

## Thermal Comfort & BASIX Assessment

BUILDING  
SUSTAINABILITY  
CONSULTANTS



■ FRIENDLY ■ INFORMATIVE ■ EFFICIENT ■ KNOWLEDGEABLE

Mirvac Projects Pty Ltd  
Proposed Residential Development  
To be built at:  
2 Figtree Drive  
SYDNEY OLYMPIC PARK NSW 2127

Issue	File Ref	Description	Author	Date
A	16-0252	DRAFT: Thermal comfort and BASIX assessment	HE/DG/PV	21/09/16
B	16-0252	Thermal comfort and BASIX assessment	HE/DG/PV	29/09/16
C	16-0816	Updated to reflect plan changes	HE	16/11/16
D	17-0535	Updated to reflect plan changes	HE	08/06/17
E	18-0673	Update to reflect design, glazing and insulation changes	HE/DO	22/05/18
F	18-0830	Update to reflect design and glazing changes	HE/DG	27/06/18
G	18-1794	Update to reflect design changes	DG	13/12/18

This report has been prepared by Efficient Living Pty Ltd on behalf of our client Mirvac Projects. Efficient Living prepares all reports in accordance with the BASIX Thermal Comfort Protocol and is backed by professional indemnity insurance. This report takes into account our client's instructions and preferred building inclusions.



Prepared for Mirvac Pty Ltd  
Level 28, 200 George Street, Sydney NSW 2000

Contact Annie So  
Phone: 02 9080 8639 Email: annie.so@mirvac.com

**Introduction** Efficient Living has investigated the estimated thermal comfort, water and energy usage of the proposed development to be built at 2 Figtree Drive, Sydney Olympic Park.

Heating and cooling loads for the development have been determined using BERS thermal simulation software. The report is based on the architectural drawings provided by BVN Architects. For further details, refer to the individual BASIX certificates and Efficient Living inclusions summary respectively.

**Analysis** The BASIX assessment is divided into three sections, each independently measuring the efficiency of the development. These are Water, Thermal Comfort and Energy.

BASIX requires a minimum target of 40% for the Water section. A BERS pass or fail is required for the thermal comfort section and a minimum required target of 20% in the energy section.

**Water** The proposed development has achieved the BASIX Water target of 40%. The water usage of the development is calculated based on the number and efficiency of permanent fixtures and appliances such as taps, showerheads and toilets, the dish washer and clothes washing machine.

The size of the rain tank and number of connections has a huge impact on your water score as does the area of gardens and lawns and whether or not low water plant species are incorporated.

**Thermal comfort** Thermal Comfort targets are set by the Department of Planning in the form of heating and cooling caps. The buildings thermal physics is measured using BERS thermal performance assessment tools. This equates an expected level of energy consumption to heat and cool each dwelling per annum expressed in MJ (megajoules) per square meter of floor area.

Each unit has individual heating and cooling caps and a weighted average heating and cooling load for the whole development. The weighted average caps are a lot harder to achieve than the individual unit caps.

**Energy** The proposed development has achieved the energy target of 20% to pass this section. The energy usage of the development is calculated based on the efficiency of fixed appliances that will be used. This includes the air conditioning system, hot water system, lighting, exhaust fans, cook top, oven, and clothes drying facilities.



**Inclusions summary** The inclusions as outlined in the table below have been incorporated in each unit to allow them to reach their environmental sustainability targets.

**Thermal comfort** Average heating loads are 4% below all allowable BASIX targets  
Average cooling loads are 60% below all allowable BASIX targets

**Glazing doors/windows** Aluminium frame double glazing **Building 5**  
**A** – awning windows + hinged glazed doors  
U-Value: 3.90 (equal to or lower than) SHGC: 0.40 (±10%)  
**B** – sliding doors/windows + fixed glazing + louvres windows  
U-Value: 3.90 (equal to or lower than) SHGC: 0.47 (±10%)  
Aluminium frames grey glazing **Building 2 as per mark-up**  
**A** – awning windows + hinged glazed doors  
U-Value: 6.6 (equal to or lower than) SHGC: 0.41 (±10%)  
**B** – sliding doors/windows + fixed glazing + louvres windows  
U-Value: 6.6 (equal to or lower than) SHGC: 0.49 (±10%)  
Aluminium frames performance grey glazing **Building 2 as per assessor and mark-up**  
U-Value: 3.90 (equal to or lower than) SHGC: 0.33 (±10%)  
Aluminium framed single clear glazing:  
**A** – awning windows + hinged glazed doors  
U-Value: 6.70 (equal to or lower than) SHGC: 0.57 (±10%)  
**B** – sliding doors/windows + fixed glazing + louvres windows  
U-Value: 6.70 (equal to or lower than) SHGC: 0.70 (±10%)  
Aluminium frame performance clear glazing **as per assessor certificate**  
U-Value: 4.30 (equal to or lower than) SHGC: 0.42 (±10%)  
Given values are NFRC, total window values

**Roof** Concrete roof  
No insulation  
Default colour modelled



Ceiling Plasterboard ceilings, R2.0 insulation affixed to underside of slab where roof above  
Plasterboard ceilings, R2.5 insulation affixed to underside of slab where roof above as per assessor certificate  
Plasterboard ceilings, R1.2 bulk insulation where balcony above  
Plasterboard ceilings, no insulation where neighbouring units are above  
*Note: Loss of ceiling insulation due to penetrations from down lights have been accounted for in accordance with BCA Technical Notes, assume non-ventilated LED down lights IC abutted and covered.*

External wall Brick veneer, R2.0 insulation, plasterboard lining  
Pre cast concrete, R2.0 insulation, plasterboard lining  
Metal cladding fixed to precast concrete, R2.0 insulation, plasterboard lining  
Metal clad on lightweight frame, R2.0 insulation, plasterboard lining  
Locations as per elevations  
Default colour modelled

Inter tenancy walls Between units – 75mm Hebel power panel, no insulation  
Adjacent to hallways and services – 75mm Hebel power panel, R1.2 insulation to all units  
Adjacent to lift shafts and stairs – 100mm insitu concrete, R1.2 insulation

Walls within dwellings Plasterboard on studs, no insulation

Floors Concrete with no insulation where units or retail are below  
Suspended concrete with an R1.2 insulation as per assessor certificate  
Default floor coverings modelled

**BASIX water inclusions** Score 61/40

Fixtures within units Showerheads: High flow (>7.5L but ≤9 L/min)  
Toilets: 4.0 star  
Kitchen taps: 5.0 star  
Bathroom vanity taps: 5.0 star

Appliances within units Dishwashers: 3.5 stars



Central rainwater storage	<p>Tank size 10,000L</p> <p>Collecting from 500m<sup>2</sup> of non-trafficable roof</p> <p>Connected to irrigation of all common area landscaping</p>
Reticulated water supply	<p>Sydney Olympic Park Authority, connected to 1 car wash bay and fire sprinkler systems, all toilets within units and all washing machine connections within units</p>
<b>BASIX energy inclusions</b>	<p>Score 21/20</p>
Central hot water system	<p>Central gas fired boiler</p> <p>R1.0 insulation to ring main and supply risers</p>
Lift motors	<p>All lifts to have gearless traction with VVVF motor</p> <p>Due to the limitations of the BASIX tool two lifts have been combined in building 2</p>
Appliances & other efficiency measures within units	<p>Gas cooktop &amp; electric oven</p> <p>Dishwashers: 3.5 star</p> <p>Clothes dryers: 2.0 star</p> <p>Ventilated fridge space</p>
Heating & cooling within units	<p>All units to have individual, single phase, reverse cycle air conditioning to living areas and bedrooms</p> <p>An EER or COP of 3.0 – 3.5 in both heating and cooling mode</p> <p>Day / night zoning has been nominated</p>
Artificial lighting within units	<p>LED lighting to be installed throughout</p>
Ventilation within units	<p>Bathrooms – Individual fan, ducted to façade – interlocked to light with run on timer</p> <p>Laundries – Individual fan, ducted to façade – interlocked to light with run on timer</p> <p>Kitchen range hood – Individual fan, ducted to façade – manual on/off switch</p>
Artificial Lighting to common areas	<p>Car park – Fluorescent lights with zoned switching and motion sensors</p> <p>Lifts – LED lights connected to lift call button</p> <p>Building managers room – Fluorescent lights with manual on / manual off switch</p> <p>Garbage rooms – Fluorescent lights with motion sensors</p>



	<p>WC – LED lights with manual on / manual off switch</p> <p>Other plant or service rooms – Fluorescent lights with manual on / manual off switch</p> <p>Car park exhaust room – Fluorescent lights with manual on / manual off switch</p> <p>Car park supply room – Fluorescent lights with manual on / manual off switch</p> <p>Community room – LED lights with manual on / manual off switch</p> <p>Bicycle storage area – Fluorescent lights with motion sensors</p> <p>Ground floor lobbies – LEDs to remain on continuously</p> <p>Hallways – LEDs with zoned switching and motion sensors</p>
Ventilation to common areas	<p>Car park – Supply &amp; exhaust air with a carbon monoxide monitor &amp; VSD fan</p> <p>Garbage rooms – Exhaust air, running continuously</p> <p>Other plant or service rooms – Supply air, running continuously</p> <p>Community room – Air conditioning system, time clock or BMS controlled</p> <p>Car park exhaust – No mechanical ventilation</p> <p>Car park supply room – No mechanical ventilation</p> <p>Bicycle storage area – Low level supply air, time clock or BMS controlled</p> <p>Ground floor lobbies – air conditioning system, time clock or BMS controlled</p> <p>Hallways – supply air, time clock or BMS controlled</p> <p>(Please Note: All air-conditioned common areas must comply with NCC, NSW sub-section Ja glazing and insulation requirements. Independent reports should be requested prior to CC if relevant).</p>
Alternative energy	No BASIX requirement
Assessor	<p>Tracey Cools</p> <p>VIC/BDAV/12/1473</p> <p>NatHERS Accredited Assessor</p>





**Thermal Comfort Results**  
**Proposed Residential Development**  
**2 Figtree Drive**  
**Sydney Olympic Park NSW 2127**

Issued in accordance with **BASIX** Thermal Comfort Simulation Method

Certificate #: 0002890710						VIC/BDAV/12/1473	
Thermal performance specifications							
Unit number	Number of Bedrooms	Floor area (M <sup>2</sup> )		Predict. loads (MJ/M <sup>2</sup> /y)		Star Rating	Thermal Comfort Upgrades
		Con.	Uncon.	Heat	Cool (Sens & Lat)		
Building 1							
10101	2	112	0	50	27	4.4	Performance glazing throughout
10102	3	126	0	35	22	5.7	None
10103	2	107	0	31	18	6.2	None
10105	2	107	0	31	18	6.2	None
10106	2	107	0	38	19	5.7	None
10301	2	74	0	61.3	20.9	4.3	Performanceglazing throughout
10302	2	83	0	57	20.7	4.4	None
10303	1	52	0	45	20.3	5.1	None
10305	1	52	0	44.3	20.3	5.1	None
10306	1	52	0	44.3	20.3	5.1	None
10307	2	83	0	44.2	31.6	4.4	R1.2 open sub floor insulation
10308	2	76	0	65.7	31.5	3.8	None
10401	2	74	0	65	19	4.2	Performance glazing to living room balcony glazing
10402	2	80	0	48	15	5.3	None
10403	1	51	0	39	14	5.9	None
10404	1	51	0	38	13	5.9	None
10405	1	51	0	37	14	6.1	None
10406	2	80	0	37	22	5.4	None
10407	2	74	0	55	25	4.4	None
10501	2	74	0	66	19	4.4	Performance glazing to living room balcony glazing
10502	2	83	0	43	14	5.7	None
10503	1	52	0	40	13	5.9	None
10505	1	52	0	39	13	5.9	None
10506	1	52	0	38	14	5.9	None
10507	2	83	0	38	22	5.4	None
10508	2	74	0	55	25	4.4	None
10601	2	74	0	66	19	4.2	Performance glazing to living room balcony glazing
10602	2	83	0	43	14	5.6	None
10603	1	52	0	40	13	5.9	None
10605	1	52	0	39	13	5.9	None
10606	1	52	0	38	14	5.9	None

**Thermal Comfort Results**  
**Proposed Residential Development**  
**2 Figtree Drive**  
**Sydney Olympic Park NSW 2127**

Issued in accordance with **BASIX** Thermal Comfort Simulation Method

Certificate #: 0002890710				VIC/BDAV/12/1473			
Thermal performance specifications							
Unit number	Number of Bedrooms	Floor area (M <sup>2</sup> )		Predict. loads (MJ/M <sup>2</sup> /y)		Star Rating	Thermal Comfort Upgrades
		Con.	Uncon.	Heat	Cool (Sens & Lat)		
10607	2	83	0	38	22	5.4	None
10608	2	74	0	56	24	4.4	None
10701	2	74	0	64	18	4.3	Performance glazing living, dining, kitchen
10702	2	83	0	44	14	5.6	None
10703	1	52	0	41	12	5.9	None
10705	1	52	0	40	12	5.9	None
10706	1	52	0	39	13	5.9	None
10707	2	83	0	39	21	5.4	None
10708	2	74	0	56	24	4.4	None
10801	2	74	0	65	18	4.3	Performance glazing living, dining, kitchen
10802	2	83	0	44	14	5.5	None
10803	1	52	0	41	12	5.9	None
10805	1	52	0	41	12	5.9	None
10806	1	52	0	39	13	5.9	None
10807	2	83	0	39	21	5.4	None
10808	2	74	0	57	23	4.4	None
10901	2	74	0	66	17	4.2	Performance glazing living, dining, kitchen
10902	2	83	0	45	14	5.5	None
10903	1	52	0	46	13	5.4	None
10905	1	52	0	41	12	5.9	None
10906	1	52	0	40	13	5.9	None
10907	2	83	0	40	20	5.4	None
10908	2	74	0	57	22	4.4	None
11001	2	76	0	66	15	3.9	Performance glazing living, dining, kitchen
11002	2	83	0	53	14	4.9	None
11003	1	51	0	51	11	5.3	None
11005	1	51	0	51	11	5.3	
11006	1	51	0	51	11	5.3	None
11007	2	80	0	48	17	5.2	
11008	2	74	0	60	22	4.3	None
11101	3	108	0	63	15	4.4	None
11102	2	79	0	47	13	5.4	None
11103	2	79	0	48	14	5.3	None
11105	3	108	0	53	19	4.7	None
11201	3	108	0	61	14	4.5	Performance glazing throughout
11202	2	79	0	58	13	4.8	None



# Thermal Comfort Results

Proposed Residential Development  
2 Figtree Drive  
Sydney Olympic Park NSW 2127

Issued in accordance with **BASIX** Thermal Comfort Simulation Method

Certificate #: 0002890710						VIC/BDAV/12/1473	
Thermal performance specifications							
Unit number	Number of Bedrooms	Floor area (M <sup>2</sup> )		Predict. loads (MJ/M <sup>2</sup> /y)		Star Rating	Thermal Comfort Upgrades
		Con.	Uncon.	Heat	Cool (Sens & Lat)		
11203	2	79	0	57	12	4.9	None
11205	3	108	0	51	15	5.0	Performance glazing throughout
Building 2							
20101	2	81	0	40	39	4.4	None
20102	3	102	0	44	51	3.8	None
20103	2	81	0	38	19	5.6	None
20105	1	56	0	58	36	3.9	None
20106	2	76	0	26	14	6.9	None
20107	2	82	0	49	31	4.4	None
20108	2	83	0	39	43	4.3	None
20109	2	75	0	46	16	5.3	None
20201	2	81	0	42	35	4.4	None
20202	3	102	0	46	49	3.8	None
20203	2	81	0	26	16	6.7	None
20205	1	56	0	58	34	3.9	None
20206	1	61	0	61.6	19.4	4.3	R1.2 open sub floor insulation
20207	1	54	0	36.6	38.8	4.4	R1.2 open sub floor insulation
20208	2	76	0	30	11	6.9	None
20209	2	82	0	51	31	4.3	None
20210	2	83	0	41	42	4.3	None
20111	2	75	0	48	16	5.2	None
20301	2	81	0	47	26	4.7	None
20302	3	102	0	51	36	4.1	None
20303	2	81	0	32	16	6.3	None
20305	1	56	0	62	25	4.1	None
20306	1	61	0	52.5	16.4	4.9	None
20307	2	71	0	56.1	17.7	4.6	None
20308	2	76	0	31	11	6.8	None
20309	2	82	0	51	30	4.3	None
20310	2	83	0	46	35	4.3	None
20311	2	75	0	52	12	5.2	None
20401	2	81	0	48	26	4.6	None
20402	3	102	0	51	37	4.0	None
20403	2	81	0	32	15	6.4	None
20405	1	56	0	63	24	4.1	None
20406	1	61	0	62.5	16	4.4	None

**Thermal Comfort Results**  
**Proposed Residential Development**  
**2 Figtree Drive**  
**Sydney Olympic Park NSW 2127**

Issued in accordance with **BASIX** Thermal Comfort Simulation Method

Certificate #: 0002890710					VIC/BDAV/12/1473		
Thermal performance specifications							
Unit number	Number of Bedrooms	Floor area (M <sup>2</sup> )		Predict. loads (MJ/M <sup>2</sup> /y)		Star Rating	Thermal Comfort Upgrades
		Con.	Uncon.	Heat	Cool (Sens & Lat)		
20407	2	71	0	55.7	17.9	4.6	None
20408	2	76	0	32	11	6.8	None
20409	2	82	0	52	29	4.3	None
20410	2	83	0	47	35	4.3	None
20411	2	75	0	53	12	5.1	None
20501	2	81	0	49	26	4.6	None
20502	3	102	0	51	37	4.0	None
20503	2	81	0	32	15	6.4	None
20505	2	56	0	56	22	4.4	None
20506	1	61	0	61.1	15.6	4.4	None
20507	2	71	0	55.5	17.5	4.7	None
20508	2	76	0	32	10	6.8	None
20509	2	82	0	53	28	4.3	None
20510	2	83	0	47	34	4.3	None
20511	2	75	0	54	11	5.1	None
20601	2	81	0	49	25	4.5	None
20602	3	102	0	54	35	3.9	None
20603	2	81	0	30	15	6.4	None
20605	1	56	0	56	22	4.4	None
20606	1	61	0	59.9	15.6	4.4	None
20607	2	71	0	56.3	17.6	4.6	None
20608	2	76	0	32	10	6.8	None
20609	2	82	0	53	27	4.4	None
20610	2	83	0	47	33	4.3	None
20611	2	75	0	54	11	5.1	None
20701	2	81	0	50	25	4.6	None
20702	3	102	0	54	35	3.9	None
20703	2	81	0	30	16	6.4	None
20705	1	56	0	57	21	4.4	None
20706	1	61	0	58.6	15.3	4.6	None
20707	2	71	0	50.4	17.7	4.9	None
20708	2	76	0	30	10	6.9	None
20709	2	82	0	53	27	4.4	None
20710	2	83	0	48	33	4.3	None
20711	2	75	0	55	11	5.0	None
20801	2	81	0	50	25	4.5	None

