

# Assessor Certificate

## Multiple Dwellings

Certificate Version 6.1. Prior versions not valid after 1 March 2006

Issued in accordance with  
BASIX Thermal Comfort Simulation Method.



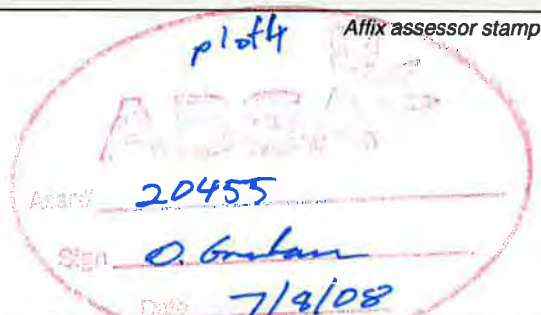
<b>Assessor</b>			
<b>Name:</b>	Daniel Grunbaum	<b>Company:</b> Bovis Lend Lease	<b>ABSA #:</b> 20455
<b>Address:</b>	30 The Bond, 30 Hickson Rd, Millers Point, NSW 2000		
<b>Phone:</b>	02 9277 2519	<b>Fax:</b> 02 9383 8124	<b>Email:</b> Daniel.grunbaum@lendlease.com.au
<b>Declaration of interest:</b>	The Assessor has been engaged in the project design or development		
<b>Client</b>			
<b>Name:</b>	Beville Group	<b>Company:</b> Beville Group	
<b>Address:</b>	Suite 302, 35 Lime st, King st Wharf, Sydney, NSW 2000		
<b>Phone:</b>	03 8986 5350	<b>Fax:</b> 02 9299 7735	<b>Email:</b> bevillesta@bevillegroup.com.au
<b>Project</b>			
<b>Address:</b>	One Pope st, Top Ryde, NSW 2112		
<b>Applicant:</b>	LGA: Ryde City Council		
<b>Assessment</b>			
<b>Date:</b>	7/8/08	<b>File ref:</b>	<b>Software:</b> NatHERS <b>Version:</b> V2.32B

**Documentation**  
All details, upon which this assessment has been based, are included in the project documentation that has been stamped and signed by the Assessor issuing this certificate, as identified below:

**Thermal Performance Spec:**  
Attached, Affixed to drawings Page#: A2.05

**Drawings:** (Title, Ref.#, Revision, Issue date, etc)  
A1.00-.01, A2.00-14, A3.00-01, A4.00-03

**Building Specifications:** (Title, Ref.#, Revision, Issue date, etc)



ABSA Assessor Certificate		Assessor # 20455		Certificate # 11772688		Issued: 7/8/08	
Thermal performance specifications						Page 1 of 1	
Unit number(s)	Certificate number	Floor area (M <sup>2</sup> )		Predict. loads (MJ/M <sup>2</sup> /y)		Concessions	Qualify for ventilation bonus
		Cond.	Uncond.	Heat	Cool (Sens & Lat)		
B402	51610115	78.5	0	112.4	57.7		
B405	68031367	92	0	132.4	49.1		
B410	32246833	67	0	122.8	54.6		
B413	67181576	80.5	0	111.0	63.3		
B414	66289113	83	0	117.5	61.7		Yes
B501	83540148	84.5	0	121.6	53.4		
B502602, 702, 802, 902, 1001, 1102	33036467	78.5	0	61.3	54.3		Yes
B503	52766128	66	0	44.4	19.5		
B506	98580115	85	0	124.8	24.5		
B509	67929582	59	0	133.8	49.9		

B510610, 710, 810, 910, 1010, 1110	68400545	117.5	0	75.9	44.5	Yes
B513	35733421	80.5	0	27.8	49.4	
B514614, 714, 814, 914, 1014, 1114	36244405	82.5	0	25.7	52.2	Yes
B515	64973666	109.5	0	130.1	49.4	Yes
B601701, 801, 901, 1001, 1101	76708013	84	0	115.3	60.6	Yes
B603803, 1003, 611, 811, 1011, 604, 804, 1004, 612, 812, 1012	71898730	51.5	0	41.9	48.6	
B605705, 805, 905, 1005, 1105, 610, 710, 810, 910, 1010, 1110	85976725	93	0	67.5	27.9	Yes
B606706, 806, 906, 1006, 1106	31580259	57.5	0	95.1	66.8	
B607707, 807, 907, 1007, 1107	89168318	55.5	0	79.7	53.9	
B608708, 808, 908, 1008, 1108	36487255	78	0	89.7	44.6	
B609709, 809, 909, 1009, 1109	11772688	59	0	90.8	55.1	
B613713, 813, 913, 1013, 1113	70530161	52	0	53.6	59.9	
B615715, 815, 915, 1015, 1115	35083174	85.5	0	86.2	47.4	Yes
B1003	39305309	60	0	57	61.9	
B1011	47344735	60	0	55.7	60.6	
B1201	68681479	123	0	92.6	54.16	Yes

