



### DPG Project 54 Pty Ltd Proposed Residential Development

To be built at 3A, 3B, 5A, 7 Burgoyne St, 4 Burgoyne Lane, and 1 & 3 Pearson Avenue, Gordon NSW 2072

Issue	File Ref	Description	Author	Date
A	2401293	DRAFT - NatHERS and BASIX Assessment	MF/SC	19/02/25
B	2401293	NatHERS and BASIX Assessment	MF/SC	11/03/25

This report has been prepared by Efficient Living Pty Ltd on behalf of our client DPG Project 54 Pty Ltd. Efficient Living prepares all reports in accordance with the BASIX Thermal Comfort Protocol and is backed by professional indemnity insurance. This report takes into account our Client's instructions and preferred building inclusions.



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#### Prepared For:

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#### Introduction

Efficient Living has investigated the estimated thermal comfort, water and energy usage of the proposed development to be built at 3A, 3B, 5A, 7 Burgoyne St, 4 Burgoyne Lane, and 1 & 3 Pearson Avenue, Gordon NSW 2072.

Heating and cooling loads for the development have been determined using Hero v4.1 thermal comfort simulation software. The report is based on the architectural drawings provided by Marchese Partners. For further details refer to the individual BASIX Certificate(s) and Efficient Living's inclusions summary respectively.

This report is based on the floor plans, elevations and sections prepared by Marchese Partners received on 13/12/2024.

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#### Analysis

The BASIX Assessment is divided into three sections; Water, Thermal Comfort and Energy, each independently measuring the efficiency of the development.

BASIX requires a minimum target of 40% for the water section, a pass or fail for the thermal comfort section, and a minimum required target of 60% for the energy section.

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#### Water

The proposed Development has achieved the BASIX Water Target of 40%.

The water usage of the development is calculated based on the number and efficiency of permanent fixtures and appliances such as taps, showerheads and toilet, the dish washer and clothes washing machine.

The size of the rainwater tank and number of connections may have a significant impact on your water score as does the area of gardens and lawns whether or not low water plant species are incorporated.

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#### Thermal Comfort

Thermal Comfort targets are set by the Department of Planning in the form of heating and cooling caps. The buildings thermal physics are measured using Hero v4.1 Thermal Comfort Simulation Software. This calculates the expected level of energy required to heat and cool each dwelling per annum, expressed in megajoules per square metre of floor area (MJ/m<sup>2</sup>).

Each unit has individual heating and cooling caps applied. Accompanying these individual caps are average heating and cooling caps applied to the whole development. The average caps are lower, or harder to comply with than the individual unit caps.

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#### Energy

The proposed development has achieved the Energy target of 60% to pass this section.

The energy usage of the development is calculated based on the efficiency of fixed appliances that will be used. This includes the air-conditioning system, hot water system, lighting, exhaust fans, cook top, oven, and clothes drying facilities.

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## Materials

The proposed development has achieved a Materials score of -100.

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## Inclusions Summary

The inclusions as outlined below have been incorporated in each unit to allow them to reach their environmental sustainability targets.

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### Glazing Doors/Windows

**Group A** – awning + bifold + hinged glazed doors

U-value: 4.80 (equal to or lower than) SHGC: 0.51 (±5%)

**Group B** – sliding doors/windows + fixed glazing

U-value: 4.80 (equal to or lower than) SHGC: 0.59 (±5%)

Upgrade applied as per thermal comfort upgrades table:

Glazing Upgrade 1

**Group A** – awning + bifold + hinged glazed doors

U-value: 4.10 (equal to or lower than) SHGC: 0.47 (±5%)

**Group B** – sliding doors/windows + fixed glazing

U-value: 4.10 (equal to or lower than) SHGC: 0.52 (±5%)

Glazing Upgrade 2

**Group A** – awning + bifold + hinged glazed doors

U-value: 2.6 (equal to or lower than) SHGC: 0.50 (±5%)

**Group B** – sliding doors/windows + fixed glazing

U-value: 2.6 (equal to or lower than) SHGC: 0.53 (±5%)

Given values are AFRC total window system values (glass and frame)

### Window frame Colour

Default colour modelled

### Window restrictors

Window restrictors are modelled in bedrooms to all windows with sill height under 1.7m and a fall height over 2m from the floor level of the room.

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### Roof and ceiling

Concrete roof, with R1.5 insulation to soffit of concrete (insulation only value) with plasterboard ceiling where balconies are above

Concrete roof, with R3.5 insulation to soffit of concrete (insulation only value) with plasterboard ceiling where roof and terrace above

Plasterboard ceiling, no insulation where neighbouring units are above

Upgrade as per thermal comfort upgrade table:

Concrete roof, with R2.5 insulation to soffit of concrete (insulation only value) with plasterboard ceiling where balconies are above

#### External Colour

Medium ( $0.475 < SA < 0.7$ )

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#### Ceiling Penetrations

Sealed LED downlights at a maximum of one every 2.5m<sup>2</sup>

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#### External Wall

Brick veneer with metal framed walls with R2.5 insulation (insulation only value)

To balcony and top floor – Lightweight cladding on metal framed walls with R2.5 insulation (insulation only value)

Any concrete columns within the external wall envelope are assumed to have the same R2.5 insulation

#### External Colour

Default colour modelled

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#### Inter-tenancy walls

75mm Hebel Power Panel metal frame to walls adjacent to neighbours, no insulation required

75mm Hebel Power Panel to walls adjacent to hallways with a minimum R1.0 insulation (insulation only value)

Minimum 150mm concrete with furring channel and plasterboard lining to all walls adjacent to carpark with a minimum R1.5 insulation (insulation only value)

Minimum 150mm concrete with furring channel and plasterboard lining to all walls adjacent to lift shafts and fire stairs. No insulation required

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#### Walls within dwellings

Plasterboard on studs – no insulation

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#### Floors

200mm Concrete with a minimum R0.9 subfloor insulation (insulation only value) required to units with carpark below

200mm Concrete with a minimum R0.9 subfloor insulation (insulation only value) required where part open subfloor is below

200mm Concrete between levels, no insulation required

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#### Floor coverings

Carpet to bedrooms, tiles to bathrooms and laundry, timber elsewhere

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#### External Shading

Shading as per stamped documentation

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#### BASIX water inclusions

Score 47/40

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#### Fixtures within units

Showerheads: Mid flow (>6L but ≤7.5L/min)

Toilets: 4.0 star

Kitchen taps: 4.0 star

Bathroom vanity taps: 4.0 star

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#### Fixtures within common areas

Showerheads: 4.0 star Mid flow (>6L but ≤7.5L/min)

Toilets: 4.0 star

Taps: 4.0 star

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#### Appliances within units

Dishwashers: 2.5 stars

Clothes washers: 4.0 stars

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#### Central rainwater storage

Tank size: 5,000L

Collecting from 500m<sup>2</sup> roof area

Connected to outdoor tap for irrigation of common area landscaping and 1 car wash bay

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#### Fire sprinkler test water

Three sprinkler systems nominated in BASIX: one for basement levels, one for apartment levels for each building.

Fire sprinkler test water must be contained in a closed loop system (tank required)

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#### Common area swimming pools and spas

Pool volume: 95 kL

Pool shaded: yes

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## BASIX Energy Inclusions

Score 61/60

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### Hot water system

Central gas fired boiler and R1.0 (~38mm) insulation to ring main and supply risers

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### Lift motors

All lifts to have gearless traction with VVVF motor with lift load capacity of  $\geq 1,001\text{kg}$  to  $\leq 1,500\text{kg}$

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### Appliances and other efficiency measures within units

Gas cooktop & electric oven

Dishwashers: 4.0 star

Clothes dryers: 7.0 star

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### Heating and cooling within units

All units to have individual, single phase, reverse cycle air conditioning to living areas, and at least 1 bedroom

A minimum efficiency of EER 3.0 – 3.5 is required for cooling; and

A minimum efficiency of EER 3.0 – 3.5 is required for heating

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### Artificial lighting within units

Minimum of 80% of all light fittings within each room are to have dedicated LED fixtures installed

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### Ventilation within units

Bathroom: individual fan, ducted to roof or façade – connected to light, timer off

Laundry: individual fan, ducted to roof or façade – manual on / off switch

Kitchen range hood: Individual fan, ducted to roof or façade – manual on / off switch

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### Ventilation to common areas

Car park area – Supply and exhaust air with a carbon monoxide monitor & VSD fan

Garbage rooms – Exhaust air only, running continuously

Plant / service rooms – Supply and exhaust air, thermostatically controlled

Switch and Comm room – Supply and exhaust air, thermostatically controlled

Storage – Supply air only, interlocked to light

Ground floor lobby/Arrival - Air conditioning, time clock.

