BASIX[°]Certificate

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

Multi Dwelling

Certificate number: 347933M_02

This certificate confirms that the proposed development will meet the NSW government's requirements for sustainability, if it is built in accordance with the commitments set out below. Terms used in this certificate, or in the commitments, have the meaning given by the document entitled "BASIX Definitions" dated 29/06/2009 published by the Department of Planning. This document is available at www.basix.nsw.gov.au

Director-General Date of issue: Thursday, 25 November 2010



Project summary		
Project name	Rhodes 2A/3A - Build C_0	2
Street address	40 Walker Street Rhodes 2	2138
Local Government Area	Canada Bay City Council	
Plan type and plan number	deposited NA	
Lot no.	NA	
Section no.	-	
No. of unit buildings	1	
No. of units in unit buildings	160	
No. of attached dwelling houses	0	
No. of separate dwelling houses	0	
Project score		
Water	✓ 40	Target 40
Thermal Comfort	✓ Pass	Target Pass
Energy	✓ 23	Target 20

Certificate Prepared	by (please complete before submitting to Councl or PCA)
Name / Company Name:	ecospecifier Pty Ltd
ABN (if applicable):	ABN 83 124 037 841

Description of project

Project address

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Plan type and plan number	deposited NA
Lot no.	NA
Section no.	-
Project type	
No. of unit buildings	1
No. of units in unit buildings	160
No. of attached dwelling houses	0
No. of separate dwelling houses	0
Site details	
Site area (m²)	4488
Roof area (m ²)	1486
Non-residential floor area (m ²)	454
Residential car spaces	168
Non-residential car spaces	0
1	

Common area landscape		
Common area lawn (m ²)	890	
Common area garden (m ²)	602	
Area of indigenous or low water use species (m ²)	361	
Assessor details		
Assessor number	20047	
Certificate number	88172687	
Climate zone	56	
Project score		
Water	✓ 40	Target 40
Thermal Comfort	V Pass	Target Pass
Energy	✓ 23	Target 20

Description of project

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

Unit building - Building C, 160 dwellings, 22 storeys above ground

Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & Iawn (m²)	Indigenous species (min area m²)	Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)	Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)	Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)
c101	1	53.0	0.0	13	7.8	c102	2	67.0	0.0	24.5	14.7	c103	2	81.0	0.0	0	0	c104	2	71.0	0.0	0	0
c105	2	71.0	0.0	0	0	c106	2	81.0	0.0	0	0	c107	2	67.0	0.0	22	13.2	c108	1	53.0	0.0	12.5	7.5
c201	1	53.0	0.0	0	0	c202	2	67.0	0.0	0	0	c203	2	81.0	0.0	0	0	c204	2	71.0	0.0	0	0
c205	2	71.0	0.0	0	0	c206	2	81.0	0.0	0	0	c207	2	67.0	0.0	0	0	c208	1	53.0	0.0	0	0
c301	1	53.0	0.0	0	0	c302	2	67.0	0.0	0	0	c303	2	81.0	0.0	0	0	c304	2	71.0	0.0	0	0
c305	2	71.0	0.0	0	0	c306	2	81.0	0.0	0	0	c307	2	67.0	0.0	0	0	c308	1	53.0	0.0	0	0
c401	1	53.0	0.0	0	0	c402	2	67.0	0.0	0	0	c403	2	81.0	0.0	0	0	c404	2	71.0	0.0	0	0
c405	2	71.0	0.0	0	0	c406	2	81.0	0.0	0	0	c407	2	67.0	0.0	0	0	c408	1	53.0	0.0	0	0
c501	1	53.0	0.0	0	0	c502	2	67.0	0.0	0	0	c503	2	81.0	0.0	0	0	c504	2	71.0	0.0	0	0
c505	2	71.0	0.0	0	0	c506	2	81.0	0.0	0	0	c507	2	67.0	0.0	0	0	c508	1	53.0	0.0	0	0
c601	1	53.0	0.0	0	0	c602	2	67.0	0.0	0	0	c603	2	81.0	0.0	0	0	c604	2	71.0	0.0	0	0
c605	2	71.0	0.0	0	0	c606	2	81.0	0.0	0	0	c607	2	67.0	0.0	0	0	c608	1	53.0	0.0	0	0
c701	1	53.0	0.0	0	0	c702	2	67.0	0.0	0	0	c703	2	81.0	0.0	0	0	c704	2	71.0	0.0	0	0
c705	2	71.0	0.0	0	0	c706	2	81.0	0.0	0	0	c707	2	67.0	0.0	0	0	c708	1	53.0	0.0	0	0
c801	1	53.0	0.0	0	0	c802	2	67.0	0.0	0	0	c803	2	81.0	0.0	0	0	c804	2	71.0	0.0	0	0
c805	2	71.0	0.0	0	0	c806	2	81.0	0.0	0	0	c807	2	67.0	0.0	0	0	c808	1	53.0	0.0	0	0
c901	1	53.0	0.0	0	0	c902	2	67.0	0.0	0	0	c903	2	81.0	0.0	0	0	c904	2	71.0	0.0	0	0
c905	2	71.0	0.0	0	0	c906	2	81.0	0.0	0	0	c907	2	67.0	0.0	0	0	c908	1	53.0	0.0	0	0

Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & Iawn (m²)	Indigenous species (min area m²)	Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)	Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)	Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & Iawn (m²)	Indigenous species (min area m²)
c1001	1	53.0	0.0	0	0	c1002	2	67.0	0.0	0	0	c1003	2	81.0	0.0	0	0	c1004	2	71.0	0.0	0	0
c1005	2	71.0	0.0	0	0	c1006	2	81.0	0.0	0	0	c1007	2	67.0	0.0	0	0	c1008	1	53.0	0.0	0	0
c1101	1	53.0	0.0	0	0	c1102	2	67.0	0.0	0	0	c1103	2	81.0	0.0	0	0	c1104	2	71.0	0.0	0	0
c1105	2	71.0	0.0	0	0	c1106	2	81.0	0.0	0	0	c1107	2	67.0	0.0	0	0	c1108	1	53.0	0.0	0	0
c1201	1	53.0	0.0	0	0	c1202	2	67.0	0.0	0	0	c1203	2	81.0	0.0	0	0	c1204	2	71.0	0.0	0	0
c1205	2	71.0	0.0	0	0	c1206	2	81.0	0.0	0	0	c1207	2	67.0	0.0	0	0	c1208	1	53.0	0.0	0	0
c1301	1	53.0	0.0	0	0	c1302	2	67.0	0.0	0	0	c1303	2	81.0	0.0	0	0	c1304	2	71.0	0.0	0	0
c1305	2	71.0	0.0	0	0	c1306	2	81.0	0.0	0	0	c1307	2	67.0	0.0	0	0	c1308	1	53.0	0.0	0	0
c1401	1	53.0	0.0	0	0	c1402	2	67.0	0.0	0	0	c1403	2	81.0	0.0	0	0	c1404	2	71.0	0.0	0	0
c1405	2	71.0	0.0	0	0	c1406	2	81.0	0.0	0	0	c1407	2	67.0	0.0	0	0	c1408	1	53.0	0.0	0	0
c1501	1	53.0	0.0	0	0	c1502	2	67.0	0.0	0	0	c1503	2	81.0	0.0	0	0	c1504	2	71.0	0.0	0	0
c1505	2	71.0	0.0	0	0	c1506	2	81.0	0.0	0	0	c1507	2	67.0	0.0	0	0	c1508	1	53.0	0.0	0	0
c1601	1	53.0	0.0	0	0	c1602	2	67.0	0.0	0	0	c1603	2	81.0	0.0	0	0	c1604	2	71.0	0.0	0	0
c1605	2	71.0	0.0	0	0	c1606	2	81.0	0.0	0	0	c1607	2	67.0	0.0	0	0	c1608	1	53.0	0.0	0	0
c1701	1	53.0	0.0	0	0	c1702	2	67.0	0.0	0	0	c1703	1	58.0	0.0	0	0	c1704	3	96.0	0.0	0	0
c1705	3	96.0	0.0	0	0	c1706	1	58.0	0.0	0	0	c1707	2	67.0	0.0	0	0	c1708	1	53.0	0.0	0	0
c1801	1	53.0	0.0	0	0	c1802	2	67.0	0.0	0	0	c1803	1	58.0	0.0	0	0	c1804	3	96.0	0.0	0	0
c1805	3	96.0	0.0	0	0	c1806	1	58.0	0.0	0	0	c1807	2	67.0	0.0	0	0	c1808	1	53.0	0.0	0	0
c1901	1	53.0	0.0	0	0	c1902	2	67.0	0.0	0	0	c1903	1	58.0	0.0	0	0	c1904	3	96.0	0.0	0	0
c1905	3	96.0	0.0	0	0	c1906	1	58.0	0.0	0	0	c1907	2	67.0	0.0	0	0	c1908	1	53.0	0.0	0	0
cPO01	1	53.0	0.0	0	0	cPO02	2	67.0	0.0	0	0	cPO03	2	81.0	0.0	0	0	cPO04	2	71.0	0.0	0	0
cPO05	2	71.0	0.0	0	0	cPO06	2	81.0	0.0	0	0	cPO07	2	67.0	0.0	0	0	cPO08	1	53.0	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 C

