

# BASIX<sup>®</sup>Certificate

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

## Single Dwelling

Certificate number: 1781177S

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: Tuesday, 28 January 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              | 77 Central Road, Avalon Beach     |
| Street address            | 77 CENTRAL Road AVALON BEACH 2107 |
| Local Government Area     | Northern Beaches Council          |
| Plan type and plan number | Deposited Plan DP8698             |
| Lot no.                   | 19                                |
| Section no.               | -                                 |
| Project type              | dwelling house (detached)         |
| No. of bedrooms           | 5                                 |

### Project score

|                     |        |             |
|---------------------|--------|-------------|
| Water               | ✓ 40   | Target 40   |
| Thermal Performance | ✓ Pass | Target Pass |
| Energy              | ✓ 75   | Target 72   |
| Materials           | ✓ -100 | Target n/a  |

### Certificate Prepared by

Name / Company Name: BONNEFIN CONSULTING PTY LTD

ABN (if applicable): 95 164 564 210

# Description of project

| Project address                         |                                   |
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| Section no.                             | -                                 |
| Project type                            |                                   |
| Project type                            | dwelling house (detached)         |
| No. of bedrooms                         | 5                                 |
| Site details                            |                                   |
| Site area (m²)                          | 1301                              |
| Roof area (m²)                          | 287                               |
| Conditioned floor area (m²)             | 338.7                             |
| Unconditioned floor area (m²)           | 18.5                              |
| Total area of garden and lawn (m²)      | 200                               |
| Roof area of the existing dwelling (m²) | 0                                 |

| Assessor details and thermal loads       |  |             |
|--|--|-------------|
| Assessor number                          | 10056                                  |             |
| Certificate number                       | 0009824731-09                          |             |
| Climate zone                             | 56                                     |             |
| Area adjusted cooling load (MJ/ m².year) | 12                                     |             |
| Area adjusted heating load (MJ/ m².year) | 18                                     |             |
| Project score                            |  |             |
| Water                                    | <div><div>✓</div><div>40</div></div>   | Target 40   |
| Thermal Performance                      | <div><div>✓</div><div>Pass</div></div> | Target Pass |
| Energy                                   | <div><div>✓</div><div>75</div></div>   | Target 72   |
| Materials                                | <div><div>✓</div><div>-100</div></div> | 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 |
|--|------------------|------------------------------|-----------------|
| <b>Fixtures</b>  |                  |                              |                 |
| 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 4 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.   |                  | ✓                            |                 |
| <b>Alternative water</b>   |                  |                              |                 |
| <b>Rainwater tank</b>  |                  |                              |                 |
| 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 200 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>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> |                  | ✓<br>✓                       | ✓<br>✓          |
| <b>Swimming Pool</b>   |                  |                              |                 |
| The swimming pool must not have a volume greater than 45.14 kilolitres.  | ✓                | ✓                            |                 |

## Water Commitments

Show on  
DA plans

Show on CC/CDC  
plans & specs

Certifier  
check

The swimming pool must be outdoors.



| Thermal Performance and Materials commitments  | Show on DA plans | Show on CC/CDC plans & specs | Certifier check |
|--|------------------|------------------------------|-----------------|
| <b>Simulation Method</b>   |                  |                              |                 |
| Assessor details and thermal loads   |                  |                              |                 |
| 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 and the "Construction" and "Glazing" tables below.  |                  |                              |                 |
| 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 show on the plans accompanying the development application for the proposed development, the locations of ceiling fans set out in the Assessor Certificate. The applicant must show on the plans accompanying the application for a construction certificate (or complying development certificate, if applicable), the locations of ceiling fans set out in the Assessor Certificate.  | ✓                | ✓                            | ✓               |