Hallways – Supply only, time clock.

Communal room/ Café/Library – Air conditioning, time clock.



wellness centre and pool - - Air conditioning, time clock.

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#### Artificial lighting to common areas

Lighting control system / BMS : No

Car park area – Light emitting diodes (LEDs) with zoned switching and motion sensors

Lifts – Light emitting diodes (LEDs) connected to lift call button

Garbage rooms – Light emitting diodes (LEDs) with motion sensor

Plant / service rooms – Light emitting diodes (LEDs) with manual on / manual off switch

Switch and Comm room – Light emitting diodes (LEDs) with manual on / manual off switch

Ground floor lobby/Arrival – Light emitting diodes (LEDs) with zoned switching and motion sensors

Hallways – Light emitting diodes (LEDs) with zoned switching and motion sensors

Communal room/Café/Library– Light emitting diodes (LEDs) with time clocks

wellness centre and pool – Light emitting diodes (LEDs) with time clocks

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#### Alternative Energy

Photovoltaic system: rated electrical output (min.) 65 peak kW

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#### Common area swimming pools and spas

Pool heating source: electric heat pump

Pool pump: controlled by timer

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3A, 3B, 5A, 7 Burgoyne St,  
4 Burgoyne Lane,  
and 13 Pearson Avenue,  
Gordon NSW 2072

Certificate # HR-ZEQ11A-01

Accreditation # HERA10213

## Thermal performance specifications

Unit Number	Number of Bedrooms	Floor area (m <sup>2</sup> )		Predicted loads (MJ/m <sup>2</sup> /y)		Star Rating	Thermal Comfort Upgrades
		Con.	Uncon.	Heat	Cool (Sens & Lat)		
Building A							
ALG01	4	165.6	0	14.5	12.7	7.3	
ALG02	4	186.1	0	11.6	8.7	8.1	
AGF01	3	176.2	0	5.3	8	8.8	
AGF02	4	67.8	0	22.6	5.9	7.1	
AGF03	4	180.5	0	25.4	10.9	6.2	
AGF04	1	176.1	0	18.6	7.6	7.4	
A101	1	63.3	0	10.8	8.8	8.1	
A102	3	152.4	0	23.3	8.7	6.8	
A103	4	186.1	0	13.5	8.4	7.9	
A104	4	176.2	0	7.4	8.5	8.5	
A105	2	97.8	0	19.5	6.6	7.4	
A106	2	110.8	0	25.7	8.9	6.4	Glazing upgrade 1, R1.5 insulation subfloor above carpak
A107	4	178.5	0	25.1	10.2	6.3	Glazing upgrade 1, R1.5 insulation subfloor above carpak
A108	2	112	0	32.2	4.2	6.2	Glazing upgrade 1
A109	1	67.8	0	14.1	6.9	7.9	
A201	1	63.3	0	6.6	8.7	8.6	
A202	3	152.4	0	7.5	10.3	8.3	
A203	4	186.1	0	15.8	8.8	7.5	
A204	4	176.2	0	12	10	7.9	
A205	2	97.3	0	12.3	7.7	8.1	
A206	2	110.7	0	19.9	10.1	7	Glazing upgrade 1
A207	4	178.3	0	23.4	9.9	6.6	
A208	3	135.7	0	14	6.6	8	
A209	1	67.8	0	18.1	5.4	7.7	
A301	1	63.3	0	7	9.5	8.4	
A302	3	152.4	0	6.5	10.8	8.4	
A303	3	155.3	0	16.8	17.7	6.4	
A304	3	130.2	0	15.6	9	7.6	
A305	2	97	0	10	7	8.4	
A306	2	110.7	0	13.7	12.6	7.4	Glazing upgrade 1
A307	4	178.3	0	24.7	12.4	6.1	
A308	3	135.7	0	13.4	11.8	7.4	
A309	1	67.7	0	17.1	6.3	7.7	



Certificate # HR-ZEQ11A-01

Accreditation # HERA10213

Thermal performance specifications

Unit Number	Number of Bedrooms	Floor area (m <sup>2</sup> )		Predicted loads (MJ/m <sup>2</sup> /y)		Star Rating	Thermal Comfort Upgrades
		Con.	Uncon.	Heat	Cool (Sens & Lat)		
A401	1	63.3	0	7.1	8.8	8.5	
A402	3	152.4	0	10.7	9.6	8.1	
A403	3	155.4	0	22.5	11.9	6.4	
A404	3	130.2	0	13.8	9.5	7.7	
A405	2	97.2	0	17	6.2	7.7	
A406	2	110.7	0	23.1	9.9	6.6	Glazing upgrade 1
A407	4	178.3	0	21.2	9.2	6.9	Glazing upgrade 1
A408	3	135.7	0	18.2	6.1	7.6	
A409	1	67.8	0	7.1	8.1	8.6	
A501	1	63.3	0	7.6	12.2	8.1	
A502	3	152.4	0	11.3	16.8	7.2	
A503	3	155.8	0	25.5	12.1	6	Glazing upgrade 1
A504	3	130.2	0	24.1	10	6.4	
A505	3	141.5	0	24.8	11.8	6.2	Glazing upgrade 1
A506	4	176.7	0	23.3	8.9	6.7	Glazing upgrade 1
A507	3	135.7	0	17	8.7	7.4	
A508	1	67.8	0	9.1	7.5	8.4	
A601	4	164.5	0	17.4	11.5	7.1	
A602	4	186.4	0	24.3	9.6	6.5	Glazing upgrade 1
A603	4	191.8	0	22.8	14.2	6.1	
A604	4	185	0	17.7	19.8	6.1	
A701	4	215.5	0	18.1	12	6.9	
A702	4	236.2	0	24.5	11.7	6.2	Glazing upgrade 1
Building B							
BLG01	4	176.6	0	18.4	8.5	7.3	
BLG02	4	186.1	0	19.8	6.6	7.4	
BGF01	4	176.4	0	8.4	8.4	8.4	
BGF02	4	186.1	0	7.2	8	8.6	
BGF03	3	155.3	0	13.3	8.6	7.9	
BGF04	3	155.3	0	9.7	11.3	7.9	
B101	4	176.3	0	9.9	7.8	8.3	
B102	4	186.1	0	6.5	8.5	8.6	
B103	3	155.3	0	11.9	7.4	8.2	
B104	3	155.3	0	8.7	9.4	8.3	
B105	2	103.3	0	15.8	7.3	7.7	

Certificate # HR-ZEQ11A-01

Accreditation # HERA10213

Thermal performance specifications

Unit Number	Number of Bedrooms	Floor area (m <sup>2</sup> )		Predicted loads (MJ/m <sup>2</sup> /y)		Star Rating	Thermal Comfort Upgrades
		Con.	Uncon.	Heat	Cool (Sens & Lat)		
B106	3	136.5	0	23.4	13.7	6.1	
B107	2	103.2	0	28.8	8.6	6.1	Glazing upgrade 1, R1.5 insulation subfloor above carpark
B108	2	96.5	0	24.6	11.2	6.3	
B201	4	176.2	0	14.6	9.2	7.7	
B202	4	186.1	0	8.5	10.6	8.2	
B203	3	155.3	0	8.9	7.4	8.4	
B204	3	155.3	0	8.3	9.7	8.3	
B205	2	103.3	0	4	8.5	8.9	
B206	3	136.5	0	9.7	12.5	7.9	
B207	2	103.2	0	27.2	8.9	6.2	
B208	2	95.9	0	14.3	11.4	7.4	
B301	3	130.2	0	22.2	6.7	7.1	
B302	3	128.3	0	6.2	15.1	7.9	
B303	3	155.3	0	12.2	8.7	8	
B304	3	155.3	0	11.3	10.5	7.9	
B305	2	103.3	0	5.3	8.7	8.7	
B306	3	136.5	0	11.3	11.4	7.8	
B307	2	103.2	0	25.1	9.3	6.4	
B308	2	95.9	0	11.9	6.5	8.3	
B401	3	130.2	0	19.3	10.3	7	
B402	3	128.3	0	8.3	10.2	8.2	
B403	3	130.1	0	19.3	9.8	7.1	
B404	3	130.5	0	19.1	8.8	7.2	
B405	2	93.2	0	12.5	8.4	8	
B406	3	136.5	0	22.8	12.7	6.3	
B407	2	103.3	0	25.7	8.5	6.4	Glazing upgrade 1
B408	2	95.4	0	14.8	6.6	7.9	
B501	3	130.2	0	24.4	10.8	6.4	Glazing upgrade 1 Glazing upgrade 2 to living room bi-fold door
B502	3	128.3	0	21	11.8	6.6	
B503	3	130.1	0	17.7	15.6	6.6	
B504	3	130.5	0	16.7	13.5	6.9	
B505	4	173.2	0	20	12.4	6.7	
B506	3	142	0	28.9	7	6.3	Glazing upgrade 2
B601	4	145.6	0	17.1	10.2	7.3	Glazing upgrade 1

