



Waterloo Integrated  
Station Development

A Joint Venture Project

**JOHN  
HOLLAND**



# **WATERLOO METRO QUARTER OVER STATION DEVELOPMENT**

**Appendix QQ –BASIX Statement Part 1: Building 3**

**SSD-10437 Southern Precinct**

Detailed State Significant Development  
Development Application

Prepared for **Waterloo Developer Pty Ltd**




30 September 2020

Reference	Description
Applicable SSD Applications	SSD-10437 Southern Precinct
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Document Number	WMQ-B3-CUN-ES-RPT-001
Status	Draft
Version	D
Date of Issue	01 September 2020
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## Document Revision History

Revision Ref	Issue Date	Purpose of issue / description of revision
A	16/04/2020	Draft to confirm assumptions for base case
B		
C	30/7/2020	Draft DA report for comment
D	01/09/2020	Final DA issue

## Document Validation (latest issue)

1/09/2020	1/09/2020	1/09/2020
X 	X 	X 
Principal author	Checked by	Verified by
Signed by: Clark, David	Signed by: Rice, Gregory	Signed by: Clark, David

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## Executive Summary

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This report has been prepared by Cundall Johnston and Partners Pty Ltd (Cundall) to accompany a detailed State Significant Development (SSD) development application (DA) for the Southern Precinct over station development (OSD) at the Waterloo Metro Quarter site.

This report has been prepared in response to the following conditions of consent issued for the concept SSD DA (SSD 9393) for the OSD:

- BASIX Energy 30
- More than BASIX 40

### Energy

The key initiatives to deliver the BASIX energy score of **30** are:

- 17.5 kW of Photovoltaic Panels on the roof
- Energy efficient air conditioning to student units
- LED lights
- 3 star fridges installed in units
- Natural ventilation of hallways

### Water

The following strategy is proposed to achieve the BASIX water score of **43**:

- Water efficient fixtures and fittings
- Landscaping with a low demand for irrigation
- Rainwater harvesting and storage for irrigation
- 3 Star Washing Machines installed in central laundry

### Thermal Comfort

The BASIX alternative assessment process allows the thermal comfort of student accommodation to be assessed at a later stage (i.e. the construction certificate stage) against the Section J requirements of the Building Code of Australia (BCA). Thermal comfort does not need to be assessed at the DA stage. NatHERS is not applicable because the accredited software is unsuitable to model the thermal comfort of individual student rooms.

For the BASIX certificate the maximum heating load and maximum cooling load for a 'Unit' (which represents the "average all dwellings in multi-dwelling developments") are used. For this climate zone these are:

- Heating: 39.9 MJ/m<sup>2</sup>
- Cooling: 25.9 MJ/m<sup>2</sup>

## Contents

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<b>1.0</b>	<b>Introduction</b>	<b>5</b>
1.1	The Site	5
1.2	Building 3	7
<b>2.0</b>	<b>BASIX Requirements</b>	<b>8</b>
2.1	SSP Development Consent Requirements	8
2.2	BCA Section J compliance requirements	8
2.3	Minimum BASIX Compliance	8
<b>3.0</b>	<b>BASIX Inputs</b>	<b>10</b>
3.1	Project Details	10
3.2	Thermal comfort	12
3.3	Energy Systems	13
3.4	Water Systems	16
<b>4.0</b>	<b>Results</b>	<b>17</b>
4.1	Energy	
4.2	Water	17
4.3	Thermal Comfort	17

## Appendices

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Appendix A BASIX Certificate

Appendix B Plans



## 1.0 Introduction

### 1.1 The Site

The site is located within the City of Sydney Local Government Area (LGA). The site is situated about 3.3 kilometres south of Sydney CBD and eight kilometres northeast of Sydney International Airport within the suburb of Waterloo.

The Waterloo Metro Quarter site comprises land to the west of Cope Street, east of Botany Road, south of Raglan Street and north of Wellington Street (refer to Figure 1). The heritage-listed Waterloo Congregational Church at 103–105 Botany Road is within this street block but does not form a part of the Waterloo Metro Quarter site boundaries.

The Waterloo Metro Quarter site is a rectangular shaped allotment with an overall site area of approximately 1.287 hectares. The boundaries of the overall site are identified at Figure 1-1, and the subject site of the detailed SSD DA is identified at Figure 1-2 and Figure 1-3.



Figure 1-1 - Aerial image of the site Source: Urbis



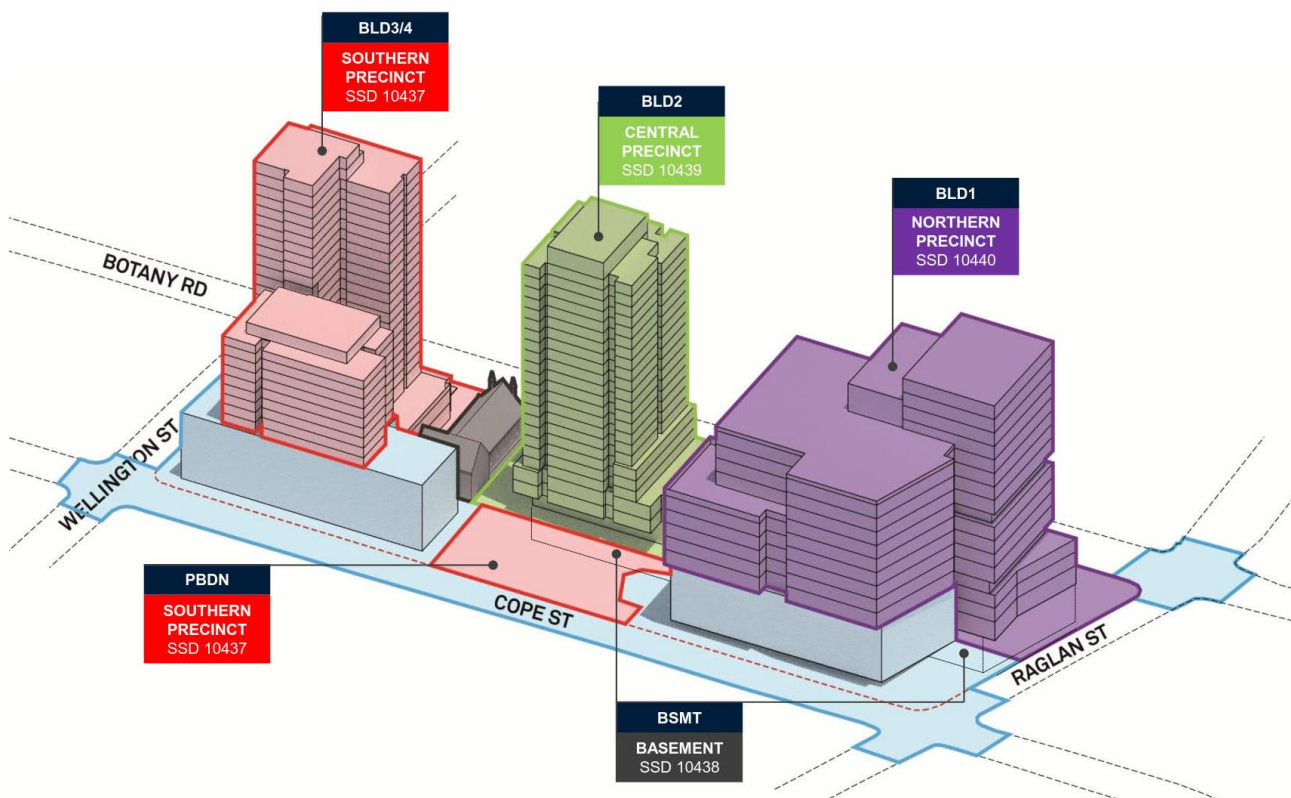


Figure 1-2- Waterloo Metro Quarter site, with sub-precincts identified (Source: HASSELL)

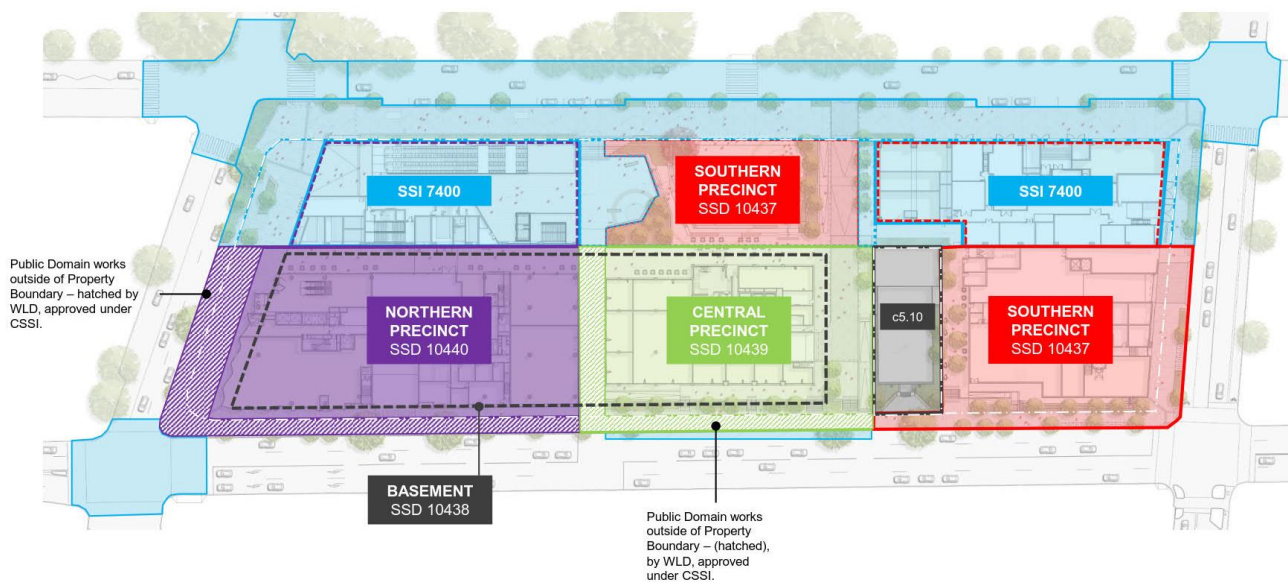


Figure 1-3 - Waterloo Metro Quarter site, with sub-precincts identified (Source: Waterloo Developer Pty Ltd)

## 1.2 Building 3

Figure 1-4 shows an elevation of the building and floor plans for typical levels.

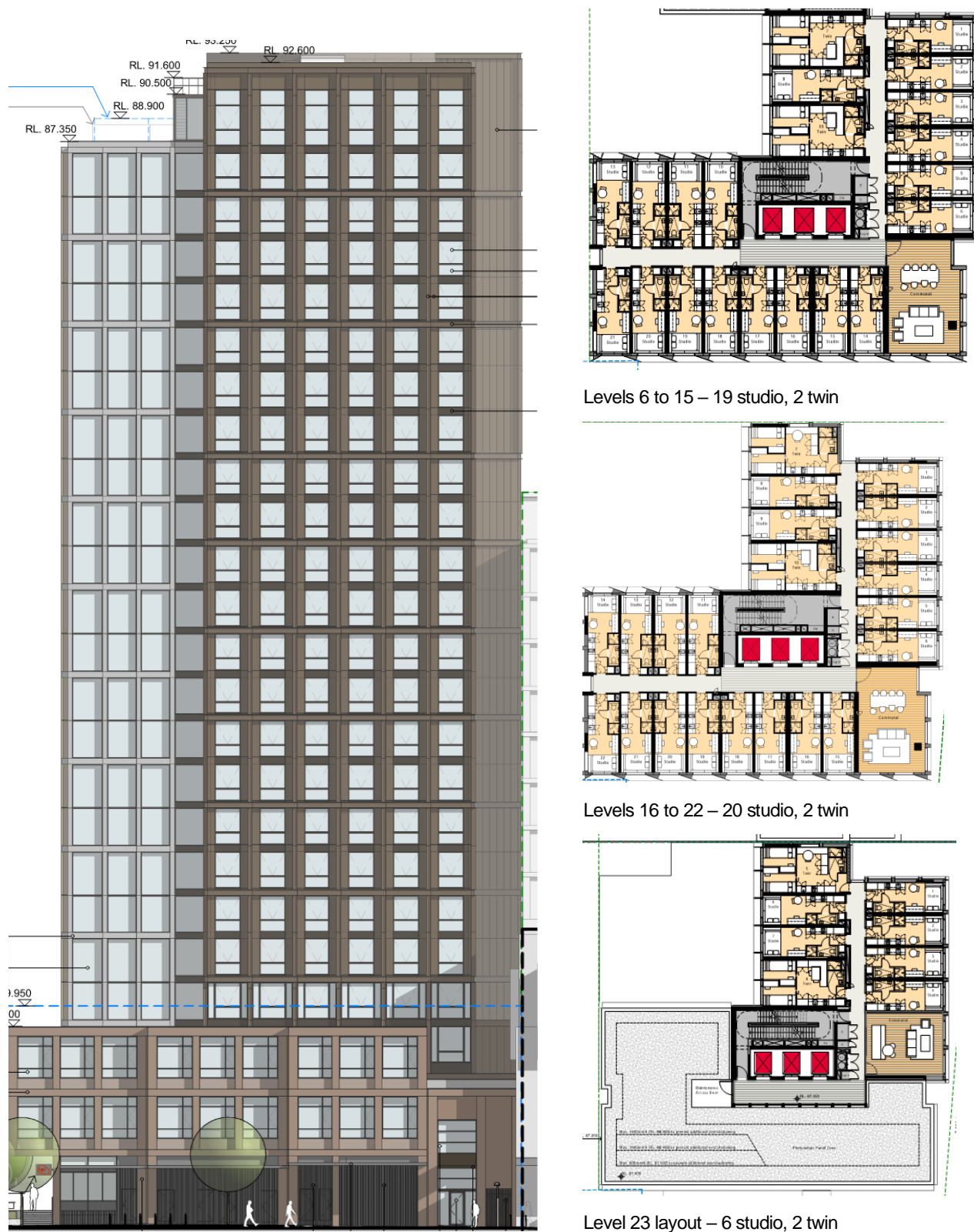


Figure 1-4: South elevation and typical floor plans

## 2.0 BASIX Requirements

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### 2.1 SSP Development Consent Requirements

The Development Consent (SSD 9393) dated 10 December 2019 contains the following minimum performance targets for environmental performance for residential uses:

- BASIX Energy 30
- BASIX Water more than 40

### 2.2 BCA Section J compliance requirements

Building 3 is a Class 3 residential building used for student accommodation. It is required to comply with Section J of NCC 2019. This is certified at the Construction Certificate stage.