Common area	Floor area (m²)	Common area	Floor area (m²)	Common area	Floor area (m ²)
Car park (safety lights + Mech S/E)	140	Lift car (No. 1)	-	Lift car (No. 2)	-
Lift car (No. 3)	-	Switch rooms	18	Garbage shutes and rooms	72
Community rooms	98	Hallway/lobby (Natural Ventilation)	1656]

Common areas of the development (non-building specific)

Common area	Floor area (m²)	Common area	Floor area (m²)	Common area	Floor area (m²)
Car park (motion sensor +nat air supply)	5047	Car park (motion sensor + Mech S/E)	561	Car park (safety lights +nat air supply)	1262
Garbage stoarge	92	Plant rooms (not Switch room)	23	Common Bathrooms	5
Enclosed Store Rooms	44	Manager's Room	10		

Schedule of BASIX commitments

1. Commitments for unit building - Building C

(a) Dwellings

(i) Water

(ii) Energy

(iii) Thermal Comfort

(b) Common areas and central systems/facilities

(i) Water

(ii) Energy

2. Commitments for attached dwelling houses

3. Commitments for separate dwelling houses

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

(i) Water

(ii) Energy

Schedule of BASIX commitments

The commitments set out below regulate how the proposed development is to be carried out. It is a condition of any development consent granted, or complying development certificate issued, for the proposed development, that BASIX commitments be complied with.

1. Commitments for unit building - Building C

(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).	1	1	
(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.		✓	1
(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.		✓	1
(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		✓	1
(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.		✓	1
(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.	1	✓	
(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.	1	✓	
(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.	1	✓	1

			Fixtur	es		Appl	iances		Indi	vidual pool		In	dividual	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
c101	3 star (> 6 but <= 7.5 L/min)	4 star	5 star	5 star	no	-	3 star	-	-	-	-	-	-	-
c102	3 star (> 6 but <= 7.5 L/min)	4 star	5 star	5 star	no	-	3 star	-	-	-	-	-	-	-
c107	3 star (> 6 but <= 7.5 L/min)	4 star	5 star	5 star	no	-	3 star	-	-	-	-	-	-	-
c108	3 star (> 6 but <= 7.5 L/min)	4 star	5 star	5 star	no	-	3 star	-	-	-	-	-	-	-

