

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

Multi Dwelling

Certificate number: 754373M_02

This certificate confirms that the proposed development will meet the NSW government's requirements for sustainability, if it is built in accordance with the commitments set out below. Terms used in this certificate, or in the commitments, have the meaning given by the document entitled "BASIX Definitions" dated 10/09/2020 published by the Department. This document is available at www.basix.nsw.gov.au

Secretary

BASIX

Date of issue: Wednesday, 24 November 2021

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



Project summary				
Project name	2020 - 25 George Street, North Strat_02			
Street address	25 George Street North Strathfield 2137			
Local Government Area	Canada Bay City Council			
Plan type and plan number	strata 22302			
Lot no.				
Section no.	-			
No. of residential flat buildings	3			
No. of units in residential flat buildings	145			
No. of multi-dwelling houses	0			
No. of single dwelling houses	0			
Project score				
Water	√ 41 Target 40			
Thermal Comfort	✓ Pass Target Pass			
Energy	√ 36 Target 35			

Certificate Prepared by					
Name / Company Name: BCA Energy					
ABN (if applicable): 077183192					

Planning, Industry & Environment www.basix.nsw.gov.au Version: 3.0 / DARWINIA_3_18_5 Certificate No.: 754373M_02 Wednesday, 24 November 2021 page 1/40

Description of project

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Plan type and plan number	strata 22302			
Lot no.	-			
Section no.	-			
Project type				
No. of residential flat buildings	3			
No. of units in residential flat buildings	145			
No. of multi-dwelling houses	0			
No. of single dwelling houses	0			
Site details				
Site area (m²)	7485			
Roof area (m²)	2700			
Non-residential floor area (m²)	0.0			
Residential car spaces	141			
Non-residential car spaces	0			

Common area landscape				
Common area lawn (m²)	1400.0			
Common area garden (m²)	700.0			
Area of indigenous or low water use species (m²)	0.0			
Assessor details				
Assessor number	101535			
Certificate number	0006824780			
Climate zone	56			
Ceiling fan in at least one bedroom	No			
Ceiling fan in at least one living room or other conditioned area	No			
Project score				
Water	✓ 41	Target 40		
Thermal Comfort	✓ Pass	Target Pass		
Energy	✓ 36	Target 35		

Planning, Industry & Environment www.basix.nsw.gov.au Version: 3.0 / DARWINIA_3_18_5 Certificate No.: 754373M_02 Wednesday, 24 November 2021 page 2/40

Description of project

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

Residential flat buildings - Building A, 44 dwellings, 4 storeys above ground

Dwelling no.	No. of hedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & Iawn (m²)	Indigenous species (min area m²)
101	2	76.0	0.0	0.0	0.0
106	2	79.0	0.0	0.0	0.0
111	2	75.0	0.0	0.0	0.0
205	1	50.0	0.0	0.0	0.0
210	2	76.0	0.0	0.0	0.0
303	1	50.0	0.0	0.0	0.0
308	1	50.0	0.0	0.0	0.0
G01	2	77.0	0.0	20.0	0.0
G06	2	75.0	0.0	20.0	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)
102	3	104.0	0.0	0.0	0.0
107	2	75.0	0.0	0.0	0.0
201	2	76.0	0.0	0.0	0.0
206	2	79.0	0.0	0.0	0.0
211	2	75.0	0.0	0.0	0.0
304	2	75.0	0.0	0.0	0.0
309	1	50.0	0.0	0.0	0.0
G02	3	104.0	0.0	20.0	0.0
G07	3	104.0	0.0	20.0	0.0
304 309 G02	1 3	75.0 50.0 104.0	0.0	0.0 0.0 20.0	0.0 0.0 0.0

Dwelling no.	No. of hedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m^2)	Indigenous species (min area m²)
103	1	50.0	0.0	0.0	0.0
108	1	50.0	0.0	0.0	0.0
202	3	104.0	0.0	0.0	0.0
207	2	75.0	0.0	0.0	0.0
212	2	75.0	0.0	0.0	0.0
305	1	50.0	0.0	0.0	0.0
310	2	76.0	0.0	0.0	0.0
G03	1	50.0	0.0	20.0	0.0
G08	2	77.0	0.0	20.0	0.0

Dwelling no.	No. of hedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)
104	2	75.0	0.0	0.0	0.0
109	2	76.0	0.0	0.0	0.0
203	1	50.0	0.0	0.0	0.0
208	1	50.0	0.0	0.0	0.0
301	2	76.0	0.0	0.0	0.0
306	2	79.0	0.0	0.0	0.0
311	2	75.0	0.0	0.0	0.0
G04	2	75.0	0.0	20.0	0.0
G09	2	77.0	0.0	20.0	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)
105	1	50.0	0.0	0.0	0.0
110	2	75.0	0.0	0.0	0.0
204	2	75.0	0.0	0.0	0.0
209	1	50.0	0.0	0.0	0.0
302	3	104.0	0.0	0.0	0.0
307	2	75.0	0.0	0.0	0.0
312	2	75.0	0.0	0.0	0.0
G05	3	102.0	0.0	20.0	0.0
	'				

