

10 Young Street, West Gosford

BASIX Report for Residential Component

Prepared for: Japrico Developments Pty Ltd

Date: 28 April 2022

Prepared by: Juhi Banerji

Ref: 46890

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Revision

| Revision | Date | Comment | Prepared By | Approved By |
|----------|------------|----------|-------------|-------------|
| 1 | 14.08.2020 | DA Issue | RL | LHT |
| 2 | 28.04.2022 | DA Issue | JBA | RL |
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Qualifications to this Report

The following qualifications apply to this report:

- Information has been based on our understanding of the proposed building and level of documentation provided, as noted.
- This report outlines the performance requirements required for BASIX compliance only in relation to the residential component of the development. Additional requirements such as building services, architecture, structure, fire safety, civil/stormwater, façade design, acoustic, condensation control, safety in design/installation/operation requirements should be coordinated with the relevant consultants.
- As this project involves no detailed design or site supervision by Stantec, we advise that we will not prepare a Safety in Design report for this project. We confirm that the responsibility for complying with the requirements of the state OS&H legislation remains with the project designer in conjunction with the project team and the client.

Disclaimer

The energy models prepared for BASIX thermal comfort compliance provides an estimate of the base building's energy performance. This estimate is based on a necessarily simplified and idealised version of the building that does not and cannot fully represent all of the intricacies of the building and its operation. As a result, the energy model results only represent an interpretation of the potential performance of the building. No guarantee or warrantee of building performance in practice can be based on energy modelling results alone.

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1. Executive Summary

In summary, we can confirm the following outcome of the BASIX analysis:

- Based on the assumptions & commitments outlined in this report, the proposed residential building component can achieve BASIX Certification with the following scores:
 - Water: 40% (Required target: 40%)
 - Thermal Comfort: pass (Required target: pass)
 - Energy: 27% (Required target: 20%)
- The formal BASIX certificate has been included as a supplementary document to this report.
- The NatHERS group certificate is provided in Appendix A.
- Further information regarding the thermal comfort and building fabric specification has been outlined within Section 5 of this report. Note this specification detail forms the basis of BASIX compliance and therefore must be documented within the project design/specification in order to achieve CC approval.
- Our assessment works have been conducted based on the Architectural Plans drawings received on 29 March 2022 prepared and issued by Marchese Partners.



2. Introduction

Stantec have completed a Building Sustainability Index (BASIX) assessment for the BCA Class 2 Residential Apartment components (and associated areas) of the proposed 10 Young Street Mixed Used Development located at 10 Young Street, West Gosford, NSW 2250. The non-residential component of the development (hotel, commercial, retail etc.) does not form part of this report.

Based on information provided to date and the assumptions & commitments outlined in this report, the following BASIX outcome has been achieved:

- Water: 40% (Required target: 40%)
- Thermal Comfort: pass (Required target: pass)
- Energy: 27% (Required target: 20%)

Design Target

We understand that the residential component of the project is required to demonstrate BASIX compliance in support of the application for development approval (Class 2 Multi-unit residential dwellings).

Table 1: BASIX Targets

| | BASIX Target |
|---------------|--------------|
| Energy | 20 |
| Water | 40 |

Building Sustainability Index (BASIX)

BASIX is implemented under the Environmental Planning and Assessment Act and applies to all residential dwelling types within NSW. BASIX forms both part of the development application and building certification process within the state of NSW.

BASIX sets water and greenhouse gas reduction targets relative to the NSW average benchmark for per person potable water consumption & greenhouse gas emissions within the residential sector. BASIX also sets the minimum performance levels for thermal comfort of the dwelling and replaces portions of the NCC Energy Efficiency requirements within the state of NSW. Thermal comfort levels are assessed via a simulation method in accordance with the NatHERS House Energy Rating protocol.

Development Overview

The proposed development in relation to BASIX (residential) includes:

- A total of 1 building containing NCC Class 2 residential apartment dwellings, hotel, commercial and car parking areas. There is a total of 58 Apartment Dwelling units (assumed NCC Class 2).
- The development includes areas and common areas that are shared between the various building uses.
- There are 58 residential car parking spaces (including 6 accessible car parking spaces) and 60 non-residential car parking spaces (including 1 accessible car parking spaces) for the proposed development.



3. Design Documentation

The following assessment is based on all architectural drawings received from Marchese Partners dated 29 March 2022 and associated design notes, including:

19062 - WEST GOSFORD_ARC_ORIGINAL OPTION_2022.04.18.pdf

Notes:

Changes to the design drawings and specifications will affect the outcome of this assessment and potentially the certification of the proposed building works. Any changes nominated by the design team are to be immediately communicated to Stantec as it may affect the outcome of the BASIX Compliance. We recommend any design changes be reviewed and approved prior to documentation.



4. Thermal Comfort Design Assessment

The thermal comfort aspect of this assessment (for the residential apartments) was conducted using the FirstRate5 Thermal Performance Assessment Software, which assesses the thermal performance of a Class 1 or Class 2 dwelling in accordance with the requirements of National House Energy Rating Scheme (NatHERS) scheme as stated in the BASIX Thermal Comfort Protocol.

Compliance requires that the average area adjusted heating and cooling loads are below or equal to the average area adjusted heating and cooling loads calculated by BASIX. In addition, individual dwellings must also meet prescriptive targets as defined by BASIX.

Based on information received to date and the assumptions & commitments outlined in this report, the development average area adjusted heating and cooling loads were found to be as noted in the table below.

| 10 Young St, West Gosford | Heating Load (MJ/m ² /year) | Cooling Load (MJ/m ² /year) |
|---------------------------|--|--|
| BASIX Maximum Average | 54 | 32 |
| Development Average | 29 | 25.6 |

Note: Full summary of NatHERS Thermal Performance Results is attached within Appendix B.

Energy Modelling Software

Thermal comfort compliance has been demonstrated via the simulation method within BASIX. Stantec have conducted energy simulations utilising FirstRate5 software (Version 5.3) which is approved under the BASIX Thermal Comfort Protocol (July 2017).

Energy Modelling Limitations

The energy modelling results obtained from the FirstRate5 software provides an estimate of the base building energy performance only. This estimate is based upon a simplified and idealised version of the building that does not fully comply with the intricacies of a building and its operation. As a result, the energy model represents an interpretation of the potential building performance only. Several dependent factors will affect the actual operational performance of the building, including local climate variation, building occupant behaviour, construction technique and building services commissioning. No guarantee or warrantee of building performance in practice can be based on energy modelling results alone.