**Thermal Comfort Results**  
**Proposed Residential Development**  
**2 Figtree Drive**  
**Sydney Olympic Park NSW 2127**

Issued in accordance with **BASIX** Thermal Comfort Simulation Method

Certificate #: 0002890710				VIC/BDIV/12/1473			
Thermal performance specifications							
Unit number	Number of Bedrooms	Floor area (M <sup>2</sup> )		Predict. loads (MJ/M <sup>2</sup> /y)		Star Rating	Thermal Comfort Upgrades
		Con.	Uncon.	Heat	Cool (Sens & Lat)		
20802	3	102	0	54	35	3.9	None
20803	2	81	0	29	16	6.4	None
20805	1	56	0	56	21	4.4	None
20806	1	61	0	57.3	15.2	4.7	None
20807	2	71	0	52.5	17.9	4.8	None
20808	2	76	0	28	10	7.1	None
20809	2	82	0	52	27	4.4	None
20810	2	83	0	49	33	4.3	None
20811	2	75	0	55	11	5.0	None
20901	2	81	0	51	24	4.4	None
20902	3	102	0	54	34	3.9	None
20903	2	81	0	28	16	6.6	None
20905	1	56	0	56	21	4.4	None
20906	1	61	0	56.8	15	4.7	None
20907	2	71	0	52.2	17.6	4.8	None
20908	2	76	0	27	10	7.2	None
20909	2	82	0	49	25	4.6	None
20910	2	83	0	49	32	4.3	None
20911	2	75	0	56	10	5.0	None
21001	2	81	0	54	20	4.6	None
21002	3	102	0	57	29	4.1	None
21003	2	81	0	30	14	6.7	None
21005	1	56	0	56	21	4.4	None
21006	1	61	0	59.3	13.9	4.7	None
21007	2	71	0	54.9	15.5	4.8	None
21008	2	76	0	31	10	6.9	None
21009	2	82	0	57	20	4.4	None
21010	2	83	0	62	30	3.9	None
21011	2	75	0	62	9	4.8	None
21101	2	81	0	54	20	4.6	None
21102	3	102	0	57	29	4.1	None
21103	2	81	0	33	12	6.5	None
21105	1	56	0	56	21	4.4	None
21106	1	61	0	59.1	13.9	4.7	None
21107	2	71	0	54.6	15.1	4.8	None
21108	3	117	0	63	15	4.4	None

**Thermal Comfort Results**  
**Proposed Residential Development**  
**2 Figtree Drive**  
**Sydney Olympic Park NSW 2127**

Issued in accordance with **BASIX** Thermal Comfort Simulation Method

Certificate #: 0002890710					VIC/BDIV/12/1473		
Thermal performance specifications							
Unit number	Number of Bedrooms	Floor area (M <sup>2</sup> )		Predict. loads (MJ/M <sup>2</sup> /y)		Star Rating	Thermal Comfort Upgrades
		Con.	Uncon.	Heat	Cool (Sens & Lat)		
21109	3	119	0	41.2	10.7	5.9	Performance glazing living, dining, kitchen
21201	2	81	0	54	20	4.6	None
21202	3	113	0	63	40	3.6	None
21203	2	78	0	58.9	17.1	4.4	None
21205	2	77	0	35	13	6.3	None
21206	1	61	0	60.1	13.8	4.6	None
21207	1	54	0	50.4	19.9	4.8	None
21208	1	51	0	50.1	11	5.4	None
21209	1	51	0	50.1	11	5.4	None
21210	2	82	0	66	18.8	4.2	None
21211	2	83	0	37	17.3	5.8	Performance glazing throughout
21212	2	75	0	61.9	8.7	4.8	None
21301	2	81	0	55	20	4.6	None
21302	3	113	0	66	38	3.4	None
21303	2	78	0	52	16.9	4.9	None
21305	2	77	0	43	13	5.7	None
21306	1	61	0	59.8	13.6	4.6	None
21307	1	54	0	50.6	19.9	4.8	None
21308	1	51	0	52.5	11.1	5.2	None
21309	1	51	0	49.6	11.1	5.4	None
21310	2	82	0	48.6	18.6	4.9	None
21311	2	83	0	53.5	25.3	4.4	None
21312	2	75	0	62.3	8.8	4.8	None
21401	2	81	0	55	20	4.5	None
21402	3	113	0	66	38	3.4	None
21403	2	78	0	52.4	17.8	4.8	None
21405	2	77	0	44	13	5.7	None
21406	1	61	0	60.6	13.7	4.6	None
21407	1	54	0	51.1	20	4.8	None
21408	1	51	0	52.8	11	5.2	None
21409	1	51	0	50	11.3	5.3	None
21410	2	82	0	49	18.2	4.9	None
21411	2	83	0	54	24.9	4.4	None
21412	2	75	0	62.7	8.8	4.7	None
21501	2	81	0	55	20	4.5	None
21502	3	113	0	62	34	3.8	None

**Thermal Comfort Results**  
**Proposed Residential Development**  
**2 Figtree Drive**  
**Sydney Olympic Park NSW 2127**

Issued in accordance with **BASIX** Thermal Comfort Simulation Method

Certificate #: 0002890710					VIC/BDV/12/1473		
Thermal performance specifications							
Unit number	Number of Bedrooms	Floor area (M <sup>2</sup> )		Predict. loads (MJ/M <sup>2</sup> /y)		Star Rating	Thermal Comfort Upgrades
		Con.	Uncon.	Heat	Cool (Sens & Lat)		
21503	2	78	0	52.6	17.5	4.8	None
21505	2	77	0	44	12	5.7	None
21506	1	61	0	60.5	13.3	4.6	None
21507	1	54	0	51.3	19.9	4.8	None
21508	1	51	0	53.1	10.9	5.2	None
21509	1	51	0	50.2	11.3	5.3	None
21510	2	82	0	49.2	17.8	4.9	None
21511	2	83	0	54.2	24.5	4.4	None
21512	2	75	0	62.4	8.9	4.8	None
21601	2	81	0	55	20	4.5	None
21602	3	113	0	62	35	3.8	None
21603	2	78	0	52.7	17.4	4.8	None
21605	2	77	0	44	12	5.7	None
21606	1	61	0	61	13.4	4.6	None
21607	1	54	0	51.5	19.9	4.7	None
21608	1	51	0	53.2	10.9	5.2	None
21609	1	51	0	50.4	11.2	5.3	None
21610	2	82	0	48.4	17.9	4.9	None
21611	2	83	0	54.4	24.4	4.4	None
21612	2	75	0	62.6	8.9	4.7	None
21701	2	81	0	56	20	4.4	None
21702	3	113	0	62	34	3.8	None
21703	2	78	0	52.9	16.8	4.8	None
21705	2	77	0	44	12	5.7	None
21706	1	61	0	61.1	13.5	4.5	None
21707	1	54	0	51.8	19.5	4.8	None
21708	1	51	0	53.4	10.8	5.2	None
21709	1	51	0	50.6	11	5.3	None
21710	2	82	0	49	18.1	4.9	None
21711	2	83	0	54.6	24.3	4.4	None
21712	2	75	0	62.8	9.1	4.7	None
21801	2	81	0	56	19	4.4	None
21802	3	113	0	62	34	3.8	None
21803	2	78	0	53	17	4.8	None
21805	2	77	0	44	12	5.7	None
21806	1	61	0	61.3	13.5	4.5	None

**Thermal Comfort Results**  
**Proposed Residential Development**  
**2 Figtree Drive**  
**Sydney Olympic Park NSW 2127**

Issued in accordance with **BASIX** Thermal Comfort Simulation Method

Certificate #: 0002890710					VIC/BDIV/12/1473		
Thermal performance specifications							
Unit number	Number of Bedrooms	Floor area (M <sup>2</sup> )		Predict. loads (MJ/M <sup>2</sup> /y)		Star Rating	Thermal Comfort Upgrades
		Con.	Uncon.	Heat	Cool (Sens & Lat)		
21807	1	54	0	52	19.5	4.7	None
21808	1	51	0	53.6	10.4	5.2	None
21809	1	51	0	50.8	11	5.3	None
21810	2	82	0	49.2	18	4.9	None
21811	2	83	0	54.8	24.2	4.4	None
21812	2	75	0	62.9	8.9	4.7	None
21901	2	81	0	56	20	4.4	None
21902	3	113	0	62	34	3.8	None
21903	2	78	0	53.2	16.7	4.8	None
21905	2	77	0	44	12	5.7	None
21906	1	61	0	58.9	12.8	4.7	None
21907	1	54	0	50.2	20.1	4.8	None
21908	1	51	0	53.6	10.3	5.2	None
21909	1	51	0	51	10.9	5.3	None
21910	2	82	0	50	18.3	4.9	None
21911	2	83	0	55	24.4	4.4	None
21912	2	75	0	63.1	8.7	4.7	None
22001	2	81	0	56	20	4.4	None
22002	3	113	0	63	34	3.8	None
22003	2	78	0	53.2	16.7	4.8	None
22005	2	77	0	44	12	5.7	None
22006	1	61	0	59	12.7	4.7	None
22007	1	54	0	50.4	20.3	4.8	None
22008	1	51	0	53.7	10.2	5.2	None
22009	1	51	0	51.2	11	5.3	None
22010	2	82	0	50.1	18	4.9	None
22011	2	83	0	55.2	24.3	4.4	None
22012	2	75	0	63.3	8.8	4.7	None
22101	2	81	0	56	20	4.4	None
22102	3	113	0	63	34	3.8	None
22103	2	78	0	53.3	16.7	4.8	None
22105	2	77	0	45	12	5.7	None
22106	1	61	0	54.5	12.6	4.9	None
22107	1	54	0	50.5	19.8	4.8	None
22108	1	51	0	54	10.2	5.2	None
22109	1	51	0	51.4	10.9	5.3	None



**Thermal Comfort Results**  
**Proposed Residential Development**  
**2 Figtree Drive**  
**Sydney Olympic Park NSW 2127**

Issued in accordance with **BASIX** Thermal Comfort Simulation Method

Certificate #: 0002890710					VIC/BDAV/12/1473		
Thermal performance specifications							
Unit number	Number of Bedrooms	Floor area (M <sup>2</sup> )		Predict. loads (MJ/M <sup>2</sup> /y)		Star Rating	Thermal Comfort Upgrades
		Con.	Uncon.	Heat	Cool (Sens & Lat)		
22110	2	82	0	50.3	17.7	4.9	None
22111	2	83	0	55.4	24.3	4.4	None
22112	2	75	0	63.5	8.8	4.7	None
22201	2	81	0	56	19	4.4	None
22202	3	113	0	63	34	3.8	None
22203	2	78	0	53	17	4.8	None
22205	2	77	0	45	12	5.7	None
22206	1	61	0	62.4	12.4	4.5	None
22207	1	54	0	53.6	20	4.6	None
22208	1	51	0	56.8	10.4	4.9	None
22209	1	51	0	51.3	10.9	5.3	None
22210	2	82	0	50.5	17.5	4.9	None
22211	2	83	0	55.6	24.4	4.4	None
22212	2	75	0	63.7	9	4.7	None
22301	2	81	0	57	19	4.4	None
22302	3	113	0	63	34	3.8	None
22303	2	78	0	53	17	4.9	None
22305	2	77	0	45	12	5.6	None
22306	3	110	0	46.7	9.9	5.7	None
22307	1	50	0	53.3	11.4	5.1	None
22308	1	50	0	50.4	11.6	5.3	None
22309	2	82	0	50.7	17.9	4.9	None
22310	2	83	0	55.8	24.3	4.4	None
22311	2	75	0	63.9	8.9	4.7	None
22401	2	81	0	53.3	16.7	4.8	Performance glazing to living,kitchen dining area
22402	3	113	0	60.2	18.6	4.4	Performance glazing to living,kitchen dining area
22403	2	78	0	66	16	4.3	None
22405	2	77	0	58	11	4.9	None
22406	3	110	0	46.8	10	5.6	None
22407	1	50	0	53.4	11.3	5.1	None
22408	1	50	0	52.1	11.7	5.2	None
22409	2	82	0	50.8	17.6	4.9	None
22410	2	83	0	55.8	24.3	4.4	None
22411	2	75	0	64.1	9	4.7	None
22501	1	54	0	63.1	23.6	4.1	Grey performance glazing throughout
22502	3	113	0	52.5	11.5	5.2	None

**Thermal Comfort Results**  
**Proposed Residential Development**  
**2 Figtree Drive**  
**Sydney Olympic Park NSW 2127**

Issued in accordance with **BASIX** Thermal Comfort Simulation Method

Certificate #: 0002890710					VIC/BDIV/12/1473		
Thermal performance specifications							
Unit number	Number of Bedrooms	Floor area (M <sup>2</sup> )		Predict. loads (MJ/M <sup>2</sup> /y)		Star Rating	Thermal Comfort Upgrades
		Con.	Uncon.	Heat	Cool (Sens & Lat)		
22503	1	50	0	53.7	11.3	5.1	None
22505	1	50	0	52.3	11.7	5.2	None
22506	2	82	0	50.3	17.8	4.9	None
22507	2	83	0	56.3	23.9	4.4	None
22508	2	75	0	57.9	8.9	4.9	None
22601	1	54	0	63.1	23.5	4.1	Grey performance glazing throughout
22602	3	110	0	47	9.9	5.6	None
22603	1	50	0	53.6	11.3	5.1	None
22605	1	50	0	52.3	11.7	5.2	None
22606	2	82	0	50.3	17.9	4.9	None
22607	2	83	0	56.2	23.9	4.4	None
22608	2	75	0	57.9	8.9	4.9	None
22701	1	54	0	63.3	23.2	4.1	Grey performance glazing throughout
22702	3	110	0	47.1	9.9	5.6	None
22703	1	50	0	53.6	11.3	5.1	None
22705	1	50	0	52.3	11.6	5.2	None
22706	2	82	0	50.4	17.7	4.9	None
22707	2	83	0	56.4	23.9	4.3	None
22708	2	75	0	58.1	8.9	4.9	None
22801	3	133	0	63.5	23.3	4.1	Grey performance glazing throughout
22802	3	110	0	47.3	9.8	5.6	None
22803	1	50	0	53.7	10.9	5.1	None
22805	1	50	0	52.4	11.6	5.2	None
22806	2	82	0	50.6	17.8	4.9	None
22807	2	83	0	56.7	23.9	4.3	None
22901	3	133	0	63.7	22.9	4.1	Grey performance glazing throughout
22902	3	110	0	47.4	9.9	5.6	None
22903	1	50	0	53.9	11	5.1	None
22905	1	50	0	52.6	11.5	5.2	None
22906	2	82	0	51.6	17	4.9	None
22907	2	83	0	56.9	23.7	4.3	None
23001	3	133	0	63.7	22.9	4.1	Grey performance glazing throughout
23002	3	110	0	45.1	10.8	5.7	None
23003	1	50	0	54.2	11.1	5.1	None
23005	1	50	0	52.9	11.4	5.2	None
23006	2	82	0	51.5	17.3	4.9	None

**Thermal Comfort Results**  
**Proposed Residential Development**  
**2 Figtree Drive**  
**Sydney Olympic Park NSW 2127**

Issued in accordance with **BASIX** Thermal Comfort Simulation Method

Certificate #: 0002890710						VIC/BDAV/12/1473	
Thermal performance specifications							
Unit number	Number of Bedrooms	Floor area (M <sup>2</sup> )		Predict. loads (MJ/M <sup>2</sup> /y)		Star Rating	Thermal Comfort Upgrades
		Con.	Uncon.	Heat	Cool (Sens & Lat)		
23007	2	83	0	56.9	23.7	4.3	None
23101	3	133	0	63.7	22.8	4.1	Grey performance glazing throughout
23102	3	109	0	45.8	11.6	5.6	None
23103	3	102	0	43.2	10.6	5.9	None
23105	2	82	0	51.7	17	4.9	None
23106	2	83	0	57.1	23.7	4.3	None
23201	3	133	0	63.9	22.8	4.1	Grey performance glazing throughout
23202	3	109	0	54.4	13.5	4.9	None
23203	3	102	0	43.1	10.7	5.8	None
23205	2	82	0	51.8	16.8	4.9	None
23206	2	83	0	57.3	23.6	4.3	None
23301	3	133	0	65.9	15.1	4.3	Grey performance glazing throughout
23302	3	109	0	45.8	12.2	5.5	None
23303	3	102	0	43.1	10.6	5.9	None
23305	2	82	0	51.8	17.1	4.9	None
23306	2	83	0	57.3	23.5	4.3	None
23401	3	133	0	66	14.2	4.3	Grey performance glazing throughout
23402	3	109	0	45.9	12.2	5.4	None
23403	3	102	0	43.3	10.4	5.9	None
23405	2	82	0	51.9	16.8	4.9	None
23406	2	83	0	57.5	23.3	4.3	None
23501	3	133	0	66	13.5	4.4	Grey performance glazing throughout R2.5 ceiling insulation
23502	3	109	0	57.9	12	4.8	R2.5 ceiling insulation
23503	3	102	0	64.3	16.5	4.3	None
23505	2	82	0	55.2	14.6	4.8	Grey performance glazing to south and clear performance glazing to east
23506	2	83	0	55.1	16.8	4.7	None
Building 3							
30101	2	64	0	53	26	4.4	None
30102	1	59	0	36	46	4.3	None
30103	1	59	0	40	19	5.4	None
30105	2	83	0	53	13	5.1	None
30201	2	79	0	47	17	5.2	None
30202	1	59	0	38	43	4.3	None
30203	1	59	0	36	19	5.8	None
30205	1	50	0	53	15	4.9	None

**Thermal Comfort Results**  
**Proposed Residential Development**  
**2 Figtree Drive**  
**Sydney Olympic Park NSW 2127**

