

# BASIX<sup>®</sup>Certificate

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

## Multi Dwelling

Certificate number: 1090616M\_03

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](http://www.basix.nsw.gov.au)

Secretary

Date of issue: Friday, 03 September 2021

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



Planning,  
Industry &  
Environment

If any changes to this BASIX certificate are required, please contact Vipac with following details:

- Project reference: Stage 3, 43-53 Cudgegong Rd, Rouse Hill
- Contact number: 0430 108 801

### Project summary

Project name	Stage 3, 43-53 Cudgegong Rd, Rouse H_03
Street address	43-53 Cudgegong Road Rouse Hill 2155
Local Government Area	Blacktown City Council
Plan type and plan number	deposited 208203
Lot no.	72&73
Section no.	-
No. of residential flat buildings	2
No. of units in residential flat buildings	225
No. of multi-dwelling houses	0
No. of single dwelling houses	0

### Project score

Water	✓ 42	Target 40
Thermal Comfort	✓ Pass	Target Pass
Energy	✓ 31	Target 25

### Certificate Prepared by

Name / Company Name: Vipac

ABN (if applicable): 33005453627

# Description of project

## Project address

Project name	Stage 3, 43-53 Cudgegong Rd, Rouse H_03
Street address	43-53 Cudgegong Road Rouse Hill 2155
Local Government Area	Blacktown City Council
Plan type and plan number	deposited 208203
Lot no.	72&73
Section no.	-

## Project type

No. of residential flat buildings	2
No. of units in residential flat buildings	225
No. of multi-dwelling houses	0
No. of single dwelling houses	0

## Site details

Site area (m²)	10150
Roof area (m²)	2809.8
Non-residential floor area (m²)	5974.6
Residential car spaces	301
Non-residential car spaces	310

## Common area landscape

Common area lawn (m²)	620.0
Common area garden (m²)	2200.0
Area of indigenous or low water use species (m²)	880.0

## Assessor details

Assessor number	BDAV/16/1757
Certificate number	0004133352
Climate zone	28
Ceiling fan in at least one bedroom	No
Ceiling fan in at least one living room or other conditioned area	No