5. BASIX Design Specification Summary

5.1 BASIX Compliant Design Specification Summary

– Refer to BASIX Certificate for all details

5.1.1 Design Specification – Residential Apartment Dwellings Building Fabric:

| Design Specification – Residential Apartment Units BUILDING FABRIC |
|---|
| <p>External Walls:</p> <p>A minimum of R2.5 insulation added to all External Walls to achieve a minimum Total R-Value of R2.8.</p> <p>Walls to Internal Corridors and Non-Conditioned Zones:</p> <p>A minimum of R1.5 insulation added to partition walls between apartment unit and non-conditioned corridor to achieve a minimum Total R-Value of R1.8.</p> <p>There is no minimum thermal insulation requirement for partition walls between apartment unit and lift core / stairwell / waste room.</p> <p>Internal Walls to Adjoining Apartment:</p> <p>As the adjoining apartment unit is considered a conditioned space there is no minimum thermal insulation requirement for these specific walls. Therefore, the insulation to this wall shall be as per acoustic or other design requirements.</p> |
| <p>Ceilings:</p> <p>We have assumed floor to ceiling heights as indicated on the architectural drawings received.</p> |
| <p>Roof Type:</p> <p>A minimum of R2.85 roof insulation to be added to all Residential Apartment Units with an exposed roof (Minimum Total R-value R3.2 to be achieved). Roof colour for solar absorptance assumed to be 'medium'.</p> |
| <p>Floor Coverings</p> <p>The following design specifications have been included within the NatHERS Assessments:</p> <p>Carpet to all bedrooms</p> <p>Floating Timber to all living spaces</p> <p>Tiles to bathrooms/toilets/laundry/kitchen areas</p> |
| <p>Windows and Glazed Doors (Fixed and/or Operable):</p> <p>The façade glazing thermal performance specification of Total System U-Value of 4.3 W/m2.K and Total System SHGC of 0.53 is required for fixed and sliding windows/doors for all apartment units <u>except for 1203,1204,1205</u>.</p> <p>The façade glazing thermal performance specification of Total System U-Value of 4.3 W/m2.K and Total System SHGC of 0.47 is required for awning windows for all apartment units <u>except for 1203,1204,1205</u>.</p> <p>The façade glazing thermal performance specification of Total System U-Value of 3.5 W/m2.K and Total System SHGC of 0.64 is required for fixed and sliding windows/doors for apartment units 1203,1204.</p> |



The façade glazing thermal performance specification of **Total System U-Value of 3.5 W/m2.K and Total System SHGC of 0.47** is required for **awning windows** for apartment unit 1203.

The façade glazing thermal performance specification of **Total System U-Value of 4.8 W/m2.K and Total System SHGC of 0.34** is required **for apartment unit 1205**.

No roof lights assumed to be present.

All windows/glazed doors etc. must be specified with weather-strips to prevent air infiltration when closed. This is standard compliance with AS2047.

Note: The thermal performance values for all windows/roof lights/glazed doors etc. detailed above are 'Total System' values for glass and framing system combined.

In-slab heating or cooling system:

None. It is assumed that there are no in-slab heating or cooling systems present

5.1.2 Design Specification – WATER for Residential Apartment Dwellings Component:

Design Specification – WATER for Residential Apartment Units & Related Areas (refer BASIX Certificate)

Alternative Water Supply:

A minimum 30,000L rainwater storage/re-use tank system is mandatorily required for exclusive use of the residential apartment component only. Rainwater for the 30,000L residential rainwater tank shall be collected from non-trafficable roof spaces with a total catchment area of not less than 516m².

The rainwater collected shall be re-used for the **Level 05 to Level 07** apartments' toilet flushing.

The above requirements do not account for any non-residential building component rainwater demands.

For all other hydraulic/stormwater requirements, please refer to the Hydraulic/Civil Engineer's detailed specifications.

Fixtures & Fittings:

We note that fixtures and appliances with the following minimum WELS performance ratings have been included in the BASIX Assessment:

Residential Common Areas (as applicable)

No Common Facility

Residential Apartment Units - All

3 Star WELS minimum rated Showerheads (>6.0 but ≤ 7.5 L/min)

4 Star WELS minimum rated Toilets

6 Star WELS minimum rated Kitchen and Bathroom Taps

6 Star WELS minimum rated Dishwashers

We note a reduction in the water efficiency quality of these appliances/fixtures will affect the water aspect of the BASIX rating.



5.1.3 Design Specification - ENERGY for Residential Apartment Dwellings Component:

| Design Specification – ENERGY for Residential Apartment Units & Related Areas (refer BASIX Certificate) |
|---|
| <p>Alternative Energy Supply:</p> <p>A minimum 15kW peak Photovoltaic System (PV) is mandatorily required for exclusive use of the residential apartment component only.</p> <p>The above requirements do not account for any non-residential building component energy demands.</p> |
| <p>Air Leakage:</p> <p>All apartment kitchen, bathroom and laundry exhaust shall be via individual fan ducted to Façade/Roof. Refer to BASIX certificate and Mechanical Ventilation System section below for operation control.</p> <p>Back-draft dampers must be installed to prevent air infiltration.</p> <p>Ceiling Downlights (if used) must be the 'sealed' type</p> |
| <p>Hot Water System:</p> <p>A centralised domestic hot water system (gas-fired boiler with manifolded storage) has been specified within the BASIX Certificate.</p> <p>Domestic Hot Water pipework is required to have a minimum of R 0.6 insulation for all external piping and R 0.6 for all internal piping.</p> <p>It should be noted that a less efficient hot water system will affect the rating of the BASIX Energy Target.</p> |
| <p>Lifts:</p> <p>Lift 1 (gearless traction with VVVF motor): 13 Levels Served</p> <p>Lift 2 (gearless traction with VVVF motor): 13 Levels Served</p> |
| <p>Mechanical Ventilation Systems:</p> <p>Common Areas:</p> <p>Level 01 and Level 02 Car park areas / Level 00 to Level 13 Fire Stairs / Level 00 Lobby / Level 00 Store / Level 00 and Level 00 Mezzanine corridors / Level 05 to Level 13 Corridors – natural ventilation only, no mechanical ventilation</p> <p>Level 00 Loading Dock – Ventilation Exhaust Only (VSD controlled and CO monitoring)</p> <p>Level 00 Electric Room – Ventilation Supply Only (Continuous)</p> <p>Level 00 Comms Room – Air-conditioning system (Thermostatically controlled)</p> <p>Level 00 Residential Waste Room / Level 06 to 09 Waste Room – Ventilation exhaust Only (Continuous)</p> <p>Level 00 Service Room / Level 00 Mezzanine Service Rooms – Ventilation Supply Only (Thermostatically controlled)</p> <p>Level 00 Fire Pump Room and Fire Control Room – Ventilation Supply and Exhaust (Continuous)</p> <p>Level 00 AC Toilet, Level 13 ACC Toilet – Ventilation Exhaust only (Time clock or BMS controlled)</p> |



| |
|--|
| <p>Residential Apartment Units - All</p> <p>Bathrooms – Ducted Ventilation exhaust only (interlocked to light)</p> <p>Laundry – Ducted Ventilation exhaust only (Manual switch on/off)</p> <p>Kitchen – Ducted Ventilation exhaust only (Manual switch on/off)</p> |
| <p>Residential Apartment Units Air-Conditioning Systems:</p> <p>Cooling (bedroom + living):</p> <p>Individual 3-phase air-conditioning with EER 2.5-3.0</p> <p>Heating (bedroom + living):</p> <p>Individual 3-phase air-conditioning with EER 2.5-3.0</p> <p>Day-night zoning between living room and bedrooms is not required.</p> |
| <p>Lighting:</p> <p>Common Areas Lighting:</p> <p>Level 01 and Level 02 carpark areas - LED Lighting with zoned switching and motion sensor control</p> <p>Level 00 Fire Pump Room and Fire Control Room / Level 00 Store – LED Lighting with manual on/off control</p> <p>Level 00 Loading Dock / Level 00 Electric Room / Level 00 Comms Room / Level 00 Residential Waste Room / Level 06 to Level 09 Waste Room / Level 00 Service Rooms / Level 00 Mezzanine Service Rooms / Level 00 to Level 13 Fire Stairs / Level 00 and Level 00 Mezzanine Corridors / Level 05 to Level 13 Corridors / Level 00 and 13 ACC Toilets – LED Lighting with motion sensors controlled</p> <p>Level 00 Lobby - LED Lighting with zoned switching controlled</p> <p>Residential Apartment Units Lighting - All</p> <p>Dedicated LED Lighting for all rooms</p> <p>Lifts Lighting – serving the Residential Apartment Units</p> <p>LED lighting connected to lift call button</p> |
| <p>Residential Apartment Units Appliance Specifications (for each unit):</p> <p>The following minimum energy performance specifications have been included within the BASIX assessment and shall be supplied for each unit:</p> <p>Gas cooktop and electric ovens to all dwellings.</p> <p>Dishwasher – 2.5 Star minimum Energy rating</p> <p>Clothes Dryer – 1.5 Star minimum Energy rating</p> <p>Compliance Note: <i>A reduction in the energy efficiency quality of any of these appliances will affect the energy aspect of the BASIX rating.</i></p> |