Issued in accordance with **BASIX** Thermal Comfort Simulation Method

Certificate #: 0002890710					VIC/BDV/12/1473		
Thermal performance specifications							
Unit number	Number of Bedrooms	Floor area (M <sup>2</sup> )		Predict. loads (MJ/M <sup>2</sup> /y)		Star Rating	Thermal Comfort Upgrades
		Con.	Uncon.	Heat	Cool (Sens & Lat)		
30206	1	50	0	59	15	4.6	None
30207	1	50	0	59	21	4.4	None
30208	3	118	0	28.5	22.4	6.0	None
30209	2	87	0	5.8	19.6	4.4	Performance glazing throughout
30301	2	79	0	44	16	5.4	None
30302	1	59	0	44	29	4.7	None
30303	1	59	0	36	19	5.8	None
30305	1	50	0	54	15	4.9	None
30306	1	50	0	54	15	4.9	None
30307	1	50	0	55	16	4.8	None
30308	3	118	0	35	17	5.9	None
30309	2	87	0	50	16	5.0	None
30401	2	79	0	44	16	5.4	None
30402	1	59	0	45	28	4.7	None
30403	1	56	0	46	15	5.4	None
30405	1	50	0	55	14	4.9	None
30406	1	50	0	55	14	4.9	None
30407	1	50	0	55	17	4.7	None
30408	3	118	0	36	16	5.9	None
30409	2	87	0	52	15	4.9	None
30501	2	79	0	45	16	5.4	None
30501	1	59	0	46	27	4.7	None
30503	1	56	0	47	15	5.3	None
30505	1	50	0	59	15	4.6	None
30506	1	50	0	55	14	4.9	None
30507	1	50	0	56	16	4.7	None
30508	3	118	0	36	16	5.9	None
30509	2	87	0	52	15	4.9	None
30601	2	79	0	46	15	5.4	None
30602	1	59	0	46	26	4.7	None
30603	1	56	0	47	15	5.3	None
30605	1	50	0	59	15	4.6	None
30606	1	50	0	56	14	4.8	None
30607	1	50	0	57	16	4.6	None
30608	3	118	0	37	16	5.9	None
30609	2	87	0	52	15	4.9	None

# Thermal Comfort Results

Proposed Residential Development  
2 Figtree Drive  
Sydney Olympic Park NSW 2127

Issued in accordance with **BASIX** Thermal Comfort Simulation Method

Certificate #: 0002890710						VIC/BDAV/12/1473	
Thermal performance specifications							
Unit number	Number of Bedrooms	Floor area (M <sup>2</sup> )		Predict. loads (MJ/M <sup>2</sup> /y)		Star Rating	Thermal Comfort Upgrades
		Con.	Uncon.	Heat	Cool (Sens & Lat)		
30701	2	79	0	46	15	5.4	None
30702	1	59	0	55	25	4.4	None
30703	1	56	0	48	15	5.3	None
30705	1	50	0	60	15	4.6	None
30706	1	50	0	57	14	4.8	None
30707	1	50	0	58	16	4.6	None
30708	3	118	0	37	16	5.9	None
30709	2	87	0	53	14	4.9	None
30801	1	53	0	60	39	3.7	Performance glazing to living, dining, kitchen
30802	1	49	0	59	18	4.4	None
30803	2	83	0	43	23	5.0	None
30805	3	112	0	66	22	4.0	Performance glazing to living, dining, kitchen
30806	2	76	0	58	44	3.6	None
Building 5							
50101	1	52	0	20.9	11.9	7.4	None
50102	1	49	0	41.5	19	5.4	None
50103	2	75	0	21	13.1	7.4	None
50105	1	55	0	22.5	26.4	6.2	None
50106	2	75	0	28	18.4	6.4	None
50107	1	52	0	39.4	19.5	5.4	None
50108	1	52	0	55.9	21.3	4.4	None
50201	2	98	0	58.2	12.9	4.8	None
50202	3	143	0	32.4	28.8	5.3	None
50203	2	97	0	17	15	7.5	None
50205	2	97	0	16.7	15.4	7.4	None
50206	2	97	0	17	15	7.5	None
50207	2	97	0	17	15	7.5	None
50208	2	100	0	15	18.3	7.4	None
50209	2	82	0	45.9	13.6	5.4	None
50210	2	76	0	20.7	16.6	7.2	None
50211	1	49	0	33.5	23	5.7	None
50212	2	75	0	17.9	11.8	7.7	None
50213	1	55	0	15.7	28.1	6.7	None
50215	2	75	0	27.7	16.5	6.6	None
50216	1	53	0	48	14.7	5.3	None

**Thermal Comfort Results**  
**Proposed Residential Development**  
**2 Figtree Drive**  
**Sydney Olympic Park NSW 2127**

Issued in accordance with **BASIX** Thermal Comfort Simulation Method

Certificate #: 0002890710					VIC/BDV/12/1473		
Thermal performance specifications							
Unit number	Number of Bedrooms	Floor area (M <sup>2</sup> )		Predict. loads (MJ/M <sup>2</sup> /y)		Star Rating	Thermal Comfort Upgrades
		Con.	Uncon.	Heat	Cool (Sens & Lat)		
50217	1	51	0	40.5	20.3	5.4	None
50301	2	76	0	19.2	15.6	7.4	None
50302	1	51	0	32.9	20.7	5.9	None
50303	2	75	0	18.2	11.4	7.7	None
50305	1	55	0	16	28	6.6	None
50306	2	75	0	32.2	13.6	6.4	None
50307	1	52	0	36.7	14.8	5.9	None
50308	1	51	0	39.3	13.6	5.9	None
50401	2	61	0	45.2	15.5	5.4	None
50402	2	79	0	21.4	7.7	7.8	None
50403	1	51	0	13.5	9.2	8.3	None
50405	1	51	0	11.8	9.2	8.4	None
50406	1	51	0	12.7	8.9	8.4	None
50407	1	51	0	12.7	8.9	8.4	None
50408	2	81	0	31.1	13	6.6	None
50409	1	51	0	43.2	14	5.6	None
50410	2	76	0	19.5	14.9	7.4	None
50411	1	51	0	33.5	19.6	5.9	None
50412	2	75	0	18.6	11.1	7.7	None
50413	1	55	0	18.7	23.6	6.8	None
50415	2	75	0	32.1	13	6.4	None
50416	1	52	0	37.4	14.7	5.9	None
50417	1	51	0	39.8	12.9	5.9	None
50501	2	61	0	45.9	14.9	5.4	None
50502	2	79	0	20.4	8	7.8	None
50503	1	51	0	17	9.2	7.9	None
50505	1	51	0	17	9.2	7.9	None
50506	1	51	0	17.2	9	7.9	None
50507	1	51	0	17.2	9	7.9	None
50508	2	81	0	31.1	12.2	6.7	None
50509	1	57	0	42.7	13.7	5.7	None
50510	2	76	0	19.9	14.7	7.4	None
50511	1	51	0	33.8	19.4	5.9	None
50512	2	75	0	18.6	10.8	7.8	None
50513	1	55	0	19.1	23.3	6.8	None
50515	2	75	0	32.4	12.9	6.4	None



**Thermal Comfort Results**  
**Proposed Residential Development**  
**2 Figtree Drive**  
**Sydney Olympic Park NSW 2127**

Issued in accordance with **BASIX** Thermal Comfort Simulation Method

Certificate #: 0002890710				VIC/BDAV/12/1473			
Thermal performance specifications							
Unit number	Number of Bedrooms	Floor area (M <sup>2</sup> )		Predict. loads (MJ/M <sup>2</sup> /y)		Star Rating	Thermal Comfort Upgrades
		Con.	Uncon.	Heat	Cool (Sens & Lat)		
50516	1	52	0	37.4	14.7	5.9	None
50517	1	51	0	40.4	12.8	5.9	None
50601	2	61	0	47.4	14.4	5.3	None
50602	2	80	0	20.8	7.9	7.8	None
50603	1	51	0	15.7	9.1	8.1	None
50605	1	51	0	15.7	9.1	8.1	None
50606	1	51	0	17.2	9	7.9	None
50607	1	51	0	15.7	9.1	8.1	None
50608	2	81	0	31.4	11.9	6.7	None
50609	1	57	0	43.9	13.9	5.5	None
50610	2	76	0	20.2	14.2	7.4	None
50611	1	51	0	34.3	18.6	5.9	None
50612	2	75	0	18.9	10.7	7.8	None
50613	1	55	0	19.6	22.9	6.8	None
50615	2	75	0	33.3	12.7	6.4	None
50616	1	52	0	37.9	14.8	5.9	None
50617	1	51	0	40.8	12.5	5.9	None
50701	2	61	0	47.8	14.3	5.3	None
50702	2	80	0	21.1	7.7	7.8	None
50703	1	51	0	17.6	8.9	7.9	None
50705	1	51	0	17.6	8.9	7.9	None
50706	1	51	0	15.9	8.8	8.2	None
50707	1	51	0	15.9	8.8	8.2	None
50708	2	81	0	33.8	13.3	6.4	None
50709	1	57	0	42.2	13.8	5.7	None
50710	2	76	0	20.4	14.2	7.4	None
50711	1	51	0	34.5	18	5.9	None
50712	2	75	0	19.3	10.5	7.7	None
50713	1	55	0	32	21.8	5.8	None
50715	2	75	0	33.3	12.7	6.4	None
50716	1	52	0	38.3	14.6	5.9	None
50717	1	51	0	41.1	12.4	5.9	None
50801	2	61	0	55.8	14.4	4.8	None
50802	2	82	0	33.5	7.6	6.9	None
50803	1	51	0	18.5	8.8	7.9	None
50805	1	51	0	20.1	8.7	7.8	None

**Thermal Comfort Results**  
**Proposed Residential Development**  
**2 Figtree Drive**  
**Sydney Olympic Park NSW 2127**

Issued in accordance with **BASIX** Thermal Comfort Simulation Method

Certificate #: 0002890710				VIC/BDIV/12/1473			
Thermal performance specifications							
Unit number	Number of Bedrooms	Floor area (M <sup>2</sup> )		Predict. loads (MJ/M <sup>2</sup> /y)		Star Rating	Thermal Comfort Upgrades
		Con.	Uncon.	Heat	Cool (Sens & Lat)		
50806	1	51	0	18.5	8.8	7.9	None
50807	1	51	0	18.5	8.8	7.9	None
50808	2	81	0	43.8	13.2	5.6	None
50809	1	57	0	54.7	12.8	4.9	None
50810	2	76	0	20.6	13.9	7.4	None
50811	1	51	0	34.9	17.5	5.9	None
50812	2	75	0	19	10.6	7.7	None
50813	2	75	0	31.6	12.8	6.6	None
50815	1	52	0	38.6	14.5	5.9	None
50816	1	51	0	41.3	12.4	5.9	None
50901A	2	77	0	64.6	38.3	3.6	None
50901B	1	45	0	29.6	19.4	6.2	None
50902A	1	50	0	44.3	21	5.1	None
50902B	1	53	0	60.8	20.1	4.3	None
50903	2	76	0	20.8	13.7	7.4	None
50905	1	51	0	36.8	15.8	5.9	None
50906	2	75	0	20.2	9.6	7.7	None
50907	2	75	0	31.3	12.3	6.7	None
50908	1	52	0	39	14.1	5.9	None
50909	1	51	0	41.7	12.2	5.8	None
51001	1	51	0	41.4	11.6	5.9	None
51002	2	70	0	34.1	16.1	6.1	None
51003	1	51	0	27.9	8.2	7.3	None
51005	1	51	0	24.3	7.7	7.5	None
51006	3	100	0	27.8	12.4	6.9	None
51007	2	76	0	22.3	12.2	7.4	None
51008	1	51	0	36.9	15.8	5.9	None
51009	2	82	0	31.6	19.5	5.9	None
51010	3	121	0	65.4	18.4	4.2	None
51011	1	52	0	41.2	13	5.8	None
51012	1	51	0	43.6	10.2	5.8	None
51101	1	54	0	41.4	11.6	5.9	None
51102	2	70	0	25.7	16.3	6.8	None
51103	1	51	0	19.8	8.2	7.9	None
51105	1	51	0	17.8	7.8	8.1	None
51106	3	100	0	29.8	12.6	6.8	None

**Thermal Comfort Results**  
**Proposed Residential Development**  
**2 Figtree Drive**  
**Sydney Olympic Park NSW 2127**

Issued in accordance with **BASIX** Thermal Comfort Simulation Method

Certificate #: 0002890710					VIC/BDIV/12/1473		
Thermal performance specifications							
Unit number	Number of Bedrooms	Floor area (M <sup>2</sup> )		Predict. loads (MJ/M <sup>2</sup> /y)		Star Rating	Thermal Comfort Upgrades
		Con.	Uncon.	Heat	Cool (Sens & Lat)		
51107	2	76	0	22.3	12.1	7.4	None
51108	1	51	0	37.1	15.8	5.9	None
51109	2	82	0	34.9	19.6	5.8	None
51110	3	121	0	48.1	15.5	5.2	None
51111	1	52	0	41.3	13.1	5.8	None
51112	1	51	0	43.7	10.1	5.8	None
51201	1	54	0	41.7	11.4	5.9	None
51202	2	70	0	25.8	15.9	6.8	None
51203	1	51	0	19.9	8.6	7.8	None
51205	1	51	0	19.9	8.3	7.9	None
51206	3	100	0	30.3	12.4	6.7	None
51207	2	76	0	22.5	11.9	7.4	None
51208	1	51	0	37.2	15.9	5.9	None
51209	2	82	0	35.2	19.7	5.8	None
51210	3	121	0	49.1	15.4	5.1	None
51211	1	52	0	41.7	13.1	5.8	None
51212	1	51	0	44	10.1	5.8	None
51301	1	54	0	43.3	10.2	5.9	None
51302	2	70	0	26.3	15.8	6.8	None
51303	1	51	0	20.1	8.2	7.9	None
51305	1	51	0	20.1	8.2	7.9	None
51306	3	100	0	30.5	12.3	6.7	None
51307	2	76	0	22.5	11.9	7.4	None
51308	1	49	0	37.4	16	5.9	None
51309	2	82	0	35.3	19.6	5.8	None
51310	3	121	0	49.2	15.3	5.1	None
51311	1	52	0	41.8	13	5.8	None
51312	1	51	0	44.1	9.8	5.8	None
51401	1	54	0	43.6	9.9	5.9	None
51402	2	70	0	26.1	16.5	5.8	None
51403	1	51	0	20.1	8.2	7.9	None
51405	1	51	0	20	8.5	7.8	None
51406	3	100	0	30.3	12.5	6.7	None
51407	2	76	0	22.7	12	7.4	None
51408	1	51	0	37.3	16	5.9	None
51409	2	82	0	35.5	19.5	5.8	None

**Thermal Comfort Results**  
**Proposed Residential Development**  
**2 Figtree Drive**  
**Sydney Olympic Park NSW 2127**

Issued in accordance with **BASIX** Thermal Comfort Simulation Method

Certificate #: 0002890710					VIC/BDAV/12/1473		
Thermal performance specifications							
Unit number	Number of Bedrooms	Floor area (M <sup>2</sup> )		Predict. loads (MJ/M <sup>2</sup> /y)		Star Rating	Thermal Comfort Upgrades
		Con.	Uncon.	Heat	Cool (Sens & Lat)		
51410	3	121	0	50	15.4	5.1	None
51411	1	52	0	42.1	13.1	5.8	None
51412	1	51	0	44.4	9.9	5.8	None
51501	1	54	0	43.7	9.9	5.9	None
51502	2	70	0	28.9	16.6	6.4	None
51503	1	51	0	20.4	8.1	7.8	None
51505	1	51	0	20.4	8.1	7.8	None
51506	3	100	0	30.5	12.3	6.7	None
51507	2	76	0	22.8	11.7	7.4	None
51508	1	51	0	37.5	16	5.9	None
51509	2	82	0	35.6	19.3	5.8	None
51510	3	121	0	49.6	15.6	5.1	None
51511	1	52	0	42.3	13.1	5.7	None
51512	1	51	0	44.5	9.8	5.8	None
51601	1	54	0	43.8	9.9	5.9	None
51602	1	70	0	29	15.7	6.5	None
51603	1	51	0	22.9	7.7	7.7	None
51605	1	51	0	22.5	7.7	7.7	None
51606	3	100	0	30.7	12.2	6.7	None
51607	2	76	0	22.5	11.8	7.4	None
51608	1	51	0	37.5	15.9	5.9	None
51609	2	82	0	35.8	19.2	5.8	None
51610	3	121	0	49.8	15.2	5.1	None
51611	1	52	0	42.4	13	5.7	None
51612	1	51	0	44.6	9.6	5.8	None
51701	1	54	0	43.9	9.8	5.9	None
51702	2	89	0	20.9	6.7	7.9	None
51703	2	84	0	26.7	7.3	7.4	None
51705	3	100	0	30.8	12.3	6.7	None
51706	2	76	0	23	11.8	7.4	None
51707	1	51	0	37.6	15.8	5.9	None
51708	2	82	0	35.9	19	5.8	None
51709	3	121	0	49.9	15.2	5.1	None
51710	1	52	0	42.6	12.8	5.7	None
51711	1	51	0	44.8	9.7	5.8	None
51801	1	54	0	44.1	9.9	5.8	None

**Thermal Comfort Results**  
**Proposed Residential Development**  
**2 Figtree Drive**  
**Sydney Olympic Park NSW 2127**

