



Construction Assignments Proposed Boarding House

To be built at **195-197 Sydney Rd, FAIRLIGHT NSW**

Issue	File Ref	Description	Author	Date
A	20-0838	BASIX Assessment	NM	09/11/2020

This report has been prepared by Efficient Living Pty Ltd on behalf of our client Construction Assignments. 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:

Construction Assignments

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Introduction

Efficient Living has investigated the estimated water and energy usage of the proposed development to be built at 195-197 Sydney Rd, FAIRLIGHT.

Analysis

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

BASIX requires a minimum target of 40% for the water section, a pass or fail is required for the thermal comfort section which will be carried out under Section J of NCC 2019 and a minimum required target of 25% for the energy section.

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 toilets, the dish washer and clothes washing machine.

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

Thermal Comfort

Thermal Comfort assessment to be carried out under Section J of NCC 2019.

Energy

The proposed development has achieved the energy target of 25% 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.

Thermal Comfort Inclusions

TBC from Section J Assessment

BASIX water inclusions

Score 49/40

Fixtures within units

Showerheads: Mid flow (>4.5L but <=6 L/min)

Toilets: 4.0 star WELS rating

Kitchen taps: 5.0 star WELS rating

Bathroom vanity taps: 5.0 star WELS rating

Fixtures within common areas

Toilets: 4.0 star WELS rating

Taps: 5.0 star WELS rating

Appliances within units

Not provided

Appliances within communal space

Clothes washers: 4.0 star WELS rating

Central rainwater storage

None

Fire sprinkler test water

Fire sprinkler test water must be contained in a closed loop system

Indigenous and low water use species

A minimum of 250m² of garden area to be indigenous or low water use species

BASIX energy inclusions

Score 44/25

Hot water system

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

Lift motors

All lifts to have gearless traction with VVVF motor

Appliances & other efficiency measures within units

Gas cooktop & electric oven

Dishwashers: Not provided within units

Clothes dryers: Not provided within units

Heating and cooling within units

Apartments are provided with no active heating or cooling systems

Artificial lighting within units

All units are to have dedicated LED fixtures installed

Appliances within communal space

Clothes washers: 4.0 star energy rating

Clothes dryers: 3.5 star energy rating

Ventilation within units

Bathroom – Individual fan, ducted to roof or facade – manual on / manual off switch

Laundry – No laundry provided within units

Kitchen range hood – Individual fan, recirculating – manual on / manual off switch

Ventilation to common areas

Car park entry area – naturally ventilated
Car park area – supply & exhaust air with a carbon monoxide monitor & VSD fan
Garbage rooms – exhaust air, running continuously
Plant/storage – exhaust air, interlocked to light
Bulky goods store – naturally ventilated / no mechanical ventilation
Communal room – supply and exhaust
Main plant – exhaust air, interlocked to light
Common Area WC – Exhaust only, interlocked to light
Common Area Laundry – time clock or BMS controlled
Fire hydrant pump room – no mechanical ventilation
Reception – ventilation supply only, time clock or BMS controlled

Artificial lighting to common areas

Lift Car – LED lights, connected to lift call button
Car park entry area – LED lights, zoned switching with motion sensors
Car park area – LED lights, zoned switching with motion sensors
Garbage rooms – LED lights, with motion sensors
Plant/storage – LED lights, with motion sensors
Bulky goods store – LED lights, with motion sensors
Communal room – LED lights, zoned switching with motion sensors
Main plant – LED lights, with motion sensors
Common area WC – LED lights, with motion sensors
Common area Laundry – LED lights, with motion sensors
Fire hydrant pump room – LED lights, with motion sensors
Reception – LED lights, on time clocks

Alternative energy

22.5kW Solar PV

BASIX[®]Certificate

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

Multi Dwelling

Certificate number: 968134M_02

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

This certificate is a revision of certificate number 968134M lodged with the consent authority or certifier on 18 October 2018 with application DA2018/1708.

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

Secretary

Date of issue: Friday, 06 November 2020

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



Planning,
Industry &
Environment

Project summary

Project name	195-197 Sydney Road_02
Street address	195-197 Sydney Road FAIRLIGHT 2094
Local Government Area	Northern Beaches Council
Plan type and plan number	deposited 589654
Lot no.	2
Section no.	-
No. of residential flat buildings	1
No. of units in residential flat buildings	75
No. of multi-dwelling houses	0
No. of single dwelling houses	0

Project score

Water	✓ 49	Target 40
Thermal Comfort	✓	concession Target Pass
Energy	✓ 44	Target 25

Certificate Prepared by

Name / Company Name: Efficient Living Pty Ltd

ABN (if applicable): 82116346082

Description of project

Project address

Project name	195-197 Sydney Road_02
Street address	195-197 Sydney Road FAIRLIGHT 2094
Local Government Area	Northern Beaches Council
Plan type and plan number	deposited 589654
Lot no.	2
Section no.	-

