



IGS INTEGRATED
GROUP
SERVICES



BASIX Assessment Summary Report

21-41 Canberra Ave, 26-32 Holdsworth Ave,
St Leonards South NSW



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1. EXECUTIVE SUMMARY

IGS has been commissioned to assess the interaction of the residential area of the proposed development at 21-41 Canberra Ave, 26-32 Holdsworth Ave, St Leonards South NSW, with the local environment in terms of BASIX compliance.

A BASIX Certificate is a regulatory requirement and demonstrates compliance with the NSW Government's sustainability targets. BASIX assessment and certification has been completed for this project (Certificate No. 1208538M).

Dwellings within the development have been assessed in terms of their passive energy design using the BASIX Thermal Comfort protocol. They have also been assessed in terms of their ability to conserve water and also to minimise energy consumption via appliances and hot water etc.

With the recommendations provided in the BASIX certificate the development meets and exceeds the minimum requirements for all following areas.

- Energy Efficiency
- Water Efficiency
- Thermal Comfort

This development achieves the following targets:

- Energy Efficiency: 30% reduction (minimum requirements under BASIX: 25%)
- Water Efficiency: 40% reduction (minimum requirements under BASIX: 40%)
- Thermal Comfort: Will pass the thermal performance requirements under BASIX.

2. INTRODUCTION

BASIX is an NSW State Planning Policy Tool which assesses the environmental performance of new residential premises against a range water, energy and greenhouse gas emissions targets. The assessment has three core components, BASIX Thermal Comfort, BASIX Water and BASIX Energy.

The thermal comfort assessment requires that the thermal performance of dwellings is evaluated and measures put in place to ensure annual heating and cooling loads do not exceed pre-defined limits without compromising the occupant's thermal comfort. This assessment uses computer simulation to evaluate the estimated building fabric thermal performance and passive solar design features such as orientation and solar shading.

The energy section evaluates gas and electrical energy used for heating, cooling lighting, ventilation and appliances. The BASIX Energy target requires the development to uses 25% less energy than the NSW average.

The water assessment takes account of landscaping, stormwater management as well as water efficiency performance of fixtures and fitting such as taps and showers. The BASIX target for water requires that potable water consumption is at least 40% lower than the NSW average.

Note: this report is only a guide to the BASIX certificate, for full details of BASIX requirements please refer to the BASIX certificate.

3. BUILDING DESCRIPTION

The proposed development will be located at 21-41 Canberra Ave, 26-32 Holdsworth Ave, St Leonards South NSW.

3.1 Information Used in Review

Our review is based on the following architectural drawings provided by Bates Smart Architects in May 2021.

Drawing No.	Drawing Title	Drawing No.	Drawing Title
DA.00.000	Cover Sheet & Drawing Schedule	DA.13.121	2 Bed Apartment Plans - Building 9 Sheet 2
Site Plans		DA.13.122	2 Bed Apartment Plans - Building 10
DA.01.000	Existing Site Context & Analysis	DA.13.123	2 Bed Apartment Plans - Building 11
DA.01.002	Proposed Site Plan & Massing	DA.13.124	2 Bed Apartment Plans - Building 11 Sheet 2
DA.01.005	Proposed Streetscape Elevations	DA.13.130	3 Bed Apartment Plans - Building 9
Key Plans		DA.13.131	3 Bed Apartment Plans - Building 10
DA.02.001	Level 01	DA.13.132	3 Bed Apartment Plans - Building 11
DA.02.002	Level 02	DA.13.150	Terrace Plans - Building 9
DA.02.003	Level 03	DA.13.151	Terrace Plans - Building 11
DA.02.004	Level 04	DA.13.152	Terrace Plans - Building 11 Sheet 2
DA.02.005	Level 05	DA.13.210	1 Bed Apartment Plans - Building 7
DA.02.006	Level 06	DA.13.211	1 Bed Apartment Plans - Building 8
DA.02.007	Level 07	DA.13.220	2 Bed Apartment Plans - Building 7
DA.02.008	Level 08	DA.13.221	2 Bed Apartment Plans - Building 8
DA.02.009	Level 09	DA.13.230	3 Bed Apartment Plans - Building 7
DA.02.010	Level 10	DA.13.231	3 Bed Apartment Plans - Building 7 Sheet 2
DA.02.011	Level 11	DA.13.232	3 Bed Apartment Plans - Building 8
DA.02.012	Level 12	DA.13.233	3 Bed Apartment Plans - Building 8 Sheet 2
DA.02.013	Level 13	Shadow Diagrams	
DA.02.014	Level 14	DA.21.001	Shadow Diagrams - Winter Solstice
DA.02.015	Level 15	DA.21.010	Views from Sun - Winter Solstice - Sheet 01
DA.02.016	Level 16	DA.21.011	Views from Sun - Winter Solstice - Sheet 02
DA.02.017	Roof Plan	Area Calculation Plans	
Elevations		DA.22.001	Area Calculation Plans - Sheet 1
DA.09.101	Canberra Ave & Holdsworth Ave	DA.22.002	Area Calculation Plans - Sheet 2
DA.09.102	River Road & North	DA.22.003	Area Calculation Plans - Sheet 3
DA.09.103	Pedestrian Link North & South	DA.22.004	Area Calculation Plans - Sheet 4
DA.09.104	Green Spine East & Green Spine West	Diagrams	
DA.09.105	9m Building Sep Elevations	DA.23.001	Deep Soil Calculation
Sections		DA.23.005	Existing Tree Retention Plan
DA.10.001	Longitudinal	DA.23.010	Height Plane assessment - Survey
DA.10.101	Buildings 09 & 10	DA.23.011	Height Plane Assessment - Proposed
DA.10.102	Building 11	 Renders	
DA.10.201	Buildings 07 & 08	DA.24.001	Render 01
Detail Sections		DA.24.002	Render 02
DA.10.501	Ground Interface - Street Entrances	DA.24.003	Render 03
DA.10.503	Ground Interface - Green Spine	DA.24.004	Render 04
DA.10.504	Ground Interface - Holdsworth	DA.24.005	Render 05
DA.10.505	Ground Interface - North Link	DA.24.006	Render 06
DA.10.506	Ground Interface - Pocket Park Extension	DA.24.007	Render 07
DA.10.507	Ground Interface - Town House	Notification Plans	
Apartment Plans		DA.25.001	Notification Plan 01
DA.13.110	1 Bed Apartment Plans - Building 9	DA.25.002	Notification Plan 02
DA.13.111	1 Bed Apartment Plans - Building 10	Grand total: 78	
DA.13.112	1 Bed Apartment Plans - Building 11		
DA.13.120	2 Bed Apartment Plans - Building 9		

4. BASIX WATER SECTION

The water efficiency performance of the development has been assessed using the online BASIX Tool. The assessment has considered the common area and central system features including the landscape design, plant species, water catchment areas, rain water tank size and efficiency of preferred fixtures and fittings in the dwellings.

The proposed development will meet the mandatory BASIX water target of 40% as long as the water commitments detailed in Table 1 are installed. For details of the requirements necessary to achieve this target, please refer to the BASIX Certificate No. 1208538M.

Table 1: Water Commitments

Common Areas and Central Systems	
Common areas	3-star (Water Rating) showerheads with a flow rate > 4.5 but ≤ 6 L/min 5-star (Water Rating) taps 4-star (Water Rating) toilets
Central systems	- Rainwater tank with capacity of minimum 15,000L (minimum), collecting run-off from minimum 2000 m² of roof area, used for irrigation of common area landscape with minimum area of 4427.7 m². - Swimming pool capacity: 75.0 kL.
Private Dwellings	
Fixtures for apartments	3-star (Water Rating) showerheads with a flow rate > 6 but ≤ 7.5 L/min 4-star (Water Rating) toilets 5-star (Water Rating) kitchen taps 5-star (Water Rating) bathroom taps 4-star (Water Rating) dishwashers

5. BASIX THERMAL COMFORT SECTION

The preliminary thermal performance of the development has been evaluated using BERS Pro software; this computer simulation of residential developments is used to assess the potential of a residential development to have low heating and cooling energy requirements once operational.

5.1 Modelling Assumptions

BERS Pro software calculates the transient hourly heat gains and losses for each space inside a building taking into account the building's thermal storage, typical residential occupancy and operational profiles plus hourly weather data for the site.

Building geometry and orientation were modelled according to supplied drawings.

The "base-case" building fabric and estimated glazing and thermal performance requirements are described in table below. Please note the estimated requirements below are based on the nominated construction materials by the architect.

Element	Insulation / glazing
External walls	Added R2.0 insulation Construction types as per architectural drawings
All Party walls	Added R1.5 insulation Construction type: Hebel Partition
All Internal walls	Added R1.5 insulation Construction type: Plasterboard
All Common Area walls	Added R1.5 insulation Construction type: Hebel Partition
Glazing for units: A306, A901, A902, A907, C504, C506, C604, C605, C704, C705, C801, C802, C803, C901, D706, D707, D708, D805, D806, D807, D809, D810, D811, D905, D906, D907, D909, D910, D911, D1005, D1006, D1007, D1009, D1010, D1011, D1105, D1106, D1107, D1109, D1110, D1111, D1204, D1304, D1404, D1504, D1604, E1103	System U-Value ≤ 5.6 , System SHGC: 0.33-0.39
Glazing for all other units	System U-Value ≤ 6.2 , System SHGC: 0.72-0.79
All Floors	No Added insulation Construction type: Concrete
All Ceilings under another floor	No Added insulation
All Ceilings under roof	Added R3.0 insulation
All Roofs	No Added insulation Construction type: Concrete

Note:

The preliminary thermal insulation and glazing performance requirements outlined in this report nominate the estimated minimum BASIX requirements only. The specified performance values therefore do not consider requirements for any other disciplines such as Acoustics, Fire or Safety compliance. Where required, the development shall comply with any additional

requirements related to the local council or other design disciplines in addition to the compliance requirements detailed in this report.

Compliance with the minimum BASIX requirements does not warrant thermal comfort. All services consultants and contractors shall design and construct the development to comply with the minimum requirements of the NCC Vol 1 & 2 and NSW Section J requirements.

6. BASIX ENERGY SECTION

The Energy performance of the development has been assessed using the online BASIX Tool. The assessment has considered Common Area and Central System features including the lifts, ventilation and lighting for common areas (corridors, lobbies, car park etc.), centralised domestic hot water and the efficiency of preferred lighting and appliances in the dwellings. The proposed development will meet the mandatory BASIX Energy target of 25% as long as the energy commitments detailed in Table are installed.

Table 3: Energy Commitments

Component		Commitment
Common Areas of residential areas	Lifts	Quantity: 11, Gearless traction with VVVF
	Ventilation	- Carpark: ventilation (supply & exhaust). Controlled with carbon monoxide monitor + VSD fan. - Switch Room: ventilation (supply & exhaust), Thermostatically controlled. - Garbage: ventilation exhaust only. - Plant or service rooms: ventilation (supply & exhaust). Thermostatically controlled. - Other internal common area: ventilation (supply & exhaust), Time clock or BMS controlled. - Ground floor lobby type: ventilation (supply & exhaust), Time clock or BMS controlled. - Hallway/lobby type: ventilation (supply & exhaust), Time clock or BMS controlled.
	Lighting	- Carpark: LED lighting with motion sensors - Lifts: LED lighting, connected to lift call button - Switch Room: LED lighting with manual on / manual off. - Garbage: LED with motion sensors. - Other internal common area: LED lighting with time clock and motion sensors - Ground floor lobby type: LED lighting with time clock and motion sensors - Hallway/lobby type: LED lighting with time clock and motion sensors
	Hot Water	- Buildings 7, 8, 9, 10: Gas-fired storage (manifolded) with R0.6 (~25 mm) insulation to the pipes - Building 11: Gas-fired boiler with R0.6 (~25 mm) insulation to the pipes
	Pool Heating	Heating source: Gas. Pool pumps to be controlled by timer.
	Alternative Energy Supply	99.0 kW Solar PV system
Private Dwellings	Ventilation	- Kitchen Exhaust: Individual fan, ducted to façade or roof, manual on/off switch. - Bathroom & Laundry Exhaust: Individual fan, ducted to façade or roof, interlocked to light.