Note: In addition to the BASIX commitments, BCA Class 2 buildings must continue to be designed and constructed to comply with “NCC 2019 NSW Subsection J(A) Energy Efficiency”. For Deemed-to-Satisfy solution compliance, this includes (but is not limited to):

- NSW Part J(A)1 Building Fabric
- NSW Part J(A)2 Building Sealing
- NSW Part J(A)3 Air-conditioning and Ventilation Systems
- NSW Part J(A)4 Heated Water Supply
- NSW Part J(A)5 Facilities for Energy Monitoring



6. BASIX Certification Detail

| Project Summary | |
|--|---|
| Project Name | 10 Young Street, West Gosford Residential Component |
| Street Address | 10 Young Street, West Gosford, NSW 2250 |
| Local Government Area | Central Coast Council |
| Plan Type / Number | DP 1194024 |
| Lot No# | 1 |
| Section No# | NA |
| No. of Residential Buildings | 1 |
| No. of units in Residential Flat Buildings | 58 |
| No. of multi-dwelling houses | 0 |
| No. of single dwelling houses | 0 |
| BASIX Certificate No# | 1123256M_02 |
| Project Score | |
| Water | 40% |
| Thermal Comfort | Pass |
| Energy | 27% |



Appendix A NatHERS Group Certificate



Nationwide House Energy Rating Scheme — Class 2 summary

NatHERS Certificate No. 4YM6YGXYMK

Generated on 27 Apr 2022 using FirstRate5 v5.3.2a

Property

Address 10 Young St, West Gosford, NSW, 2250

Lot/DP

NatHERS climate zone

Accredited assessor



Stantec Australia

Stantec

NatHERS@stantec.com

0410136876

Accreditation No. DMN/21/2042

Assessor Accrediting Organisation Design Matters

National



Verification

To verify this certificate, scan the QR code or visit

<https://www.fr5.com.au/QRCodeLanding?PublicId=4YM6YGXYMK&GrpCert=1> When using either link, ensure you are visiting www.fr5.com.au.

Summary of all dwellings

| Certificate number and link | Unit number | Heating load (MJ/m ² /p.a.) | Cooling load (MJ/m ² /p.a.) | Total load (MJ/m ² /p.a.) | Star rating |
|-----------------------------|-------------|--|--|--------------------------------------|-------------|
| 4FV6TI9F2E | 1001 | 6.7 | 19.4 | 26.1 | 8.4 |
| D4QSTWWWTI | 1002 | 19.1 | 24 | 43.1 | 7.4 |
| EQ5UTCBO3L | 1003 | 52.7 | 32.3 | 85 | 5.1 |
| 7R8C88DHFE | 1004 | 49.3 | 24 | 73.3 | 5.6 |
| H7Q2N0N5VF | 1005 | 20.5 | 35.9 | 56.4 | 6.6 |
| HDVRINKBNR | 1006 | 5.5 | 19.1 | 24.6 | 8.6 |
| HVLQHW5NUU | 1101 | 5.8 | 16.9 | 22.7 | 8.7 |

Continued over

National Construction Code (NCC) requirements

The NCC's requirements for NatHERS-rated houses are detailed in 3.12.0(a)(i) and 3.12.5 of the NCC Volume Two. For apartments the requirements are detailed in J0.2 and J5 to J8 of the NCC Volume One.

In NCC 2019, these requirements include minimum star ratings and separate heating and cooling load limits that need to be met by buildings and apartments through the NatHERS assessment. Requirements additional to the NatHERS assessment that must also be satisfied include, but are not limited to: insulation installation methods, thermal breaks, building sealing, water heating and pumping, and artificial lighting requirements. The NCC and NatHERS Heating and Cooling Load Limits (Australian Building Codes Board Standard) are available at www.abcb.gov.au.

State and territory variations and additions to the NCC may also apply.

Summary of and links to all dwellings (continued)

| Certificate number and link | Unit number | Heating load (MJ/m ² /p.a.) | Cooling load (MJ/m ² /p.a.) | Total load (MJ/m ² /p.a.) | Star rating |
|-----------------------------|-------------|--|--|--------------------------------------|-------------|
| TOROBGADH2 | 1102 | 18.8 | 23 | 41.8 | 7.5 |
| YF2YD45Q4U | 1103 | 52.7 | 24 | 76.7 | 5.4 |
| YC4Y7WW9U1 | 1104 | 55 | 21.7 | 76.7 | 5.4 |
| 5ALAV2VGQB | 1105 | 20.4 | 35.4 | 55.8 | 6.6 |
| NH3U2B2XNN | 1106 | 5.4 | 20.4 | 25.8 | 8.5 |
| OPS96RU2RO | 1201 | 19.2 | 24.4 | 43.6 | 7.4 |
| UASQ6Y42CK | 1202 | 32.2 | 26.2 | 58.4 | 6.4 |
| IZA2HQIJ65 | 1203 | 56.1 | 25.3 | 81.4 | 5.2 |
| 48WHAQSMDE | 1204 | 59.4 | 25.7 | 85.1 | 5 |
| I3YBRNYNXE | 1205 | 54.8 | 35.1 | 89.9 | 4.8 |
| H9VCFAOZ1P | 1206 | 16.3 | 26.8 | 43.1 | 7.4 |
| IK6WUVNLPQ | 501 | 6.2 | 21.4 | 27.6 | 8.4 |
| GSY8COB8K4 | 502 | 15 | 24.3 | 39.3 | 7.7 |
| 14V1X4MUBA | 503 | 32.1 | 29.6 | 61.7 | 6.3 |
| B2UX577BR5 | 504 | 38.8 | 23.8 | 62.6 | 6.2 |
| 9N8H8ZKX91 | 505 | 35.1 | 25.5 | 60.6 | 6.4 |
| 9QO6YOZE9Z | 506 | 39.1 | 31.6 | 70.7 | 5.8 |
| I2JPPN7ACE | 507 | 19 | 33.8 | 52.8 | 6.8 |
| Q9QP4O6O37 | 508 | 5.8 | 20.4 | 26.2 | 8.4 |
| TZUKBUNX9R | 601 | 4.7 | 21.2 | 25.9 | 8.5 |
| I3C1WHET1U | 602 | 15.8 | 25.2 | 41 | 7.6 |
| 2KU5K999BJ | 603 | 34.4 | 29.3 | 63.7 | 6.2 |
| RKKBGTH8N5 | 604 | 41 | 21.4 | 62.4 | 6.3 |
| AJBV6X7Z2X | 605 | 37.2 | 21.1 | 58.3 | 6.4 |
| JMXJFJFZAC | 606 | 40.7 | 31.6 | 72.3 | 5.7 |
| UNVZ97SAUD | 607 | 17.5 | 35.4 | 52.9 | 6.8 |
| AFF5TSI89W | 608 | 4.1 | 20.3 | 24.4 | 8.6 |
| BKHOAFXB66 | 701 | 4.9 | 21 | 25.9 | 8.5 |
| NR8LKXYLW8 | 702 | 16.1 | 25.1 | 41.2 | 7.6 |
| E6EYXEH1ZX | 703 | 34.9 | 29.3 | 64.2 | 6.2 |
| JREY0SG3V6 | 704 | 41.4 | 21.5 | 62.9 | 6.2 |
| 47MASEFT16 | 705 | 37.6 | 21.3 | 58.9 | 6.4 |
| 76LJ5G1VL9 | 706 | 41.1 | 31.6 | 72.7 | 5.7 |
| RQW1YW2Q8F | 707 | 17.8 | 35.4 | 53.2 | 6.8 |
| 7NF32D4Z45 | 708 | 4.3 | 19.9 | 24.2 | 8.6 |
| FWQ36NG42T | 801 | 5.1 | 21 | 26.1 | 8.4 |
| 0VSVONLUM6 | 802 | 16.4 | 25 | 41.4 | 7.5 |