B1202	35645414	105.5	0	24	45.68	Yes
B1203	27305625	104	0	21.4	65.7	
B1204121 1	31842521	115	0	21.9	38.6	
B1205121 0	85721176	115	0	63.6	39.6	
B1206	29085416	107.5	0	78.8	63.6	
B1207120 8	35335723	132	0	84.6	66	
B1209	57558797	115	0	67.4	42.9	
B1212	81864056	140.5	0	19.7	57	
B1213	70183710	136.5	0	21.1	31.5	
B1214	53029673	138	0	33.4	33.53	Yes
F502	82686562	70	0	118.2	22.9	
F503	71916286	97.5	0	130.7	15.7	
F504	11916460	89.5	0	110.6	25.2	
F505	67639999	94	0	102	72.6	
F506	57444227	98	0	118.1	40.9	
F507	47044326	95	0	129.1	58	
F508	74138284	98	0	121	17.3	
F509	33183447	109.5	0	120.6	9.1	
F510	35183614	64.5	0	117.1	16.7	
F601F701 , F801, F901	39064882	51	0	118.2	22.9	
F602F702 , F802, F902	25961929	82	0	130.7	15.7	
F603F703 , F803, F903	89262189	97.5	0	110.6	25.2	
F604F704	74894576	89.5	0	102	72.6	
F605	12534135	94	0	118.1	40.9	Yes
F606	86722461	98	0	129.1	58	
F607	93657735	95	0	121	17.3	
F608F708	54360253	98	0	120.6	9.1	
F609F709 , F809	36535269	109.5	0	117.1	16.7	
F610F710 , F810, F910	43438658	82	0	47.8	67.3	
F611F711 , F811, F911	67752393	51	0	64.7	46.5	
F612F617 , F812, F817	83881483	57	0	69.5	16.6	
F705	44653322	94	0	58.2	35.5	
F706	68940105	98	0	54.1	73.7	
F707	73081385	95	0	104.5	66.8	
F804F904	69873774	89.5	0	100.9	66.8	
F808	96245697	97	0	95.2	28.9	

F816F613 , F614, F615, F616, F813, F814, F815	51516822	65	0	80.7	19.2	
F909	22161602	106	0	110.6	37	
F1001	48552604	96.5	0	36.6	51.2	
F1002	28624321	85	0	59.4	46.2	
F1003	97432214	77	0	69.6	77.6	
F1004	78163475	77	0	111.6	67.9	
F1005	98041721	85	0	109.4	67.2	
F1006	57104179	106	0	91.7	60.3	
F1101	58238146	102	0	120.3	51.2	
F1102	74171214	85	0	61.1	48.8	
F1103	20153532	77	0	87.6	19.4	
F1104	71033135	79	0	47	65.9	
F1105	96734783	85	0	84.6	60.8	
F1106	78640127	102	0	26.2	47.1	
F1201	66687729	109	0	22.1	44.9	Yes
F1202	86454331	113	0	67.4	55.2	Yes
F1203	17062782	103	0	33.4	83.2	Yes
F1204	40727327	124.5	0	57.1	63.3	
F1205	44719592	127	0	84.9	60.8	
F1206	23188037	103	0	27.2	46.3	Yes
F1207	24359112	113	0	22.9	43.8	Yes
F1208	57757830	109	0	67.7	55.1	Yes

# BASIX Certificate

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

Certificate number: 212620M

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 29/06/2006, published by the Department of Planning. This document is available at [www.basix.nsw.gov.au](http://www.basix.nsw.gov.au)

Director-General  
Date of issue: Wednesday, 27 August 2008



NSW GOVERNMENT  
Department of Planning

## Score

- ✓ Water: 40 (Target 40)
- ✓ Thermal comfort: pass (Target pass)
- ✓ Energy: 21 (Target 20)

## Description of project

Project address	
Project name	Top Ryde Residential - Certifiedv4
Street address	one Pope Street Ryde 2112
Local Government Area	Ryde City Council
Plan type and plan number	strata BP618154
Lot no.	1
Section no.	-
Project type	
No. of unit buildings	2
No. of attached dwelling houses	0
No. of separate dwelling houses	0
Site details	
Site area (m <sup>2</sup> )	7973
Roof area (m <sup>2</sup> )	2892
Non-residential floor area (m <sup>2</sup> )	0
Residential car spaces	241
Non-residential car spaces	0
Common area landscape	
Common area lawn (m <sup>2</sup> )	286
Common area garden (m <sup>2</sup> )	864
Area of indigenous or low water use species (m <sup>2</sup> )	432
Assessor details	
Assessor number	20455
Certificate number	11772688

