

BASIX[®]Certificate

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

Single Dwelling

Certificate number: 1218291S

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: Tuesday, 29 June 2021

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



Planning,
Industry &
Environment

Project summary

Project name	11 wyndora ave
Street address	11 Wyndora Avenue Freshwater 2096
Local Government Area	Northern Beaches Council
Plan type and plan number	deposited 191367
Lot no.	1
Section no.	-
Project type	separate dwelling house
No. of bedrooms	5

Project score

Water	✓ 44	Target 40
Thermal Comfort	✓ Pass	Target Pass
Energy	✓ 98	Target 50

Certificate Prepared by

Name / Company Name: north x north

ABN (if applicable): 37762517273

Description of project

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Site details

Site area (m ²)	404
Roof area (m ²)	134
Conditioned floor area (m2)	250.0
Unconditioned floor area (m2)	50.0
Total area of garden and lawn (m2)	130

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
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	✓ 44	Target 40
Thermal Comfort	✓ Pass	Target Pass
Energy	✓ 98	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
Landscape			
The applicant must plant indigenous or low water use species of vegetation throughout 130 square metres of the site.	✓	✓	
Fixtures			
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 6 star in each toilet in the development.		✓	✓
The applicant must install taps with a minimum rating of 6 star in the kitchen in the development.		✓	
The applicant must install basin taps with a minimum rating of 6 star in each bathroom in the development.		✓	
Alternative water			
Rainwater tank			
The applicant must install a rainwater tank of at least 3190 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 configure the rainwater tank so that overflow is diverted to a stormwater tank.		✓	✓
The applicant must connect the rainwater tank to: <ul style="list-style-type: none"> 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.) 		✓	✓
Stormwater tank			
The applicant must install a stormwater tank with a capacity of at least 9000 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.		✓	✓
<p>The applicant must configure the stormwater tank to collect runoff from:</p> <ul style="list-style-type: none"> at least 100 square metres of roof area of the development (excluding the area of the roof which drains to any rainwater tank or private dam) at least 40 square metres of impervious areas at least 130 square metres of garden and lawn 		✓ ✓ ✓	✓ ✓ ✓
<p>The applicant must connect the stormwater tank to:</p> <ul style="list-style-type: none"> 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.) 		✓	✓
Greywater diversion system			
The applicant must install a greywater diversion system on the site. This system must meet, and be installed in accordance with, the requirements of all applicable regulatory authorities.		✓	✓
<p>The applicant must configure the greywater diversion system so that greywater for diversion is collected from:</p> <ul style="list-style-type: none"> the laundry each bathroom (but not the toilets) 		✓ ✓	✓ ✓
Outdoor Spa			
The spa must not have a volume greater than 5 kilolitres.	✓	✓	
The spa must have a spa cover.		✓	
The spa must be shaded.	✓	✓	
Hot water recirculation or diversion system			
The applicant must install an on demand hot water recirculation system which regulates all hot water use throughout the development.		✓	✓

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	nil	
external wall - other/undecided	3.40 (including construction)	
external wall - other/undecided	3.40 (including construction)	
external wall - other/undecided	3.40 (including construction)	
ceiling and roof - flat ceiling / flat roof, concrete/bare internal	ceiling: 4.5 (up), roof: foil backed blanket (75 mm)	concrete/bare internal; medium (solar absorptance 0.475-0.70)

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.


Window/glazed door no.	Maximum height (mm)	Maximum width (mm)	Type	Shading Device (Dimension within 10%)	Overshadowing
W03	2700	6500	U-value: 3.9, SHGC: 0.567 - 0.693 (composite, double (argon), clear)	solid overhang 750 mm, 3000 mm above head of window or glazed door	not overshadowed
East facing					
W04	800	3300	U-value: 3.9, SHGC: 0.567 - 0.693 (composite, double (argon), clear)	external louvre/vertical blind (fixed)	>4 m high, 5-8 m away
W05	1800	2200	U-value: 3.9, SHGC: 0.567 - 0.693 (composite, double (argon), clear)	external louvre/vertical blind (fixed)	>4 m high, 5-8 m away
W06	2700	5600	U-value: 3.9, SHGC: 0.567 - 0.693 (composite, double (argon), clear)	none	2-4 m high, 2 m away
South facing					
W07	2200	2500	U-value: 3.9, SHGC: 0.567 - 0.693 (composite, double (argon), clear)	none	not overshadowed
W08	2200	2500	U-value: 3.9, SHGC: 0.567 - 0.693 (composite, double (argon), clear)	none	not overshadowed
W09	2800	2400	U-value: 3.9, SHGC: 0.567 - 0.693 (composite, double (argon), clear)	external louvre/vertical blind (fixed)	not overshadowed
West facing					
W10	2600	1400	U-value: 3.9, SHGC: 0.567 - 0.693 (composite, double (argon), clear)	external louvre/vertical blind (fixed)	>4 m high, 5-8 m away
W11	2600	1400	U-value: 3.9, SHGC: 0.567 - 0.693 (composite, double (argon), clear)	external louvre/vertical blind (fixed)	>4 m high, 5-8 m away
W12	2600	1400	U-value: 3.9, SHGC: 0.567 - 0.693 (composite, double (argon), clear)	external louvre/vertical blind (fixed)	1-2 m high, <1.5 m away
W13	2600	1400	U-value: 3.9, SHGC: 0.567 - 0.693 (composite, double (argon), clear)	external louvre/vertical blind (fixed)	1-2 m high, <1.5 m away


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, flat plate) with a performance of 36 to 40 STCs or better.	✓	✓	✓
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 + 3-phase airconditioning; Energy rating: EER > 4.0		✓	✓
Heating system			
The applicant must install the following heating system, or a system with a higher energy rating, in at least 1 living area: 3-phase airconditioning; Energy rating: EER 3.5 - 4.0		✓	✓
The applicant must install the following heating system, or a system with a higher energy rating, in at least 1 bedroom: 3-phase airconditioning; Energy rating: EER > 4.0		✓	✓
The heating system must provide for day/night zoning between living areas and bedrooms.		✓	✓
Ventilation			
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: no mechanical ventilation (ie. natural); Operation control: n/a		✓	✓
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 2 of the living / dining rooms; dedicated		✓	✓


Energy Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
<ul style="list-style-type: none"> the kitchen; dedicated 		✓	✓
<ul style="list-style-type: none"> all bathrooms/toilets; dedicated 		✓	✓
<ul style="list-style-type: none"> the laundry; dedicated 		✓	✓
<ul style="list-style-type: none"> 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 4 bathroom(s)/toilet(s) in the development for natural lighting.	✓	✓	✓
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 (electric boosted)		✓	
The applicant must install a timer for the spa pump in the development.		✓	
Alternative energy			
The applicant must install a photovoltaic system with the capacity to generate at least 20 peak kilowatts of electricity as part of the development. The applicant must connect this system to the development's electrical system.	✓	✓	✓
Other			
The applicant must install an induction 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 indoor or sheltered 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.