

BASIX[®]Certificate

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

Multi Dwelling

Certificate number: 1316865M_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

This certificate is a revision of certificate number 1316865M lodged with the consent authority or certifier on 24 October 2022 with application SSD-35370706.

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

Secretary

Date of issue: Friday, 01 September 2023

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



Planning,
Industry &
Environment

Project summary

Project name	Uniting Charlestown - S1 Build-C_02
Street address	27 Tiral Street Charlestown 2290
Local Government Area	Lake Macquarie City Council
Plan type and plan number	deposited 551260
Lot no.	223
Section no.	-
No. of residential flat buildings	1
No. of units in residential flat buildings	107
No. of multi-dwelling houses	0
No. of single dwelling houses	0

Project score

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

Certificate Prepared by

Name / Company Name: JHA Consulting Engineers

ABN (if applicable): 48612666172

Description of project

Project address

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Project type

No. of residential flat buildings	1
No. of units in residential flat buildings	107
No. of multi-dwelling houses	0
No. of single dwelling houses	0

Site details

Site area (m²)	3057
Roof area (m²)	1025
Non-residential floor area (m²)	-
Residential car spaces	110
Non-residential car spaces	-

Common area landscape

Common area lawn (m²)	1157.0
Common area garden (m²)	0.0
Area of indigenous or low water use species (m²)	0.0

Assessor details

Assessor number	206470
Certificate number	0007990250
Climate zone	15
Ceiling fan in at least one bedroom	No
Ceiling fan in at least one living room or other conditioned area	No