Continued over

Summary of and links to all dwellings (continued)

| Certificate number and link | Unit number | Heating load (MJ/m ² /p.a.) | Cooling load (MJ/m ² /p.a.) | Total load (MJ/m ² /p.a.) | Star rating |
|-----------------------------|-------------|--|--|--------------------------------------|-------------|
| MYVV8T0SQ2 | 803 | 35.4 | 29.7 | 65.1 | 6.1 |
| MB0P44A25L | 804 | 41.8 | 21.1 | 62.9 | 6.2 |
| P7YOOM5UOP | 805 | 37.9 | 21.3 | 59.2 | 6.4 |
| 2JN8TQB44M | 806 | 41.6 | 31.4 | 73 | 5.7 |
| WYO9HY4C0T | 807 | 18.1 | 35.7 | 53.8 | 6.8 |
| MSZAQOAGHW | 808 | 4.5 | 19.9 | 24.4 | 8.6 |
| YFDA9CY26O | 901 | 6.5 | 19.6 | 26.1 | 8.4 |
| 3G8SY1TYGZ | 902 | 18.7 | 24.1 | 42.8 | 7.4 |
| R244DJUMSF | 903 | 40 | 28.9 | 68.9 | 5.9 |
| P4WHXQUN9E | 904 | 44.4 | 20.3 | 64.7 | 6.1 |
| ABGM0FUGLY | 905 | 40.5 | 20 | 60.5 | 6.4 |
| 5MARF6LJ70 | 906 | 48.3 | 30.2 | 78.5 | 5.4 |
| SLK198U14I | 907 | 20.4 | 34.7 | 55.1 | 6.7 |
| GFYBZQWSD7 | 908 | 6 | 18.8 | 24.8 | 8.6 |
| Average | | 26.9 | 25.6 | 52.5 | 6.9 |

Explanatory notes

About this report

This summary rating is the average rating of all NCC Class 2 dwellings in a development. The individual dwellings' ratings are a comprehensive, dynamic computer modelling evaluation of a home, using the floorplans, elevations and specifications to estimate the energy load. It addresses the building layout, orientation and fabric (i.e. walls, windows, floors, roofs and ceilings), but does not cover the water or energy use of appliances, or energy production of solar panels. For more details about an individual dwelling's assessment, refer to the individual dwelling's NatHERS Certificate (accessible via link).

Accredited Assessors

To ensure the NatHERS Certificate is of a high quality, always use an accredited or licenced assessor. NatHERS accredited assessors are members of a professional body called an Assessor Accrediting Organisation (AAO). AAOs have specific quality assurance processes in place, and continuing professional development requirements, to maintain a high and consistent standard of assessments across the country.

Any questions or concerns about this report should be directed to the assessor in the first instance. If the assessor is unable to address these questions or concerns, the AAO specified on the front of this certificate should be contacted.

Disclaimer

The format of the NatHERS Certificate was developed by the NatHERS Administrator. However the content, input and creation of the NatHERS Certificate is by the assessor. It is the responsibility of the assessor who prepared this certificate to use NatHERS accredited software correctly and follow the NatHERS Technical Notes to produce a NatHERS Certificate.

Appendix B Draft BASIX Certificate



BASIX[®]Certificate

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

Multi Dwelling

Certificate number: 1123256M_02

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

This certificate is a revision of certificate number 1123256M lodged with the consent authority or certifier on 17 August 2020 with application DA 10609.

It is the responsibility of the applicant to verify with the consent authority that the original, or any revised certificate, complies with the requirements of Schedule 1 Clause 2A, 4A or 6A of the Environmental Planning and Assessment Regulation 2000

Secretary

Date of issue: Thursday, 28 April 2022

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



Planning,
Industry &
Environment

Project summary

| | |
|--|-----------------------------------|
| Project name | West Gosford_02 |
| Street address | 10 Young Street West Gosford 2250 |
| Local Government Area | Central Coast Council |
| Plan type and plan number | deposited 1194024 |
| Lot no. | 1 |
| Section no. | 1 |
| No. of residential flat buildings | 1 |
| No. of units in residential flat buildings | 58 |
| No. of multi-dwelling houses | 0 |
| No. of single dwelling houses | 0 |

Project score

| | | |
|-----------------|--------|-------------|
| Water | ✓ 40 | Target 40 |
| Thermal Comfort | ✓ Pass | Target Pass |
| Energy | ✓ 27 | Target 20 |

Certificate Prepared by

Name / Company Name: Stantec Australia Pty Ltd

ABN (if applicable): 17007820322

Description of project

Project address

| | |
|---------------------------|-----------------------------------|
| Project name | West Gosford_02 |
| Street address | 10 Young Street West Gosford 2250 |
| Local Government Area | Central Coast Council |
| Plan type and plan number | deposited 1194024 |
| Lot no. | 1 |
| Section no. | 1 |

Project type

| | |
|--|----|
| No. of residential flat buildings | 1 |
| No. of units in residential flat buildings | 58 |
| No. of multi-dwelling houses | 0 |
| No. of single dwelling houses | 0 |

Site details

| | |
|---------------------------------|--------|
| Site area (m²) | 3750 |
| Roof area (m²) | 516 |
| Non-residential floor area (m²) | 4034.0 |
| Residential car spaces | 58 |
| Non-residential car spaces | 50 |

Common area landscape

| | |
|--|-------|
| Common area lawn (m²) | 65.0 |
| Common area garden (m²) | 927.0 |
| Area of indigenous or low water use species (m²) | 0.0 |

Assessor details

| | |
|---|-------------|
| Assessor number | DMN/21/2042 |
| Certificate number | 4YM6YGXYMK |
| Climate zone | 15 |
| Ceiling fan in at least one bedroom | No |
| Ceiling fan in at least one living room or other conditioned area | No |

Project score

| | | |
|-----------------|--------|-------------|
| Water | ✓ 40 | Target 40 |
| Thermal Comfort | ✓ Pass | Target Pass |
| Energy | ✓ 27 | Target 20 |

Description of project

The tables below describe the dwellings and common areas within the project

Residential flat buildings - Building1, 58 dwellings, 13 storeys above ground

| Dwelling no. | No. of bedrooms | Conditioned floor area (m ²) | Unconditioned floor area (m ²) | Area of garden & lawn (m ²) | Indigenous species (min area m ²) |
|--------------|-----------------|--|--|---|---|
| 501 | 2 | 81.4 | 0.0 | 0.0 | 0.0 |
| 506 | 2 | 76.9 | 0.0 | 0.0 | 0.0 |
| 603 | 2 | 86.7 | 0.0 | 0.0 | 0.0 |
| 608 | 2 | 81.4 | 0.0 | 0.0 | 0.0 |
| 705 | 2 | 76.9 | 0.0 | 0.0 | 0.0 |
| 802 | 2 | 81.9 | 0.0 | 0.0 | 0.0 |
| 807 | 2 | 81.9 | 0.0 | 0.0 | 0.0 |
| 904 | 2 | 76.9 | 0.0 | 0.0 | 0.0 |
| 1001 | 2 | 81.4 | 0.0 | 0.0 | 0.0 |
| 1006 | 2 | 81.4 | 0.0 | 0.0 | 0.0 |
| 1105 | 2 | 81.9 | 0.0 | 0.0 | 0.0 |
| 1204 | 3 | 140.1 | 0.0 | 0.0 | 0.0 |