Certificate # HR-ZEQ11A-01

Accreditation # HERA10213

Thermal performance specifications

Unit Number	Number of Bedrooms	Floor area (m <sup>2</sup> )		Predicted loads (MJ/m <sup>2</sup> /y)		Star Rating	Thermal Comfort Upgrades
		Con.	Uncon.	Heat	Cool (Sens & Lat)		
B602	3	150.3	0	12.7	20.8	6.6	Glazing upgrade 1 Glazing upgrade 2 Living bifold and Sliding door
B603	3	142.3	0	19.1	15.6	6.4	Glazing upgrade 1
B604	4	163.9	0	27.3	9.2	6.2	
B701	4	206.3	0	11.1	19.4	6.9	Glazing upgrade 1
B702	4	231.1	0	23.4	11.7	6.4	Glazing upgrade 1 Glazing upgrade 2 Living bifold and Sliding door

# Nationwide House Energy Rating Scheme® Class 2 Summary

**NatHERS® Certificate No. #HR-ZEQ11A-01**

Generated on 11 Mar 2025 using Hero 4.1

## Property

**Address** 9 Burgoyne St, Gordon, NSW, 2072

**Lot/DP**

**NatHERS climate zone** 56 - Mascot AMO



## Accredited assessor

**Name** Haylea Edwards  
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**Accreditation No.** 10213  
**Assessor Accrediting Organisation** HERA

## Verification

To verify this certificate, scan the QR code or visit <http://www.hero-software.com.au/pdf/HR-ZEQ11A-01>.

When using either link, ensure you are visiting <http://www.hero-software.com.au>



## National Construction Code (NCC) requirements

The NCC allows the use of NatHERS accredited software to comply with the energy efficiency requirements for houses (Class 1 buildings) and apartments (Class 2 sole-occupancy units and Class 4 parts of buildings). The applicable requirements for houses are detailed in Specification 42 of NCC Volume Two. For apartments the requirements are detailed in clauses J3D3 and J3D15 of NCC Volume One.

NCC 2022 includes enhanced thermal performance requirements for houses and apartments. It also includes a new whole-of-home annual energy use budget which applies to the major equipment in the home.

The NCC, and associated ABCB Standards and support material, can be accessed at [www.abcb.gov.au](http://www.abcb.gov.au).

Note, variations and additions to the NCC energy efficiency requirements may apply in some states and territories.

## Summary of all dwellings

Certificate number and link	Unit Number	Heating load (load limit) (MJ/m².yr)	Cooling load (load limit) (MJ/m².yr)	Total load (MJ/m².yr)	Star Rating	Whole of Home Rating
<a href="#">HR-VZD2NH-01</a>	A101	10.8 (34)	8.8 (21)	19.5	8.1	n/a
<a href="#">HR-9YZ7IG-01</a>	A102	23.3 (34)	8.7 (21)	31.9	6.8	n/a
<a href="#">HR-9K19QA-01</a>	A103	13.5 (34)	8.4 (21)	21.9	7.9	n/a

## Thermal performance Star rating



**NATIONWIDE  
HOUSE**  
ENERGY RATING SCHEME®

The rating above is the average of all dwellings in this summary.

For more information on your dwelling's rating see:  
[www.nathers.gov.au](http://www.nathers.gov.au)

## NCC heating and cooling maximum loads MJ/m².yr

Limits taken from ABCB Standard 2022

	Heating	Cooling
Average load	16.2	10.0
Maximum load	32.2	20.8
Average limit	28.1	20.0
Maximum limit	34.4	21.4

## Whole of Home performance rating

No Whole of Home performance rating generated for this certificate or not completed for all dwellings.

## Summary of all dwellings

Certificate number and link	Unit Number	Heating load (load limit) (MJ/m <sup>2</sup> .yr)	Cooling load (load limit) (MJ/m <sup>2</sup> .yr)	Total load (MJ/m <sup>2</sup> .yr)	Star Rating	Whole of Home Rating
<a href="#">HR-GWHSRH-01</a>	A104	7.4 (34)	8.5 (21)	15.9	8.5	n/a
<a href="#">HR-VIDDMC-01</a>	A105	19.5 (34)	6.6 (21)	26.1	7.4	n/a
<a href="#">HR-2WR2YE-01</a>	A106	25.7 (34)	8.9 (21)	34.6	6.4	n/a
<a href="#">HR-JA71U8-01</a>	A107	25.1 (34)	10.2 (21)	35.3	6.3	n/a
<a href="#">HR-9YR5HC-01</a>	A108	32.2 (34)	4.2 (21)	36.4	6.2	n/a
<a href="#">HR-R4PZEM-01</a>	A109	14.1 (34)	6.9 (21)	21.1	7.9	n/a
<a href="#">HR-W324O1-01</a>	A201	6.6 (34)	8.7 (21)	15.3	8.6	n/a
<a href="#">HR-LZV9J3-01</a>	A202	7.5 (34)	10.3 (21)	17.8	8.3	n/a
<a href="#">HR-B9ZA5P-01</a>	A203	15.8 (34)	8.8 (21)	24.6	7.5	n/a
<a href="#">HR-SONSXZ-01</a>	A204	12.0 (34)	10.0 (21)	22.0	7.9	n/a
<a href="#">HR-KCWIKJ-01</a>	A205	12.3 (34)	7.7 (21)	20.1	8.1	n/a
<a href="#">HR-PUUL0J-01</a>	A206	19.9 (34)	10.1 (21)	30.0	7.0	n/a
<a href="#">HR-56CIMV-01</a>	A207	23.4 (34)	9.9 (21)	33.3	6.6	n/a
<a href="#">HR-FIMHGR-01</a>	A208	14.0 (34)	6.6 (21)	20.6	8.0	n/a
<a href="#">HR-8WI4GV-01</a>	A209	18.1 (34)	5.4 (21)	23.6	7.7	n/a
<a href="#">HR-THP7KJ-01</a>	A301	7.0 (34)	9.5 (21)	16.5	8.4	n/a
<a href="#">HR-6EOW3L-01</a>	A302	6.5 (34)	10.8 (21)	17.4	8.4	n/a
<a href="#">HR-M8LRAZ-01</a>	A303	16.8 (34)	17.7 (21)	34.5	6.4	n/a
<a href="#">HR-E2ABIH-01</a>	A304	15.6 (34)	9.0 (21)	24.5	7.6	n/a
<a href="#">HR-RJ2CC6-01</a>	A305	10.0 (34)	7.0 (21)	17.0	8.4	n/a
<a href="#">HR-GU5V42-01</a>	A306	13.7 (34)	12.6 (21)	26.3	7.4	n/a
<a href="#">HR-H7S06P-01</a>	A307	24.7 (34)	12.4 (21)	37.2	6.1	n/a
<a href="#">HR-WYSCML-01</a>	A308	13.4 (34)	11.8 (21)	25.2	7.4	n/a
<a href="#">HR-FS1EIB-01</a>	A309	17.1 (34)	6.3 (21)	23.4	7.7	n/a
<a href="#">HR-Q60HS0-01</a>	A401	7.1 (34)	8.8 (21)	15.9	8.5	n/a
<a href="#">HR-U7YH6I-01</a>	A402	10.7 (34)	9.6 (21)	20.3	8.1	n/a
<a href="#">HR-04W8C1-01</a>	A403	22.5 (34)	11.9 (21)	34.4	6.4	n/a
<a href="#">HR-33QXT1-01</a>	A404	13.8 (34)	9.5 (21)	23.4	7.7	n/a
<a href="#">HR-2YRKK1-01</a>	A405	17.0 (34)	6.2 (21)	23.1	7.7	n/a

