

# BASIX<sup>®</sup>Certificate

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

## Single Dwelling

Certificate number: 1221182S

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: Wednesday, 10 November 2021

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



Planning,  
Industry &  
Environment

Project summary		
Project name	Chamberlain Secondary Dwelling	
Street address	58 Whale beach Road Avalon Beach 2107	
Local Government Area	Northern Beaches Council	
Plan type and plan number	deposited 17189	
Lot no.	106	
Section no.	-	
Project type	separate dwelling house - secondary dwelling	
No. of bedrooms	1	
Project score		
Water	 40	Target 40
Thermal Comfort	 Pass	Target Pass
Energy	 51	Target 50

Certificate Prepared by
Name / Company Name: Markham-Lee Architecture
ABN (if applicable): 27154383089

# Description of project

## Project address

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## Site details

Site area (m²)	674
Roof area (m²)	95
Conditioned floor area (m2)	60.0
Unconditioned floor area (m2)	0.0
Total area of garden and lawn (m2)	67
Roof area (m2) of the existing dwelling	167
No. 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/m².year)	n/a
Area adjusted heating load (MJ/m².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	✓ 40	Target 40
Thermal Comfort	✓ Pass	Target Pass
Energy	✓ 51	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
<b>Landscape</b>			
The applicant must plant indigenous or low water use species of vegetation throughout 67 square metres of the site.	✓	✓	
<b>Fixtures</b>			
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 5 star in each toilet in the development.		✓	✓
The applicant must install taps with a minimum rating of 5 star in the kitchen in the development.		✓	
The applicant must install basin taps with a minimum rating of 5 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 1200 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 19 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>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.)</li> </ul>		✓	✓

Thermal Comfort Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
<b>General features</b>			
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.	✓	✓	✓
<b>Floor, walls and ceiling/roof</b>			
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 - suspended floor above open subfloor, framed	1.3 (or 2 including construction) (down)	
external wall - framed (weatherboard, fibre cement, metal clad)	2.00 (or 2.40 including construction)	
ceiling and roof - raked ceiling / pitched or skillion roof, framed	ceiling: 4 (up), roof: foil backed blanket (75 mm)	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
<b>Windows, glazed doors and skylights</b>			
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"> <li>For the following glass and frame types, the certifier check can be performed by visual inspection. <ul style="list-style-type: none"> <li>Aluminium single clear</li> <li>Aluminium double (air) clear</li> <li>Timber/uPVC/fibreglass single clear</li> <li>Timber/uPVC/fibreglass double (air) clear</li> </ul> </li> <li>Vertical external louvres and blinds must fully shade the window or glazed door beside which they are situated when fully drawn or closed.</li> <li>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.</li> </ul>	✓	✓	✓ ✓
	✓	✓	✓

Window/glazed door no.	Maximum height (mm)	Maximum width (mm)	Type	Shading Device (Dimension within 10%)	Overshadowing
<b>North facing</b>					
W19	1440	3443	timber/UPVC/fibreglass, single, clear	eave 1025 mm, 423 mm above head of window or glazed door	2-4 m high, 2 m away
W26	260	3310	timber/UPVC/fibreglass, single, clear	eave 1025 mm, 163 mm above head of window or glazed door	not overshadowed
W27	260	3310	timber/UPVC/fibreglass, single, clear	eave 1025 mm, 163 mm above head of window or glazed door	not overshadowed
<b>East facing</b>					
W13	1400	940	timber/UPVC/fibreglass, single, clear	eave 1025 mm, 423 mm above head of window or glazed door	>4 m high, 8-12 m away

Window/glazed door no.	Maximum height (mm)	Maximum width (mm)	Type	Shading Device (Dimension within 10%)	Overshadowing
W14	1400	940	timber/UPVC/fibreglass, single, clear	eave 1025 mm, 423 mm above head of window or glazed door	>4 m high, 8-12 m away
W20	260	2910	timber/UPVC/fibreglass, single, clear	eave 1025 mm, 163 mm above head of window or glazed door	>4 m high, 8-12 m away
W21	260	2910	timber/UPVC/fibreglass, single, clear	eave 1025 mm, 163 mm above head of window or glazed door	>4 m high, 8-12 m away
W22	260	2910	timber/UPVC/fibreglass, single, clear	eave 1025 mm, 163 mm above head of window or glazed door	>4 m high, 8-12 m away
<b>West facing</b>					
W15	1400	970	timber/UPVC/fibreglass, single, clear	eave 1025 mm, 423 mm above head of window or glazed door	>4 m high, 5-8 m away
W17	1400	985	timber/UPVC/fibreglass, single, clear	external louvre/vertical blind (adjustable)	not overshadowed
W23	260	2910	timber/UPVC/fibreglass, single, clear	eave 1025 mm, 163 mm above head of window or glazed door	>4 m high, 5-8 m away
W24	260	2910	timber/UPVC/fibreglass, single, clear	eave 1025 mm, 163 mm above head of window or glazed door	not overshadowed
W25	260	2910	timber/UPVC/fibreglass, single, clear	eave 1025 mm, 163 mm above head of window or glazed door	not overshadowed
W18	1400	1925	timber/UPVC/fibreglass, single, clear	external louvre/vertical blind (adjustable)	not overshadowed
W16	1400	3090	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
<b>Hot water</b>			
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.	✓	✓	✓
<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: 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		✓	✓
<b>Heating system</b>			
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.		✓	✓
<b>Ventilation</b>			
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		✓ ✓ ✓	✓ ✓ ✓
<b>Artificial lighting</b>			
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 1 of the bedrooms / study; dedicated  • at least 1 of the living / dining rooms; dedicated  • the kitchen; dedicated		✓ ✓ ✓	✓ ✓ ✓

Energy Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
<ul style="list-style-type: none"> <li>all bathrooms/toilets; dedicated</li> </ul>		✓	✓
<ul style="list-style-type: none"> <li>the laundry; dedicated</li> </ul>		✓	✓
<ul style="list-style-type: none"> <li>all hallways; dedicated</li> </ul>		✓	✓
<b>Natural lighting</b>			
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 1 bathroom(s)/toilet(s) in the development for natural lighting.	✓	✓	✓
<b>Alternative energy</b>			
The applicant must install a photovoltaic system with the capacity to generate at least 0.1 peak kilowatts of electricity as part of the development. The applicant must connect this system to the development's electrical system.	✓	✓	✓
<b>Other</b>			
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.