| Dwelling no. | No. of bedrooms | Conditioned floor area (m ²) | Unconditioned floor area (m ²) | Area of garden & lawn (m ²) | Indigenous species (min area m ²) |
|--------------|-----------------|--|--|---|---|
| 502 | 2 | 81.9 | 0.0 | 0.0 | 0.0 |
| 507 | 2 | 81.9 | 0.0 | 0.0 | 0.0 |
| 604 | 2 | 76.9 | 0.0 | 0.0 | 0.0 |
| 701 | 2 | 81.4 | 0.0 | 0.0 | 0.0 |
| 706 | 2 | 76.9 | 0.0 | 0.0 | 0.0 |
| 803 | 2 | 86.7 | 0.0 | 0.0 | 0.0 |
| 808 | 2 | 81.4 | 0.0 | 0.0 | 0.0 |
| 905 | 2 | 76.9 | 0.0 | 0.0 | 0.0 |
| 1002 | 2 | 81.9 | 0.0 | 0.0 | 0.0 |
| 1101 | 2 | 81.4 | 0.0 | 0.0 | 0.0 |
| 1106 | 2 | 81.4 | 0.0 | 0.0 | 0.0 |
| 1205 | 2 | 82.0 | 0.0 | 0.0 | 0.0 |

| Dwelling no. | No. of bedrooms | Conditioned floor area (m ²) | Unconditioned floor area (m ²) | Area of garden & lawn (m ²) | Indigenous species (min area m ²) |
|--------------|-----------------|--|--|---|---|
| 503 | 2 | 86.7 | 0.0 | 0.0 | 0.0 |
| 508 | 2 | 81.4 | 0.0 | 0.0 | 0.0 |
| 605 | 2 | 76.9 | 0.0 | 0.0 | 0.0 |
| 702 | 2 | 81.9 | 0.0 | 0.0 | 0.0 |
| 707 | 2 | 81.9 | 0.0 | 0.0 | 0.0 |
| 804 | 2 | 76.9 | 0.0 | 0.0 | 0.0 |
| 901 | 2 | 81.4 | 0.0 | 0.0 | 0.0 |
| 906 | 2 | 76.9 | 0.0 | 0.0 | 0.0 |
| 1003 | 3 | 162.2 | 0.0 | 0.0 | 0.0 |
| 1102 | 2 | 81.9 | 0.0 | 0.0 | 0.0 |
| 1201 | 2 | 81.4 | 0.0 | 0.0 | 0.0 |
| 1206 | 2 | 81.8 | 0.0 | 0.0 | 0.0 |

| Dwelling no. | No. of bedrooms | Conditioned floor area (m ²) | Unconditioned floor area (m ²) | Area of garden & lawn (m ²) | Indigenous species (min area m ²) |
|--------------|-----------------|--|--|---|---|
| 504 | 2 | 76.9 | 0.0 | 0.0 | 0.0 |
| 601 | 2 | 81.4 | 0.0 | 0.0 | 0.0 |
| 606 | 2 | 76.9 | 0.0 | 0.0 | 0.0 |
| 703 | 2 | 86.7 | 0.0 | 0.0 | 0.0 |
| 708 | 2 | 81.4 | 0.0 | 0.0 | 0.0 |
| 805 | 2 | 76.9 | 0.0 | 0.0 | 0.0 |
| 902 | 2 | 81.9 | 0.0 | 0.0 | 0.0 |
| 907 | 2 | 81.9 | 0.0 | 0.0 | 0.0 |
| 1004 | 3 | 140.1 | 0.0 | 0.0 | 0.0 |
| 1103 | 3 | 160.6 | 0.0 | 0.0 | 0.0 |
| 1202 | 2 | 81.9 | 0.0 | 0.0 | 0.0 |

| Dwelling no. | No. of bedrooms | Conditioned floor area (m ²) | Unconditioned floor area (m ²) | Area of garden & lawn (m ²) | Indigenous species (min area m ²) |
|--------------|-----------------|--|--|---|---|
| 505 | 2 | 76.9 | 0.0 | 0.0 | 0.0 |
| 602 | 2 | 81.9 | 0.0 | 0.0 | 0.0 |
| 607 | 2 | 81.9 | 0.0 | 0.0 | 0.0 |
| 704 | 2 | 76.9 | 0.0 | 0.0 | 0.0 |
| 801 | 2 | 81.4 | 0.0 | 0.0 | 0.0 |
| 806 | 2 | 76.9 | 0.0 | 0.0 | 0.0 |
| 903 | 2 | 86.7 | 0.0 | 0.0 | 0.0 |
| 908 | 2 | 81.4 | 0.0 | 0.0 | 0.0 |
| 1005 | 2 | 81.9 | 0.0 | 0.0 | 0.0 |
| 1104 | 3 | 140.1 | 0.0 | 0.0 | 0.0 |
| 1203 | 3 | 160.6 | 0.0 | 0.0 | 0.0 |

Description of project

The tables below describe the dwellings and common areas within the project

Common areas of unit building - Building1

| Common area | Floor area (m ²) |
|-------------------------------------|------------------------------|
| Level 1 and 2 Carpark Area | 3774.0 |
| Lift car (No.2) | - |
| Level 00 Residential Waste Room | 62.0 |
| Level 00 Fire Pump and Control Room | 19.0 |
| Level 00 to Level 4 Fire Stairs | 156.0 |
| Level 13 ACC Toilet | 8.0 |
| Level 5 to 13 Corridors | 578.0 |

| Common area | Floor area (m ²) |
|---------------------------------|------------------------------|
| Level 00 Loading Dock | 56.0 |
| Level 00 Elec. Room | 9.0 |
| Level 6 to 9 Waste Room | 23.0 |
| Level 00 Store | 12.0 |
| Level 5 to Level 13 Fire Stairs | 234.0 |
| Level 00 Ground floor Lobby | 157.0 |

| Common area | Floor area (m ²) |
|--------------------------|------------------------------|
| Lift car (No.1) | - |
| Level 00 Comms Aoom | 10.0 |
| Level 00 Services Rooms | 8.0 |
| Level 00M Services Rooms | 116.0 |
| Level 00 ACC Toilet | 5.0 |
| Level 00 + 00M Corridors | 80.0 |

Schedule of BASIX commitments

1. Commitments for Residential flat buildings - Building1

(a) Dwellings

- (i) Water
- (ii) Energy
- (iii) Thermal Comfort

(b) Common areas and central systems/facilities

- (i) Water
- (ii) Energy

2. Commitments for multi-dwelling houses

3. Commitments for single dwelling houses

4. Commitments for common areas and central systems/facilities for the development (non-building specific)

- (i) Water
- (ii) Energy

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.