### 2.3 Minimum BASIX Compliance

BASIX is the web-based planning tool developed and administered by the NSW Department of Planning and Environment. Provisions to enable the operation of BASIX are contained in the Environmental Planning and Assessment Regulation 2000 (EP&A Regulation) and State Environmental Planning Policy (Building Sustainability Index: BASIX) 2004 (the BASIX SEPP).

Commitments made under BASIX become a condition of the relevant development consent or complying development certificate (reference: NSW Section J appendix of Volume 1 of BCA 2019).

There are three components with minimum compliance targets varying by type of building and location:

- Energy
- Water
- Thermal Comfort.

While Class 3 buildings are typically excluded from BASIX compliance in the NSW amendments to Section J of NCC2019, the Department of Planning requires that large boarding houses, including student accommodation, obtain a BASIX certificate under the Alternative Assessment Process defined on the BASIX website

(<https://www.planningportal.nsw.gov.au/basix/alternative-assessments/large-boarding>).

### 2.3.1 Energy

The Energy section of BASIX aims to reduce the greenhouse gas emissions of all new residential dwellings. The benchmark is 3,292 kgCO<sub>2</sub> per person per year, which was the average for homes prior to the introduction of BASIX in 2004. The energy target ranges from 10% to 50% reductions from the benchmark, depending on the climatic zone and the building type and height.

For Building 3 the following minimum requirements apply:

	BASIX Target Zone	Target	Building Type
Energy	E1A	25	High Rise (6 storey units or higher)

This requirement is superseded by the Development Consent requirement for BASIX Energy 30.

### 2.3.2 Water

The Water section of BASIX aims to reduce the potable water consumption of all new residential developments. The benchmark is 90,340 litres of water per person per year (or 247 litres per person per day), which was the average potable water consumption of a home prior to the introduction of BASIX in 2004. The water reduction target ranges from 40% to 0% depending on the climatic zone.

For Building 3 the following minimum requirements apply:

	BASIX Target Zone	Target
Water	East Coast	40

This requirement is superseded by the Development Consent requirement for BASIX Water of more than 40.

### 2.3.3 Thermal Comfort

The BASIX alternative assessment process allows the thermal comfort of student accommodation to be assessed at a later stage (i.e. the construction certificate stage) against the Section J requirements of the Building Code of Australia (BCA). Thermal comfort does not need to be assessed at the DA stage. NatHERS is not applicable because the accredited software is unsuitable to model the thermal comfort of individual student rooms.

## 3.0 BASIX Inputs

### 3.1 Project Details

#### 3.1.1 Site Details

Item	Value	Comments
Postcode	2017	City of Sydney Local Government Area.
Site Area	1955 m <sup>2</sup>	
Total Roof Area	1336 m <sup>2</sup>	
Non-residential floor area	-	Excluded from BASIX
Residential car spaces	0	None provided in Building 3
Non-residential car spaces	-	Excluded from BASIX

#### 3.1.2 Building Details

The building has 25 storeys above ground. The first 3 storeys are a combination of communal space for students, retail and community space. The apartments start at Level 03 and continue up to and including level 23 (21 storeys).

Level 24 is plant. The building has 435 student rooms with the following mix:

Type	Student
Studio – 1	393
Studio – 2	3
Twin	39
<b>TOTAL</b>	<b>435</b>

The size and areas of each dwelling are shown in the BASIX certificate in Appendix A.

### 3.1.3 Common Areas

BASIX Common Area Type	Floor Area (m2)	Shared Service	Description
Indoor swimming pool and/or spa area(s)	0		n/a
Gym area(s)	0		n/a (the gym is a separate tenancy)
Undercover car park area(s)	0		No car park
Lift motor room(s)	0		n/a
Switch room(s)	31.4	Yes	Ground – Switch Room
Garbage room(s) No. 1 – Ground	80.5		Ground – Iglu bin rooms
Garbage room(s) No. 2 – L3-L23	46		Bin rooms on Levels 3 to 23 (2.19m <sup>2</sup> per floor based on garbage chutes & recyclables cupboard)
Community room(s) – No. 1 – L1	486		Level 1 communal space (excludes Student Accommodation Bike Store B on Level 1)
Community room(s) No. 2 – L2	320		Level 2 communal space
Community room(s) No. 3 – L3-L23	1024.5		Communal rooms on Levels 3 to 23 (51m <sup>2</sup> typical)
Plant or service room(s) No. 1 – fire	14.9	Yes	Ground – Fire control room
Plant or service room(s) No. 2 – diesel	11.2		Ground – Diesel Generator room
Plant or service room(s) No. 3 – comms	13	Yes	Ground – Comms room
Plant or service room(s) No. 4 – pumps	30.9	Yes	Mezzanine – Filtration Plant & Pump
Plant or service room(s) No. 6 – roof	247.6	Yes	Roof Plant Room (includes 9.5m <sup>2</sup> of Comms Room within Roof Plant)
Other internal common area(s) – cycle	98.7		Ground – Bicycle parking (includes Student Accommodation Bike Store A on Ground Level and Bike Store B on Level 1)
Ground floor lobby type(s)	81.6		Main lobby on ground floor
Hallway/lobby type(s) – L3-L23	1291.8		Corridors on Levels 3 to 23 (71m <sup>2</sup> typical)
<b>TOTAL</b>	<b>3,778</b>		

\* - shared service means the area is also used by non-residential users.

### 3.1.4 Central Systems

Central System(s) or facility(s)	Location
Lift (No. 1)	Building 3
Lift (No. 2)	Building 3
Lift (No. 3)	Building 3
Central water tank - rainwater or stormwater (No. 1)	Building 3
Fire sprinkler system (No.1)	Building 3
Central hot water system (No. 1)	Building 3
Central Cooling System (No. 1)	None
Central Heating System (No. 1)	None



## 3.2 Thermal comfort

### 3.2.1 Heating and Cooling energy inputs

For the BASIX certificate under the alternative assessment process for Class 3 student accommodation buildings the maximum heating load and maximum cooling load for a 'Unit' (which represents the "average all dwellings in multi-dwelling developments") are used for each unit.

The BASIX climate zone for thermal comfort for Building 3 of Waterloo Metro Quarter is 56 (East Sydney) which gives the following thermal comfort criteria:

	Maximum (MJ/m <sup>2</sup> )
Average heating load in building	39.9
Average cooling load in building	25.9

### 3.2.2 Preliminary Section J assessment

A preliminary Section J Deemed-to-satisfy assessment using the Section J1 wall-glazing calculator has been undertaken during the DA stage. This confirms that the proposed building fabric to the student units will meet Section J1 requirements. A detailed JV3 model will be undertaken during design development to optimise the design solution further.

The preliminary assessment was based on the following façade performance criteria:

- Total wall system R-value R1.0
- Total system U-value of glazing U3.8
- Total system SHGC of glazing 0.3



### 3.3 Energy Systems

#### 3.3.1 Dwellings

System	Item	Description
Hot Water	Central hot water system	Refer Central Systems for details
Ventilation	Bathroom Exhaust	Individual fan ducted to façade or roof, interlocked to light
	Kitchen Exhaust	Individual ducted to façade or roof, manual switch on/off
	Laundry Exhaust	No laundry
Cooling	Living	3-phase air conditioning / EER 3.0 – 3.5
	Bedroom	3-phase air conditioning / EER 3.0 – 3.5
Heating	Living	3-phase air conditioning / EER 3.0 – 3.5
	Bedroom	3-phase air conditioning / EER 3.0 – 3.5
Lighting	All rooms	Primarily lit by LEDs with dedicated LED fittings
Pool & Spa	None	
Whitegoods & Appliances	Cooktop	Electric
	Oven	Electric
	Fridge	3 star
	Dishwasher	None
	Clothes Washer	No washing machine taps provided
	Clothes Dryer	None
	Ventilated fridge space	Yes
Other	Indoor clothes drying line	No
	Private outdoor clothes drying line	No
	Day/Night zoning of air con	Yes (only one zone in studios)
Alternative Energy	None	Refer common areas

#### 3.3.2 Central Systems

System	Item	Description
Hot Water	System Type	Gas-fired Boiler
	Piping Insulation (ring main & supply riser)	R1.0 (external)
		R1.0 (internal)
Cooling	System Type	n/a
	Energy Source	n/a
	Heat Rejection Method	n/a
	Unit Efficiency	n/a
Heating	System Type	n/a

	Energy Source	n/a
	Unit Efficiency	n/a
Alternative Energy Supply	Cogeneration System	None
	Photovoltaic System	17.5 kW (peak rated electrical output)
Lifts	System Type	gearless traction with VVVF motor
	No. of storeys including basement *	24
Pool & Spa	None	
Sauna	None	
Other	Building Management System	Yes
	Active Power Factor Correction	Yes
	Common area clothes drying line	No
	Common area electric/gas clothes dryer	not specified
	Common area clothes washer	not specified

\* - for lifts the number of storeys is equal to the number of levels served, that is, number of residential levels that a lift door can open on to, plus the lobby levels and the basements dedicated to residential parking / services.

### 3.3.3 Common Area – Ventilation

Area	Mechanical Ventilation System Type	Energy Efficiency Measure
Indoor swimming pool and/or spa area(s)	n/a	-
Gym area(s)	n/a	-
Undercover car park area(s)	n/a	-
Lift motor room(s)	n/a	-
Switch room(s)	Ventilation exhaust only	Thermostatically controlled
Garbage room(s) No. 1 – Ground	Supply & Exhaust	n/a in BASIX
Garbage room(s) No. 2 – L3-L23	Ventilation exhaust only	n/a in BASIX
Community room(s) – No. 1 – L1	Air Conditioning System	Time Clock or BMS Controlled
Community room(s) No. 2 – L2	Air Conditioning System	Time Clock or BMS Controlled
Community room(s) No. 3 – L3-L23	Air Conditioning System	Time Clock or BMS Controlled
Plant or service room(s) No. 1 – fire	Exhaust only	Interlocked to light
Plant or service room(s) No. 2 – diesel	Exhaust only	Continuous
Plant or service room(s) No. 3 – comms	Air Conditioning System	Thermostatically controlled
Plant or service room(s) No. 4 – pumps	Exhaust only	Interlocked to light
Plant or service room(s) No. 5 – meters	Exhaust only	Interlocked to light
Plant or service room(s) No. 6 – roof	No mechanical ventilation	-
Other internal common area(s) – cycle	Exhaust only	Time Clock or BMS Controlled
Ground floor lobby type(s)	Air Conditioning System	Time Clock or BMS Controlled
Hallway/lobby type(s) – L3-L23	No mechanical ventilation	-

### 3.3.4 Common Area – Lighting

Area	Primary Lighting System Type	Energy Efficiency Measure	Lighting Control System / BMS
Indoor swimming pool and/or spa area(s)	n/a	-	-
Gym area(s)	n/a	-	-
Undercover car park area(s)	n/a	-	-
Lift motor room(s)	n/a	-	-
Lift Cars (No. 1 to 3)	LED	Connected to lift call button	Yes
Switch room(s)	LED	Manual On / Manual Off	Yes
Garbage room(s) No. 1 – Ground	LED	Motion Sensors	Yes
Garbage room(s) No. 2 – L3-L23	LED	Motion Sensors	Yes
Community room(s) – No. 1 – L1	LED	Daylight Sensor & Motion Sensor	Yes
Community room(s) No. 2 – L2	LED	Daylight Sensor & Motion Sensor	Yes
Community room(s) No. 3 – L3-L23	LED	Daylight Sensor & Motion Sensor	Yes
Plant or service room(s) No. 1 – fire	LED	Manual On / Manual Off	Yes
Plant or service room(s) No. 2 – diesel	LED	Manual On / Manual Off	Yes
Plant or service room(s) No. 3 – comms	LED	Manual On / Manual Off	Yes
Plant or service room(s) No. 4 – pumps	LED	Manual On / Manual Off	Yes
Plant or service room(s) No. 5 – meters	LED	Manual On / Manual Off	Yes
Plant or service room(s) No. 6 – roof	LED	Manual On / Manual Off	Yes
Other internal common area(s) – cycle	LED	Motion Sensor	Yes
Ground floor lobby type(s)	LED	Motion Sensor	Yes
Hallway/lobby type(s) – L3-L23	LED	Motion Sensor	Yes

### 3.4 Water Systems

#### 3.4.1 Dwellings

System	Item	Description
Fixtures	Showerhead	3 star (>7.5 but <= 9 L/min)
	Toilets	4 star
	Kitchen Taps	4 star
	Bathroom Taps	4 star
	Clothes Washer	No washing machine taps
	Dishwasher	None
Other	On demand hot water recirculation or diversion	No
Alternative Water	None	
Pool & Spa	None	

#### 3.4.2 Central Systems & Common Areas

System	Item	Description
Landscape	Area of common area lawn	0 m2
	Area of common area garden	138 m2
	Area of indigenous or low water use species	138 m2
Alternative Water Supply – Central Water Tank	Areas diverted to tank:	
	Roof area:	835 m2
	Impervious area:	0 m2
	Garden / lawn area:	0 m2
Alternative Water Supply	Planter box area:	0 m2
	Tank Size	10,000 litres
	Divert overflow to	overflow not diverted
Alternative Water Supply	Supply available from utility company	No
Alternative Water Use	Area of common landscape	138 m2
	No. of car washing bays	0
	Central cooling system (cooling tower)	No
Pool & Spa	None	
Common area fixtures & appliances	Shower	None
	Toilets	4 star
	Taps	4 star
	Clothes Washer	3 star
Fire Sprinkler System (no. 1)	Fire sprinkler test water contained in a closed system	Yes
Central Cooling System (No. 1)	Private water meter on make up line connected to BMS	Yes
	Conductivity controller installed	Yes

## 4.0 Results

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### 4.1 Energy

The BASIX Energy Score is **30** which achieves the target score of 30.