## Description of project

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

### Unit building - Buidling B, 10 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 m2)
402	2	79.0	0.0	0	0
414	2	83.0	0.0	0	0
702	2	79.0	0.0	0	0
1102	2	79.0	0.0	0	0
510	3	118.0	0.0	0	0
910	3	118.0	0.0	0	0
514	2	82.0	0.0	0	0
914	2	83.0	0.0	0	0
601	2	84.0	0.0	0	0
1001	2	84.0	0.0	0	0
1003	2	84.0	0.0	0	0
606	1	58.0	0.0	0	0
1006	1	58.0	0.0	0	0
807	1	56.0	0.0	0	0
608	2	78.0	0.0	0	0
1008	2	78.0	0.0	0	0
809	1	59.0	0.0	0	0
613	1	52.0	0.0	0	0
1013	1	52.0	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 m2)
405	2	92.0	0.0	0	0
501	2	85.0	0.0	0	0
802	2	79.0	0.0	0	0
503	1	66.0	0.0	0	0
610	3	118.0	0.0	0	0
1010	3	118.0	0.0	0	0
614	2	83.0	0.0	0	0
1014	2	83.0	0.0	0	0
701	2	84.0	0.0	0	0
1101	2	84.0	0.0	0	0
611	2	78.0	0.0	0	0
706	1	58.0	0.0	0	0
1106	1	58.0	0.0	0	0
907	1	56.0	0.0	0	0
708	2	78.0	0.0	0	0
1108	2	78.0	0.0	0	0
909	1	59.0	0.0	0	0
713	1	52.0	0.0	0	0
1113	1	52.0	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 m2)
410	2	67.0	0.0	0	0
502	2	79.0	0.0	0	0
902	2	79.0	0.0	0	0
506	2	85.0	0.0	0	0
710	3	118.0	0.0	0	0
1110	3	118.0	0.0	0	0
714	2	83.0	0.0	0	0
1114	2	83.0	0.0	0	0
801	2	84.0	0.0	0	0
603	1	51.0	0.0	0	0
811	1	51.0	0.0	0	0
806	1	58.0	0.0	0	0
607	1	56.0	0.0	0	0
1007	1	56.0	0.0	0	0
808	2	78.0	0.0	0	0
609	1	59.0	0.0	0	0
1009	1	59.0	0.0	0	0
813	1	52.0	0.0	0	0
615	2	86.0	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 m2)
413	2	82.0	0.0	0	0
602	2	79.0	0.0	0	0
1002	2	79.0	0.0	0	0
509	1	59.0	0.0	0	0
810	3	118.0	0.0	0	0
513	2	81.0	0.0	0	0
814	2	83.0	0.0	0	0
515	3	110.0	0.0	0	0
901	2	84.0	0.0	0	0
803	2	92.0	0.0	0	0
1011	1	51.0	0.0	0	0
906	1	58.0	0.0	0	0
707	1	56.0	0.0	0	0
1107	1	56.0	0.0	0	0
908	2	78.0	0.0	0	0
709	1	59.0	0.0	0	0
1109	1	59.0	0.0	0	0
913	1	52.0	0.0	0	0
715	1	86.0	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 specie: (min area m2)
815	1	86.0	0.0	0	0
1003	1	60.0	0.0	0	0
1203	2	104.0	0.0	0	0
1210	3	115.0	0.0	0	0
1209	2	123.0	0.0	0	0
804	1	52.0	0.0	0	0
1012	1	52.0	0.0	0	0
905	2	93.0	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 specie: (min area m2)
915	2	86.0	0.0	0	0
1011	1	60.0	0.0	0	0
1204	3	115.0	0.0	0	0
1206	2	52.0	0.0	0	0
1212	2	105.0	0.0	0	0
1004	1	52.0	0.0	0	0
605	2	93.0	0.0	0	0
1005	2	93.0	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 specie: (min area m2)
1015	2	86.0	0.0	0	0
1201	2	123.0	0.0	0	0
1211	3	115.0	0.0	0	0
1207	2	82.0	0.0	0	0
1213	2	104.0	0.0	0	0
612	1	52.0	0.0	0	0
705	2	93.0	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 specie: (min area m2)
1115	2	86.0	0.0	0	0
1202	2	106.0	0.0	0	0
1205	3	115.0	0.0	0	0
1208	2	85.0	0.0	0	0
604	1	52.0	0.0	0	0
812	1	52.0	0.0	0	0
805	2	93.0	0.0	0	0

