

BASIX[®]Certificate

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

Single Dwelling

Certificate number: 610531S_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 18/09/2014 published by Planning & Infrastructure. This document is available at www.basix.nsw.gov.au

Director-General

Date of issue: Tuesday, 10 March 2015

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



Project summary		
Project name	Shaw_02	
Street address	170 Morgan Road Belrose 2085	
Local Government Area	Warringah Council	
Plan type and plan number	deposited 752038	
Lot no.	170	
Section no.	-	
Project type	separate dwelling house	
No. of bedrooms	5	
Project score		
Water	 41	Target 40
Thermal Comfort	 Pass	Target Pass
Energy	 40	Target 40

Certificate Prepared by

Name / Company Name: The Plan Shop

ABN (if applicable): 94149822211

Description of project

Project address

Project name	Shaw_02
Street address	170 Morgan Road Belrose 2085
Local Government Area	Warringah Council
Plan type and plan number	Deposited Plan 752038
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Project type

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Site details

Site area (m ²)	19938
Roof area (m ²)	366
Conditioned floor area (m2)	210
Unconditioned floor area (m2)	13
Total area of garden and lawn (m2)	3000

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

Other

none	n/a
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Project score

Water	✓ 41	Target 40
Thermal Comfort	✓ Pass	Target Pass
Energy	✓ 40	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 1000 square metres of the site.	✓	✓	
Fixtures			
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 1 star in each toilet in the development.		✓	✓
The applicant must install taps with a minimum rating of 3 star in the kitchen in the development.		✓	
The applicant must install basin taps with a minimum rating of 3 star in each bathroom in the development.		✓	
Alternative water			
Rainwater tank			
The applicant must install a rainwater tank of at least 30000 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 2000 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 configure the rainwater tank so that overflow is diverted to a stormwater tank.		✓	✓
The applicant must connect the rainwater tank to: the cold water tap that supplies each clothes washer in the development		✓	✓
Stormwater tank			
The applicant must install a stormwater tank with a capacity of at least 40000 litres on the site. This stormwater tank must meet, and be installed in accordance with, the requirements of all applicable regulatory authorities.	✓	✓	✓

Water Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
The applicant must configure the stormwater tank to collect overflow from the rainwater tank.		✓	✓
The applicant must configure the stormwater tank to collect runoff from: at least 2000 square metres of roof area of the development (excluding the area of the roof which drains to any rainwater tank or private dam)		✓	✓
The applicant must connect the stormwater tank to: a sub-surface or non-aerosol irrigation system, or if the stormwater 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 stormwater be used to irrigate edible plants which are consumed raw.)		✓	✓
Swimming pool			
The swimming pool must not have a volume greater than 48 kilolitres.	✓	✓	
The swimming pool must have a pool cover.		✓	
The swimming pool must be outdoors.	✓	✓	
Outdoor Spa			
The spa must not have a volume greater than 4.8 kilolitres.	✓	✓	
The spa must have a spa cover.		✓	

Thermal Comfort Commitments

Show on
DA plans

Show on CC/CDC
plans & specs

Certifier
check

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)	1.50 (or 1.90 including construction)	
internal wall shared with garage - plasterboard	nil	
ceiling and roof - raked ceiling / pitched or skillion roof, framed	ceiling: 1 (up), roof: foil backed blanket (55mm)	framed; light (solar absorptance < 0.475)

Note Insulation specified in this Certificate must be installed in accordance with Part 3.12.1.1 of the Building Code of Australia.