Issued in accordance with **BASIX** Thermal Comfort Simulation Method

Certificate #: 0002890710					VIC/BDAV/12/1473		
Thermal performance specifications							
Unit number	Number of Bedrooms	Floor area (M <sup>2</sup> )		Predict. loads (MJ/M <sup>2</sup> /y)		Star Rating	Thermal Comfort Upgrades
		Con.	Uncon.	Heat	Cool (Sens & Lat)		
51802	2	89	0	20.5	7.8	7.9	None
51803	2	84	0	26.1	7.5	7.4	None
51805	3	100	0	30.9	12.2	6.7	None
51806	2	76	0	23	11.8	7.3	None
51807	1	51	0	37.6	16.2	5.8	None
51808	2	82	0	35.9	19	5.8	None
51809	3	121	0	50.9	15.1	4.9	None
51810	1	52	0	42.7	12.9	5.7	None
51811	1	51	0	44.6	9.6	5.8	None
51901	1	54	0	40.4	9.9	6.1	None
51902	2	89	0	20.9	7.9	7.8	None
51903	2	84	0	26.5	7.5	7.4	None
51905	3	100	0	30.9	12.3	6.7	None
51906	2	76	0	23.1	11.7	7.4	None
51907	1	51	0	37.4	16.2	5.9	None
51908	2	82	0	36	18.8	5.8	None
51909	3	121	0	50	15.1	5.1	None
51910	1	52	0	42.9	12.7	5.7	None
51911	1	51	0	45	9.6	5.8	None
52001	1	54	0	42.8	11.1	5.8	None
52002	2	89	0	21	7.9	4.4	None
52003	2	84	0	26.9	7.3	7.4	None
52005	3	100	0	29.9	12.3	6.8	None
52006	2	76	0	23.1	11.7	7.4	None
52007	1	51	0	37.1	16.2	5.9	None
52008	2	82	0	36.1	18.7	5.8	None
52009	3	121	0	50.2	14.9	5.1	None
52010	1	52	0	43	12.9	5.7	None
52011	1	51	0	45.1	9.4	5.8	None
52101	1	54	0	44.2	9.8	5.8	None
52102	2	89	0	21.5	7.9	7.8	None
52103	2	84	0	27	7.3	7.4	None
52105	3	100	0	31.1	12.4	6.7	None
52106	2	76	0	23.2	11.6	7.3	None
52107	1	51	0	36.8	15.9	5.9	None
52108	2	82	0	36.3	18.6	5.8	None

**Thermal Comfort Results**  
**Proposed Residential Development**  
**2 Figtree Drive**  
**Sydney Olympic Park NSW 2127**

Issued in accordance with **BASIX** Thermal Comfort Simulation Method

Certificate #: 0002890710				VIC/BDAV/12/1473			
Thermal performance specifications							
Unit number	Number of Bedrooms	Floor area (M <sup>2</sup> )		Predict. loads (MJ/M <sup>2</sup> /y)		Star Rating	Thermal Comfort Upgrades
		Con.	Uncon.	Heat	Cool (Sens & Lat)		
52109	3	121	0	49.9	14.7	5.1	None
52110	1	52	0	43.2	12.9	5.7	None
52111	1	51	0	45.2	9.2	5.8	None
52201	1	54	0	44.1	9.9	5.8	None
52202	2	89	0	21.3	7.8	7.8	None
52203	2	84	0	27.1	7.3	7.4	None
52205	3	100	0	31.3	12.1	6.7	None
52206	2	76	0	23.3	11.4	7.4	None
52207	1	51	0	36.7	15.4	5.9	None
52208	2	82	0	36.4	18.4	5.8	None
52209	3	121	2	49.4	15.8	5.1	None
52210	1	52	0	43.3	12.9	5.7	None
52211	1	51	0	43.7	9.1	5.9	None
52301	1	54	0	58.4	9.5	4.9	None
52302	2	89	0	34.6	8.1	6.7	None
52303	2	84	0	41	7.9	6.2	None
52305	3	100	0	45.1	11.6	5.6	None
52306	2	76	0	36.3	10.7	6.4	None
52307	1	51	0	50.3	14.6	5.1	None
52308	2	82	0	51.9	17.6	4.9	None
52309	3	121	0	65.1	16.5	4.3	None
52310	1	52	0	61.4	12	4.6	None
52311	1	51	0	59.6	10	4.8	None



# Nationwide House Energy Rating Scheme\* — Class 2 summary



Certificate number: **0003485120**

Certificate Date: **16 Dec 2018**

★ Average Star rating: **5.6**

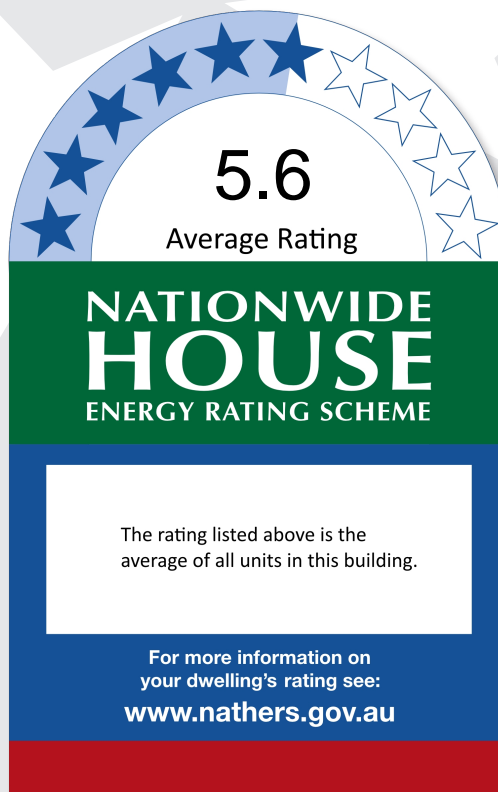
## Assessor details

Accreditation number: **VIC/BDAV/12/1473**  
Name: **Tracey Cools**  
Organisation: **Efficient Living**  
Email: **admin@efficientliving.com.au**  
Phone: **(02) 9970 6181**  
Declaration of interest: **None**  
Software: **BERS Pro v4.3.0.2 (3.13)**  
**BERS Pro v4.3.0.1 (3.13)**  
AAO: **BDAV**

## Dwelling details

Street: **2 Figtree Drive**  
Suburb: **Sydney Olympic Park**  
State: **NSW**  
Postcode: **2127**

Scan to access this certificate online and confirm this is valid.



## Summary of all dwellings

### Certificate Details

Certificate number	Unit number	Heating load	Cooling load	Total load	Star Rating
0000798769-03	1.01.2	35.0	22.0	56.0	5.7
0000798801-03	1.01.3	31.0	18.0	49.0	6.2
0000798835-03	1.01.4	31.0	18.0	49.0	6.2
0000798868-03	1.01.5	38.0	19.0	57.0	5.7
0002765071	1.03.1	61.3	20.9	82.2	4.3
0002765113	1.03.2	57.0	20.7	77.7	4.4
0002765154	1.03.3	45.0	20.3	65.3	5.1
0002765188	1.03.4	44.3	20.3	64.6	5.1
0002765204	1.03.5	44.3	20.3	64.6	5.1
0002765246	1.03.6	44.2	31.6	75.8	4.4
0002765097	1.03.7	65.7	31.5	97.2	3.8
0000799114-03	1.04.1	65.0	19.0	85.0	4.2
0000799148-03	1.04.2	48.0	15.0	63.0	5.3
0000799171-03	1.04.3	39.0	14.0	52.0	5.9
0000799205-03	1.04.4	38.0	13.0	51.0	5.9

# BASIX<sup>®</sup>Certificate

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

## Multi Dwelling

Certificate number: 650643M\_15

This certificate confirms that the proposed development will meet the NSW government's requirements for sustainability, if it is built in accordance with the commitments set out below. Terms used in this certificate, or in the commitments, have the meaning given by the document entitled "BASIX Definitions" dated 06/10/2017 published by the Department. This document is available at [www.basix.nsw.gov.au](http://www.basix.nsw.gov.au)

This certificate is a revision of certificate number 650643M\_03 lodged with the consent authority or certifier on 24 September 2015 with application SSD 7033.

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

Secretary

Date of issue: Monday, 17 December 2018

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



### Project summary

Project name	2 Fig Tree Drive, Sydney Olympic Park_15
Street address	2 Fig Tree Drive Sydney Olympic Park 2127
Local Government Area	Auburn Council
Plan type and plan number	deposited 787402
Lot no.	22
Section no.	-
No. of residential flat buildings	4
No. of units in residential flat buildings	695
No. of multi-dwelling houses	0
No. of single dwelling houses	0

### Project score

Water	✓ 61	Target 40
Thermal Comfort	✓ Pass	Target Pass
Energy	✓ 21	Target 20

Water score comprises:

- Sydney Olympic Park Authority reticulated alternative water: 27.0
- Other water efficiency commitments: 34.0

### Certificate Prepared by

Name / Company Name: Efficient Living Pty Ltd

ABN (if applicable): 82 116 346 082

# Description of project

## Project address

Project name	2 Fig Tree Drive, Sydney Olympic Park_15
Street address	2 Fig Tree Drive Sydney Olympic Park 2127
Local Government Area	Auburn Council
Plan type and plan number	deposited 787402
Lot no.	22
Section no.	-

## Project type

No. of residential flat buildings	4
No. of units in residential flat buildings	695
No. of multi-dwelling houses	0
No. of single dwelling houses	0

## Site details

Site area (m <sup>2</sup> )	12697
Roof area (m <sup>2</sup> )	7237.48
Non-residential floor area (m <sup>2</sup> )	1642.5
Residential car spaces	655
Non-residential car spaces	75

## Common area landscape

Common area lawn (m <sup>2</sup> )	1007.0
Common area garden (m <sup>2</sup> )	2538.0
Area of indigenous or low water use species (m <sup>2</sup> )	0.0

## Assessor details

Assessor number	BDAV/12/1473
Certificate number	0003485120
Climate zone	56

## Project score

Water	✓ 61	Target 40
Thermal Comfort	✓ Pass	Target Pass
Energy	✓ 21	Target 20

Water score comprises:

- Sydney Olympic Park Authority reticulated alternative water: 27.0
- Other water efficiency commitments: 34.0

## Description of project

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

### Residential flat buildings - Building 3, 57 dwellings, 9 storeys above ground

Dwelling no.	No. of bedrooms	Conditioned floor area (m <sup>2</sup> )	Unconditioned floor area (m <sup>2</sup> )	Area of garden & lawn (m <sup>2</sup> )	Indigenous species (min area m <sup>2</sup> )
30101	2	64.0	0.0	0.0	0.0
30201	2	79.0	0.0	0.0	0.0
30206	1	50.0	0.0	0.0	0.0
30301	2	79.0	0.0	0.0	0.0
30306	1	50.0	0.0	0.0	0.0
30401	2	79.0	0.0	0.0	0.0
30406	1	50.0	0.0	0.0	0.0
30501	2	79.0	0.0	0.0	0.0
30506	1	50.0	0.0	0.0	0.0
30601	2	79.0	0.0	0.0	0.0
30606	1	50.0	0.0	0.0	0.0
30701	2	79.0	0.0	0.0	0.0
30706	1	50.0	0.0	0.0	0.0
30801	1	53.0	0.0	0.0	0.0
30806	2	76.0	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m <sup>2</sup> )	Unconditioned floor area (m <sup>2</sup> )	Area of garden & lawn (m <sup>2</sup> )	Indigenous species (min area m <sup>2</sup> )
30102	1	59.0	0.0	0.0	0.0
30202	1	59.0	0.0	0.0	0.0
30207	1	50.0	0.0	0.0	0.0
30302	1	59.0	0.0	0.0	0.0
30307	1	50.0	0.0	0.0	0.0
30402	1	59.0	0.0	0.0	0.0
30407	1	50.0	0.0	0.0	0.0
30502	1	59.0	0.0	0.0	0.0
30507	1	50.0	0.0	0.0	0.0
30602	1	59.0	0.0	0.0	0.0
30607	1	50.0	0.0	0.0	0.0
30702	1	59.0	0.0	0.0	0.0
30707	1	50.0	0.0	0.0	0.0
30802	1	49.0	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m <sup>2</sup> )	Unconditioned floor area (m <sup>2</sup> )	Area of garden & lawn (m <sup>2</sup> )	Indigenous species (min area m <sup>2</sup> )
30103	1	59.0	0.0	0.0	0.0
30203	1	59.0	0.0	0.0	0.0
30208	3	118.0	0.0	0.0	0.0
30303	1	59.0	0.0	0.0	0.0
30308	3	118.0	0.0	0.0	0.0
30403	1	56.0	0.0	0.0	0.0
30408	3	118.0	0.0	0.0	0.0
30503	1	56.0	0.0	0.0	0.0
30508	3	118.0	0.0	0.0	0.0
30603	1	56.0	0.0	0.0	0.0
30608	3	118.0	0.0	0.0	0.0
30703	1	56.0	0.0	0.0	0.0
30708	3	118.0	0.0	0.0	0.0
30803	2	83.0	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m <sup>2</sup> )	Unconditioned floor area (m <sup>2</sup> )	Area of garden & lawn (m <sup>2</sup> )	Indigenous species (min area m <sup>2</sup> )
30105	2	83.0	0.0	0.0	0.0
30205	1	50.0	0.0	0.0	0.0
30209	2	87.0	0.0	0.0	0.0
30305	1	50.0	0.0	0.0	0.0
30309	2	87.0	0.0	0.0	0.0
30405	1	50.0	0.0	0.0	0.0
30409	2	87.0	0.0	0.0	0.0
30505	1	50.0	0.0	0.0	0.0
30509	2	87.0	0.0	0.0	0.0
30605	1	50.0	0.0	0.0	0.0
30609	2	87.0	0.0	0.0	0.0
30705	1	50.0	0.0	0.0	0.0
30709	2	87.0	0.0	0.0	0.0
30805	3	112.0	0.0	0.0	0.0

### Residential flat buildings - Building 1, 69 dwellings, 12 storeys above ground

Dwelling no.	No. of bedrooms	Conditioned floor area (m <sup>2</sup> )	Unconditioned floor area (m <sup>2</sup> )	Area of garden & lawn (m <sup>2</sup> )	Indigenous species (min area m <sup>2</sup> )
10101	2	112.0	0.0	0.0	0.0
10106	2	107.0	0.0	0.0	0.0
10305	1	52.0	0.0	0.0	0.0
10401	2	74.0	0.0	0.0	0.0
10405	1	51.0	0.0	0.0	0.0
10502	2	83.0	0.0	0.0	0.0
10507	2	83.0	0.0	0.0	0.0
10603	1	52.0	0.0	0.0	0.0
10608	2	74.0	0.0	0.0	0.0
10705	1	52.0	0.0	0.0	0.0
10801	2	74.0	0.0	0.0	0.0
10806	1	52.0	0.0	0.0	0.0
10902	2	83.0	0.0	0.0	0.0
10907	2	83.0	0.0	0.0	0.0
11003	1	51.0	0.0	0.0	0.0
11008	2	74.0	0.0	0.0	0.0
11105	3	108.0	0.0	0.0	0.0
11205	3	108.0	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m <sup>2</sup> )	Unconditioned floor area (m <sup>2</sup> )	Area of garden & lawn (m <sup>2</sup> )	Indigenous species (min area m <sup>2</sup> )
10102	3	126.0	0.0	0.0	0.0
10301	2	74.0	0.0	0.0	0.0
10306	1	52.0	0.0	0.0	0.0
10402	2	80.0	0.0	0.0	0.0
10406	2	80.0	0.0	0.0	0.0
10503	1	52.0	0.0	0.0	0.0
10508	2	74.0	0.0	0.0	0.0
10605	1	52.0	0.0	0.0	0.0
10701	2	74.0	0.0	0.0	0.0
10706	1	52.0	0.0	0.0	0.0
10802	2	83.0	0.0	0.0	0.0
10807	2	83.0	0.0	0.0	0.0
10903	1	52.0	0.0	0.0	0.0
10908	2	74.0	0.0	0.0	0.0
11005	1	51.0	0.0	0.0	0.0
11101	3	108.0	0.0	0.0	0.0
11201	3	108.0	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m <sup>2</sup> )	Unconditioned floor area (m <sup>2</sup> )	Area of garden & lawn (m <sup>2</sup> )	Indigenous species (min area m <sup>2</sup> )
10103	2	107.0	0.0	0.0	0.0
10302	2	83.0	0.0	0.0	0.0
10307	2	83.0	0.0	0.0	0.0
10403	1	51.0	0.0	0.0	0.0
10407	2	74.0	0.0	0.0	0.0
10505	1	52.0	0.0	0.0	0.0
10601	2	74.0	0.0	0.0	0.0
10606	1	52.0	0.0	0.0	0.0
10702	2	83.0	0.0	0.0	0.0
10707	2	83.0	0.0	0.0	0.0
10803	1	52.0	0.0	0.0	0.0
10808	2	74.0	0.0	0.0	0.0
10905	1	52.0	0.0	0.0	0.0
11001	2	76.0	0.0	0.0	0.0
11006	1	51.0	0.0	0.0	0.0
11102	2	79.0	0.0	0.0	0.0
11202	2	79.0	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m <sup>2</sup> )	Unconditioned floor area (m <sup>2</sup> )	Area of garden & lawn (m <sup>2</sup> )	Indigenous species (min area m <sup>2</sup> )
10105	2	107.0	0.0	0.0	0.0
10303	1	52.0	0.0	0.0	0.0
10308	2	76.0	0.0	0.0	0.0
10404	1	51.0	0.0	0.0	0.0
10501	2	74.0	0.0	0.0	0.0
10506	1	52.0	0.0	0.0	0.0
10602	2	83.0	0.0	0.0	0.0
10607	2	83.0	0.0	0.0	0.0
10703	1	52.0	0.0	0.0	0.0
10708	2	74.0	0.0	0.0	0.0
10805	1	52.0	0.0	0.0	0.0
10901	2	74.0	0.0	0.0	0.0
10906	1	52.0	0.0	0.0	0.0
11002	2	83.0	0.0	0.0	0.0
11007	2	80.0	0.0	0.0	0.0
11103	2	79.0	0.0	0.0	0.0
11203	2	79.0	0.0	0.0	0.0