### Unit building - Building F, 10 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 specie: (min area m2)
1208	3	109.0	0.0	0	0
505	2	94.0	0.0	0	0
509	2	109.0	0.0	0	0
801	1	51.0	0.0	0	0
802	2	82.0	0.0	0	0
803	2	97.0	0.0	0	0
605	2	94.0	0.0	0	0
708	2	98.0	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 specie: (min area m2)
502	1	70.0	0.0	0	0
506	2	98.0	0.0	0	0
510	1	64.0	0.0	0	0
901	1	51.0	0.0	0	0
902	2	82.0	0.0	0	0
903	2	97.0	0.0	0	0
606	2	98.0	0.0	0	0
609	2	105.0	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 specie: (min area m2)
503	2	97.0	0.0	0	0
507	2	95.0	0.0	0	0
601	1	51.0	0.0	0	0
602	2	82.0	0.0	0	0
603	2	97.0	0.0	0	0
604	2	89.0	0.0	0	0
607	2	95.0	0.0	0	0
709	2	105.0	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 specie: (min area m2)
504	2	94.0	0.0	0	0
508	2	98.0	0.0	0	0
701	1	51.0	0.0	0	0
702	2	82.0	0.0	0	0
703	2	97.0	0.0	0	0
704	2	89.0	0.0	0	0
608	2	98.0	0.0	0	0
809	2	105.0	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 specie: (min area m2)
610	2	82.0	0.0	0	0
611	1	51.0	0.0	0	0
612	1	57.0	0.0	0	0
705	2	94.0	0.0	0	0
904	2	89.0	0.0	0	0
614	1	65.0	0.0	0	0
814	1	65.0	0.0	0	0
1002	2	85.0	0.0	0	0
1006	2	106.0	0.0	0	0
1104	2	79.0	0.0	0	0
1202	3	103.0	0.0	0	0
1207	3	113.0	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 specie: (min area m2)
710	2	82.0	0.0	0	0
711	1	51.0	0.0	0	0
617	1	57.0	0.0	0	0
706	2	98.0	0.0	0	0
808	2	97.0	0.0	0	0
615	1	65.0	0.0	0	0
815	1	65.0	0.0	0	0
1003	2	77.0	0.0	0	0
1101	2	102.0	0.0	0	0
1105	2	85.0	0.0	0	0
1203	2	103.0	0.0	0	0
1208	3	109.0	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 specie: (min area m2)
810	2	82.0	0.0	0	0
811	1	51.0	0.0	0	0
812	1	57.0	0.0	0	0
707	2	95.0	0.0	0	0
816	1	65.0	0.0	0	0
616	1	65.0	0.0	0	0
909	3	106.0	0.0	0	0
1004	2	77.0	0.0	0	0
1102	2	85.0	0.0	0	0
1106	2	86.0	0.0	0	0
1204	2	124.0	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 specie: (min area m2)
910	2	82.0	0.0	0	0
911	1	512.0	0.0	0	0
817	1	57.0	0.0	0	0
804	2	89.0	0.0	0	0
613	1	65.0	0.0	0	0
813	1	65.0	0.0	0	0
1001	2	96.0	0.0	0	0
1005	2	85.0	0.0	0	0
1103	2	77.0	0.0	0	0
1201	3	109.0	0.0	0	0
1205	2	127.0	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 B

Common area	Floor area (m <sup>2</sup> )
Lift car (No. 1)	-
Lift car (No. 4)	-
Building B - Hallways	1130

Common area	Floor area (m <sup>2</sup> )
Lift car (No. 2)	-
Building B - All Garbage Rooms	46

Common area	Floor area (m <sup>2</sup> )
Lift car (No. 3)	-
Building B - Ground Floor Lobby	161

### Common areas of unit building - Building F

Common area	Floor area (m <sup>2</sup> )
Lift car (No. 5)	-
Common Room 1	133
Building F - Hallways	822

Common area	Floor area (m <sup>2</sup> )
Lift car (No. 6)	-
Common Room 2	100

Common area	Floor area (m <sup>2</sup> )
Building F - All Garbage Rooms	37
Building F - Ground Floor Lobby	222

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

Common area	Floor area (m <sup>2</sup> )
Indoor pool &/or spa area (No. 1)	220
Plant or service room (No. 1)	235

Common area	Floor area (m <sup>2</sup> )
Combined Carpark Area	8659
Fire Stairs	710

Common area	Floor area (m <sup>2</sup> )
Switch room (No. 1)	137

## Schedule of BASIX commitments

### 1. Commitments for unit building - Building B

#### (a) Dwellings

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

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

- (i) Water
- (ii) Energy

### 2. Commitments for unit building - Building F

#### (a) Dwellings

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

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

- (i) Water
- (ii) Energy

### 3. Commitments for attached dwelling houses

### 4. Commitments for separate dwelling houses

### 5. 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 unit building - Building B

#### (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 "Hot water recirculation" column of the table below.		✓	✓
(e) The applicant must not install a private swimming pool or spa for the dwelling, with a volume exceeding that specified for it in the table below.	✓	✓	
(f) If specified in the table, that pool or spa (or both) must have a pool cover or shading (or both).		✓	
(g) The pool or spa must be located as specified in the table.	✓	✓	
(h) The applicant must install, for the dwelling, each alternative water supply system, with the specified size, listed for that dwelling in the table below. Each system must be configured to collect run-off from the areas specified (excluding any area which supplies any other alternative water supply system), and to divert overflow as specified. Each system must be connected as specified.	✓	✓	✓

Dwelling no.	Fixtures					Appliances		Individual pool				Individual spa		
	All shower-heads	All toilet flushing systems	All kitchen taps	All bathroom taps	Hot water recirculation	All clothes washers	All dish-washers	Volume (max volume)	Pool cover	Pool location	Pool shaded	Volume (max volume)	Spa cover	Spa shaded
402, 405, 410, 413, 414, 501, 502, 503, 506, 509, 510, 513, 514, 515, 601, 602, 603, 610, 614, 701, 702, 710, 714, 801, 802, 803, 810, 814, 901, 902, 910, 914, 1001, 1002, 1010, 1014, 1101, 1102, 1110, 1114	3 star	4 star	3 star	6 star	no	4 star	3 star	-	-	-	-	-	-	-