The key strategies used to achieve the BASIX Energy Score are:

- 17.5 kW of Photovoltaic Panels on the roof
- Energy efficient air conditioning to student units
- LED lights
- 3 star fridges installed in units
- Natural ventilation of hallways

### 4.2 Water

The BASIX Water Score is **43** which meets the target of exceeding 40.

The key strategies used to achieve the BASIX Water Score are:

- Water efficient fixtures and fittings
- Landscaping with a low demand for irrigation
- Rainwater harvesting and storage for irrigation
- 3 star Washing Machines installed in a central laundry

### 4.3 Thermal Comfort

Thermal comfort is not assessed in BASIX under the alternative assessment process set out for Class 3 student accommodation. A JV3 model to demonstrate compliance with Section J1 requirements, including thermal comfort modelling, will be undertaken during design development and submitted for the Construction Certificate.

## Appendix A BASIX Certificate

*Note: The BASIX certificate attached is a draft certificate as the project is currently pending approval under the alternative assessment process defined by the DPIE for Class 3 student accommodation.*

# BASIX<sup>®</sup>Report

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

Project summary		
Project name	WMQ - Building 3 - DA2	
Street address	83 Botany Road Waterloo 2017	
Local Government Area	Sydney City Council	
Plan type and plan number	strata 1	
Lot no.	1	
Section no.	1	
No. of residential flat buildings	1	
No. of units in residential flat buildings	435	
No. of multi-dwelling houses	0	
No. of single dwelling houses	0	
Project score		
Water	43	Target 40
Thermal Comfort	Pass	Target Pass
Energy	30	Target 25

# Description of project

## Project address

Project name	WMQ - Building 3 - DA2
Street address	83 Botany Road Waterloo 2017
Local Government Area	Sydney City Council
Plan type and plan number	strata 1
Lot no.	1
Section no.	1

## Project type

No. of residential flat buildings	1
No. of units in residential flat buildings	435
No. of multi-dwelling houses	0
No. of single dwelling houses	0

## Site details

Site area (m²)	1955
Roof area (m²)	1336
Non-residential floor area (m²)	0.0
Residential car spaces	0
Non-residential car spaces	0

## Common area landscape

Common area lawn (m²)	0.0
Common area garden (m²)	138.0
Area of indigenous or low water use species (m²)	138.0