Component		Commitment
	Heating & Cooling To living and bedroom areas	• Heating: 1-phase air-conditioning 5 Star • Cooling: 1-phase air-conditioning 5 Star
	Lighting	• Fluorescent or LED lights with dedicated fittings
	Other	• Gas cooktops and electric ovens • 3.5-star (energy rating) dishwashers. • 3.5-star (energy rating) clothes dryers.

7. DISCLAIMER

This report is prepared using the information described above and inputs from other consultants. Whilst IGS has endeavoured to ensure the information used is accurate, no responsibility or liability to any third party is accepted for any loss or damage arising out of the use of this report by any third party. Any third party wishing to act upon any material contained in this report should first contact IGS for detailed advice which will take into account that party's particular requirements.

Computer performance assessment provides an estimate of building performance. This estimate is based on a necessarily simplified and idealised version of the building that does not and cannot fully represent all the intricacies of the building once built. As a result, simulation results only represent an interpretation of the potential performance of the building. Although great care has been taken to prepare this report, IGS does not make any representations or give any warranties or assurances as to the accuracy or completeness of the information contained in the report or that the report is free from errors or omission. IGS and its employees and agents shall not be liable for any loss arising because of, any person using or relying on the report and whether caused by reason or error, negligent act or omission in the report. The BASIX assessment and certification has been prepared based on the preliminary architectural and building services design with the view to conduct a detailed assessment once the design is further developed.

Performance of the completed building may be significantly affected by the quality of construction; commissioning, ongoing management of the building, and the way the building is operated, monitored and maintained. Building fabric inputs require verifiable manufacturer data to confirm thermal properties.

This report is intended as a guide to assist with the application of BASIX. It should be read in conjunction with the BASIX and the NCC 2019; specific applications may vary during the design development of the project.

8. SUMMARY & CONCLUSION

The proposed development has been assessed in terms of its ability to conserve water and minimise energy consumption. Furthermore, the thermal performance (passive and fabric design) of the development will comply with the BASIX thermal comfort requirements.

Subject to the provisions of this report the proposed development will be able to achieve the BASIX requirements. For further details, please refer to the BASIX Certificate 1208538M provided.

APPENDIX A – BASIX CERTIFICATE

BASIX[®]Certificate

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

Multi Dwelling

Certificate number: 1208538M

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

Secretary

Date of issue: Monday, 07 June 2021

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



Planning,
Industry &
Environment

If any changes to this BASIX certificate are required, please contact IGS with following details:

- Project reference: 21-41 Canberra Avenue, St Leonards South NSW 2065
- Contact number: 0430 108 801

Project summary

Project name	21-41 Canberra Ave, 26-32 Holdsworth Ave
Street address	21-41 Canberra Avenue St Leonards South NSW 2065
Local Government Area	Lane Cove Municipal Council
Plan type and plan number	deposited 1234
Lot no.	1234
Section no.	-
No. of residential flat buildings	5
No. of units in residential flat buildings	329
No. of multi-dwelling houses	0
No. of single dwelling houses	0

Project score

Water	✓ 40	Target 40
Thermal Comfort	✓ Pass	Target Pass
Energy	✓ 30	Target 25

Certificate Prepared by

Name / Company Name: IGS

ABN (if applicable): 68163019029

Description of project

Project address

Project name	21-41 Canberra Ave, 26-32 Holdsworth Ave
Street address	21-41 Canberra Avenue St Leonards South NSW 2065
Local Government Area	Lane Cove Municipal Council
Plan type and plan number	deposited 1234
Lot no.	1234
Section no.	-

Project type

No. of residential flat buildings	5
No. of units in residential flat buildings	329
No. of multi-dwelling houses	0
No. of single dwelling houses	0

Site details

Site area (m ²)	12653
Roof area (m ²)	5654
Non-residential floor area (m ²)	-
Residential car spaces	371
Non-residential car spaces	-

Common area landscape

Common area lawn (m ²)	144.8
Common area garden (m ²)	4282.9
Area of indigenous or low water use species (m ²)	4282.9

Assessor details

Assessor number	BDAV/14/1658
Certificate number	HR-HO7RO0-01
Climate zone	56
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	 30	Target 25

Description of project

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

Residential flat buildings - Building 7, 45 dwellings, 8 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)
E401	3	109.1	5.1	50.1	50.1
E504	2	68.2	5.6	0.0	0.0
E605	2	68.6	5.5	0.0	0.0
E703	2	72.9	2.0	0.0	0.0
E708	2	78.8	0.0	0.0	0.0
E805	2	68.6	5.5	0.0	0.0
E902	2	93.5	3.8	0.0	0.0
E10013	104.1	3.7	0.0	0.0	
E10062	78.8	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)
E402	3	108.5	4.3	57.5	57.5
E601	3	97.2	0.0	0.0	0.0
E606	2	71.5	4.0	0.0	0.0
E704	2	68.2	5.6	0.0	0.0
E801	3	97.2	0.0	0.0	0.0
E806	2	71.5	4.0	0.0	0.0
E903	2	68.6	5.5	0.0	0.0
E10022	93.5	3.8	0.0	0.0	
E11013	104.1	3.7	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)
E501	3	97.2	0.0	0.0	0.0
E602	1	55.8	0.0	0.0	0.0
E607	3	103.9	6.8	0.0	0.0
E705	2	68.6	5.5	0.0	0.0
E802	1	55.8	0.0	0.0	0.0
E807	1	48.3	4.1	0.0	0.0
E904	2	71.5	4.0	0.0	0.0
E10032	68.6	5.5	0.0	0.0	
E11022	89.6	3.8	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)
E502	1	55.8	0.0	0.0	0.0
E603	2	72.9	2.0	0.0	0.0
E701	3	97.2	0.0	0.0	0.0
E706	2	71.5	4.0	0.0	0.0
E803	2	72.9	2.0	0.0	0.0
E808	2	78.8	0.0	0.0	0.0
E905	1	48.3	4.1	0.0	0.0
E10042	71.5	4.0	0.0	0.0	
E11033	114.1	6.5	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)
E503	2	72.9	2.0	0.0	0.0
E604	2	68.2	5.6	0.0	0.0
E702	1	55.8	0.0	0.0	0.0
E707	1	48.3	4.1	0.0	0.0
E804	2	68.2	5.6	0.0	0.0
E901	3	104.1	3.7	0.0	0.0
E906	2	78.8	0.0	0.0	0.0
E10051	48.3	4.1	0.0	0.0	
E11043	102.0	6.4	0.0	0.0	

Residential flat buildings - Building 8, 72 dwellings, 11 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)
D601	3	107.6	2.6	0.0	0.0
D702	2	68.2	4.5	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)
D602	2	57.6	3.3	0.0	0.0
D703	2	70.8	3.3	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)
D603	2	70.8	3.3	0.0	0.0
D704	2	84.6	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)
D604	3	105.5	4.0	0.0	0.0
D705	2	76.4	6.5	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)
D701	2	77.8	5.3	0.0	0.0
D706	2	76.8	3.8	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)
D707	2	76.3	3.8	0.0	0.0
D804	2	84.6	0.0	0.0	0.0
D810	1	43.0	5.3	0.0	0.0
D904	2	84.6	0.0	0.0	0.0
D909	1	43.0	5.3	0.0	0.0
D10042	84.6	0.0	0.0	0.0	0.0
D10091	43.0	5.3	0.0	0.0	0.0
D11042	84.6	0.0	0.0	0.0	0.0
D11091	43.0	5.3	0.0	0.0	0.0
D12043	110.3	4.6	0.0	0.0	0.0
D14013	123.4	6.1	0.0	0.0	0.0
D15023	127.3	0.0	0.0	0.0	0.0
D16033	111.2	4.9	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)
D708	2	82.5	0.0	0.0	0.0
D805	2	76.4	6.5	0.0	0.0
D811	2	82.5	0.0	0.0	0.0
D905	2	76.4	6.5	0.0	0.0
D910	2	82.5	0.0	0.0	0.0
D10052	76.4	6.5	0.0	0.0	0.0
D10102	82.5	0.0	0.0	0.0	0.0
D11052	76.4	6.5	0.0	0.0	0.0
D11102	82.5	0.0	0.0	0.0	0.0
D13013	123.4	6.1	0.0	0.0	0.0
D14023	127.3	0.0	0.0	0.0	0.0
D15033	111.2	4.9	0.0	0.0	0.0
D16043	110.3	4.6	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)
D801	2	77.8	5.3	0.0	0.0
D806	1	43.7	4.1	0.0	0.0
D901	2	77.8	5.3	0.0	0.0
D906	1	43.7	4.1	0.0	0.0
D10012	77.8	5.3	0.0	0.0	0.0
D10061	43.7	4.1	0.0	0.0	0.0
D11012	77.8	5.3	0.0	0.0	0.0
D11061	43.7	4.1	0.0	0.0	0.0
D12013	123.4	6.1	0.0	0.0	0.0
D13023	127.3	0.0	0.0	0.0	0.0
D14033	111.2	4.9	0.0	0.0	0.0
D15043	110.3	4.6	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)
D802	2	68.2	4.5	0.0	0.0
D807	1	45.3	3.5	0.0	0.0
D902	2	68.2	4.5	0.0	0.0
D907	1	45.3	3.5	0.0	0.0
D10022	68.2	4.5	0.0	0.0	0.0
D10071	45.3	3.5	0.0	0.0	0.0
D11022	68.2	4.5	0.0	0.0	0.0
D11071	45.3	3.5	0.0	0.0	0.0
D12023	127.3	0.0	0.0	0.0	0.0
D13033	111.2	4.9	0.0	0.0	0.0
D14043	110.3	4.6	0.0	0.0	0.0
D16013	123.4	6.1	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)
D803	2	70.8	3.3	0.0	0.0
D809	1	45.2	3.4	0.0	0.0
D903	2	70.8	3.3	0.0	0.0
D908	1	45.2	3.4	0.0	0.0
D10032	70.8	3.3	0.0	0.0	0.0
D10081	45.2	3.4	0.0	0.0	0.0
D11032	70.8	3.3	0.0	0.0	0.0
D11081	45.2	3.4	0.0	0.0	0.0
D12033	111.2	4.9	0.0	0.0	0.0
D13043	110.3	4.6	0.0	0.0	0.0
D15013	123.4	6.1	0.0	0.0	0.0
D16023	127.3	0.0	0.0	0.0	0.0

Residential flat buildings - Building 9, 66 dwellings, 9 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)
C201	3	135.3	0.0	20.7	20.7
C401	2	75.8	5.2	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)
C202	3	135.0	2.1	20.8	20.8
C402	2	76.5	5.1	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)
C203	3	165.7	0.0	36.7	36.7
C403	2	75.7	3.7	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)
C204	3	135.0	5.7	27.7	27.7
C404	2	90.6	5.6	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)
C301	2	76.6	5.8	0.0	0.0
C405	2	78.8	5.8	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)
C406	2	75.7	5.2	0.0	0.0
C505	1	45.6	6.2	0.0	0.0
C510	2	74.8	0.0	0.0	0.0
C603	2	75.7	3.7	0.0	0.0
C608	2	79.1	5.8	0.0	0.0
C701	2	75.8	5.2	0.0	0.0
C706	1	47.1	5.6	0.0	0.0
C711	1	51.4	0.0	0.0	0.0
C804	1	47.1	5.6	0.0	0.0
C810	1	51.4	0.0	0.0	0.0
C904	2	74.8	0.0	0.0	0.0
C10032	32	73.2	3.6	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)
C501	2	75.8	5.2	0.0	0.0
C506	1	47.1	5.6	0.0	0.0
C511	1	51.4	0.0	0.0	0.0
C604	1	43.5	8.5	0.0	0.0
C609	2	75.7	5.2	0.0	0.0
C702	2	76.5	5.1	0.0	0.0
C707	3	118.5	7.1	0.0	0.0
C712	2	73.2	3.6	0.0	0.0
C806	3	118.5	7.1	0.0	0.0
C811	2	73.2	3.6	0.0	0.0
C905	1	51.4	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)
C502	2	76.5	5.1	0.0	0.0
C507	3	118.5	7.1	0.0	0.0
C512	2	73.2	3.6	0.0	0.0
C605	1	45.6	6.2	0.0	0.0
C610	2	74.8	0.0	0.0	0.0
C703	2	75.7	3.7	0.0	0.0
C708	2	79.1	5.8	0.0	0.0
C801	3	108.8	0.0	0.0	0.0
C807	2	79.1	5.8	0.0	0.0
C901	3	109.4	0.0	0.0	0.0
C906	2	73.2	3.6	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)
C503	2	75.7	3.7	0.0	0.0
C508	2	79.1	5.8	0.0	0.0
C601	2	75.8	5.2	0.0	0.0
C606	1	47.1	5.6	0.0	0.0
C611	1	51.4	0.0	0.0	0.0
C704	1	43.5	8.5	0.0	0.0
C709	2	75.7	5.2	0.0	0.0
C802	2	71.3	4.8	0.0	0.0
C808	3	150.7	7.0	0.0	0.0
C902	1	47.1	5.6	0.0	0.0
C10013	13	142.5	6.1	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)
C504	1	43.5	8.5	0.0	0.0
C509	2	75.7	5.2	0.0	0.0
C602	2	76.5	5.1	0.0	0.0
C607	3	118.0	7.1	0.0	0.0
C612	2	73.2	3.6	0.0	0.0
C705	1	45.6	6.2	0.0	0.0
C710	2	74.8	0.0	0.0	0.0
C803	1	45.6	6.2	0.0	0.0
C809	2	74.8	0.0	0.0	0.0
C903	3	142.5	6.1	0.0	0.0
C10021	21	51.4	0.0	0.0	0.0