			Fixtur	es		Appl	iances		Indi	vidual 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	
c103, c104, c105, c106, c201, c202, c203, c204, c205, c206, c207, c208, c301, c302, c303, c304, c305, c306, c307, c308, c401, c402, c403, c404, c405, c406, c407, c408, c501, c502, c503, c504, c505, c506, c507, c508, c601, c602, c603, c604, c404, c404, c405, c404, c405, c406, c407, c408, c501, c502, c503, c504, c505, c506, c507, c508, c601, c602, c603, c604, c404, c404, c405, c404, c405, c406, c407, c408, c501, c502, c503, c504, c505, c506, c507, c508, c601, c602, c603, c604, c404, c404, c405, c404, c405, c406, c407, c408, c501, c502, c503, c504, c505, c506, c507, c508, c601, c602, c603, c604, c404, c404, c405, c404, c405, c404, c405, c406, c407, c408, c501, c502, c503, c504, c505, c506, c507, c508, c604, c404, c404, c405, c404, c405, c404, c405, c404, c405, c406, c407, c408, c504, c505, c506, c507, c508, c604, c404, c404, c405, c404, c405, c404, c405, c406, c407, c408, c501, c502, c503, c504, c504, c504, c404, c405, c404, c405, c404, c405, c404, c405, c406, c407, c408, c504, c505, c506, c507, c508, c604, c404, c405, c404, c405, c404, c405, c404, c405, c406, c407, c408, c504, c505, c506, c507, c508, c507, c508, c604, c404, c405, c404, c405, c404, c405, c404, c405, c404, c405, c406, c407, c408, c505, c506, c507, c508, c506, c507, c508, c604, c404, c405, c405, c404, c405, c405	3 star (> 6 but <= 7.5 L/min)	4 star	5 star	5 star	no		3 star			-					

						A row I			le el:			1.		
			Fixtur				ances			vidual pool			dividual	
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
c605, c606, c607, c608, c701, c702, c703, c704, c705, c706, c707, c708, c801, c802, c803, c804, c805, c806, c806, c807, c808, c901, c902, c903,	neads	Systems	taps	taps	or diversion	wasners		volume)				volume)		
c904, c905, c906, c907, c908, c1001, c1002, c1003, c1004, c1005, c1006, c1007, c1008, c1101, c1102, c1103,														

			Fixtur	05		Appli	ances		Indi	vidual pool		In	dividual	sna
Dwelling no.	All shower-	All toilet flushing	All kitchen	All bathroom	HW recirculation	All clothes	All dish- washers	Volume (max	Pool cover	Pool location	Pool shaded	Volume (max	Spa cover	Spa Spa shaded
	heads	systems	taps	taps	or diversion	washers		volume)				volume)		
c1105,														
c1106, c1107,														
c1107, c1108,														
c1201,														
c1201, c1202,														
c1202, c1203,														
c1203, c1204,														
c1204, c1205,														
c1205, c1206,														
c1206, c1207,														
c1207, c1208,														
c1301,														
c1301, c1302,														
c1303,														
c1304, c1305,														
c1305,														
c1306,														
c1307,														
c1308,														
c1401,														
c1402,														
c1403,														
c1404,														
c1405, c1406,														
c1407, c1408,														
c1408, c1501,														
c1501, c1502,														
o1502,														
c1503, c1504,														
c1504, c1505,														
c1505, c1506,														
c1506, c1507,														
c1507, c1508,														
c1508, c1601,														
c1601, c1602,														
0100∠, 01602														
c1603,														
c1604,														

			Fixtur	es		Appli	ances		Indi	vidual pool		li	ndividual	spa
Dwelling 10.	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
c1605, c1606,														
c1607,														
c1608,														
c1701,														
c1702,														
:1703,														
c1704,														
c1705,														
c1706, c1707,														
c1707,														
c1801,														
c1802,														
c1803,														
c1804,														
c1805,														
c1806,														
c1807, c1808,														
c1901,														
c1902,														
c1903,														
c1904,														
c1905,														
c1906,														
c1907, c1908,														
cPO01,														
cPO02,														
CPO03,														
PO04,														
PO05,														
PO06,														
2PO07, 2PO08														
-C00														