## Assessor details

Assessor number	DMN/19/1934
Certificate number	xxxxxxxxxx
Climate zone	56

## Project score

Water	43	Target 40
Thermal Comfort	Pass	Target Pass
Energy	30	Target 25



## Description of project

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

### Residential flat buildings - Building3, 435 dwellings, 25 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> )
1	1	17.55	0.0	0.0	0.0
5	1	17.55	0.0	0.0	0.0
9	1	17.55	0.0	0.0	0.0
13	1	17.55	0.0	0.0	0.0
17	1	17.55	0.0	0.0	0.0
21	1	17.55	0.0	0.0	0.0
25	1	17.55	0.0	0.0	0.0
29	1	17.55	0.0	0.0	0.0
33	1	17.55	0.0	0.0	0.0
37	1	17.55	0.0	0.0	0.0
41	1	17.55	0.0	0.0	0.0
45	1	17.55	0.0	0.0	0.0
49	1	17.55	0.0	0.0	0.0
53	1	17.55	0.0	0.0	0.0
57	1	17.55	0.0	0.0	0.0
61	1	17.55	0.0	0.0	0.0
65	1	17.55	0.0	0.0	0.0
69	1	17.55	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m <sup>2</sup> )	Unconditioned floor area (m <sup>2</sup> )	Area of garden & lawn (m <sup>2</sup> )	Indigenous species (min area m <sup>2</sup> )
2	1	17.55	0.0	0.0	0.0
6	1	17.55	0.0	0.0	0.0
10	1	17.55	0.0	0.0	0.0
14	1	17.55	0.0	0.0	0.0
18	1	17.55	0.0	0.0	0.0
22	1	17.55	0.0	0.0	0.0
26	1	17.55	0.0	0.0	0.0
30	1	17.55	0.0	0.0	0.0
34	1	17.55	0.0	0.0	0.0
38	1	17.55	0.0	0.0	0.0
42	1	17.55	0.0	0.0	0.0
46	1	17.55	0.0	0.0	0.0
50	1	17.55	0.0	0.0	0.0
54	1	17.55	0.0	0.0	0.0
58	1	17.55	0.0	0.0	0.0
62	1	17.55	0.0	0.0	0.0
66	1	17.55	0.0	0.0	0.0
70	1	17.55	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m <sup>2</sup> )	Unconditioned floor area (m <sup>2</sup> )	Area of garden & lawn (m <sup>2</sup> )	Indigenous species (min area m <sup>2</sup> )
3	1	17.55	0.0	0.0	0.0
7	1	17.55	0.0	0.0	0.0
11	1	17.55	0.0	0.0	0.0
15	1	17.55	0.0	0.0	0.0
19	1	17.55	0.0	0.0	0.0
23	1	17.55	0.0	0.0	0.0
27	1	17.55	0.0	0.0	0.0
31	1	17.55	0.0	0.0	0.0
35	1	17.55	0.0	0.0	0.0
39	1	17.55	0.0	0.0	0.0
43	1	17.55	0.0	0.0	0.0
47	1	17.55	0.0	0.0	0.0
51	1	17.55	0.0	0.0	0.0
55	1	17.55	0.0	0.0	0.0
59	1	17.55	0.0	0.0	0.0
63	1	17.55	0.0	0.0	0.0
67	1	17.55	0.0	0.0	0.0
71	1	17.55	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m <sup>2</sup> )	Unconditioned floor area (m <sup>2</sup> )	Area of garden & lawn (m <sup>2</sup> )	Indigenous species (min area m <sup>2</sup> )
4	1	17.55	0.0	0.0	0.0
8	1	17.55	0.0	0.0	0.0
12	1	17.55	0.0	0.0	0.0
16	1	17.55	0.0	0.0	0.0
20	1	17.55	0.0	0.0	0.0
24	1	17.55	0.0	0.0	0.0
28	1	17.55	0.0	0.0	0.0
32	1	17.55	0.0	0.0	0.0
36	1	17.55	0.0	0.0	0.0
40	1	17.55	0.0	0.0	0.0
44	1	17.55	0.0	0.0	0.0
48	1	17.55	0.0	0.0	0.0
52	1	17.55	0.0	0.0	0.0
56	1	17.55	0.0	0.0	0.0
60	1	17.55	0.0	0.0	0.0
64	1	17.55	0.0	0.0	0.0
68	1	17.55	0.0	0.0	0.0
72	1	17.55	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m <sup>2</sup> )	Unconditioned floor area (m <sup>2</sup> )	Area of garden & lawn (m <sup>2</sup> )	Indigenous species (min area m <sup>2</sup> )
73	1	17.55	0.0	0.0	0.0
77	1	17.55	0.0	0.0	0.0
81	1	17.55	0.0	0.0	0.0
85	1	17.55	0.0	0.0	0.0
89	1	17.55	0.0	0.0	0.0
93	1	17.55	0.0	0.0	0.0
97	1	17.55	0.0	0.0	0.0
101	1	17.55	0.0	0.0	0.0
105	1	17.55	0.0	0.0	0.0
109	1	17.55	0.0	0.0	0.0
113	1	17.55	0.0	0.0	0.0
117	1	17.55	0.0	0.0	0.0
121	1	17.55	0.0	0.0	0.0
125	1	17.55	0.0	0.0	0.0
129	1	17.55	0.0	0.0	0.0
133	1	17.55	0.0	0.0	0.0
137	1	17.55	0.0	0.0	0.0
141	1	17.55	0.0	0.0	0.0
145	1	17.55	0.0	0.0	0.0
149	1	17.55	0.0	0.0	0.0
153	1	17.55	0.0	0.0	0.0
157	1	17.55	0.0	0.0	0.0
161	1	17.55	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m <sup>2</sup> )	Unconditioned floor area (m <sup>2</sup> )	Area of garden & lawn (m <sup>2</sup> )	Indigenous species (min area m <sup>2</sup> )
74	1	17.55	0.0	0.0	0.0
78	1	17.55	0.0	0.0	0.0
82	1	17.55	0.0	0.0	0.0
86	1	17.55	0.0	0.0	0.0
90	1	17.55	0.0	0.0	0.0
94	1	17.55	0.0	0.0	0.0
98	1	17.55	0.0	0.0	0.0
102	1	17.55	0.0	0.0	0.0
106	1	17.55	0.0	0.0	0.0
110	1	17.55	0.0	0.0	0.0
114	1	17.55	0.0	0.0	0.0
118	1	17.55	0.0	0.0	0.0
122	1	17.55	0.0	0.0	0.0
126	1	17.55	0.0	0.0	0.0
130	1	17.55	0.0	0.0	0.0
134	1	17.55	0.0	0.0	0.0
138	1	17.55	0.0	0.0	0.0
142	1	17.55	0.0	0.0	0.0
146	1	17.55	0.0	0.0	0.0
150	1	17.55	0.0	0.0	0.0
154	1	17.55	0.0	0.0	0.0
158	1	17.55	0.0	0.0	0.0
162	1	17.55	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m <sup>2</sup> )	Unconditioned floor area (m <sup>2</sup> )	Area of garden & lawn (m <sup>2</sup> )	Indigenous species (min area m <sup>2</sup> )
75	1	17.55	0.0	0.0	0.0
79	1	17.55	0.0	0.0	0.0
83	1	17.55	0.0	0.0	0.0
87	1	17.55	0.0	0.0	0.0
91	1	17.55	0.0	0.0	0.0
95	1	17.55	0.0	0.0	0.0
99	1	17.55	0.0	0.0	0.0
103	1	17.55	0.0	0.0	0.0
107	1	17.55	0.0	0.0	0.0
111	1	17.55	0.0	0.0	0.0
115	1	17.55	0.0	0.0	0.0
119	1	17.55	0.0	0.0	0.0
123	1	17.55	0.0	0.0	0.0
127	1	17.55	0.0	0.0	0.0
131	1	17.55	0.0	0.0	0.0
135	1	17.55	0.0	0.0	0.0
139	1	17.55	0.0	0.0	0.0
143	1	17.55	0.0	0.0	0.0
147	1	17.55	0.0	0.0	0.0
151	1	17.55	0.0	0.0	0.0
155	1	17.55	0.0	0.0	0.0
159	1	17.55	0.0	0.0	0.0
163	1	17.55	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m <sup>2</sup> )	Unconditioned floor area (m <sup>2</sup> )	Area of garden & lawn (m <sup>2</sup> )	Indigenous species (min area m <sup>2</sup> )
76	1	17.55	0.0	0.0	0.0
80	1	17.55	0.0	0.0	0.0
84	1	17.55	0.0	0.0	0.0
88	1	17.55	0.0	0.0	0.0
92	1	17.55	0.0	0.0	0.0
96	1	17.55	0.0	0.0	0.0
100	1	17.55	0.0	0.0	0.0
104	1	17.55	0.0	0.0	0.0
108	1	17.55	0.0	0.0	0.0
112	1	17.55	0.0	0.0	0.0
116	1	17.55	0.0	0.0	0.0
120	1	17.55	0.0	0.0	0.0
124	1	17.55	0.0	0.0	0.0
128	1	17.55	0.0	0.0	0.0
132	1	17.55	0.0	0.0	0.0
136	1	17.55	0.0	0.0	0.0
140	1	17.55	0.0	0.0	0.0
144	1	17.55	0.0	0.0	0.0
148	1	17.55	0.0	0.0	0.0
152	1	17.55	0.0	0.0	0.0
156	1	17.55	0.0	0.0	0.0
160	1	17.55	0.0	0.0	0.0
164	1	17.55	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m <sup>2</sup> )	Unconditioned floor area (m <sup>2</sup> )	Area of garden & lawn (m <sup>2</sup> )	Indigenous species (min area m <sup>2</sup> )
165	1	17.55	0.0	0.0	0.0
169	1	17.55	0.0	0.0	0.0
173	1	17.55	0.0	0.0	0.0
177	1	17.55	0.0	0.0	0.0
181	1	17.55	0.0	0.0	0.0
185	1	17.55	0.0	0.0	0.0
189	1	17.55	0.0	0.0	0.0
193	1	17.55	0.0	0.0	0.0
197	1	17.55	0.0	0.0	0.0
201	1	17.55	0.0	0.0	0.0
205	1	17.55	0.0	0.0	0.0
209	1	17.55	0.0	0.0	0.0
213	1	17.55	0.0	0.0	0.0
217	1	17.55	0.0	0.0	0.0
221	1	17.55	0.0	0.0	0.0
225	1	17.55	0.0	0.0	0.0
229	1	17.55	0.0	0.0	0.0
233	1	17.55	0.0	0.0	0.0
237	1	17.55	0.0	0.0	0.0
241	1	17.55	0.0	0.0	0.0
245	1	17.55	0.0	0.0	0.0
249	1	17.55	0.0	0.0	0.0
253	1	17.55	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m <sup>2</sup> )	Unconditioned floor area (m <sup>2</sup> )	Area of garden & lawn (m <sup>2</sup> )	Indigenous species (min area m <sup>2</sup> )
166	1	17.55	0.0	0.0	0.0
170	1	17.55	0.0	0.0	0.0
174	1	17.55	0.0	0.0	0.0
178	1	17.55	0.0	0.0	0.0
182	1	17.55	0.0	0.0	0.0
186	1	17.55	0.0	0.0	0.0
190	1	17.55	0.0	0.0	0.0
194	1	17.55	0.0	0.0	0.0
198	1	17.55	0.0	0.0	0.0
202	1	17.55	0.0	0.0	0.0
206	1	17.55	0.0	0.0	0.0
210	1	17.55	0.0	0.0	0.0
214	1	17.55	0.0	0.0	0.0
218	1	17.55	0.0	0.0	0.0
222	1	17.55	0.0	0.0	0.0
226	1	17.55	0.0	0.0	0.0
230	1	17.55	0.0	0.0	0.0
234	1	17.55	0.0	0.0	0.0
238	1	17.55	0.0	0.0	0.0
242	1	17.55	0.0	0.0	0.0
246	1	17.55	0.0	0.0	0.0
250	1	17.55	0.0	0.0	0.0
254	1	17.55	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m <sup>2</sup> )	Unconditioned floor area (m <sup>2</sup> )	Area of garden & lawn (m <sup>2</sup> )	Indigenous species (min area m <sup>2</sup> )
167	1	17.55	0.0	0.0	0.0
171	1	17.55	0.0	0.0	0.0
175	1	17.55	0.0	0.0	0.0
179	1	17.55	0.0	0.0	0.0
183	1	17.55	0.0	0.0	0.0
187	1	17.55	0.0	0.0	0.0
191	1	17.55	0.0	0.0	0.0
195	1	17.55	0.0	0.0	0.0
199	1	17.55	0.0	0.0	0.0
203	1	17.55	0.0	0.0	0.0
207	1	17.55	0.0	0.0	0.0
211	1	17.55	0.0	0.0	0.0
215	1	17.55	0.0	0.0	0.0
219	1	17.55	0.0	0.0	0.0
223	1	17.55	0.0	0.0	0.0
227	1	17.55	0.0	0.0	0.0
231	1	17.55	0.0	0.0	0.0
235	1	17.55	0.0	0.0	0.0
239	1	17.55	0.0	0.0	0.0
243	1	17.55	0.0	0.0	0.0
247	1	17.55	0.0	0.0	0.0
251	1	17.55	0.0	0.0	0.0
255	1	17.55	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m <sup>2</sup> )	Unconditioned floor area (m <sup>2</sup> )	Area of garden & lawn (m <sup>2</sup> )	Indigenous species (min area m <sup>2</sup> )
168	1	17.55	0.0	0.0	0.0
172	1	17.55	0.0	0.0	0.0
176	1	17.55	0.0	0.0	0.0
180	1	17.55	0.0	0.0	0.0
184	1	17.55	0.0	0.0	0.0
188	1	17.55	0.0	0.0	0.0
192	1	17.55	0.0	0.0	0.0
196	1	17.55	0.0	0.0	0.0
200	1	17.55	0.0	0.0	0.0
204	1	17.55	0.0	0.0	0.0
208	1	17.55	0.0	0.0	0.0
212	1	17.55	0.0	0.0	0.0
216	1	17.55	0.0	0.0	0.0
220	1	17.55	0.0	0.0	0.0
224	1	17.55	0.0	0.0	0.0
228	1	17.55	0.0	0.0	0.0
232	1	17.55	0.0	0.0	0.0
236	1	17.55	0.0	0.0	0.0
240	1	17.55	0.0	0.0	0.0
244	1	17.55	0.0	0.0	0.0
248	1	17.55	0.0	0.0	0.0
252	1	17.55	0.0	0.0	0.0
256	1	17.55	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m <sup>2</sup> )	Unconditioned floor area (m <sup>2</sup> )	Area of garden & lawn (m <sup>2</sup> )	Indigenous species (min area m <sup>2</sup> )
257	1	17.55	0.0	0.0	0.0
261	1	17.55	0.0	0.0	0.0
265	1	17.55	0.0	0.0	0.0
269	1	17.55	0.0	0.0	0.0
273	1	17.55	0.0	0.0	0.0
277	1	17.55	0.0	0.0	0.0
281	1	17.55	0.0	0.0	0.0
285	1	17.55	0.0	0.0	0.0
289	1	17.55	0.0	0.0	0.0
293	1	17.55	0.0	0.0	0.0
297	1	17.55	0.0	0.0	0.0
301	1	17.55	0.0	0.0	0.0
305	1	17.55	0.0	0.0	0.0
309	1	17.55	0.0	0.0	0.0
313	1	17.55	0.0	0.0	0.0
317	1	17.55	0.0	0.0	0.0
321	1	17.55	0.0	0.0	0.0
325	1	17.55	0.0	0.0	0.0
329	1	17.55	0.0	0.0	0.0
333	1	17.55	0.0	0.0	0.0
337	1	17.55	0.0	0.0	0.0
341	1	17.55	0.0	0.0	0.0
345	1	17.55	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m <sup>2</sup> )	Unconditioned floor area (m <sup>2</sup> )	Area of garden & lawn (m <sup>2</sup> )	Indigenous species (min area m <sup>2</sup> )
258	1	17.55	0.0	0.0	0.0
262	1	17.55	0.0	0.0	0.0
266	1	17.55	0.0	0.0	0.0
270	1	17.55	0.0	0.0	0.0
274	1	17.55	0.0	0.0	0.0
278	1	17.55	0.0	0.0	0.0
282	1	17.55	0.0	0.0	0.0
286	1	17.55	0.0	0.0	0.0
290	1	17.55	0.0	0.0	0.0
294	1	17.55	0.0	0.0	0.0
298	1	17.55	0.0	0.0	0.0
302	1	17.55	0.0	0.0	0.0
306	1	17.55	0.0	0.0	0.0
310	1	17.55	0.0	0.0	0.0
314	1	17.55	0.0	0.0	0.0
318	1	17.55	0.0	0.0	0.0
322	1	17.55	0.0	0.0	0.0
326	1	17.55	0.0	0.0	0.0
330	1	17.55	0.0	0.0	0.0
334	1	17.55	0.0	0.0	0.0
338	1	17.55	0.0	0.0	0.0
342	1	17.55	0.0	0.0	0.0
346	1	17.55	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m <sup>2</sup> )	Unconditioned floor area (m <sup>2</sup> )	Area of garden & lawn (m <sup>2</sup> )	Indigenous species (min area m <sup>2</sup> )
259	1	17.55	0.0	0.0	0.0
263	1	17.55	0.0	0.0	0.0
267	1	17.55	0.0	0.0	0.0
271	1	17.55	0.0	0.0	0.0
275	1	17.55	0.0	0.0	0.0
279	1	17.55	0.0	0.0	0.0
283	1	17.55	0.0	0.0	0.0
287	1	17.55	0.0	0.0	0.0
291	1	17.55	0.0	0.0	0.0
295	1	17.55	0.0	0.0	0.0
299	1	17.55	0.0	0.0	0.0
303	1	17.55	0.0	0.0	0.0
307	1	17.55	0.0	0.0	0.0
311	1	17.55	0.0	0.0	0.0
315	1	17.55	0.0	0.0	0.0
319	1	17.55	0.0	0.0	0.0
323	1	17.55	0.0	0.0	0.0
327	1	17.55	0.0	0.0	0.0
331	1	17.55	0.0	0.0	0.0
335	1	17.55	0.0	0.0	0.0
339	1	17.55	0.0	0.0	0.0
343	1	17.55	0.0	0.0	0.0
347	1	17.55	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m <sup>2</sup> )	Unconditioned floor area (m <sup>2</sup> )	Area of garden & lawn (m <sup>2</sup> )	Indigenous species (min area m <sup>2</sup> )
260	1	17.55	0.0	0.0	0.0
264	1	17.55	0.0	0.0	0.0
268	1	17.55	0.0	0.0	0.0
272	1	17.55	0.0	0.0	0.0
276	1	17.55	0.0	0.0	0.0
280	1	17.55	0.0	0.0	0.0
284	1	17.55	0.0	0.0	0.0
288	1	17.55	0.0	0.0	0.0
292	1	17.55	0.0	0.0	0.0
296	1	17.55	0.0	0.0	0.0
300	1	17.55	0.0	0.0	0.0
304	1	17.55	0.0	0.0	0.0
308	1	17.55	0.0	0.0	0.0
312	1	17.55	0.0	0.0	0.0
316	1	17.55	0.0	0.0	0.0
320	1	17.55	0.0	0.0	0.0
324	1	17.55	0.0	0.0	0.0
328	1	17.55	0.0	0.0	0.0
332	1	17.55	0.0	0.0	0.0
336	1	17.55	0.0	0.0	0.0
340	1	17.55	0.0	0.0	0.0
344	1	17.55	0.0	0.0	0.0
348	1	17.55	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m <sup>2</sup> )	Unconditioned floor area (m <sup>2</sup> )	Area of garden & lawn (m <sup>2</sup> )	Indigenous species (min area m <sup>2</sup> )
349	1	17.55	0.0	0.0	0.0
353	1	17.55	0.0	0.0	0.0
357	1	17.55	0.0	0.0	0.0
361	1	17.55	0.0	0.0	0.0
365	1	17.55	0.0	0.0	0.0
369	1	17.55	0.0	0.0	0.0
373	1	17.55	0.0	0.0	0.0
377	1	17.55	0.0	0.0	0.0
381	1	17.55	0.0	0.0	0.0
385	1	17.55	0.0	0.0	0.0
389	1	17.55	0.0	0.0	0.0
393	1	17.55	0.0	0.0	0.0
401	2	28.43	0.0	0.0	0.0
405	2	28.43	0.0	0.0	0.0
409	2	28.43	0.0	0.0	0.0
413	2	28.43	0.0	0.0	0.0
417	2	28.43	0.0	0.0	0.0
421	2	28.43	0.0	0.0	0.0
425	2	28.43	0.0	0.0	0.0
429	2	28.43	0.0	0.0	0.0
433	2	28.43	0.0	0.0	0.0
D-1	1	18.72	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m <sup>2</sup> )	Unconditioned floor area (m <sup>2</sup> )	Area of garden & lawn (m <sup>2</sup> )	Indigenous species (min area m <sup>2</sup> )
350	1	17.55	0.0	0.0	0.0
354	1	17.55	0.0	0.0	0.0
358	1	17.55	0.0	0.0	0.0
362	1	17.55	0.0	0.0	0.0
366	1	17.55	0.0	0.0	0.0
370	1	17.55	0.0	0.0	0.0
374	1	17.55	0.0	0.0	0.0
378	1	17.55	0.0	0.0	0.0
382	1	17.55	0.0	0.0	0.0
386	1	17.55	0.0	0.0	0.0
390	1	17.55	0.0	0.0	0.0
398	2	28.43	0.0	0.0	0.0
402	2	28.43	0.0	0.0	0.0
406	2	28.43	0.0	0.0	0.0
410	2	28.43	0.0	0.0	0.0
414	2	28.43	0.0	0.0	0.0
418	2	28.43	0.0	0.0	0.0
422	2	28.43	0.0	0.0	0.0
426	2	28.43	0.0	0.0	0.0
430	2	28.43	0.0	0.0	0.0
434	2	28.43	0.0	0.0	0.0
D-2	1	18.72	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m <sup>2</sup> )	Unconditioned floor area (m <sup>2</sup> )	Area of garden & lawn (m <sup>2</sup> )	Indigenous species (min area m <sup>2</sup> )
351	1	17.55	0.0	0.0	0.0
355	1	17.55	0.0	0.0	0.0
359	1	17.55	0.0	0.0	0.0
363	1	17.55	0.0	0.0	0.0
367	1	17.55	0.0	0.0	0.0
371	1	17.55	0.0	0.0	0.0
375	1	17.55	0.0	0.0	0.0
379	1	17.55	0.0	0.0	0.0
383	1	17.55	0.0	0.0	0.0
387	1	17.55	0.0	0.0	0.0
391	1	17.55	0.0	0.0	0.0
399	2	28.43	0.0	0.0	0.0
403	2	28.43	0.0	0.0	0.0
407	2	28.43	0.0	0.0	0.0
411	2	28.43	0.0	0.0	0.0
415	2	28.43	0.0	0.0	0.0
419	2	28.43	0.0	0.0	0.0
423	2	28.43	0.0	0.0	0.0
427	2	28.43	0.0	0.0	0.0
431	2	28.43	0.0	0.0	0.0
435	2	28.43	0.0	0.0	0.0
D-3	1	18.72	0.0	0.0	0.0

Dwelling no.	No. of bedrooms	Conditioned floor area (m <sup>2</sup> )	Unconditioned floor area (m <sup>2</sup> )	Area of garden & lawn (m <sup>2</sup> )	Indigenous species (min area m <sup>2</sup> )
352	1	17.55	0.0	0.0	0.0
356	1	17.55	0.0	0.0	0.0
360	1	17.55	0.0	0.0	0.0
364	1	17.55	0.0	0.0	0.0
368	1	17.55	0.0	0.0	0.0
372	1	17.55	0.0	0.0	0.0
376	1	17.55	0.0	0.0	0.0
380	1	17.55	0.0	0.0	0.0
384	1	17.55	0.0	0.0	0.0
388	1	17.55	0.0	0.0	0.0
392	1	17.55	0.0	0.0	0.0
400	2	28.43	0.0	0.0	0.0
404	2	28.43	0.0	0.0	0.0
408	2	28.43	0.0	0.0	0.0
412	2	28.43	0.0	0.0	0.0
416	2	28.43	0.0	0.0	0.0
420	2	28.43	0.0	0.0	0.0
424	2	28.43	0.0	0.0	0.0
428	2	28.43	0.0	0.0	0.0
432	2	28.43	0.0	0.0	0.0
436	2	28.43	0.0	0.0	0.0