Residential flat buildings - Building C, 65 dwellings, 6 storeys above ground

Dwelling no.	No. of hedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)
118	2	77.0	0.0	0.0	0.0
123	2	84.0	0.0	0.0	0.0

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Dwelling no.	No. of hedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & Iawn (m²)	Indigenous species (min area m²)
119	3	104.0	0.0	0.0	0.0
124	2	78.0	0.0	0.0	0.0

Dwelling no.	No. of hedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)
120	1	50.0	0.0	0.0	0.0
125	1	50.0	0.0	0.0	0.0

Dwelling no.	No. of hedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)
121	2	75.0	0.0	0.0	0.0
126	3	103.0	0.0	0.0	0.0

Certificate No.: 754373M_02

Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & Iawn (m²)	Indigenous species (min area m²)
122	1	50.0	0.0	0.0	0.0
127	2	75.0	0.0	0.0	0.0

Dwelling no.	No. of hedrooms	_ = m	Unconditioned floor area (m²)	Area of garden & Iawn (m²)		Dwelling no.	No. of hedrooms	اق ج	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)	Dwelling no.	No. of hedrooms	E @	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)	ou pulling		No. of hedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & Iawn (m²)	Indigenous species (min area m²)	Dwelling no.	No. of hedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)
128	2	76.0	0.0	0.0	0.0	219	2	77.0	0.0	0.0	0.0	220	3	104.0	0.0	0.0	0.0	22	21	1	50.0	0.0	0.0	0.0	222	2	75.0	0.0
223	1	50.0	0.0	0.0	0.0	224	2	84.0	0.0	0.0	0.0	225	2	78.0	0.0	0.0	0.0	22	26	1	50.0	0.0	0.0	0.0	227	3	103.0	0.0
228	2	75.0	0.0	0.0	0.0	229	2	76.0	0.0	0.0	0.0	319	2	77.0	0.0	0.0	0.0	32	20	3	104.0	0.0	0.0	0.0	321	1	50.0	0.0
322	2	75.0	0.0	0.0	0.0	323	1	50.0	0.0	0.0	0.0	324	2	84.0	0.0	0.0	0.0	32	25	2	78.0	0.0	0.0	0.0	326	1	50.0	0.0
327	3	103.0	0.0	0.0	0.0	328	2	75.0	0.0	0.0	0.0	329	2	76.0	0.0	0.0	0.0	40	07	2	77.0	0.0	0.0	0.0	408	3	104.0	0.0
409	1	50.0	0.0	0.0	0.0	410	2	75.0	0.0	0.0	0.0	411	1	50.0	0.0	0.0	0.0	4	12	2	84.0	0.0	0.0	0.0	413	2	78.0	0.0
414	1	50.0	0.0	0.0	0.0	415	3	103.0	0.0	0.0	0.0	416	2	75.0	0.0	0.0	0.0	4	17	2	76.0	0.0	0.0	0.0	507	2	77.0	0.0
508	3	104.0	0.0	0.0	0.0	509	1	50.0	0.0	0.0	0.0	510	2	75.0	0.0	0.0	0.0	5	11	1	50.0	0.0	0.0	0.0	512	2	84.0	0.0
513	2	78.0	0.0	0.0	0.0	514	1	50.0	0.0	0.0	0.0	515	3	103.0	0.0	0.0	0.0	5	16	2	75.0	0.0	0.0	0.0	517	2	76.0	0.0
G16	2	77.0	0.0	20.0	0.0	G17	3	104.0	0.0	20.0	0.0	G18	1	50.0	0.0	20.0	0.0	G	19	2	75.0	0.0	20.0	0.0	G20	1	50.0	0.0
G21	3	101.0	0.0	20.0	0.0	G22	2	78.0	0.0	20.0	0.0	G23	3	97.0	0.0	20.0	0.0	G	24	2	84.0	0.0	20.0	0.0	G25	2	76.0	0.0

Residential flat buildings - Building B, 36 dwellings, 6 storeys above ground

Dwelling no.	No. of hedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & Iawn (m²)	Indigenous species (min area m²)
112	3	103.0	0.0	0.0	0.0
117	1	51.0	0.0	0.0	0.0
217	2	76.0	0.0	0.0	0.0
316	2	76.0	0.0	0.0	0.0

Dwelling no.	No. of hedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & Iawn (m²)	Indigenous species (min area m²)
113	1	50.0	0.0	0.0	0.0
213	3	103.0	0.0	0.0	0.0
218	1	51.0	0.0	0.0	0.0
317	2	76.0	0.0	0.0	0.0

Dwelling no.	No. of hedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & Iawn (m²)	Indigenous species (min area m²)
114	3	103.0	0.0	0.0	0.0
214	1	50.0	0.0	0.0	0.0
313	3	103.0	0.0	0.0	0.0
318	1	51.0	0.0	0.0	0.0

Dwelling no.	No. of hedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)
115	2	76.0	0.0	0.0	0.0
215	3	103.0	0.0	0.0	0.0
314	1	50.0	0.0	0.0	0.0
401	3	103.0	0.0	0.0	0.0