## Summary of all dwellings

Certificate number and link	Unit Number	Heating load (load limit) (MJ/m <sup>2</sup> .yr)	Cooling load (load limit) (MJ/m <sup>2</sup> .yr)	Total load (MJ/m <sup>2</sup> .yr)	Star Rating	Whole of Home Rating
<a href="#">HR-9UE1E3-01</a>	A406	23.1 (34)	9.9 (21)	33.0	6.6	n/a
<a href="#">HR-Y2H78Y-01</a>	A407	21.2 (34)	9.2 (21)	30.4	6.9	n/a
<a href="#">HR-8YA3VM-01</a>	A408	18.2 (34)	6.1 (21)	24.2	7.6	n/a
<a href="#">HR-KJB9WG-01</a>	A409	7.1 (34)	8.1 (21)	15.2	8.6	n/a
<a href="#">HR-FEQCYA-01</a>	A501	7.6 (34)	12.2 (21)	19.8	8.1	n/a
<a href="#">HR-PVKRC6-01</a>	A502	11.3 (34)	16.8 (21)	28.1	7.2	n/a
<a href="#">HR-WQ3RS4-01</a>	A503	25.5 (34)	12.1 (21)	37.6	6.0	n/a
<a href="#">HR-9LC2WA-01</a>	A504	24.1 (34)	10.0 (21)	34.1	6.4	n/a
<a href="#">HR-QP2QPI-01</a>	A505	24.8 (34)	11.8 (21)	36.5	6.2	n/a
<a href="#">HR-V88XAU-01</a>	A506	23.3 (34)	8.9 (21)	32.2	6.7	n/a
<a href="#">HR-AZ59K8-01</a>	A507	17.0 (34)	8.7 (21)	25.7	7.4	n/a
<a href="#">HR-JDMN5A-01</a>	A508	9.1 (34)	7.5 (21)	16.6	8.4	n/a
<a href="#">HR-N7UCAF-01</a>	A601	17.4 (34)	11.5 (21)	29.0	7.1	n/a
<a href="#">HR-6A2EFR-01</a>	A602	24.3 (34)	9.6 (21)	33.9	6.5	n/a
<a href="#">HR-ETMN6Y-01</a>	A603	22.8 (34)	14.2 (21)	37.0	6.1	n/a
<a href="#">HR-0XPW0E-01</a>	A604	17.7 (34)	19.8 (21)	37.5	6.1	n/a
<a href="#">HR-0X25ZA-01</a>	A701	18.1 (34)	12.0 (21)	30.1	6.9	n/a
<a href="#">HR-X1IW15-01</a>	A702	24.5 (34)	11.7 (21)	36.2	6.2	n/a
<a href="#">HR-MN0567-01</a>	AGF01	14.5 (34)	12.7 (21)	27.3	7.3	n/a
<a href="#">HR-1RF7N4-01</a>	AGF02	11.6 (34)	8.7 (21)	20.3	8.1	n/a
<a href="#">HR-KM62MM-01</a>	AGF03	5.3 (34)	8.0 (21)	13.3	8.8	n/a
<a href="#">HR-FTXPNM-01</a>	AGF04	22.6 (34)	5.9 (21)	28.5	7.1	n/a
<a href="#">HR-1A3YI2-01</a>	ALG01	25.4 (34)	10.9 (21)	36.2	6.2	n/a
<a href="#">HR-GFZSM6-01</a>	ALG02	18.6 (34)	7.6 (21)	26.2	7.4	n/a
<a href="#">HR-BMA0P9-01</a>	B101	9.9 (34)	7.8 (21)	17.7	8.3	n/a
<a href="#">HR-I5D5B0-01</a>	B102	6.5 (34)	8.5 (21)	15.0	8.6	n/a
<a href="#">HR-5OUROT-01</a>	B103	11.9 (34)	7.4 (21)	19.2	8.2	n/a
<a href="#">HR-IDN1CM-01</a>	B104	8.7 (34)	9.4 (21)	18.1	8.3	n/a
<a href="#">HR-OBHPC9-01</a>	B105	15.8 (34)	7.3 (21)	23.1	7.7	n/a



## Summary of all dwellings

Certificate number and link	Unit Number	Heating load (load limit) (MJ/m <sup>2</sup> .yr)	Cooling load (load limit) (MJ/m <sup>2</sup> .yr)	Total load (MJ/m <sup>2</sup> .yr)	Star Rating	Whole of Home Rating
<a href="#">HR-ZH4HKO-01</a>	B106	23.4 (34)	13.7 (21)	37.1	6.1	n/a
<a href="#">HR-HP0SNU-01</a>	B107	28.8 (34)	8.6 (21)	37.4	6.1	n/a
<a href="#">HR-W8SMY4-01</a>	B108	24.6 (34)	11.2 (21)	35.8	6.3	n/a
<a href="#">HR-H4P55Q-01</a>	B201	14.6 (34)	9.2 (21)	23.8	7.7	n/a
<a href="#">HR-RQMZS7-01</a>	B202	8.5 (34)	10.6 (21)	19.1	8.2	n/a
<a href="#">HR-Q4M9YU-01</a>	B203	8.9 (34)	7.4 (21)	16.3	8.4	n/a
<a href="#">HR-XOM9H4-01</a>	B204	8.3 (34)	9.7 (21)	18.0	8.3	n/a
<a href="#">HR-G1MXID-01</a>	B205	4.0 (34)	8.5 (21)	12.5	8.9	n/a
<a href="#">HR-JGM1C7-01</a>	B206	9.7 (34)	12.5 (21)	22.1	7.9	n/a
<a href="#">HR-JF16RY-01</a>	B207	27.2 (34)	8.9 (21)	36.1	6.2	n/a
<a href="#">HR-VI6AW1-01</a>	B208	14.3 (34)	11.4 (21)	25.7	7.4	n/a
<a href="#">HR-9BZQT7-01</a>	B301	22.2 (34)	6.7 (21)	28.9	7.1	n/a
<a href="#">HR-6B2OZR-01</a>	B302	6.2 (34)	15.1 (21)	21.3	7.9	n/a
<a href="#">HR-V6XLJA-01</a>	B303	12.2 (34)	8.7 (21)	20.9	8.0	n/a
<a href="#">HR-YARJPW-01</a>	B304	11.3 (34)	10.5 (21)	21.8	7.9	n/a
<a href="#">HR-EBSLRW-01</a>	B305	5.3 (34)	8.7 (21)	14.0	8.7	n/a
<a href="#">HR-K9KY8B-01</a>	B306	11.3 (34)	11.4 (21)	22.7	7.8	n/a
<a href="#">HR-L05YZ4-01</a>	B307	25.1 (34)	9.3 (21)	34.5	6.4	n/a
<a href="#">HR-Q9YOJ7-01</a>	B308	11.9 (34)	6.5 (21)	18.4	8.3	n/a
<a href="#">HR-TAQ0R4-01</a>	B401	19.3 (34)	10.3 (21)	29.6	7.0	n/a
<a href="#">HR-WVJ19R-01</a>	B402	8.3 (34)	10.2 (21)	18.6	8.2	n/a
<a href="#">HR-6R2DYB-01</a>	B403	19.3 (34)	9.8 (21)	29.1	7.1	n/a
<a href="#">HR-RM3OA5-01</a>	B404	19.1 (34)	8.8 (21)	27.8	7.2	n/a
<a href="#">HR-E4PSFW-01</a>	B405	12.5 (34)	8.4 (21)	20.9	8.0	n/a
<a href="#">HR-PRK4QI-01</a>	B406	22.8 (34)	12.7 (21)	35.6	6.3	n/a
<a href="#">HR-JTAH3S-01</a>	B407	25.7 (34)	8.5 (21)	34.2	6.4	n/a
<a href="#">HR-FE1HIY-01</a>	B408	14.8 (34)	6.6 (21)	21.4	7.9	n/a
<a href="#">HR-K3JF9S-01</a>	B501	24.4 (34)	10.8 (21)	35.2	6.4	n/a
<a href="#">HR-YDT44D-01</a>	B502	21.0 (34)	11.8 (21)	32.8	6.6	n/a

## Summary of all dwellings

Certificate number and link	Unit Number	Heating load (load limit) (MJ/m <sup>2</sup> .yr)	Cooling load (load limit) (MJ/m <sup>2</sup> .yr)	Total load (MJ/m <sup>2</sup> .yr)	Star Rating	Whole of Home Rating
<a href="#">HR-L96YE8-01</a>	B503	17.7 (34)	15.6 (21)	33.3	6.6	n/a
<a href="#">HR-301D6N-01</a>	B504	16.7 (34)	13.5 (21)	30.3	6.9	n/a
<a href="#">HR-FG86UJ-01</a>	B505	20.0 (34)	12.4 (21)	32.4	6.7	n/a
<a href="#">HR-OHHIZ6-01</a>	B506	28.9 (34)	7.0 (21)	35.8	6.3	n/a
<a href="#">HR-PF27P2-01</a>	B601	17.1 (34)	10.2 (21)	27.4	7.3	n/a
<a href="#">HR-VQOMC1-01</a>	B602	12.7 (34)	20.8 (21)	33.5	6.6	n/a
<a href="#">HR-E1ELBC-01</a>	B603	19.1 (34)	15.6 (21)	34.7	6.4	n/a
<a href="#">HR-YN1GU9-01</a>	B604	27.3 (34)	9.2 (21)	36.5	6.2	n/a
<a href="#">HR-QTZOY-01</a>	B701	11.1 (34)	19.4 (21)	30.5	6.9	n/a
<a href="#">HR-L5KIRS-01</a>	B702	23.4 (34)	11.7 (21)	35.0	6.4	n/a
<a href="#">HR-PIUGB8-01</a>	BGF01	8.4 (34)	8.4 (21)	16.8	8.4	n/a
<a href="#">HR-IC8XDE-01</a>	BGF02	7.2 (34)	8.0 (21)	15.2	8.6	n/a
<a href="#">HR-94R03Q-01</a>	BGF03	13.3 (34)	8.6 (21)	21.8	7.9	n/a
<a href="#">HR-19C25K-01</a>	BGF04	9.7 (34)	11.3 (21)	21.0	7.9	n/a
<a href="#">HR-2G78PN-01</a>	BLG01	18.4 (34)	8.5 (21)	26.9	7.3	n/a
<a href="#">HR-RCORH3-01</a>	BLG02	19.8 (34)	6.6 (21)	26.4	7.4	n/a
Averages	106x (Total)	16.2	10.0	26.2	7.4	n/a
Maximum Loads and Minimum Ratings		32.2	20.8	37.6	6.0	n/a