1. Commitments for Residential flat buildings - Building1

(a) Dwellings

| (i) Water | Show on DA plans | Show on CC/CDC plans & specs | Certifier check |
|--|------------------|------------------------------|-----------------|
| (a) The applicant must comply with the commitments listed below in carrying out the development of a dwelling listed in a table below. | | | |
| (b) The applicant must plant indigenous or low water use species of vegetation throughout the area of land specified for the dwelling in the "Indigenous species" column of the table below, as private landscaping for that dwelling. (This area of indigenous vegetation is to be contained within the "Area of garden and lawn" for the dwelling specified in the "Description of Project" table). | ✓ | ✓ | |
| (c) If a rating is specified in the table below for a fixture or appliance to be installed in the dwelling, the applicant must ensure that each such fixture and appliance meets the rating specified for it. | | ✓ | ✓ |
| (d) The applicant must install an on demand hot water recirculation system which regulates all hot water use throughout the dwelling, where indicated for a dwelling in the "HW recirculation or diversion" column of the table below. | | ✓ | ✓ |
| (e) The applicant must install: | | | |
| (aa) a hot water diversion system to all showers, kitchen sinks and all basins in the dwelling, where indicated for a dwelling in the "HW recirculation or diversion" column of the table below; and | | ✓ | ✓ |
| (bb) a separate diversion tank (or tanks) connected to the hot water diversion systems of at least 100 litres. The applicant must connect the hot water diversion tank to all toilets in the dwelling. | | ✓ | ✓ |
| (e) The applicant must not install a private swimming pool or spa for the dwelling, with a volume exceeding that specified for it in the table below. | ✓ | ✓ | |
| (f) If specified in the table, that pool or spa (or both) must have a pool cover or shading (or both). | | ✓ | |
| (g) The pool or spa must be located as specified in the table. | ✓ | ✓ | |
| (h) The applicant must install, for the dwelling, each alternative water supply system, with the specified size, listed for that dwelling in the table below. Each system must be configured to collect run-off from the areas specified (excluding any area which supplies any other alternative water supply system), and to divert overflow as specified. Each system must be connected as specified. | ✓ | ✓ | ✓ |

| | Fixtures | | | | | Appliances | | Individual pool | | | | Individual spa | | |
|---------------|-------------------------------|-----------------------------|------------------|-------------------|-------------------------------|---------------------|------------------|---------------------|------------|---------------|-------------|---------------------|-----------|------------|
| Dwelling no. | All shower-heads | All toilet flushing systems | All kitchen taps | All bathroom taps | HW recirculation or diversion | All clothes washers | All dish-washers | Volume (max volume) | Pool cover | Pool location | Pool shaded | Volume (max volume) | Spa cover | Spa shaded |
| All dwellings | 3 star (> 6 but <= 7.5 L/min) | 4 star | 6 star | 6 star | no | - | 6 star | - | - | - | - | - | - | - |

| | Alternative water source | | | | | | | |
|---|----------------------------------|---------------------|---------------------|----------------------|-----------------------|--------------------|-------------|------------|
| Dwelling no. | Alternative water supply systems | Size | Configuration | Landscape connection | Toilet connection (s) | Laundry connection | Pool top-up | Spa top-up |
| 501, 502, 505, 506, 601, 603, 604, 606, 704, 706, 708, 801, 803, 805, 903, 907, 908, 1003, 1101, 1104, 1105, 1201, 1203, 1206 | central water tank (no. 1) | See central systems | See central systems | - | yes | - | - | - |

| (ii) Energy | Show on DA plans | Show on CC/CDC plans & specs | Certifier check |
|--|------------------|------------------------------|-----------------|
| (a) The applicant must comply with the commitments listed below in carrying out the development of a dwelling listed in a table below. | | | |
| (b) The applicant must install each hot water system specified for the dwelling in the table below, so that the dwelling's hot water is supplied by that system. If the table specifies a central hot water system for the dwelling, then the applicant must connect that central system to the dwelling, so that the dwelling's hot water is supplied by that central system. | ✓ | ✓ | ✓ |
| (c) The applicant must install, in each bathroom, kitchen and laundry of the dwelling, the ventilation system specified for that room in the table below. Each such ventilation system must have the operation control specified for it in the table. | | ✓ | ✓ |

| (ii) Energy | Show on DA plans | Show on CC/CDC plans & specs | Certifier check |
|---|------------------|------------------------------|-----------------|
| (d) The applicant must install the cooling and heating system/s specified for the dwelling under the "Living areas" and "Bedroom areas" headings of the "Cooling" and "Heating" columns in the table below, in/for at least 1 living/bedroom area of the dwelling. If no cooling or heating system is specified in the table for "Living areas" or "Bedroom areas", then no systems may be installed in any such areas. If the term "zoned" is specified beside an air conditioning system, then the system must provide for day/night zoning between living areas and bedrooms. | | ✓ | ✓ |
| (e) This commitment applies to each room or area of the dwelling which is referred to in a heading to the "Artificial lighting" column of the table below (but only to the extent specified for that room or area). The applicant must ensure that the "primary type of artificial lighting" for each such room in the dwelling is fluorescent lighting or light emitting diode (LED) lighting. If the term "dedicated" is specified for a particular room or area, then the light fittings in that room or area must only be capable of being used for fluorescent lighting or light emitting diode (LED) lighting. | | ✓ | ✓ |
| (f) This commitment applies to each room or area of the dwelling which is referred to in a heading to the "Natural lighting" column of the table below (but only to the extent specified for that room or area). The applicant must ensure that each such room or area is fitted with a window and/or skylight. | ✓ | ✓ | ✓ |
| (g) This commitment applies if the applicant installs a water heating system for the dwelling's pool or spa. The applicant must: (aa) install the system specified for the pool in the "Individual Pool" column of the table below (or alternatively must not install any system for the pool). If specified, the applicant must install a timer, to control the pool's pump; and (bb) install the system specified for the spa in the "Individual Spa" column of the table below (or alternatively must not install any system for the spa). If specified, the applicant must install a timer to control the spa's pump. | | ✓ ✓ | |
| (h) The applicant must install in the dwelling: (aa) the kitchen cook-top and oven specified for that dwelling in the "Appliances & other efficiency measures" column of the table below; (bb) each appliance for which a rating is specified for that dwelling in the "Appliances & other efficiency measures" column of the table, and ensure that the appliance has that minimum rating; and (cc) any clothes drying line specified for the dwelling in the "Appliances & other efficiency measures" column of the table. | | ✓ ✓ ✓ | ✓ |
| (i) If specified in the table, the applicant must carry out the development so that each refrigerator space in the dwelling is "well ventilated". | | ✓ | |

| | Hot water | Bathroom ventilation system | | Kitchen ventilation system | | Laundry ventilation system | |
|---------------|----------------------------|--|----------------------|--|----------------------|--|----------------------|
| Dwelling no. | Hot water system | Each bathroom | Operation control | Each kitchen | Operation control | Each laundry | Operation control |
| All dwellings | central hot water system 1 | individual fan, ducted to façade or roof | interlocked to light | individual fan, ducted to façade or roof | manual switch on/off | individual fan, ducted to façade or roof | manual switch on/off |

| Dwelling no. | Cooling | | Heating | | Artificial lighting | | | | | | Natural lighting | |
|--------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|---------------------------------------|----------------------------|---------------------------------|--------------|-----------------------|--------------|--------------|-------------------------------|--------------|
| | living areas | bedroom areas | living areas | bedroom areas | No. of bedrooms &/or study | No. of living &/or dining rooms | Each kitchen | All bathrooms/toilets | Each laundry | All hallways | No. of bathrooms &/or toilets | Main kitchen |
| 602, 605, 702, 906, 1202, 1205 | 3-phase airconditioning EER 2.5 - 3.0 | 3-phase airconditioning EER 2.5 - 3.0 | 3-phase airconditioning EER 2.5 - 3.0 | 3-phase airconditioning EER 2.5 - 3.0 | 3 | 2 | yes | yes | yes | yes | 0 | - |
| All other dwellings | 3-phase airconditioning EER 2.5 - 3.0 | 3-phase airconditioning EER 2.5 - 3.0 | 3-phase airconditioning EER 2.5 - 3.0 | 3-phase airconditioning EER 2.5 - 3.0 | 2 | 2 | yes | yes | yes | yes | 0 | - |