| Thermal Performance and Materials commitments   | Show on DA plans | Show on CC/CDC plans & specs | Certifier check |
|---|------------------|------------------------------|-----------------|
| Construction  |                  |                              |                 |
| The applicant must construct the floors, walls, roofs, ceilings and glazing of the dwelling in accordance with the specifications listed in the tables below. | ✓                | ✓                            | ✓               |
| 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 <sup>2</sup> | Insulation  |
|---|-----------------------|---|
| floor - concrete slab on ground, conventional slab.   | 272.7                 | polystyrene   |
| floor - suspended floor above open subfloor, particle board; frame: light steel frame.        | 14                    | polystyrene   |
| floor - above habitable rooms or mezzanine, particle board; frame: light steel frame..        | 170.2                 | fibreglass batts or roll                                      |
| garage floor - concrete slab on ground.   | 78.9                  | polystyrene   |
| external wall: cavity brick; frame: no frame.   | 128.8                 | fibreglass batts or roll+ foil/sarking                        |
| external wall: framed (fibre cement sheet or boards); frame: light steel frame.               | 24                    | fibreglass batts or roll+ foil/sarking                        |
| external wall: framed (solid or reconstituted timber weatherboard); frame: light steel frame. | 233.8                 | fibreglass batts or roll+ foil/sarking                        |
| external garage wall: cavity brick; frame: no frame.  | 48.96                 | fibreglass batts or roll+ foil/sarking                        |
| internal wall: plasterboard; frame: light steel frame.  | 354.8                 | fibreglass batts or roll                                      |
| internal wall: cavity brick wall; frame: no frame.  | 14.5                  | fibreglass batts or roll                                      |
| ceiling and roof - flat ceiling / pitched roof, framed - metal roof, light steel frame.       | 244.2                 | ceiling: fibreglass batts or roll; roof: foil backed blanket. |
| ceiling and roof - flat ceiling / flat roof, concrete - plasterboard internal, no frame.      | 42.5                  | ceiling: fibreglass batts or roll; roof: foil backed blanket. |

| Thermal Performance and Materials commitments  | Show on DA plans | Show on CC/CDC plans & specs | Certifier check |
|--|------------------|------------------------------|-----------------|
| Glazing  |                  |                              |                 |
| The applicant must install windows, glazed doors and skylights as described in the table below, in accordance with the specifications listed in the table. | ✓                | ✓                            | ✓               |

| Frames    | Maximum area - m2 |
|-----------|-------------------|
| aluminium | 188.9             |
| timber    | 0                 |
| uPVC      | 0                 |
| steel     | 0                 |
| composite | 0                 |

| Glazing | Maximum area - m2 |
|---------|-------------------|
| single  | 0                 |
| double  | 188.9             |
| triple  | 0                 |

| 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: 3-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: 3-phase airconditioning; Energy rating: EER 3.0 - 3.5         |                  | ✓                            | ✓               |
| <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: electric floor heating; Energy rating: n/a                |                  | ✓                            | ✓               |
| The applicant must install the following heating system, or a system with a higher energy rating, in at least 1 bedroom: electric floor heating; Energy rating: n/a                    |                  | ✓                            | ✓               |
| <b>Ventilation</b>   |                  |                              |                 |
| The applicant must install the following exhaust systems in the development:<br>At least 1 Bathroom: individual fan, ducted to façade or roof; Operation control: manual switch on/off |                  | ✓                            | ✓               |
| Kitchen: individual fan, ducted to façade or roof; Operation control: manual switch on/off   |                  | ✓                            | ✓               |
| Laundry: individual fan, ducted to façade or roof; Operation control: manual switch on/off   |                  | ✓                            | ✓               |
| <b>Artificial lighting</b>   |                  |                              |                 |
| The applicant must ensure that a minimum of 80% of light fixtures are fitted with fluorescent, compact fluorescent, or light-emitting-diode (LED) lamps.                               |                  | ✓                            | ✓               |
| <b>Natural lighting</b>  |                  |                              |                 |
| 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 1 bathroom(s)/toilet(s) in the development for natural lighting.  | ✓                | ✓                            | ✓               |
| <b>Swimming pool</b>   |                  |                              |                 |
| 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): gas   |                  | ✓                            |                 |
| The applicant must install the following pump for the swimming pool in the development, or a pump with a higher energy rating: single speed with a performance of 5 stars.   |                  | ✓                            |                 |
| The applicant must install a timer for the swimming pool pump in the development.  |                  | ✓                            |                 |
| <b>Alternative energy</b>  |                  |                              |                 |
| 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"> <li>photovoltaic collectors with the capacity to generate at least 6 peak kilowatts of electricity, installed at an angle between 0 degrees and 10 degrees to the horizontal facing north</li> </ul> | ✓                | ✓                            | ✓               |
| <b>Other</b>   |                  |                              |                 |
| The applicant must install a gas cooktop & gas 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.