Certificate No.: 754373M_02

Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)
116	2	76.0	0.0	0.0	0.0
216	2	76.0	0.0	0.0	0.0
315	3	103.0	0.0	0.0	0.0
402	1	50.0	0.0	0.0	0.0

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BASIX

Version: 3.0 / DARWINIA_3_18_5

Wednesday, 24 November 2021

Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & Iawn (m²)	Indigenous species (min area m²)
403	3	103.0	0.0	0.0	0.0
502	1	50.0	0.0	0.0	0.0
G10	2	77.0	0.0	20.0	0.0
G15	1	51.0	0.0	20.0	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)
404	2	76.0	0.0	0.0	0.0
503	3	103.0	0.0	0.0	0.0
G11	2	77.0	0.0	20.0	0.0

Dwelling no.	No. of hedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)
405	2	76.0	0.0	0.0	0.0
504	2	76.0	0.0	0.0	0.0
G12	2	77.0	0.0	20.0	0.0

Dwelling no.	No. of hedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & Iawn (m²)	Indigenous species (min area m²)
406	1	51.0	0.0	0.0	0.0
505	2	76.0	0.0	0.0	0.0
G13	2	77.0	0.0	20.0	0.0

Dwelling no.	No. of hedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & Iawn (m²)	Indigenous species (min area m²)
501	3	103.0	0.0	0.0	0.0
506	1	51.0	0.0	0.0	0.0
G14	2	75.0	0.0	20.0	0.0

Version: 3.0 / DARWINIA_3_18_5

Certificate No.: 754373M_02

Wednesday, 24 November 2021

Description of project

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

Common areas of unit building - Building A

Common area	Floor area (m²)
Lift car (No.1)	-
Hallway/lobby type A	183.0

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

Common area	Floor area (m²)
Ground floor lobby type A	100.0

Common areas of unit building - Building C

Common area	Floor area (m²)
Lift car (No.4)	-
Hallway/lobby type C	290.0

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

Common area	Floor area (m²)
Ground floor lobby type C	87.0

Common areas of unit building - Building B

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

Common area	Floor area (m²)
Ground floor lobby type B	60.0

Common area	Floor area (m²)
Hallway/lobby type B	210.0

Common areas of the development (non-building specific)

Common area	Floor area (m²)
Car park area (Basement 2)	2863.0
Garbage rooms	205.0

Common area	Floor area (m²)
Car park area (Basement 1)	2990.0
Plant Rooms	700.0

Certificate No.: 754373M_02

Common area	Floor area (m²)
Storage Rooms	700.0

BASIX

Version: 3.0 / DARWINIA_3_18_5

Wednesday, 24 November 2021

Schedule of BASIX commitments

- 1. Commitments for Residential flat buildings Building A
 - (a) Dwellings
 - (i) Water
 - (ii) Energy
 - (iii) Thermal Comfort
 - (b) Common areas and central systems/facilities
 - (i) Water
 - (ii) Energy
- 2. Commitments for Residential flat buildings Building C
 - (a) Dwellings
 - (i) Water
 - (ii) Energy
 - (iii) Thermal Comfort
 - (b) Common areas and central systems/facilities
 - (i) Water
 - (ii) Energy
- 3. Commitments for Residential flat buildings Building B
 - (a) Dwellings

- (i) Water
- (ii) Energy
- (iii) Thermal Comfort
- (b) Common areas and central systems/facilities
 - (i) Water
 - (ii) Energy
- 4. Commitments for multi-dwelling houses
- 5. Commitments for single dwelling houses

6. Co	mmitments for common areas (i) Water (ii) Energy	and central systems/fa	cilities for the development (non-b	ouilding specific)		
ASIX	Planning, Industry & Environment		Version: 3.0 / DARWINIA_3_18_5	Certificate No.: 754373M_02	Wednesday, 24 November 2021	page 8/40

Planning, Industry & Environment www.basix.nsw.gov.au Version: 3.0 / DARWINIA_3_18_5 Certificate No.: 754373M_02 Wednesday, 24 November 2021 page 8/40

Schedule of BASIX commitments

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

1. Commitments for Residential flat buildings - Building A

(a) Dwellings

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

Planning, Industry & Environment www.basix.nsw.gov.au Version: 3.0 / DARWINIA_3_18_5 Certificate No.: 754373M_02 Wednesday, 24 November 2021 page 9/40

	Fixtures				Appliances Individu			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
All dwellings	3 star (> 4.5 but <= 6 L/min)	4 star	5 star	5 star	no	-	3 star	-	-	-	-	-	-	-

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

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

Planning, Industry & Environment www.basix.nsw.gov.au Version: 3.0 / DARWINIA_3_18_5 Certificate No.: 754373M_02 Wednesday, 24 November 2021 page 10/40