| Dwelling no. | Individual pool | | Individual spa | | Appliances & other efficiency measures | | | | | | | |
|---------------|---------------------|-------|--------------------|-------|--|--------------|------------------------------|------------|----------------|---------------|---|--|
| | Pool heating system | Timer | Spa heating system | Timer | Kitchen cooktop/oven | Refrigerator | Well ventilated fridge space | Dishwasher | Clothes washer | Clothes dryer | Indoor or sheltered clothes drying line | Private outdoor or unsheltered clothes drying line |
| All dwellings | - | - | - | - | gas cooktop & electric oven | - | no | 2.5 star | - | 1.5 star | no | no |

| (iii) Thermal Comfort | Show on DA plans | Show on CC/CDC plans & specs | Certifier check |
|--|------------------|------------------------------|-----------------|
| (a) 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 a final occupation certificate for the proposed development. | | | |
| (b) The Assessor Certificate must have been issued by an Accredited Assessor in accordance with the Thermal Comfort Protocol. | | | |
| (c) The details of the proposed development on the Assessor Certificate must be consistent with the details shown in this BASIX Certificate, including the details shown in the "Thermal Loads" table below. | | | |

| (iii) Thermal Comfort | Show on DA plans | Show on CC/CDC plans & specs | Certifier check |
|---|------------------|------------------------------|-----------------|
| (d) The applicant must show on the plans accompanying the development application for the proposed development, all matters which the Thermal Comfort Protocol 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. | ✓ | | |
| (e) 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. | | ✓ | |
| (f) 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. | | ✓ | ✓ |
| (g) Where there is an in-slab heating or cooling system, the applicant must: (aa) Install insulation with an R-value of not less than 1.0 around the vertical edges of the perimeter of the slab; or (bb) On a suspended floor, install insulation with an R-value of not less than 1.0 underneath the slab and around the vertical edges of the perimeter of the slab. | ✓ | ✓ | ✓ |
| (h) The applicant must construct the floors and walls of the development in accordance with the specifications listed in the table below. | ✓ | ✓ | ✓ |
| | | | |
| | | | |

| Dwelling no. | Thermal loads | |
|--------------|---|---|
| | Area adjusted heating load (in mJ/m ² /yr) | Area adjusted cooling load (in mJ/m ² /yr) |
| 501 | 6.2 | 21.4 |
| 502 | 15.0 | 24.3 |
| 503 | 32.1 | 29.6 |
| 504 | 38.8 | 23.8 |
| 505 | 35.1 | 25.5 |
| 506 | 39.1 | 31.6 |
| 507 | 19.0 | 33.8 |
| 508 | 5.8 | 20.4 |
| 601 | 4.7 | 21.2 |

| | Thermal loads | |
|--------------|--|--|
| Dwelling no. | Area adjusted heating load (in mJ/m²/yr) | Area adjusted cooling load (in mJ/m²/yr) |
| 602 | 15.8 | 25.2 |
| 603 | 34.4 | 29.3 |
| 604 | 41.0 | 21.4 |
| 605 | 37.2 | 21.1 |
| 606 | 40.7 | 31.6 |
| 607 | 17.5 | 35.4 |
| 608 | 4.1 | 20.3 |
| 701 | 4.9 | 21.0 |
| 702 | 16.1 | 25.1 |
| 703 | 34.9 | 29.3 |
| 704 | 41.4 | 21.5 |
| 705 | 37.6 | 21.3 |
| 706 | 41.1 | 31.6 |
| 707 | 17.8 | 35.4 |
| 708 | 4.3 | 19.9 |
| 801 | 5.1 | 21.0 |
| 802 | 16.4 | 25.0 |
| 803 | 35.4 | 29.7 |
| 804 | 41.8 | 21.1 |
| 805 | 37.9 | 21.3 |
| 806 | 41.6 | 31.4 |
| 807 | 18.1 | 35.7 |
| 808 | 4.5 | 19.9 |
| 901 | 6.5 | 19.6 |
| 902 | 18.7 | 24.1 |
| 903 | 40.0 | 28.9 |
| 904 | 44.4 | 20.3 |

| | Thermal loads | |
|---------------------|---|---|
| Dwelling no. | Area adjusted heating load (in mJ/m ² /yr) | Area adjusted cooling load (in mJ/m ² /yr) |
| 905 | 40.5 | 20.0 |
| 906 | 48.3 | 30.2 |
| 907 | 20.4 | 34.7 |
| 908 | 6.0 | 18.8 |
| 1001 | 6.7 | 19.4 |
| 1002 | 19.1 | 24.0 |
| 1003 | 52.7 | 32.3 |
| 1004 | 49.3 | 24.0 |
| 1005 | 20.5 | 35.9 |
| 1006 | 5.5 | 19.1 |
| 1101 | 5.8 | 16.9 |
| 1102 | 18.8 | 23.0 |
| 1103 | 52.7 | 24.0 |
| 1104 | 55.0 | 21.7 |
| 1105 | 20.4 | 35.4 |
| 1106 | 5.4 | 20.4 |
| 1201 | 19.2 | 24.4 |
| 1202 | 32.2 | 26.2 |
| 1203 | 56.1 | 25.3 |
| 1204 | 59.4 | 25.7 |
| 1205 | 54.8 | 35.1 |
| All other dwellings | 16.3 | 26.8 |

(b) Common areas and central systems/facilities

| (i) Water | Show on DA plans | Show on CC/CDC plans & specs | Certifier check |
|---|------------------|------------------------------|-----------------|
| (a) If, in carrying out the development, the applicant installs a showerhead, toilet, tap or clothes washer into a common area, then that item must meet the specifications listed for it in the table. | | ✓ | ✓ |
| (b) The applicant must install (or ensure that the development is serviced by) the alternative water supply system(s) specified in the "Central systems" column of the table below. In each case, the system must be sized, be configured, and be connected, as specified in the table. | ✓ | ✓ | ✓ |
| (c) A swimming pool or spa listed in the table must not have a volume (in kLs) greater than that specified for the pool or spa in the table. | ✓ | ✓ | |
| (d) A pool or spa listed in the table must have a cover or shading if specified for the pool or spa in the table. | | ✓ | |
| (e) The applicant must install each fire sprinkler system listed in the table so that the system is configured as specified in the table. | | ✓ | ✓ |
| (f) The applicant must ensure that the central cooling system for a cooling tower is configured as specified in the table. | | ✓ | ✓ |

| Common area | Showerheads rating | Toilets rating | Taps rating | Clothes washers rating |
|------------------|--------------------|--------------------|--------------------|----------------------------|
| All common areas | no common facility | no common facility | no common facility | no common laundry facility |

| Central systems | Size | Configuration | Connection (to allow for...) |
|--|---------|---|--|
| Central water tank - rainwater or stormwater (No. 1) | 30000.0 | To collect run-off from at least: - 516.0 square metres of roof area of buildings in the development - 0.0 square metres of impervious area in the development - 0.0 square metres of garden/lawn area in the development - 0.0 square metres of planter box area in the development (excluding, in each case, any area which drains to, or supplies, any other alternative water supply system). | - irrigation of 0.0 square metres of common landscaped area on the site - car washing in 0 car washing bays on the site |
| Fire sprinkler system (No. 1) | - | - | - |
| Fire sprinkler system (No. 2) | - | - | - |

| (ii) Energy | Show on DA plans | Show on CC/CDC plans & specs | Certifier check |
|---|------------------|------------------------------|-----------------|
| (a) If, in carrying out the development, the applicant installs a ventilation system to service a common area specified in the table below, then that ventilation system must be of the type specified for that common area, and must meet the efficiency measure specified. | | ✓ | ✓ |
| (b) In carrying out the development, the applicant must install, as the "primary type of artificial lighting" for each common area specified in the table below, the lighting specified for that common area. This lighting must meet the efficiency measure specified. The applicant must also install a centralised lighting control system or Building Management System (BMS) for the common area, where specified. | | ✓ | ✓ |
| (c) The applicant must install the systems and fixtures specified in the "Central energy systems" column of the table below. In each case, the system or fixture must be of the type, and meet the specifications, listed for it in the table. | ✓ | ✓ | ✓ |