## Explanatory notes

### About the ratings

The thermal performance star rating in this Certificate is the average rating of all NCC Class 2 dwellings in an apartment block. The Whole of Home performance rating in this Certificate is the lowest rating for the apartment block. Individual unit ratings are listed in the 'Summary of all dwellings' section of this Certificate.

NatHERS ratings use computer modelling to evaluate a home's energy efficiency and performance. They use localised climate data and standard assumptions on how people use their home to predict the energy loads and societal cost. The thermal performance star rating uses the home's building specifications, layout, orientation and fabric (i.e. walls, windows, floors, roofs and ceilings) to predict the heating and cooling energy loads. The Whole of Home performance rating uses information about the home's appliances and onsite energy production and storage to estimate the home's societal cost.

For more details about an individual dwelling's assessment, refer to the individual dwelling's NatHERS Certificate (accessible via link).

### Accredited Assessors

For high quality NatHERS Certificates, always use an accredited or licenced assessor registered with an Assessor Accrediting Organisation (AAO). AAOs have strict quality assurance processes, and professional development requirements ensuring consistently high standards for assessments.

Non-accredited assessors (Raters) have no ongoing training requirements and are not quality assured.

Licensed assessors in the Australian Capital Territory (ACT) can produce assessments for regulatory purposes only, using endorsed software, as listed on the ACT licensing register.

Any queries about this report should be directed to the assessor. If the assessor is unable to address questions or concerns, contact the AAO specified on the front of this certificate.

### Disclaimer

The NatHERS Certificate format is developed by the NatHERS Administrator. However, the content in certificates is entered by the assessor. It is the assessor's responsibility to use NatHERS accredited software correctly and follow the NatHERS Technical Note to produce a NatHERS Certificate.

The predicted annual energy use, cost and greenhouse gas emissions in this NatHERS Certificate are an estimate based on an assessment of the dwelling's design by the assessor. It is not a prediction of actual energy use, cost or emissions. The information and ratings may be used to compare how other dwellings are likely to perform when used in a similar way.

Information presented in this report relies on a range of standard assumptions (both embedded in NatHERS accredited software and made by the assessor who prepared this report), including assumptions about occupancy, behaviour, appliance performance, indoor air temperature and local climate.

Not all assumptions made by the assessor while using the NatHERS accredited software tool are presented in this report and further details or data files may be available from the assessor.

# BASIX<sup>®</sup>Certificate

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

## Multi Dwelling

Certificate number: 1786841M

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: Tuesday, 11 March 2025

To be valid, this certificate must be submitted with a development application or lodged with a complying development certificate application within 3 months of the date of issue.



When submitting this BASIX certificate with a development application or complying development certificate application, it must be accompanied by NatHERS certificate HR-ZEQ11A-01.

### Project summary

Project name	3A-7 Burgoyne St, 1-3 Pearson Ave, Gordon
Street address	3A BURGUYNE STREET GORDON 2072
Local Government Area	KU-RING-GAI
Plan type and plan number	Deposited Plan 344901
Lot No.	2
Section no.	-
No. of residential flat buildings	2
Residential flat buildings: no. of dwellings	106
Multi-dwelling housing: no. of dwellings	0
No. of single dwelling houses	0

### Project score

Water	✓ 47	Target 40
Thermal Performance	✓ Pass	Target Pass
Energy	✓ 61	Target 60
Materials	✓ -100	Target n/a

### Certificate Prepared by

Name / Company Name: Efficient Living Pty Ltd

ABN (if applicable):

# Description of project

Project address	
Project name	3A-7 Burgoyne St, 1-3 Pearson Ave, Gordon
Street address	3A BURGOYNE STREET GORDON 2072
Local Government Area	KU-RING-GAI
Plan type and plan number	Deposited Plan 344901
Lot No.	2
Section no.	-
Project type	
No. of residential flat buildings	2
Residential flat buildings: no. of dwellings	106
Multi-dwelling housing: no. of dwellings	0
No. of single dwelling houses	0
Site details	
Site area (m²)	7092
Roof area (m²)	2250
Non-residential floor area (m²)	0
Residential car spaces	190
Non-residential car spaces	0

Common area landscape		
Common area lawn (m²)	822.54	
Common area garden (m²)	3290.16	
Area of indigenous or low water use species (m²)	0	
Assessor details and thermal loads		
Assessor number	HERA10213	
Certificate number	HR-ZEQ11A-01	
Climate zone	56	
Project score		
Water	✓ 47	Target 40
Thermal Performance	✓ Pass	Target Pass
Energy	✓ 61	Target 60
Materials	✓ -100	Target n/a

## Description of project

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

### Residential flat buildings - Building B, 50 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> )
B101	4+	176.3	0	0	0
B105	2	103.3	0	0	0
B201	4+	176.2	0	0	0
B205	2	103.3	0	0	0
B301	3	130.2	0	0	0
B305	2	103.3	0	0	0
B401	3	130.2	0	0	0
B405	2	93.2	0	0	0
B501	3	130.2	0	0	0
B505	4+	173.2	0	0	0
B603	3	142.3	0	0	0
BGF01	4+	176.4	0	0	0
BLG01	4+	176.6	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> )
B102	4+	186.1	0	0	0
B106	3	136.5	0	0	0
B202	4+	186.1	0	0	0
B206	3	136.5	0	0	0
B302	3	128.3	0	0	0
B306	3	136.5	0	0	0
B402	3	128.3	0	0	0
B406	3	136.5	0	0	0
B502	3	128.3	0	0	0
B506	3	142	0	0	0
B604	4+	163.9	0	0	0
BGF02	4+	186.1	0	0	0
BLG02	4+	186.1	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> )
B103	3	155.3	0	0	0
B107	2	103.2	0	0	0
B203	3	155.3	0	0	0
B207	2	103.2	0	0	0
B303	3	155.3	0	0	0
B307	2	103.2	0	0	0
B403	3	130.1	0	0	0
B407	2	103.3	0	0	0
B503	3	130.1	0	0	0
B601	4+	145.6	0	0	0
B701	4+	206.3	0	0	0
BGF03	3	155.3	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> )
B104	3	155.3	0	0	0
B108	2	96.5	0	0	0
B204	3	155.3	0	0	0
B208	2	95.9	0	0	0
B304	3	155.3	0	0	0
B308	2	95.9	0	0	0
B404	3	130.5	0	0	0
B408	2	95.4	0	0	0
B504	3	130.5	0	0	0
B602	3	150.3	0	0	0
B702	4+	231.1	0	0	0
BGF04	3	155.3	0	0	0



## Residential flat buildings - Building A, 56 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> )
A101	1	63.3	0	0	0
A105	2	97.8	0	0	0
A109	1	67.8	0	0	0
A204	4+	176.2	0	0	0
A208	3	135.7	0	0	0
A303	3	155.3	0	0	0
A307	4+	178.3	0	0	0
A402	3	152.4	0	0	0
A406	2	110.7	0	0	0
A501	1	63.3	0	0	0
A505	3	141.5	0	0	0
A601	4+	164.5	0	0	0
A701	4+	215.5	0	0	0
AGF03	4+	180.5	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> )
A102	3	152.4	0	0	0
A106	2	110.8	0	0	0
A201	1	63.3	0	0	0
A205	2	97.3	0	0	0
A209	1	67.8	0	0	0
A304	3	130.2	0	0	0
A308	3	135.7	0	0	0
A403	3	155.4	0	0	0
A407	4+	178.3	0	0	0
A502	3	152.4	0	0	0
A506	4+	176.7	0	0	0
A602	4+	186.4	0	0	0
A702	4+	236.2	0	0	0
AGF04	1	176.1	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> )
A103	4+	186.1	0	0	0
A107	4+	178.5	0	0	0
A202	3	152.4	0	0	0
A206	2	110.7	0	0	0
A301	1	63.3	0	0	0
A305	2	97	0	0	0
A309	1	67.7	0	0	0
A404	3	130.2	0	0	0
A408	3	135.7	0	0	0
A503	3	155.8	0	0	0
A507	3	135.7	0	0	0
A603	4+	191.8	0	0	0
AGF01	3	176.2	0	0	0
ALG01	4+	165.6	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> )
A104	4+	176.2	0	0	0
A108	2	112	0	0	0
A203	4+	186.1	0	0	0
A207	4+	178.3	0	0	0
A302	3	152.4	0	0	0
A306	2	110.7	0	0	0
A401	1	63.3	0	0	0
A405	2	97.2	0	0	0
A409	1	67.8	0	0	0
A504	3	130.2	0	0	0
A508	1	67.8	0	0	0
A604	4+	185	0	0	0
AGF02	4+	67.8	0	0	0
ALG02	4+	186.1	0	0	0