Residential flat buildings - Building 10, 46 dwellings, 8 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)
B501	2	67.6	5.0	0.0	0.0
B506	1	66.0	4.4	0.0	0.0
B605	2	79.2	2.9	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)
B502	2	66.8	4.7	0.0	0.0
B601	2	67.6	5.0	0.0	0.0
B606	2	80.5	4.2	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)
B503	3	93.0	5.2	0.0	0.0
B602	2	66.8	6.5	0.0	0.0
B607	2	70.0	4.4	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)
B504	2	79.2	2.9	0.0	0.0
B603	1	48.3	8.1	0.0	0.0
B701	2	67.6	5.0	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)
B505	2	80.5	4.2	0.0	0.0
B604	2	66.9	3.9	0.0	0.0
B702	2	66.8	6.5	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)
B703	1	48.3	8.1	0.0	0.0
B801	2	67.6	5.0	0.0	0.0
B806	2	80.5	4.2	0.0	0.0
B904	2	66.9	3.9	0.0	0.0
B10023	86.9	4.4	0.0	0.0	
B11033	122.6	4.6	0.0	0.0	
B12042	70.0	4.4	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)
B704	2	66.9	3.9	0.0	0.0
B802	2	66.8	6.5	0.0	0.0
B807	2	70.0	4.4	0.0	0.0
B905	2	79.2	2.9	0.0	0.0
B10033	122.6	4.6	0.0	0.0	
B11042	70.0	4.4	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)
B705	2	79.2	2.9	0.0	0.0
B803	1	48.3	8.1	0.0	0.0
B901	2	67.6	5.0	0.0	0.0
B906	2	80.5	4.2	0.0	0.0
B10042	70.0	4.4	0.0	0.0	
B12013	97.6	4.6	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)
B706	2	80.5	4.2	0.0	0.0
B804	2	66.9	3.9	0.0	0.0
B902	2	66.8	6.5	0.0	0.0
B907	2	70.0	4.4	0.0	0.0
B11013	97.6	4.6	0.0	0.0	
B12023	86.9	4.4	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)
B707	2	70.0	4.4	0.0	0.0
B805	2	79.2	2.9	0.0	0.0
B903	1	48.3	8.1	0.0	0.0
B10013	97.6	4.6	0.0	0.0	
B11023	86.9	4.4	0.0	0.0	
B12033	122.6	4.6	0.0	0.0	

Residential flat buildings - Building 11, 100 dwellings, 10 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)
A101	3	177.8	0.0	27.7	27.7
A106	3	129.1	2.1	36.3	36.3
A303	2	69.0	5.7	0.0	0.0
A308	2	75.2	4.6	0.0	0.0
A405	3	98.3	4.8	0.0	0.0
A410	2	75.8	5.1	0.0	0.0
A415	2	72.1	4.8	0.0	0.0
A505	2	74.9	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)
A102	3	129.8	4.6	21.3	21.3
A201	2	80.9	5.2	0.0	0.0
A304	2	80.8	5.2	0.0	0.0
A401	2	75.4	5.1	0.0	0.0
A406	1	52.1	0.0	0.0	0.0
A411	2	75.2	4.6	0.0	0.0
A501	2	75.4	5.1	0.0	0.0
A506	1	52.1	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)
A103	3	128.6	4.6	29.6	29.6
A202	3	102.7	0.0	0.0	0.0
A305	3	98.5	4.8	0.0	0.0
A402	2	68.2	5.4	0.0	0.0
A407	1	47.3	4.2	0.0	0.0
A412	1	47.6	7.5	0.0	0.0
A502	2	68.2	5.4	0.0	0.0
A507	1	47.3	4.2	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)
A104	3	127.8	4.7	30.8	30.8
A301	2	75.4	5.1	0.0	0.0
A306	2	87.3	6.1	0.0	0.0
A403	2	69.0	5.7	0.0	0.0
A408	1	47.9	4.4	0.0	0.0
A413	1	49.3	5.4	0.0	0.0
A503	2	69.0	5.7	0.0	0.0
A508	1	47.9	4.4	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)
A105	3	138.1	2.1	47.7	47.7
A302	2	68.2	5.4	0.0	0.0
A307	2	75.8	5.1	0.0	0.0
A404	2	80.8	5.2	0.0	0.0
A409	3	94.2	4.9	0.0	0.0
A414	1	47.8	4.3	0.0	0.0
A504	2	69.8	5.0	0.0	0.0
A509	3	94.2	4.9	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)
A510	2	75.8	5.1	0.0	0.0
A515	2	72.1	4.8	0.0	0.0
A605	2	74.9	0.0	0.0	0.0
A611	2	75.2	4.6	0.0	0.0
A701	2	75.4	5.1	0.0	0.0
A706	2	80.8	0.0	0.0	0.0
A711	1	47.6	7.5	0.0	0.0
A802	2	69.9	5.0	0.0	0.0
A807	2	75.8	5.1	0.0	0.0
A812	1	71.7	4.8	0.0	0.0
A905	3	94.2	4.9	0.0	0.0
A911	1	47.8	4.3	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)
A511	2	75.2	4.6	0.0	0.0
A601	2	75.4	5.1	0.0	0.0
A606	2	80.8	0.0	0.0	0.0
A612	1	47.6	7.5	0.0	0.0
A702	2	68.2	5.4	0.0	0.0
A707	2	78.2	2.8	0.0	0.0
A712	1	49.3	5.4	0.0	0.0
A803	2	74.9	0.0	0.0	0.0
A808	3	113.6	0.0	0.0	0.0
A901	2	79.9	4.7	0.0	0.0
A906	2	75.8	5.1	0.0	0.0
A912	2	71.7	4.8	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)
A512	1	47.6	7.5	0.0	0.0
A602	2	68.2	5.4	0.0	0.0
A607	2	78.2	2.8	0.0	0.0
A613	1	49.3	5.4	0.0	0.0
A703	2	69.0	5.7	0.0	0.0
A708	3	94.2	4.9	0.0	0.0
A713	1	47.8	4.3	0.0	0.0
A804	2	80.8	0.0	0.0	0.0
A809	1	47.6	7.5	0.0	0.0
A902	2	79.4	4.8	0.0	0.0
A907	3	107.3	6.4	0.0	0.0
A1001	3	124.9	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)
A513	1	49.3	5.4	0.0	0.0
A603	2	69.0	5.7	0.0	0.0
A609	3	94.2	4.9	0.0	0.0
A614	1	47.8	4.3	0.0	0.0
A704	2	69.8	5.0	0.0	0.0
A709	2	75.8	5.1	0.0	0.0
A714	2	72.1	4.8	0.0	0.0
A805	2	78.2	2.8	0.0	0.0
A810	1	49.3	5.4	0.0	0.0
A903	2	80.8	0.0	0.0	0.0
A908	1	47.6	7.5	0.0	0.0
A1002	3	107.6	5.5	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)
A514	1	47.8	4.3	0.0	0.0
A604	2	69.8	5.0	0.0	0.0
A610	2	75.8	5.1	0.0	0.0
A615	2	72.1	4.8	0.0	0.0
A705	2	74.9	0.0	0.0	0.0
A710	2	75.2	4.6	0.0	0.0
A801	2	75.6	0.0	0.0	0.0
A806	3	94.2	4.9	0.0	0.0
A811	1	47.8	4.3	0.0	0.0
A904	2	78.2	2.8	0.0	0.0
A910	1	49.3	5.4	0.0	0.0
A1003	3	115.0	4.9	0.0	0.0

Description of project

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

Common areas of unit building - Building 7

Common area	Floor area (m²)
Lift car (No.1)	-

Common area	Floor area (m²)
Lift car (No.2)	-

Common areas of unit building - Building 8

Common area	Floor area (m²)
Lift car (No.3)	-

Common area	Floor area (m²)
Lift car (No.4)	-

Common areas of unit building - Building 9

Common area	Floor area (m²)
Lift car (No.5)	-

Common area	Floor area (m²)
Lift car (No.6)	-

Common areas of unit building - Building 10

Common area	Floor area (m²)
Lift car (No.7)	-

Common area	Floor area (m²)
Lift car (No.8)	-

Common areas of unit building - Building 11

Common area	Floor area (m²)
Lift car (No.9)	-

Common area	Floor area (m²)
Lift car (No.10)	-

Common areas of the development (non-building specific)

Common area	Floor area (m²)
Car park area	1367.0
Plant or service room	265.0
Hallway/lobby type	2946.0

Common area	Floor area (m²)
Switch room	127.0
Other internal common area	1187.0

Common area	Floor area (m²)
Garbage room	275.0
Ground floor lobby type	240.0

Schedule of BASIX commitments

1. Commitments for Residential flat buildings - Building 7

(a) Dwellings

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

(b) Common areas and central systems/facilities

- (i) Water
- (ii) Energy

2. Commitments for Residential flat buildings - Building 8

(a) Dwellings

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

(b) Common areas and central systems/facilities

- (i) Water
- (ii) Energy

3. Commitments for Residential flat buildings - Building 9

(a) Dwellings

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

(b) Common areas and central systems/facilities

- (i) Water
- (ii) Energy

4. Commitments for Residential flat buildings - Building 10

(a) Dwellings

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

(b) Common areas and central systems/facilities

- (i) Water
- (ii) Energy

5. Commitments for Residential flat buildings - Building 11

(a) Dwellings

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

(b) Common areas and central systems/facilities

- (i) Water
- (ii) Energy

6. Commitments for multi-dwelling houses

7. Commitments for single dwelling houses

8. 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 - Building 7

(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	5 star	5 star	no	-	4 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
None	-	-	-	-	-	-	-	-

(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.		✓	✓
(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.		✓	✓

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(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	interlocked to light

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
E502, E602, E702, E707, E802, E807, E905, E1005	1-phase airconditioning 5 star (average zone)	1-phase airconditioning 5 star (average zone)	1-phase airconditioning 5 star (average zone)	1-phase airconditioning 5 star (average zone)	1 (dedicated)	1 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	-
E401, E402, E501, E601, E607, E701, E801, E901, E1001, E1101, E1103, E1104	1-phase airconditioning 5 star (average zone)	1-phase airconditioning 5 star (average zone)	1-phase airconditioning 5 star (average zone)	1-phase airconditioning 5 star (average zone)	3 (dedicated)	1 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	-
All other dwellings	1-phase airconditioning 5 star (average zone)	1-phase airconditioning 5 star (average zone)	1-phase airconditioning 5 star (average zone)	1-phase airconditioning 5 star (average zone)	2 (dedicated)	1 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	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	-	-	3.5 star	-	3.5 star	-	-

(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.			
(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.	✓	✓	✓

	Thermal loads	
Dwelling no.	Area adjusted heating load (in mJ/m ² /yr)	Area adjusted cooling load (in mJ/m ² /yr)
E401	30.7	14.2
E402	25.8	15.4
E501	23.2	18.7
E502	22.5	21.6