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(f) This commitment applies to each room or area of the dwelling which is referred to in a heading to the "Natural lighting" column of the table below (but only to the extent specified for that room or area). The applicant must ensure that each such room or area is fitted with a window and/or skylight.	~	~	~
(g) This commitment applies if the applicant installs a water heating system for the dwelling's pool or spa. The applicant must:			
(aa) install the system specified for the pool in the "Individual Pool" column of the table below (or alternatively must not install any system for the pool). If specified, the applicant must install a timer, to control the pool's pump; and		~	
(bb) install the system specified for the spa in the "Individual Spa" column of the table below (or alternatively must not install any system for the spa). If specified, the applicant must install a timer to control the spa's pump.		•	
(h) The applicant must install in the dwelling:			
(aa) the kitchen cook-top and oven specified for that dwelling in the "Appliances & other efficiency measures" column of the table below;		•	
(bb) each appliance for which a rating is specified for that dwelling in the "Appliances & other efficiency measures" column of the table, and ensure that the appliance has that minimum rating; and		~	V
(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".		V	

	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	interlocked to light	individual fan, ducted to façade or roof	manual switch on/off	individual fan, ducted to façade or roof	interlocked to light	

Planning, Industry & Environment www.basix.nsw.gov.au Version: 3.0 / DARWINIA_3_18_5 Certificate No.: 754373M_02 Wednesday, 24 November 2021 page 11/40

	Coo	oling	Hea	ting			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 kitche
102, 202, 302, G02, G05, G07	1-phase airconditioning EER 3.5 - 4.0	3 (dedicated)	1 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	no			
103, 105, 108, 203, 205, 208, 209, 303, 305, 308, 309, G03	1-phase airconditioning EER 3.5 - 4.0	1 (dedicated)	1 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	no			
All other dwellings	1-phase airconditioning EER 3.5 - 4.0	2 (dedicated)	1 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	no			

	Individual po	ool	Individual s	ра		Appliances & other efficiency measures							
Dwelling no.	Pool heating system	Timer	Spa heating system	Timer	Kitchen cooktop/oven	Refrigerator	Well ventilated fridge space	Dishwasher	Clothes washer	Clothes dryer	Indoor or sheltered clothes drying line	Private outdoor or unsheltered clothes drying line	
All dwellings	-	-	-	-	gas cooktop & electric oven	-	yes	4 star	-	2 star	no	no	

Planning, Industry & Environment www.basix.nsw.gov.au Version: 3.0 / DARWINIA_3_18_5 Certificate No.: 754373M_02 Wednesday, 24 November 2021 page 12/40

iii) Thermal Comfort	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) The applicant must attach the certificate referred to under "Assessor details" on the front page of this BASIX certificate (the "Assessor Certificate") to the development application and construction certificate application for the proposed development (or, if the applicant is applying for a complying development certificate for the proposed development, to that application). The applicant must also attach the Assessor Certificate to the application for a final occupation certificate for the proposed development.			
(b) The Assessor Certificate must have been issued by an Accredited Assessor in accordance with the Thermal Comfort Protocol.			
(c) The details of the proposed development on the Assessor Certificate must be consistent with the details shown in this BASIX Certificate, including the details shown in the "Thermal Loads" table below.			
(d) The applicant must show on the plans accompanying the development application for the proposed development, all matters which the Thermal Comfort Protocol requires to be shown on those plans. Those plans must bear a stamp of endorsement from the Accredited Assessor, to certify that this is the case.	~		
(e) The applicant must show on the plans accompanying the application for a construction certificate (or complying development certificate, if applicable), all thermal performance specifications set out in the Assessor Certificate, and all aspects of the proposed development which were used to calculate those specifications.		~	
(f) The applicant must construct the development in accordance with all thermal performance specifications set out in the Assessor Certificate, and in accordance with those aspects of the development application or application for a complying development certificate which were used to calculate those specifications.		~	~
(g) Where there is an in-slab heating or cooling system, the applicant must:	V	~	~
(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.		V	

		Thermal loads							
Dwelling no.	Area adjusted heating load (in mJ/m²/yr)	Area adjusted cooling load (in mJ/m²/yr)							
101	29.1	18.4							
102	9.4	14.2							
103	23.2	25.7							
104	21.7	22.3							

BASIX Planning, Industry & Environment www.basix.nsw.gov.au Version: 3.0 / DARWINIA_3_18_5 Certificate No.: 754373M_02 Wednesday, 24 November 2021 page 13/40

		Thermal loads							
Dwelling no.	Area adjusted heating load (in mJ/m²/yr)	Area adjusted cooling load (in mJ/m²/yr)							
105	44.6	21.5							
106	44.0	29.4							
107	43.2	21.6							
108	39.3	28.6							
109	41.3	26.1							
110	43.2	15.1							
111	25.1	17.7							
201	28.9	17.7							
202	9.5	14.2							
203	24.3	24.0							
204	22.7	21.1							
205	34.9	20.9							
206	33.4	29.4							
207	37.0	24.9							
208	24.1	26.5							
209	21.3	28.0							
210	37.2	25.2							
301	31.4	18.9							
302	17.0	15.8							
303	33.1	28.3							
304	33.3	25.7							
305	37.7	28.6							
306	30.6	29.3							
307	36.0	29.1							
308	30.8	25.9							
309	30.6	28.9							
310	40.9	29.0							