Dwelling no.	Fixtures					Appliances		Individual pool				Individual spa		
	All shower-heads	All toilet flushing systems	All kitchen taps	All bathroom taps	Hot water recirculation	All clothes washers	All dish-washers	Volume (max volume)	Pool cover	Pool location	Pool shaded	Volume (max volume)	Spa cover	Spa shaded
604, 605, 606, 607, 608, 609, 611, 612, 613, 615, 705, 706, 707, 708, 709, 713, 715, 804, 805, 806, 807, 808, 809, 811, 812, 813, 815, 905, 906, 907, 908, 909, 913, 915, 1003, 1003, 1004, 1005, 1006, 1007,	3 star	4 star	3 star	6 star	no	-	3 star	-	-	-	-	-	-	-

Dwelling no.	Fixtures					Appliances		Individual pool				Individual spa		
	All shower-heads	All toilet flushing systems	All kitchen taps	All bathroom taps	Hot water recirculation	All clothes washers	All dish-washers	Volume (max volume)	Pool cover	Pool location	Pool shaded	Volume (max volume)	Spa cover	Spa shaded
1008, 1009, 1011, 1011, 1012, 1013, 1015, 1106, 1107, 1108, 1109, 1113, 1115, 1201, 1202, 1203, 1204, 1205, 1206, 1207, 1208, 1209, 1210, 1211, 1212, 1213														

Alternative water source								
Dwelling no.	Alternative water supply systems	Size	Configuration	Landscape connection	Toilet connection	Laundry connection	Pool top-up	Spa top-up
None	-	-	-	-	-	-	-	-

<b>(ii) Energy</b>	<b>Show on DA plans</b>	<b>Show on CC/CDC plans &amp; specs</b>	<b>Certifier check</b>
(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.		✓	✓
(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 on / timer off	individual fan, ducted to façade or roof	manual on / timer off	individual fan, ducted to façade or roof	manual on / timer off

	Cooling		Heating		Artificial lighting						Natural lighting	
Dwelling no.	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
1204	1-phase airconditioning 3 Star (zoned)	1-phase airconditioning 3 Star (zoned)	1-phase airconditioning 3 Star (zoned)	1-phase airconditioning 3 Star (zoned)	-	0	no	no	no	no	0	no



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
402, 405, 410, 413, 414, 501, 502, 503, 506, 509, 510, 513, 514, 515, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 701, 702, 705, 706, 707, 708, 709, 710, 713, 714,	1-phase airconditioning 3 Star (zoned)	1-phase airconditioning 3 Star (zoned)	1-phase airconditioning 3 Star (zoned)	1-phase airconditioning 3 Star (zoned)	0	0	no	no	no	no	0	no

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
715,												
801,												
802,												
803,												
804,												
805,												
806,												
807,												
808,												
809,												
810,												
811,												
812,												
813,												
814,												
815,												
901,												
902,												
905,												
906,												
907,												
908,												
909,												
910,												
913,												
914,												
915,												
1001,												
1002,												
1003,												
1003,												
1004,												
1005,												
1006,												
1007,												
1008,												
1009,												
1010,												
1011,												

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
1011, 1012, 1013, 1014, 1015, 1101, 1102, 1106, 1107, 1108, 1109, 1110, 1113, 1114, 1115, 1201, 1202, 1203, 1205, 1206, 1207, 1208, 1209, 1210, 1211, 1212, 1213												

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	2.5 star	-	2.5 star	yes	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) Commitment (h) below, applies to the rooms or areas of a dwelling which are listed in the "Cross Ventilation" table below as comprising a breeze path for the dwelling.			
(h) The applicant must construct the dwelling so that at least one ventilation opening is provided in each such room or area. (If only one room or area of a dwelling is mentioned for a breeze path, then that room or area must have at least two ventilation openings).		✓	✓
(i) The two ventilation openings referred to in (h), must meet the following specifications: (aa) be located as specified for the breeze path in the table; (bb) not be more than 15 metres apart;			

<b>(iii) Thermal Comfort</b>	<b>Show on DA plans</b>	<b>Show on CC/CDC plans &amp; specs</b>	<b>Certifier check</b>
<p>(cc) if the dwelling is below the 10th storey of the building, be at least 1 square metre in size, or if the dwelling is on or above the 10th storey, be at least 0.5 square metres in size and be located above door head level in the room; and</p> <p>(dd) have only 1 doorway, or opening less than 2 square metres in size, located in the direct path between them.</p>			

<b>Thermal loads</b>			
<b>Dwelling no.</b>	<b>Heating load (in mJ/m<sup>2</sup>/yr)</b>	<b>Cooling load (in mJ/m<sup>2</sup>/yr)</b>	<b>Corrected Cooling load (in mJ/m<sup>2</sup>/yr)</b>
402	112.4	58	58.0
405	132	49	49.0
410	123	55	55.0
413	111	63	63.0
414	118	88	61.6
501	122	53	53.0
503	44	20	20.0
506	125	25	25.0
509	134	50	50.0
513	28	49	49.0
515	130	64	64.0
1003	57	62	62.0
1011	56	61	61.0
1201	63	68	54.4
1202	24	57	57.0
1209	67	43	43.0
1212	20	57	57.0
612, 812	85	66	66.0
1004, 1206	79	64	64.0
1203, 1213	21	66	66.0
1207, 1208	70	49	49.0