Project type

No. of residential flat buildings	1
No. of units in residential flat buildings	75
No. of multi-dwelling houses	0
No. of single dwelling houses	0

Site details

Site area (m²)	1789
Roof area (m²)	729
Non-residential floor area (m²)	0.0
Residential car spaces	44
Non-residential car spaces	0

Common area landscape

Common area lawn (m²)	254.0
Common area garden (m²)	729.7
Area of indigenous or low water use species (m²)	250.0

Assessor details

Assessor number	N/A
Certificate number	N/A
Climate zone	N/A

Project score

Water	✓ 49	Target 40
Thermal Comfort	✓	concessionTarget Pass
Energy	✓ 44	Target 25

Description of project

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

Residential flat buildings - 195-197 Sydney Road, 75 dwellings, 6 storeys above ground

Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)
A101	1	23.0	0.0	0.0	0.0
A105	1	22.5	0.0	0.0	0.0
A109	1	17.4	0.0	0.0	0.0
A203	1	22.5	0.0	0.0	0.0
A207	1	25.1	0.0	0.0	0.0
A301	1	22.5	0.0	0.0	0.0
A305	1	22.5	0.0	0.0	0.0
A309	1	17.5	0.0	0.0	0.0
A403	1	18.5	0.0	0.0	0.0
A407	1	17.5	0.0	0.0	0.0
B203	1	22.5	0.0	0.0	0.0
B207	1	22.5	0.0	0.0	0.0
B304	1	22.5	0.0	0.0	0.0
B308	1	27.0	0.0	0.0	0.0
B401	1	23.0	0.0	0.0	0.0
B405	1	22.5	0.0	0.0	0.0
B409	1	18.8	0.0	0.0	0.0
B504	1	25.2	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)
A102	1	22.5	0.0	0.0	0.0
A106	1	23.1	0.0	0.0	0.0
A110	1	27.0	0.0	0.0	0.0
A204	1	22.3	0.0	0.0	0.0
A208	1	17.5	0.0	0.0	0.0
A302	1	22.5	0.0	0.0	0.0
A306	1	23.6	0.0	0.0	0.0
A310	1	25.2	0.0	0.0	0.0
A404	1	18.9	0.0	0.0	0.0
A408	1	25.2	0.0	0.0	0.0
B204	1	22.5	0.0	0.0	0.0
B301	1	23.0	0.0	0.0	0.0
B305	1	22.5	0.0	0.0	0.0
B309	1	18.8	0.0	0.0	0.0
B402	1	22.5	0.0	0.0	0.0
B406	1	22.5	0.0	0.0	0.0
B501	1	25.2	0.0	0.0	0.0
B505	1	28.1	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)
A103	1	22.5	0.0	0.0	0.0
A107	1	26.5	0.0	0.0	0.0
A201	1	23.0	0.0	0.0	0.0
A205	1	22.4	0.0	0.0	0.0
A209	1	17.5	0.0	0.0	0.0
A303	1	22.5	0.0	0.0	0.0
A307	1	25.2	0.0	0.0	0.0
A401	1	19.0	0.0	0.0	0.0
A405	1	25.4	0.0	0.0	0.0
B201	1	23.0	0.0	0.0	0.0
B205	1	22.5	0.0	0.0	0.0
B302	1	22.5	0.0	0.0	0.0
B306	1	22.5	0.0	0.0	0.0
B310	1	18.8	0.0	0.0	0.0
B403	1	22.5	0.0	0.0	0.0
B407	1	23.0	0.0	0.0	0.0
B502	1	18.8	0.0	0.0	0.0
B506	1	27.0	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)
A104	1	22.5	0.0	0.0	0.0
A108	1	17.4	0.0	0.0	0.0
A202	1	22.5	0.0	0.0	0.0
A206	1	23.6	0.0	0.0	0.0
A210	1	25.2	0.0	0.0	0.0
A304	1	22.5	0.0	0.0	0.0
A308	1	17.5	0.0	0.0	0.0
A402	1	18.5	0.0	0.0	0.0
A406	1	17.5	0.0	0.0	0.0
B202	1	22.5	0.0	0.0	0.0
B206	1	22.5	0.0	0.0	0.0
B303	1	22.5	0.0	0.0	0.0
B307	1	23.0	0.0	0.0	0.0
B311	1	27.0	0.0	0.0	0.0
B404	1	22.5	0.0	0.0	0.0
B408	1	18.8	0.0	0.0	0.0
B503	1	18.8	0.0	0.0	0.0
B507	1	18.8	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)
B508	1	18.8	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)
B509	1	27.0	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)
B510	1	28.0	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m ²)	Unconditioned floor area (m ²)	Area of garden & lawn (m ²)	Indigenous species (min area m ²)
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Description of project