	Thermal loads	
Dwelling no.	Area adjusted heating load (in mJ/m²/yr)	Area adjusted cooling load (in mJ/m²/yr)
E503	11.8	25.0
E504	24.1	13.9
E601	23.7	18.0
E602	23.0	26.5
E603	12.2	27.7
E604	24.6	18.8
E605	20.7	23.7
E606	11.8	26.9
E607	11.5	27.2
E706	12.3	22.4
E806	14.3	22.4
E901	13.6	26.9
E902	32.3	21.0
E903	26.1	15.1
E904	15.7	23.8
E905	24.6	21.4
E906	16.8	12.0
E1001	15.4	23.7
E1002	34.8	19.0
E1003	28.6	12.8
E1004	17.4	21.0
E1005	26.8	17.4
E1006	18.3	11.1
E1101	28.9	23.4
E1102	43.4	28.3
E1103	44.6	19.3
E1104	32.7	17.3

	Thermal loads	
Dwelling no.	Area adjusted heating load (in mJ/m ² /yr)	Area adjusted cooling load (in mJ/m ² /yr)
E701, E801	24.1	17.8
E702, E802	23.3	26.1
E703, E803	12.6	27.2
E704, E804	25.0	18.6
E705, E805	24.3	16.1
E707, E807	23.4	21.5
All other dwellings	13.4	13.5

(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	3 star (> 4.5 but ≤ 6 L/min)	4 star	5 star	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.	✓	✓	✓

	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
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

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): 9
Lift (No. 2)	gearless traction with V V V F motor	Number of levels (including basement): 9

2. Commitments for Residential flat buildings - Building 8

(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	5 star	5 star	no	-	4 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
None	-	-	-	-	-	-	-	-

(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.		✓	✓
(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.		✓	✓

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(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 2	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	interlocked to light

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
D806, D807, D809, D810, D906, D907, D908, D909, D1006, D1007, D1008, D1009, D1106, D1107, D1108, D1109	1-phase airconditioning 5 star (average zone)	1-phase airconditioning 5 star (average zone)	1-phase airconditioning 5 star (average zone)	1-phase airconditioning 5 star (average zone)	1 (dedicated)	1 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	-
D601, D604, D1201, D1202, D1203, D1204, D1301, D1302, D1303, D1304, D1401, D1402, D1403, D1404, D1501, D1502, D1503, D1504, D1601, D1602, D1603, D1604	1-phase airconditioning 5 star (average zone)	1-phase airconditioning 5 star (average zone)	1-phase airconditioning 5 star (average zone)	1-phase airconditioning 5 star (average zone)	3 (dedicated)	1 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	-

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
All other dwellings	1-phase airconditioning 5 star (average zone)	1-phase airconditioning 5 star (average zone)	1-phase airconditioning 5 star (average zone)	1-phase airconditioning 5 star (average zone)	2 (dedicated)	1 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	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	-	-	3.5 star	-	3.5 star	-	-

(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.			
(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.		✓	

(iii) Thermal Comfort	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(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/m²/yr)	Area adjusted cooling load (in mJ/m²/yr)
D601	6.3	26.4
D602	18.0	21.9
D603	6.3	23.3
D604	18.4	20.5
D701	8.8	26.4
D704	18.1	21.6
D705	17.4	22.8
D706	13.3	17.1
D707	8.8	20.2
D708	29.0	28.8
D801	8.9	26.4
D804	18.2	21.4
D805	17.4	22.9
D806	17.6	21.3

	Thermal loads	
Dwelling no.	Area adjusted heating load (in mJ/m²/yr)	Area adjusted cooling load (in mJ/m²/yr)
D807	18.1	21.1
D809	12.1	25.4
D810	13.9	26.7
D811	28.8	28.9
D901	9.7	24.5
D902	7.5	22.4
D903	8.2	21.2
D904	19.5	19.7
D905	19.0	21.5
D906	19.4	19.7
D907	19.7	19.8
D908	13.6	24.4
D909	15.0	24.7
D910	30.5	27.8
D1001	11.6	18.4
D1002	9.4	15.9
D1003	10.6	16.8
D1004	22.7	15.6
D1005	22.6	15.7
D1006	23.5	15.3
D1007	24.1	14.6
D1008	16.8	19.5
D1009	18.1	19.0
D1010	35.2	21.9
D1101	12.1	17.8
D1102	9.8	15.7
D1103	10.9	16.5

	Thermal loads	
Dwelling no.	Area adjusted heating load (in mJ/m ² /yr)	Area adjusted cooling load (in mJ/m ² /yr)
D1104	23.2	15.8
D1105	23.3	15.6
D1106	24.2	14.9
D1107	24.8	14.5
D1108	17.3	18.7
D1109	18.8	18.6
D1110	36.0	21.3
D1401	19.0	14.1
D1402	25.7	10.9
D1403	24.6	21.3
D1404	24.1	25.9
D1501	19.2	14.1
D1502	25.9	10.8
D1503	24.9	21.1
D1504	24.4	26.2
D1601	32.0	16.7
D1602	38.9	13.4
D1603	41.9	26.2
D1604	33.4	23.8
D702, D802	6.7	24.5
D703, D803	7.3	22.4
D1201, D1301	17.1	16.1
D1202, D1302	23.7	11.7
D1203, D1303	23.1	22.8
All other dwellings	23.2	26.2

(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	3 star (> 4.5 but ≤ 6 L/min)	4 star	5 star	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.	✓	✓	✓

	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
Lift car (No.3)	-	-	light-emitting diode	connected to lift call button	No
Lift car (No.4)	-	-	light-emitting diode	connected to lift call button	No

Central energy systems	Type	Specification
Central hot water system (No. 2)	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. 3)	gearless traction with V V V F motor	Number of levels (including basement): 14
Lift (No. 4)	gearless traction with V V V F motor	Number of levels (including basement): 14

3. Commitments for Residential flat buildings - Building 9

(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	5 star	5 star	no	-	4 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
None	-	-	-	-	-	-	-	-

(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.		✓	✓
(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.		✓	✓

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(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 3	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	interlocked to light

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
C201, C202, C203, C204, C507, C607, C707, C801, C806, C808, C901, C903, C1001	1-phase airconditioning 5 star (average zone)	1-phase airconditioning 5 star (average zone)	1-phase airconditioning 5 star (average zone)	1-phase airconditioning 5 star (average zone)	3 (dedicated)	1 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	-
C504, C505, C506, C511, C604, C605, C606, C611, C704, C705, C706, C711, C803, C804, C810, C902, C905, C1002	1-phase airconditioning 5 star (average zone)	1-phase airconditioning 5 star (average zone)	1-phase airconditioning 5 star (average zone)	1-phase airconditioning 5 star (average zone)	1 (dedicated)	1 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	-
All other dwellings	1-phase airconditioning 5 star (average zone)	1-phase airconditioning 5 star (average zone)	1-phase airconditioning 5 star (average zone)	1-phase airconditioning 5 star (average zone)	2 (dedicated)	1 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	-

	Individual pool		Individual spa		Appliances & other efficiency measures							
Dwelling no.	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	-	-	3.5 star	-	3.5 star	-	-

(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.			
(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.	✓	✓	✓

	Thermal loads	
Dwelling no.	Area adjusted heating load (in mJ/m²/yr)	Area adjusted cooling load (in mJ/m²/yr)
C201	21.2	19.0
C202	11.1	18.2
C203	21.7	18.4
C204	21.0	24.3
C301	16.3	22.3
C401	23.7	21.6
C402	24.5	15.3
C403	39.3	25.2
C404	14.9	26.2
C405	15.9	19.0
C406	24.9	17.4
C501	24.3	22.2
C502	25.2	16.3
C503	40.3	26.6
C504	41.2	21.5
C505	23.3	24.2
C506	21.7	25.6
C507	6.5	16.1
C508	13.2	18.0
C509	25.5	18.5
C510	11.5	21.9
C511	25.3	29.4
C512	19.1	23.5
C601	24.7	21.9
C602	25.7	16.0
C603	40.9	26.2
C604	41.7	21.4

	Thermal loads	
Dwelling no.	Area adjusted heating load (in mJ/m²/yr)	Area adjusted cooling load (in mJ/m²/yr)
C605	33.2	22.2
C606	22.2	25.5
C607	6.8	16.1
C608	13.5	17.6
C609	25.9	18.6
C610	11.8	22.1
C611	25.8	28.8
C612	19.4	23.0
C701	25.2	21.5
C702	26.2	15.9
C703	41.5	26.1
C704	42.4	20.8
C705	33.7	21.6
C706	22.7	24.8
C707	7.0	16.0
C708	13.9	17.6
C709	26.4	18.0
C710	12.2	21.9
C711	26.3	27.7
C712	19.9	23.3
C801	40.2	29.0
C802	35.7	19.8
C803	44.9	26.3
C804	22.8	25.6
C806	7.7	15.6
C807	14.0	19.9
C808	8.7	24.0

	Thermal loads	
Dwelling no.	Area adjusted heating load (in mJ/m ² /yr)	Area adjusted cooling load (in mJ/m ² /yr)
C809	12.8	21.1
C810	27.3	25.0
C811	20.2	22.9
C901	42.1	28.4
C902	38.1	25.6
C903	18.7	20.4
C904	27.9	24.5
C905	30.2	23.2
C906	22.6	19.8
C1001	31.5	21.3
C1002	42.7	18.7
All other dwellings	35.0	19.3

(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	3 star (> 4.5 but ≤ 6 L/min)	4 star	5 star	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.	✓	✓	✓

	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
Lift car (No.5)	-	-	light-emitting diode	connected to lift call button	No
Lift car (No.6)	-	-	light-emitting diode	connected to lift call button	No

Central energy systems	Type	Specification
Central hot water system (No. 3)	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. 5)	gearless traction with V V V F motor	Number of levels (including basement): 9
Lift (No. 6)	gearless traction with V V V F motor	Number of levels (including basement): 9

4. Commitments for Residential flat buildings - Building 10

(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	5 star	5 star	no	-	4 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
None	-	-	-	-	-	-	-	-

(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.		✓	✓
(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.		✓	✓

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(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 4	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	interlocked to light

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
B506, B603, B703, B803, B903	1-phase airconditioning 5 star (average zone)	1-phase airconditioning 5 star (average zone)	1-phase airconditioning 5 star (average zone)	1-phase airconditioning 5 star (average zone)	1 (dedicated)	1 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	-
B503, B1001, B1002, B1003, B1101, B1102, B1103, B1201, B1202, B1203	1-phase airconditioning 5 star (average zone)	1-phase airconditioning 5 star (average zone)	1-phase airconditioning 5 star (average zone)	1-phase airconditioning 5 star (average zone)	3 (dedicated)	1 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	-
All other dwellings	1-phase airconditioning 5 star (average zone)	1-phase airconditioning 5 star (average zone)	1-phase airconditioning 5 star (average zone)	1-phase airconditioning 5 star (average zone)	2 (dedicated)	1 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	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	-	-	3.5 star	-	3.5 star	-	-

(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.			
(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.	✓	✓	✓

	Thermal loads	
Dwelling no.	Area adjusted heating load (in mJ/m ² /yr)	Area adjusted cooling load (in mJ/m ² /yr)
B501	13.8	12.5
B502	13.7	25.6
B503	9.8	15.7
B504	9.8	18.5

	Thermal loads	
Dwelling no.	Area adjusted heating load (in mJ/m²/yr)	Area adjusted cooling load (in mJ/m²/yr)
B505	9.7	20.0
B506	14.8	14.2
B601	16.0	12.0
B602	15.4	25.2
B603	38.2	28.6
B605	12.7	18.7
B606	11.6	18.5
B607	16.2	13.5
B901	16.9	11.9
B902	16.2	23.9
B903	39.6	28.1
B904	18.1	12.7
B905	13.5	18.2
B906	12.5	18.2
B1001	40.1	16.1
B1002	38.8	24.0
B1003	20.6	18.6
B1004	15.1	13.8
B1101	40.3	15.8
B1102	39.0	23.4
B1103	20.1	19.7
B1104	15.2	13.7
B1201	33.4	14.5
B1202	35.1	21.0
B1203	28.4	21.4
B1204	22.2	14.7
B604, B907	17.1	12.9

	Thermal loads	
Dwelling no.	Area adjusted heating load (in mJ/m ² /yr)	Area adjusted cooling load (in mJ/m ² /yr)
B701, B801	16.4	12.4
B702, B802	15.7	24.8
B703, B803	38.7	28.9
B704, B804	17.5	12.8
B705, B805	13.0	18.2
B706, B806	12.0	18.4
All other dwellings	16.6	13.5

