

BASIX™ Certificate

Building Sustainability Index

www.planningportal.nsw.gov.au/development-and-assessment/basix

Single Dwelling

Certificate number: 1799563S

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.planningportal.nsw.gov.au/definitions

Secretary

Date of issue: Thursday, 12 June 2025

To be valid, this certificate must be submitted with a development application or lodged with a complying development certificate application within 3 months of the date of issue.



Project summary

Project name	157 Boomerang Drive
Street address	157 BOOMERANG Drive BOOMERANG BEACH 2428
Local Government Area	Mid-Coast Council
Plan type and plan number	Deposited Plan DP200167
Lot no.	90
Section no.	-
Project type	dwelling house (detached)
No. of bedrooms	6

Project score

Water	✓ 48	Target 40
Thermal Performance	✓ Pass	Target Pass
Energy	✓ 95	Target 70
Materials	✓ -92	Target n/a

Certificate Prepared by

Name / Company Name: LARS GOLDSTEIN

ABN (if applicable):

Description of project

Project address

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Site details

Site area (m ²)	752
Roof area (m ²)	341
Conditioned floor area (m ²)	299.0
Unconditioned floor area (m ²)	77.0
Total area of garden and lawn (m ²)	246
Roof area of the existing dwelling (m ²)	0

Assessor details and thermal loads

NatHERS assessor number	n/a
NatHERS 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	✓ 48	Target 40
Thermal Performance	✓ Pass	Target Pass
Energy	✓ 95	Target 70
Materials	✓ -92	Target n/a

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 246 square metres of the site.	✓	✓	
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 5 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 5000 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 341 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.) 		✓ ✓	✓ ✓

Water Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
Swimming Pool			
The swimming pool must not have a volume greater than 16 kilolitres.	✓	✓	
The swimming pool must have a pool cover.		✓	
The swimming pool must be outdoors.	✓	✓	

Thermal Performance and Materials commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
Do-it-yourself Method			
General features			
The dwelling must be a Class 1 dwelling according to the National Construction Code, and 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.	✓	✓	✓
The applicant must adopt one of the options listed in the tables below to address thermal bridging in metal framed floor(s), walls and ceiling/roof of the dwelling.	✓	✓	✓
The applicant must show through receipts that the materials purchased for construction are consistent with the specifications listed in the tables below.			✓

Construction	Area - m ²	Additional insulation required	Options to address thermal bridging	Other specifications
floor - concrete slab on ground, conventional slab.	310	nil;not specified	nil	
floor - above habitable rooms or mezzanine, concrete - suspended; frame: no frame..	66	nil;none	nil	
floor - suspended floor above garage, concrete - suspended; frame: no frame.	72	nil;foil-foam composite board	nil	

Construction	Area - m ²	Additional insulation required	Options to address thermal bridging	Other specifications
garage floor - concrete slab on ground.	72	none	nil	
external wall: brick veneer; frame: timber - H2 treated softwood.	125	2.94 (or 3.50 including construction);rockwool batts, roll or pump-in	nil	wall colour: Light (solar absorptance < 0.48)
external wall: framed (fibre cement sheet or boards); frame: timber - H2 treated softwood.	190	3.00 (or 3.50 including construction);rockwool batts, roll or pump-in + reflective foil in the cavity	nil	wall colour: Light (solar absorptance < 0.48)
external garage wall: concrete block/plasterboard; frame: no frame.	60	none	nil	
internal wall: single skin masonry; frame: no frame.	40	none	nil	
internal wall: plasterboard; frame: timber - H2 treated softwood.	50	none	nil	
ceiling and roof - flat ceiling / flat roof, framed - metal roof, timber - H2 treated softwood.	341	ceiling: 5.2 (up), roof: foil backed blanket ;ceiling: rockwool batts, roll or pump-in; roof: foil backed blanket.	nil	roof colour: light (solar absorptance < 0.38); 0.5 to ≤ 1.0% of ceiling area uninsulated

Note	• Insulation specified in this Certificate must be installed in accordance with the ABCB Housing Provisions (Part 13.2.2) of the National Construction Code.
Note	• If the additional ceiling insulation listed in the table above is greater than R3.0, refer to the ABCB Housing Provisions (Part 13.2.3 (6)) of the National Construction Code.
Note	• In some climate zones, insulation should be installed with due consideration of condensation and associated interaction with adjoining building materials.
Note	• Thermal breaks must be installed in metal framed walls and applicable roofs in accordance with the ABCB Housing Provisions of the National Construction Code.