			Alte	ernative water source				Pool top-up	
Owelling no.	Alternative water supply systems	Size	Configuration	Landscape connection	Toilet connectio (s)	Laun on conn	dry ection		Spa top-up
ii) Energy						Show on DA plans			Certifier check
(a) The applie	cant must comply with the	commitments li	sted below in carrying out the develo	opment of a dwelling listed in a tabl	e below.				
supplied b	by that system. If the table	specifies a cer	pecified for the dwelling in the table b tral hot water system for the dwelling s hot water is supplied by that centra	g, then the applicant must connect	ater is that	1		\checkmark	1
			en and laundry of the dwelling, the ve t have the operation control specified		oom in			√	✓
areas" he no cooling any such	adings of the "Cooling" an g or heating system is spe	d "Heating" coll cified in the tab is specified bes	system/s specified for the dwelling un umns in the table below, in/for at leas le for "Living areas" or "Bedroom area side an air conditioning system, then	st 1 living/bedroom area of the dwe as", then no systems may be insta	elling. If Iled in			1	1
the table l lighting" for specified	below (but only to the exte or each such room in the c	nt specified for Iwelling is fluore ea, then the ligh	ne dwelling which is referred to in a h that room or area). The applicant mu escent lighting or light emitting diode at fittings in that room or area must or hting.	ust ensure that the "primary type of (LED) lighting. If the term "dedicat	artificial			1	1
the table		nt specified for	e dwelling which is referred to in a he that room or area). The applicant mu			✓		√	~
(g) This comr	nitment applies if the appli	cant installs a	water heating system for the dwelling	s pool or spa. The applicant mus	t:				
			he "Individual Pool" column of the tal applicant must install a timer, to contro		t install			1	
			ne "Individual Spa" column of the tabl pplicant must install a timer to control		install			✓	
(h) The applie	cant must install in the dwe	elling:							
	ne kitchen cook-top and ov able below;	en specified fo	r that dwelling in the "Appliances & of	ther efficiency measures" column	of the			1	
									1

(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.		1	
(i) If specified in the table, the applicant must carry out the development so that each refrigerator space in the dwelling is "well ventilated".		1	

	Hot water	Bathroom ven	tilation system	Kitchen vent	ilation 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	

	Cooling		Hea	Heating		Artificial 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 Iaundry	All hallways	No. of bathrooms &/or toilets	Main kitcher
c1704, c1705, c1804, c1805, c1904, c1905	1-phase airconditioning 1.5 Star (new rating) (zoned)	1-phase airconditioning 1.5 Star (new rating) (zoned)	1-phase airconditioning 1.5 Star (new rating) (zoned)	1-phase airconditioning 1.5 Star (new rating) (zoned)	4	2	yes	yes	yes	yes	0	yes

	Coc	ling	Hea	ting			Artificial	lighting			Natural lig	phting
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 Iaundry	All hallways	No. of bathrooms &/or toilets	Main kitche
c103, c106, c203, c206, c303, c306, c403, c406, c503, c506, c603, c606, c703, c706, c803, c606, c703, c706, c803, c1006, c1003, c1006, c1003, c1203, c1206, c1303, c1406, c1403, c1406, c1503, c1606, c1603, c1606, cPO03, cPO06	1-phase airconditioning 1.5 Star (new rating) (zoned)	1-phase airconditioning 1.5 Star (new rating) (zoned)	1-phase airconditioning 1.5 Star (new rating) (zoned)	1-phase airconditioning 1.5 Star (new rating) (zoned)	3	2	yes	yes	yes	yes	0	yes

	Coc	oling	Hea	ting			Artificia	l lighting			Natural lig	ghting
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 Iaundry	All hallways	No. of bathrooms &/or toilets	Main kitchen
c101, c108, c201, c208, c301, c308, c401, c408, c501, c508, c601, c608, c701, c708, c801, c708, c801, c708, c801, c1001, c1008, c1001, c1008, c1101, c1008, c1201, c1208, c1301, c1308, c1401, c1508, c1401, c1508, c1601, c1508, c1601, c1508, c1601, c1508, c1601, c1708, c1601, c1708, c1601, c1708, c1601, c1708, c1601, c1708, c1601, c1708, c1601, c1608, c1701, c1708, c1601, c1608, c1701, c1708, c1601, c1608, c1701, c1708, c1601, c1608, c1701, c1708, c1601, c1608, c1701, c1708, c1601, c1608, c1701, c1708, c1601, c1608, c1701, c1708, c1801, c1908, c1901, c1905, c1905, c1905, c1905, c1905, c1905, c1905,	1-phase airconditioning 1.5 Star (new rating) (zoned)	1-phase airconditioning 1.5 Star (new rating) (zoned)	1-phase airconditioning 1.5 Star (new rating) (zoned)	1-phase airconditioning 1.5 Star (new rating) (zoned)	1	2	yes	yes	yes	yes	0	yes