Planning, Industry & Environment www.basix.nsw.gov.au Version: 3.0 / DARWINIA_3_18_5 Certificate No.: 754373M_02 Wednesday, 24 November 2021 page 14/40

		Thermal loads
Dwelling no.	Area adjusted heating load (in mJ/m²/yr)	Area adjusted cooling load (in mJ/m²/yr)
311	44.9	18.0
312	23.1	22.8
G01	27.1	22.4
G02	12.9	13.6
G03	27.9	25.8
G04	27.8	22.0
G05	44.4	21.8
G06	40.1	25.4
G07	40.4	28.7
G08	32.1	23.3
G09	18.9	24.9
All other dwellings	39.4	15.1

Planning, Industry & Environment www.basix.nsw.gov.au Version: 3.0 / DARWINIA_3_18_5 Certificate No.: 754373M_02 Wednesday, 24 November 2021 page 15/40

(b) Common areas and central systems/facilities

BASIX

(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.		•	V
(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.	V	<u> </u>	
(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.		<u> </u>	
(e) The applicant must install each fire sprinkler system listed in the table so that the system is configured as specified in the table.		•	V
(f) The applicant must ensure that the central cooling system for a cooling tower is configured as specified in the table.		V	V

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

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

Planning, Industry & Environment www.basix.nsw.gov.au Version: 3.0 / DARWINIA_3_18_5 Certificate No.: 754373M_02 Wednesday, 24 November 2021 page 16/40

Common area ventilation system			Common area lighting				
Common area	Ventilation system type	Ventilation efficiency measure	Primary type of artificial lighting	Lighting efficiency measure	Lighting control system/BMS		
Lift car (No.1)	-	-	light-emitting diode	connected to lift call button	No		
Lift car (No.2)	-	-	light-emitting diode	connected to lift call button	No		
Ground floor lobby type A	no mechanical ventilation	-	light-emitting diode	motion sensors	No		
Hallway/lobby type A	ventilation supply only	none ie. continuous	light-emitting diode	motion sensors	No		

Central energy systems	Туре	Specification
Lift (No. 1)	gearless traction with V V V F motor	Number of levels (including basement): 6
Lift (No. 2)	gearless traction with V V V F motor	Number of levels (including basement): 6

Planning, Industry & Environment www.basix.nsw.gov.au Version: 3.0 / DARWINIA_3_18_5 Certificate No.: 754373M_02 Wednesday, 24 November 2021 page 17/40

2. Commitments for Residential flat buildings - Building C

(a) Dwellings

BASIX

(i) Water	Show on DA plans	Show on CC/CDC plans & specs	Certifie 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.		~	V
(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.		~	V
(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		•	V
(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.		✓	V
(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.	V	✓	
(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.	~	~	~

Planning, Industry & Environment www.basix.nsw.gov.au Version: 3.0 / DARWINIA_3_18_5 Certificate No.: 754373M_02 Wednesday, 24 November 2021 page 18/40

	Fixtures			Appliances Inc		Indi	Individual pool			Individual spa				
Dwelling no.	All shower- heads	All toilet flushing systems	All kitchen taps	All bathroom taps	HW recirculation or diversion	All clothes washers	All dish- washers	Volume (max volume)	Pool cover	Pool location	Pool shaded	Volume (max volume)	Spa cover	Spa shaded
All dwellings	3 star (> 4.5 but <= 6 L/min)	4 star	5 star	5 star	no	-	3 star	-	-	-	-	-	-	-

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

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

Planning, Industry & Environment www.basix.nsw.gov.au Version: 3.0 / DARWINIA_3_18_5 Certificate No.: 754373M_02 Wednesday, 24 November 2021 page 19/40

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

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

Planning, Industry & Environment www.basix.nsw.gov.au Version: 3.0 / DARWINIA_3_18_5 Certificate No.: 754373M_02 Wednesday, 24 November 2021 page 20/40

	Coo	ling	Hea	ting			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 kitche
119, 126, 220, 227, 320, 327, 408, 415, 508, 515, G17, G21, G23	1-phase airconditioning EER 3.5 - 4.0	3 (dedicated)	1 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	no			
120, 122, 125, 221, 223, 226, 321, 323, 326, 409, 411, 414, 509, 511, 514, G18, G20	1-phase airconditioning EER 3.5 - 4.0	1 (dedicated)	1 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	no			
All other dwellings	1-phase airconditioning EER 3.5 - 4.0	2 (dedicated)	1 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	no			

Planning, Industry & Environment www.basix.nsw.gov.au Version: 3.0 / DARWINIA_3_18_5 Certificate No.: 754373M_02

page 21/40

	Individual po	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	-	yes	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.		~	
(f) The applicant must construct the development in accordance with all thermal performance specifications set out in the Assessor Certificate, and in accordance with those aspects of the development application or application for a complying development certificate which were used to calculate those specifications.		~	~
(g) Where there is an in-slab heating or cooling system, the applicant must:	V	~	V
(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.	V	V	v

BASIX Planning, Industry & Environment www.basix.nsw.gov.au Version: 3.0 / DARWINIA_3_18_5 Certificate No.: 754373M_02 Wednesday, 24 November 2021 page 22/40