Thermal Performance and Materials commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
Ceiling fans			
The applicant must install at least one ceiling fan in at least one daytime habitable space, such as living room.	✓	✓	✓
The applicant must install at least one ceiling fan in each bedroom.	✓	✓	✓
<ul style="list-style-type: none"> The minimum number and diameter of ceiling fans in a daytime habitable space must be installed in accordance with the ABCB Housing Provisions (Part 13.5.2) of the National Construction Code . 	✓	✓	✓

Thermal Performance and Materials commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
Glazed windows, 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 glazed window and 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"> The applicant must install windows and glazed doors in accordance with the height and width, frame and glazing types listed in the table. 	✓	✓	✓
<ul style="list-style-type: none"> Each window and glazed door must have a U- value no greater than that listed and a Solar Heat Gain Coefficient (SHGC) within the range listed. Total system U values and SHGC must be calculated in accordance with National Fenestration Rating Council (NFRC) conditions. 		✓	✓
<ul style="list-style-type: none"> Pergolas with polycarbonate roof or similar translucent material must have a shading coefficient of less than 0.35. 	✓	✓	✓
<ul style="list-style-type: none"> Pergolas with adjustable shading may have adjustable blades or removable shade cloth (not less than 80% shading ratio). Adjustable blades must overlap in plan view. 	✓	✓	✓
<ul style="list-style-type: none"> 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. 	✓	✓	✓
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 (m ²)	Skylight specification	Shading device
S01	1.50	timber, double/argon fill clear (U: <=3.5, SHGC: 0.21 - 0.24)	adjustable awning or blind

Glazed window/door no.	Maximum height (mm)	Maximum width (mm)	Frame and glass specification	Shading device (Dimension within 10%)	Overshadowing
North facing					

Glazed window/door no.	Maximum height (mm)	Maximum width (mm)	Frame and glass specification	Shading device (Dimension within 10%)	Overshadowing
W02	700.00	4800.00	aluminium, double glazed (U-value: <=3.0, SHGC: 0.27 - 0.33)	eave 450 mm, 0 mm above head of window or glazed door	not overshadowed
W08.1	600.00	1800.00	aluminium, double glazed (U-value: <=3.0, SHGC: 0.27 - 0.33)	none	not overshadowed
W10	2400.00	1500.00	aluminium, double glazed (U-value: <=3.0, SHGC: 0.27 - 0.33)	pergola (adjustable battens) 3000 mm, 200 mm above head of window or glazed door	not overshadowed
W12	1100.00	1800.00	aluminium, double glazed (U-value: <=3.0, SHGC: 0.33 - 0.40)	eave 750 mm, 500 mm above head of window or glazed door	not overshadowed
W13	1100.00	700.00	aluminium, double glazed (U-value: <=3.0, SHGC: 0.33 - 0.40)	eave 750 mm, 500 mm above head of window or glazed door	not overshadowed
W14	1100.00	1800.00	aluminium, double glazed (U-value: <=3.0, SHGC: 0.33 - 0.40)	eave 750 mm, 500 mm above head of window or glazed door	not overshadowed
W15	1100.00	1800.00	aluminium, double glazed (U-value: <=3.0, SHGC: 0.33 - 0.40)	eave 750 mm, 500 mm above head of window or glazed door	not overshadowed
W27	700.00	4500.00	aluminium, double glazed (U-value: <=3.0, SHGC: 0.27 - 0.33)	awning (fixed) 450 mm, 700 mm above base of window or glazed door	not overshadowed
North-East facing					
W30	700.00	2000.00	aluminium, double glazed (U-value: <=3.0, SHGC: 0.27 - 0.33)	solid overhang 2000 mm, 500 mm above head of window or glazed door	not overshadowed
East facing					
W03	2700.00	6800.00	aluminium, double glazed (U-value: <=2.5, SHGC: 0.40 - 0.49)	solid overhang 1500 mm, 300 mm above head of window or glazed door	not overshadowed

Glazed window/door no.	Maximum height (mm)	Maximum width (mm)	Frame and glass specification	Shading device (Dimension within 10%)	Overshadowing
W09	2400.00	1500.00	aluminium, double glazed (U-value: <=3.0, SHGC: 0.27 - 0.33)	none	not overshadowed
W11	1100.00	2500.00	aluminium, double glazed (U-value: <=3.0, SHGC: 0.33 - 0.40)	none	not overshadowed
W28	2400.00	2500.00	aluminium, double glazed (U-value: <=2.5, SHGC: 0.40 - 0.49)	none	not overshadowed
W29	1300.00	700.00	aluminium, double glazed (U-value: <=3.0, SHGC: 0.33 - 0.40)	none	not overshadowed
South-East facing					
W04	2700.00	4200.00	aluminium, double glazed (U-value: <=2.5, SHGC: 0.40 - 0.49)	solid overhang 2000 mm, 300 mm above head of window or glazed door	not overshadowed
W17	2400.00	4200.00	aluminium, double glazed (U-value: <=2.5, SHGC: 0.40 - 0.49)	none	not overshadowed
W18	2400.00	1800.00	aluminium, double glazed (U-value: <=2.5, SHGC: 0.33 - 0.40)	none	not overshadowed
South-West facing					
W05	2900.00	800.00	aluminium, double glazed (U-value: <=3.0, SHGC: 0.27 - 0.33)	none	not overshadowed
W06	700.00	4500.00	aluminium, double glazed (U-value: <=3.0, SHGC: 0.27 - 0.33)	none	not overshadowed
W19	900.00	1800.00	aluminium, double glazed (U-value: <=3.0, SHGC: 0.33 - 0.40)	none	not overshadowed