	Cooling Heating					Artificial 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 Iaundry	All hallways	No. of bathrooms &/or toilets	Main kitche
cPO08												

	Coo	oling	ting	Artificial lighting							ghting	
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 Iaundry	All hallways	No. of bathrooms &/or toilets	Main
c102, c104, c105, c107, c202, c204, c205, c207, c302, c304, c305, c307, c402, c404, c405, c407, c502, c504, c505, c507, c502, c504, c505, c507, c602, c604, c605, c607, c702, c704, c705, c707, c802, c804, c705, c707, c802, c904, c905, c907, c1002, c904, c905, c907, c1002, c1004, c1005, c1007, c1002, c1004, c1005, c1007, c1002, c1004, c1005, c1007, c1002, c1004, c1005, c1007, c1002, c1004, c1005, c1007, c1002, c1004, c1002, c1004, c1005, c1004, c1005, c1004, c1005, c1004, c1005, c1004, c1005, c1004, c1005, c1004, c1005, c1004, c1005, c1007, c1002, c1004, c1005, c1007, c1002, c1004, c1005, c1007, c1002, c1004, c1005, c1007, c1002, c1004, c1005, c1007, c1002, c1004, c1005, c1007, c1002, c1004, c1005, c1007, c1002, c1004, c1005, c1002, c1004, c1005, c1002, c1004, c1005, c1002, c1004, c1005, c1002, c1004, c1005, c1007, c1002, c1004, c1005, c1007, c1002, c1004, c1005, c1002, c1004, c1005, c1007, c1002, c1004, c1005, c1002, c1004, c1005, c1002, c1004, c1005, c1002, c1004, c1002, c1004, c1005, c1002, c1004, c1002, c1004, c1002, c1004, c1002, c1004, c1005, c1002, c1004, c1002, c1004, c1002, c1004, c1002, c1004, c1002, c1004, c1002, c1004, c1005, c1002, c1004, c1002, c1004, c1005, c1004, c1002, c1004, c1005, c1004, c1005, c1004, c1005, c1004, c1005, c1002, c1004, c1005, c1002, c1004, c1005, c1002, c1004, c1005, c1002, c1004, c1005, c1004, c1005, c105, c105, c105, c105, c105, c105, c105, c10	1-phase airconditioning 1.5 Star (new rating) (zoned)	1-phase airconditioning 1.5 Star (new rating) (zoned)	1-phase airconditioning 1.5 Star (new rating) (zoned)	1-phase airconditioning 1.5 Star (new rating) (zoned)	2	2	yes	yes	yes	yes	0	yes

	Co	oling	Неа	iting			Artificial	lighting			Natural lig	ghting
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 Iaundry	All hallways	No. of bathrooms &/or toilets	Main kitchei
c1007, c1102,												
c1104, c1105,												
c1107,												
c1202, c1204,												
c1205,												
c1207, c1302,												
c1304,												
c1305, c1307,												
c1402,												
c1404, c1405,												
c1407, c1502,												
c1504,												
c1505, c1507,												
c1602,												
c1604, c1605,												
c1607,												
c1702, c1703,												
c1706,												
c1707, c1802,												
c1803,												
c1806, c1807,												
c1902, c1903,												
c1906,												
c1907, cPO02,												
cPO02, cPO04,												

	Co	oling	Неа	ating			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 Iaundry	All hallways	No. of bathrooms &/or toilets	Main kitchen	
cPO05, cPO07													

	Individual p	ool	Individual s	ра			Appliance	es & other effic	iency meas	ures		
Dwelling no.	Pool heating system	Timer	Spa heating system	Timer	Kitchen cooktop/oven	Refrigerator	Well ventilated fridge space	Dishwasher	Clothes washer	Clothes dryer	Indoor or sheltered clothes drying line	Private outdoor or unsheltered clothes drying line
All dwellings	-	-	-	-	gas cooktop & electric oven	-	no	4 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.			