Dwelling no.	Thermal loads		
	Heating load (in mJ/m <sup>2</sup> /yr)	Cooling load (in mJ/m <sup>2</sup> /yr)	Corrected Cooling load (in mJ/m <sup>2</sup> /yr)
604, 1204, 1211	22	39	39.0
804, 1205, 1210	64	40	40.0
605, 705, 805, 905, 1005	68	33	23.1
601, 701, 801, 901, 1001, 1101	115	98	61.3
606, 706, 806, 906, 1006, 1106	95	67	67.0
607, 707, 807, 907, 1007, 1107	80	54	54.0
608, 708, 808, 908, 1008, 1108	90	45	45.0
609, 709, 809, 909, 1009, 1109	91	55	55.0
613, 713, 813, 913, 1013, 1113	54	60	60.0
615, 715, 815, 915, 1015, 1115	86	63	63.0
502, 602, 702, 802, 902, 1002, 1102	61	72	54.0
510, 610, 710, 810, 910, 1010, 1110	76	49	49.0
514, 614, 714, 814, 914, 1014, 1114	26	74	51.8
All other dwellings	42	49	49.0

Dwelling no.	Cross ventilation			
	Breeze path 1	Breeze path 2	Breeze path 3	Breeze path 4
1201	within main living area Ventilation openings: >3 m apart and on adjacent external walls	-	-	-

	<b>Cross ventilation</b>			
<b>Dwelling no.</b>	<b>Breeze path 1</b>	<b>Breeze path 2</b>	<b>Breeze path 3</b>	<b>Breeze path 4</b>
605, 705, 805, 905, 1005	main living to Bedroom1 Ventilation openings: >3 m apart and on adjacent external walls	main living to Bedroom2 Ventilation openings: >3 m apart and on adjacent external walls	-	-
502, 602, 702, 802, 902, 1002, 1102	within main living area Ventilation openings: >3 m apart and on adjacent external walls	main living to Bedroom1 Ventilation openings: >3 m apart and on adjacent external walls	-	-
414, 514, 601, 614, 701, 714, 801, 814, 901, 914, 1001, 1014, 1101, 1114	within main living area Ventilation openings: >3 m apart and on adjacent external walls	main living to Bedroom1 Ventilation openings: >3 m apart and on adjacent external walls	main living to Bedroom2 Ventilation openings: >3 m apart and on adjacent external walls	-
All other dwellings	-	-	-	-

**(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	3 star	4 star	6 star	no common laundry facility

<b>Central systems</b>	<b>Size</b>	<b>Configuration</b>	<b>Connection (to allow for...)</b>
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<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.		✓	✓
(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.		✓	✓



<b>(ii) Energy</b>	<b>Show on DA plans</b>	<b>Show on CC/CDC plans &amp; specs</b>	<b>Certifier check</b>
(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)			halogen	connected to lift call button	No
Lift car (No. 2)			halogen	connected to lift call button	No
Lift car (No. 3)			halogen	connected to lift call button	No
Lift car (No. 4)			halogen	connected to lift call button	No
Building B - All Garbage Rooms	ventilation exhaust only	-	fluorescent	manual on / manual off	No
Building B - Ground Floor Lobby	no mechanical ventilation		compact fluorescent	time clock and motion sensors	No
Building B - Hallways	ventilation supply only	time clock or BMS controlled	compact fluorescent	time clock and motion sensors	No

Central energy systems	Type	Specification
Lift (No. 1)	gearless traction with V V V F motor	Number of levels (including basement): 12
Lift (No. 2)	gearless traction with V V V F motor	Number of levels (including basement): 12
Lift (No. 3)	gearless traction with V V V F motor	Number of levels (including basement): 12
Lift (No. 4)	gearless traction with V V V F motor	Number of levels (including basement): 12

Central energy systems	Type	Specification
Other	Building management system installed?: no Active power factor correction installed?: no Common area clothes drying line installed?: no	-

## 2. Commitments for unit building - Building F

### (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 "Hot water recirculation" column of the table below.		✓	✓
(e) The applicant must not install a private swimming pool or spa for the dwelling, with a volume exceeding that specified for it in the table below.	✓	✓	
(f) If specified in the table, that pool or spa (or both) must have a pool cover or shading (or both).		✓	
(g) The pool or spa must be located as specified in the table.	✓	✓	
(h) The applicant must install, for the dwelling, each alternative water supply system, with the specified size, listed for that dwelling in the table below. Each system must be configured to collect run-off from the areas specified (excluding any area which supplies any other alternative water supply system), and to divert overflow as specified. Each system must be connected as specified.	✓	✓	✓

Dwelling no.	Fixtures					Appliances		Individual pool				Individual spa		
	All shower-heads	All toilet flushing systems	All kitchen taps	All bathroom taps	Hot water recirculation	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	4 star	3 star	6 star	no	-	3 star	-	-	-	-	-	-	-

