

BASIX[®]Certificate

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

Alterations and Additions

Certificate number: A1775061

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, 28 November 2024

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



Project address	
Project name	20 McDonald Street
Street address	20 MCDONALD Street FRESHWATER 2096
Local Government Area	Northern Beaches Council
Plan type and number	Deposited Plan DP217885
Lot number	4
Section number	-
Project type	
Dwelling type	Dwelling house (detached)
Type of alteration and addition	The estimated development cost for my renovation work is \$50,000 or more, and does not include a pool (and/or spa).
N/A	N/A
Certificate Prepared by <small>(please complete before submitting to Council or PCA)</small>	
Name / Company Name: CHAPMAN ENVIRONMENTAL SERVICES PTY LTD	
ABN (if applicable): 58601921108	

Fixtures and systems	Show on DA Plans	Show on CC/CDC Plans & specs	Certifier Check
Lighting			
The applicant must ensure a minimum of 40% of new or altered light fixtures are fitted with fluorescent, compact fluorescent, or light-emitting-diode (LED) lamps.		✓	✓
Fixtures			
The applicant must ensure new or altered showerheads have a flow rate no greater than 9 litres per minute or a 3 star water rating.		✓	✓
The applicant must ensure new or altered toilets have a flow rate no greater than 4 litres per average flush or a minimum 3 star water rating.		✓	✓
The applicant must ensure new or altered taps have a flow rate no greater than 9 litres per minute or minimum 3 star water rating.		✓	

Construction			Show on DA Plans	Show on CC/CDC Plans & specs	Certifier Check												
Insulation requirements																	
The applicant must construct the new or altered construction (floor(s), walls, and ceilings/roofs) in accordance with the specifications listed in the table below, except that a) additional insulation is not required where the area of new construction is less than 2m2, b) insulation specified is not required for parts of altered construction where insulation already exists.			✔	✔	✔												
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="background-color: #808080; color: white;">Construction</th> <th style="background-color: #808080; color: white;">Additional insulation required (R-value)</th> <th style="background-color: #808080; color: white;">Other specifications</th> </tr> </thead> <tbody> <tr> <td>floor above existing dwelling or building.</td> <td>nil</td> <td>N/A</td> </tr> <tr> <td>external wall: framed (weatherboard, fibro, metal clad)</td> <td>R1.30 (or R1.70 including construction)</td> <td></td> </tr> <tr> <td>flat ceiling, flat roof: framed</td> <td>ceiling: R0.90 (up), roof: foil backed blanket (55 mm)</td> <td>light (solar absorptance < 0.475)</td> </tr> </tbody> </table>			Construction	Additional insulation required (R-value)	Other specifications	floor above existing dwelling or building.	nil	N/A	external wall: framed (weatherboard, fibro, metal clad)	R1.30 (or R1.70 including construction)		flat ceiling, flat roof: framed	ceiling: R0.90 (up), roof: foil backed blanket (55 mm)	light (solar absorptance < 0.475)			
Construction	Additional insulation required (R-value)	Other specifications															
floor above existing dwelling or building.	nil	N/A															
external wall: framed (weatherboard, fibro, metal clad)	R1.30 (or R1.70 including construction)																
flat ceiling, flat roof: framed	ceiling: R0.90 (up), roof: foil backed blanket (55 mm)	light (solar absorptance < 0.475)															

Glazing requirements	Show on DA Plans	Show on CC/CDC Plans & specs	Certifier Check
Windows and glazed doors			
The applicant must install the windows, glazed doors and shading devices, in accordance with the specifications listed in the table below. Relevant overshadowing specifications must be satisfied for each window and glazed door.	✓	✓	✓
The following requirements must also be satisfied in relation to each window and glazed door:		✓	✓
Each window or glazed door with standard aluminium or timber frames and single clear or toned glass may either match the description, or, have a U-value and a Solar Heat Gain Coefficient (SHGC) no greater than that listed in the table below. Total system U-values and SHGCs must be calculated in accordance with National Fenestration Rating Council (NFRC) conditions.		✓	✓
Each window or glazed door with improved frames, or pyrolytic low-e glass, or clear/air gap/clear glazing, or toned/air gap/clear glazing must have a U-value and a Solar Heat Gain Coefficient (SHGC) no greater than that listed in the table below. Total system U-values and SHGCs must be calculated in accordance with National Fenestration Rating Council (NFRC) conditions. The description is provided for information only. Alternative systems with complying U-value and SHGC may be substituted.		✓	✓
For projections described in millimetres, the leading edge of each eave, pergola, verandah, balcony or awning must be no more than 500 mm above the head of the window or glazed door and no more than 2400 mm above the sill.	✓	✓	✓
For projections described as a ratio, the ratio of the projection from the wall to the height above the window or glazed door sill must be at least that shown in the table below.	✓	✓	✓
Pergolas with polycarbonate roof or similar translucent material must have a shading coefficient of less than 0.35.		✓	✓
External louvres and blinds must fully shade the window or glazed door beside which they are situated when fully drawn or closed.		✓	✓
Pergolas with fixed battens must have 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.		✓	✓
Overshadowing buildings or 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 in the table below.	✓	✓	✓