iii) Thermal Comfort	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(f) The applicant must construct the development in accordance with all thermal performance specifications set out in the Assessor Certificate, and in accordance with those aspects of the development application or application for a complying development certificate which were used to calculate those specifications.		✓	1
(g) Where there is an in-slab heating or cooling system, the applicant must:	1	1	✓
(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.	~	1	1

		Thermal loads
Dwelling no.	Area adjusted heating load (in mJ/m²/yr)	Area adjusted cooling load (in mJ/m²/yr)
c102	24.2	8.7
c506	15.2	15.4
c507	14.1	9.3
c1503	20.8	16.5
c1603	26.6	20.1
c1606	15.8	21.8
c1901	45.6	21.7
c1902	43.7	16.4
c1903	41.5	31.6
c1904	49.8	19.1
c1905	29.6	17.3
c1906	36.8	38.9
c1907	28.0	16.9
c1908	45.5	25.0
cPO01	49.5	11.5

		Thermal loads
Dwelling no.	Area adjusted heating load (in mJ/m²/yr)	Area adjusted cooling load (in mJ/m²/yr)
cPO02	47.9	7.8
cPO03	49.2	15.7
cPO04	43.8	10.9
cPO05	45.0	10.6
cPO06	40.0	15.3
cPO07	63.9	9.8
cPO08	49.8	13.2
c1703, c1803	31.1	22.3
c1704, c1804	11.9	11.7
c1705, c1805	12.8	11.6
c1706, c1806	18.4	24.8
c1601, c1701, c1801	26.6	14.9
c1608, c1708, c1808	26.8	15.9
c106, c206, c306, c406	14.2	15.7
c107, c207, c307, c407	15.0	8.9
c101, c201, c301, c401, c501	25.2	11.8
c108, c208, c308, c408, c508	25.1	12.9
c601, c701, c801, c901, c1001	24.3	12.4
c608, c708, c808, c908, c1008	24.4	13.4
c1101, c1201, c1301, c1401, c1501	23.6	14.4
c1108, c1208, c1308, c1408, c1508	23.7	14.8
c607, c707, c807, c907, c1007, c1107	13.0	9.5
c1202, c1302, c1402, c1502, c1602, c1702, c1802	23.5	9.9
c1207, c1307, c1407, c1507, c1607, c1707, c1807	12.8	10.0

	Thermal loads					
Dwelling no.	Area adjusted heating load (in mJ/m²/yr)	Area adjusted cooling load (in mJ/m²/yr)				
c202, c302, c402, c502, c602, c702, c802, c902, c1002, c1102	24.2	8.9				
c606, c706, c806, c906, c1006, c1106, c1206, c1306, c1406, c1506	15.7	19.7				
c103, c203, c303, c403, c503, c603, c703, c803, c903, c1003, c1103, c1203, c1303, c1403	20.6	16.1				
c104, c204, c304, c404, c504, c604, c704, c804, c904, c1004, c1104, c1204, c1304, c1404, c1504, c1604	12.3	10.4				
All other dwellings	13.3	10.5				

(b) Common areas and central systems/facilities

(i) Water	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) If, in carrying out the development, the applicant installs a showerhead, toilet, tap or clothes washer into a common area, then that item must meet the specifications listed for it in the table.		✓	1
(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.	1	 ✓ 	1
(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.	1	1	
(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.		✓	1
(f) The applicant must ensure that the central cooling system for a cooling tower is configured as specified in the table.		✓	1

Common area	Showerheads rating	Toilets rating	Taps rating	Clothes washers rating
All common areas	3 star (> 6 but <= 7.5 L/min)	4 star	5 star	no common laundry facility

Central systems	Size	Configuration	Connection (to allow for)
Fire sprinkler system (No. 4)	-	So that fire sprinkler test water is contained within the fire sprinkler system for re-use, rather than disposed.	-
Fire sprinkler system (No. 5)	-	So that fire sprinkler test water is contained within the fire sprinkler system for re-use, rather than disposed.	-

