# **BASIX**<sup>°</sup>Certificate

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

### Single Dwelling

Certificate number: 1099850S

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 06/10/2017 published by the Department. This document is available at www.basix.nsw.gov.au

Secretary

Date of issue: Wednesday, 06 May 2020 To be valid, this certificate must be lodged within 3 months of the date of issue.



Planning, Industry & Environment

Project summary	
Project name	20034 - 20 Baz Retreat, Warriewood
Street address	20 Baz Retreat Warriewood 2102
Local Government Area	Northern Beaches Council
Plan type and plan number	deposited 270907
Lot no.	17
Section no.	-
Project type	separate dwelling house
No. of bedrooms	4
Project score	
Water	V 43 Target 40
Thermal Comfort	V Pass Target Pass
Energy	V 51 Target 50

#### **Certificate Prepared by**

Name / Company Name: Abeaut Design Pty Ltd t/a Accurate Design and Draf

ABN (if applicable): 66116356551

## **Description of project**

#### Project address

Project name20034 - 20 Baz Retreat, WarriewoodStreet address20 Baz Retreat Warriewood 2102Local Government AreaNorthern Beaches CouncilPlan type and plan numberDeposited Plan 270907Lot no.17Section noProject typeseparate dwelling houseNo. of bedrooms4Site detailsSite area (m²)323Roof area (m²)167		
Local Government AreaNorthern Beaches CouncilPlan type and plan numberDeposited Plan 270907Lot no.17Section noProject typeseparate dwelling houseNo. of bedrooms4Site detailsSite area (m²)323	Project name	20034 - 20 Baz Retreat, Warriewood
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Section no.     -       Project type     separate dwelling house       No. of bedrooms     4       Site details       Site area (m <sup>2</sup> )     323	Plan type and plan number	Deposited Plan 270907
Project type       separate dwelling house         No. of bedrooms       4         Site details       323	Lot no.	17
Project type     separate dwelling house       No. of bedrooms     4       Site details       Site area (m <sup>2</sup> )     323	Section no.	-
No. of bedrooms     4       Site details       Site area (m <sup>2</sup> )     323	Project type	
Site details       Site area (m²)       323	Project type	separate dwelling house
Site area (m <sup>2</sup> ) 323	No. of bedrooms	4
	Site details	
Roof area (m <sup>2</sup> ) 167	Site area (m²)	323
	Roof area (m <sup>2</sup> )	167
Conditioned floor area (m2) 179.41	Conditioned floor area (m2)	179.41
Unconditioned floor area (m2) 15.36	Unconditioned floor area (m2)	15.36
Total area of garden and lawn (m2) 115	Total area of garden and lawn (m2)	115

#### Assessor details and thermal loads 17/1737 Assessor number Certificate number 9ZLSOZFZ1U 56 Climate zone Area adjusted cooling load (MJ/m<sup>2</sup>.year) 26 Area adjusted heating load (MJ/m<sup>2</sup>.year) 25 Project score Water 43 Target 40 Thermal Comfort V 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
Fixtures			
The applicant must install showerheads with a minimum rating of 3 star (> 7.5 but <= 9 L/min) in all showers in the development.		<ul> <li></li> </ul>	~
The applicant must install a toilet flushing system with a minimum rating of 3 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.		~	
Alternative water			-
Rainwater tank			
The applicant must install a rainwater tank of at least 3000 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 connect the rainwater tank to:			
all toilets in the development		<ul> <li>Image: A second s</li></ul>	~
<ul> <li>the cold water tap that supplies each clothes washer in the development</li> </ul>		<ul> <li>Image: A second s</li></ul>	~

Thermal Comfort Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
Simulation Method			İ
The applicant must attach the certificate referred to under "Assessor Details" on the front page of this BASIX certificate (the "Assessor Certificate") to the development application and construction certificate application for the proposed development (or, if the applicant is applying for a complying development certificate for the proposed development, to that application). The applicant must also attach the Assessor Certificate to the application for an occupation certificate for the proposed development.			
The Assessor Certificate must have been issued by an Accredited Assessor in accordance with the Thermal Comfort Protocol.			
The details of the proposed development on the Assessor Certificate must be consistent with the details shown in this BASIX certificate, including the Cooling and Heating loads shown on the front page of this certificate.			
The applicant must show on the plans accompanying the development application for the proposed development, all matters which the Assessor Certificate requires to be shown on those plans. Those plans must bear a stamp of endorsement from the Accredited Assessor to certify that this is the case. The applicant must show on the plans accompanying the application for a construction certificate (or complying development certificate, if applicable), all thermal performance specifications set out in the Assessor Certificate, and all aspects of the proposed development which were used to calculate those specifications.	~	~	~
The applicant must construct the development in accordance with all thermal performance specifications set out in the Assessor Certificate, and in accordance with those aspects of the development application or application for a complying development certificate which were used to calculate those specifications.		~	~
The applicant must construct the floors and walls of the dwelling in accordance with the specifications listed in the table below.	~	~	~

Floor and wall construction	Area
floor - concrete slab on ground	All or part of floor area square metres
floor - suspended floor above garage	All or part of floor area

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: gas instantaneous with a performance of 5 stars.	<b>~</b>	<b>v</b>	~
Cooling system			
The applicant must install the following cooling system, or a system with a higher energy rating, in at least 1 living area: 3-phase airconditioning; Energy rating: EER 2.5 - 3.0		~	~
The applicant must install the following cooling system, or a system with a higher energy rating, in at least 1 bedroom: 3-phase airconditioning; Energy rating: EER 2.5 - 3.0		<b>~</b>	>
The cooling system must provide for day/night zoning between living areas and bedrooms.		<ul> <li>Image: A second s</li></ul>	~
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 3.0 - 3.5		~	~
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 3.0 - 3.5		~	~
The heating system must provide for day/night zoning between living areas and bedrooms.		<b>~</b>	>
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: manual switch on/off		<ul> <li>Image: A set of the /li></ul>	~
Kitchen: individual fan, ducted to façade or roof; Operation control: manual switch on/off		<ul> <li>Image: A set of the /li></ul>	<b>v</b>
Laundry: individual fan, ducted to façade or roof; Operation control: manual switch on/off		<ul> <li>Image: A second s</li></ul>	~
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:			
<ul> <li>at least 4 of the bedrooms / study;</li> </ul>		<b>~</b>	-

Energy Commitments	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
at least 4 of the living / dining rooms;		<b>~</b>	~
the kitchen;		~	~
all hallways;		<b>~</b>	~
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 3 bathroom(s)/toilet(s) in the development for natural lighting.	<ul> <li>✓</li> </ul>	~	~
Other			
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 vi 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 vi 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 vi 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.