| Common area | Common area ventilation system | | Common area lighting | | |
|-------------------------------------|--------------------------------|-----------------------------------|-------------------------------------|------------------------------------|-----------------------------|
| | Ventilation system type | Ventilation efficiency measure | Primary type of artificial lighting | Lighting efficiency measure | Lighting control system/BMS |
| Level 1 and 2 Carpark Area | no mechanical ventilation | - | light-emitting diode | zoned switching with motion sensor | No |
| Level 00 Loading Dock | ventilation exhaust only | carbon monoxide monitor + VSD fan | light-emitting diode | motion sensors | No |
| Lift car (No.1) | - | - | light-emitting diode | connected to lift call button | No |
| Lift car (No.2) | - | - | light-emitting diode | connected to lift call button | No |
| Level 00 Elec. Room | ventilation supply only | none ie. continuous | light-emitting diode | motion sensors | No |
| Level 00 Comms Aoom | air conditioning system | thermostatically controlled | light-emitting diode | motion sensors | No |
| Level 00 Residential Waste Room | ventilation exhaust only | - | light-emitting diode | motion sensors | No |
| Level 6 to 9 Waste Room | ventilation exhaust only | - | light-emitting diode | motion sensors | No |
| Level 00 Services Rooms | ventilation supply only | thermostatically controlled | light-emitting diode | motion sensors | No |
| Level 00 Fire Pump and Control Room | ventilation (supply + exhaust) | none ie. continuous | light-emitting diode | manual on / manual off | No |
| Level 00 Store | no mechanical ventilation | - | light-emitting diode | manual on / manual off | No |
| Level 00M Services Rooms | ventilation supply only | thermostatically controlled | light-emitting diode | motion sensors | No |
| Level 00 to Level 4 Fire Stairs | no mechanical ventilation | - | light-emitting diode | motion sensors | No |

| | Common area ventilation system | | Common area lighting | | |
|---------------------------------|--------------------------------|--------------------------------|-------------------------------------|-----------------------------|-----------------------------|
| Common area | Ventilation system type | Ventilation efficiency measure | Primary type of artificial lighting | Lighting efficiency measure | Lighting control system/BMS |
| Level 5 to Level 13 Fire Stairs | no mechanical ventilation | - | light-emitting diode | motion sensors | No |
| Level 00 ACC Toilet | ventilation exhaust only | time clock or BMS controlled | light-emitting diode | motion sensors | No |
| Level 13 ACC Toilet | ventilation exhaust only | time clock or BMS controlled | light-emitting diode | motion sensors | No |
| Level 00 Ground floor Lobby | no mechanical ventilation | - | light-emitting diode | zoned switching | No |
| Level 00 + 00M Corridors | no mechanical ventilation | - | light-emitting diode | motion sensors | No |
| Level 5 to 13 Corridors | no mechanical ventilation | - | light-emitting diode | motion sensors | No |

| Central energy systems | Type | Specification |
|----------------------------------|--------------------------------------|--|
| Central hot water system (No. 1) | gas-fired storage (manifolded) | Piping insulation (ringmain & supply risers): (a) Piping external to building: R0.6 (~25 mm); (b) Piping internal to building: R0.6 (~25 mm) |
| Lift (No. 1) | gearless traction with V V V F motor | Number of levels (including basement): 13 |
| Lift (No. 2) | gearless traction with V V V F motor | Number of levels (including basement): 13 |

4. Commitments for common areas and central systems/facilities for the development (non-building specific)

(b) Common areas and central systems/facilities

| (i) Water | Show on DA plans | Show on CC/CDC plans & specs | Certifier check |
|---|------------------|------------------------------|-----------------|
| (a) If, in carrying out the development, the applicant installs a showerhead, toilet, tap or clothes washer into a common area, then that item must meet the specifications listed for it in the table. | | ✓ | ✓ |
| (b) The applicant must install (or ensure that the development is serviced by) the alternative water supply system(s) specified in the "Central systems" column of the table below. In each case, the system must be sized, be configured, and be connected, as specified in the table. | ✓ | ✓ | ✓ |
| (c) A swimming pool or spa listed in the table must not have a volume (in kLs) greater than that specified for the pool or spa in the table. | ✓ | ✓ | |
| (d) A pool or spa listed in the table must have a cover or shading if specified for the pool or spa in the table. | | ✓ | |
| (e) The applicant must install each fire sprinkler system listed in the table so that the system is configured as specified in the table. | | ✓ | ✓ |
| (f) The applicant must ensure that the central cooling system for a cooling tower is configured as specified in the table. | | ✓ | ✓ |

| Common area | Showerheads rating | Toilets rating | Taps rating | Clothes washers rating |
|------------------|--------------------|--------------------|--------------------|----------------------------|
| All common areas | no common facility | no common facility | no common facility | no common laundry facility |

| (ii) Energy | Show on DA plans | Show on CC/CDC plans & specs | Certifier check |
|---|------------------|------------------------------|-----------------|
| (a) If, in carrying out the development, the applicant installs a ventilation system to service a common area specified in the table below, then that ventilation system must be of the type specified for that common area, and must meet the efficiency measure specified. | | ✓ | ✓ |
| (b) In carrying out the development, the applicant must install, as the "primary type of artificial lighting" for each common area specified in the table below, the lighting specified for that common area. This lighting must meet the efficiency measure specified. The applicant must also install a centralised lighting control system or Building Management System (BMS) for the common area, where specified. | | ✓ | ✓ |
| (c) The applicant must install the systems and fixtures specified in the "Central energy systems" column of the table below. In each case, the system or fixture must be of the type, and meet the specifications, listed for it in the table. | ✓ | ✓ | ✓ |

| Central energy systems | Type | Specification |
|---------------------------|---------------------|---|
| Alternative energy supply | Photovoltaic system | Rated electrical output (min): 15.0 peak kW |

Notes

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|--|
| 1. In these commitments, "applicant" means the person carrying out the development. |
| 2. The applicant must identify each dwelling, building and common area listed in this certificate, on the plans accompanying any development application, and on the plans and specifications accompanying the application for a construction certificate / complying development certificate, for the proposed development, using the same identifying letter or reference as is given to that dwelling, building or common area in this certificate. |
| 3. This note applies if the proposed development involves the erection of a building for both residential and non-residential purposes (or the change of use of a building for both residential and non-residential purposes). Commitments in this certificate which are specified to apply to a "common area" of a building or the development, apply only to that part of the building or development to be used for residential purposes. |
| 4. If this certificate lists a central system as a commitment for a dwelling or building, and that system will also service any other dwelling or building within the development, then that system need only be installed once (even if it is separately listed as a commitment for that other dwelling or building). |
| 5. If a star or other rating is specified in a commitment, this is a minimum rating. |
| 6. All alternative water systems to be installed under these commitments (if any), must be installed in accordance with the requirements of all applicable regulatory authorities. NOTE: NSW Health does not recommend that stormwater, recycled water or private dam water be used to irrigate edible plants which are consumed raw, or that rainwater be used for human consumption in areas with potable water supply. |

Legend

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|---|
| 1. 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). |
| 2. 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. |
| 3. Commitments identified with a "✓" in the "Certifier check" column must be certified by a certifying authority as having been fulfilled. (Note: a certifying authority must not issue an occupation certificate (either interim or final) for a building listed in this certificate, or for any part of such a building, unless it is satisfied that each of the commitments whose fulfilment it is required to monitor in relation to the building or part, has been fulfilled). |

Design with
community in mind

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