

# BASIX<sup>®</sup>Certificate

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

## Single Dwelling

Certificate number: 1285690S

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: Monday, 07 March 2022

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



Planning,  
Industry &  
Environment

### Project summary

Project name	158 Wyndora Avenue
Street address	158 Wyndora Avenue Freshwater 2096
Local Government Area	Northern Beaches Council
Plan type and plan number	deposited 7912
Lot no.	14
Section no.	N/A
Project type	separate dwelling house
No. of bedrooms	5

### Project score

Water	✓ 40	Target 40
Thermal Comfort	✓ Pass	Target Pass
Energy	✓ 53	Target 50

### Certificate Prepared by

Name / Company Name: CHAPMAN ENVIRONMENTAL SERVICES PTY LTD

ABN (if applicable): 58601921108

# Description of project

## Project address

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## Site details

Site area (m <sup>2</sup> )	552
Roof area (m <sup>2</sup> )	236
Conditioned floor area (m2)	209.5
Unconditioned floor area (m2)	23.2
Total area of garden and lawn (m2)	323

## Assessor details and thermal loads

Assessor number	n/a
Certificate number	n/a
Climate zone	n/a
Area adjusted cooling load (MJ/m <sup>2</sup> .year)	n/a
Area adjusted heating load (MJ/m <sup>2</sup> .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	✓ 53	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>Fixtures</b>			
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 4 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.		✓	
<b>Alternative water</b>			
<b>Rainwater tank</b>			
The applicant must install a rainwater tank of at least 2000 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 236 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>all toilets in the development</li> <li>the cold water tap that supplies each clothes washer in the development</li> <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 - concrete slab on ground, 121.5 square metres	nil	
floor - suspended floor above open subfloor, 2.5 square metres, framed	0.8 (or 1.5 including construction) (down)	
floor - suspended floor above garage, framed	nil	
external wall - framed (weatherboard, fibre cement, metal clad)	2.00 (or 2.40 including construction)	
internal wall shared with garage - plasterboard	nil	
ceiling and roof - flat ceiling / pitched roof	ceiling: 2.7 (up), roof: foil backed blanket (55 mm)	unventilated; 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.
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>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>	✓	✓	✓ ✓
The applicant must install the skylights described in the table below, in accordance with the specifications listed in the table. Total skylight area must not exceed 3 square metres (the 3 square metre limit does not include the optional additional skylight of less than 0.7 square metres that does not have to be listed in the table).	✓	✓	✓

Skylight no.	Maximum area (square metres)	Type	Shading device
S01	0.49	aluminium, moulded plastic single clear	no shading
S02	0.49	aluminium, moulded plastic single clear	no shading



















Window/glazed door no.	Maximum height (mm)	Maximum width (mm)	Type	Shading Device (Dimension within 10%)	Overshadowing
<b>North facing</b>					
W01	1460	610	aluminium, single, clear	eave 1300 mm, 525 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
W02	1460	610	aluminium, single, clear	eave 1300 mm, 525 mm above head of window or glazed door	>4 m high, 8-12 m away
D01	2400	1440	aluminium, single, clear	eave 1300 mm, 525 mm above head of window or glazed door	>4 m high, 8-12 m away
D06	2100	2688	aluminium, single, clear	eave 1800 mm, 290 mm above head of window or glazed door	>4 m high, 8-12 m away
W10	1200	1570	aluminium, single, clear	eave 600 mm, 290 mm above head of window or glazed door	>4 m high, 8-12 m away
W13	1200	1210	aluminium, single, clear	eave 600 mm, 290 mm above head of window or glazed door	>4 m high, 8-12 m away
<b>East facing</b>					
W05	1800	1210	aluminium, single, clear	eave 600 mm, 465 mm above head of window or glazed door	not overshadowed
W06	1800	1210	aluminium, single, clear	eave 600 mm, 465 mm above head of window or glazed door	not overshadowed
W07	1460	2410	aluminium, single, clear	eave 600 mm, 465 mm above head of window or glazed door	not overshadowed
W08	1460	610	aluminium, single, clear	eave 600 mm, 465 mm above head of window or glazed door	2-4 m high, 2 m away
W09	600	2410	aluminium, single, clear	eave 600 mm, 465 mm above head of window or glazed door	2-4 m high, 2 m away
W18	860	2410	aluminium, single, clear	eave 600 mm, 290 mm above head of window or glazed door	not overshadowed
W19	860	2410	aluminium, single, clear	eave 600 mm, 290 mm above head of window or glazed door	not overshadowed
W20	860	2410	aluminium, single, clear	eave 600 mm, 290 mm above head of window or glazed door	2-4 m high, 2 m away
W21	1200	610	aluminium, single, clear	eave 600 mm, 290 mm above head of window or glazed door	2-4 m high, 2 m away
W22	1200	610	aluminium, single, clear	eave 600 mm, 290 mm above head of window or glazed door	2-4 m high, 2 m away
<b>South facing</b>					