## Project score

Water	✓ 42	Target 40
Thermal Comfort	✓ Pass	Target Pass
Energy	✓ 31	Target 25

## Description of project

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

### Residential flat buildings - BuildingA, 105 dwellings, 7 storeys above ground

Dwelling no.	No. of bedrooms	Conditioned floor area (m <sup>2</sup> )	Unconditioned floor area (m <sup>2</sup> )	Area of garden & lawn (m <sup>2</sup> )	Indigenous species (min area m <sup>2</sup> )
A11012	68.0	4.0	10.0	0.0	
A11062	73.0	5.0	5.0	0.0	
A12011	47.0	5.0	5.0	0.0	
A12061	44.0	4.0	0.0	0.0	
A12112	73.0	5.0	0.0	0.0	
A13051	44.0	4.0	0.0	0.0	
A13102	70.0	5.0	0.0	0.0	
A14042	68.0	4.0	0.0	0.0	
A14092	76.0	7.0	0.0	0.0	
A15032	68.0	4.0	0.0	0.0	
A15082	75.0	5.0	0.0	0.0	
A16022	68.0	4.0	0.0	0.0	
A1U031	44.0	4.0	0.0	0.0	
A1U082	76.0	7.0	0.0	0.0	
A21032	79.0	2.0	0.0	0.0	
A21081	52.0	4.0	0.0	0.0	
A22052	79.0	2.0	0.0	0.0	
A23042	70.0	5.0	0.0	0.0	
Dwelling no.	No. of bedrooms	Conditioned floor area (m <sup>2</sup> )	Unconditioned floor area (m <sup>2</sup> )	Area of garden & lawn (m <sup>2</sup> )	Indigenous species (min area m <sup>2</sup> )
A11022	68.0	4.0	5.0	0.0	
A11072	75.0	5.0	25.0	0.0	
A12022	68.0	4.0	16.0	0.0	
A12072	73.0	5.0	0.0	0.0	
A13011	47.0	5.0	0.0	0.0	
A13061	44.0	4.0	0.0	0.0	
A13112	73.0	5.0	0.0	0.0	
A14051	44.0	4.0	0.0	0.0	
A14102	70.0	5.0	0.0	0.0	
A15042	68.0	4.0	0.0	0.0	
A15092	76.0	7.0	0.0	0.0	
A16032	68.0	4.0	0.0	0.0	
A1U041	44.0	4.0	0.0	0.0	
A1U092	70.0	5.0	0.0	0.0	
A21042	81.0	5.0	0.0	0.0	
A22012	74.0	5.0	0.0	0.0	
A22062	76.0	3.0	0.0	0.0	
A23052	79.0	2.0	0.0	0.0	
Dwelling no.	No. of bedrooms	Conditioned floor area (m <sup>2</sup> )	Unconditioned floor area (m <sup>2</sup> )	Area of garden & lawn (m <sup>2</sup> )	Indigenous species (min area m <sup>2</sup> )
A11032	68.0	4.0	5.0	0.0	
A11082	76.0	7.0	10.0	0.0	
A12032	68.0	4.0	8.0	0.0	
A12082	75.0	5.0	0.0	0.0	
A13022	68.0	4.0	0.0	0.0	
A13072	73.0	5.0	0.0	0.0	
A14011	47.0	5.0	0.0	0.0	
A14061	44.0	4.0	0.0	0.0	
A14112	73.0	5.0	0.0	0.0	
A15051	44.0	4.0	0.0	0.0	
A15102	70.0	5.0	0.0	0.0	
A16042	68.0	4.0	0.0	0.0	
A1U051	44.0	4.0	0.0	0.0	
A1U102	73.0	5.0	0.0	0.0	
A21052	81.0	5.0	0.0	0.0	
A22023	101.0	2.0	0.0	0.0	
A23012	74.0	5.0	0.0	0.0	
A23062	76.0	3.0	0.0	0.0	
Dwelling no.	No. of bedrooms	Conditioned floor area (m <sup>2</sup> )	Unconditioned floor area (m <sup>2</sup> )	Area of garden & lawn (m <sup>2</sup> )	Indigenous species (min area m <sup>2</sup> )
A11041	44.0	4.0	5.0	0.0	
A11092	70.0	5.0	8.0	0.0	
A12042	68.0	4.0	28.0	0.0	
A12092	76.0	7.0	0.0	0.0	
A13032	68.0	4.0	0.0	0.0	
A13082	75.0	5.0	0.0	0.0	
A14022	68.0	4.0	0.0	0.0	
A14072	73.0	5.0	0.0	0.0	
A15011	47.0	5.0	0.0	0.0	
A15061	44.0	4.0	0.0	0.0	
A15112	73.0	5.0	0.0	0.0	
A1U012	69.0	5.0	0.0	0.0	
A1U062	73.0	5.0	0.0	0.0	
A21012	74.0	5.0	0.0	0.0	
A21062	79.0	2.0	0.0	0.0	
A22033	100.0	5.0	0.0	0.0	
A23022	101.0	2.0	0.0	0.0	
A24012	74.0	5.0	0.0	0.0	
Dwelling no.	No. of bedrooms	Conditioned floor area (m <sup>2</sup> )	Unconditioned floor area (m <sup>2</sup> )	Area of garden & lawn (m <sup>2</sup> )	Indigenous species (min area m <sup>2</sup> )
A11051	44.0	4.0	5.0	0.0	
A11102	73.0	5.0	8.0	0.0	
A12051	44.0	4.0	25.0	0.0	
A12102	70.0	5.0	0.0	0.0	
A13042	68.0	4.0	0.0	0.0	
A13092	76.0	7.0	0.0	0.0	
A14032	68.0	4.0	0.0	0.0	
A14082	75.0	5.0	0.0	0.0	
A15022	68.0	4.0	0.0	0.0	
A15072	73.0	5.0	0.0	0.0	
A16011	47.0	5.0	0.0	0.0	
A1U021	44.0	4.0	0.0	0.0	
A1U072	75.0	5.0	0.0	0.0	
A21023	101.0	2.0	0.0	0.0	
A21072	79.0	2.0	0.0	0.0	
A22043	100.0	5.0	0.0	0.0	
A23032	78.0	5.0	0.0	0.0	
A24021	49.0	6.0	0.0	0.0	

Dwelling no.	No. of bedrooms	Conditioned floor area (m <sup>2</sup> )	Unconditioned floor area (m <sup>2</sup> )	Area of garden & lawn (m <sup>2</sup> )	Indigenous species (min area m <sup>2</sup> )
A24032		78.0	5.0	0.0	0.0
A25023		96.0	5.0	0.0	0.0
A2U011		57.0	6.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m <sup>2</sup> )	Unconditioned floor area (m <sup>2</sup> )	Area of garden & lawn (m <sup>2</sup> )	Indigenous species (min area m <sup>2</sup> )
A24042		70.0	5.0	0.0	0.0
A25032		68.0	5.0	0.0	0.0
A2U022		79.0	2.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m <sup>2</sup> )	Unconditioned floor area (m <sup>2</sup> )	Area of garden & lawn (m <sup>2</sup> )	Indigenous species (min area m <sup>2</sup> )
A24052		79.0	2.0	0.0	0.0
A25041		53.0	4.0	0.0	0.0
A2U032		79.0	2.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m <sup>2</sup> )	Unconditioned floor area (m <sup>2</sup> )	Area of garden & lawn (m <sup>2</sup> )	Indigenous species (min area m <sup>2</sup> )
A24061		53.0	4.0	0.0	0.0
A26013		92.0	5.0	0.0	0.0
A2U042		72.0	5.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m <sup>2</sup> )	Unconditioned floor area (m <sup>2</sup> )	Area of garden & lawn (m <sup>2</sup> )	Indigenous species (min area m <sup>2</sup> )
A25012		74.0	5.0	0.0	0.0
A26023		103.0	5.0	0.0	0.0
A2U052		75.0	5.0	0.0	0.0