# Description of project

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

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

Common area	Floor area (m²)	Common area	Floor area (m²)	Common area	Floor area (m²)
Communal area/Cafe/ library	470	Indoor swimming pool and wellness	335	Undercover car park area (No. 1)	8150
Switch room (No. 1)	32.5	Garbage room (No. 1)	330	Plant or service room (No. 1)	320
Ground floor lobby type (No. 1)	101.2	Hallway/lobby type (No. 1)	971		

# Schedule of BASIX commitments

## 1. Commitments for Residential flat buildings - Building B

### (a) Buildings

#### (i) Materials

### (b) Dwellings

#### (i) Water

#### (ii) Energy

#### (iii) Thermal Performance

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

#### (i) Water

#### (ii) Energy

## 2. Commitments for Residential flat buildings - Building A

### (a) Buildings

#### (i) Materials

### (b) Dwellings

#### (i) Water

#### (ii) Energy

#### (iii) Thermal Performance

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

#### (i) Water

#### (ii) Energy

## 3. Commitments for multi-dwelling housing

### (a) Dwellings

#### (i) Water

#### (ii) Energy

#### (iii) Thermal Performance and Materials

#### 4. Commitments for single dwelling houses

##### (a) Dwellings

(i) Water

(ii) Energy

(iii) Thermal Performance and Materials

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

##### (a) Buildings 'Other'

(i) Materials

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

(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 B

#### (a) Buildings

(i) Materials	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) 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 "Floor types", "External wall types", "Internal wall types", "Ceiling and roof types", "Frames" and "Glazing" tables below.			✓
(b) The applicant must show on the plans accompanying the application for a construction certificate (or complying development certificate, if applicable), all specifications included in the tables below.		✓	
(c) The applicant must construct the floors, walls, roof, ceiling and roof, windows, glazed doors and skylights of the development in accordance with the specifications listed in the tables below. In the case of glazing, a 5% variance from the area values listed in the "Frames" and "Glazing" tables is permitted.	✓	✓	✓
(d) The applicant must show through receipts that the materials purchased for construction are consistent with the specifications listed in the below tables.			✓

#### Floor types

Floor type	Area (m2)	Insulation	Low emissions option
concrete slab on ground, frame:	7	-	none
suspended floor above garage, frame: suspended concrete slab	573	-	-
suspended floor above open subfloor, frame: suspended concrete slab	696	-	-
floors above habitable rooms, frame: suspended concrete slab	6478	-	-

#### External wall types

External wall type	Construction type	Area (m2)	Low emissions option	Insulation
External wall type 1	brick veneer, frame: light steel frame	2196.2	-	-

External wall types				
External wall type	Construction type	Area (m2)	Low emissions option	Insulation
External wall type 2	framed (fibre cement sheet or boards),frame:light steel frame	2977.9	-	-

Internal wall types			
Internal wall type	Construction type	Area (m2)	Insulation
Internal wall type 1	plasterboard, frame:light steel frame	6362	-
Internal wall type 2	75 mm AAC panel, frame:light steel frame	909	-
Internal wall type 3	75 mm AAC panel, frame:light steel frame	1330.4	-

Reinforcement concrete frames/columns		
Building has reinforced concrete frame/columns?	Volume (m³)	Low emissions option
yes	96	-

Ceiling and roof types			
Ceiling and roof type	Area (m²)	Roof Insulation	Ceiling Insulation
concrete - plasterboard internal, frame: no frame	1001.99	-	-

Glazing types			Frame types				
Single glazing (m²)	Double glazing (m²)	Triple glazing (m²)	Aluminium frames (m²)	Timber frames (m²)	uPVC frames (m²)	Steel frames (m²)	Composite frames (m²)
-	2081	-	2081	-	-	-	-



## (b) 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 (> 6 but ≤ 7.5 L/min)	4 star	4 star	4 star	-	4 star	2.5 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
All dwellings	No alternative water supply	-	-	-	-	-	-	-

(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.		✓	✓
(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;		✓	

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(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 (No. 1)	individual fan, ducted to façade or roof	interlocked to light with timer off	individual fan, ducted to façade or roof	manual switch on/off	individual fan, ducted to façade or roof	manual switch on/off

	Cooling		Heating		Natural lighting	
Dwelling no.	living areas	bedroom areas	living areas	bedroom areas	No. of bathrooms or toilets	Main kitchen
All dwellings	1-phase airconditioning - ducted / EER 3.0 - 3.5	1-phase airconditioning - ducted / EER 3.0 - 3.5	1-phase airconditioning - ducted / EER 3.0 - 3.5	1-phase airconditioning - ducted / EER 3.0 - 3.5	0	no

	Individual pool			Individual spa		Appliances other efficiency measures				
Dwelling no.	Pool heating system	Pool Pump	Timer	Spa heating system	Timer	Kitchen cooktop/oven	Dishwasher	Clothes dryer	Indoor or sheltered clothes drying line	Private outdoor or unsheltered clothes drying line
All dwellings	-	-	-	-	-	gas cooktop & electric oven	4 star	7.0 star	no	no

(iii) Thermal Performance	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.	✓	✓	✓
(i) The applicant must show on The plans accompanying The development application for The proposed development, The locations of ceiling fans set out in The Assessor Certificate.	✓		
(j) The applicant must show on the plans accompanying the application for a construction certificate (or complying development certificate, if applicable), the locations of ceiling fans set out in the Assessor Certificate.		✓	

	Thermal loads		
Dwelling no.	Area adjusted heating load (in MJ/m²/yr)	Area adjusted cooling load (in MJ/m²/yr)	Area adjusted total load (in MJ/m²/yr)
B101	9.9	7.8	17.700
B102	6.5	8.5	15.000
B103	11.9	7.4	19.300
B104	8.7	9.4	18.100

	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)	Area adjusted total load (in MJ/m <sup>2</sup> /yr)
B105	15.8	7.3	23.100
B106	23.4	13.7	37.100
B107	28.8	8.6	37.400
B108	24.6	11.2	35.800
B201	14.6	9.2	23.800
B202	8.5	10.6	19.100
B203	8.9	7.4	16.300
B204	8.3	9.7	18.000
B205	4	8.5	12.500
B206	9.7	12.5	22.200
B207	27.2	8.9	36.100
B208	14.3	11.4	25.700
B301	22.2	6.7	28.900
B302	6.2	15.1	21.300
B303	12.2	8.7	20.900
B304	11.3	10.5	21.800
B305	5.3	8.7	14.000
B306	11.3	11.4	22.700
B307	25.1	9.3	34.400
B308	11.9	6.5	18.400
B401	19.3	10.3	29.600
B402	8.3	10.2	18.500
B403	19.3	9.8	29.100
B404	19.1	8.8	27.900
B405	12.5	8.4	20.900
B406	22.8	12.7	35.500
B407	25.7	8.5	34.200
B408	14.8	6.6	21.400
B501	24.4	10.8	35.200
B502	21	11.8	32.800
B503	17.7	15.6	33.300

	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)	Area adjusted total load (in MJ/m <sup>2</sup> /yr)
B504	16.7	13.5	30.200
B505	20	12.4	32.400
B506	28.9	7	35.900
B601	17.1	10.2	27.300
B602	12.7	20.8	33.500
B603	19.1	15.6	34.700
B604	27.3	9.2	36.500
B701	11.1	19.4	30.500
B702	23.4	11.7	35.100
BGF01	8.4	8.4	16.800
BGF02	7.2	8	15.200
BGF03	13.3	8.6	21.900
BGF04	9.7	11.3	21.000
BLG01	18.4	8.5	26.900
All other dwellings	19.8	6.6	26.400



**(c) 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 (> 6 but <= 7.5 L/min)	4 star	4 star	no common laundry facility