Project score

Water	✔ 40	Target 40
Thermal Comfort	✔ Pass	Target Pass
Energy	✔ 40	Target 20

Description of project

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

Residential flat buildings - Building C, 107 dwellings, 14 storeys above ground

Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)
C01012	84.8	0.0	0.0	0.0	0.0
C01062	101.1	0.0	0.0	0.0	0.0
C02012	84.8	0.0	0.0	0.0	0.0
C02062	87.4	0.0	0.0	0.0	0.0
C02111	53.6	0.0	0.0	0.0	0.0
C03053	114.2	0.0	0.0	0.0	0.0
C03102	78.7	0.0	0.0	0.0	0.0
C04042	81.2	0.0	0.0	0.0	0.0
C04091	56.4	0.0	0.0	0.0	0.0
C05032	79.1	0.0	0.0	0.0	0.0
C05082	53.4	0.0	0.0	0.0	0.0
C06022	81.6	0.0	0.0	0.0	0.0
C06073	99.8	0.0	0.0	0.0	0.0
C07012	84.8	0.0	0.0	0.0	0.0
C07062	85.5	0.0	0.0	0.0	0.0
C08012	90.6	0.0	0.0	0.0	0.0
C08062	89.0	0.0	0.0	0.0	0.0
C09043	121.2	0.0	0.0	0.0	0.0
Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)
C01022	86.8	0.0	0.0	0.0	0.0
C01072	92.5	0.0	0.0	0.0	0.0
C02022	81.6	0.0	0.0	0.0	0.0
C02073	101.1	0.0	0.0	0.0	0.0
C03012	84.8	0.0	0.0	0.0	0.0
C03062	87.4	0.0	0.0	0.0	0.0
C03111	53.6	0.0	0.0	0.0	0.0
C04053	114.2	0.0	0.0	0.0	0.0
C04102	78.7	0.0	0.0	0.0	0.0
C05042	81.2	0.0	0.0	0.0	0.0
C05091	56.4	0.0	0.0	0.0	0.0
C06032	79.1	0.0	0.0	0.0	0.0
C06082	53.4	0.0	0.0	0.0	0.0
C07022	86.8	0.0	0.0	0.0	0.0
C07072	53.4	0.0	0.0	0.0	0.0
C08023	105.9	0.0	0.0	0.0	0.0
C08072	82.5	0.0	0.0	0.0	0.0
C09052	114.8	0.0	0.0	0.0	0.0
Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)
C01032	75.2	0.0	0.0	0.0	0.0
C01081	56.4	0.0	0.0	0.0	0.0
C02032	79.1	0.0	0.0	0.0	0.0
C02082	53.4	0.0	0.0	0.0	0.0
C03022	81.6	0.0	0.0	0.0	0.0
C03073	101.1	0.0	0.0	0.0	0.0
C04012	84.8	0.0	0.0	0.0	0.0
C04062	87.4	0.0	0.0	0.0	0.0
C04111	53.6	0.0	0.0	0.0	0.0
C05053	114.2	0.0	0.0	0.0	0.0
C05102	78.7	0.0	0.0	0.0	0.0
C06042	81.2	0.0	0.0	0.0	0.0
C06091	56.4	0.0	0.0	0.0	0.0
C07032	79.1	0.0	0.0	0.0	0.0
C07081	56.4	0.0	0.0	0.0	0.0
C08032	79.1	0.0	0.0	0.0	0.0
C09013	90.2	0.0	0.0	0.0	0.0
C09062	88.1	0.0	0.0	0.0	0.0
Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)
C01041	115.4	0.0	0.0	0.0	0.0
C01091	78.7	0.0	0.0	0.0	0.0
C02042	81.2	0.0	0.0	0.0	0.0
C02091	56.4	0.0	0.0	0.0	0.0
C03032	79.1	0.0	0.0	0.0	0.0
C03082	53.4	0.0	0.0	0.0	0.0
C04022	81.6	0.0	0.0	0.0	0.0
C04073	101.1	0.0	0.0	0.0	0.0
C05012	84.8	0.0	0.0	0.0	0.0
C05062	87.4	0.0	0.0	0.0	0.0
C05111	53.6	0.0	0.0	0.0	0.0
C06053	114.2	0.0	0.0	0.0	0.0
C06102	78.7	0.0	0.0	0.0	0.0
C07042	81.2	0.0	0.0	0.0	0.0
C07092	78.7	0.0	0.0	0.0	0.0
C08043	122.1	0.0	0.0	0.0	0.0
C09022	105.9	0.0	0.0	0.0	0.0
C09072	82.5	0.0	0.0	0.0	0.0
Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)
C01051	61.0	0.0	0.0	0.0	0.0
C01101	53.6	0.0	0.0	0.0	0.0
C02053	114.2	0.0	0.0	0.0	0.0
C02102	78.7	0.0	0.0	0.0	0.0
C03042	81.2	0.0	0.0	0.0	0.0
C03091	56.4	0.0	0.0	0.0	0.0
C04032	79.1	0.0	0.0	0.0	0.0
C04082	53.4	0.0	0.0	0.0	0.0
C05022	81.6	0.0	0.0	0.0	0.0
C05073	101.1	0.0	0.0	0.0	0.0
C06012	84.8	0.0	0.0	0.0	0.0
C06062	87.4	0.0	0.0	0.0	0.0
C06111	53.6	0.0	0.0	0.0	0.0
C07053	90.3	0.0	0.0	0.0	0.0
C07101	53.6	0.0	0.0	0.0	0.0
C08053	115.8	0.0	0.0	0.0	0.0
C09033	79.1	0.0	0.0	0.0	0.0
C10013	111.1	0.0	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)
C10023	105.9	0.0	0.0	0.0	0.0
C11023	105.9	0.0	0.0	0.0	0.0
C12032	87.6	0.0	0.0	0.0	0.0
CUG02	79.8	0.0	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)
C10033	108.0	0.0	0.0	0.0	0.0
C11033	106.4	0.0	0.0	0.0	0.0
C12043	108.4	0.0	0.0	0.0	0.0
CUG03	50.8	0.0	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)
C10043	124.9	0.0	0.0	0.0	0.0
C11043	115.9	0.0	0.0	0.0	0.0
CLG012	88.6	0.0	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)
C10053	111.6	0.0	0.0	0.0	0.0
C12013	111.1	0.0	0.0	0.0	0.0
CLG02	80.0	0.0	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m²)	Unconditioned floor area (m²)	Area of garden & lawn (m²)	Indigenous species (min area m²)
C11013	111.1	0.0	0.0	0.0	0.0
C12023	105.9	0.0	0.0	0.0	0.0
CUG02	88.6	0.0	0.0	0.0	0.0