## Residential flat buildings - Building 2, 311 dwellings, 35 storeys above ground

Dwelling no.	No. of bedrooms	Conditioned floor area (m <sup>2</sup> )	Unconditioned floor area (m <sup>2</sup> )	Area of garden & lawn (m <sup>2</sup> )	Indigenous species (min area m <sup>2</sup> )
20101	2	81.0	0.0	0.0	0.0
20106	2	76.0	0.0	0.0	0.0
20201	2	81.0	0.0	0.0	0.0
20206	1	61.0	0.0	0.0	0.0
20210	2	83.0	0.0	0.0	0.0
20303	2	81.0	0.0	0.0	0.0
20308	2	76.0	0.0	0.0	0.0
20401	2	81.0	0.0	0.0	0.0
20406	1	61.0	0.0	0.0	0.0
20410	2	83.0	0.0	0.0	0.0
20503	2	81.0	0.0	0.0	0.0
20508	2	76.0	0.0	0.0	0.0
20601	2	81.0	0.0	0.0	0.0
20606	1	61.0	0.0	0.0	0.0
20610	2	83.0	0.0	0.0	0.0
20703	2	81.0	0.0	0.0	0.0
20708	2	76.0	0.0	2.0	0.0
20801	2	81.0	0.0	6.0	0.0
20806	1	61.0	0.0	0.0	0.0
20810	2	83.0	0.0	0.0	0.0
20903	2	81.0	0.0	0.0	0.0
20908	2	76.0	0.0	0.0	0.0
21001	2	81.0	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m <sup>2</sup> )	Unconditioned floor area (m <sup>2</sup> )	Area of garden & lawn (m <sup>2</sup> )	Indigenous species (min area m <sup>2</sup> )
20102	3	102.0	0.0	0.0	0.0
20107	2	82.0	0.0	0.0	0.0
20202	3	102.0	0.0	0.0	0.0
20207	1	54.0	0.0	0.0	0.0
20211	2	75.0	0.0	0.0	0.0
20305	1	56.0	0.0	0.0	0.0
20309	2	82.0	0.0	0.0	0.0
20402	3	102.0	0.0	0.0	0.0
20407	2	71.0	0.0	0.0	0.0
20411	2	75.0	0.0	0.0	0.0
20505	2	56.0	0.0	0.0	0.0
20509	2	82.0	0.0	0.0	0.0
20602	3	102.0	0.0	0.0	0.0
20607	2	71.0	0.0	0.0	0.0
20611	2	75.0	0.0	0.0	0.0
20705	1	56.0	0.0	7.0	0.0
20709	2	82.0	0.0	3.0	0.0
20802	3	102.0	0.0	13.0	0.0
20807	2	71.0	0.0	0.0	0.0
20811	2	75.0	0.0	0.0	0.0
20905	1	56.0	0.0	0.0	0.0
20909	2	82.0	0.0	0.0	0.0
21002	3	102.0	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m <sup>2</sup> )	Unconditioned floor area (m <sup>2</sup> )	Area of garden & lawn (m <sup>2</sup> )	Indigenous species (min area m <sup>2</sup> )
20103	2	81.0	0.0	0.0	0.0
20108	2	83.0	0.0	0.0	0.0
20203	2	81.0	0.0	0.0	0.0
20208	2	76.0	0.0	0.0	0.0
20301	2	81.0	0.0	0.0	0.0
20306	1	61.0	0.0	0.0	0.0
20310	2	83.0	0.0	0.0	0.0
20403	2	81.0	0.0	0.0	0.0
20408	2	76.0	0.0	0.0	0.0
20501	2	81.0	0.0	0.0	0.0
20506	1	61.0	0.0	0.0	0.0
20510	2	83.0	0.0	0.0	0.0
20603	2	81.0	0.0	0.0	0.0
20608	2	76.0	0.0	0.0	0.0
20701	2	81.0	0.0	0.0	0.0
20706	1	61.0	0.0	7.0	0.0
20710	2	83.0	0.0	3.0	0.0
20803	2	81.0	0.0	12.0	0.0
20808	2	76.0	0.0	0.0	0.0
20901	2	81.0	0.0	0.0	0.0
20906	1	61.0	0.0	0.0	0.0
20910	2	83.0	0.0	0.0	0.0
21003	2	81.0	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m <sup>2</sup> )	Unconditioned floor area (m <sup>2</sup> )	Area of garden & lawn (m <sup>2</sup> )	Indigenous species (min area m <sup>2</sup> )
20105	1	56.0	0.0	0.0	0.0
20109	2	75.0	0.0	0.0	0.0
20205	1	56.0	0.0	0.0	0.0
20209	2	82.0	0.0	0.0	0.0
20302	3	102.0	0.0	0.0	0.0
20307	2	71.0	0.0	0.0	0.0
20311	2	75.0	0.0	0.0	0.0
20405	1	56.0	0.0	0.0	0.0
20409	2	82.0	0.0	0.0	0.0
20502	3	102.0	0.0	0.0	0.0
20507	2	71.0	0.0	0.0	0.0
20511	2	75.0	0.0	0.0	0.0
20605	1	56.0	0.0	0.0	0.0
20609	2	82.0	0.0	0.0	0.0
20702	3	102.0	0.0	0.0	0.0
20707	2	71.0	0.0	2.0	0.0
20711	2	75.0	0.0	0.0	0.0
20805	1	56.0	0.0	0.0	0.0
20809	2	82.0	0.0	0.0	0.0
20902	3	102.0	0.0	0.0	0.0
20907	2	71.0	0.0	0.0	0.0
20911	2	75.0	0.0	0.0	0.0
21005	1	56.0	0.0	0.0	0.0



Dwelling no.	No. of bedrooms	Conditioned floor area (m <sup>2</sup> )	Unconditioned floor area (m <sup>2</sup> )	Area of garden & lawn (m <sup>2</sup> )	Indigenous species (min area m <sup>2</sup> )
21006	1	61.0	0.0	0.0	0.0
21010	2	83.0	0.0	0.0	0.0
21103	2	81.0	0.0	0.0	0.0
21108	3	117.0	0.0	0.0	0.0
21203	2	78.0	0.0	0.0	0.0
21208	1	51.0	0.0	0.0	0.0
21212	2	75.0	0.0	0.0	0.0
21305	2	77.0	0.0	0.0	0.0
21309	1	51.0	0.0	0.0	0.0
21401	2	81.0	0.0	0.0	0.0
21406	1	61.0	0.0	0.0	0.0
21410	2	82.0	0.0	0.0	0.0
21502	3	113.0	0.0	0.0	0.0
21507	1	54.0	0.0	0.0	0.0
21511	2	83.0	0.0	0.0	0.0
21603	2	78.0	0.0	0.0	0.0
21608	1	51.0	0.0	0.0	0.0
21612	2	75.0	0.0	0.0	0.0
21705	2	77.0	0.0	0.0	0.0
21709	1	51.0	0.0	0.0	0.0
21801	2	81.0	0.0	0.0	0.0
21806	1	61.0	0.0	0.0	0.0
21810	2	82.0	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m <sup>2</sup> )	Unconditioned floor area (m <sup>2</sup> )	Area of garden & lawn (m <sup>2</sup> )	Indigenous species (min area m <sup>2</sup> )
21007	2	71.0	0.0	0.0	0.0
21011	2	75.0	0.0	0.0	0.0
21105	1	56.0	0.0	0.0	0.0
21109	3	119.0	0.0	0.0	0.0
21205	2	77.0	0.0	0.0	0.0
21209	1	51.0	0.0	0.0	0.0
21301	2	81.0	0.0	0.0	0.0
21306	1	61.0	0.0	0.0	0.0
21310	2	82.0	0.0	0.0	0.0
21402	3	113.0	0.0	0.0	0.0
21407	1	54.0	0.0	0.0	0.0
21411	2	83.0	0.0	0.0	0.0
21503	2	78.0	0.0	0.0	0.0
21508	1	51.0	0.0	0.0	0.0
21512	2	75.0	0.0	0.0	0.0
21605	2	77.0	0.0	0.0	0.0
21609	1	51.0	0.0	0.0	0.0
21701	2	81.0	0.0	0.0	0.0
21706	1	61.0	0.0	0.0	0.0
21710	2	82.0	0.0	0.0	0.0
21802	3	113.0	0.0	0.0	0.0
21807	2	54.0	0.0	0.0	0.0
21811	2	83.0	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m <sup>2</sup> )	Unconditioned floor area (m <sup>2</sup> )	Area of garden & lawn (m <sup>2</sup> )	Indigenous species (min area m <sup>2</sup> )
21008	2	76.0	0.0	0.0	0.0
21101	2	81.0	0.0	0.0	0.0
21106	1	61.0	0.0	0.0	0.0
21201	2	81.0	0.0	0.0	0.0
21206	1	61.0	0.0	0.0	0.0
21210	2	82.0	0.0	0.0	0.0
21302	3	113.0	0.0	0.0	0.0
21307	1	54.0	0.0	0.0	0.0
21311	2	83.0	0.0	0.0	0.0
21403	2	78.0	0.0	0.0	0.0
21408	1	51.0	0.0	0.0	0.0
21412	2	75.0	0.0	0.0	0.0
21505	2	77.0	0.0	0.0	0.0
21509	1	51.0	0.0	0.0	0.0
21601	2	81.0	0.0	0.0	0.0
21606	1	61.0	0.0	0.0	0.0
21610	2	82.0	0.0	0.0	0.0
21702	3	113.0	0.0	0.0	0.0
21707	1	54.0	0.0	0.0	0.0
21711	2	83.0	0.0	0.0	0.0
21803	2	78.0	0.0	0.0	0.0
21808	3	51.0	0.0	0.0	0.0
21812	2	75.0	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m <sup>2</sup> )	Unconditioned floor area (m <sup>2</sup> )	Area of garden & lawn (m <sup>2</sup> )	Indigenous species (min area m <sup>2</sup> )
21009	2	82.0	0.0	0.0	0.0
21102	3	102.0	0.0	0.0	0.0
21107	2	71.0	0.0	0.0	0.0
21202	3	113.0	0.0	0.0	0.0
21207	1	54.0	0.0	0.0	0.0
21211	2	83.0	0.0	0.0	0.0
21303	2	78.0	0.0	0.0	0.0
21308	1	51.0	0.0	0.0	0.0
21312	2	75.0	0.0	0.0	0.0
21405	2	77.0	0.0	0.0	0.0
21409	1	51.0	0.0	0.0	0.0
21501	2	81.0	0.0	0.0	0.0
21506	1	61.0	0.0	0.0	0.0
21510	2	82.0	0.0	0.0	0.0
21602	3	113.0	0.0	0.0	0.0
21607	1	54.0	0.0	0.0	0.0
21611	2	83.0	0.0	0.0	0.0
21703	1	78.0	0.0	0.0	0.0
21708	1	51.0	0.0	0.0	0.0
21712	2	75.0	0.0	0.0	0.0
21805	2	77.0	0.0	0.0	0.0
21809	2	51.0	0.0	0.0	0.0
21901	2	81.0	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m <sup>2</sup> )	Unconditioned floor area (m <sup>2</sup> )	Area of garden & lawn (m <sup>2</sup> )	Indigenous species (min area m <sup>2</sup> )
21902	3	113.0	0.0	0.0	0.0
21907	1	54.0	0.0	0.0	0.0
21911	2	83.0	0.0	0.0	0.0
22003	2	78.0	0.0	0.0	0.0
22008	1	51.0	0.0	0.0	0.0
22012	2	75.0	0.0	0.0	0.0
22105	2	77.0	0.0	0.0	0.0
22109	1	51.0	0.0	0.0	0.0
22201	2	81.0	0.0	0.0	0.0
22206	1	61.0	0.0	0.0	0.0
22210	2	82.0	0.0	0.0	0.0
22302	3	113.0	0.0	0.0	0.0
22307	1	50.0	0.0	0.0	0.0
22311	2	75.0	0.0	0.0	0.0
22405	2	77.0	0.0	0.0	0.0
22409	2	82.0	0.0	0.0	0.0
22502	3	113.0	0.0	0.0	0.0
22507	2	83.0	0.0	0.0	0.0
22603	1	50.0	0.0	0.0	0.0
22608	2	75.0	0.0	0.0	0.0
22705	1	50.0	0.0	0.0	0.0
22801	1	54.0	0.0	0.0	0.0
22806	2	82.0	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m <sup>2</sup> )	Unconditioned floor area (m <sup>2</sup> )	Area of garden & lawn (m <sup>2</sup> )	Indigenous species (min area m <sup>2</sup> )
21903	2	78.0	0.0	0.0	0.0
21908	1	51.0	0.0	0.0	0.0
21912	2	75.0	0.0	0.0	0.0
22005	2	77.0	0.0	0.0	0.0
22009	2	51.0	0.0	0.0	0.0
22101	2	81.0	0.0	0.0	0.0
22106	1	61.0	0.0	0.0	0.0
22110	2	82.0	0.0	0.0	0.0
22202	3	113.0	0.0	0.0	0.0
22207	1	54.0	0.0	0.0	0.0
22211	2	83.0	0.0	0.0	0.0
22303	2	78.0	0.0	0.0	0.0
22308	1	50.0	0.0	0.0	0.0
22401	2	81.0	0.0	0.0	0.0
22406	3	110.0	0.0	0.0	0.0
22410	2	83.0	0.0	0.0	0.0
22503	1	50.0	0.0	0.0	0.0
22508	2	75.0	0.0	0.0	0.0
22605	1	50.0	0.0	0.0	0.0
22701	1	54.0	0.0	0.0	0.0
22706	2	82.0	0.0	0.0	0.0
22802	3	110.0	0.0	0.0	0.0
22807	2	83.0	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m <sup>2</sup> )	Unconditioned floor area (m <sup>2</sup> )	Area of garden & lawn (m <sup>2</sup> )	Indigenous species (min area m <sup>2</sup> )
21905	2	77.0	0.0	0.0	0.0
21909	1	51.0	0.0	0.0	0.0
22001	2	81.0	0.0	0.0	0.0
22006	1	61.0	0.0	0.0	0.0
22010	2	82.0	0.0	0.0	0.0
22102	3	113.0	0.0	0.0	0.0
22107	1	54.0	0.0	0.0	0.0
22111	2	83.0	0.0	0.0	0.0
22203	2	78.0	0.0	0.0	0.0
22208	1	51.0	0.0	0.0	0.0
22212	3	75.0	0.0	0.0	0.0
22305	2	77.0	0.0	0.0	0.0
22309	2	82.0	0.0	0.0	0.0
22402	3	113.0	0.0	0.0	0.0
22407	1	50.0	0.0	0.0	0.0
22411	2	75.0	0.0	0.0	0.0
22505	1	50.0	0.0	0.0	0.0
22601	1	54.0	0.0	0.0	0.0
22606	2	82.0	0.0	0.0	0.0
22702	3	110.0	0.0	0.0	0.0
22707	2	83.0	0.0	0.0	0.0
22803	1	50.0	0.0	0.0	0.0
22901	1	54.0	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m <sup>2</sup> )	Unconditioned floor area (m <sup>2</sup> )	Area of garden & lawn (m <sup>2</sup> )	Indigenous species (min area m <sup>2</sup> )
21906	1	61.0	0.0	0.0	0.0
21910	2	82.0	0.0	0.0	0.0
22002	3	113.0	0.0	0.0	0.0
22007	1	54.0	0.0	0.0	0.0
22011	2	83.0	0.0	0.0	0.0
22103	2	78.0	0.0	0.0	0.0
22108	1	51.0	0.0	0.0	0.0
22112	2	75.0	0.0	0.0	0.0
22205	2	77.0	0.0	0.0	0.0
22209	1	51.0	0.0	0.0	0.0
22301	2	81.0	0.0	0.0	0.0
22306	3	110.0	0.0	0.0	0.0
22310	2	83.0	0.0	0.0	0.0
22403	2	78.0	0.0	0.0	0.0
22408	1	50.0	0.0	0.0	0.0
22501	1	54.0	0.0	0.0	0.0
22506	2	82.0	0.0	0.0	0.0
22602	3	110.0	0.0	0.0	0.0
22607	2	83.0	0.0	0.0	0.0
22703	1	50.0	0.0	0.0	0.0
22708	2	75.0	0.0	0.0	0.0
22805	1	50.0	0.0	0.0	0.0
22902	3	110.0	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m <sup>2</sup> )	Unconditioned floor area (m <sup>2</sup> )	Area of garden & lawn (m <sup>2</sup> )	Indigenous species (min area m <sup>2</sup> )
22903	1	50.0	0.0	0.0	0.0
23001	1	54.0	0.0	0.0	0.0
23006	2	82.0	0.0	0.0	0.0
23103	3	102.0	0.0	0.0	0.0
23202	3	109.0	0.0	0.0	0.0
23301	3	133.0	0.0	0.0	0.0
23306	2	83.0	0.0	0.0	0.0
23405	2	82.0	0.0	0.0	0.0
23503	3	102.0	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m <sup>2</sup> )	Unconditioned floor area (m <sup>2</sup> )	Area of garden & lawn (m <sup>2</sup> )	Indigenous species (min area m <sup>2</sup> )
22905	1	50.0	0.0	0.0	0.0
23002	3	110.0	0.0	0.0	0.0
23007	2	83.0	0.0	0.0	0.0
23105	1	56.0	0.0	0.0	0.0
23203	3	102.0	0.0	0.0	0.0
23302	3	109.0	0.0	0.0	0.0
23401	3	113.0	0.0	0.0	0.0
23406	2	83.0	0.0	0.0	0.0
23505	2	82.0	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m <sup>2</sup> )	Unconditioned floor area (m <sup>2</sup> )	Area of garden & lawn (m <sup>2</sup> )	Indigenous species (min area m <sup>2</sup> )
22906	2	82.0	0.0	0.0	0.0
23003	1	50.0	0.0	0.0	0.0
23101	1	54.0	0.0	0.0	0.0
23106	2	76.0	0.0	0.0	0.0
23205	2	82.0	0.0	0.0	0.0
23303	3	102.0	0.0	0.0	0.0
23402	3	109.0	0.0	0.0	0.0
23501	2	133.0	0.0	0.0	0.0
23506	2	83.0	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m <sup>2</sup> )	Unconditioned floor area (m <sup>2</sup> )	Area of garden & lawn (m <sup>2</sup> )	Indigenous species (min area m <sup>2</sup> )
22907	2	83.0	0.0	0.0	0.0
23005	1	50.0	0.0	0.0	0.0
23102	3	109.0	0.0	0.0	0.0
23201	1	54.0	0.0	0.0	0.0
23206	2	83.0	0.0	0.0	0.0
23305	2	82.0	0.0	0.0	0.0
23403	3	102.0	0.0	0.0	0.0
23502	3	109.0	0.0	0.0	0.0