Central systems	Size	Configuration	Connection (to allow for...)
Fire sprinkler system (No. 1)	-	So that fire sprinkler test water is contained within the fire sprinkler system for re-use, rather than disposed.	-

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) If, in carrying out the development, the applicant installs a ventilation system to service a common area specified in the table below, then that ventilation system must be of the type specified for that common area, and must meet the efficiency measure specified.		✓	✓
(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
Lift bank (No. 1)	gearless traction with V V V F motor	Number of levels (including basement): 7 number of levels from the bottom of the lift shaft to the top of the lift shaft: 11 number of lifts: 1 lift load capacity: $\geq 1001$ kg but $\leq 1500$ kg
Lift bank (No. 2)	gearless traction with V V V F motor	Number of levels (including basement): 7 number of levels from the bottom of the lift shaft to the top of the lift shaft: 11 number of lifts: 1 lift load capacity: $\geq 1001$ kg but $\leq 1500$ kg
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)

## 2. Commitments for Residential flat buildings - Building A

### (a) Buildings

(i) Materials	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) 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 "Floor types", "External wall types", "Internal wall types", "Ceiling and roof types", "Frames" and "Glazing" tables below.			✓
(b) The applicant must show on the plans accompanying the application for a construction certificate (or complying development certificate, if applicable), all specifications included in the tables below.		✓	
(c) The applicant must construct the floors, walls, roof, ceiling and roof, windows, glazed doors and skylights of the development in accordance with the specifications listed in the tables below. In the case of glazing, a 5% variance from the area values listed in the "Frames" and "Glazing" tables is permitted.	✓	✓	✓
(d) The applicant must show through receipts that the materials purchased for construction are consistent with the specifications listed in the below tables.			✓

#### Floor types

Floor type	Area (m2)	Insulation	Low emissions option
concrete slab on ground, frame:	5.0	-	none
suspended floor above garage, frame: suspended concrete slab	654	-	-
suspended floor above open subfloor, frame: suspended concrete slab	814	-	-
floors above habitable rooms, frame: suspended concrete slab	6929	-	-

#### External wall types

External wall type	Construction type	Area (m2)	Low emissions option	Insulation
External wall type 1	brick veneer,frame:light steel frame	2766.2	-	-
External wall type 2	framed (fibre cement sheet or boards),frame:light steel frame	2723.7	-	-

Internal wall types			
Internal wall type	Construction type	Area (m2)	Insulation
Internal wall type 1	plasterboard, frame:light steel frame	6766	-
Internal wall type 2	75 mm AAC panel, frame:light steel frame	985	-
Internal wall type 3	75 mm AAC panel, frame:light steel frame	1704	-

Reinforcement concrete frames/columns		
Building has reinforced concrete frame/columns?	Volume (m³)	Low emissions option
yes	81	-

Ceiling and roof types			
Ceiling and roof type	Area (m²)	Roof Insulation	Ceiling Insulation
concrete - plasterboard internal, frame: no frame	1249	-	-

Glazing types			Frame types				
Single glazing (m²)	Double glazing (m²)	Triple glazing (m²)	Aluminium frames (m²)	Timber frames (m²)	uPVC frames (m²)	Steel frames (m²)	Composite frames (m²)
-	2207	-	2207	-	-	-	-

## (b) 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 (> 6 but ≤ 7.5 L/min)	4 star	4 star	4 star	-	4 star	2.5 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
All dwellings	No alternative water supply	-	-	-	-	-	-	-

(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.		✓	✓
(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;		✓	

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(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 (No. 2)	individual fan, ducted to façade or roof	interlocked to light with timer off	individual fan, ducted to façade or roof	manual switch on/off	individual fan, ducted to façade or roof	manual switch on/off

	Cooling		Heating		Natural lighting	
Dwelling no.	living areas	bedroom areas	living areas	bedroom areas	No. of bathrooms or toilets	Main kitchen
All dwellings	1-phase airconditioning - ducted / EER 3.0 - 3.5	1-phase airconditioning - ducted / EER 3.0 - 3.5	1-phase airconditioning - ducted / EER 3.0 - 3.5	1-phase airconditioning - ducted / EER 3.0 - 3.5	0	no

	Individual pool			Individual spa		Appliances other efficiency measures				
Dwelling no.	Pool heating system	Pool Pump	Timer	Spa heating system	Timer	Kitchen cooktop/oven	Dishwasher	Clothes dryer	Indoor or sheltered clothes drying line	Private outdoor or unsheltered clothes drying line
All dwellings	-	-	-	-	-	gas cooktop & electric oven	4 star	7.0 star	no	no

(iii) Thermal Performance	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.	✓	✓	✓
(i) The applicant must show on The plans accompanying The development application for The proposed development, The locations of ceiling fans set out in The Assessor Certificate.	✓		
(j) The applicant must show on the plans accompanying the application for a construction certificate (or complying development certificate, if applicable), the locations of ceiling fans set out in the Assessor Certificate.		✓	

	Thermal loads		
Dwelling no.	Area adjusted heating load (in MJ/m²/yr)	Area adjusted cooling load (in MJ/m²/yr)	Area adjusted total load (in MJ/m²/yr)
A101	10.8	8.8	19.600
A102	23.3	8.7	32.000
A103	13.5	8.4	21.900
A104	7.4	8.5	15.900



	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)	Area adjusted total load (in MJ/m <sup>2</sup> /yr)
A105	19.5	6.6	26.100
A106	25.7	8.9	34.600
A107	25.1	10.2	35.300
A108	32.2	4.2	36.400
A109	14.1	6.9	21.000
A201	6.6	8.7	15.300
A202	7.5	10.3	17.800
A203	15.8	8.8	24.600
A204	12	10	22.000
A205	12.3	7.7	20.000
A206	19.9	10.1	30.000
A207	23.4	9.9	33.300
A208	14	6.6	20.600
A209	18.1	5.4	23.500
A301	7	9.5	16.500
A302	6.5	10.8	17.300
A303	16.8	17.7	34.500
A304	15.6	9	24.600
A305	10	7	17.000
A306	13.7	12.6	26.300
A307	24.7	12.4	37.100
A308	13.4	11.8	25.200
A309	17.1	6.3	23.400
A401	7.1	8.8	15.900
A402	10.7	9.6	20.300
A403	22.5	11.9	34.400
A404	13.8	9.5	23.300
A405	17	6.2	23.200
A406	23.1	9.9	33.000
A407	21.2	9.2	30.400
A408	18.2	6.1	24.300

	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)	Area adjusted total load (in MJ/m <sup>2</sup> /yr)
A409	7.1	8.1	15.200
A501	7.6	12.2	19.800
A502	11.3	16.8	28.100
A503	25.5	12.1	37.600
A504	24.1	10	34.100
A505	24.8	11.8	36.600
A506	23.3	8.9	32.200
A507	17	8.7	25.700
A508	9.1	7.5	16.600
A601	17.4	11.5	28.900
A602	24.3	9.60	33.900
A603	22.8	14.2	37.000
A604	17.7	19.8	37.500
A701	18.1	12	30.100
A702	24.5	11.7	36.200
AGF01	5.3	8	13.300
AGF02	22.6	5.9	28.500
AGF03	25.4	10.9	36.300
AGF04	18.6	7.6	26.200
ALG01	14.5	12.7	27.200
All other dwellings	11.6	8.7	20.300

**(c) 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 (> 6 but <= 7.5 L/min)	4 star	4 star	no common laundry facility

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

(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
Lift bank (No. 1)	-	-	light-emitting diode	connected to lift call button	no
Lift bank (No. 2)	-	-	light-emitting diode	connected to lift call button	no
Lift bank (No. 3)	-	-	light-emitting diode	connected to lift call button	no
Lift bank (No. 4)	-	-	light-emitting diode	connected to lift call button	no

Central energy systems	Type	Specification
Lift bank (No. 3)	gearless traction with V V V F motor	Number of levels (including basement): 7 number of levels from the bottom of the lift shaft to the top of the lift shaft: 11 number of lifts: 1 lift load capacity: $\geq 1001$ kg but $\leq 1500$ kg
Lift bank (No. 4)	gearless traction with V V V F motor	Number of levels (including basement): 7 number of levels from the bottom of the lift shaft to the top of the lift shaft: 11 number of lifts: 1 lift load capacity: $\geq 1001$ kg but $\leq 1500$ kg
Central hot water system (No. 2)	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)

### 3. Commitments for multi-dwelling housing

#### (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: <ul style="list-style-type: none"> <li>(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</li> <li>(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.</li> </ul>		✓ ✓	✓ ✓
(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.	✓	✓	✓
(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.		✓	✓