(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	3 star (> 4.5 but ≤ 6 L/min)	4 star	5 star	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.	✓	✓	✓

	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
Lift car (No.7)	-	-	light-emitting diode	connected to lift call button	No
Lift car (No.8)	-	-	light-emitting diode	connected to lift call button	No

Central energy systems	Type	Specification
Central hot water system (No. 4)	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. 7)	gearless traction with V V V F motor	Number of levels (including basement): 13
Lift (No. 8)	gearless traction with V V V F motor	Number of levels (including basement): 13

5. Commitments for Residential flat buildings - Building 11

(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	5 star	5 star	no	-	4 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
None	-	-	-	-	-	-	-	-

(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.		✓	✓
(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.		✓	✓

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(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 5	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	interlocked to light

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
A101, A102, A103, A104, A105, A106, A202, A305, A405, A409, A509, A609, A708, A806, A808, A905, A907, A1001, A1002, A1003	1-phase airconditioning 5 star (average zone)	1-phase airconditioning 5 star (average zone)	1-phase airconditioning 5 star (average zone)	1-phase airconditioning 5 star (average zone)	3 (dedicated)	1 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	-

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
A406, A407, A408, A412, A413, A414, A506, A507, A508, A512, A513, A514, A612, A613, A614, A711, A712, A713, A809, A810, A811, A812, A908, A910, A911	1-phase airconditioning 5 star (average zone)	1-phase airconditioning 5 star (average zone)	1-phase airconditioning 5 star (average zone)	1-phase airconditioning 5 star (average zone)	1 (dedicated)	1 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	-
All other dwellings	1-phase airconditioning 5 star (average zone)	1-phase airconditioning 5 star (average zone)	1-phase airconditioning 5 star (average zone)	1-phase airconditioning 5 star (average zone)	2 (dedicated)	1 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	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	-	-	3.5 star	-	3.5 star	-	-

(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.			
(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.	✓	✓	✓

	Thermal loads	
Dwelling no.	Area adjusted heating load (in mJ/m²/yr)	Area adjusted cooling load (in mJ/m²/yr)
A101	7.9	29.4
A102	7.7	19.8
A103	19.0	22.1
A104	28.1	28.8
A105	29.1	21.1
A106	22.3	22.3
A201	27.5	14.3
A202	26.4	23.5
A301	33.6	26.0
A302	34.0	21.2
A303	32.1	27.8
A304	11.1	15.9
A305	15.1	22.0
A306	18.1	28.3
A307	25.9	24.9
A308	31.4	29.3
A401	37.9	21.8
A402	39.9	15.6
A403	36.1	22.8
A404	19.5	15.3
A405	24.2	23.9
A406	19.9	26.0
A407	18.0	20.5
A408	18.7	20.8
A409	16.3	21.7
A410	28.4	17.2
A411	37.3	23.6

	Thermal loads	
Dwelling no.	Area adjusted heating load (in mJ/m²/yr)	Area adjusted cooling load (in mJ/m²/yr)
A412	21.1	24.6
A413	18.9	26.1
A414	12.8	27.2
A415	21.3	18.4
A501	38.7	21.5
A502	40.7	15.1
A503	36.8	22.4
A504	23.4	16.6
A505	39.3	19.9
A506	20.5	24.9
A507	18.6	20.4
A508	19.3	20.7
A509	16.8	21.4
A510	29.0	16.9
A511	38.1	23.3
A512	21.8	24.1
A513	18.8	28.1
A514	13.3	25.9
A515	21.8	18.1
A801	33.9	22.2
A802	16.5	19.0
A803	41.1	19.1
A804	11.3	20.9
A805	10.3	11.6
A806	17.9	20.3
A807	32.9	17.0
A808	19.7	22.5

	Thermal loads	
Dwelling no.	Area adjusted heating load (in mJ/m ² /yr)	Area adjusted cooling load (in mJ/m ² /yr)
A809	23.5	21.7
A810	20.3	27.2
A811	14.7	23.7
A812	18.3	16.3
A901	43.9	27.6
A902	41.1	24.5
A903	26.0	26.6
A904	23.3	13.2
A905	18.1	20.9
A906	33.2	16.8
A907	36.3	23.5
A908	23.4	27.4
A910	20.5	26.4
A911	14.7	23.2
A912	20.3	15.1
A1001	30.6	16.5
A1002	38.9	21.5
A1003	22.6	19.0
A601, A701	39.4	21.5
A602, A702	41.3	15.1
A603, A703	37.4	22.4
A604, A704	23.8	16.6
A605, A705	39.9	19.6
A606, A706	10.7	21.2
A607, A707	9.8	11.9
A609, A708	17.1	20.6
A610, A709	29.6	16.9

	Thermal loads	
Dwelling no.	Area adjusted heating load (in mJ/m ² /yr)	Area adjusted cooling load (in mJ/m ² /yr)
A611, A710	38.8	23.1
A612, A711	22.4	24.2
A613, A712	19.3	28.1
A614, A713	13.9	25.4
All other dwellings	22.3	17.8

(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	3 star (> 4.5 but ≤ 6 L/min)	4 star	5 star	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.	✓	✓	✓

	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
Lift car (No.9)	-	-	light-emitting diode	connected to lift call button	No
Lift car (No.10)	-	-	light-emitting diode	connected to lift call button	No

Central energy systems	Type	Specification
Central hot water system (No. 5)	gas-fired boiler	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. 9)	gearless traction with V V V F motor	Number of levels (including basement): 10
Lift (No. 10)	gearless traction with V V V F motor	Number of levels (including basement): 10

8. 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	3 star (> 4.5 but ≤ 6 L/min)	4 star	5 star	no common laundry facility

Central systems	Size	Configuration	Connection (to allow for...)
Central water tank - rainwater or stormwater (No. 1)	15000.0	To collect run-off from at least: - 2000.0 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 4427.7 square metres of common landscaped area on the site

Central systems	Size	Configuration	Connection (to allow for...)
Pool (No. 1)	Volume: 75.0 kLs	Location: Other Pool shaded: yes	-
Fire sprinkler system (No. 1)	-	-	-

(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
Car park area	ventilation (supply + exhaust)	carbon monoxide monitor + VSD fan	light-emitting diode	motion sensors	No
Switch room	ventilation (supply + exhaust)	thermostatically controlled	light-emitting diode	manual on / manual off	No
Garbage room	ventilation exhaust only	-	light-emitting diode	motion sensors	No
Plant or service room	ventilation (supply + exhaust)	thermostatically controlled	light-emitting diode	manual on / manual off	No
Other internal common area	ventilation (supply + exhaust)	time clock or BMS controlled	light-emitting diode	time clock and motion sensors	No
Ground floor lobby type	ventilation (supply + exhaust)	time clock or BMS controlled	light-emitting diode	time clock and motion sensors	No
Hallway/lobby type	ventilation (supply + exhaust)	time clock or BMS controlled	light-emitting diode	time clock and motion sensors	No

Central energy systems	Type	Specification
Alternative energy supply	Photovoltaic system	Rated electrical output (min): 99.0 peak kW
Pool (No. 1)	Heating source: gas	Pump controlled by timer: yes

Notes

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

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).

BASIX[®]Certificate

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

Multi Dwelling

Certificate number: 1208538M

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

Secretary

Date of issue: Monday, 07 June 2021

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



Planning,
Industry &
Environment

If any changes to this BASIX certificate are required, please contact IGS with following details:

- Project reference: 21-41 Canberra Avenue, St Leonards South NSW 2065
- Contact number: 0430 108 801

Project summary

Project name	21-41 Canberra Ave, 26-32 Holdsworth Ave
Street address	21-41 Canberra Avenue St Leonards South NSW 2065
Local Government Area	Lane Cove Municipal Council
Plan type and plan number	deposited 1234
Lot no.	1234
Section no.	-
No. of residential flat buildings	5
No. of units in residential flat buildings	329
No. of multi-dwelling houses	0
No. of single dwelling houses	0

Project score

Water	✓ 40	Target 40
Thermal Comfort	✓ Pass	Target Pass
Energy	✓ 30	Target 25

Certificate Prepared by

Name / Company Name: IGS

ABN (if applicable): 68163019029

Description of project

Project address

Project name	21-41 Canberra Ave, 26-32 Holdsworth Ave
Street address	21-41 Canberra Avenue St Leonards South NSW 2065
Local Government Area	Lane Cove Municipal Council
Plan type and plan number	deposited 1234
Lot no.	1234
Section no.	-

Project type

No. of residential flat buildings	5
No. of units in residential flat buildings	329
No. of multi-dwelling houses	0
No. of single dwelling houses	0

Site details

Site area (m²)	12653
Roof area (m²)	5654
Non-residential floor area (m²)	-
Residential car spaces	371
Non-residential car spaces	-

Common area landscape

Common area lawn (m²)	144.8
Common area garden (m²)	4282.9
Area of indigenous or low water use species (m²)	4282.9

Assessor details

Assessor number	BDAV/14/1658
Certificate number	HR-HO7RO0-01
Climate zone	56
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	 30	Target 25

Description of project

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

Residential flat buildings - Building 7, 45 dwellings, 8 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)
E401	3	109.1	5.1	50.1	50.1
E504	2	68.2	5.6	0.0	0.0
E605	2	68.6	5.5	0.0	0.0
E703	2	72.9	2.0	0.0	0.0
E708	2	78.8	0.0	0.0	0.0
E805	2	68.6	5.5	0.0	0.0
E902	2	93.5	3.8	0.0	0.0
E10013	104.1	3.7	0.0	0.0	
E10062	78.8	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)
E402	3	108.5	4.3	57.5	57.5
E601	3	97.2	0.0	0.0	0.0
E606	2	71.5	4.0	0.0	0.0
E704	2	68.2	5.6	0.0	0.0
E801	3	97.2	0.0	0.0	0.0
E806	2	71.5	4.0	0.0	0.0
E903	2	68.6	5.5	0.0	0.0
E10022	93.5	3.8	0.0	0.0	
E11013	104.1	3.7	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)
E501	3	97.2	0.0	0.0	0.0
E602	1	55.8	0.0	0.0	0.0
E607	3	103.9	6.8	0.0	0.0
E705	2	68.6	5.5	0.0	0.0
E802	1	55.8	0.0	0.0	0.0
E807	1	48.3	4.1	0.0	0.0
E904	2	71.5	4.0	0.0	0.0
E10032	68.6	5.5	0.0	0.0	
E11022	89.6	3.8	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)
E502	1	55.8	0.0	0.0	0.0
E603	2	72.9	2.0	0.0	0.0
E701	3	97.2	0.0	0.0	0.0
E706	2	71.5	4.0	0.0	0.0
E803	2	72.9	2.0	0.0	0.0
E808	2	78.8	0.0	0.0	0.0
E905	1	48.3	4.1	0.0	0.0
E10042	71.5	4.0	0.0	0.0	
E11033	114.1	6.5	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)
E503	2	72.9	2.0	0.0	0.0
E604	2	68.2	5.6	0.0	0.0
E702	1	55.8	0.0	0.0	0.0
E707	1	48.3	4.1	0.0	0.0
E804	2	68.2	5.6	0.0	0.0
E901	3	104.1	3.7	0.0	0.0
E906	2	78.8	0.0	0.0	0.0
E10051	48.3	4.1	0.0	0.0	
E11043	102.0	6.4	0.0	0.0	