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) and up to 2 windows/glazed doors (<0.7 square metres) which are not listed in the table.	✓	✓	✓
The following requirements must also be satisfied in relation to each window and glazed door: - Except where the glass is 'single clear' or 'single toned', each window and glazed door must have a U-value no greater than that listed and a Solar Heat Gain Coefficient (SHGC) +/-10% of that listed. Total system U-values and SHGC must be calculated in accordance with National Fenestration Rating Council (NFRC) conditions. - The leading edge of each eave, pergola, verandah, balcony or awning must be no more than 500 millimetres above the head of the window or glazed door, except that a projection greater than 500 mm and up to 1500 mm above the head must be twice the value in the table. - 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 be more than 50 mm.	✓ ✓	✓ ✓ ✓ ✓	✓ ✓ ✓ ✓

Window/glazed door no.	Orientation	Maximum area (square metres)	Type	Shading	Overshadowing
W1, W2, L1	NW	4.45	timber or uPVC, single clear (or U-value:5.71, SHGC:0.66)	eave/verandah/pergola/balcony >2,000 mm	not overshadowed
W4, W5, W6	NW	5.67	timber or uPVC, single clear (or U-value:5.71, SHGC:0.66)	eave/verandah/pergola/balcony 601-750 mm	not overshadowed
W7	SW	2.25	timber or uPVC, single toned (or U-value:5.67, SHGC:0.49)	none	not overshadowed
W8	SW	3.15	timber or uPVC, single clear (or U-value:5.71, SHGC:0.66)	none	not overshadowed
W10, W11	SW	2.52	timber or uPVC, single toned (or U-value:5.67, SHGC:0.49)	eave/verandah/pergola/balcony 601-750 mm	not overshadowed
W9	SW	3.60	timber or uPVC, single clear (or U-value:5.71, SHGC:0.66)	eave/verandah/pergola/balcony 601-750 mm	not overshadowed

Window/glazed door no.	Orientation	Maximum area (square metres)	Type	Shading	Overshadowing
W13, W16	SE	14.64	timber or uPVC, single clear (or U-value:5.71, SHGC:0.66)	eave/verandah/ pergola/balcony 601-750 mm	not overshadowed
W12	SE	0.54	timber or uPVC, single toned (or U-value:5.67, SHGC:0.49)	eave/verandah/ pergola/balcony 601-750 mm	not overshadowed
W14, L2	SE	10.08	timber or uPVC, single clear (or U-value:5.71, SHGC:0.66)	eave/verandah/ pergola/balcony >2,000 mm	not overshadowed
W15	SW	5.04	timber or uPVC, single clear (or U-value:5.71, SHGC:0.66)	eave/verandah/ pergola/balcony >2,000 mm	not overshadowed
W17	NE	5.04	timber or uPVC, single clear (or U-value:5.71, SHGC:0.66)	eave/verandah/ pergola/balcony 601-750 mm	not overshadowed
W18	NE	1.08	timber or uPVC, single clear (or U-value:5.71, SHGC:0.66)	none	not overshadowed
W19, W20	NE	3.78	timber or uPVC, single clear (or U-value:5.71, SHGC:0.66)	eave/verandah/ pergola/balcony 601-750 mm	not overshadowed
W21	SW	2.52	timber or uPVC, single clear (or U-value:5.71, SHGC:0.66)	eave/verandah/ pergola/balcony >2,000 mm	not overshadowed
W3	NE	2.52	timber or uPVC, single clear (or U-value:5.71, SHGC:0.66)	eave/verandah/ pergola/balcony >2,000 mm	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) with a performance of more than 45 RECs.	✓	✓	✓
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 living areas must not incorporate any heating system, or any ducting which is designed to accommodate a heating system.		✓	✓
The bedrooms must not incorporate any heating system, or any ducting which is designed to accommodate a heating system.		✓	✓
Ventilation			
The applicant must install the following exhaust systems in the development: At least 1 Bathroom: individual fan, not ducted; Operation control: interlocked to light		✓	✓
Kitchen: individual fan, not ducted; 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: - at least 5 of the bedrooms / study; dedicated - at least 3 of the living / dining rooms; dedicated - the kitchen; dedicated		✓ ✓ ✓	✓ ✓ ✓

Energy Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
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 3 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.		✓	
Outdoor spa			
The applicant must install the following heating system for the spa in the development (or alternatively must not install any heating system for the spa): solar (gas boosted)		✓	
The applicant must install a timer for the spa pump in the development.		✓	
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.