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

(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.		 ✓ 	1
(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.	1	\checkmark	1

	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 (safety lights + Mech S/E)	ventilation (supply + exhaust)	carbon monoxide monitor + VSD fan	fluorescent	none	No
Lift car (No. 1)	-	-	compact fluorescent	none	No
Lift car (No. 2)	-	-	compact fluorescent	none	No
Lift car (No. 3)	-	-	compact fluorescent	none	No
Switch rooms	ventilation (supply + exhaust)	none ie. continuous	fluorescent	manual on / manual off	No
Garbage shutes and rooms	ventilation exhaust only	•	compact fluorescent	motion sensors	Yes
Community rooms	no mechanical ventilation	-	compact fluorescent	manual on / manual off	No
Hallway/lobby (Natural Ventilation)	ventilation supply only	none ie. continuous	compact fluorescent	time clock and motion sensors	Yes

Central energy systems	Туре	Specification
Lift (No. 1)	gearless traction with V V V F motor	Number of levels (including basement): 22
Lift (No. 2)	gearless traction with V V V F motor	Number of levels (including basement): 22
Lift (No. 3)	gearless traction with V V V F motor	Number of levels (including basement): 22

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

(b) Common areas and central systems/facilities

(i) Water	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) If, in carrying out the development, the applicant installs a showerhead, toilet, tap or clothes washer into a common area, then that item must meet the specifications listed for it in the table.		\checkmark	1
(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.	1	✓	1
(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.	~	\checkmark	
(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.		✓	1
(f) The applicant must ensure that the central cooling system for a cooling tower is configured as specified in the table.		✓	1

Common area	Showerheads rating	Toilets rating	Taps rating	Clothes washers rating
All common areas	3 star (> 6 but <= 7.5 L/min)	4 star	5 star	no common laundry facility

Central systems	Size	Configuration	Connection (to allow for)
Central water tank - rainwater or stormwater (No. 1)	10855	To collect run-off from at least: - 1486 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 1492 square metres of common landscaped area on the site car washing in 1 car washing bays on the site
Fire sprinkler system (No. 1)	-	So that fire sprinkler test water is contained within the fire sprinkler system for re-use, rather than disposed.	-

Central systems	Size	Configuration	Connection (to allow for)
Fire sprinkler system (No. 2)	-	So that fire sprinkler test water is contained within the fire sprinkler system for re-use, rather than disposed.	-
Fire sprinkler system (No. 3)	-	So that fire sprinkler test water is contained within the fire sprinkler system for re-use, rather than disposed.	-

(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.		~	1
(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.		1	1
(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.	1	✓	1

	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 (motion sensor +nat air supply)	ventilation exhaust only	carbon monoxide monitor + VSD fan	fluorescent	time clock and motion sensors	Yes
Car park (motion sensor + Mech S/E)	ventilation (supply + exhaust)	carbon monoxide monitor + VSD fan	fluorescent	time clock and motion sensors	Yes
Car park (safety lights +nat air supply)	ventilation exhaust only	carbon monoxide monitor + VSD fan	fluorescent	none	No
Garbage stoarge	ventilation exhaust only	-	fluorescent	manual on / manual off	No
Plant rooms (not Switch room)	ventilation (supply + exhaust)	none ie. continuous	fluorescent	manual on / manual off	No
Common Bathrooms	ventilation exhaust only	time clock or BMS controlled	compact fluorescent	manual on / manual off	No
Enclosed Store Rooms	no mechanical ventilation	-	fluorescent	manual on / manual off	No
Manager's Room	ventilation supply only	time clock or BMS controlled	compact fluorescent	manual on / manual off	No

Central energy systems	Туре	Specification		
Central hot water system (No. 1)	gas-fired storage (manifolded)	Piping insulation (ringmain & supp (a) Piping external to building: R0 (b) Piping internal to building: R0.	ıly risers): .45 (~20 mm); 45 (~20 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

Legend

human consumption in areas with potable water supply.

- 1. Commitments identified with a "
- 2. Commitments identified with a "
- 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).