Window/glazed door no.	Maximum height (mm)	Maximum width (mm)	Type	Shading Device (Dimension within 10%)	Overshadowing
D04	2400	3588	aluminium, single, clear	eave 3400 mm, 465 mm above head of window or glazed door	not overshadowed
D05	2400	3588	aluminium, single, clear	eave 3400 mm, 465 mm above head of window or glazed door	not overshadowed
W15	860	1810	aluminium, single, clear	eave 600 mm, 290 mm above head of window or glazed door	not overshadowed
W16	860	1810	aluminium, single, clear	eave 600 mm, 290 mm above head of window or glazed door	not overshadowed
W17	860	1810	aluminium, single, clear	eave 600 mm, 290 mm above head of window or glazed door	not overshadowed
<b>West facing</b>					
W03	600	1810	aluminium, single, clear	eave 600 mm, 1300 mm above head of window or glazed door	2-4 m high, 2-5 m away
W04	600	1810	aluminium, single, clear	eave 600 mm, 1300 mm above head of window or glazed door	2-4 m high, 2-5 m away
W11	600	1570	aluminium, single, clear	eave 600 mm, 325 mm above head of window or glazed door	2-4 m high, 2-5 m away
W12	1200	1570	aluminium, single, clear	eave 600 mm, 325 mm above head of window or glazed door	2-4 m high, 2-5 m away
W14	860	1810	aluminium, single, clear	eave 600 mm, 325 mm above head of window or glazed door	2-4 m high, 2-5 m away

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: 1-phase airconditioning; Energy rating: EER 3.0 - 3.5		✓	✓
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: EER 3.0 - 3.5		✓	✓
The cooling system must provide for day/night zoning between living areas and bedrooms.		✓	✓
<b>Heating system</b>			
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: EER 3.0 - 3.5		✓	✓
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: EER 3.0 - 3.5		✓	✓
The heating system must provide for day/night zoning between living areas and bedrooms.		✓	✓
<b>Ventilation</b>			
The applicant must install the following exhaust systems in the development: At least 1 Bathroom: no mechanical ventilation (ie. natural); Operation control: n/a  Kitchen: individual fan, ducted to façade or roof; Operation control: manual switch on/off  Laundry: natural ventilation only, or no laundry; Operation control: n/a		✓ ✓ ✓	✓ ✓ ✓
<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 5 of the bedrooms / study; dedicated		✓	✓




Energy Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
<ul style="list-style-type: none"> <li>• at least 3 of the living / dining rooms; dedicated</li> <li>• the kitchen; dedicated</li> <li>• all bathrooms/toilets; dedicated</li> <li>• the laundry; dedicated</li> <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 3 bathroom(s)/toilet(s) in the development for natural lighting.			
<b>Other</b>			
The applicant must install a gas cooktop & electric oven in the kitchen of the dwelling.			
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.

# Signatures

Date: Mar 15 2022

Signature:   
Levon Dalziel

Date: Mar 17 2022

Signature:   
Andrea Dalziel

Date: Mar 21 2022

Signature: *Jane Thompson*  
Jane Thompson



## Document Details

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