### Residential flat buildings - BuildingB, 120 dwellings, 6 storeys above ground

Dwelling no.	No. of bedrooms	Conditioned floor area (m <sup>2</sup> )	Unconditioned floor area (m <sup>2</sup> )	Area of garden & lawn (m <sup>2</sup> )	Indigenous species (min area m <sup>2</sup> )
B11012		74.0	5.0	0.0	0.0
B11063		94.0	5.0	30.0	0.0
B12012		74.0	5.0	5.0	0.0
B12063		94.0	5.0	40.0	0.0
B13012		74.0	5.0	0.0	0.0
B13063		94.0	5.0	0.0	0.0
B14012		74.0	5.0	0.0	0.0
B14063		94.0	5.0	0.0	0.0
B15021		50.0	5.0	0.0	0.0
B15073		101.0	6.0	0.0	0.0
B1U041		50.0	5.0	0.0	0.0
B1U093		94.0	6.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m <sup>2</sup> )	Unconditioned floor area (m <sup>2</sup> )	Area of garden & lawn (m <sup>2</sup> )	Indigenous species (min area m <sup>2</sup> )
B11021		50.0	5.0	0.0	0.0
B11072		74.0	6.0	18.0	0.0
B12021		50.0	5.0	5.0	0.0
B12072		74.0	6.0	50.0	0.0
B13021		50.0	5.0	0.0	0.0
B13072		74.0	6.0	0.0	0.0
B14021		50.0	5.0	0.0	0.0
B14072		74.0	6.0	0.0	0.0
B15031		50.0	5.0	0.0	0.0
B15083		87.0	6.0	0.0	0.0
B1U051		50.0	5.0	0.0	0.0
B21012		75.0	6.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m <sup>2</sup> )	Unconditioned floor area (m <sup>2</sup> )	Area of garden & lawn (m <sup>2</sup> )	Indigenous species (min area m <sup>2</sup> )
B11031		50.0	5.0	0.0	0.0
B11082		72.0	8.0	5.0	0.0
B12031		50.0	5.0	30.0	0.0
B12082		72.0	8.0	15.0	0.0
B13031		50.0	5.0	0.0	0.0
B13082		72.0	8.0	0.0	0.0
B14031		50.0	5.0	0.0	0.0
B14083		101.0	6.0	0.0	0.0
B15041		50.0	5.0	0.0	0.0
B1U011		50.0	5.0	0.0	0.0
B1U063		94.0	5.0	0.0	0.0
B21021		50.0	5.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m <sup>2</sup> )	Unconditioned floor area (m <sup>2</sup> )	Area of garden & lawn (m <sup>2</sup> )	Indigenous species (min area m <sup>2</sup> )
B11041		50.0	5.0	0.0	0.0
B11091		74.0	4.0	5.0	0.0
B12041		50.0	5.0	50.0	0.0
B12091		47.0	4.0	5.0	0.0
B13041		50.0	5.0	0.0	0.0
B13091		47.0	4.0	0.0	0.0
B14041		50.0	5.0	0.0	0.0
B14093		87.0	6.0	0.0	0.0
B15051		50.0	5.0	0.0	0.0
B1U021		50.0	5.0	0.0	0.0
B1U071		74.0	6.0	0.0	0.0
B21032		74.0	5.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m <sup>2</sup> )	Unconditioned floor area (m <sup>2</sup> )	Area of garden & lawn (m <sup>2</sup> )	Indigenous species (min area m <sup>2</sup> )
B11051		50.0	5.0	0.0	0.0
B11102		73.0	5.0	0.0	0.0
B12051		50.0	5.0	40.0	0.0
B12102		73.0	5.0	0.0	0.0
B13051		50.0	5.0	0.0	0.0
B13102		73.0	5.0	0.0	0.0
B14051		50.0	5.0	0.0	0.0
B15012		74.0	5.0	0.0	0.0
B15062		74.0	6.0	0.0	0.0
B1U031		50.0	5.0	0.0	0.0
B1U082		72.0	8.0	0.0	0.0