Description of project

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

Common areas of unit building - Building C

Common area	Floor area (m²)
lower ground car park	1672.0
Lift car (No.2)	-
Hydrualic Plant	20.7
level 1 to 11 lobbies	961.4

Common area	Floor area (m²)
upper ground car park	1709.0
Lift car (No.3)	-
lower ground lobby	48.5

Common area	Floor area (m²)
Lift car (No.1)	-
waste room	21.0
upper ground lobby	38.82

Schedule of BASIX commitments

1. 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

2. Commitments for multi-dwelling houses

3. Commitments for single 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 Residential flat buildings - 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).	✓	✓	
(c) If a rating is specified in the table below for a fixture or appliance to be installed in the dwelling, the applicant must ensure that each such fixture and appliance meets the rating specified for it.		✓	✓
(d) The applicant must install an on demand hot water recirculation system which regulates all hot water use throughout the dwelling, where indicated for a dwelling in the "HW recirculation or diversion" column of the table below.		✓	✓
(e) The applicant must install:			
(aa) a hot water diversion system to all showers, kitchen sinks and all basins in the dwelling, where indicated for a dwelling in the "HW recirculation or diversion" column of the table below; and		✓	✓
(bb) a separate diversion tank (or tanks) connected to the hot water diversion systems of at least 100 litres. The applicant must connect the hot water diversion tank to all toilets in the dwelling.		✓	✓
(e) The applicant must not install a private swimming pool or spa for the dwelling, with a volume exceeding that specified for it in the table below.	✓	✓	
(f) If specified in the table, that pool or spa (or both) must have a pool cover or shading (or both).		✓	
(g) The pool or spa must be located as specified in the table.	✓	✓	
(h) The applicant must install, for the dwelling, each alternative water supply system, with the specified size, listed for that dwelling in the table below. Each system must be configured to collect run-off from the areas specified (excluding any area which supplies any other alternative water supply system), and to divert overflow as specified. Each system must be connected as specified.	✓	✓	✓

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

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

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) The applicant must comply with the commitments listed below in carrying out the development of a dwelling listed in a table below.			
(b) The applicant must install each hot water system specified for the dwelling in the table below, so that the dwelling's hot water is supplied by that system. If the table specifies a central hot water system for the dwelling, then the applicant must connect that central system to the dwelling, so that the dwelling's hot water is supplied by that central system.	✓	✓	✓
(c) The applicant must install, in each bathroom, kitchen and laundry of the dwelling, the ventilation system specified for that room in the table below. Each such ventilation system must have the operation control specified for it in the table.		✓	✓
(d) The applicant must install the cooling and heating system/s specified for the dwelling under the "Living areas" and "Bedroom areas" headings of the "Cooling" and "Heating" columns in the table below, in/for at least 1 living/bedroom area of the dwelling. If no cooling or heating system is specified in the table for "Living areas" or "Bedroom areas", then no systems may be installed in any such areas. If the term "zoned" is specified beside an air conditioning system, then the system must provide for day/night zoning between living areas and bedrooms.		✓	✓
(e) This commitment applies to each room or area of the dwelling which is referred to in a heading to the "Artificial lighting" column of the table below (but only to the extent specified for that room or area). The applicant must ensure that the "primary type of artificial lighting" for each such room in the dwelling is fluorescent lighting or light emitting diode (LED) lighting. If the term "dedicated" is specified for a particular room or area, then the light fittings in that room or area must only be capable of being used for fluorescent lighting or light emitting diode (LED) lighting.		✓	✓