Residential flat buildings - Building 8, 72 dwellings, 11 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)
D601	3	107.6	2.6	0.0	0.0
D702	2	68.2	4.5	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)
D602	2	57.6	3.3	0.0	0.0
D703	2	70.8	3.3	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)
D603	2	70.8	3.3	0.0	0.0
D704	2	84.6	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)
D604	3	105.5	4.0	0.0	0.0
D705	2	76.4	6.5	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)
D701	2	77.8	5.3	0.0	0.0
D706	2	76.8	3.8	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)
D707	2	76.3	3.8	0.0	0.0
D804	2	84.6	0.0	0.0	0.0
D810	1	43.0	5.3	0.0	0.0
D904	2	84.6	0.0	0.0	0.0
D909	1	43.0	5.3	0.0	0.0
D10042	84.6	0.0	0.0	0.0	0.0
D10091	43.0	5.3	0.0	0.0	0.0
D11042	84.6	0.0	0.0	0.0	0.0
D11091	43.0	5.3	0.0	0.0	0.0
D12043	110.3	4.6	0.0	0.0	0.0
D14013	123.4	6.1	0.0	0.0	0.0
D15023	127.3	0.0	0.0	0.0	0.0
D16033	111.2	4.9	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)
D708	2	82.5	0.0	0.0	0.0
D805	2	76.4	6.5	0.0	0.0
D811	2	82.5	0.0	0.0	0.0
D905	2	76.4	6.5	0.0	0.0
D910	2	82.5	0.0	0.0	0.0
D10052	76.4	6.5	0.0	0.0	0.0
D10102	82.5	0.0	0.0	0.0	0.0
D11052	76.4	6.5	0.0	0.0	0.0
D11102	82.5	0.0	0.0	0.0	0.0
D13013	123.4	6.1	0.0	0.0	0.0
D14023	127.3	0.0	0.0	0.0	0.0
D15033	111.2	4.9	0.0	0.0	0.0
D16043	110.3	4.6	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)
D801	2	77.8	5.3	0.0	0.0
D806	1	43.7	4.1	0.0	0.0
D901	2	77.8	5.3	0.0	0.0
D906	1	43.7	4.1	0.0	0.0
D10012	77.8	5.3	0.0	0.0	0.0
D10061	43.7	4.1	0.0	0.0	0.0
D11012	77.8	5.3	0.0	0.0	0.0
D11061	43.7	4.1	0.0	0.0	0.0
D12013	123.4	6.1	0.0	0.0	0.0
D13023	127.3	0.0	0.0	0.0	0.0
D14033	111.2	4.9	0.0	0.0	0.0
D15043	110.3	4.6	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)
D802	2	68.2	4.5	0.0	0.0
D807	1	45.3	3.5	0.0	0.0
D902	2	68.2	4.5	0.0	0.0
D907	1	45.3	3.5	0.0	0.0
D10022	68.2	4.5	0.0	0.0	0.0
D10071	45.3	3.5	0.0	0.0	0.0
D11022	68.2	4.5	0.0	0.0	0.0
D11071	45.3	3.5	0.0	0.0	0.0
D12023	127.3	0.0	0.0	0.0	0.0
D13033	111.2	4.9	0.0	0.0	0.0
D14043	110.3	4.6	0.0	0.0	0.0
D16013	123.4	6.1	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)
D803	2	70.8	3.3	0.0	0.0
D809	1	45.2	3.4	0.0	0.0
D903	2	70.8	3.3	0.0	0.0
D908	1	45.2	3.4	0.0	0.0
D10032	70.8	3.3	0.0	0.0	0.0
D10081	45.2	3.4	0.0	0.0	0.0
D11032	70.8	3.3	0.0	0.0	0.0
D11081	45.2	3.4	0.0	0.0	0.0
D12033	111.2	4.9	0.0	0.0	0.0
D13043	110.3	4.6	0.0	0.0	0.0
D15013	123.4	6.1	0.0	0.0	0.0
D16023	127.3	0.0	0.0	0.0	0.0

Residential flat buildings - Building 9, 66 dwellings, 9 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)
C201	3	135.3	0.0	20.7	20.7
C401	2	75.8	5.2	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)
C202	3	135.0	2.1	20.8	20.8
C402	2	76.5	5.1	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)
C203	3	165.7	0.0	36.7	36.7
C403	2	75.7	3.7	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)
C204	3	135.0	5.7	27.7	27.7
C404	2	90.6	5.6	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)
C301	2	76.6	5.8	0.0	0.0
C405	2	78.8	5.8	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)
C406	2	75.7	5.2	0.0	0.0
C505	1	45.6	6.2	0.0	0.0
C510	2	74.8	0.0	0.0	0.0
C603	2	75.7	3.7	0.0	0.0
C608	2	79.1	5.8	0.0	0.0
C701	2	75.8	5.2	0.0	0.0
C706	1	47.1	5.6	0.0	0.0
C711	1	51.4	0.0	0.0	0.0
C804	1	47.1	5.6	0.0	0.0
C810	1	51.4	0.0	0.0	0.0
C904	2	74.8	0.0	0.0	0.0
C10032	32	73.2	3.6	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)
C501	2	75.8	5.2	0.0	0.0
C506	1	47.1	5.6	0.0	0.0
C511	1	51.4	0.0	0.0	0.0
C604	1	43.5	8.5	0.0	0.0
C609	2	75.7	5.2	0.0	0.0
C702	2	76.5	5.1	0.0	0.0
C707	3	118.5	7.1	0.0	0.0
C712	2	73.2	3.6	0.0	0.0
C806	3	118.5	7.1	0.0	0.0
C811	2	73.2	3.6	0.0	0.0
C905	1	51.4	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)
C502	2	76.5	5.1	0.0	0.0
C507	3	118.5	7.1	0.0	0.0
C512	2	73.2	3.6	0.0	0.0
C605	1	45.6	6.2	0.0	0.0
C610	2	74.8	0.0	0.0	0.0
C703	2	75.7	3.7	0.0	0.0
C708	2	79.1	5.8	0.0	0.0
C801	3	108.8	0.0	0.0	0.0
C807	2	79.1	5.8	0.0	0.0
C901	3	109.4	0.0	0.0	0.0
C906	2	73.2	3.6	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)
C503	2	75.7	3.7	0.0	0.0
C508	2	79.1	5.8	0.0	0.0
C601	2	75.8	5.2	0.0	0.0
C606	1	47.1	5.6	0.0	0.0
C611	1	51.4	0.0	0.0	0.0
C704	1	43.5	8.5	0.0	0.0
C709	2	75.7	5.2	0.0	0.0
C802	2	71.3	4.8	0.0	0.0
C808	3	150.7	7.0	0.0	0.0
C902	1	47.1	5.6	0.0	0.0
C10013	13	142.5	6.1	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)
C504	1	43.5	8.5	0.0	0.0
C509	2	75.7	5.2	0.0	0.0
C602	2	76.5	5.1	0.0	0.0
C607	3	118.0	7.1	0.0	0.0
C612	2	73.2	3.6	0.0	0.0
C705	1	45.6	6.2	0.0	0.0
C710	2	74.8	0.0	0.0	0.0
C803	1	45.6	6.2	0.0	0.0
C809	2	74.8	0.0	0.0	0.0
C903	3	142.5	6.1	0.0	0.0
C10021	21	51.4	0.0	0.0	0.0

Residential flat buildings - Building 10, 46 dwellings, 8 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)
B501	2	67.6	5.0	0.0	0.0
B506	1	66.0	4.4	0.0	0.0
B605	2	79.2	2.9	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)
B502	2	66.8	4.7	0.0	0.0
B601	2	67.6	5.0	0.0	0.0
B606	2	80.5	4.2	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)
B503	3	93.0	5.2	0.0	0.0
B602	2	66.8	6.5	0.0	0.0
B607	2	70.0	4.4	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)
B504	2	79.2	2.9	0.0	0.0
B603	1	48.3	8.1	0.0	0.0
B701	2	67.6	5.0	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)
B505	2	80.5	4.2	0.0	0.0
B604	2	66.9	3.9	0.0	0.0
B702	2	66.8	6.5	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)
B703	1	48.3	8.1	0.0	0.0
B801	2	67.6	5.0	0.0	0.0
B806	2	80.5	4.2	0.0	0.0
B904	2	66.9	3.9	0.0	0.0
B10023	86.9	4.4	0.0	0.0	
B11033	122.6	4.6	0.0	0.0	
B12042	70.0	4.4	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)
B704	2	66.9	3.9	0.0	0.0
B802	2	66.8	6.5	0.0	0.0
B807	2	70.0	4.4	0.0	0.0
B905	2	79.2	2.9	0.0	0.0
B10033	122.6	4.6	0.0	0.0	
B11042	70.0	4.4	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)
B705	2	79.2	2.9	0.0	0.0
B803	1	48.3	8.1	0.0	0.0
B901	2	67.6	5.0	0.0	0.0
B906	2	80.5	4.2	0.0	0.0
B10042	70.0	4.4	0.0	0.0	
B12013	97.6	4.6	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)
B706	2	80.5	4.2	0.0	0.0
B804	2	66.9	3.9	0.0	0.0
B902	2	66.8	6.5	0.0	0.0
B907	2	70.0	4.4	0.0	0.0
B11013	97.6	4.6	0.0	0.0	
B12023	86.9	4.4	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)
B707	2	70.0	4.4	0.0	0.0
B805	2	79.2	2.9	0.0	0.0
B903	1	48.3	8.1	0.0	0.0
B10013	97.6	4.6	0.0	0.0	
B11023	86.9	4.4	0.0	0.0	
B12033	122.6	4.6	0.0	0.0	

Residential flat buildings - Building 11, 100 dwellings, 10 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)
A101	3	177.8	0.0	27.7	27.7
A106	3	129.1	2.1	36.3	36.3
A303	2	69.0	5.7	0.0	0.0
A308	2	75.2	4.6	0.0	0.0
A405	3	98.3	4.8	0.0	0.0
A410	2	75.8	5.1	0.0	0.0
A415	2	72.1	4.8	0.0	0.0
A505	2	74.9	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)
A102	3	129.8	4.6	21.3	21.3
A201	2	80.9	5.2	0.0	0.0
A304	2	80.8	5.2	0.0	0.0
A401	2	75.4	5.1	0.0	0.0
A406	1	52.1	0.0	0.0	0.0
A411	2	75.2	4.6	0.0	0.0
A501	2	75.4	5.1	0.0	0.0
A506	1	52.1	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)
A103	3	128.6	4.6	29.6	29.6
A202	3	102.7	0.0	0.0	0.0
A305	3	98.5	4.8	0.0	0.0
A402	2	68.2	5.4	0.0	0.0
A407	1	47.3	4.2	0.0	0.0
A412	1	47.6	7.5	0.0	0.0
A502	2	68.2	5.4	0.0	0.0
A507	1	47.3	4.2	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)
A104	3	127.8	4.7	30.8	30.8
A301	2	75.4	5.1	0.0	0.0
A306	2	87.3	6.1	0.0	0.0
A403	2	69.0	5.7	0.0	0.0
A408	1	47.9	4.4	0.0	0.0
A413	1	49.3	5.4	0.0	0.0
A503	2	69.0	5.7	0.0	0.0
A508	1	47.9	4.4	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)
A105	3	138.1	2.1	47.7	47.7
A302	2	68.2	5.4	0.0	0.0
A307	2	75.8	5.1	0.0	0.0
A404	2	80.8	5.2	0.0	0.0
A409	3	94.2	4.9	0.0	0.0
A414	1	47.8	4.3	0.0	0.0
A504	2	69.8	5.0	0.0	0.0
A509	3	94.2	4.9	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)
A510	2	75.8	5.1	0.0	0.0
A515	2	72.1	4.8	0.0	0.0
A605	2	74.9	0.0	0.0	0.0
A611	2	75.2	4.6	0.0	0.0
A701	2	75.4	5.1	0.0	0.0
A706	2	80.8	0.0	0.0	0.0
A711	1	47.6	7.5	0.0	0.0
A802	2	69.9	5.0	0.0	0.0
A807	2	75.8	5.1	0.0	0.0
A812	1	71.7	4.8	0.0	0.0
A905	3	94.2	4.9	0.0	0.0
A911	1	47.8	4.3	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)
A511	2	75.2	4.6	0.0	0.0
A601	2	75.4	5.1	0.0	0.0
A606	2	80.8	0.0	0.0	0.0
A612	1	47.6	7.5	0.0	0.0
A702	2	68.2	5.4	0.0	0.0
A707	2	78.2	2.8	0.0	0.0
A712	1	49.3	5.4	0.0	0.0
A803	2	74.9	0.0	0.0	0.0
A808	3	113.6	0.0	0.0	0.0
A901	2	79.9	4.7	0.0	0.0
A906	2	75.8	5.1	0.0	0.0
A912	2	71.7	4.8	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)
A512	1	47.6	7.5	0.0	0.0
A602	2	68.2	5.4	0.0	0.0
A607	2	78.2	2.8	0.0	0.0
A613	1	49.3	5.4	0.0	0.0
A703	2	69.0	5.7	0.0	0.0
A708	3	94.2	4.9	0.0	0.0
A713	1	47.8	4.3	0.0	0.0
A804	2	80.8	0.0	0.0	0.0
A809	1	47.6	7.5	0.0	0.0
A902	2	79.4	4.8	0.0	0.0
A907	3	107.3	6.4	0.0	0.0
A1001	3	124.9	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)
A513	1	49.3	5.4	0.0	0.0
A603	2	69.0	5.7	0.0	0.0
A609	3	94.2	4.9	0.0	0.0
A614	1	47.8	4.3	0.0	0.0
A704	2	69.8	5.0	0.0	0.0
A709	2	75.8	5.1	0.0	0.0
A714	2	72.1	4.8	0.0	0.0
A805	2	78.2	2.8	0.0	0.0
A810	1	49.3	5.4	0.0	0.0
A903	2	80.8	0.0	0.0	0.0
A908	1	47.6	7.5	0.0	0.0
A1002	3	107.6	5.5	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)
A514	1	47.8	4.3	0.0	0.0
A604	2	69.8	5.0	0.0	0.0
A610	2	75.8	5.1	0.0	0.0
A615	2	72.1	4.8	0.0	0.0
A705	2	74.9	0.0	0.0	0.0
A710	2	75.2	4.6	0.0	0.0
A801	2	75.6	0.0	0.0	0.0
A806	3	94.2	4.9	0.0	0.0
A811	1	47.8	4.3	0.0	0.0
A904	2	78.2	2.8	0.0	0.0
A910	1	49.3	5.4	0.0	0.0
A1003	3	115.0	4.9	0.0	0.0