### Residential flat buildings - Building 5, 258 dwellings, 23 storeys above ground

Dwelling no.	No. of bedrooms	Conditioned floor area (m <sup>2</sup> )	Unconditioned floor area (m <sup>2</sup> )	Area of garden & lawn (m <sup>2</sup> )	Indigenous species (min area m <sup>2</sup> )
50102	1	49.0	0.0	0.0	0.0
50107	1	52.0	0.0	0.0	0.0
50205	2	97.0	0.0	0.0	0.0
50209	2	82.0	0.0	0.0	0.0
50213	1	55.0	0.0	0.0	0.0
50301	2	76.0	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m <sup>2</sup> )	Unconditioned floor area (m <sup>2</sup> )	Area of garden & lawn (m <sup>2</sup> )	Indigenous species (min area m <sup>2</sup> )
50103	2	75.0	0.0	0.0	0.0
50201	2	98.0	0.0	0.0	0.0
50206	2	97.0	0.0	0.0	0.0
50210	2	76.0	0.0	0.0	0.0
50215	2	75.0	0.0	0.0	0.0
50302	1	51.0	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m <sup>2</sup> )	Unconditioned floor area (m <sup>2</sup> )	Area of garden & lawn (m <sup>2</sup> )	Indigenous species (min area m <sup>2</sup> )
50105	1	55.0	0.0	0.0	0.0
50202	3	143.0	0.0	0.0	0.0
50207	2	97.0	0.0	0.0	0.0
50211	1	49.0	0.0	0.0	0.0
50216	1	53.0	0.0	0.0	0.0
50303	2	75.0	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m <sup>2</sup> )	Unconditioned floor area (m <sup>2</sup> )	Area of garden & lawn (m <sup>2</sup> )	Indigenous species (min area m <sup>2</sup> )
50106	2	75.0	0.0	0.0	0.0
50203	2	97.0	0.0	0.0	0.0
50208	2	100.0	0.0	0.0	0.0
50212	2	75.0	0.0	0.0	0.0
50217	1	51.0	0.0	0.0	0.0
50305	1	55.0	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m <sup>2</sup> )	Unconditioned floor area (m <sup>2</sup> )	Area of garden & lawn (m <sup>2</sup> )	Indigenous species (min area m <sup>2</sup> )
50306	2	75.0	0.0	0.0	0.0
50402	2	79.0	0.0	0.0	0.0
50407	1	51.0	0.0	0.0	0.0
50411	1	51.0	0.0	0.0	0.0
50416	1	52.0	0.0	0.0	0.0
50503	1	51.0	0.0	0.0	0.0
50508	2	81.0	0.0	0.0	0.0
50512	2	75.0	0.0	0.0	0.0
50517	1	51.0	0.0	0.0	0.0
50605	1	51.0	0.0	0.0	0.0
50609	1	57.0	0.0	0.0	0.0
50613	1	55.0	0.0	0.0	0.0
50701	2	61.0	0.0	0.0	0.0
50706	1	51.0	0.0	0.0	0.0
50710	2	76.0	0.0	0.0	0.0
50715	2	75.0	0.0	0.0	0.0
50802	2	82.0	0.0	0.0	0.0
50807	1	51.0	0.0	0.0	0.0
50811	1	51.0	0.0	0.0	0.0
50816	1	51.0	0.0	0.0	0.0
50907	2	75.0	0.0	0.0	0.0
5091B	1	45.0	0.0	0.0	0.0
51002	2	70.0	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m <sup>2</sup> )	Unconditioned floor area (m <sup>2</sup> )	Area of garden & lawn (m <sup>2</sup> )	Indigenous species (min area m <sup>2</sup> )
50307	1	52.0	0.0	0.0	0.0
50403	1	51.0	0.0	0.0	0.0
50408	2	81.0	0.0	0.0	0.0
50412	2	75.0	0.0	0.0	0.0
50417	1	51.0	0.0	0.0	0.0
50505	1	51.0	0.0	0.0	0.0
50509	1	57.0	0.0	0.0	0.0
50513	1	55.0	0.0	0.0	0.0
50601	2	61.0	0.0	0.0	0.0
50606	1	51.0	0.0	0.0	0.0
50610	2	76.0	0.0	0.0	0.0
50615	2	75.0	0.0	0.0	0.0
50702	2	80.0	0.0	0.0	0.0
50707	1	51.0	0.0	0.0	0.0
50711	1	51.0	0.0	0.0	0.0
50716	1	52.0	0.0	0.0	0.0
50803	1	51.0	0.0	0.0	0.0
50808	2	81.0	0.0	0.0	0.0
50812	2	75.0	0.0	0.0	0.0
50903	2	76.0	0.0	0.0	0.0
50908	1	52.0	0.0	0.0	0.0
5092A	1	50.0	0.0	0.0	0.0
51003	1	51.0	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m <sup>2</sup> )	Unconditioned floor area (m <sup>2</sup> )	Area of garden & lawn (m <sup>2</sup> )	Indigenous species (min area m <sup>2</sup> )
50308	1	51.0	0.0	0.0	0.0
50405	1	51.0	0.0	0.0	0.0
50409	1	51.0	0.0	0.0	0.0
50413	1	55.0	0.0	0.0	0.0
50501	2	61.0	0.0	0.0	0.0
50506	1	51.0	0.0	0.0	0.0
50510	2	76.0	0.0	0.0	0.0
50515	2	75.0	0.0	0.0	0.0
50602	2	80.0	0.0	0.0	0.0
50607	1	51.0	0.0	0.0	0.0
50611	1	51.0	0.0	0.0	0.0
50616	1	52.0	0.0	0.0	0.0
50703	1	51.0	0.0	0.0	0.0
50708	2	81.0	0.0	0.0	0.0
50712	2	75.0	0.0	0.0	0.0
50717	1	51.0	0.0	0.0	0.0
50805	1	51.0	0.0	0.0	0.0
50809	1	57.0	0.0	0.0	0.0
50813	2	75.0	0.0	0.0	0.0
50905	1	51.0	0.0	0.0	0.0
50909	1	51.0	0.0	0.0	0.0
5092B	1	53.0	0.0	0.0	0.0
51005	1	51.0	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m <sup>2</sup> )	Unconditioned floor area (m <sup>2</sup> )	Area of garden & lawn (m <sup>2</sup> )	Indigenous species (min area m <sup>2</sup> )
50401	2	61.0	0.0	0.0	0.0
50406	1	51.0	0.0	0.0	0.0
50410	2	76.0	0.0	0.0	0.0
50415	2	75.0	0.0	0.0	0.0
50502	2	79.0	0.0	0.0	0.0
50507	1	51.0	0.0	0.0	0.0
50511	1	51.0	0.0	0.0	0.0
50516	1	52.0	0.0	0.0	0.0
50603	1	51.0	0.0	0.0	0.0
50608	2	81.0	0.0	0.0	0.0
50612	2	75.0	0.0	0.0	0.0
50617	1	51.0	0.0	0.0	0.0
50705	1	51.0	0.0	0.0	0.0
50709	1	57.0	0.0	0.0	0.0
50713	1	55.0	0.0	0.0	0.0
50801	2	61.0	0.0	0.0	0.0
50806	1	51.0	0.0	0.0	0.0
50810	2	76.0	0.0	0.0	0.0
50815	1	52.0	0.0	0.0	0.0
50906	2	75.0	0.0	0.0	0.0
5091A	2	77.0	0.0	0.0	0.0
51001	1	51.0	0.0	0.0	0.0
51006	3	100.0	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m <sup>2</sup> )	Unconditioned floor area (m <sup>2</sup> )	Area of garden & lawn (m <sup>2</sup> )	Indigenous species (min area m <sup>2</sup> )
51007	2	76.0	0.0	0.0	0.0
51011	1	52.0	0.0	0.0	0.0
51103	1	51.0	0.0	0.0	0.0
51108	1	51.0	0.0	0.0	0.0
51112	1	51.0	0.0	0.0	0.0
51205	1	51.0	0.0	0.0	0.0
51209	2	82.0	0.0	0.0	0.0
51301	1	54.0	0.0	0.0	0.0
51306	3	100.0	0.0	0.0	0.0
51310	3	121.0	0.0	0.0	0.0
51402	2	70.0	0.0	0.0	0.0
51407	2	76.0	0.0	0.0	0.0
51411	1	52.0	0.0	0.0	0.0
51503	1	51.0	0.0	0.0	0.0
51508	1	51.0	0.0	0.0	0.0
51512	1	51.0	0.0	0.0	0.0
51605	1	51.0	0.0	0.0	0.0
51609	2	82.0	0.0	0.0	0.0
51701	1	54.0	0.0	0.0	0.0
51706	2	76.0	0.0	0.0	0.0
51710	1	52.0	0.0	0.0	0.0
51803	2	84.0	0.0	0.0	0.0
51808	2	82.0	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m <sup>2</sup> )	Unconditioned floor area (m <sup>2</sup> )	Area of garden & lawn (m <sup>2</sup> )	Indigenous species (min area m <sup>2</sup> )
51008	1	51.0	0.0	0.0	0.0
51012	1	51.0	0.0	0.0	0.0
51105	1	51.0	0.0	0.0	0.0
51109	2	82.0	0.0	0.0	0.0
51201	1	54.0	0.0	0.0	0.0
51206	3	100.0	0.0	0.0	0.0
51210	3	121.0	0.0	0.0	0.0
51302	2	70.0	0.0	0.0	0.0
51307	2	76.0	0.0	0.0	0.0
51311	1	52.0	0.0	0.0	0.0
51403	1	51.0	0.0	0.0	0.0
51408	1	51.0	0.0	0.0	0.0
51412	1	51.0	0.0	0.0	0.0
51505	1	51.0	0.0	0.0	0.0
51509	2	82.0	0.0	0.0	0.0
51601	1	54.0	0.0	0.0	0.0
51606	3	100.0	0.0	0.0	0.0
51610	3	121.0	0.0	0.0	0.0
51702	2	89.0	0.0	0.0	0.0
51707	1	51.0	0.0	0.0	0.0
51711	1	51.0	0.0	0.0	0.0
51805	3	100.0	0.0	0.0	0.0
51809	3	121.0	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m <sup>2</sup> )	Unconditioned floor area (m <sup>2</sup> )	Area of garden & lawn (m <sup>2</sup> )	Indigenous species (min area m <sup>2</sup> )
51009	2	82.0	0.0	0.0	0.0
51101	1	54.0	0.0	0.0	0.0
51106	3	100.0	0.0	0.0	0.0
51110	3	121.0	0.0	0.0	0.0
51202	2	70.0	0.0	0.0	0.0
51207	2	76.0	0.0	0.0	0.0
51211	1	52.0	0.0	0.0	0.0
51303	1	51.0	0.0	0.0	0.0
51308	1	49.0	0.0	0.0	0.0
51312	1	51.0	0.0	0.0	0.0
51405	1	51.0	0.0	0.0	0.0
51409	2	82.0	0.0	0.0	0.0
51501	1	54.0	0.0	0.0	0.0
51506	3	100.0	0.0	0.0	0.0
51510	3	121.0	0.0	0.0	0.0
51602	2	70.0	0.0	0.0	0.0
51607	2	76.0	0.0	0.0	0.0
51611	1	52.0	0.0	0.0	0.0
51703	2	84.0	0.0	0.0	0.0
51708	2	82.0	0.0	0.0	0.0
51801	1	54.0	0.0	0.0	0.0
51806	2	76.0	0.0	0.0	0.0
51810	1	52.0	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m <sup>2</sup> )	Unconditioned floor area (m <sup>2</sup> )	Area of garden & lawn (m <sup>2</sup> )	Indigenous species (min area m <sup>2</sup> )
51010	3	121.0	0.0	0.0	0.0
51102	2	70.0	0.0	0.0	0.0
51107	2	76.0	0.0	0.0	0.0
51111	1	52.0	0.0	0.0	0.0
51203	1	51.0	0.0	0.0	0.0
51208	1	51.0	0.0	0.0	0.0
51212	1	51.0	0.0	0.0	0.0
51305	1	51.0	0.0	0.0	0.0
51309	2	82.0	0.0	0.0	0.0
51401	1	54.0	0.0	0.0	0.0
51406	3	100.0	0.0	0.0	0.0
51410	3	121.0	0.0	0.0	0.0
51502	2	70.0	0.0	0.0	0.0
51507	2	76.0	0.0	0.0	0.0
51511	1	52.0	0.0	0.0	0.0
51603	1	51.0	0.0	0.0	0.0
51608	1	51.0	0.0	0.0	0.0
51612	1	51.0	0.0	0.0	0.0
51705	3	100.0	0.0	0.0	0.0
51709	3	121.0	0.0	0.0	0.0
51802	2	89.0	0.0	0.0	0.0
51807	1	51.0	0.0	0.0	0.0
51811	1	51.0	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m <sup>2</sup> )	Unconditioned floor area (m <sup>2</sup> )	Area of garden & lawn (m <sup>2</sup> )	Indigenous species (min area m <sup>2</sup> )
51901	1	54.0	0.0	0.0	0.0
51906	2	76.0	0.0	0.0	0.0
51910	1	52.0	0.0	0.0	0.0
52003	2	84.0	0.0	0.0	0.0
52008	2	82.0	0.0	0.0	0.0
52101	1	54.0	0.0	0.0	0.0
52106	2	76.0	0.0	0.0	0.0
52110	1	52.0	0.0	0.0	0.0
52203	2	84.0	0.0	0.0	0.0
52208	2	82.0	0.0	0.0	0.0
52301	1	54.0	0.0	0.0	0.0
52306	2	76.0	0.0	0.0	0.0
52310	1	52.0	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m <sup>2</sup> )	Unconditioned floor area (m <sup>2</sup> )	Area of garden & lawn (m <sup>2</sup> )	Indigenous species (min area m <sup>2</sup> )
51902	2	89.0	0.0	0.0	0.0
51907	1	51.0	0.0	0.0	0.0
51911	1	51.0	0.0	0.0	0.0
52005	3	100.0	0.0	0.0	0.0
52009	3	121.0	0.0	0.0	0.0
52102	2	89.0	0.0	0.0	0.0
52107	1	51.0	0.0	0.0	0.0
52111	1	51.0	0.0	0.0	0.0
52205	3	100.0	0.0	0.0	0.0
52209	3	121.0	0.0	0.0	0.0
52302	2	89.0	0.0	0.0	0.0
52307	1	51.0	0.0	0.0	0.0
52311	1	51.0	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m <sup>2</sup> )	Unconditioned floor area (m <sup>2</sup> )	Area of garden & lawn (m <sup>2</sup> )	Indigenous species (min area m <sup>2</sup> )
51903	2	84.0	0.0	0.0	0.0
51908	2	82.0	0.0	0.0	0.0
52001	1	54.0	0.0	0.0	0.0
52006	2	76.0	0.0	0.0	0.0
52010	1	52.0	0.0	0.0	0.0
52103	2	84.0	0.0	0.0	0.0
52108	2	82.0	0.0	0.0	0.0
52201	1	54.0	0.0	0.0	0.0
52206	2	76.0	0.0	0.0	0.0
52210	1	52.0	0.0	0.0	0.0
52303	2	84.0	0.0	0.0	0.0
52308	2	82.0	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m <sup>2</sup> )	Unconditioned floor area (m <sup>2</sup> )	Area of garden & lawn (m <sup>2</sup> )	Indigenous species (min area m <sup>2</sup> )
51905	3	100.0	0.0	0.0	0.0
51909	3	121.0	0.0	0.0	0.0
52002	2	89.0	0.0	0.0	0.0
52007	1	51.0	0.0	0.0	0.0
52011	1	51.0	0.0	0.0	0.0
52105	3	100.0	0.0	0.0	0.0
52109	3	121.0	0.0	0.0	0.0
52202	2	89.0	0.0	0.0	0.0
52207	1	51.0	0.0	0.0	0.0
52211	1	51.0	0.0	0.0	0.0
52305	3	100.0	0.0	0.0	0.0
52309	3	121.0	0.0	0.0	0.0

## Description of project

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

### Common areas of unit building - Building 3

Common area	Floor area (m <sup>2</sup> )
Lift car (No. 6)	-
Bicycle Storage Area	425.15

Common area	Floor area (m <sup>2</sup> )
Lift car (No. 7)	-

Common area	Floor area (m <sup>2</sup> )
Community room and gym	168.9

### Common areas of unit building - Building 1

Common area	Floor area (m <sup>2</sup> )
Lift car (No. 1)	-

Common area	Floor area (m <sup>2</sup> )
Lift car (No. 2)	-

### Common areas of unit building - Building 2

Common area	Floor area (m <sup>2</sup> )
Lift car (No. 3)	-

Common area	Floor area (m <sup>2</sup> )
Lift car (No. 4)	-

Common area	Floor area (m <sup>2</sup> )
Lift car (No. 5)	-

### Common areas of unit building - Building 5

Common area	Floor area (m <sup>2</sup> )
Lift car (No.8)	-

Common area	Floor area (m <sup>2</sup> )
Lift car (No.9)	-

Common area	Floor area (m <sup>2</sup> )
Lift car (No.10)	-

### Common areas of the development (non-building specific)

Common area	Floor area (m <sup>2</sup> )
Car park area	32463.0
WC	5.0
Car park supply	294.1

Common area	Floor area (m <sup>2</sup> )
Building managers office	18.39
Other plant or service rooms	507.02
Ground floor lobbies	433.18

Common area	Floor area (m <sup>2</sup> )
Garbage room	372.48
Car park exhaust room	125.17
Hallways	5467.15

# Schedule of BASIX commitments

## 1. Commitments for Residential flat buildings - Building 3

### (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 1

### (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 2

### (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 5

### (a) Dwellings



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

(b) Common areas and central systems/facilities

- (i) Water
- (ii) Energy

5. Commitments for multi-dwelling houses

6. Commitments for single dwelling houses

7. 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 3

#### (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 (> 7.5 but <= 9 L/min)	4 star	5 star	5 star	no	-	3.5 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
All dwellings	reticulated alternative water supply	-	See central systems	no	yes	yes	no	no
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.		✓	✓

<b>(ii) Energy</b>	<b>Show on DA plans</b>	<b>Show on CC/CDC plans &amp; specs</b>	<b>Certifier check</b>
(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".		✓	

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

Dwelling no.	Cooling		Heating		Artificial lighting						Natural lighting	
	living areas	bedroom areas	living areas	bedroom areas	No. of bedrooms &/or study	No. of living &/or dining rooms	Each kitchen	All bathrooms/toilets	Each laundry	All hallways	No. of bathrooms &/or toilets	Main kitchen
30209	1-phase airconditioning EER 3.0 - 3.5 (zoned)	1-phase airconditioning EER 3.0 - 3.5 (zoned)	1-phase airconditioning EER 3.0 - 3.5 (zoned)	1-phase airconditioning EER 3.0 - 3.5 (zoned)	-	-	-	-	-	-	-	-
All other dwellings	1-phase airconditioning EER 3.0 - 3.5 (zoned)	1-phase airconditioning EER 3.0 - 3.5 (zoned)	1-phase airconditioning EER 3.0 - 3.5 (zoned)	1-phase airconditioning EER 3.0 - 3.5 (zoned)	2	1	yes	yes	yes	yes	0	no

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	-	yes	3.5 star	-	2 star	no	no

(iii) Thermal Comfort	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) The applicant must attach the certificate referred to under "Assessor details" on the front page of this BASIX certificate (the "Assessor Certificate") to the development application and construction certificate application for the proposed development (or, if the applicant is applying for a complying development certificate for the proposed development, to that application). The applicant must also attach the Assessor Certificate to the application for a final occupation certificate for the proposed development.			
(b) The Assessor Certificate must have been issued by an Accredited Assessor in accordance with the Thermal Comfort Protocol.			
(c) The details of the proposed development on the Assessor Certificate must be consistent with the details shown in this BASIX Certificate, including the details shown in the "Thermal Loads" table below.			
(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.			