## Description of project

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

### Common areas of unit building - Building3

Common area	Floor area (m²)
Lift car (No.1)	-
Switch room (No. 1)	31.4
Community room (No. 1) - L1	486.0
Plant or service room (No. 1) - fire	14.9
Plant or service room (No. 4) - pumps	30.9
Ground floor lobby type (No. 1)	81.6

Common area	Floor area (m²)
Lift car (No.2)	-
Garbage room (No. 1) - ground	80.5
Community room (No. 2) - L2	320.0
Plant or service room (No. 2) - diesel	11.2
Plant or service room (No. 6) - roof	247.6
Hallway/lobby type (No. 1) - L3-L23	1291.8

Common area	Floor area (m²)
Lift car (No.3)	-
Garbage room (No. 2) - L3-L23	46.0
Community room (No. 3) - L3-L23	1024.5
Plant or service room (No. 3) - comms	13.0
Other internal common (No. 1) - bicycle	98.7

This is not a valid Certificate

# Schedule of BASIX commitments

## 1. Commitments for Residential flat buildings - Building3

### (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

This is not a valid Certificate

## 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 - Building3

#### (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.	✓	✓	✓



Dwelling no.	Fixtures					Appliances		Individual pool				Individual spa		
	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 (> 7.5 but <= 9 L/min)	4 star	4 star	4 star	no	no washing machine taps	-	-	-	-	-	-	-	-

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

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

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

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

Dwelling no.	Cooling		Heating		Artificial lighting						Natural lighting	
	living areas	bedroom areas	living areas	bedroom areas	No. of bedrooms &/or study	No. of living &/or dining rooms	Each kitchen	All bathrooms/toilets	Each laundry	All hallways	No. of bathrooms &/or toilets	Main kitchen
All dwellings	3-phase airconditioning EER 3.0 - 3.5 (zoned)	3-phase airconditioning EER 3.0 - 3.5 (zoned)	3-phase airconditioning EER 3.0 - 3.5 (zoned)	3-phase airconditioning EER 3.0 - 3.5 (zoned)	2 (dedicated)	1 (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	yes (dedicated)	0	yes

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	-	-	-	-	electric cooktop & electric oven	3 star (new rating)	yes	-	no washing machine taps	-	no	no

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

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

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)
All dwellings	39.9	25.9

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

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

Common area	Showerheads rating	Toilets rating	Taps rating	Clothes washers rating
All common areas	no common facility	4 star	4 star	3 star

Central systems	Size	Configuration	Connection (to allow for...)
Central water tank - rainwater or stormwater (No. 1)	10000.0	To collect run-off from at least: - 835.0 square metres of roof area of buildings in the development - 0.0 square metres of impervious area in the development - 0.0 square metres of garden/lawn area in the development - 0.0 square metres of planter box area in the development (excluding, in each case, any area which drains to, or supplies, any other alternative water supply system).	- irrigation of 138.0 square metres of common landscaped area on the site - car washing in 0 car washing bays on the site
Fire sprinkler system (No. 1)	-	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	Common area ventilation system		Common area lighting		
	Ventilation system type	Ventilation efficiency measure	Primary type of artificial lighting	Lighting efficiency measure	Lighting control system/BMS
Lift car (No.1)	-	-	light-emitting diode	connected to lift call button	Yes
Lift car (No.2)	-	-	light-emitting diode	connected to lift call button	Yes
Lift car (No.3)	-	-	light-emitting diode	connected to lift call button	Yes
Switch room (No. 1)	ventilation exhaust only	thermostatically controlled	light-emitting diode	manual on / manual off	Yes
Garbage room (No. 1) - ground	ventilation (supply + exhaust)	-	light-emitting diode	motion sensors	Yes
Garbage room (No. 2) - L3-L23	ventilation exhaust only	-	light-emitting diode	motion sensors	Yes
Community room (No. 1) - L1	air conditioning system	time clock or BMS controlled	light-emitting diode	daylight sensor and motion sensor	Yes
Community room (No. 2) - L2	air conditioning system	time clock or BMS controlled	light-emitting diode	daylight sensor and motion sensor	Yes
Community room (No. 3) - L3-L23	air conditioning system	time clock or BMS controlled	light-emitting diode	daylight sensor and motion sensor	Yes
Plant or service room (No. 1) - fire	ventilation exhaust only	interlocked to light	light-emitting diode	manual on / manual off	Yes
Plant or service room (No. 2) - diesel	ventilation exhaust only	none ie. continuous	light-emitting diode	manual on / manual off	Yes

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
Plant or service room (No. 3) - comms	air conditioning system	thermostatically controlled	light-emitting diode	manual on / manual off	Yes
Plant or service room (No. 4) - pumps	ventilation exhaust only	interlocked to light	light-emitting diode	manual on / manual off	Yes
Plant or service room (No. 6) - roof	no mechanical ventilation	-	light-emitting diode	manual on / manual off	Yes
Other internal common (No. 1) - bicycle	ventilation exhaust only	time clock or BMS controlled	light-emitting diode	motion sensors	Yes
Ground floor lobby type (No. 1)	air conditioning system	time clock or BMS controlled	light-emitting diode	motion sensors	Yes
Hallway/lobby type (No. 1) - L3-L23	no mechanical ventilation	-	light-emitting diode	motion sensors	Yes

Central energy systems	Type	Specification
Central hot water system (No. 1)	gas-fired boiler	Piping insulation (ringmain & supply risers): (a) Piping external to building: R1.0 (~38 mm); (b) Piping internal to building: R1.0 (~38 mm)
Lift (No. 1)	gearless traction with V V V F motor	Number of levels (including basement): 24
Lift (No. 2)	gearless traction with V V V F motor	Number of levels (including basement): 24
Lift (No. 3)	gearless traction with V V V F motor	Number of levels (including basement): 24

#### 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	no common facility	4 star	4 star	3 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): 17.5 peak kW
Other	Building management system installed?: yes Active power factor correction installed?: yes	-

This is not a valid Certificate

## 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).

## Appendix B Plans



# Waterloo Metro Quarter Development

## SSD 10437 Architectural Drawings - Building 3

### Drawing Number

WMQ-BLD3-BSA-AR-DRG-DA001  
WMQ-BLD3-BSA-AR-DRG-DA002  
WMQ-BLD3-BSA-AR-DRG-DA003  
WMQ-BLD3-BSA-AR-DRG-DA100  
WMQ-BLD3-BSA-AR-DRG-DA100M  
WMQ-BLD3-BSA-AR-DRG-DA101  
WMQ-BLD3-BSA-AR-DRG-DA102  
WMQ-BLD3-BSA-AR-DRG-DA103  
WMQ-BLD3-BSA-AR-DRG-DA106  
WMQ-BLD3-BSA-AR-DRG-DA116  
WMQ-BLD3-BSA-AR-DRG-DA123  
WMQ-BLD3-BSA-AR-DRG-DA124  
WMQ-BLD3-BSA-AR-DRG-DA125  
WMQ-BLD3-BSA-AR-DRG-DA140  
WMQ-BLD3-BSA-AR-DRG-DA141  
WMQ-BLD3-BSA-AR-DRG-DA142  
WMQ-BLD3-BSA-AR-DRG-DA143  
WMQ-BLD3-BSA-AR-DRG-DA150  
WMQ-BLD3-BSA-AR-DRG-DA151  
WMQ-BLD3-BSA-AR-DRG-DA160

### Drawing Name

Cover Sheet  
Location Plan  
Site Plan  
Ground Floor Plan  
Mezzanine Plan  
Level 1 Plan  
Level 2 Plan  
Level 3-5 Plan  
Level 6-15 Plan  
Level 16-22 Plan  
Level 23 Plan  
Level 24 (Plant) Plan  
Roof Plan  
Elevation - North  
Elevation - West  
Elevation - South  
Elevation - East  
Section E-W  
Section N-S  
Area Calculation (GFA)

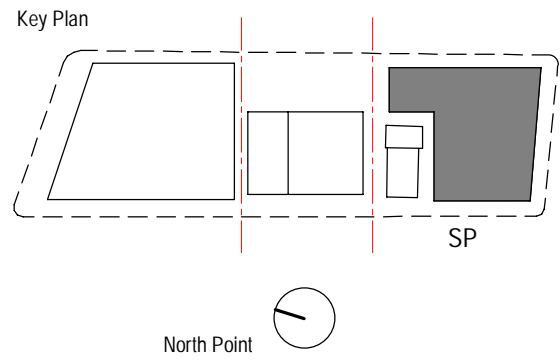


PRELIMINARY

Recent revision history		
#	Status	Description
A		DRAFT SSDA ISSUE
B		SSDA ISSUE - FOR LANDOWNER'S CONSENT
C		SSDA ISSUE

Date
15.06.20
30.07.20
26.08.20

Notes  
No material may be reproduced without prior permission  
Contractor must verify all dimensions on site before commencing work or preparing shop drawings.  
Do not scale drawings.



Project  
WATERLOO METRO QUARTER DEVELOPMENT

Project number	Size check
S12398	25mm
Checked JC	Approved JC
Sheet size A1	Scale

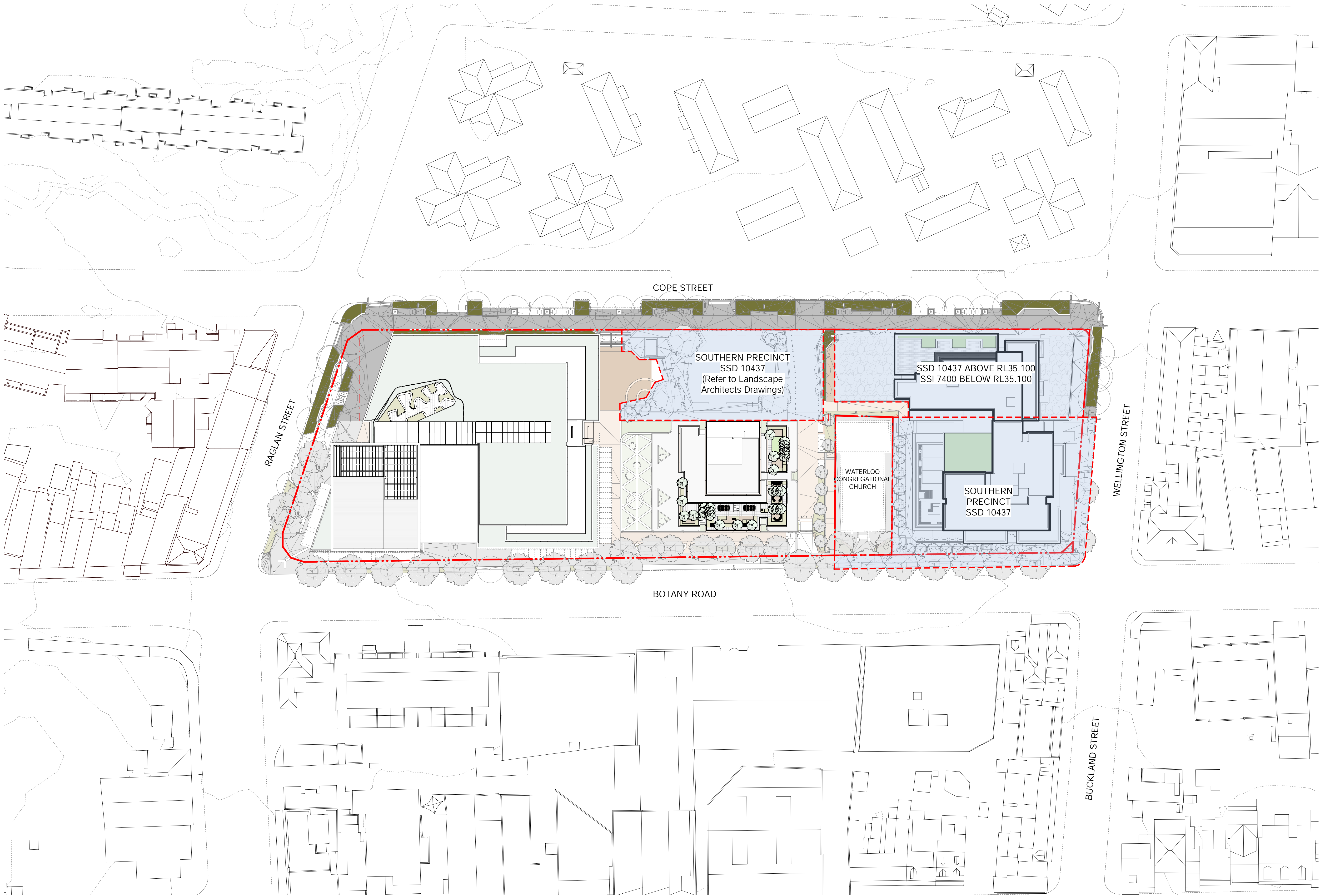
Sheet title

Cover Sheet

Status

Sheet number	Revision
WMQ-BLD3-BSA-AR-DRG-DA001	C





PRELIMINARY

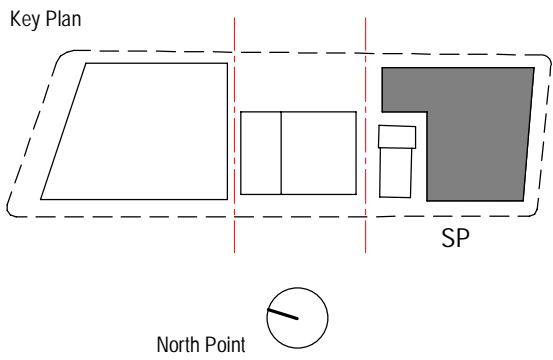
Recent revision history		
#	Status	Description
A		DRAFT SSDA ISSUE
B		SSDA ISSUE - FOR LANDOWNER'S CONSENT
C		SSDA ISSUE
		Date
		15.06.20
		30.07.20
		26.08.20

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**BATESSMART**

Project

WATERLOO METRO QUARTER DEVELOPMENT

Project number		Size check	
S12398		25mm	
Checked	Approved	Sheet size	Scale
JC	JC	A1	1 : 500