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

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

Dwelling no.	Cooling		Heating		Artificial lighting						Natural lighting	
	living areas	bedroom areas	living areas	bedroom areas	No. of bedrooms &/or study	No. of living &/or dining rooms	Each kitchen	All bathrooms/toilets	Each laundry	All hallways	No. of bathrooms &/or toilets	Main kitchen
C0205, C0207	1-phase airconditioning EER 3.0 - 3.5	1-phase airconditioning EER 3.0 - 3.5	1-phase airconditioning EER 3.0 - 3.5	1-phase airconditioning EER 3.0 - 3.5	3 (dedicated)	1 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	no
C0104, C0105, C0108, C0109, C0110, C0209	1-phase airconditioning EER 3.0 - 3.5	1-phase airconditioning EER 3.0 - 3.5	1-phase airconditioning EER 3.0 - 3.5	1-phase airconditioning EER 3.0 - 3.5	1 (dedicated)	1 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	no
C0106, C0107, C0201, C0202, C0203, C0204, C0206, C0208, C0210	1-phase airconditioning EER 3.0 - 3.5	1-phase airconditioning EER 3.0 - 3.5	1-phase airconditioning EER 3.0 - 3.5	1-phase airconditioning EER 3.0 - 3.5	2 (dedicated)	1 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	no
C0211, C0309, C0311, C0409, C0411, C0509, C0511, C0609, C0611, C0708, C0710, CUG03	1-phase airconditioning EER 3.0 - 3.5	1-phase airconditioning EER 3.0 - 3.5	1-phase airconditioning EER 3.0 - 3.5	1-phase airconditioning EER 3.0 - 3.5	1 (dedicated)	1 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	no

Dwelling no.	Cooling		Heating		Artificial lighting						Natural lighting	
	living areas	bedroom areas	living areas	bedroom areas	No. of bedrooms &/or study	No. of living &/or dining rooms	Each kitchen	All bathrooms/toilets	Each laundry	All hallways	No. of bathrooms &/or toilets	Main kitchen
C0305, C0307, C0405, C0407, C0505, C0507, C0605, C0607, C0705, C0802, C0804, C0805, C0901, C0903, C0904, C1001, C1002, C1003, C1004, C1005, C1101, C1102, C1103, C1104, C1201, C1202, C1204	1-phase airconditioning EER 3.0 - 3.5	1-phase airconditioning EER 3.0 - 3.5	1-phase airconditioning EER 3.0 - 3.5	1-phase airconditioning EER 3.0 - 3.5	3 (dedicated)	1 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	no
All other dwellings	1-phase airconditioning EER 3.0 - 3.5	1-phase airconditioning EER 3.0 - 3.5	1-phase airconditioning EER 3.0 - 3.5	1-phase airconditioning EER 3.0 - 3.5	2 (dedicated)	1 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	no

	Individual pool		Individual spa		Appliances & other efficiency measures							
Dwelling no.	Pool heating system	Timer	Spa heating system	Timer	Kitchen cooktop/oven	Refrigerator	Well ventilated fridge space	Dishwasher	Clothes washer	Clothes dryer	Indoor or sheltered clothes drying line	Private outdoor or unsheltered clothes drying line
C0104, C0105, C0106, C0107, C0108, C0109, C0110, C0201, C0202, C0203, C0204, C0205, C0206, C0207, C0208, C0209, C0210	-	-	-	-	electric cooktop & electric oven	-	no	4 star	-	6 star	-	-
All other dwellings	-	-	-	-	electric cooktop & electric oven	-	no	4 star	-	6 star	no	no

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

(iii) Thermal Comfort	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(e) The applicant must show on the plans accompanying the application for a construction certificate (or complying development certificate, if applicable), all thermal performance specifications set out in the Assessor Certificate, and all aspects of the proposed development which were used to calculate those specifications.		✓	
(f) The applicant must construct the development in accordance with all thermal performance specifications set out in the Assessor Certificate, and in accordance with those aspects of the development application or application for a complying development certificate which were used to calculate those specifications.		✓	✓
(g) Where there is an in-slab heating or cooling system, the applicant must: (aa) Install insulation with an R-value of not less than 1.0 around the vertical edges of the perimeter of the slab; or (bb) On a suspended floor, install insulation with an R-value of not less than 1.0 underneath the slab and around the vertical edges of the perimeter of the slab.	✓	✓	✓
(h) The applicant must construct the floors and walls of the development in accordance with the specifications listed in the table below.	✓	✓	✓