		Thermal loads
Dwelling no.	Area adjusted heating load (in mJ/m²/yr)	Area adjusted cooling load (in mJ/m²/yr)
118	40.0	23.4
119	17.8	19.3
120	18.6	21.0
121	10.6	17.3
122	22.7	19.6
123	36.5	22.0
124	30.6	23.4
125	27.9	19.9
126	24.8	26.0
127	41.5	16.4
128	33.9	22.3
219	38.2	22.2
220	18.7	18.2
221	19.3	20.0
222	11.2	16.5
223	23.9	18.4
224	26.0	23.4
225	18.9	24.1
226	24.1	18.9
227	25.9	25.4
228	42.4	15.8
229	35.0	21.4
319	38.8	21.8
320	19.2	17.4
321	19.8	19.3
322	11.6	16.3
323	24.5	18.1

Planning, Industry & Environment www.basix.nsw.gov.au Version: 3.0 / DARWINIA_3_18_5 Certificate No.: 754373M_02 Wednesday, 24 November 2021 page 23/40

		Thermal loads
Dwelling no.	Area adjusted heating load (in mJ/m²/yr)	Area adjusted cooling load (in mJ/m²/yr)
324	26.5	23.2
325	19.4	22.7
326	24.7	18.2
327	26.4	24.9
328	42.3	16.2
329	35.7	19.9
407	43.6	16.6
408	22.5	14.1
409	22.7	14.8
410	14.6	12.1
411	28.6	13.9
412	30.4	21.5
413	23.4	16.5
414	28.9	14.2
415	30.3	20.4
416	43.9	14.7
417	40.1	15.4
507	45.1	23.0
508	32.1	16.6
509	31.2	15.4
510	22.5	12.9
511	37.8	14.1
512	31.8	18.8
513	26.7	18.6
514	38.2	14.1
515	36.2	22.0
516	45.0	20.9

Planning, Industry & Environment www.basix.nsw.gov.au Version: 3.0 / DARWINIA_3_18_5 Certificate No.: 754373M_02 Wednesday, 24 November 2021 page 24/40

		Thermal loads
Dwelling no.	Area adjusted heating load (in mJ/m²/yr)	Area adjusted cooling load (in mJ/m²/yr)
517	41.7	19.8
G16	45.3	25.4
G17	26.2	25.6
G18	22.3	20.6
G19	7.2	29.0
G20	17.5	25.2
G21	30.6	17.8
G22	14.6	20.6
G23	17.8	24.6
G24	27.3	25.3
All other dwellings	39.0	22.1

Planning, Industry & Environment www.basix.nsw.gov.au Version: 3.0 / DARWINIA_3_18_5 Certificate No.: 754373M_02 Wednesday, 24 November 2021 page 25/40

(b) Common areas and central systems/facilities

BASIX

(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.		~	V
(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.	V	~	
(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.		~	V
(f) The applicant must ensure that the central cooling system for a cooling tower is configured as specified in the table.		V	V

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

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

Planning, Industry & Environment www.basix.nsw.gov.au Version: 3.0 / DARWINIA_3_18_5 Certificate No.: 754373M_02 Wednesday, 24 November 2021 page 26/40

	Common area v	entilation system	Common area lighting			
Common area	Ventilation system type	Ventilation efficiency measure	Primary type of artificial lighting	Lighting efficiency measure	Lighting control system/BMS	
Lift car (No.4)	-	-	light-emitting diode	connected to lift call button	No	
Lift car (No.5)	-	-	light-emitting diode	connected to lift call button	No	
Ground floor lobby type C	no mechanical ventilation	-	light-emitting diode	motion sensors	No	
Hallway/lobby type C	ventilation supply only	none ie. continuous	light-emitting diode	motion sensors	No	

Central energy systems	Туре	Specification
Lift (No. 4)	gearless traction with V V V F motor	Number of levels (including basement): 8
Lift (No. 5)	gearless traction with V V V F motor	Number of levels (including basement): 8

Planning, Industry & Environment www.basix.nsw.gov.au Version: 3.0 / DARWINIA_3_18_5 Certificate No.: 754373M_02 Wednesday, 24 November 2021 page 27/40

3. Commitments for Residential flat buildings - Building B

(a) Dwellings

BASIX

(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.		-	V
(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.		-	V
(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		→	V
(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.		✓	V
(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.	~	~	~

Planning, Industry & Environment www.basix.nsw.gov.au Version: 3.0 / DARWINIA_3_18_5 Certificate No.: 754373M_02 Wednesday, 24 November 2021 page 28/40

			Fixtur	es		Appli	ances		Indi	vidual pool		İn	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
All dwellings	3 star (> 4.5 but <= 6 L/min)	4 star	5 star	5 star	no	-	3 star	-	-	-	-	-	-	-

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

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifie 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.		~	V
(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.		~	~

Planning, Industry & Environment www.basix.nsw.gov.au Version: 3.0 / DARWINIA_3_18_5 Certificate No.: 754373M_02 Wednesday, 24 November 2021 page 29/40