Sheet title

Location Plan

Status

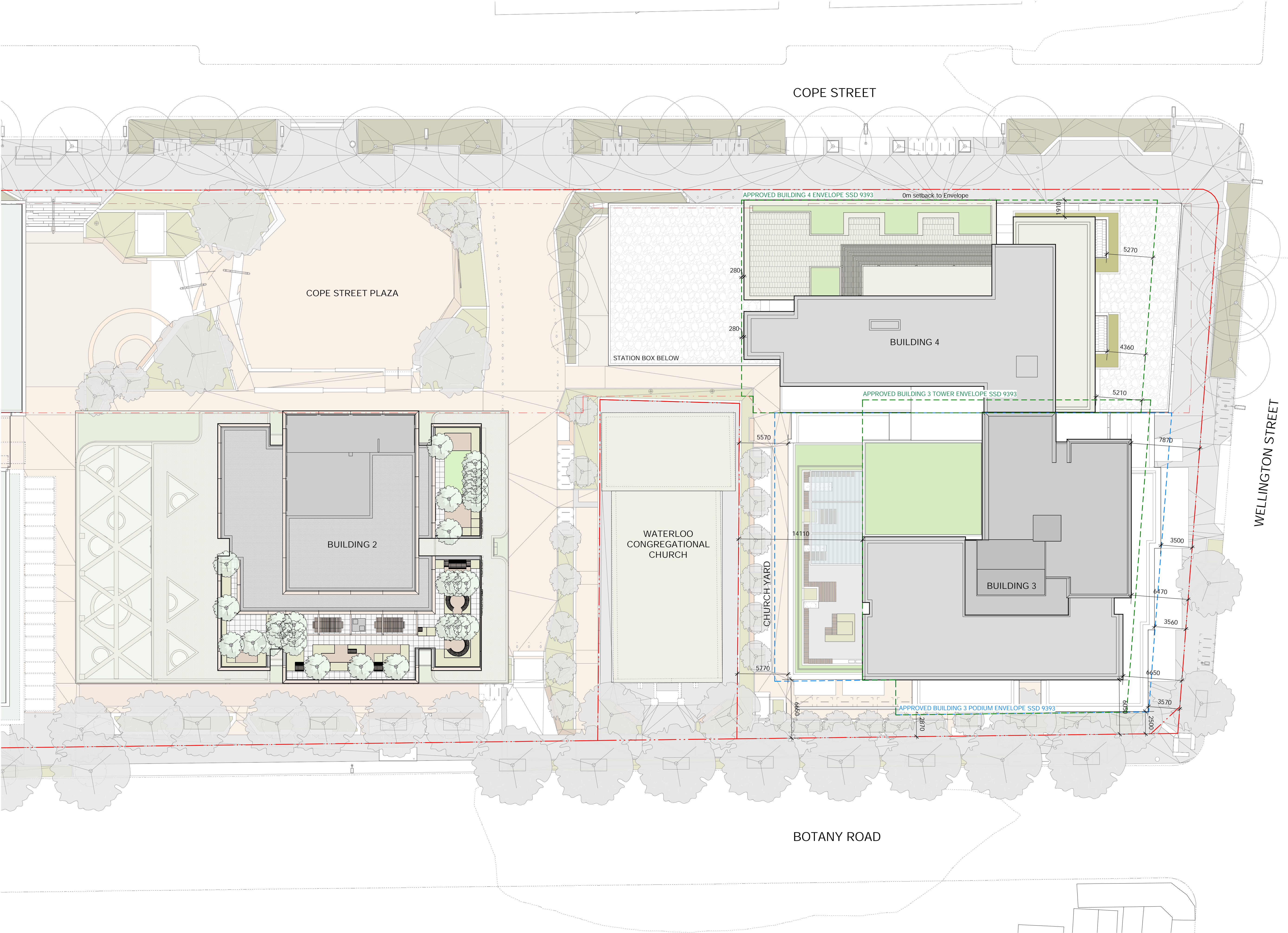
Sheet number

WMQ-BLD3-BSA-AR-DRG-DA002

Revision

C

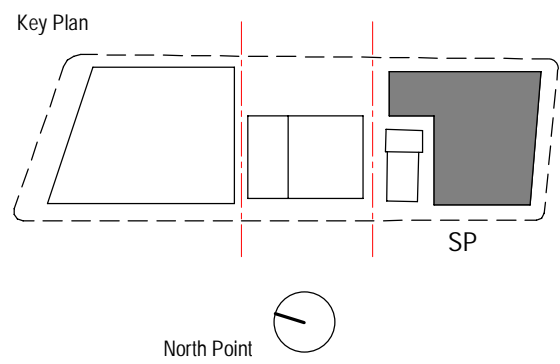




PRELIMINARY

Recent revision history		Description	Date
#	Status	DRAFT SSDA ISSUE	15.06.20
A		SSDA ISSUE - FOR	30.07.20
B		LANDOWNER'S CONSENT	
C		SSDA ISSUE	26.08.20

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Waterloo Integrated Station Development

A Joint Venture Project

Consultant  
**BATESSMART**

Project  
WATERLOO METRO QUARTER DEVELOPMENT

Project number	Size check		
S12398	25mm		
Checked JC	Approved JC	Sheet size A1	Scale 1 : 200

Sheet title

Site Plan

Status

Sheet number	Revision
WMQ-BLD3-BSA-AR-DRG-DA003	C

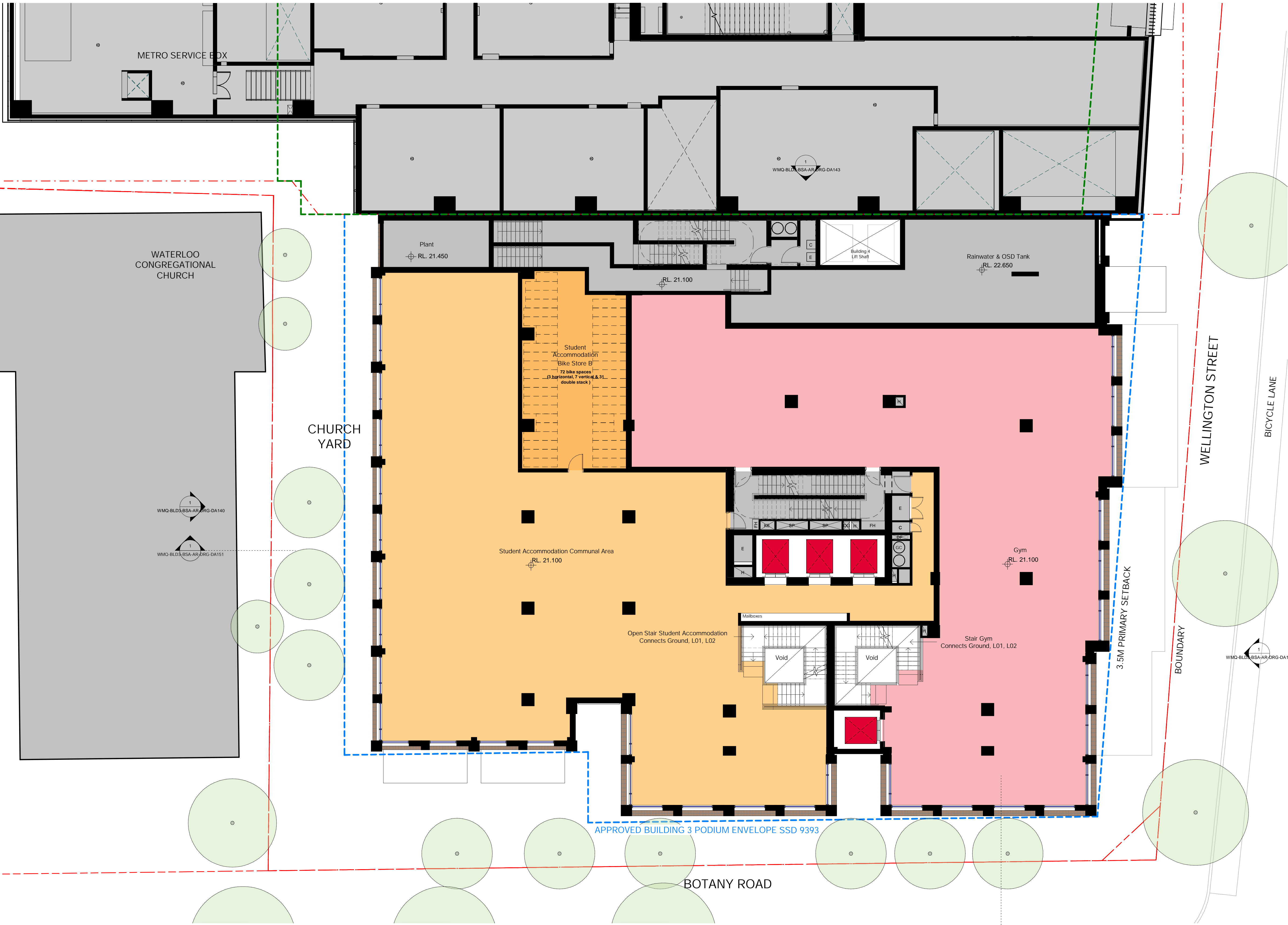












PRELIMINARY

#	Status	Description	Date
A	COST PLAN B		30.03.20
B	ISSUE FOR INFORMATION		24.04.20
C	ISSUE FOR INFORMATION		15.05.20
D	ISSUE FOR INFORMATION		01.06.20
E	DRAFT SSDA ISSUE		15.06.20
F	SSDA ISSUE - FOR LANDOWNER'S CONSENT		27.07.20
G	SSDA ISSUE - FOR LANDOWNER'S CONSENT		30.07.20
H	SSDA ISSUE		26.08.20

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Key Plan  
SP

North Point

Client  
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JOHN HOLLAND mirvac

NSW sydney METRO

Consultant  
BATESSMART

Project  
WATERLOO METRO QUARTER DEVELOPMENT

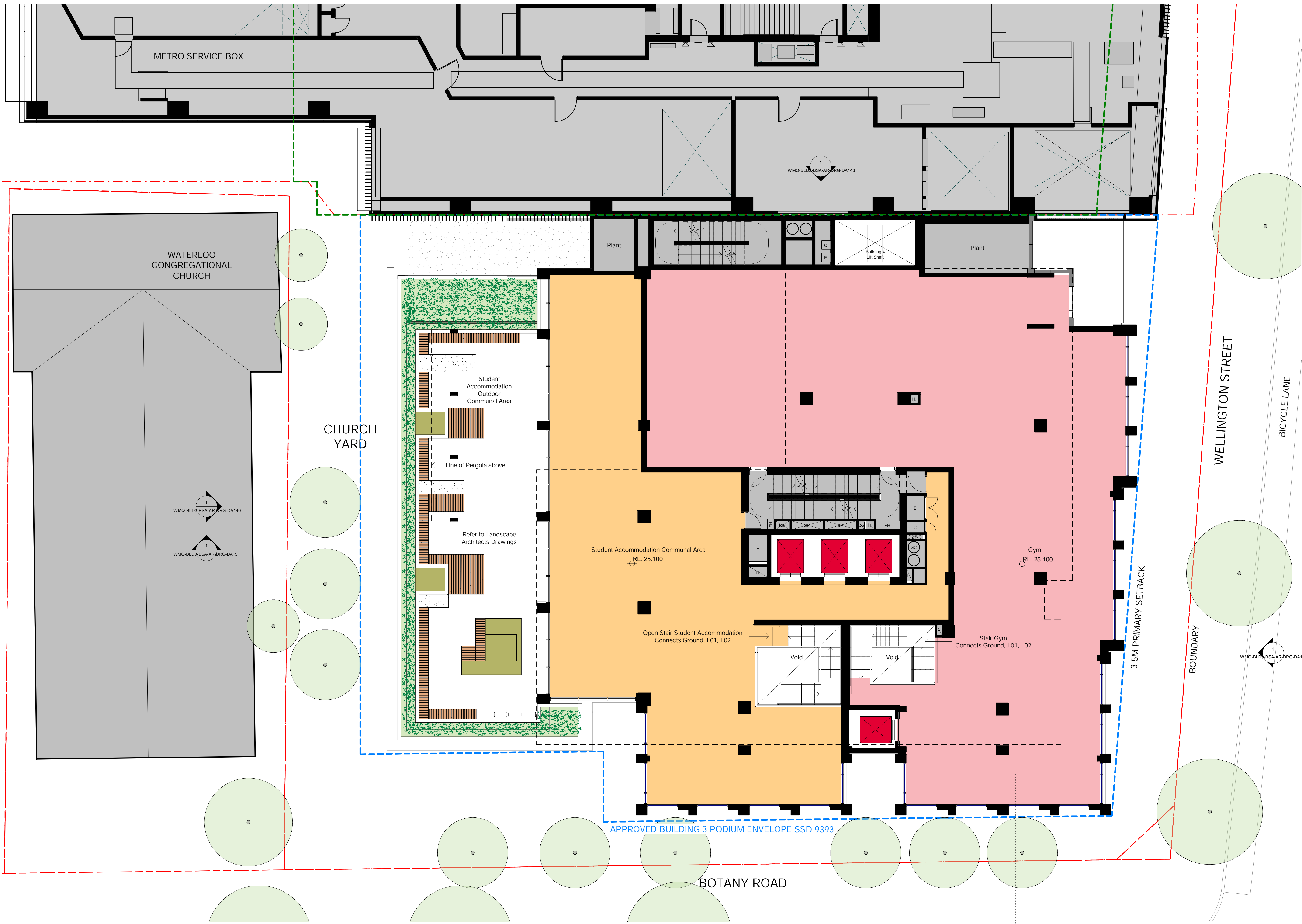
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Checked	Approved	Sheet size	Scale
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Sheet title  
General Arrangement Plan  
Level 1 Plan

