

BASIX[®]Certificate

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

Single Dwelling

Certificate number: 1149707S

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: Thursday, 29 October 2020
To be valid, this certificate must be lodged within 3 months of the date of issue.



Project summary		
Project name	LOT 3 31-32 PARK AVENUE KINGSWOOD	
Street address	31-32 PARK Avenue KINGSWOOD 2747	
Local Government Area	Penrith City Council	
Plan type and plan number	deposited 29528	
Lot no.	15-16	
Section no.	-	
Project type	separate dwelling house	
No. of bedrooms	8	
Project score		
Water	✓ 41	Target 40
Thermal Comfort	✓ Pass	Target Pass
Energy	✓ 52	Target 50

Certificate Prepared by
Name / Company Name: Eco-Mantra Design
ABN (if applicable): 80314207900

Description of project

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Site details

Site area (m ²)	415
Roof area (m ²)	185
Conditioned floor area (m ²)	183.0
Unconditioned floor area (m ²)	99.0
Total area of garden and lawn (m ²)	43

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	 41	Target 40
Thermal Comfort	 Pass	Target Pass
Energy	 52	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
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 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 1500 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 100 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 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.) 		✓ ✓	✓ ✓

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, 121 square metres	nil	
floor - above habitable rooms or mezzanine, 116 square metres, framed	nil	
external wall - brick veneer	3.06 (or 3.60 including construction)	
external wall - framed (weatherboard, fibre cement, metal clad)	3.20 (or 3.60 including construction)	
ceiling and roof - flat ceiling / pitched roof	ceiling: 2.95 (up), roof: foil backed blanket (100 mm)	2 wind-driven ventilator(s) + eave vents; medium (solar absorptance 0.475-0.70)

Note	<ul style="list-style-type: none"> Insulation specified in this Certificate must be installed in accordance with Part 3.12.1.1 of the Building Code of Australia.
Note	<ul style="list-style-type: none"> 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.	✓	✓	✓
The following requirements must also be satisfied in relation to each window and glazed door: <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 Overshadowing buildings/vegetation must be of the height and distance from the centre and the base of the window and glazed door, as specified in the 'overshadowing' column. 	✓	✓	✓ ✓
	✓	✓	✓

Window/glazed door no.	Maximum height (mm)	Maximum width (mm)	Type	Shading Device (Dimension within 10%)	Overshadowing
North-East facing					
D4	2400	2000	aluminium, single, clear	eave 570 mm, 300 mm above head of window or glazed door	1-2 m high, <1.5 m away
W3	1800	2000	aluminium, single, clear	eave 570 mm, 300 mm above head of window or glazed door	1-2 m high, <1.5 m away
W2	600	2000	aluminium, single, clear	eave 570 mm, 300 mm above head of window or glazed door	1-2 m high, <1.5 m away
V1	600	600	aluminium, single, clear	eave 570 mm, 300 mm above head of window or glazed door	not overshadowed
W7	800	1000	aluminium, single, clear	eave 570 mm, 300 mm above head of window or glazed door	not overshadowed
W2	600	2000	aluminium, single, clear	eave 570 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
W2	600	2000	aluminium, single, clear	eave 570 mm, 300 mm above head of window or glazed door	not overshadowed
W2	600	2000	aluminium, single, clear	eave 570 mm, 300 mm above head of window or glazed door	not overshadowed
W2	600	2000	aluminium, single, clear	eave 570 mm, 300 mm above head of window or glazed door	not overshadowed
W7	800	1000	aluminium, single, clear	eave 570 mm, 300 mm above head of window or glazed door	not overshadowed
V1	600	600	aluminium, single, clear	eave 570 mm, 300 mm above head of window or glazed door	not overshadowed
South-East facing					
W2	600	2000	aluminium, single, clear	none	not overshadowed
W11	1800	800	aluminium, single, clear	eave 570 mm, 300 mm above head of window or glazed door	not overshadowed
W11	1800	800	aluminium, single, clear	eave 570 mm, 300 mm above head of window or glazed door	not overshadowed
South-West facing					
V1	600	600	aluminium, single, clear	none	1-2 m high, <1.5 m away
V1	600	600	aluminium, single, clear	none	1-2 m high, <1.5 m away
W7	800	1000	aluminium, single, clear	none	1-2 m high, <1.5 m away
North-West facing					
W11	1800	800	aluminium, single, clear	none	1-2 m high, <1.5 m away
W11	1800	800	aluminium, single, clear	eave 570 mm, 300 mm above head of window or glazed door	not overshadowed
W11	1800	800	aluminium, single, clear	eave 570 mm, 300 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: gas instantaneous with a performance of 3 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: 4 star (average 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: 4 star (average 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: 4 star (average 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: 4 star (average zone)		✓	✓
The heating system must provide for day/night zoning between living areas and bedrooms.		✓	✓
Ventilation			
<p>The applicant must install the following exhaust systems in the development:</p> <p>At least 1 Bathroom: individual fan, not ducted; 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>
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 8 of the bedrooms / study; 		✓	✓

Energy Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
<ul style="list-style-type: none"> • at least 2 of the living / dining rooms; • the kitchen; • all bathrooms/toilets; • the laundry; • all hallways; 		<ul style="list-style-type: none"> ✓ ✓ ✓ ✓ ✓ 	<ul style="list-style-type: none"> ✓ ✓ ✓ ✓ ✓
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 4 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.		✓	
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.