B21043		102.0	6.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m <sup>2</sup> )	Unconditioned floor area (m <sup>2</sup> )	Area of garden & lawn (m <sup>2</sup> )	Indigenous species (min area m <sup>2</sup> )
B21052	68.0	5.0	0.0	0.0	0.0
B21102	70.0	5.0	0.0	0.0	0.0
B22032	74.0	5.0	0.0	0.0	0.0
B22082	72.0	5.0	0.0	0.0	0.0
B22131	48.0	4.0	0.0	0.0	0.0
B23052	68.0	5.0	0.0	0.0	0.0
B23102	70.0	5.0	0.0	0.0	0.0
B24021	50.0	5.0	0.0	0.0	0.0
B24072	94.0	2.0	0.0	0.0	0.0
B24122	97.0	2.0	0.0	0.0	0.0
B2U032	74.0	5.0	0.0	0.0	0.0
B2U082	72.0	5.0	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m <sup>2</sup> )	Unconditioned floor area (m <sup>2</sup> )	Area of garden & lawn (m <sup>2</sup> )	Indigenous species (min area m <sup>2</sup> )
B21062	68.0	5.0	0.0	0.0	0.0
B21112	70.0	5.0	0.0	0.0	0.0
B22043	102.0	6.0	0.0	0.0	0.0
B22092	70.0	5.0	0.0	0.0	0.0
B23012	75.0	6.0	0.0	0.0	0.0
B23062	68.0	5.0	0.0	0.0	0.0
B23111	48.0	4.0	0.0	0.0	0.0
B24032	75.0	5.0	0.0	0.0	0.0
B24082	94.0	2.0	0.0	0.0	0.0
B24132	97.0	2.0	0.0	0.0	0.0
B2U043	102.0	6.0	0.0	0.0	0.0
B2U092	70.0	5.0	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m <sup>2</sup> )	Unconditioned floor area (m <sup>2</sup> )	Area of garden & lawn (m <sup>2</sup> )	Indigenous species (min area m <sup>2</sup> )
B21073	75.0	6.0	0.0	0.0	0.0
B21122	70.0	5.0	0.0	0.0	0.0
B22052	68.0	5.0	0.0	0.0	0.0
B22102	70.0	5.0	0.0	0.0	0.0
B23021	50.0	5.0	0.0	0.0	0.0
B23073	75.0	6.0	0.0	0.0	0.0
B23121	48.0	4.0	0.0	0.0	0.0
B24041	45.0	4.0	0.0	0.0	0.0
B24093	95.0	5.0	0.0	0.0	0.0
B25013	95.0	5.0	0.0	0.0	0.0
B2U052	68.0	5.0	0.0	0.0	0.0
B2U102	70.0	5.0	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m <sup>2</sup> )	Unconditioned floor area (m <sup>2</sup> )	Area of garden & lawn (m <sup>2</sup> )	Indigenous species (min area m <sup>2</sup> )
B21082	72.0	5.0	0.0	0.0	0.0
B22012	75.0	6.0	0.0	0.0	0.0
B22062	68.0	5.0	0.0	0.0	0.0
B22111	48.0	4.0	0.0	0.0	0.0
B23032	74.0	5.0	0.0	0.0	0.0
B23082	72.0	5.0	0.0	0.0	0.0
B23131	48.0	4.0	0.0	0.0	0.0
B24052	68.0	5.0	0.0	0.0	0.0
B24102	97.0	2.0	0.0	0.0	0.0
B2U012	75.0	6.0	0.0	0.0	0.0
B2U062	68.0	5.0	0.0	0.0	0.0
B2U112	70.0	5.0	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m <sup>2</sup> )	Unconditioned floor area (m <sup>2</sup> )	Area of garden & lawn (m <sup>2</sup> )	Indigenous species (min area m <sup>2</sup> )
B21092	70.0	5.0	0.0	0.0	0.0
B22021	50.0	5.0	0.0	0.0	0.0
B22073	75.0	6.0	0.0	0.0	0.0
B22121	48.0	4.0	0.0	0.0	0.0
B23043	102.0	6.0	0.0	0.0	0.0
B23092	70.0	5.0	0.0	0.0	0.0
B24012	75.0	6.0	0.0	0.0	0.0
B24062	94.0	2.0	0.0	0.0	0.0
B24112	97.0	2.0	0.0	0.0	0.0
B2U021	50.0	5.0	0.0	0.0	0.0
B2U072	75.0	6.0	0.0	0.0	0.0
B2U122	70.0	5.0	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 - BuildingA