(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(d) The applicant must install the cooling and heating system/s specified for the dwelling under the "Living areas" and "Bedroom areas" headings of the "Cooling" and "Heating" columns in the table below, in/for at least 1 living/bedroom area of the dwelling. If no cooling or heating system is specified in the table for "Living areas" or "Bedroom areas", then no systems may be installed in any such areas. If the term "zoned" is specified beside an air conditioning system, then the system must provide for day/night zoning between living areas and bedrooms.		✓	✓
(e) This commitment applies to each room or area of the dwelling which is referred to in a heading to the "Artificial lighting" column of the table below (but only to the extent specified for that room or area). The applicant must ensure that the "primary type of artificial lighting" for each such room in the dwelling is fluorescent lighting or light emitting diode (LED) lighting. If the term "dedicated" is specified for a particular room or area, then the light fittings in that room or area must only be capable of being used for fluorescent lighting or light emitting diode (LED) lighting.		✓	✓
(f) This commitment applies to each room or area of the dwelling which is referred to in a heading to the "Natural lighting" column of the table below (but only to the extent specified for that room or area). The applicant must ensure that each such room or area is fitted with a window and/or skylight.	✓	✓	✓
(g) This commitment applies if the applicant installs a water heating system for the dwelling's pool or spa. The applicant must:  (aa) install the system specified for the pool in the "Individual Pool" column of the table below (or alternatively must not install any system for the pool). If specified, the applicant must install a timer, to control the pool's pump; and  (bb) install the system specified for the spa in the "Individual Spa" column of the table below (or alternatively must not install any system for the spa). If specified, the applicant must install a timer to control the spa's pump.		✓  ✓	
(h) The applicant must install in the dwelling:  (aa) the kitchen cook-top and oven specified for that dwelling in the "Appliances & other efficiency measures" column of the table below;  (bb) each appliance for which a rating is specified for that dwelling in the "Appliances & other efficiency measures" column of the table, and ensure that the appliance has that minimum rating; and  (cc) any clothes drying line specified for the dwelling in the "Appliances & other efficiency measures" column of the table.		✓  ✓  ✓	✓
(i) If specified in the table, the applicant must carry out the development so that each refrigerator space in the dwelling is "well ventilated".		✓	
(iii) Thermal Performance and Materials	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.			

<b>(iii) Thermal Performance and Materials</b>	<b>Show on DA plans</b>	<b>Show on CC/CDC plans &amp; specs</b>	<b>Certifier check</b>
(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.	✓	✓	✓
(i) The applicant must show on The plans accompanying The development application for The proposed development, The locations of ceiling fans set out in The Assessor Certificate.	✓		
(j) The applicant must show on the plans accompanying the application for a construction certificate (or complying development certificate, if applicable), the locations of ceiling fans set out in the Assessor Certificate.		✓	

## 4. Commitments for single dwelling houses

### (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: <ul style="list-style-type: none"> <li>(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</li> <li>(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.</li> </ul>		✓ ✓	✓ ✓
(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.	✓	✓	✓
(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.		✓	✓



(ii) Energy	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(d) The applicant must install the cooling and heating system/s specified for the dwelling under the "Living areas" and "Bedroom areas" headings of the "Cooling" and "Heating" columns in the table below, in/for at least 1 living/bedroom area of the dwelling. If no cooling or heating system is specified in the table for "Living areas" or "Bedroom areas", then no systems may be installed in any such areas. If the term "zoned" is specified beside an air conditioning system, then the system must provide for day/night zoning between living areas and bedrooms.		✓	✓
(e) This commitment applies to each room or area of the dwelling which is referred to in a heading to the "Artificial lighting" column of the table below (but only to the extent specified for that room or area). The applicant must ensure that the "primary type of artificial lighting" for each such room in the dwelling is fluorescent lighting or light emitting diode (LED) lighting. If the term "dedicated" is specified for a particular room or area, then the light fittings in that room or area must only be capable of being used for fluorescent lighting or light emitting diode (LED) lighting.		✓	✓
(f) This commitment applies to each room or area of the dwelling which is referred to in a heading to the "Natural lighting" column of the table below (but only to the extent specified for that room or area). The applicant must ensure that each such room or area is fitted with a window and/or skylight.	✓	✓	✓
(g) This commitment applies if the applicant installs a water heating system for the dwelling's pool or spa. The applicant must:  (aa) install the system specified for the pool in the "Individual Pool" column of the table below (or alternatively must not install any system for the pool). If specified, the applicant must install a timer, to control the pool's pump; and  (bb) install the system specified for the spa in the "Individual Spa" column of the table below (or alternatively must not install any system for the spa). If specified, the applicant must install a timer to control the spa's pump.		✓  ✓	
(h) The applicant must install in the dwelling:  (aa) the kitchen cook-top and oven specified for that dwelling in the "Appliances & other efficiency measures" column of the table below;  (bb) each appliance for which a rating is specified for that dwelling in the "Appliances & other efficiency measures" column of the table, and ensure that the appliance has that minimum rating; and  (cc) any clothes drying line specified for the dwelling in the "Appliances & other efficiency measures" column of the table.		✓  ✓  ✓	✓
(i) If specified in the table, the applicant must carry out the development so that each refrigerator space in the dwelling is "well ventilated".		✓	
(iii) Thermal Performance and Materials	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.			

(iii) Thermal Performance and Materials	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(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.	✓	✓	✓
(i) The applicant must show on The plans accompanying The development application for The proposed development, The locations of ceiling fans set out in The Assessor Certificate.	✓		
(j) The applicant must show on the plans accompanying the application for a construction certificate (or complying development certificate, if applicable), the locations of ceiling fans set out in the Assessor Certificate.		✓	

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

### (a) Buildings 'Other'

(i) Materials	Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) 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 "Floor types", "External wall types", "Internal wall types", "Ceiling and roof types", "Frames" and "Glazing" tables below.			✓
(b) The applicant must show on the plans accompanying the application for a construction certificate (or complying development certificate, if applicable), all specifications included in the tables below.		✓	
(c) The applicant must construct the floors, walls, roof, ceiling and roof, windows, glazed doors and skylights of the development in accordance with the specifications listed in the tables below. In the case of glazing, a 5% variance from the area values listed in the "Frames" and "Glazing" tables is permitted.	✓	✓	✓
(d) The applicant must show through receipts that the materials purchased for construction are consistent with the specifications listed in the below tables.			✓

#### Floor types

Floor type	Area (m2)	Insulation	Low emissions option
garage floor, frame: concrete slab on ground	2842.7	-	-
garage floor, frame: suspended concrete slab	5376.6	-	-
suspended floor above enclosed subfloor, frame: suspended concrete slab	4103.8	-	-

#### External wall types

External wall type	Construction type	Area (m2)	Low emissions option	Insulation
External wall type 1	concrete panel/ plasterboard,frame:no frame	1848	-	-

#### Internal wall types

Internal wall type	Construction type	Area (m2)	Insulation
-	-	-	-

Reinforcement concrete frames/columns		
Building has reinforced concrete frame/columns?	Volume (m³)	Low emissions option
no	-	-

Ceiling and roof types			
Ceiling and roof type	Area (m²)	Roof Insulation	Ceiling Insulation
-	-	-	

Glazing types			Frame types				
Single glazing (m²)	Double glazing (m²)	Triple glazing (m²)	Aluminium frames (m²)	Timber frames (m²)	uPVC frames (m²)	Steel frames (m²)	Composite frames (m²)
-	-	-	-	-	-	-	-

**(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 (> 6 but <= 7.5 L/min)	4 star	4 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.	✓	✓	✓

	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
Communal area/Cafe/ library	air conditioning system	time clock or BMS controlled	light-emitting diode	time clocks	no
Indoor swimming pool and wellness	air conditioning system	time clock or BMS controlled	light-emitting diode	time clocks	no
Undercover car park area (No. 1)	ventilation (supply + exhaust)	carbon monoxide monitor + VSD fan	light-emitting diode	zoned switching with motion sensor	no
Switch room (No. 1)	ventilation (supply + exhaust)	thermostatically controlled	light-emitting diode	manual on / manual off	no
Garbage room (No. 1)	ventilation exhaust only	-	light-emitting diode	motion sensors	no
Plant or service room (No. 1)	ventilation (supply + exhaust)	thermostatically controlled	light-emitting diode	manual on / manual off	no
Ground floor lobby type (No. 1)	air conditioning system	time clock or BMS controlled	fluorescent	zoned switching with motion sensor	no
Hallway/lobby type (No. 1)	ventilation supply only	time clock or BMS controlled	light-emitting diode	zoned switching with motion sensor	no

Central energy systems	Type	Specification
Alternative energy supply	Photovoltaic system	Rated electrical output (min): 65 peak kW
Other	-	-

## 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).