Status

Sheet number	Revision
WMQ-BLD3-BSA-AR-DRG-DA101	H



PRELIMINARY

Record revision history

#	Status	Description	Date
A		COST PLAN B	30.03.20
B		ISSUE FOR INFORMATION	24.04.20
C		ISSUE FOR INFORMATION	15.05.20
D		ISSUE FOR INFORMATION	01.06.20
E		DRAFT SSDA ISSUE	15.06.20
F		SSDA ISSUE - FOR LANDOWNER'S CONSENT	27.07.20
G		SSDA ISSUE - FOR LANDOWNER'S CONSENT	30.07.20
H		SSDA ISSUE	26.08.20

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Key Plan

North Point

Client

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Project

WATERLOO METRO QUARTER DEVELOPMENT

Project number

S12398

Size check

25mm

Checked

JC

Approved

JC

Sheet size

A1

Scale

1: 100

Sheet title

General Arrangement Plan  
Level 2 Plan

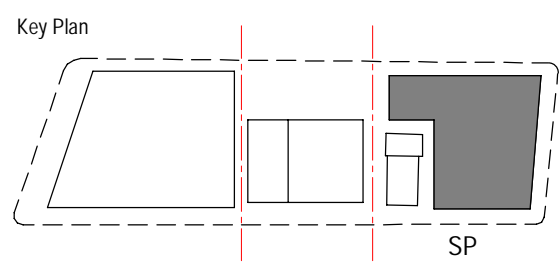
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Sheet number

WMQ-BLD3-BSA-AR-DRG-DA102

Revision

H



**BATESSMART**

Project  
WATERLOO METRO QUARTER DEVELOPMENT

Project number  
S12398

Size check  
25mm

Checked  
JC

Approved  
JC

Sheet size  
A1

Scale  
1: 100

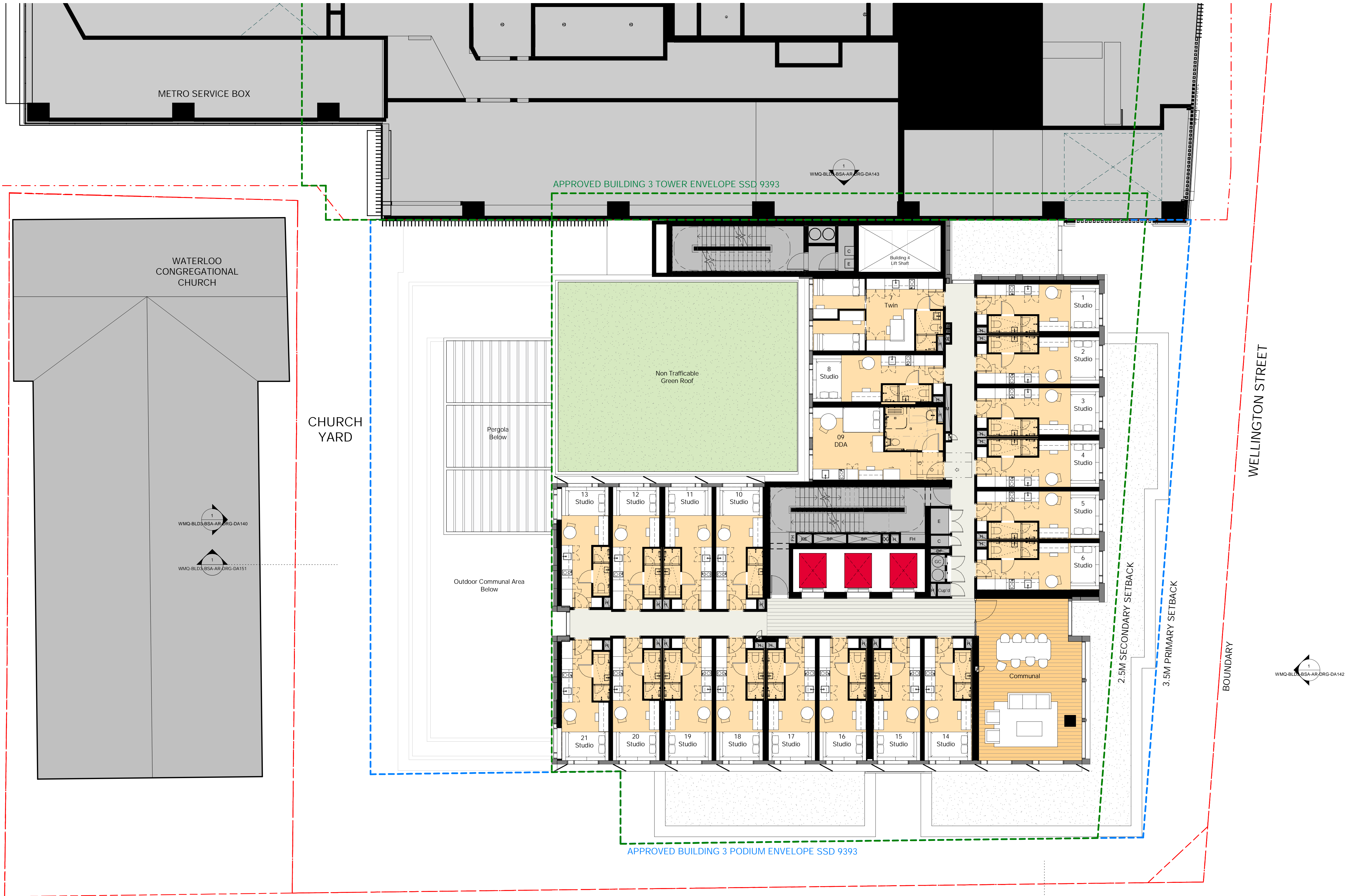
Sheet title  
General Arrangement Plan  
Level 2 Plan

Status

Sheet number  
WMQ-BLD3-BSA-AR-DRG-DA102

Revision  
H





PRELIMINARY

Recent revision history

#	Status	Description	Date
A		COST PLAN B	30.03.20
B		ISSUE FOR INFORMATION	24.04.20
C		ISSUE FOR INFORMATION	15.05.20
D		ISSUE FOR INFORMATION	01.06.20
E		DRAFT SSDA ISSUE	15.06.20
F		SSDA ISSUE - FOR LANDOWNER'S CONSENT	27.07.20
G		SSDA ISSUE - FOR LANDOWNER'S CONSENT	30.07.20
H		SSDA ISSUE	26.08.20

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Key Plan

North Point

Client

Waterloo Integrated Station Development

A Joint Venture Project

JOHN HOLLAND mirvac

Consultant

NSW sydney METRO

Project

WATERLOO METRO QUARTER DEVELOPMENT

Project number

S12398

Size check

25mm

Checked

JC

Approved

JC

Sheet size

A1

Scale

1 : 100

Sheet title

General Arrangement Plan  
Level 3-5 Plan

Status

Sheet number

WMQ-BLD3-BSA-AR-DRG-DA103

Revision

H

PRELIMINARY



Recent revision history

#	Status	Description	Date
A		COST PLAN B	30.03.20
B		ISSUE FOR INFORMATION	24.04.20
C		ISSUE FOR INFORMATION	15.05.20
D		ISSUE FOR INFORMATION	01.06.20
E		DRAFT SSDA ISSUE	15.06.20
F		SSDA ISSUE - FOR LANDOWNER'S CONSENT	27.07.20
G		SSDA ISSUE - FOR LANDOWNER'S CONSENT	30.07.20
H		SSDA ISSUE	26.08.20

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Key Plan

North Point

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JOHN HOLLAND mirvac

NSW Sydney METRO

Consultant

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Project

WATERLOO METRO QUARTER DEVELOPMENT

Project number

S12398

Size check

25mm

Checked

JC

Approved

JC

Sheet size

A1

Scale

1 : 100

Sheet title

General Arrangement Plan

Level 6-15 Plan

Status

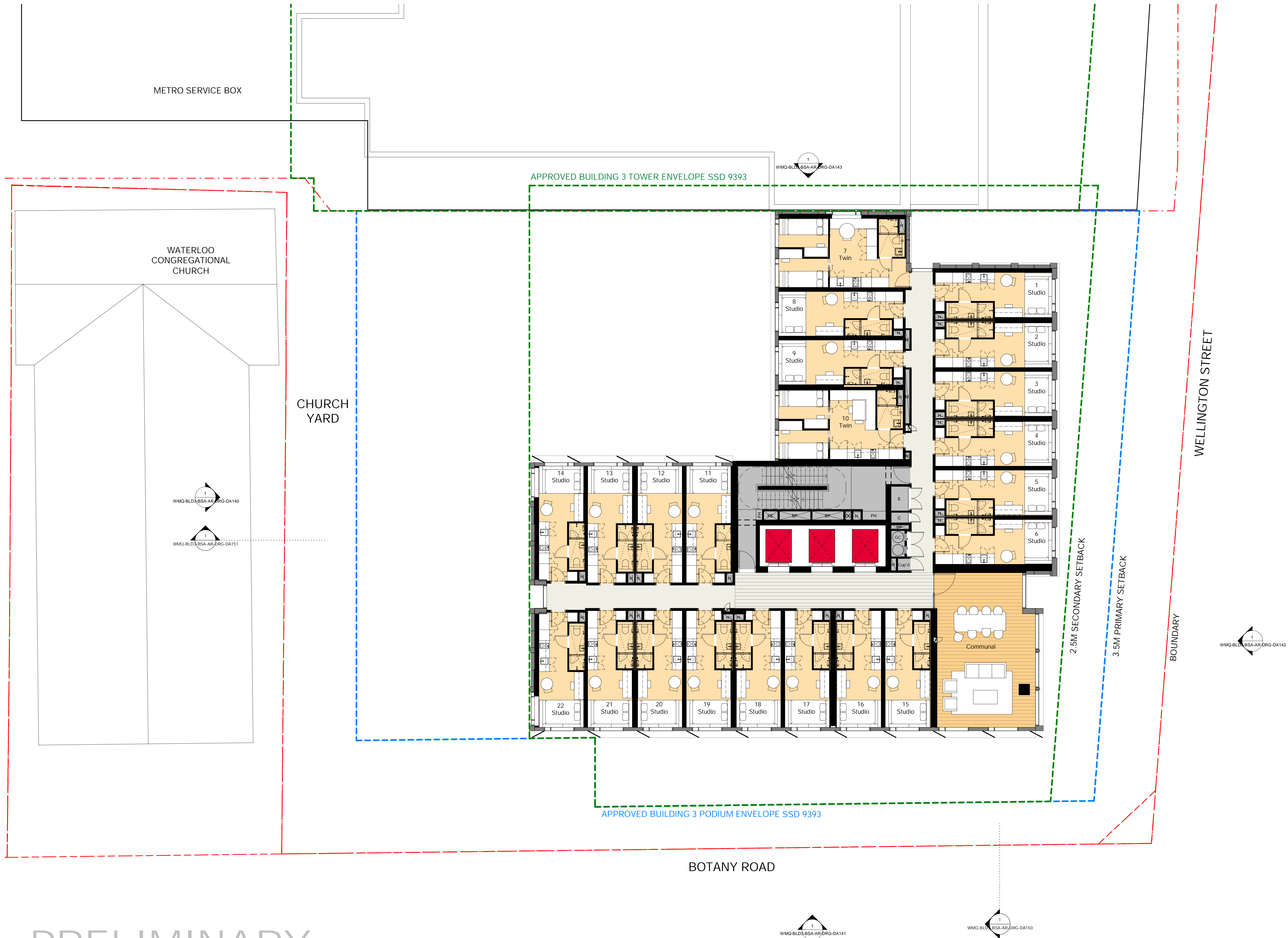
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WMQ-BLD3-BSA-AR-DRG-DA106

Revision

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PRELIMINARY

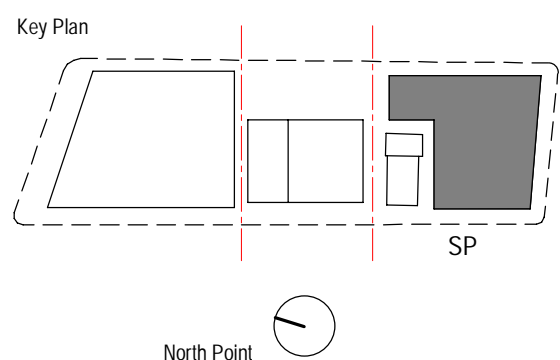
Recent revision history		
#	Status	Description
A	ISSUE FOR INFORMATION	15.05.20
B	ISSUE FOR INFORMATION	01.06.20
C	DRAFT SSDA ISSUE	15.06.20
D	SSDA ISSUE - FOR LANDOWNER'S CONSENT	27.07.20
E	SSDA ISSUE - FOR LANDOWNER'S CONSENT	30.07.20
F	SSDA ISSUE	26.08.20