Glazing requirements							Show on DA Plans	Show on CC/CDC Plans & specs	Certifier Check
Windows and glazed doors glazing requirements									
Window/door number	Orientation	Area of glass including frame (m2)	Overshadowing height (m)	Overshadowing distance (m)	Shading device	Frame and glass type			
LD01	S	10.71	0	0	none	standard aluminium, single clear, (or U-value: 7.63, SHGC: 0.75)			
LD02	E	12.32	0	0	eave/verandah/pergola/balcony >=900 mm	standard aluminium, single clear, (or U-value: 7.63, SHGC: 0.75)			
LD03	S	9.24	0	0	eave/verandah/pergola/balcony >=900 mm	standard aluminium, single clear, (or U-value: 7.63, SHGC: 0.75)			
LD04	W	1.89	0	0	eave/verandah/pergola/balcony >=600 mm	improved aluminium, single pyrolytic low-e, (U-value: 4.48, SHGC: 0.46)			
GD01 sl	N	0.96	0	0	eave/verandah/pergola/balcony >=900 mm	standard aluminium, single clear, (or U-value: 7.63, SHGC: 0.75)			

Glazing requirements							Show on DA Plans	Show on CC/CDC Plans & specs	Certifier Check
Window/door number	Orientation	Area of glass including frame (m2)	Overshadowing height (m)	Overshadowing distance (m)	Shading device	Frame and glass type			
GD04	E	7.8	0	0	eave/ verandah/ pergola/balcony >=900 mm	standard aluminium, single clear, (or U-value: 7.63, SHGC: 0.75)			
FD01	E	10.81	0	0	eave/ verandah/ pergola/balcony >=900 mm	standard aluminium, single clear, (or U-value: 7.63, SHGC: 0.75)			
LW01	E	3.24	8	4	none	standard aluminium, single clear, (or U-value: 7.63, SHGC: 0.75)			
LW02	N	6.75	8	9	eave/ verandah/ pergola/balcony >=450 mm	improved aluminium, single pyrolytic low-e, (U-value: 4.48, SHGC: 0.46)			
LW03	S	2.2	0	0	eave/ verandah/ pergola/balcony >=900 mm	standard aluminium, single clear, (or U-value: 7.63, SHGC: 0.75)			

Glazing requirements							Show on DA Plans	Show on CC/CDC Plans & specs	Certifier Check
Windows and glazed doors glazing requirements									
Window/door number	Orientation	Area of glass including frame (m2)	Overshadowing height (m)	Overshadowing distance (m)	Shading device	Frame and glass type			
LW04	W	2.16	6	2.5	none	improved aluminium, single pyrolytic low-e, (U-value: 4.48, SHGC: 0.46)			
GW01	N	2.89	0	0	eave/verandah/pergola/balcony >=450 mm	improved aluminium, single pyrolytic low-e, (U-value: 4.48, SHGC: 0.46)			
GW02	N	4.43	0	0	external louvre/blind (fixed)	standard aluminium, single clear, (or U-value: 7.63, SHGC: 0.75)			
GW03	E	4.32	5	4	none	improved aluminium, single pyrolytic low-e, (U-value: 4.48, SHGC: 0.46)			
GW04	S	10.8	0	0	eave/verandah/pergola/balcony >=600 mm	standard aluminium, single clear, (or U-value: 7.63, SHGC: 0.75)			

Glazing requirements							Show on DA Plans	Show on CC/CDC Plans & specs	Certifier Check
Window/door number	Orientation	Area of glass including frame (m2)	Overshadowing height (m)	Overshadowing distance (m)	Shading device	Frame and glass type			
GW05	E	10.8	5	8	eave/ verandah/ pergola/balcony >=600 mm	improved aluminium, single pyrolytic low-e, (U-value: 4.48, SHGC: 0.46)			
GW06	E	2.76	0	0	eave/ verandah/ pergola/balcony >=600 mm	improved aluminium, single pyrolytic low-e, (U-value: 4.48, SHGC: 0.46)			
GW07	S	1.8	0	0	eave/ verandah/ pergola/balcony >=600 mm	standard aluminium, single clear, (or U-value: 7.63, SHGC: 0.75)			
GW08	S	1.8	0	0	eave/ verandah/ pergola/balcony >=600 mm	standard aluminium, single clear, (or U-value: 7.63, SHGC: 0.75)			
GW09	S	1.08	0	0	eave/ verandah/ pergola/balcony >=600 mm	standard aluminium, single clear, (or U-value: 7.63, SHGC: 0.75)			