Dwelling no.	Thermal loads	
	Area adjusted heating load (in mJ/m²/yr)	Area adjusted cooling load (in mJ/m²/yr)
C0101	14.7	22.3
C0102	16.5	24.4
C0103	50.4	17.3
C0104	54.4	19.0
C0105	49.2	13.1
C0106	50.7	26.0
C0107	53.2	14.6
C0108	49.4	16.6
C0109	28.0	23.8
C0110	50.6	26.8
C0201	20.0	25.9

	Thermal loads	
Dwelling no.	Area adjusted heating load (in mJ/m²/yr)	Area adjusted cooling load (in mJ/m²/yr)
C0202	13.2	27.0
C0203	30.3	22.0
C0204	46.9	22.2
C0205	36.4	28.2
C0206	38.8	16.9
C0207	19.6	23.4
C0208	30.6	29.5
C0209	34.1	25.4
C0210	18.6	27.9
C0211	37.1	30.9
C0301	23.7	21.2
C0302	17.0	23.4
C0303	35.4	20.2
C0304	53.1	20.2
C0305	41.0	22.9
C0306	43.7	16.0
C0307	22.8	18.4
C0308	35.9	22.3
C0309	37.0	25.7
C0310	22.9	25.0
C0311	41.9	26.1
C0401	24.3	21.0
C0402	17.6	23.5
C0403	36.1	20.7
C0404	54.0	20.6
C0405	41.4	22.9
C0406	44.5	15.7

	Thermal loads	
Dwelling no.	Area adjusted heating load (in mJ/m²/yr)	Area adjusted cooling load (in mJ/m²/yr)
C0407	37.2	29.3
C0408	36.8	21.6
C0409	37.9	25.4
C0410	23.7	25.1
C0411	42.7	26.0
C0501	24.9	21.0
C0502	18.0	24.4
C0503	35.8	21.0
C0504	54.5	21.2
C0505	41.1	23.0
C0506	45.0	15.7
C0507	37.8	28.7
C0508	37.5	21.5
C0509	38.6	25.4
C0510	24.3	24.7
C0511	43.3	25.2
C0601	28.4	22.1
C0602	20.4	27.3
C0603	41.0	22.6
C0604	60.5	23.1
C0605	47.5	24.5
C0606	51.9	19.1
C0607	44.1	34.1
C0608	41.6	22.8
C0609	32.2	29.9
C0610	28.0	26.4
C0611	48.7	26.3

	Thermal loads	
Dwelling no.	Area adjusted heating load (in mJ/m²/yr)	Area adjusted cooling load (in mJ/m²/yr)
C0701	31.5	22.6
C0702	20.9	27.9
C0703	41.5	23.9
C0704	60.7	24.8
C0705	56.1	30.2
C0706	60.3	29.0
C0707	42.4	22.5
C0708	29.6	32.7
C0709	28.6	26.2
C0710	49.7	25.8
C0801	27.1	20.0
C0802	28.4	33.9
C0803	40.7	24.9
C0804	33.5	24.8
C0805	40.0	24.1
C0806	33.1	22.6
C0807	33.7	35.4
C0901	30.7	23.7
C0902	28.3	33.2
C0903	42.8	31.2
C0904	35.4	31.8
C0905	42.6	36.0
C0906	33.6	30.7
C0907	31.9	35.3
C1001	30.3	17.8
C1002	30.8	32.7
C1003	33.6	23.5

	Thermal loads	
Dwelling no.	Area adjusted heating load (in mJ/m ² /yr)	Area adjusted cooling load (in mJ/m ² /yr)
C1004	49.0	23.1
C1005	29.2	22.5
C1101	29.4	17.8
C1102	31.3	32.6
C1103	45.5	30.6
C1104	34.1	32.3
C1201	34.1	14.9
C1202	36.2	26.8
C1203	42.5	28.1
C1204	45.9	25.5
CLG01	26.8	10.9
CLG02	18.3	11.8
CUG01	23.4	20.0
CUG02	22.5	25.5
All other dwellings	21.3	30.3

(b) Common areas and central systems/facilities

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

Common area	Showerheads rating	Toilets rating	Taps rating	Clothes washers rating
All common areas	4 star (> 4.5 but ≤ 6 L/min)	4 star	5 star	no common laundry facility