(iii) Thermal Comfort	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(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 <sup>2</sup> /yr)	Area adjusted cooling load (in mJ/m <sup>2</sup> /yr)
30101	53.0	26.0
30102	36.0	46.0
30103	53.0	19.0
30105	53.0	13.0
30201	47.0	17.0
30202	38.0	43.0
30205	53.0	15.0
30207	59.0	21.0
30208	28.5	22.4
30209	5.8	19.6
30302	44.0	29.0
30307	55.0	16.0
30308	35.0	17.0

	Thermal loads	
Dwelling no.	Area adjusted heating load (in mJ/m²/yr)	Area adjusted cooling load (in mJ/m²/yr)
30309	50.0	16.0
30402	45.0	28.0
30407	55.0	17.0
30501	45.0	16.0
30502	46.0	27.0
30507	56.0	16.0
30602	46.0	26.0
30606	56.0	14.0
30607	57.0	16.0
30702	55.0	25.0
30703	48.0	15.0
30705	60.0	15.0
30706	57.0	14.0
30707	58.0	16.0
30709	53.0	14.0
30801	60.0	39.0
30802	59.0	18.0
30803	43.0	23.0
30805	66.0	22.0
30806	58.0	44.0
30203, 30303	36.0	19.0
30301, 30401	44.0	16.0
30305, 30306	54.0	15.0
30408, 30508	36.0	16.0
30503, 30603	47.0	15.0
30608, 30708	37.0	16.0
30206, 30505, 30605	59.0	15.0

	Thermal loads	
Dwelling no.	Area adjusted heating load (in mJ/m <sup>2</sup> /yr)	Area adjusted cooling load (in mJ/m <sup>2</sup> /yr)
30403, 30601, 30701	46.0	15.0
30405, 30406, 30506	55.0	14.0
All other dwellings	52.0	15.0



**(b) Common areas and central systems/facilities**

<b>(i) Water</b>	<b>Show on DA plans</b>	<b>Show on CC/CDC plans &amp; specs</b>	<b>Certifier check</b>
(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.		✓	✓

<b>Common area</b>	<b>Showerheads rating</b>	<b>Toilets rating</b>	<b>Taps rating</b>	<b>Clothes washers rating</b>
All common areas	no common facility	4 star	4 star	no common laundry facility

<b>Central systems</b>	<b>Size</b>	<b>Configuration</b>	<b>Connection (to allow for...)</b>
Fire sprinkler system (No. 4)	-	-	-

<b>(ii) Energy</b>	<b>Show on DA plans</b>	<b>Show on CC/CDC plans &amp; specs</b>	<b>Certifier check</b>
(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.		✓	✓

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(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. 6)	-	-	light-emitting diode	connected to lift call button	No
Lift car (No. 7)	-	-	light-emitting diode	connected to lift call button	No
Community room and gym	air conditioning system	time clock or BMS controlled	light-emitting diode	manual on / manual off	No
Bicycle Storage Area	ventilation supply only	time clock or BMS controlled	fluorescent	motion sensors	No

Central energy systems	Type	Specification
Lift (No. 6)	gearless traction with V V V F motor	Number of levels (including basement): 12
Lift (No. 7)	gearless traction with V V V F motor	Number of levels (including basement): 12

## 2. Commitments for Residential flat buildings - Building 1

### (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 (> 7.5 but <= 9 L/min)	4 star	5 star	5 star	no	-	3.5 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
All dwellings	reticulated alternative water supply	-	See central systems	no	yes	yes	no	no
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.		✓	✓

<b>(ii) Energy</b>	<b>Show on DA plans</b>	<b>Show on CC/CDC plans &amp; specs</b>	<b>Certifier check</b>
(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".		✓	

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

Dwelling no.	Cooling		Heating		Artificial lighting						Natural lighting	
	living areas	bedroom areas	living areas	bedroom areas	No. of bedrooms &/or study	No. of living &/or dining rooms	Each kitchen	All bathrooms/toilets	Each laundry	All hallways	No. of bathrooms &/or toilets	Main kitchen
All dwellings	1-phase airconditioning EER 3.0 - 3.5 (zoned)	1-phase airconditioning EER 3.0 - 3.5 (zoned)	1-phase airconditioning EER 3.0 - 3.5 (zoned)	1-phase airconditioning EER 3.0 - 3.5 (zoned)	2	1	yes	yes	yes	yes	0	no

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	-	yes	3.5 star	-	2 star	no	no

(iii) Thermal Comfort	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) The applicant must attach the certificate referred to under "Assessor details" on the front page of this BASIX certificate (the "Assessor Certificate") to the development application and construction certificate application for the proposed development (or, if the applicant is applying for a complying development certificate for the proposed development, to that application). The applicant must also attach the Assessor Certificate to the application for a final occupation certificate for the proposed development.			
(b) The Assessor Certificate must have been issued by an Accredited Assessor in accordance with the Thermal Comfort Protocol.			
(c) The details of the proposed development on the Assessor Certificate must be consistent with the details shown in this BASIX Certificate, including the details shown in the "Thermal Loads" table below.			
(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.		✓	

<b>(iii) Thermal Comfort</b>	<b>Show on DA plans</b>	<b>Show on CC/CDC plans &amp; specs</b>	<b>Certifier check</b>
(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.	✓	✓	✓

	<b>Thermal loads</b>	
<b>Dwelling no.</b>	<b>Area adjusted heating load (in mJ/m<sup>2</sup>/yr)</b>	<b>Area adjusted cooling load (in mJ/m<sup>2</sup>/yr)</b>
10101	50.0	27.0
10102	35.0	22.0
10106	38.0	19.0
10301	61.3	20.9
10302	57.0	20.7
10303	45.0	20.3
10307	44.2	31.6
10308	65.7	31.5
10401	65.0	19.0
10402	48.0	15.0
10403	39.0	14.0
10404	38.0	13.0
10405	37.0	14.0
10406	37.0	22.0
10701	64.0	18.0

	Thermal loads	
Dwelling no.	Area adjusted heating load (in mJ/m²/yr)	Area adjusted cooling load (in mJ/m²/yr)
10705	40.0	12.0
10801	65.0	18.0
10808	57.0	23.0
10901	66.0	17.0
10902	45.0	14.0
10903	46.0	13.0
10907	40.0	20.0
10908	57.0	22.0
11001	66.0	22.0
11002	53.0	14.0
11007	48.0	17.0
11008	60.0	22.0
11101	63.0	15.0
11102	47.0	13.0
11103	48.0	14.0
11105	53.0	19.0
11201	61.0	14.0
11202	58.0	13.0
11203	57.0	12.0
11205	51.0	15.0
10103, 10105	31.0	18.0
10305, 10306	44.3	20.3
10407, 10508	55.0	25.0
10501, 10601	66.0	19.0
10502, 10602	43.0	14.0
10506, 10606	38.0	14.0
10507, 10607	38.0	22.0



	Thermal loads	
Dwelling no.	Area adjusted heating load (in mJ/m <sup>2</sup> /yr)	Area adjusted cooling load (in mJ/m <sup>2</sup> /yr)
10608, 10708	56.0	24.0
10702, 10802	44.0	14.0
10707, 10807	39.0	21.0
10503, 10603, 10906	40.0	13.0
11003, 11005, 11006	51.0	11.0
10505, 10605, 10706, 10806	39.0	13.0
All other dwellings	41.0	12.0

**(b) Common areas and central systems/facilities**

<b>(i) Water</b>	<b>Show on DA plans</b>	<b>Show on CC/CDC plans &amp; specs</b>	<b>Certifier check</b>
(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.		✓	✓

<b>Common area</b>	<b>Showerheads rating</b>	<b>Toilets rating</b>	<b>Taps rating</b>	<b>Clothes washers rating</b>
All common areas	no common facility	4 star	4 star	no common laundry facility

<b>Central systems</b>	<b>Size</b>	<b>Configuration</b>	<b>Connection (to allow for...)</b>
Fire sprinkler system (No. 5)	-	-	-

<b>(ii) Energy</b>	<b>Show on DA plans</b>	<b>Show on CC/CDC plans &amp; specs</b>	<b>Certifier check</b>
(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.		✓	✓

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(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
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
Lift (No. 1)	gearless traction with V V V F motor	Number of levels (including basement): 16
Lift (No. 2)	gearless traction with V V V F motor	Number of levels (including basement): 16

### 3. Commitments for Residential flat buildings - Building 2

#### (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 (> 7.5 but <= 9 L/min)	4 star	5 star	5 star	no	-	3.5 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
All dwellings	reticulated alternative water supply	-	See central systems	no	yes	yes	no	no
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.		✓	✓

<b>(ii) Energy</b>	<b>Show on DA plans</b>	<b>Show on CC/CDC plans &amp; specs</b>	<b>Certifier check</b>
(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".		✓	

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

Dwelling no.	Cooling		Heating		Artificial lighting						Natural lighting	
	living areas	bedroom areas	living areas	bedroom areas	No. of bedrooms &/or study	No. of living &/or dining rooms	Each kitchen	All bathrooms/toilets	Each laundry	All hallways	No. of bathrooms &/or toilets	Main kitchen
All dwellings	1-phase airconditioning EER 3.0 - 3.5 (zoned)	1-phase airconditioning EER 3.0 - 3.5 (zoned)	1-phase airconditioning EER 3.0 - 3.5 (zoned)	1-phase airconditioning EER 3.0 - 3.5 (zoned)	2	1	yes	yes	yes	yes	0	no

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	-	yes	3.5 star	-	2 star	no	no

(iii) Thermal Comfort	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) The applicant must attach the certificate referred to under "Assessor details" on the front page of this BASIX certificate (the "Assessor Certificate") to the development application and construction certificate application for the proposed development (or, if the applicant is applying for a complying development certificate for the proposed development, to that application). The applicant must also attach the Assessor Certificate to the application for a final occupation certificate for the proposed development.			
(b) The Assessor Certificate must have been issued by an Accredited Assessor in accordance with the Thermal Comfort Protocol.			
(c) The details of the proposed development on the Assessor Certificate must be consistent with the details shown in this BASIX Certificate, including the details shown in the "Thermal Loads" table below.			
(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.		✓	

<b>(iii) Thermal Comfort</b>	<b>Show on DA plans</b>	<b>Show on CC/CDC plans &amp; specs</b>	<b>Certifier check</b>
(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.	✓	✓	✓

	<b>Thermal loads</b>	
<b>Dwelling no.</b>	<b>Area adjusted heating load (in mJ/m<sup>2</sup>/yr)</b>	<b>Area adjusted cooling load (in mJ/m<sup>2</sup>/yr)</b>
20101	40.0	39.0
20102	44.0	51.0
20103	38.0	19.0
20105	58.0	36.0
20106	26.0	14.0
20107	49.0	31.0
20108	39.0	43.0
20109	46.0	16.0
20201	42.0	35.0
20202	46.0	49.0
20203	26.0	16.0
20205	58.0	34.0
20206	61.6	19.4
20207	36.6	38.8
20208	30.0	11.0



	Thermal loads	
Dwelling no.	Area adjusted heating load (in mJ/m²/yr)	Area adjusted cooling load (in mJ/m²/yr)
20209	51.0	31.0
20210	41.0	42.0
20211	48.0	16.0
20301	47.0	26.0
20302	51.0	36.0
20303	32.0	16.0
20305	62.0	25.0
20306	52.5	16.4
20307	56.1	17.7
20308	31.0	11.0
20309	51.0	30.0
20310	46.0	35.0
20311	52.0	12.0
20401	48.0	26.0
20405	63.0	24.0
20406	65.5	16.0
20407	55.7	17.9
20408	32.0	11.0
20409	52.0	29.0
20410	47.0	35.0
20411	53.0	12.0
20501	49.0	26.0
20506	61.1	15.6
20507	55.5	17.5
20509	53.0	28.0
20510	47.0	34.0
20603	30.0	15.0

	Thermal loads	
Dwelling no.	Area adjusted heating load (in mJ/m²/yr)	Area adjusted cooling load (in mJ/m²/yr)
20606	59.9	15.6
20607	56.3	17.6
20610	47.0	33.0
20703	30.0	16.0
20705	57.0	21.0
20706	58.6	15.3
20708	30.0	10.0
20710	48.0	33.0
20803	29.0	16.0
20806	57.3	15.2
20807	52.5	17.9
20808	28.0	10.0
20809	52.0	27.0
20810	49.0	33.0
20901	51.0	24.0
20902	54.0	34.0
20903	28.0	16.0
20906	56.8	15.0
20907	52.2	17.6
20908	27.0	10.0
20910	49.0	32.0
20911	56.0	10.0
21003	30.0	14.0
21006	59.3	13.9
21007	54.9	15.5
21008	31.0	10.0
21009	57.0	20.0

	Thermal loads	
Dwelling no.	Area adjusted heating load (in mJ/m²/yr)	Area adjusted cooling load (in mJ/m²/yr)
21010	62.0	30.0
21011	62.0	9.0
21103	33.0	12.0
21106	59.1	13.9
21107	54.6	15.1
21108	63.0	15.0
21109	41.2	10.7
21202	63.0	40.0
21203	58.9	17.1
21205	35.0	13.0
21206	60.1	13.8
21207	50.4	19.9
21210	66.0	18.8
21211	55.0	26.5
21212	61.9	8.7
21302	66.0	38.0
21303	52.0	16.9
21305	43.0	13.0
21306	59.8	13.6
21307	50.6	19.9
21308	52.5	11.1
21309	49.6	11.1
21310	48.6	18.6
21311	53.5	25.3
21312	62.3	8.8
21402	56.0	38.0
21403	52.4	17.8

	Thermal loads	
Dwelling no.	Area adjusted heating load (in mJ/m²/yr)	Area adjusted cooling load (in mJ/m²/yr)
21405	44.0	13.0
21406	60.6	13.7
21407	51.1	20.0
21408	52.8	11.0
21409	50.0	11.3
21410	49.0	18.2
21411	54.0	24.9
21412	62.7	8.8
21502	62.0	44.0
21503	52.6	17.5
21506	60.5	13.3
21507	51.3	19.9
21508	53.1	19.9
21509	50.2	11.3
21510	49.2	17.8
21511	54.2	24.5
21512	62.4	8.9
21602	62.0	35.0
21603	52.7	17.4
21606	61.0	13.4
21607	51.5	19.9
21608	53.2	10.9
21609	50.4	11.2
21610	48.4	17.9
21611	54.4	24.4
21612	62.6	8.9
21703	52.9	16.8

	Thermal loads	
Dwelling no.	Area adjusted heating load (in mJ/m²/yr)	Area adjusted cooling load (in mJ/m²/yr)
21706	61.1	13.5
21707	51.8	19.5
21708	53.4	10.8
21709	50.6	11.0
21710	49.0	18.1
21711	54.6	24.3
21712	62.8	9.1
21806	61.3	13.5
21807	52.0	19.5
21808	53.6	10.4
21809	50.8	11.0
21810	49.2	18.0
21811	54.8	24.2
21812	62.9	8.9
21906	58.9	12.8
21907	50.2	20.1
21908	53.6	10.3
21909	51.0	10.9
21910	50.0	18.3
21911	55.0	24.4
21912	63.1	8.7
22006	59.0	12.7
22007	50.4	20.3
22008	53.7	10.2
22009	51.2	11.0
22010	50.1	18.0
22011	55.2	24.3

	Thermal loads	
Dwelling no.	Area adjusted heating load (in mJ/m²/yr)	Area adjusted cooling load (in mJ/m²/yr)
22012	63.3	8.8
22106	54.5	12.6
22107	50.5	19.8
22108	54.0	10.2
22109	51.4	10.9
22110	50.3	17.7
22111	55.4	24.3
22112	63.5	8.8
22206	62.4	12.4
22207	53.6	20.0
22208	56.8	10.4
22209	51.3	10.9
22210	50.5	17.5
22211	55.6	24.4
22212	63.7	9.0
22301	57.0	19.0
22306	46.7	9.9
22307	53.3	11.4
22308	50.4	11.6
22309	50.7	17.9
22311	63.9	8.9
22402	60.2	18.6
22403	66.0	16.0
22405	58.0	11.0
22406	46.8	10.0
22407	53.4	11.3
22408	52.1	11.7

	Thermal loads	
Dwelling no.	Area adjusted heating load (in mJ/m²/yr)	Area adjusted cooling load (in mJ/m²/yr)
22409	50.8	17.6
22411	64.1	9.0
22501	63.1	23.6
22502	52.5	11.5
22503	53.7	11.3
22506	50.3	17.8
22507	56.3	23.9
22601	63.1	23.5
22602	47.0	9.9
22606	50.3	17.9
22607	56.2	23.9
22701	63.3	23.2
22702	47.1	9.9
22705	52.3	11.6
22707	56.4	23.9
22708	58.1	8.9
22801	63.5	23.4
22802	47.3	9.8
22803	53.7	10.9
22805	52.4	11.6
22806	50.6	17.8
22807	56.7	23.9
22902	47.4	9.9
22903	53.9	11.0
22905	52.6	11.5
22906	51.63	17.0
23002	45.1	10.8

	Thermal loads	
Dwelling no.	Area adjusted heating load (in mJ/m²/yr)	Area adjusted cooling load (in mJ/m²/yr)
23003	54.2	11.1
23005	52.9	11.4
23006	51.5	17.3
23101	63.7	22.8
23102	45.8	11.6
23103	43.2	10.6
23105	51.7	17.0
23106	57.1	23.7
23201	63.9	22.8
23202	54.4	13.5
23203	43.1	10.7
23205	51.8	16.8
23206	57.3	23.6
23301	65.9	15.1
23302	45.8	12.2
23303	43.1	10.6
23305	51.8	17.1
23306	57.3	23.5
23401	66.0	14.2
23402	45.9	12.2
23403	43.3	10.4
23405	51.9	16.8
23406	57.5	23.3
23501	66.0	13.5
23502	57.9	12.0
23503	64.3	16.5
23505	55.2	14.6