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(f) This commitment applies to each room or area of the dwelling which is referred to in a heading to the "Natural lighting" column of the table below (but only to the extent specified for that room or area). The applicant must ensure that each such room or area is fitted with a window and/or skylight.	~	~	~
(g) This commitment applies if the applicant installs a water heating system for the dwelling's pool or spa. The applicant must:			
(aa) install the system specified for the pool in the "Individual Pool" column of the table below (or alternatively must not install any system for the pool). If specified, the applicant must install a timer, to control the pool's pump; and		~	
(bb) install the system specified for the spa in the "Individual Spa" column of the table below (or alternatively must not install any system for the spa). If specified, the applicant must install a timer to control the spa's pump.		•	
(h) The applicant must install in the dwelling:			
(aa) the kitchen cook-top and oven specified for that dwelling in the "Appliances & other efficiency measures" column of the table below;		•	
(bb) each appliance for which a rating is specified for that dwelling in the "Appliances & other efficiency measures" column of the table, and ensure that the appliance has that minimum rating; and		~	V
(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".		V	

	Hot water	Bathroom ventilation 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	interlocked to light	individual fan, ducted to façade or roof	manual switch on/off	individual fan, ducted to façade or roof	interlocked to light	

Planning, Industry & Environment www.basix.nsw.gov.au Version: 3.0 / DARWINIA_3_18_5 Certificate No.: 754373M_02 Wednesday, 24 November 2021 page 30/40

	Coo	ling	Hea	ting		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 kitchei		
112, 114, 213, 215, 313, 315, 401, 403, 501, 503	1-phase airconditioning EER 3.5 - 4.0	3 (dedicated)	1 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	no					
113, 117, 214, 218, 314, 318, 402, 406, 502, 506, G15	1-phase airconditioning EER 3.5 - 4.0	1 (dedicated)	1 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	no					
All other dwellings	1-phase airconditioning EER 3.5 - 4.0	2 (dedicated)	1 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	no					

	Individual po	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	-	yes	4 star	-	2 star	no	no

Planning, Industry & Environment www.basix.nsw.gov.au Version: 3.0 / DARWINIA_3_18_5 Certificate No.: 754373M_02 Wednesday, 24 November 2021 page 31/40

iii) Thermal Comfort	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) The applicant must attach the certificate referred to under "Assessor details" on the front page of this BASIX certificate (the "Assessor Certificate") to the development application and construction certificate application for the proposed development (or, if the applicant is applying for a complying development certificate for the proposed development, to that application). The applicant must also attach the Assessor Certificate to the application for a final occupation certificate for the proposed development.			
(b) The Assessor Certificate must have been issued by an Accredited Assessor in accordance with the Thermal Comfort Protocol.			
(c) The details of the proposed development on the Assessor Certificate must be consistent with the details shown in this BASIX Certificate, including the details shown in the "Thermal Loads" table below.			
(d) The applicant must show on the plans accompanying the development application for the proposed development, all matters which the Thermal Comfort Protocol requires to be shown on those plans. Those plans must bear a stamp of endorsement from the Accredited Assessor, to certify that this is the case.	~		
(e) The applicant must show on the plans accompanying the application for a construction certificate (or complying development certificate, if applicable), all thermal performance specifications set out in the Assessor Certificate, and all aspects of the proposed development which were used to calculate those specifications.		~	
(f) The applicant must construct the development in accordance with all thermal performance specifications set out in the Assessor Certificate, and in accordance with those aspects of the development application or application for a complying development certificate which were used to calculate those specifications.		~	~
(g) Where there is an in-slab heating or cooling system, the applicant must:	V	~	~
(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.		V	

		Thermal loads						
Dwelling no.	Area adjusted heating load (in mJ/m²/yr)	Area adjusted cooling load (in mJ/m²/yr)						
112	29.1	19.2						
113	34.4	15.3						
114	44.4	21.6						
115	29.6	28.0						

BASIX Planning, Industry & Environment www.basix.nsw.gov.au Version: 3.0 / DARWINIA_3_18_5 Certificate No.: 754373M_02 Wednesday, 24 November 2021 page 32/40

	Thermal loads							
Dwelling no.	Area adjusted heating load (in mJ/m²/yr)	Area adjusted cooling load (in mJ/m²/yr)						
116	43.6	17.9						
117	39.7	23.3						
213	24.2	18.6						
215	21.1	22.9						
216	31.0	27.2						
217	45.1	17.8						
218	41.1	21.7						
313	24.0	19.1						
315	25.0	15.6						
316	31.6	26.8						
317	34.1	15.4						
318	41.9	21.3						
401	27.8	14.7						
402	28.9	11.6						
403	24.4	19.0						
404	36.6	23.3						
405	38.2	11.8						
406	43.2	13.8						
501	36.3	19.9						
502	33.9	19.7						
503	32.4	23.3						
504	40.9	28.0						
505	40.7	18.0						
506	41.0	23.8						
G10	29.1	11.7						
G11	22.6	15.0						
G12	32.1	14.4						