Central systems	Size	Configuration	Connection (to allow for...)
Central water tank - rainwater or stormwater (No. 1)	22500.0	To collect run-off from at least: - 1025.0 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 1157.0 square metres of common landscaped area on the site - car washing in 0 car washing bays on the site
Fire sprinkler system (No. 1)	-	-	-

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

	Common area ventilation system		Common area lighting		
Common area	Ventilation system type	Ventilation efficiency measure	Primary type of artificial lighting	Lighting efficiency measure	Lighting control system/BMS
lower ground car park	ventilation (supply + exhaust)	carbon monoxide monitor + VSD fan	light-emitting diode	motion sensors	No
upper ground car park	ventilation (supply + exhaust)	carbon monoxide monitor + VSD fan	light-emitting diode	motion sensors	No
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
Lift car (No.3)	-	-	light-emitting diode	connected to lift call button	No
waste room	ventilation exhaust only	-	light-emitting diode	motion sensors	No
Hydraulic Plant	ventilation (supply + exhaust)	none ie. continuous	light-emitting diode	motion sensors	No
lower ground lobby	ventilation supply only	time clock or BMS controlled	light-emitting diode	motion sensors	No
upper ground lobby	ventilation supply only	time clock or BMS controlled	light-emitting diode	motion sensors	No
level 1 to 11 lobbies	ventilation supply only	time clock or BMS controlled	light-emitting diode	motion sensors	No

Central energy systems	Type	Specification
Central hot water system (No. 1)	electric heat pump - air sourced	Piping insulation (ringmain & supply risers): (a) Piping external to building: R0.6 (~25 mm); (b) Piping internal to building: R0.6 (~25 mm)
Lift (No. 1)	gearless traction with V V V F motor	Number of levels (including basement): 10
Lift (No. 2)	gearless traction with V V V F motor	Number of levels (including basement): 13
Lift (No. 3)	gearless traction with V V V F motor	Number of levels (including basement): 13

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.		✓	✓
(b) The applicant must install (or ensure that the development is serviced by) the alternative water supply system(s) specified in the "Central systems" column of the table below. In each case, the system must be sized, be configured, and be connected, as specified in the table.	✓	✓	✓
(c) A swimming pool or spa listed in the table must not have a volume (in kLs) greater than that specified for the pool or spa in the table.	✓	✓	
(d) A pool or spa listed in the table must have a cover or shading if specified for the pool or spa in the table.		✓	
(e) The applicant must install each fire sprinkler system listed in the table so that the system is configured as specified in the table.		✓	✓
(f) The applicant must ensure that the central cooling system for a cooling tower is configured as specified in the table.		✓	✓

Common area	Showerheads rating	Toilets rating	Taps rating	Clothes washers rating
All common areas	4 star (> 4.5 but ≤ 6 L/min)	4 star	5 star	no common laundry facility

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

Central energy systems	Type	Specification
Alternative energy supply	Photovoltaic system	Rated electrical output (min): 100.0 peak kW

Notes

1. In these commitments, "applicant" means the person carrying out the development.
2. The applicant must identify each dwelling, building and common area listed in this certificate, on the plans accompanying any development application, and on the plans and specifications accompanying the application for a construction certificate / complying development certificate, for the proposed development, using the same identifying letter or reference as is given to that dwelling, building or common area in this certificate.
3. This note applies if the proposed development involves the erection of a building for both residential and non-residential purposes (or the change of use of a building for both residential and non-residential purposes). Commitments in this certificate which are specified to apply to a "common area" of a building or the development, apply only to that part of the building or development to be used for residential purposes.
4. If this certificate lists a central system as a commitment for a dwelling or building, and that system will also service any other dwelling or building within the development, then that system need only be installed once (even if it is separately listed as a commitment for that other dwelling or building).
5. If a star or other rating is specified in a commitment, this is a minimum rating.
6. All alternative water systems to be installed under these commitments (if any), must be installed in accordance with the requirements of all applicable regulatory authorities. NOTE: NSW Health does not recommend that stormwater, recycled water or private dam water be used to irrigate edible plants which are consumed raw, or that rainwater be used for human consumption in areas with potable water supply.

Legend

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