Description of project

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

Common areas of unit building - Building 7

Common area	Floor area (m²)
Lift car (No.1)	-

Common area	Floor area (m²)
Lift car (No.2)	-

Common areas of unit building - Building 8

Common area	Floor area (m²)
Lift car (No.3)	-

Common area	Floor area (m²)
Lift car (No.4)	-

Common areas of unit building - Building 9

Common area	Floor area (m²)
Lift car (No.5)	-

Common area	Floor area (m²)
Lift car (No.6)	-

Common areas of unit building - Building 10

Common area	Floor area (m²)
Lift car (No.7)	-

Common area	Floor area (m²)
Lift car (No.8)	-

Common areas of unit building - Building 11

Common area	Floor area (m²)
Lift car (No.9)	-

Common area	Floor area (m²)
Lift car (No.10)	-

Common areas of the development (non-building specific)

Common area	Floor area (m²)
Car park area	1367.0
Plant or service room	265.0
Hallway/lobby type	2946.0

Common area	Floor area (m²)
Switch room	127.0
Other internal common area	1187.0

Common area	Floor area (m²)
Garbage room	275.0
Ground floor lobby type	240.0

Schedule of BASIX commitments

1. Commitments for Residential flat buildings - Building 7

(a) Dwellings

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

(b) Common areas and central systems/facilities

- (i) Water
- (ii) Energy

2. Commitments for Residential flat buildings - Building 8

(a) Dwellings

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

(b) Common areas and central systems/facilities

- (i) Water
- (ii) Energy

3. Commitments for Residential flat buildings - Building 9

(a) Dwellings

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

(b) Common areas and central systems/facilities

- (i) Water
- (ii) Energy

4. Commitments for Residential flat buildings - Building 10

(a) Dwellings

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

(b) Common areas and central systems/facilities

- (i) Water
- (ii) Energy

5. Commitments for Residential flat buildings - Building 11

(a) Dwellings

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

(b) Common areas and central systems/facilities

- (i) Water
- (ii) Energy

6. Commitments for multi-dwelling houses

7. Commitments for single dwelling houses

8. 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 - Building 7

(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	5 star	5 star	no	-	4 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
None	-	-	-	-	-	-	-	-

(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.		✓	✓
(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.		✓	✓

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(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	interlocked to light

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
E502, E602, E702, E707, E802, E807, E905, E1005	1-phase airconditioning 5 star (average zone)	1-phase airconditioning 5 star (average zone)	1-phase airconditioning 5 star (average zone)	1-phase airconditioning 5 star (average zone)	1 (dedicated)	1 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	-
E401, E402, E501, E601, E607, E701, E801, E901, E1001, E1101, E1103, E1104	1-phase airconditioning 5 star (average zone)	1-phase airconditioning 5 star (average zone)	1-phase airconditioning 5 star (average zone)	1-phase airconditioning 5 star (average zone)	3 (dedicated)	1 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	-
All other dwellings	1-phase airconditioning 5 star (average zone)	1-phase airconditioning 5 star (average zone)	1-phase airconditioning 5 star (average zone)	1-phase airconditioning 5 star (average zone)	2 (dedicated)	1 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	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	-	-	3.5 star	-	3.5 star	-	-

(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.			
(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.	✓	✓	✓

	Thermal loads	
Dwelling no.	Area adjusted heating load (in mJ/m ² /yr)	Area adjusted cooling load (in mJ/m ² /yr)
E401	30.7	14.2
E402	25.8	15.4
E501	23.2	18.7
E502	22.5	21.6

	Thermal loads	
Dwelling no.	Area adjusted heating load (in mJ/m²/yr)	Area adjusted cooling load (in mJ/m²/yr)
E503	11.8	25.0
E504	24.1	13.9
E601	23.7	18.0
E602	23.0	26.5
E603	12.2	27.7
E604	24.6	18.8
E605	20.7	23.7
E606	11.8	26.9
E607	11.5	27.2
E706	12.3	22.4
E806	14.3	22.4
E901	13.6	26.9
E902	32.3	21.0
E903	26.1	15.1
E904	15.7	23.8
E905	24.6	21.4
E906	16.8	12.0
E1001	15.4	23.7
E1002	34.8	19.0
E1003	28.6	12.8
E1004	17.4	21.0
E1005	26.8	17.4
E1006	18.3	11.1
E1101	28.9	23.4
E1102	43.4	28.3
E1103	44.6	19.3
E1104	32.7	17.3

	Thermal loads	
Dwelling no.	Area adjusted heating load (in mJ/m ² /yr)	Area adjusted cooling load (in mJ/m ² /yr)
E701, E801	24.1	17.8
E702, E802	23.3	26.1
E703, E803	12.6	27.2
E704, E804	25.0	18.6
E705, E805	24.3	16.1
E707, E807	23.4	21.5
All other dwellings	13.4	13.5

(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	3 star (> 4.5 but ≤ 6 L/min)	4 star	5 star	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.	✓	✓	✓

	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
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

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): 9
Lift (No. 2)	gearless traction with V V V F motor	Number of levels (including basement): 9

2. Commitments for Residential flat buildings - Building 8

(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	5 star	5 star	no	-	4 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
None	-	-	-	-	-	-	-	-

(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.		✓	✓
(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.		✓	✓

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(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 2	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	interlocked to light

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
D806, D807, D809, D810, D906, D907, D908, D909, D1006, D1007, D1008, D1009, D1106, D1107, D1108, D1109	1-phase airconditioning 5 star (average zone)	1-phase airconditioning 5 star (average zone)	1-phase airconditioning 5 star (average zone)	1-phase airconditioning 5 star (average zone)	1 (dedicated)	1 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	-
D601, D604, D1201, D1202, D1203, D1204, D1301, D1302, D1303, D1304, D1401, D1402, D1403, D1404, D1501, D1502, D1503, D1504, D1601, D1602, D1603, D1604	1-phase airconditioning 5 star (average zone)	1-phase airconditioning 5 star (average zone)	1-phase airconditioning 5 star (average zone)	1-phase airconditioning 5 star (average zone)	3 (dedicated)	1 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	-

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
All other dwellings	1-phase airconditioning 5 star (average zone)	1-phase airconditioning 5 star (average zone)	1-phase airconditioning 5 star (average zone)	1-phase airconditioning 5 star (average zone)	2 (dedicated)	1 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	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	-	-	3.5 star	-	3.5 star	-	-

(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.			
(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.		✓	

(iii) Thermal Comfort	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(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/m²/yr)	Area adjusted cooling load (in mJ/m²/yr)
D601	6.3	26.4
D602	18.0	21.9
D603	6.3	23.3
D604	18.4	20.5
D701	8.8	26.4
D704	18.1	21.6
D705	17.4	22.8
D706	13.3	17.1
D707	8.8	20.2
D708	29.0	28.8
D801	8.9	26.4
D804	18.2	21.4
D805	17.4	22.9
D806	17.6	21.3

	Thermal loads	
Dwelling no.	Area adjusted heating load (in mJ/m²/yr)	Area adjusted cooling load (in mJ/m²/yr)
D807	18.1	21.1
D809	12.1	25.4
D810	13.9	26.7
D811	28.8	28.9
D901	9.7	24.5
D902	7.5	22.4
D903	8.2	21.2
D904	19.5	19.7
D905	19.0	21.5
D906	19.4	19.7
D907	19.7	19.8
D908	13.6	24.4
D909	15.0	24.7
D910	30.5	27.8
D1001	11.6	18.4
D1002	9.4	15.9
D1003	10.6	16.8
D1004	22.7	15.6
D1005	22.6	15.7
D1006	23.5	15.3
D1007	24.1	14.6
D1008	16.8	19.5
D1009	18.1	19.0
D1010	35.2	21.9
D1101	12.1	17.8
D1102	9.8	15.7
D1103	10.9	16.5

	Thermal loads	
Dwelling no.	Area adjusted heating load (in mJ/m ² /yr)	Area adjusted cooling load (in mJ/m ² /yr)
D1104	23.2	15.8
D1105	23.3	15.6
D1106	24.2	14.9
D1107	24.8	14.5
D1108	17.3	18.7
D1109	18.8	18.6
D1110	36.0	21.3
D1401	19.0	14.1
D1402	25.7	10.9
D1403	24.6	21.3
D1404	24.1	25.9
D1501	19.2	14.1
D1502	25.9	10.8
D1503	24.9	21.1
D1504	24.4	26.2
D1601	32.0	16.7
D1602	38.9	13.4
D1603	41.9	26.2
D1604	33.4	23.8
D702, D802	6.7	24.5
D703, D803	7.3	22.4
D1201, D1301	17.1	16.1
D1202, D1302	23.7	11.7
D1203, D1303	23.1	22.8
All other dwellings	23.2	26.2

(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	3 star (> 4.5 but ≤ 6 L/min)	4 star	5 star	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.	✓	✓	✓

	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
Lift car (No.3)	-	-	light-emitting diode	connected to lift call button	No
Lift car (No.4)	-	-	light-emitting diode	connected to lift call button	No

Central energy systems	Type	Specification
Central hot water system (No. 2)	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. 3)	gearless traction with V V V F motor	Number of levels (including basement): 14
Lift (No. 4)	gearless traction with V V V F motor	Number of levels (including basement): 14

3. Commitments for Residential flat buildings - Building 9

(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	5 star	5 star	no	-	4 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
None	-	-	-	-	-	-	-	-

(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.		✓	✓
(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.		✓	✓

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(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 3	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	interlocked to light

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
C201, C202, C203, C204, C507, C607, C707, C801, C806, C808, C901, C903, C1001	1-phase airconditioning 5 star (average zone)	1-phase airconditioning 5 star (average zone)	1-phase airconditioning 5 star (average zone)	1-phase airconditioning 5 star (average zone)	3 (dedicated)	1 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	-
C504, C505, C506, C511, C604, C605, C606, C611, C704, C705, C706, C711, C803, C804, C810, C902, C905, C1002	1-phase airconditioning 5 star (average zone)	1-phase airconditioning 5 star (average zone)	1-phase airconditioning 5 star (average zone)	1-phase airconditioning 5 star (average zone)	1 (dedicated)	1 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	-
All other dwellings	1-phase airconditioning 5 star (average zone)	1-phase airconditioning 5 star (average zone)	1-phase airconditioning 5 star (average zone)	1-phase airconditioning 5 star (average zone)	2 (dedicated)	1 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	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	-	-	3.5 star	-	3.5 star	-	-

(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.			
(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.	✓	✓	✓