Planning, Industry & Environment www.basix.nsw.gov.au Version: 3.0 / DARWINIA_3_18_5 Certificate No.: 754373M_02 Wednesday, 24 November 2021 page 33/40

		Thermal loads					
Dwelling no.	Area adjusted heating load (in mJ/m²/yr)	Area adjusted cooling load (in mJ/m²/yr)					
G13	27.8	26.2					
G14	42.9	24.3					
G15	44.4	29.3					
All other dwellings	24.9	15.7					

Planning, Industry & Environment www.basix.nsw.gov.au Version: 3.0 / DARWINIA_3_18_5 Certificate No.: 754373M_02 Wednesday, 24 November 2021 page 34/40

(b) Common areas and central systems/facilities

BASIX

(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.		~	V
(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.	V	~	
(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.		~	V
(f) The applicant must ensure that the central cooling system for a cooling tower is configured as specified in the table.		V	V

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

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

Planning, Industry & Environment www.basix.nsw.gov.au Version: 3.0 / DARWINIA_3_18_5 Certificate No.: 754373M_02 Wednesday, 24 November 2021 page 35/40

	Common area ventilation system		Common area lighting		
Common area	Ventilation system type	Ventilation efficiency measure	Primary type of artificial lighting	Lighting efficiency measure	Lighting control system/BMS
Lift car (No.3)	-	-	light-emitting diode	connected to lift call button	No
Ground floor lobby type B	no mechanical ventilation	-	light-emitting diode	motion sensors	No
Hallway/lobby type B	ventilation supply only	none ie. continuous	light-emitting diode	motion sensors	No

Central energy systems	Туре	Specification
Lift (No. 3)	gearless traction with V V V F motor	Number of levels (including basement): 8

Planning, Industry & Environment www.basix.nsw.gov.au Version: 3.0 / DARWINIA_3_18_5 Certificate No.: 754373M_02 Wednesday, 24 November 2021 page 36/40

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

(b) Common areas and central systems/facilities

BASIX

(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.		~	V
(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.	V	~	
(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.		~	V
(f) The applicant must ensure that the central cooling system for a cooling tower is configured as specified in the table.		V	V

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

Central systems	Size	Configuration	Connection (to allow for)
Central water tank - rainwater or stormwater (No. 1)	5000.0	To collect run-off from at least: - 1000.0 square metres of roof area of buildings in the development - 0.0 square metres of impervious area in the development - 0.0 square metres of garden/lawn area in the development - 0.0 square metres of planter box area in the development (excluding, in each case, any area which drains to, or supplies, any other alternative water supply system).	- irrigation of 1500.0 square metres of common landscaped area on the site - car washing in 0 car washing bays on the site
Fire sprinkler system (No. 1)	-	-	-

Planning, Industry & Environment www.basix.nsw.gov.au Version: 3.0 / DARWINIA_3_18_5 Certificate No.: 754373M_02 Wednesday, 24 November 2021 page 37/40

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

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

Common area ventilation system				Common area lighting	
Common area	Ventilation system type	Ventilation efficiency measure	Primary type of artificial lighting	Lighting efficiency measure	Lighting control system/BMS
Car park area (Basement 2)	ventilation (supply + exhaust)	carbon monoxide monitor + VSD fan	fluorescent	motion sensors	No
Car park area (Basement 1)	ventilation (supply + exhaust)	carbon monoxide monitor + VSD fan	fluorescent	motion sensors	No
Storage Rooms	ventilation (supply + exhaust)	carbon monoxide monitor + VSD fan	fluorescent	motion sensors	No
Garbage rooms	ventilation exhaust only	-	fluorescent	motion sensors	No
Plant Rooms	ventilation supply only	interlocked to light	fluorescent	motion sensors	No

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

BASIX Planning, Industry & Environment www.basix.nsw.gov.au Version: 3.0 / DARWINIA_3_18_5 Certificate No.: 754373M_02 Wednesday, 24 November 2021 page 38/40

Central energy systems	Туре	Specification
Alternative energy supply	Photovoltaic system	Rated electrical output (min): 35.0 peak kW

Planning, Industry & Environment www.basix.nsw.gov.au Version: 3.0 / DARWINIA_3_18_5 Certificate No.: 754373M_02 Wednesday, 24 November 2021 page 39/40

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

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- 1. Commitments identified with a " in the "Show on DA plans" column must be shown on the plans accompanying the development application for the proposed development (if a development application is to be lodged for the proposed development).
- 2. Commitments identified with a " in the "Show on CC/CDC plans and specs" column must be shown in the plans and specifications accompanying the application for a construction certificate / complying development certificate for the proposed development.
- 3. Commitments identified with a " in the "Certifier check" column must be certified by a certifying authority as having been fulfilled. (Note: a certifying authority must not issue an occupation certificate (either interim or final) for a building listed in this certificate, or for any part of such a building, unless it is satisfied that each of the commitments whose fulfilment it is required to monitor in relation to the building or part, has been fulfilled).

Planning, Industry & Environment www.basix.nsw.gov.au Version: 3.0 / DARWINIA_3_18_5 Certificate No.: 754373M_02 Wednesday, 24 November 2021 page 40/40