Glazed window/door no.	Maximum height (mm)	Maximum width (mm)	Frame and glass specification	Shading device (Dimension within 10%)	Overshadowing
W20	900.00	1800.00	aluminium, double glazed (U-value: <=3.0, SHGC: 0.33 - 0.40)	none	not overshadowed
W21	2600.00	750.00	aluminium, double glazed (U-value: <=3.0, SHGC: 0.33 - 0.40)	none	not overshadowed
W22	700.00	2800.00	aluminium, double glazed (U-value: <=3.0, SHGC: 0.27 - 0.33)	none	not overshadowed
W23	1800.00	700.00	aluminium, double glazed (U-value: <=3.0, SHGC: 0.33 - 0.40)	none	not overshadowed
West facing					
W01	2700.00	5900.00	aluminium, double glazed (U-value: <=2.5, SHGC: 0.40 - 0.49)	solid overhang 3000 mm, 300 mm above head of window or glazed door	not overshadowed
W07	1800.00	700.00	aluminium, double glazed (U-value: <=3.0, SHGC: 0.27 - 0.33)	none	not overshadowed
W08	600.00	1800.00	aluminium, double glazed (U-value: <=3.0, SHGC: 0.27 - 0.33)	none	not overshadowed
W24	2200.00	1800.00	aluminium, double glazed (U-value: <=3.0, SHGC: 0.27 - 0.33)	none	>4 m high, 2-5 m away
W25	1800.00	700.00	aluminium, double glazed (U-value: <=3.0, SHGC: 0.33 - 0.40)	none	not overshadowed
W26	2200.00	1800.00	aluminium, double glazed (U-value: <=3.0, SHGC: 0.27 - 0.33)	none	>4 m high, 2-5 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: electric heat pump 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: 1-phase airconditioning - ducted; Energy rating: 5 Star (old label)		✓	✓
The applicant must install the following cooling system, or a system with a higher energy rating, in at least 1 bedroom: 1-phase airconditioning - ducted; Energy rating: 5 Star (old label)		✓	✓
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 - ducted; Energy rating: 5 Star (old label)		✓	✓
The applicant must install the following heating system, or a system with a higher energy rating, in at least 1 bedroom: 1-phase airconditioning - ducted; Energy rating: 5 Star (old label)		✓	✓
Ventilation			
The applicant must install the following exhaust systems in the development: At least 1 Bathroom: individual fan, ducted to façade or roof; Operation control: please select Kitchen: individual fan, ducted to façade or roof; Operation control: interlocked to light Laundry: individual fan, open to façade; Operation control: manual on / timer off		✓ ✓ ✓	✓ ✓ ✓
Artificial lighting			
The applicant must ensure that a minimum of 80% of light fixtures are fitted with fluorescent, compact fluorescent, or light-emitting-diode (LED) lamps.		✓	✓
Natural lighting			
The applicant must install a window and/or skylight in the kitchen of the dwelling for natural lighting.	✓	✓	✓


Energy Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
The applicant must install a window and/or skylight in 3 bathroom(s)/toilet(s) in the development for natural lighting.	✓	✓	✓
Swimming pool			
The applicant must install the following heating system for the swimming pool in the development (or alternatively must not install any heating system for the swimming pool): electric heat pump		✓	
The applicant must install a pump for the swimming pool in the development.		✓	
The applicant must install a timer for the swimming pool pump in the development.		✓	
Alternative energy			
The applicant must install a photovoltaic system as part of the development. The applicant must connect this system to the development's electrical system.	✓	✓	✓
The photovoltaic system must consist of: <ul style="list-style-type: none"> photovoltaic collectors with the capacity to generate at least 5 peak kilowatts of electricity, installed at an angle between 0 degrees and 10 degrees to the horizontal facing north 	✓	✓	✓
Other			
The applicant must install a fixed outdoor clothes drying line as part of the development.		✓	
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.