	Thermal loads	
Dwelling no.	Area adjusted heating load (in mJ/m²/yr)	Area adjusted cooling load (in mJ/m²/yr)
C201	21.2	19.0
C202	11.1	18.2
C203	21.7	18.4
C204	21.0	24.3
C301	16.3	22.3
C401	23.7	21.6
C402	24.5	15.3
C403	39.3	25.2
C404	14.9	26.2
C405	15.9	19.0
C406	24.9	17.4
C501	24.3	22.2
C502	25.2	16.3
C503	40.3	26.6
C504	41.2	21.5
C505	23.3	24.2
C506	21.7	25.6
C507	6.5	16.1
C508	13.2	18.0
C509	25.5	18.5
C510	11.5	21.9
C511	25.3	29.4
C512	19.1	23.5
C601	24.7	21.9
C602	25.7	16.0
C603	40.9	26.2
C604	41.7	21.4

	Thermal loads	
Dwelling no.	Area adjusted heating load (in mJ/m²/yr)	Area adjusted cooling load (in mJ/m²/yr)
C605	33.2	22.2
C606	22.2	25.5
C607	6.8	16.1
C608	13.5	17.6
C609	25.9	18.6
C610	11.8	22.1
C611	25.8	28.8
C612	19.4	23.0
C701	25.2	21.5
C702	26.2	15.9
C703	41.5	26.1
C704	42.4	20.8
C705	33.7	21.6
C706	22.7	24.8
C707	7.0	16.0
C708	13.9	17.6
C709	26.4	18.0
C710	12.2	21.9
C711	26.3	27.7
C712	19.9	23.3
C801	40.2	29.0
C802	35.7	19.8
C803	44.9	26.3
C804	22.8	25.6
C806	7.7	15.6
C807	14.0	19.9
C808	8.7	24.0

	Thermal loads	
Dwelling no.	Area adjusted heating load (in mJ/m ² /yr)	Area adjusted cooling load (in mJ/m ² /yr)
C809	12.8	21.1
C810	27.3	25.0
C811	20.2	22.9
C901	42.1	28.4
C902	38.1	25.6
C903	18.7	20.4
C904	27.9	24.5
C905	30.2	23.2
C906	22.6	19.8
C1001	31.5	21.3
C1002	42.7	18.7
All other dwellings	35.0	19.3

(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	3 star (> 4.5 but ≤ 6 L/min)	4 star	5 star	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.	✓	✓	✓

	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
Lift car (No.5)	-	-	light-emitting diode	connected to lift call button	No
Lift car (No.6)	-	-	light-emitting diode	connected to lift call button	No

Central energy systems	Type	Specification
Central hot water system (No. 3)	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. 5)	gearless traction with V V V F motor	Number of levels (including basement): 9
Lift (No. 6)	gearless traction with V V V F motor	Number of levels (including basement): 9

4. Commitments for Residential flat buildings - Building 10

(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.	✓	✓	✓

Dwelling no.	Fixtures					Appliances		Individual pool				Individual spa		
	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	5 star	5 star	no	-	4 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
None	-	-	-	-	-	-	-	-

(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.		✓	✓
(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.		✓	✓

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(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 4	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	interlocked to light

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
B506, B603, B703, B803, B903	1-phase airconditioning 5 star (average zone)	1-phase airconditioning 5 star (average zone)	1-phase airconditioning 5 star (average zone)	1-phase airconditioning 5 star (average zone)	1 (dedicated)	1 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	-
B503, B1001, B1002, B1003, B1101, B1102, B1103, B1201, B1202, B1203	1-phase airconditioning 5 star (average zone)	1-phase airconditioning 5 star (average zone)	1-phase airconditioning 5 star (average zone)	1-phase airconditioning 5 star (average zone)	3 (dedicated)	1 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	-
All other dwellings	1-phase airconditioning 5 star (average zone)	1-phase airconditioning 5 star (average zone)	1-phase airconditioning 5 star (average zone)	1-phase airconditioning 5 star (average zone)	2 (dedicated)	1 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	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	-	-	3.5 star	-	3.5 star	-	-

(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.			
(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.	✓	✓	✓

	Thermal loads	
Dwelling no.	Area adjusted heating load (in mJ/m ² /yr)	Area adjusted cooling load (in mJ/m ² /yr)
B501	13.8	12.5
B502	13.7	25.6
B503	9.8	15.7
B504	9.8	18.5

	Thermal loads	
Dwelling no.	Area adjusted heating load (in mJ/m ² /yr)	Area adjusted cooling load (in mJ/m ² /yr)
B505	9.7	20.0
B506	14.8	14.2
B601	16.0	12.0
B602	15.4	25.2
B603	38.2	28.6
B605	12.7	18.7
B606	11.6	18.5
B607	16.2	13.5
B901	16.9	11.9
B902	16.2	23.9
B903	39.6	28.1
B904	18.1	12.7
B905	13.5	18.2
B906	12.5	18.2
B1001	40.1	16.1
B1002	38.8	24.0
B1003	20.6	18.6
B1004	15.1	13.8
B1101	40.3	15.8
B1102	39.0	23.4
B1103	20.1	19.7
B1104	15.2	13.7
B1201	33.4	14.5
B1202	35.1	21.0
B1203	28.4	21.4
B1204	22.2	14.7
B604, B907	17.1	12.9

	Thermal loads	
Dwelling no.	Area adjusted heating load (in mJ/m ² /yr)	Area adjusted cooling load (in mJ/m ² /yr)
B701, B801	16.4	12.4
B702, B802	15.7	24.8
B703, B803	38.7	28.9
B704, B804	17.5	12.8
B705, B805	13.0	18.2
B706, B806	12.0	18.4
All other dwellings	16.6	13.5

(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	3 star (> 4.5 but ≤ 6 L/min)	4 star	5 star	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.	✓	✓	✓

	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
Lift car (No.7)	-	-	light-emitting diode	connected to lift call button	No
Lift car (No.8)	-	-	light-emitting diode	connected to lift call button	No

Central energy systems	Type	Specification
Central hot water system (No. 4)	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. 7)	gearless traction with V V V F motor	Number of levels (including basement): 13
Lift (No. 8)	gearless traction with V V V F motor	Number of levels (including basement): 13

5. Commitments for Residential flat buildings - Building 11

(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	5 star	5 star	no	-	4 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
None	-	-	-	-	-	-	-	-

(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.		✓	✓
(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.		✓	✓

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(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 5	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	interlocked to light

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
A101, A102, A103, A104, A105, A106, A202, A305, A405, A409, A509, A609, A708, A806, A808, A905, A907, A1001, A1002, A1003	1-phase airconditioning 5 star (average zone)	1-phase airconditioning 5 star (average zone)	1-phase airconditioning 5 star (average zone)	1-phase airconditioning 5 star (average zone)	3 (dedicated)	1 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	-

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
A406, A407, A408, A412, A413, A414, A506, A507, A508, A512, A513, A514, A612, A613, A614, A711, A712, A713, A809, A810, A811, A812, A908, A910, A911	1-phase airconditioning 5 star (average zone)	1-phase airconditioning 5 star (average zone)	1-phase airconditioning 5 star (average zone)	1-phase airconditioning 5 star (average zone)	1 (dedicated)	1 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	-
All other dwellings	1-phase airconditioning 5 star (average zone)	1-phase airconditioning 5 star (average zone)	1-phase airconditioning 5 star (average zone)	1-phase airconditioning 5 star (average zone)	2 (dedicated)	1 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	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	-	-	3.5 star	-	3.5 star	-	-

(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.			
(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.	✓	✓	✓

	Thermal loads	
Dwelling no.	Area adjusted heating load (in mJ/m²/yr)	Area adjusted cooling load (in mJ/m²/yr)
A101	7.9	29.4
A102	7.7	19.8
A103	19.0	22.1
A104	28.1	28.8
A105	29.1	21.1
A106	22.3	22.3
A201	27.5	14.3
A202	26.4	23.5
A301	33.6	26.0
A302	34.0	21.2
A303	32.1	27.8
A304	11.1	15.9
A305	15.1	22.0
A306	18.1	28.3
A307	25.9	24.9
A308	31.4	29.3
A401	37.9	21.8
A402	39.9	15.6
A403	36.1	22.8
A404	19.5	15.3
A405	24.2	23.9
A406	19.9	26.0
A407	18.0	20.5
A408	18.7	20.8
A409	16.3	21.7
A410	28.4	17.2
A411	37.3	23.6

	Thermal loads	
Dwelling no.	Area adjusted heating load (in mJ/m²/yr)	Area adjusted cooling load (in mJ/m²/yr)
A412	21.1	24.6
A413	18.9	26.1
A414	12.8	27.2
A415	21.3	18.4
A501	38.7	21.5
A502	40.7	15.1
A503	36.8	22.4
A504	23.4	16.6
A505	39.3	19.9
A506	20.5	24.9
A507	18.6	20.4
A508	19.3	20.7
A509	16.8	21.4
A510	29.0	16.9
A511	38.1	23.3
A512	21.8	24.1
A513	18.8	28.1
A514	13.3	25.9
A515	21.8	18.1
A801	33.9	22.2
A802	16.5	19.0
A803	41.1	19.1
A804	11.3	20.9
A805	10.3	11.6
A806	17.9	20.3
A807	32.9	17.0
A808	19.7	22.5

	Thermal loads	
Dwelling no.	Area adjusted heating load (in mJ/m ² /yr)	Area adjusted cooling load (in mJ/m ² /yr)
A809	23.5	21.7
A810	20.3	27.2
A811	14.7	23.7
A812	18.3	16.3
A901	43.9	27.6
A902	41.1	24.5
A903	26.0	26.6
A904	23.3	13.2
A905	18.1	20.9
A906	33.2	16.8
A907	36.3	23.5
A908	23.4	27.4
A910	20.5	26.4
A911	14.7	23.2
A912	20.3	15.1
A1001	30.6	16.5
A1002	38.9	21.5
A1003	22.6	19.0
A601, A701	39.4	21.5
A602, A702	41.3	15.1
A603, A703	37.4	22.4
A604, A704	23.8	16.6
A605, A705	39.9	19.6
A606, A706	10.7	21.2
A607, A707	9.8	11.9
A609, A708	17.1	20.6
A610, A709	29.6	16.9

	Thermal loads	
Dwelling no.	Area adjusted heating load (in mJ/m ² /yr)	Area adjusted cooling load (in mJ/m ² /yr)
A611, A710	38.8	23.1
A612, A711	22.4	24.2
A613, A712	19.3	28.1
A614, A713	13.9	25.4
All other dwellings	22.3	17.8

(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	3 star (> 4.5 but ≤ 6 L/min)	4 star	5 star	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.	✓	✓	✓

	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
Lift car (No.9)	-	-	light-emitting diode	connected to lift call button	No
Lift car (No.10)	-	-	light-emitting diode	connected to lift call button	No

Central energy systems	Type	Specification
Central hot water system (No. 5)	gas-fired boiler	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. 9)	gearless traction with V V V F motor	Number of levels (including basement): 10
Lift (No. 10)	gearless traction with V V V F motor	Number of levels (including basement): 10

8. 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	3 star (> 4.5 but ≤ 6 L/min)	4 star	5 star	no common laundry facility

Central systems	Size	Configuration	Connection (to allow for...)
Central water tank - rainwater or stormwater (No. 1)	15000.0	To collect run-off from at least: - 2000.0 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 4427.7 square metres of common landscaped area on the site

Central systems	Size	Configuration	Connection (to allow for...)
Pool (No. 1)	Volume: 75.0 kLs	Location: Other Pool shaded: yes	-
Fire sprinkler system (No. 1)	-	-	-

(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
Car park area	ventilation (supply + exhaust)	carbon monoxide monitor + VSD fan	light-emitting diode	motion sensors	No
Switch room	ventilation (supply + exhaust)	thermostatically controlled	light-emitting diode	manual on / manual off	No
Garbage room	ventilation exhaust only	-	light-emitting diode	motion sensors	No
Plant or service room	ventilation (supply + exhaust)	thermostatically controlled	light-emitting diode	manual on / manual off	No
Other internal common area	ventilation (supply + exhaust)	time clock or BMS controlled	light-emitting diode	time clock and motion sensors	No
Ground floor lobby type	ventilation (supply + exhaust)	time clock or BMS controlled	light-emitting diode	time clock and motion sensors	No
Hallway/lobby type	ventilation (supply + exhaust)	time clock or BMS controlled	light-emitting diode	time clock and motion sensors	No

Central energy systems	Type	Specification
Alternative energy supply	Photovoltaic system	Rated electrical output (min): 99.0 peak kW
Pool (No. 1)	Heating source: gas	Pump controlled by timer: yes

Notes

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

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).