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

Common areas of unit building - 195-197 Sydney Road

Common area	Floor area (m²)
Car Park Area	1310.0
Lift car (No.2)	-
Communal Room	140.8
Services	21.8
Reception	20.5

Common area	Floor area (m²)
Car Park Entry Area	94.0
Toilets	12.2
Main Plant	82.9
Bulky Goods Store	15.0

Common area	Floor area (m²)
Lift car (No.1)	-
Garbage Room	26.2
Fire Hydrant Pump Room	30.3
Common Area Laundry	12.0

Schedule of BASIX commitments

1. Commitments for Residential flat buildings - 195-197 Sydney Road

(a) Dwellings

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

(b) Common areas and central systems/facilities

- (i) Water
- (ii) Energy

2. Commitments for multi-dwelling houses

3. Commitments for single dwelling houses

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

- (i) Water
- (ii) Energy

Schedule of BASIX commitments

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

1. Commitments for Residential flat buildings - 195-197 Sydney Road

(a) Dwellings

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

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

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

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

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

	Hot water	Bathroom ventilation system		Kitchen ventilation system		Laundry ventilation system	
Dwelling no.	Hot water system	Each bathroom	Operation control	Each kitchen	Operation control	Each laundry	Operation control
All dwellings	central hot water system 1	individual fan, ducted to façade or roof	manual switch on/off	individual fan, not ducted	manual switch on/off	natural ventilation only, or no laundry	-

	Cooling		Heating		Artificial lighting						Natural lighting	
Dwelling no.	living areas	bedroom areas	living areas	bedroom areas	No. of bedrooms &/or study	No. of living &/or dining rooms	Each kitchen	All bathrooms/toilets	Each laundry	All hallways	No. of bathrooms &/or toilets	Main kitchen
All dwellings	-	-			1 (dedicated)	1 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	no

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

(iii) Thermal Comfort							Show on DA plans	Show on CC/CDC plans & specs	Certifier check
(a) The development will be a Class 3 building. The applicant must include in the documentation accompanying the application for a construction certificate (or complying development certificate, if applicable), a report demonstrating that the development will meet Section J of the National Construction Code - Volume 1.							✓	✓	✓

(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	3 star (> 4.5 but ≤ 6 L/min)	4 star	5 star	4 star

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.		✓	✓

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

Common area	Common area ventilation system		Common area lighting		
	Ventilation system type	Ventilation efficiency measure	Primary type of artificial lighting	Lighting efficiency measure	Lighting control system/BMS
Car Park Area	ventilation (supply + exhaust)	carbon monoxide monitor + VSD fan	light-emitting diode	zoned switching with motion sensor	Yes
Car Park Entry Area	no mechanical ventilation	-	light-emitting diode	zoned switching with motion sensor	Yes
Lift car (No.1)	-	-	light-emitting diode	connected to lift call button	Yes
Lift car (No.2)	-	-	light-emitting diode	connected to lift call button	Yes
Toilets	ventilation exhaust only	interlocked to light	light-emitting diode	motion sensors	Yes
Garbage Room	ventilation exhaust only	-	light-emitting diode	motion sensors	Yes
Communal Room	ventilation (supply + exhaust)	time clock or BMS controlled	light-emitting diode	zoned switching with motion sensor	Yes
Main Plant	ventilation exhaust only	interlocked to light	light-emitting diode	motion sensors	Yes
Fire Hydrant Pump Room	no mechanical ventilation	-	light-emitting diode	motion sensors	Yes
Services	ventilation exhaust only	interlocked to light	light-emitting diode	motion sensors	Yes
Bulky Goods Store	no mechanical ventilation	-	light-emitting diode	motion sensors	Yes
Common Area Laundry	ventilation exhaust only	time clock or BMS controlled	light-emitting diode	motion sensors	Yes
Reception	ventilation supply only	time clock or BMS controlled	light-emitting diode	time clocks	Yes

Central energy systems	Type	Specification
Central hot water system (No. 1)	gas instantaneous	Piping insulation (ringmain & supply risers): (a) Piping external to building: R1.0 (~38 mm); (b) Piping internal to building: R1.0 (~38 mm)
Lift (No. 1)	gearless traction with V V V F motor	Number of levels (including basement): 5
Lift (No. 2)	gearless traction with V V V F motor	Number of levels (including basement): 6

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

(b) Common areas and central systems/facilities

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

Common area	Showerheads rating	Toilets rating	Taps rating	Clothes washers rating
All common areas	3 star (> 4.5 but ≤ 6 L/min)	4 star	5 star	4 star

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

Central energy systems	Type	Specification
Alternative energy supply	Photovoltaic system	Rated electrical output (min): 22.5 peak kW
Other	Building management system installed?: yes Common area clothes drying line installed?: yes Common area electric/gas clothes dryer rating: 3.5 star Common area clothes washer rating: 4 star	-

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).