	Thermal loads	
Dwelling no.	Area adjusted heating load (in mJ/m²/yr)	Area adjusted cooling load (in mJ/m²/yr)
23506	55.1	16.8
20402, 20502	51.0	37.0
20403, 20503	32.0	15.0
20505, 20605	56.0	22.0
20508, 20608	32.0	10.0
20511, 20611	54.0	11.0
20601, 20909	49.0	25.0
20609, 20709	53.0	27.0
20701, 20801	50.0	25.0
20707, 22706	50.4	17.7
20711, 20811	55.0	11.0
21002, 21102	57.0	29.0
21208, 21209	50.1	11.0
21801, 22201	56.0	19.0
21903, 22003	53.2	16.7
22103, 22401	53.3	16.7
22310, 22410	55.8	24.3
22505, 22605	52.3	11.7
22508, 22608	57.9	8.9
22603, 22703	53.6	11.3
22901, 23001	63.7	22.9
22907, 23007	56.9	23.7
20602, 20702, 20802	54.0	35.0
21001, 21101, 21201	54.0	20.0
21702, 21802, 21902	62.0	34.0
21803, 22203, 22303	53.0	17.0
22105, 22205, 22305	45.0	12.0

	Thermal loads	
Dwelling no.	Area adjusted heating load (in mJ/m <sup>2</sup> /yr)	Area adjusted cooling load (in mJ/m <sup>2</sup> /yr)
20805, 20905, 21005, 21105	56.0	21.0
21301, 21401, 21501, 21601	55.0	20.0
21701, 21901, 22001, 22101	56.0	20.0
22002, 22102, 22202, 22302	63.0	34.0
All other dwellings	44.0	12.0

**(b) Common areas and central systems/facilities**

<b>(i) Water</b>	<b>Show on DA plans</b>	<b>Show on CC/CDC plans &amp; specs</b>	<b>Certifier check</b>
(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.		✓	✓

<b>Common area</b>	<b>Showerheads rating</b>	<b>Toilets rating</b>	<b>Taps rating</b>	<b>Clothes washers rating</b>
All common areas	no common facility	4 star	4 star	no common laundry facility

<b>Central systems</b>	<b>Size</b>	<b>Configuration</b>	<b>Connection (to allow for...)</b>
Fire sprinkler system (No. 2)	-	-	-

<b>(ii) Energy</b>	<b>Show on DA plans</b>	<b>Show on CC/CDC plans &amp; specs</b>	<b>Certifier check</b>
(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.		✓	✓

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(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
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
Lift car (No. 5)	-	-	light-emitting diode	connected to lift call button	No

Central energy systems	Type	Specification
Lift (No. 3)	gearless traction with V V V F motor	Number of levels (including basement): 38
Lift (No. 4)	gearless traction with V V V F motor	Number of levels (including basement): 38
Lift (No. 5)	gearless traction with V V V F motor	Number of levels (including basement): 38

## 4. Commitments for Residential flat buildings - Building 5

### (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 (> 7.5 but <= 9 L/min)	4 star	5 star	5 star	no	-	3.5 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
5091A, 5091B, 5092A, 5092B	reticulated alternative water supply	-	See central systems	-	yes	yes	-	-
All other dwellings	reticulated alternative water supply	-	See central systems	no	yes	yes	no	no

(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.		✓	✓

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(e) This commitment applies to each room or area of the dwelling which is referred to in a heading to the "Artificial lighting" column of the table below (but only to the extent specified for that room or area). The applicant must ensure that the "primary type of artificial lighting" for each such room in the dwelling is fluorescent lighting or light emitting diode (LED) lighting. If the term "dedicated" is specified for a particular room or area, then the light fittings in that room or area must only be capable of being used for fluorescent lighting or light emitting diode (LED) lighting.		✓	✓
(f) This commitment applies to each room or area of the dwelling which is referred to in a heading to the "Natural lighting" column of the table below (but only to the extent specified for that room or area). The applicant must ensure that each such room or area is fitted with a window and/or skylight.	✓	✓	✓
(g) This commitment applies if the applicant installs a water heating system for the dwelling's pool or spa. The applicant must: (aa) install the system specified for the pool in the "Individual Pool" column of the table below (or alternatively must not install any system for the pool). If specified, the applicant must install a timer, to control the pool's pump; and (bb) install the system specified for the spa in the "Individual Spa" column of the table below (or alternatively must not install any system for the spa). If specified, the applicant must install a timer to control the spa's pump.		✓ ✓	
(h) The applicant must install in the dwelling: (aa) the kitchen cook-top and oven specified for that dwelling in the "Appliances & other efficiency measures" column of the table below; (bb) each appliance for which a rating is specified for that dwelling in the "Appliances & other efficiency measures" column of the table, and ensure that the appliance has that minimum rating; and (cc) any clothes drying line specified for the dwelling in the "Appliances & other efficiency measures" column of the table.		✓ ✓ ✓	✓
(i) If specified in the table, the applicant must carry out the development so that each refrigerator space in the dwelling is "well ventilated".		✓	

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

Dwelling no.	Cooling		Heating		Artificial lighting						Natural lighting	
	living areas	bedroom areas	living areas	bedroom areas	No. of bedrooms &/or study	No. of living &/or dining rooms	Each kitchen	All bathrooms/toilets	Each laundry	All hallways	No. of bathrooms &/or toilets	Main kitchen
5091A	1-phase airconditioning EER 3.0 - 3.5 (zoned)	1-phase airconditioning EER 3.0 - 3.5 (zoned)	1-phase airconditioning EER 3.0 - 3.5 (zoned)	1-phase airconditioning EER 3.0 - 3.5 (zoned)	2	1	yes	yes	yes	yes	0	yes
5091B, 5092A, 5092B	1-phase airconditioning EER 3.0 - 3.5 (zoned)	1-phase airconditioning EER 3.0 - 3.5 (zoned)	1-phase airconditioning EER 3.0 - 3.5 (zoned)	1-phase airconditioning EER 3.0 - 3.5 (zoned)	1	1	yes	yes	yes	yes	0	no
All other dwellings	1-phase airconditioning EER 3.0 - 3.5 (zoned)	1-phase airconditioning EER 3.0 - 3.5 (zoned)	1-phase airconditioning EER 3.0 - 3.5 (zoned)	1-phase airconditioning EER 3.0 - 3.5 (zoned)	2	1	yes	yes	yes	yes	0	no

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
5091A, 5091B, 5092A, 5092B	-	-	-	-	gas cooktop & electric oven	-	yes	3.5 star	-	-	no	no
All other dwellings	-	-	-	-	gas cooktop & electric oven	-	yes	3.5 star	-	2 star	no	no



(iii) Thermal Comfort	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) The applicant must attach the certificate referred to under "Assessor details" on the front page of this BASIX certificate (the "Assessor Certificate") to the development application and construction certificate application for the proposed development (or, if the applicant is applying for a complying development certificate for the proposed development, to that application). The applicant must also attach the Assessor Certificate to the application for a final occupation certificate for the proposed development.			
(b) The Assessor Certificate must have been issued by an Accredited Assessor in accordance with the Thermal Comfort Protocol.			
(c) The details of the proposed development on the Assessor Certificate must be consistent with the details shown in this BASIX Certificate, including the details shown in the "Thermal Loads" table below.			
(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 <sup>2</sup> /yr)	Area adjusted cooling load (in mJ/m <sup>2</sup> /yr)
50102	41.5	19.0
50103	21.0	13.11
50105	22.5	26.4
50106	28.0	18.4
50107	39.4	19.5

	Thermal loads	
Dwelling no.	Area adjusted heating load (in mJ/m²/yr)	Area adjusted cooling load (in mJ/m²/yr)
50201	58.2	12.9
50202	32.4	28.8
50205	16.7	15.4
50208	15.0	18.3
50209	45.9	13.6
50210	20.7	16.6
50211	33.5	23.0
50212	17.9	11.8
50213	15.7	28.1
50215	27.7	16.5
50216	48.0	14.7
50217	40.5	20.3
50301	19.2	15.6
50302	32.9	20.7
50303	18.2	11.4
50305	16.0	28.0
50306	32.2	13.6
50307	36.7	14.8
50308	39.3	13.6
50401	45.2	15.5
50402	21.4	7.7
50403	13.5	9.2
50405	11.8	9.2
50408	31.1	13.0
50409	43.2	14.0
50410	19.5	14.9
50411	33.5	19.6

	Thermal loads	
Dwelling no.	Area adjusted heating load (in mJ/m²/yr)	Area adjusted cooling load (in mJ/m²/yr)
50412	18.6	11.1
50413	18.7	23.6
50415	32.1	13.0
50417	39.8	12.9
50501	45.9	14.9
50502	20.4	8.0
50508	31.1	12.2
50509	42.7	13.7
50510	19.9	14.7
50511	33.8	19.4
50512	18.6	10.8
50513	19.1	23.3
50515	32.4	12.9
50517	40.4	12.8
50601	47.4	14.4
50602	20.8	7.9
50608	31.4	11.9
50609	43.9	13.9
50610	20.2	14.2
50611	34.3	18.6
50612	18.9	10.7
50613	19.6	22.9
50616	37.9	14.8
50617	40.8	12.5
50701	47.8	14.3
50702	21.1	7.7
50708	33.8	13.3

	Thermal loads	
Dwelling no.	Area adjusted heating load (in mJ/m <sup>2</sup> /yr)	Area adjusted cooling load (in mJ/m <sup>2</sup> /yr)
50709	42.2	13.8
50710	20.4	14.2
50711	34.5	18.0
50712	19.3	10.5
50713	32.0	21.8
50716	38.3	14.6
50717	41.1	12.4
50801	55.8	14.4
50802	33.5	7.6
50805	20.1	8.7
50808	43.8	13.2
50809	54.7	12.8
50810	20.6	13.9
50811	34.9	17.5
50812	19.0	10.6
50813	31.6	12.8
50815	38.6	14.5
50816	41.3	12.4
50903	20.8	13.7
50905	36.8	15.8
50906	20.2	9.6
50907	31.3	12.3
50908	39.0	14.1
50909	41.7	12.2
5091A	64.6	38.3
5091B	29.6	19.4
5092A	44.3	21.0

	Thermal loads	
Dwelling no.	Area adjusted heating load (in mJ/m²/yr)	Area adjusted cooling load (in mJ/m²/yr)
5092B	60.8	20.1
51002	34.1	16.1
51003	27.9	8.2
51005	24.3	7.7
51006	27.8	12.4
51007	22.3	12.2
51008	36.9	15.8
51009	31.6	19.5
51010	65.4	18.4
51011	41.2	13.0
51012	43.6	10.2
51102	25.7	16.3
51103	19.8	8.2
51105	17.8	7.8
51106	29.8	12.6
51107	22.3	12.1
51108	37.1	15.8
51109	34.9	19.6
51110	48.1	15.5
51111	41.3	13.1
51112	43.7	10.1
51201	41.7	11.4
51202	25.8	15.9
51203	19.9	8.6
51205	19.9	8.3
51206	30.3	12.4
51208	37.2	15.9

	Thermal loads	
Dwelling no.	Area adjusted heating load (in mJ/m²/yr)	Area adjusted cooling load (in mJ/m²/yr)
51209	35.2	19.7
51210	49.1	15.4
51211	41.7	13.1
51212	44.0	10.1
51301	43.3	10.2
51302	26.3	15.8
51308	37.4	16.0
51309	35.3	19.6
51310	49.2	15.3
51311	41.8	13.0
51312	44.1	9.8
51401	43.6	9.9
51402	26.1	16.5
51405	20.0	8.5
51406	30.3	12.5
51407	22.7	12.0
51408	37.3	16.0
51409	35.5	19.5
51410	50.0	15.4
51411	42.1	13.1
51412	44.4	9.9
51501	43.7	9.9
51502	28.9	16.6
51507	22.8	11.7
51508	37.5	16.0
51509	35.6	19.3
51510	49.6	15.6

	Thermal loads	
Dwelling no.	Area adjusted heating load (in mJ/m²/yr)	Area adjusted cooling load (in mJ/m²/yr)
51511	42.3	13.1
51512	44.5	9.8
51601	43.8	9.9
51602	29.0	15.7
51603	22.9	7.7
51605	22.5	7.7
51606	30.7	12.2
51607	22.5	11.8
51608	37.5	12.2
51609	35.8	19.2
51610	49.8	15.2
51611	42.4	13.0
51701	43.9	9.8
51702	20.9	6.7
51703	26.7	7.3
51705	30.8	12.3
51707	37.6	15.8
51709	49.9	15.2
51710	42.6	12.8
51711	44.8	9.7
51802	20.5	7.8
51803	26.1	7.5
51805	30.9	12.2
51807	37.6	16.2
51809	50.9	15.1
51810	42.7	12.9
51901	40.4	9.9

	Thermal loads	
Dwelling no.	Area adjusted heating load (in mJ/m²/yr)	Area adjusted cooling load (in mJ/m²/yr)
51902	20.9	7.9
51903	26.5	7.5
51905	30.9	12.3
51907	37.4	16.2
51908	36.0	18.8
51909	50.0	15.1
51910	42.9	11.1
52001	42.8	11.1
52003	26.9	7.3
52005	29.9	12.3
52007	37.1	16.2
52008	36.1	18.7
52009	50.2	14.9
52010	43.0	12.9
52011	45.1	9.4
52101	44.2	9.8
52102	21.5	7.9
52103	27.0	7.3
52105	31.1	12.4
52106	23.2	11.6
52107	36.8	15.9
52108	36.3	18.6
52109	49.9	14.7
52110	43.2	12.9
52111	45.2	9.2
52202	21.3	7.8
52203	27.1	7.3



	Thermal loads	
Dwelling no.	Area adjusted heating load (in mJ/m²/yr)	Area adjusted cooling load (in mJ/m²/yr)
52205	31.3	12.1
52206	23.3	11.4
52207	36.7	15.4
52208	36.4	18.4
52209	49.4	15.8
52210	43.3	12.9
52211	43.7	9.1
52301	58.4	9.5
52302	34.6	8.1
52303	41.0	7.9
52305	45.1	11.6
52306	36.3	10.7
52307	50.3	14.6
52308	51.9	17.6
52309	65.1	16.5
52310	61.4	12.0
52311	59.6	10.0
50406, 50407	12.7	8.9
50416, 50516	37.4	14.7
50503, 50505	17.0	9.2
50615, 50715	33.3	12.7
50703, 50705	17.6	8.9
50706, 50707	15.9	8.8
51001, 51101	41.4	11.6
51207, 51307	22.5	11.9
51306, 51506	30.5	12.3
51503, 51505	20.4	8.1

	Thermal loads	
Dwelling no.	Area adjusted heating load (in mJ/m <sup>2</sup> /yr)	Area adjusted cooling load (in mJ/m <sup>2</sup> /yr)
51612, 51811	44.6	9.6
51706, 51806	23.0	11.8
51708, 51808	35.9	19.0
51801, 52201	44.1	9.9
51906, 52006	23.1	11.7
51911, 52002	21.0	7.9
50203, 50206, 50207	17.0	15.0
50506, 50507, 50606	17.2	9.0
50603, 50605, 50607	15.7	9.1
50803, 50806, 50807	18.5	8.8
All other dwellings	20.1	8.2

**(b) Common areas and central systems/facilities**

<b>(i) Water</b>	<b>Show on DA plans</b>	<b>Show on CC/CDC plans &amp; specs</b>	<b>Certifier check</b>
(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.		✓	✓

<b>Common area</b>	<b>Showerheads rating</b>	<b>Toilets rating</b>	<b>Taps rating</b>	<b>Clothes washers rating</b>
All common areas	no common facility	4 star	4 star	no common laundry facility

<b>Central systems</b>	<b>Size</b>	<b>Configuration</b>	<b>Connection (to allow for...)</b>
Fire sprinkler system (No. 3)	-	-	-

<b>(ii) Energy</b>	<b>Show on DA plans</b>	<b>Show on CC/CDC plans &amp; specs</b>	<b>Certifier check</b>
(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.		✓	✓

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(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
Lift car (No.8)	-	-	light-emitting diode	connected to lift call button	No
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
Lift (No. 8)	gearless traction with V V V F motor	Number of levels (including basement): 12
Lift (No. 9)	gearless traction with V V V F motor	Number of levels (including basement): 27
Lift (No. 10)	gearless traction with V V V F motor	Number of levels (including basement): 27

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

### (b) Common areas and central systems/facilities

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

Common area	Showerheads rating	Toilets rating	Taps rating	Clothes washers rating
All common areas	no common facility	4 star	4 star	no common laundry facility

Central systems	Size	Configuration	Connection (to allow for...)
Central water tank - rainwater or stormwater (No. 1)	10000.0	To collect run-off from at least: - 500.0 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 3545.0 square metres of common landscaped area on the site - car washing in 0 car washing bays on the site

Central systems	Size	Configuration	Connection (to allow for...)
Reticulated alternative water supply	-	Installation of plumbing to make provision for connection to Sydney Olympic Park Authority reticulated alternative water supply.	- irrigation of 0.0 square metres of common landscaped area on the site - car washing in 1 car washing bays on the site
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 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
Car park area	ventilation (supply + exhaust)	carbon monoxide monitor + VSD fan	fluorescent	zoned switching with motion sensor	No
Building managers office	ventilation supply only	thermostatically controlled	fluorescent	manual on / manual off	No
Garbage room	ventilation exhaust only	-	fluorescent	motion sensors	No
WC	ventilation exhaust only	none ie. continuous	light-emitting diode	manual on / manual off	No
Other plant or service rooms	ventilation supply only	none ie. continuous	fluorescent	manual on / manual off	No
Car park exhaust room	no mechanical ventilation	-	fluorescent	manual on / manual off	No
Car park supply	no mechanical ventilation	-	fluorescent	manual on / manual off	No
Ground floor lobbies	air conditioning system	time clock or BMS controlled	light-emitting diode	none	No
Hallways	ventilation supply only	time clock or BMS controlled	light-emitting diode	zoned switching with motion sensor	No

Central energy systems	Type	Specification
Central hot water system (No. 1)	gas-fired boiler	Piping insulation (ringmain & supply risers): (a) Piping external to building: R1.0 (~38 mm); (b) Piping internal to building: R1.0 (~38 mm)

## 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).