Common area	Floor area (m²)
Lift car (No.1)	-
Building A - Garbage rooms	95.4
Building A - Hallway/lobby types	986.5

Common area	Floor area (m²)
Lift car (No.2)	-
Plant or service room	1049.1

Common area	Floor area (m²)
Lift car (No.3)	-
Building A - Ground floor lobby type	38.7

### Common areas of unit building - BuildingB

Common area	Floor area (m²)
Lift car (No.4)	-
Building B - Garbage rooms	124.1

Common area	Floor area (m²)
Lift car (No.5)	-
Building B - Ground floor lobby type	37.9

Common area	Floor area (m²)
Lift car (No.6)	-
Building B - Hallway/lobby types	936.4

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

Common area	Floor area (m²)
Car park area	10875.2

Common area	Floor area (m²)
Switch room	102.0

Common area	Floor area (m²)
Main Garbage room	139.7

# Schedule of BASIX commitments

## 1. Commitments for Residential flat buildings - BuildingA

### (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 - BuildingB

### (a) Dwellings

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

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

- (i) Water
- (ii) Energy

## 3. Commitments for multi-dwelling houses

## 4. Commitments for single dwelling houses

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

- (i) Water
- (ii) Energy

## Schedule of BASIX commitments

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

### 1. Commitments for Residential flat buildings - BuildingA

#### (a) Dwellings

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



	Fixtures					Appliances		Individual pool				Individual spa		
Dwelling no.	All shower-heads	All toilet flushing systems	All kitchen taps	All bathroom taps	HW recirculation or diversion	All clothes washers	All dish-washers	Volume (max volume)	Pool cover	Pool location	Pool shaded	Volume (max volume)	Spa cover	Spa shaded
All dwellings	3 star (> 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.		✓	✓

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

	<b>Hot water</b>	<b>Bathroom ventilation system</b>		<b>Kitchen ventilation system</b>		<b>Laundry ventilation system</b>	
<b>Dwelling no.</b>	<b>Hot water system</b>	<b>Each bathroom</b>	<b>Operation control</b>	<b>Each kitchen</b>	<b>Operation control</b>	<b>Each laundry</b>	<b>Operation control</b>
All dwellings	central hot water system 1	individual fan, ducted to façade or roof	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
A2102, A2202, A2203, A2204, A2502, A2601, A2602	1-phase airconditioning 5 star (average zone)	1-phase airconditioning 5 star (average zone)	1-phase airconditioning 5 star (average zone)	1-phase airconditioning 5 star (average zone)	3 (dedicated)	1 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	-
A1104, A1105, A1201, A1205, A1206, A1301, A1305, A1306, A1401, A1405, A1406, A1501, A1505, A1506, A1601, A1U02, A1U03, A1U04, A1U05, A2108, A2402, A2406, A2504, A2U01	1-phase airconditioning 5 star (average zone)	1-phase airconditioning 5 star (average zone)	1-phase airconditioning 5 star (average zone)	1-phase airconditioning 5 star (average zone)	1 (dedicated)	1 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	-
All other dwellings	1-phase airconditioning 5 star (average zone)	1-phase airconditioning 5 star (average zone)	1-phase airconditioning 5 star (average zone)	1-phase airconditioning 5 star (average zone)	2 (dedicated)	1 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	-

	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
All dwellings	-	-	-	-	gas cooktop & electric oven	-	-	3.5 star	-	5 star	-	-

(iii) Thermal Comfort	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) The applicant must attach the certificate referred to under "Assessor details" on the front page of this BASIX certificate (the "Assessor Certificate") to the development application and construction certificate application for the proposed development (or, if the applicant is applying for a complying development certificate for the proposed development, to that application). The applicant must also attach the Assessor Certificate to the application for a final occupation certificate for the proposed development.			
(b) The Assessor Certificate must have been issued by an Accredited Assessor in accordance with the Thermal Comfort Protocol.			
(c) The details of the proposed development on the Assessor Certificate must be consistent with the details shown in this BASIX Certificate, including the details shown in the "Thermal Loads" table below.			
(d) The applicant must show on the plans accompanying the development application for the proposed development, all matters which the Thermal Comfort Protocol requires to be shown on those plans. Those plans must bear a stamp of endorsement from the Accredited Assessor, to certify that this is the case.	✓		
(e) The applicant must show on the plans accompanying the application for a construction certificate (or complying development certificate, if applicable), all thermal performance specifications set out in the Assessor Certificate, and all aspects of the proposed development which were used to calculate those specifications.		✓	
(f) The applicant must construct the development in accordance with all thermal performance specifications set out in the Assessor Certificate, and in accordance with those aspects of the development application or application for a complying development certificate which were used to calculate those specifications.		✓	✓
(g) Where there is an in-slab heating or cooling system, the applicant must:  (aa) Install insulation with an R-value of not less than 1.0 around the vertical edges of the perimeter of the slab; or (bb) On a suspended floor, install insulation with an R-value of not less than 1.0 underneath the slab and around the vertical edges of the perimeter of the slab.	✓	✓	✓
(h) The applicant must construct the floors and walls of the development in accordance with the specifications listed in the table below.	✓	✓	✓

	Thermal loads	
Dwelling no.	Area adjusted heating load (in mJ/m <sup>2</sup> /yr)	Area adjusted cooling load (in mJ/m <sup>2</sup> /yr)
A1101	14.1	33.7
A1102	11.6	32.2
A1103	15.8	32.4
A1104	34.4	61.1
A1105	35.8	55.6
A1106	11.7	44.6
A1107	13.5	47.9
A1108	42.1	41.6
A1109	34.6	37.1
A1110	30.0	31.1
A1201	55.9	53.6
A1202	16.3	30.8
A1203	13.7	29.1
A1204	18.0	29.7
A1205	38.1	56.4
A1206	39.4	51.7
A1207	13.5	39.2
A1208	15.4	41.8
A1209	45.3	38.1
A1210	37.4	34.9
A1211	32.7	29.2
A1301	44.4	56.4
A1302	16.7	30.2
A1303	14.0	28.9
A1304	18.4	29.4
A1305	38.7	56.2
A1306	40.1	51.3

