700	360	U-value: 3.7, SHGC: 0.342 - 0.418 (timber/UPVC/fibreglass, single, Lo-Tsol Low-e)	eave 1450 mm, 0 mm above head of window or glazed door	not overshadowed
W26	1300	600	timber/UPVC/fibreglass, single, clear	eave 850 mm, 3150 mm above head of window or glazed door	not overshadowed
W27	1600	800	timber/UPVC/fibreglass, single, clear	external louvre/vertical blind (adjustable)	not overshadowed
W28	1600	800	timber/UPVC/fibreglass, single, clear	external louvre/vertical blind (adjustable)	not overshadowed

Window/glazed door no.	Maximum height (mm)	Maximum width (mm)	Type	Shading Device (Dimension within 10%)	Overshadowing
W29	1750	1810	U-value: 3.7, SHGC: 0.342 - 0.418 (timber/UPVC/fibreglass, single, Lo-Tsol Low-e)	external louvre/vertical blind (adjustable)	not overshadowed
W30	1200	600	timber/UPVC/fibreglass, single, clear	eave 850 mm, 100 mm above head of window or glazed door	not overshadowed
W31	800	4400	timber/UPVC/fibreglass, single, clear	external louvre/vertical blind (adjustable)	not overshadowed
W32	1200	2000	timber/UPVC/fibreglass, single, clear	external louvre/vertical blind (adjustable)	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: 3-phase airconditioning; Energy rating: EER 2.5 - 3.0		✓	✓
The applicant must install the following cooling system, or a system with a higher energy rating, in at least 1 bedroom: ceiling fans + 3-phase airconditioning; Energy rating: EER 2.5 - 3.0		✓	✓
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: 3-phase airconditioning; Energy rating: EER 2.5 - 3.0		✓	✓
The applicant must install the following heating system, or a system with a higher energy rating, in at least 1 bedroom: 3-phase airconditioning; Energy rating: EER 2.5 - 3.0		✓	✓
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, ducted to façade or roof; Operation control: manual switch on/off		✓	✓
Kitchen: individual fan, ducted to façade or roof; Operation control: manual switch on/off		✓	✓
Laundry: individual fan, ducted to façade or roof; Operation control: manual switch on/off		✓	✓
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:			
at least 4 of the bedrooms / study; dedicated		✓	✓

Energy Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
• at least 5 of the living / dining rooms; dedicated • the kitchen; dedicated • all bathrooms/toilets; • the laundry; • all hallways;		    	    
Natural lighting			
The applicant must install a window and/or skylight in 4 bathroom(s)/toilet(s) in the development for natural lighting.			
Swimming pool			
The applicant must install the following heating system for the swimming pool in the development (or alternatively must not install any heating system for the swimming pool): solar only			
The applicant must install a timer for the swimming pool pump in the development.			
Alternative energy			
The applicant must install a photovoltaic system with the capacity to generate at least 2 peak kilowatts of electricity as part of the development. The applicant must connect this system to the development's electrical system.			
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.			
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.