

BASIX[®]Certificate

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

Single Dwelling

Certificate number: 943779S

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, 04 September 2019

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



Project summary

| | |
|---------------------------|------------------------------|
| Project name | 9 Thyra Road, Palm Beach |
| Street address | 9 Thyra Road Palm Beach 2108 |
| Local Government Area | Northern Beaches Council |
| Plan type and plan number | deposited 18612 |
| Lot no. | 9 |
| Section no. | - |
| Project type | attached dwelling house |
| No. of bedrooms | 1 |

Project score

| | | |
|-----------------|--------|-------------|
| Water | ✓ 41 | Target 40 |
| Thermal Comfort | ✓ Pass | Target Pass |
| Energy | ✓ 87 | Target 50 |

Certificate Prepared by

Name / Company Name: Burley Katon Halliday

ABN (if applicable): 23003585733

Description of project

Project address

| | |
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Project type

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Site details

| | |
|------------------------------------|------|
| Site area (m ²) | 578 |
| Roof area (m ²) | 57 |
| Conditioned floor area (m2) | 73.0 |
| Unconditioned floor area (m2) | 13.0 |
| Total area of garden and lawn (m2) | 245 |

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 |

Project score

| | | |
|-----------------|--------|-------------|
| Water | ✓ 41 | Target 40 |
| Thermal Comfort | ✓ Pass | Target Pass |
| Energy | ✓ 87 | 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 100 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 5 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 6 star in each bathroom in the development. | | ✓ | |
| Alternative water | | | |
| Stormwater tank | | | |
| The applicant must install a stormwater tank with a capacity of at least 4500 litres on the site. This stormwater tank must meet, and be installed in accordance with, the requirements of all applicable regulatory authorities. | ✓ | ✓ | ✓ |
| The applicant must configure the stormwater tank to collect runoff from: <ul style="list-style-type: none"> at least 57 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 30 square metres of impervious areas at least 100 square metres of garden and lawn | | ✓ ✓ ✓ | ✓ ✓ ✓ |
| The applicant must connect the stormwater tank to: <ul style="list-style-type: none"> all toilets in the development | | ✓ | ✓ |

Water Commitments

Show on
DA plans

Show on CC/CDC
plans & specs

Certifier
check

- 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.)



| 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 - concrete block/plasterboard | 1.88 (or 2.40 including construction) | |
| external wall - other/undecided | 2.40 (including construction) | |
| ceiling and roof - flat ceiling / pitched roof | ceiling: 1.95 (up), roof: foil backed blanket (75 mm) | gable end vents; medium (solar absorptance 0.475-0.70) |

| | |
|------|--|
| Note | <ul style="list-style-type: none"> Insulation specified in this Certificate must be installed in accordance with Part 3.12.1.1 of the Building Code of Australia. |
| Note | <ul style="list-style-type: none"> 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 |
|------------------------|---------------------|--------------------|--|---|------------------|
| W01 GF | 1350 | 930 | U-value: 3.1, SHGC: 0.243 - 0.297 (aluminium: thermally broken, double (air), Lo-Tsol Low-e/clear) | external louvre/vertical blind (adjustable) | not overshadowed |
| W02 GF | 3550 | 930 | U-value: 3.1, SHGC: 0.243 - 0.297 (aluminium: thermally broken, double (air), Lo-Tsol Low-e/clear) | solid overhang 1000 mm, 0 mm above head of window or glazed door | not overshadowed |
| W01 FF | 1920 | 1800 | U-value: 3.1, SHGC: 0.243 - 0.297 (aluminium: thermally broken, double (air), Lo-Tsol Low-e/clear) | external louvre/vertical blind (adjustable) | not overshadowed |
| W02 FF | 2700 | 3550 | U-value: 3.1, SHGC: 0.243 - 0.297 (aluminium: thermally broken, double (air), Lo-Tsol Low-e/clear) | pergola (fixed battens) 1000 mm, 0 mm above head of window or glazed door | not overshadowed |
| W03 FF | 1920 | 1800 | U-value: 3.1, SHGC: 0.243 - 0.297 (aluminium: thermally broken, double (air), Lo-Tsol Low-e/clear) | external louvre/vertical blind (adjustable) | not overshadowed |


| 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 6 stars. | ✓ | ✓ | ✓ |
| 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; Energy rating: n/a | | ✓ | ✓ |
| Heating system | | | |
| The applicant must install the following heating system, or a system with a higher energy rating, in at least 1 living area: gas hydronic system; Energy rating: n/a | | ✓ | ✓ |
| The bedrooms must not incorporate any heating system, or any ducting which is designed to accommodate a heating system. | | ✓ | ✓ |
| 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 | | ✓ | ✓ |
| 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 on / timer off | | ✓ | ✓ |
| 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 1 of the bedrooms / study; dedicated | | ✓ | ✓ |
| • at least 2 of the living / dining rooms; dedicated | | ✓ | ✓ |
| • the kitchen; dedicated | | ✓ | ✓ |


| Energy Commitments | Show on DA plans | Show on CC/CDC plans & specs | Certifier check |
|--|------------------|------------------------------|-----------------|
| <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 1 bathroom(s)/toilet(s) in the development for natural lighting. | ✓ | ✓ | ✓ |
| Alternative energy | | | |
| The applicant must install a photovoltaic system with the capacity to generate at least 5 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 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  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.