	Thermal loads	
Dwelling no.	Area adjusted heating load (in mJ/m <sup>2</sup> /yr)	Area adjusted cooling load (in mJ/m <sup>2</sup> /yr)
A1307	13.8	38.8
A1308	15.8	41.9
A1309	45.9	37.7
A1310	37.9	34.5
A1311	33.1	28.8
A1401	44.9	56.7
A1402	17.0	29.7
A1403	14.2	28.8
A1404	18.6	29.3
A1405	39.1	55.6
A1406	40.6	51.0
A1407	14.1	38.7
A1408	16.0	41.7
A1409	46.3	37.7
A1410	38.3	34.6
A1411	33.5	28.8
A1501	45.6	55.5
A1502	17.2	29.6
A1503	14.4	28.4
A1504	18.8	29.1
A1505	55.1	61.2
A1506	59.5	57.2
A1507	29.1	43.0
A1508	32.2	47.0
A1509	59.5	47.8
A1510	56.5	40.3
A1511	53.4	33.0

	Thermal loads	
Dwelling no.	Area adjusted heating load (in mJ/m <sup>2</sup> /yr)	Area adjusted cooling load (in mJ/m <sup>2</sup> /yr)
A1601	62.8	60.5
A1602	31.7	38.1
A1603	28.1	36.3
A1604	32.6	36.4
A1U01	20.8	29.4
A1U03	32.7	41.0
A1U04	49.7	45.1
A1U06	20.5	38.4
A1U07	13.0	48.7
A1U08	41.4	41.9
A1U09	34.0	37.1
A1U10	29.3	31.9
A2101	9.5	17.7
A2102	15.2	40.2
A2103	11.1	33.2
A2104	20.7	60.8
A2105	38.4	62.9
A2106	35.7	41.5
A2107	34.5	41.7
A2108	17.1	43.3
A2201	11.1	16.8
A2202	17.2	36.0
A2203	11.5	47.0
A2204	21.0	42.6
A2205	37.4	36.1
A2206	30.6	35.9
A2301	11.5	16.5

	Thermal loads	
Dwelling no.	Area adjusted heating load (in mJ/m <sup>2</sup> /yr)	Area adjusted cooling load (in mJ/m <sup>2</sup> /yr)
A2302	17.7	35.4
A2303	16.0	55.3
A2304	29.8	40.2
A2305	32.7	37.2
A2306	31.0	35.3
A2401	11.6	16.4
A2402	8.5	40.8
A2403	16.3	54.6
A2404	30.1	39.5
A2405	33.4	36.1
A2406	38.5	51.2
A2501	11.9	16.8
A2502	24.2	39.3
A2503	37.1	56.3
A2504	39.0	50.9
A2601	31.6	55.6
A2602	57.0	53.6
A2U01	9.9	29.5
A2U02	17.7	35.5
A2U03	10.6	34.2
A2U04	37.9	45.4
A2U05	35.4	38.3
All other dwellings	46.7	37.9



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

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

<b>Common area</b>	<b>Showerheads rating</b>	<b>Toilets rating</b>	<b>Taps rating</b>	<b>Clothes washers rating</b>
All common areas	no common facility	4 star	5 star	no common laundry facility

<b>Central systems</b>	<b>Size</b>	<b>Configuration</b>	<b>Connection (to allow for...)</b>
Central water tank - rainwater or stormwater (No. 1)	10000.0	To collect run-off from at least: - 500.0 square metres of roof area of buildings in the development - 0.0 square metres of impervious area in the development - 0.0 square metres of garden/lawn area in the development - 0.0 square metres of planter box area in the development (excluding, in each case, any area which drains to, or supplies, any other alternative water supply system).	- irrigation of 1200.0 square metres of common landscaped area on the site - car washing in 0 car washing bays on the site

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

Common area	Common area ventilation system		Common area lighting		
	Ventilation system type	Ventilation efficiency measure	Primary type of artificial lighting	Lighting efficiency measure	Lighting control system/BMS
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
Building A - Garbage rooms	ventilation exhaust only	-	light-emitting diode	motion sensors	No
Plant or service room	ventilation (supply + exhaust)	interlocked to light	light-emitting diode	manual on / manual off	No
Building A - Ground floor lobby type	no mechanical ventilation	-	light-emitting diode	daylight sensor and motion sensor	No
Building A - Hallway/lobby types	no mechanical ventilation	-	light-emitting diode	motion sensors	No

Central energy systems	Type	Specification
Central hot water system (No. 1)	gas-fired boiler	Piping insulation (ringmain & supply risers): (a) Piping external to building: R0.75 (~32 mm); (b) Piping internal to building: R0.75 (~32 mm)
Lift (No. 1)	gearless traction with V V V F motor	Number of levels (including basement): 12