Alternative water source								
Dwelling no.	Alternative water supply systems	Size	Configuration	Landscape connection	Toilet connection	Laundry connection	Pool top-up	Spa top-up
None	-	-	-	no	no	no	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 system is specified in the table for "Living areas" or "Bedroom areas", then no systems may be installed in any such areas. If the term "zoned" is specified beside an air conditioning system, then the system must provide for day/night zoning between living areas and bedrooms.		✓	✓
(e) This commitment applies to each room or area of the dwelling which is referred to in a heading to the "Artificial lighting" column of the table below (but only to the extent specified for that room or area). The applicant must ensure that the "primary type of artificial lighting" for each such room in the dwelling is fluorescent lighting or light emitting diode (LED) lighting. If the term "dedicated" is specified for a particular room or area, then the light fittings in that room or area must only be capable of being used for fluorescent lighting or light emitting diode (LED) lighting.		✓	✓
(f) This commitment applies to each room or area of the dwelling which is referred to in a heading to the "Natural lighting" column of the table below (but only to the extent specified for that room or area). The applicant must ensure that each such room or area is fitted with a window and/or skylight.	✓	✓	✓
(g) This commitment applies if the applicant installs a water heating system for the dwelling's pool or spa. The applicant must: (aa) install the system specified for the pool in the "Individual Pool" column of the table below (or alternatively must not install any system for the pool). If specified, the applicant must install a timer, to control the pool's pump; and (bb) install the system specified for the spa in the "Individual Spa" column of the table below (or alternatively must not install any system for the spa). If specified, the applicant must install a timer to control the spa's pump.		✓ ✓	
(h) The applicant must install in the dwelling: (aa) the kitchen cook-top and oven specified for that dwelling in the "Appliances & other efficiency measures" column of the table below; (bb) each appliance for which a rating is specified for that dwelling in the "Appliances & other efficiency measures" column of the table, and ensure that the appliance has that minimum rating; and		✓ ✓	✓

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(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".		✓	

Dwelling no.	Hot water	Bathroom ventilation system		Kitchen ventilation system		Laundry ventilation system	
	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 on / timer off	individual fan, ducted to façade or roof	manual on / timer 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 3 Star (zoned)	1-phase airconditioning 3 Star (zoned)	1-phase airconditioning 3 Star (zoned)	(zoned)	0	0	no	no	no	no	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	2.5 star	-	2.5 star	yes	no

<b>(iii) Thermal Comfort</b>	<b>Show on DA plans</b>	<b>Show on CC/CDC plans &amp; specs</b>	<b>Certifier check</b>
(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) Commitment (h) below, applies to the rooms or areas of a dwelling which are listed in the "Cross Ventilation" table below as comprising a breeze path for the dwelling.			
(h) The applicant must construct the dwelling so that at least one ventilation opening is provided in each such room or area. (If only one room or area of a dwelling is mentioned for a breeze path, then that room or area must have at least two ventilation openings).		✓	✓
(i) The two ventilation openings referred to in (h), must meet the following specifications: (aa) be located as specified for the breeze path in the table; (bb) not be more than 15 metres apart; (cc) if the dwelling is below the 10th storey of the building, be at least 1 square metre in size, or if the dwelling is on or above the 10th storey, be at least 0.5 square metres in size and be located above door head level in the room; and (dd) have only 1 doorway, or opening less than 2 square metres in size, located in the direct path between them.			

<b>Thermal loads</b>			
<b>Dwelling no.</b>	<b>Heating load (in mJ/m<sup>2</sup>/yr)</b>	<b>Cooling load (in mJ/m<sup>2</sup>/yr)</b>	<b>Corrected Cooling load (in mJ/m<sup>2</sup>/yr)</b>
502	118	23	23.0

Dwelling no.	Thermal loads		
	Heating load (in mJ/m <sup>2</sup> /yr)	Cooling load (in mJ/m <sup>2</sup> /yr)	Corrected Cooling load (in mJ/m <sup>2</sup> /yr)
503	131	16	16.0
504	111	25	25.0
505	102	73	54.8
506	118	41	41.0
507	129	58	58.0
508	121	17	17.0
509	121	9	9.0
510	117	17	17.0
605	54	74	55.5
606	105	67	67.0
607	101	67	67.0
705	70	78	62.4
706	112	68	68.0
707	109	67	67.0
808	120	51	51.0
909	88	19	19.0
1001	47	66	66.0
1003	26	47	47.0
1004	22	45	45.0
1005	67	55	55.0
1006	33	83	66.4
1101	57	63	63.0
1103	27	46	46.0
1104	23	44	44.0
1105	68	55	55.0
1106	44	70	56.0
1201	113	84	61.6

Dwelling no.	Thermal loads		
	Heating load (in mJ/m <sup>2</sup> /yr)	Cooling load (in mJ/m <sup>2</sup> /yr)	Corrected Cooling load (in mJ/m <sup>2</sup> /yr)
1202	118	85	62.3
1203	45	90	63.0
1204	62	38	38.0
1205	9	59	59.0
1207	48	61	44.7
1208	26	90	66.0
1208	43	59	43.3
604, 704	58	36	36.0
608, 708	95	29	29.0
804, 904	92	60	60.0
1002, 1102	85	61	61.0
609, 709, 809	81	19	19.0
601, 701, 801, 901	47.8	67	67.0
602, 702, 802, 902	65	47	47.0
603, 703, 803, 903	70	17	17.0
610, 710, 810, 910	111	37	37.0
611, 711, 811, 911	37	51	51.0
612, 617, 812, 817	59	46	46.0
All other dwellings	61	49	49.0