Glazing requirements							Show on DA Plans	Show on CC/CDC Plans & specs	Certifier Check
Windows and glazed doors glazing requirements									
Window/door number	Orientation	Area of glass including frame (m2)	Overshadowing height (m)	Overshadowing distance (m)	Shading device	Frame and glass type			
GW10	W	1.7	0	0	eave/ verandah/ pergola/balcony >=600 mm	improved aluminium, single pyrolytic low-e, (U-value: 4.48, SHGC: 0.46)			
GW11	W	1.7	0	0	eave/ verandah/ pergola/balcony >=600 mm	improved aluminium, single pyrolytic low-e, (U-value: 4.48, SHGC: 0.46)			
GW12	W	2	0	0	eave/ verandah/ pergola/balcony >=600 mm	improved aluminium, single pyrolytic low-e, (U-value: 4.48, SHGC: 0.46)			
GW13	W	3.2	6	2.5	projection/ height above sill ratio >=0.23	improved aluminium, single pyrolytic low-e, (U-value: 4.48, SHGC: 0.46)			
GW14	W	2.1	6	2.5	none	improved aluminium, single pyrolytic low-e, (U-value: 4.48, SHGC: 0.46)			

Glazing requirements							Show on DA Plans	Show on CC/CDC Plans & specs	Certifier Check
Window/door number	Orientation	Area of glass including frame (m2)	Overshadowing height (m)	Overshadowing distance (m)	Shading device	Frame and glass type			
FW01	S	2.1	0	0	eave/ verandah/ pergola/balcony >=600 mm	standard aluminium, single clear, (or U-value: 7.63, SHGC: 0.75)			
FW02	S	2.1	0	0	eave/ verandah/ pergola/balcony >=600 mm	standard aluminium, single clear, (or U-value: 7.63, SHGC: 0.75)			
FW03	S	1.62	0	0	eave/ verandah/ pergola/balcony >=600 mm	standard aluminium, single clear, (or U-value: 7.63, SHGC: 0.75)			
FW04	E	2.79	0	0	eave/ verandah/ pergola/balcony >=600 mm	improved aluminium, single pyrolytic low-e, (U-value: 4.48, SHGC: 0.46)			
FW05	S	1.62	0	0	eave/ verandah/ pergola/balcony >=600 mm	standard aluminium, single clear, (or U-value: 7.63, SHGC: 0.75)			


Glazing requirements							Show on DA Plans	Show on CC/CDC Plans & specs	Certifier Check
Windows and glazed doors glazing requirements									
Window/door number	Orientation	Area of glass including frame (m2)	Overshadowing height (m)	Overshadowing distance (m)	Shading device	Frame and glass type			
FW06	S	1.62	0	0	eave/ verandah/ pergola/balcony >=600 mm	standard aluminium, single clear, (or U-value: 7.63, SHGC: 0.75)			
FW07	W	1.44	0	0	eave/ verandah/ pergola/balcony >=600 mm	improved aluminium, single pyrolytic low-e, (U-value: 4.48, SHGC: 0.46)			
FW08	W	2.1	0	0	eave/ verandah/ pergola/balcony >=600 mm	improved aluminium, single pyrolytic low-e, (U-value: 4.48, SHGC: 0.46)			
FW09	N	3.78	0	0	eave/ verandah/ pergola/balcony >=600 mm	improved aluminium, single pyrolytic low-e, (U-value: 4.48, SHGC: 0.46)			
FW10	N	2.1	0	0	eave/ verandah/ pergola/balcony >=600 mm	improved aluminium, single pyrolytic low-e, (U-value: 4.48, SHGC: 0.46)			


Glazing requirements							Show on DA Plans	Show on CC/CDC Plans & specs	Certifier Check
Window/door number	Orientation	Area of glass including frame (m2)	Overshadowing height (m)	Overshadowing distance (m)	Shading device	Frame and glass type			
FW11	N	2.1	0	0	eave/ verandah/ pergola/balcony >=600 mm	improved aluminium, single pyrolytic low-e, (U-value: 4.48, SHGC: 0.46)			
FW12	N	2.1	0	0	eave/ verandah/ pergola/balcony >=600 mm	improved aluminium, single pyrolytic low-e, (U-value: 4.48, SHGC: 0.46)			


Glazing requirements				Show on DA Plans	Show on CC/CDC Plans & specs	Certifier Check
Skylights						
The applicant must install the skylights in accordance with the specifications listed in the table below.				✓	✓	✓
The following requirements must also be satisfied in relation to each skylight:					✓	✓
Each skylight may either match the description, or, have a U-value and a Solar Heat Gain Coefficient (SHGC) no greater than that listed in the table below.					✓	✓
Skylights glazing requirements						
Skylight number	Area of glazing inc. frame (m2)	Shading device	Frame and glass type			
S1	3.61	no shading	timber, low-E internal/argon fill/clear external, (or U-value: 2.9, SHGC: 0.456)			
S2-3	2.05	no shading	timber, low-E internal/argon fill/clear external, (or U-value: 2.9, SHGC: 0.456)			
S4	3	no shading	timber, low-E internal/argon fill/clear external, (or U-value: 2.9, SHGC: 0.456)			
S5	0.68	no shading	timber, low-E internal/argon fill/clear external, (or U-value: 2.9, SHGC: 0.456)			
S6-7	1.36	no shading	timber, low-E internal/argon fill/clear external, (or U-value: 2.9, SHGC: 0.456)			

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 & 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 for the development may be issued.