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

## 2. Commitments for Residential flat buildings - BuildingB

### (a) Dwellings

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

	Fixtures					Appliances		Individual pool				Individual spa		
Dwelling no.	All shower-heads	All toilet flushing systems	All kitchen taps	All bathroom taps	HW recirculation or diversion	All clothes washers	All dish-washers	Volume (max volume)	Pool cover	Pool location	Pool shaded	Volume (max volume)	Spa cover	Spa shaded
All dwellings	3 star (> 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 2	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
B1U09	1-phase airconditioning 5 star (average zone)	1-phase airconditioning 5 star (average zone)	1-phase airconditioning 5 star (average zone)	1-phase airconditioning 5 star (average zone)	-	-	-	-	-	-	-	-
B1106, B1206, B1306, B1406, B1408, B1409, B1507, B1508, B1U06, B2104, B2107, B2204, B2207, B2304, B2307, B2409, B2501, B2U04	1-phase airconditioning 5 star (average zone)	1-phase airconditioning 5 star (average zone)	1-phase airconditioning 5 star (average zone)	1-phase airconditioning 5 star (average zone)	3 (dedicated)	1 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	-

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
B1102, B1103, B1104, B1105, B1109, B1202, B1203, B1204, B1205, B1209, B1302, B1303, B1304, B1305, B1309, B1402, B1403, B1404, B1405, B1502, B1503, B1504, B1505, B1U01, B1U02, B1U03, B1U04, B1U05, B1U07, B2102, B2202, B2211, B2212, B2213, B2302, B2311, B2312, B2313, B2402,	1-phase airconditioning 5 star (average zone)	1-phase airconditioning 5 star (average zone)	1-phase airconditioning 5 star (average zone)	1-phase airconditioning 5 star (average zone)	1 (dedicated)	1 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	-



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
B2404, B2U02												
All other dwellings	1-phase airconditioning 5 star (average zone)	1-phase airconditioning 5 star (average zone)	1-phase airconditioning 5 star (average zone)	1-phase airconditioning 5 star (average zone)	2 (dedicated)	1 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	-

Dwelling no.	Individual pool		Individual spa		Appliances & other efficiency measures							
	Pool heating system	Timer	Spa heating system	Timer	Kitchen cooktop/oven	Refrigerator	Well ventilated fridge space	Dishwasher	Clothes washer	Clothes dryer	Indoor or sheltered clothes drying line	Private outdoor or unsheltered clothes drying line
All dwellings	-	-	-	-	gas cooktop & electric oven	-	-	3.5 star	-	5 star	-	-

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

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

	Thermal loads	
Dwelling no.	Area adjusted heating load (in mJ/m <sup>2</sup> /yr)	Area adjusted cooling load (in mJ/m <sup>2</sup> /yr)
B1101	12.6	45.2
B1102	10.0	47.4
B1103	16.6	52.8
B1104	19.3	49.2
B1105	10.9	43.9
B1106	10.8	15.5
B1107	40.5	49.3
B1108	39.2	48.0
B1109	36.4	56.0
B1110	33.8	62.4
B1201	14.6	41.4

	Thermal loads	
Dwelling no.	Area adjusted heating load (in mJ/m <sup>2</sup> /yr)	Area adjusted cooling load (in mJ/m <sup>2</sup> /yr)
B1202	11.7	42.8
B1203	18.7	45.4
B1204	16.5	49.2
B1205	12.6	38.9
B1206	12.4	14.0
B1207	43.9	45.9
B1208	42.4	44.8
B1209	39.9	53.1
B1210	37.2	53.7
B1301	15.0	41.3
B1302	11.9	42.0
B1303	18.9	44.6
B1304	16.9	48.4
B1305	12.9	38.5
B1306	12.7	13.7
B1307	44.5	45.8
B1308	42.9	44.2
B1309	40.5	52.9
B1310	37.8	53.2
B1401	15.2	41.4
B1402	12.1	42.1
B1403	19.2	44.4
B1404	17.2	48.5
B1405	13.2	38.3
B1406	12.9	13.6
B1407	44.9	45.6
B1408	35.0	36.8

	Thermal loads	
Dwelling no.	Area adjusted heating load (in mJ/m <sup>2</sup> /yr)	Area adjusted cooling load (in mJ/m <sup>2</sup> /yr)
B1409	32.1	38.2
B1501	29.7	45.9
B1502	29.2	47.9
B1503	35.3	48.8
B1504	17.5	48.5
B1505	28.6	44.1
B1506	62.3	57.6
B1507	54.4	43.8
B1508	50.2	43.5
B1U01	9.6	43.6
B1U02	23.4	60.3
B1U04	15.3	60.4
B1U05	11.3	44.8
B1U06	12.7	19.4
B1U07	39.7	49.6
B1U08	38.5	48.5
B1U09	33.4	59.1
B2101	11.4	15.5
B2102	17.5	54.5
B2103	12.6	47.4
B2104	24.0	37.4
B2105	38.6	36.2
B2106	34.3	44.8
B2107	39.4	34.9
B2108	42.9	55.3
B2109	10.7	43.6
B2110	17.3	53.8