Dwelling no.	Cross ventilation			
	Breeze path 1	Breeze path 2	Breeze path 3	Breeze path 4
505	main living to Bedroom1 Ventilation openings: >3 m apart and on adjacent external walls	-	-	-



Cross ventilation				
Dwelling no.	Breeze path 1	Breeze path 2	Breeze path 3	Breeze path 4
605	within main living area Ventilation openings: >3 m apart and on adjacent external walls	main living to Bedroom1 Ventilation openings: >3 m apart and on adjacent external walls	-	-
705, 1006, 1106	within main living area Ventilation openings: >3 m apart and on adjacent external walls	-	-	-
1201, 1202, 1203	within main living area Ventilation openings: >3 m apart and on adjacent external walls	Bedroom 1 to other space (not separate bathroom) Ventilation openings: >3 m apart and on adjacent external walls	Bedroom 2 to other space (not separate bathroom) Ventilation openings: >3 m apart and on adjacent external walls	-
1207, 1208, 1208	within main living area Ventilation openings: >3 m apart and on adjacent external walls	Bedroom1 to other living area Ventilation openings: >3 m apart and on adjacent external walls	Bedroom2 to other living area Ventilation openings: >3 m apart and on adjacent external walls	-
All other dwellings	-	-	-	-

**(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	3 star	4 star	6 star	no common laundry facility

<b>Central systems</b>	<b>Size</b>	<b>Configuration</b>	<b>Connection (to allow for...)</b>
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<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.		✓	✓
(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.		✓	✓

<b>(ii) Energy</b>	<b>Show on DA plans</b>	<b>Show on CC/CDC plans &amp; specs</b>	<b>Certifier check</b>
(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. 5)			halogen	connected to lift call button	No
Lift car (No. 6)			halogen	connected to lift call button	No
Building F - All Garbage Rooms	ventilation exhaust only	-	fluorescent	manual on / manual off	No
Common Room 1	ventilation (supply + exhaust)	time clock or BMS controlled	fluorescent	manual on / timer off	No
Common Room 2	ventilation (supply + exhaust)	time clock or BMS controlled	fluorescent	manual on / timer off	No
Building F - Ground Floor Lobby	no mechanical ventilation		compact fluorescent	time clock and motion sensors	No
Building F - Hallways	ventilation supply only	time clock or BMS controlled	compact fluorescent	time clock and motion sensors	No

Central energy systems	Type	Specification
Lift (No. 5)	gearless traction with V V V F motor	Number of levels (including basement): 12
Lift (No. 6)	gearless traction with V V V F motor	Number of levels (including basement): 12
Other	Building management system installed?: no Active power factor correction installed?: no Common area clothes drying line installed?: no	-

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

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

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

Common area	Showerheads rating	Toilets rating	Taps rating	Clothes washers rating
All common areas	3 star	4 star	6 star	no common laundry facility

Central systems	Size	Configuration	Connection (to allow for...)
Central water tank - rainwater or stormwater (No. 1)	50000	To collect run-off from at least: - 2892 square metres of roof area of buildings in the development - 0 square metres of impervious area in the development - 0 square metres of garden/lawn area in the development - 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 680 square metres of common landscaped area on the site - car washing in 0 car washing bays on the site
Pool (No. 1)	Volume: 112 kLs	Location: Indoor pool &/or spa area (No. 1) Pool shaded: yes	-

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

Common area	Common area ventilation system		Common area lighting		
	Ventilation system type	Ventilation efficiency measure	Primary type of artificial lighting	Lighting efficiency measure	Lighting control system/BMS
Indoor pool &/or spa area (No. 1)	air conditioning system	time clock or BMS controlled	fluorescent	time clocks	No
Combined Carpark Area	ventilation exhaust only	carbon monoxide monitor + VSD fan	fluorescent	zoned switching with motion sensor	No
Switch room (No. 1)	ventilation exhaust only	interlocked to light	fluorescent	manual on / manual off	No
Plant or service room (No. 1)	ventilation exhaust only	interlocked to light	fluorescent	manual on / manual off	No
Fire Stairs	no mechanical ventilation		fluorescent	time clocks	No

Central energy systems	Type	Specification
Central hot water system (No. 1)	solar - gas boosted	Solar collector area (minimum, in square metres): 330 Piping insulation (ringmain & supply risers): (a) Piping external to building: R1.0 (~38 mm); (b) Piping internal to building: R1.0 (~38 mm)
Pool (No. 1)	Heating source: gas	Solar collector area (minimum, in square metres): 100 Pump controlled by timer: yes

Central energy systems	Type	Specification
Other	Building management system installed?: no Active power factor correction installed?: no Common area clothes drying line installed?: no	-

## 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).