	Thermal loads	
Dwelling no.	Area adjusted heating load (in mJ/m <sup>2</sup> /yr)	Area adjusted cooling load (in mJ/m <sup>2</sup> /yr)
B2111	14.0	44.2
B2112	15.9	58.8
B2201	13.2	14.4
B2202	19.7	48.4
B2203	14.5	42.2
B2204	26.6	33.5
B2205	41.8	34.2
B2206	37.4	40.9
B2207	42.6	32.9
B2208	46.3	47.8
B2209	12.8	39.9
B2210	20.1	45.0
B2211	15.1	38.8
B2212	17.1	43.4
B2213	29.1	49.8
B2301	13.5	14.2
B2302	20.2	47.0
B2303	14.9	41.8
B2304	27.0	33.3
B2305	42.3	34.2
B2306	37.9	40.7
B2307	43.2	32.8
B2308	46.8	47.3
B2309	13.2	39.4
B2310	20.4	44.3
B2311	15.5	38.6
B2312	17.5	43.1

	Thermal loads	
Dwelling no.	Area adjusted heating load (in mJ/m <sup>2</sup> /yr)	Area adjusted cooling load (in mJ/m <sup>2</sup> /yr)
B2313	29.6	49.1
B2401	13.7	14.3
B2402	20.4	47.3
B2403	15.1	41.5
B2404	41.1	30.0
B2405	57.1	29.5
B2406	41.4	42.6
B2409	42.9	49.4
B2411	44.2	38.7
B2413	50.0	42.0
B2501	60.6	55.7
B2U01	12.9	18.1
B2U03	14.2	51.5
B2U04	23.5	37.9
B2U05	37.8	36.8
B2U06	33.6	45.0
B2U07	38.7	34.9
B2U08	47.1	59.0
B2U09	10.3	44.1
B2U11	13.5	44.8
B1U03, B2U02	17.0	55.4
B2407, B2408	54.7	28.1
B2410, B2412	44.0	38.5
All other dwellings	16.8	55.3

**(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	no common facility	4 star	5 star	no common laundry facility

Central systems	Size	Configuration	Connection (to allow for...)
Central water tank - rainwater or stormwater (No. 2)	10000.0	To collect run-off from at least: - 500.0 square metres of roof area of buildings in the development - 0.0 square metres of impervious area in the development - 0.0 square metres of garden/lawn area in the development - 0.0 square metres of planter box area in the development (excluding, in each case, any area which drains to, or supplies, any other alternative water supply system).	- irrigation of 1200.0 square metres of common landscaped area on the site - car washing in 0 car washing bays on the site

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

Common area	Common area ventilation system		Common area lighting		
	Ventilation system type	Ventilation efficiency measure	Primary type of artificial lighting	Lighting efficiency measure	Lighting control system/BMS
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
Lift car (No.6)	-	-	light-emitting diode	connected to lift call button	No
Building B - Garbage rooms	ventilation exhaust only	-	light-emitting diode	motion sensors	No
Building B - Ground floor lobby type	no mechanical ventilation	-	light-emitting diode	daylight sensor and motion sensor	No
Building B - Hallway/lobby types	no mechanical ventilation	-	light-emitting diode	motion sensors	No

Central energy systems	Type	Specification
Central hot water system (No. 2)	gas-fired boiler	Piping insulation (ringmain & supply risers): (a) Piping external to building: R0.75 (~32 mm); (b) Piping internal to building: R0.75 (~32 mm)
Lift (No. 4)	gearless traction with V V V F motor	Number of levels (including basement): 12
Lift (No. 5)	gearless traction with V V V F motor	Number of levels (including basement): 12



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

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

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

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

Common area	Showerheads rating	Toilets rating	Taps rating	Clothes washers rating
All common areas	no common facility	4 star	5 star	no common laundry facility

Central systems	Size	Configuration	Connection (to allow for...)
Pool (No. 1)	Volume: 125.0 kLs	Location: Other Pool shaded: no	-
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	Common area ventilation system		Common area lighting		
	Ventilation system type	Ventilation efficiency measure	Primary type of artificial lighting	Lighting efficiency measure	Lighting control system/BMS
Car park area	ventilation (supply + exhaust)	carbon monoxide monitor + VSD fan	light-emitting diode	time clock and motion sensors	No
Switch room	ventilation (supply + exhaust)	thermostatically controlled	light-emitting diode	manual on / manual off	No
Main Garbage room	ventilation exhaust only	-	light-emitting diode	motion sensors	No

Central energy systems	Type	Specification
Pool (No. 1)	Heating source: gas	Pump controlled by timer: yes

## 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).