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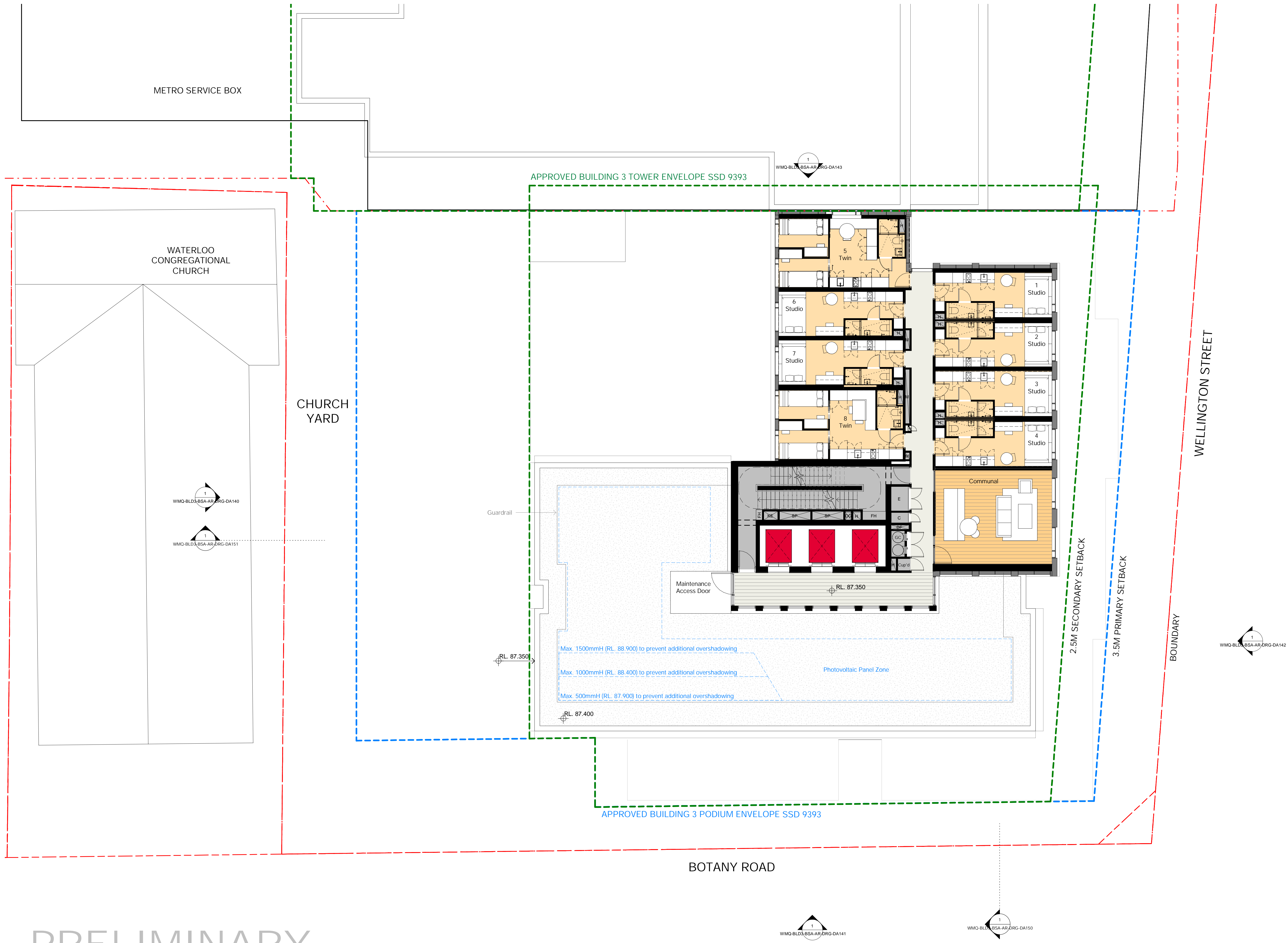
Project  
WATERLOO METRO QUARTER DEVELOPMENT

Project number		Size check	
S12398		25mm	
Checked	Approved	Sheet size	Scale
JC	JC	A1	1 : 100

Sheet title  
General Arrangement Plan  
Level 16-22 Plan

Status

Sheet number	Revision
WMQ-BLD3-BSA-AR-DRG-DA116	F



PRELIMINARY

Recent revision history

#	Status	Description	Date
A		COST PLAN B	30.03.20
B		ISSUE FOR INFORMATION	24.04.20
C		ISSUE FOR INFORMATION	15.05.20
D		ISSUE FOR INFORMATION	01.06.20
E		DRAFT SSDA ISSUE	15.06.20
F		SSDA ISSUE - FOR LANDOWNER'S CONSENT	27.07.20
G		SSDA ISSUE - FOR LANDOWNER'S CONSENT	30.07.20
H		SSDA ISSUE	26.08.20

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Key Plan

North Point

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Consultant

NSW sydney METRO

Project

WATERLOO METRO QUARTER DEVELOPMENT

Project number

S12398

Checked JC Approved JC Sheet size A1 Scale 1 : 100

Sheet title

General Arrangement Plan  
Level 23 Plan

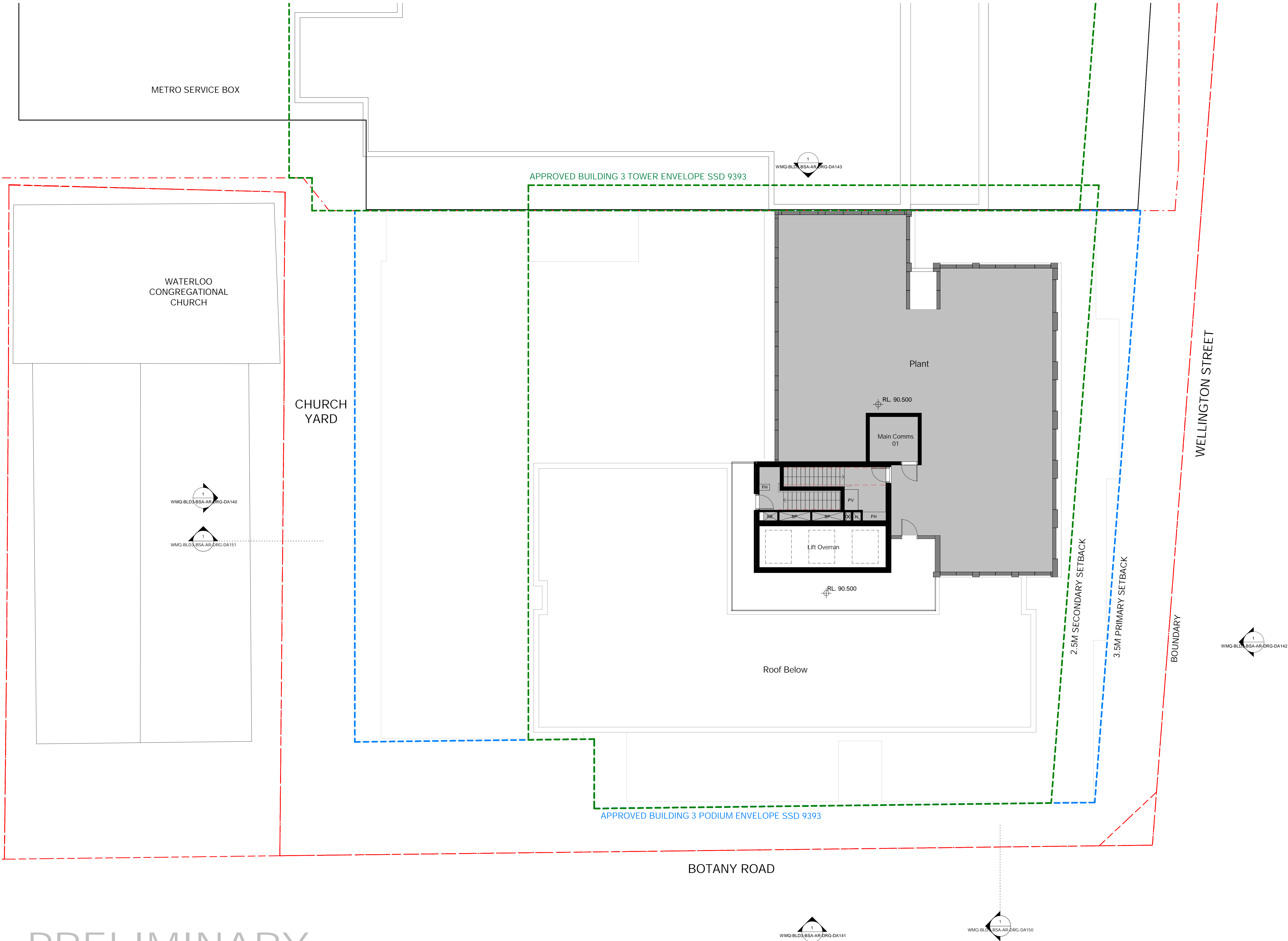
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Sheet number

WMQ-BLD3-BSA-AR-DRG-DA123

Revision H





PRELIMINARY

Recent revision history

#	Status	Description	Date
A		COST PLAN B	30.03.20
B		ISSUE FOR INFORMATION	24.04.20
C		ISSUE FOR INFORMATION	15.05.20
D		ISSUE FOR INFORMATION	01.06.20
E		DRAFT SSDA ISSUE	15.06.20
F		SSDA ISSUE - FOR LANDOWNER'S CONSENT	27.07.20
G		SSDA ISSUE - FOR LANDOWNER'S CONSENT	30.07.20
H		SSDA ISSUE	26.08.20

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Key Plan

North Point

Client

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Project

WATERLOO METRO QUARTER DEVELOPMENT

Project number

S12398

Size check

25mm

Checked

JC

Approved

JC

Sheet size

A1

Scale

1 : 100

Sheet title

General Arrangement Plan  
Level 24 (Plant) Plan

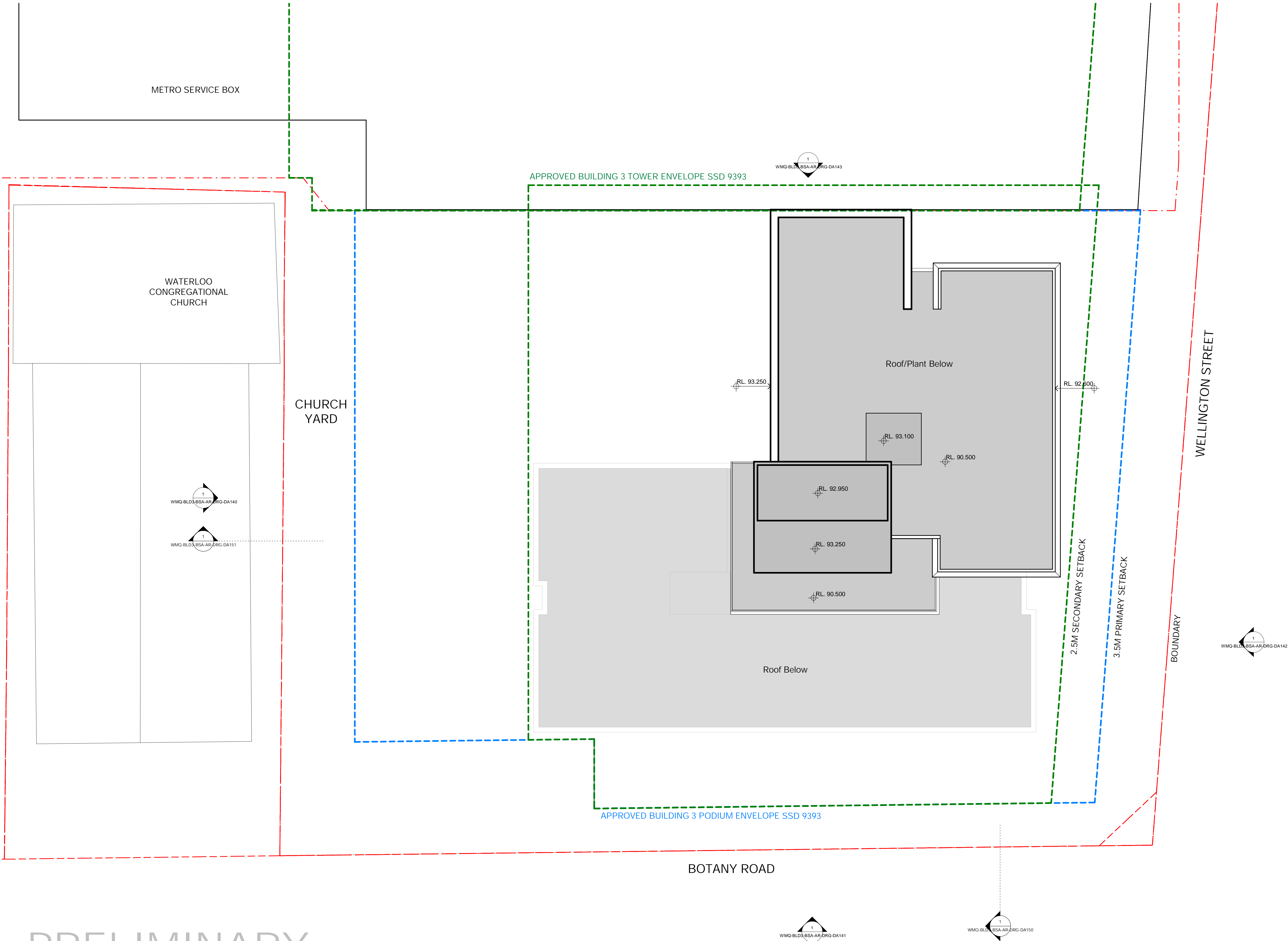
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Sheet number

WMQ-BLD3-BSA-AR-DRG-DA124

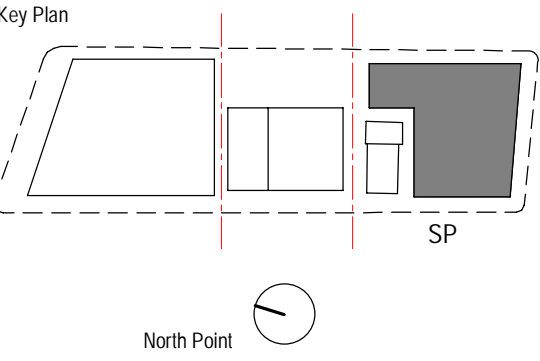
Revision

H



Recent revision history			
#	Status	Description	Date
A		ISSUE FOR INFORMATION	17.04.20
B		ISSUE FOR INFORMATION	24.04.20
C		ISSUE FOR INFORMATION	15.05.20
D		ISSUE FOR INFORMATION	01.06.20
E		DRAFT SSDA ISSUE	15.06.20
F		SSDA ISSUE - FOR LANDOWNER'S CONSENT	27.07.20
G		SSDA ISSUE - FOR LANDOWNER'S CONSENT	30.07.20
H		SSDA ISSUE	26.08.20

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Project  
WATERLOO METRO QUARTER DEVELOPMENT

Project number <b>S12398</b>	Size check 25mm
Checked JC	Approved JC
Sheet size A1	Scale 1 : 100

Sheet title  
**General Arrangement Plan  
Roof Plan**

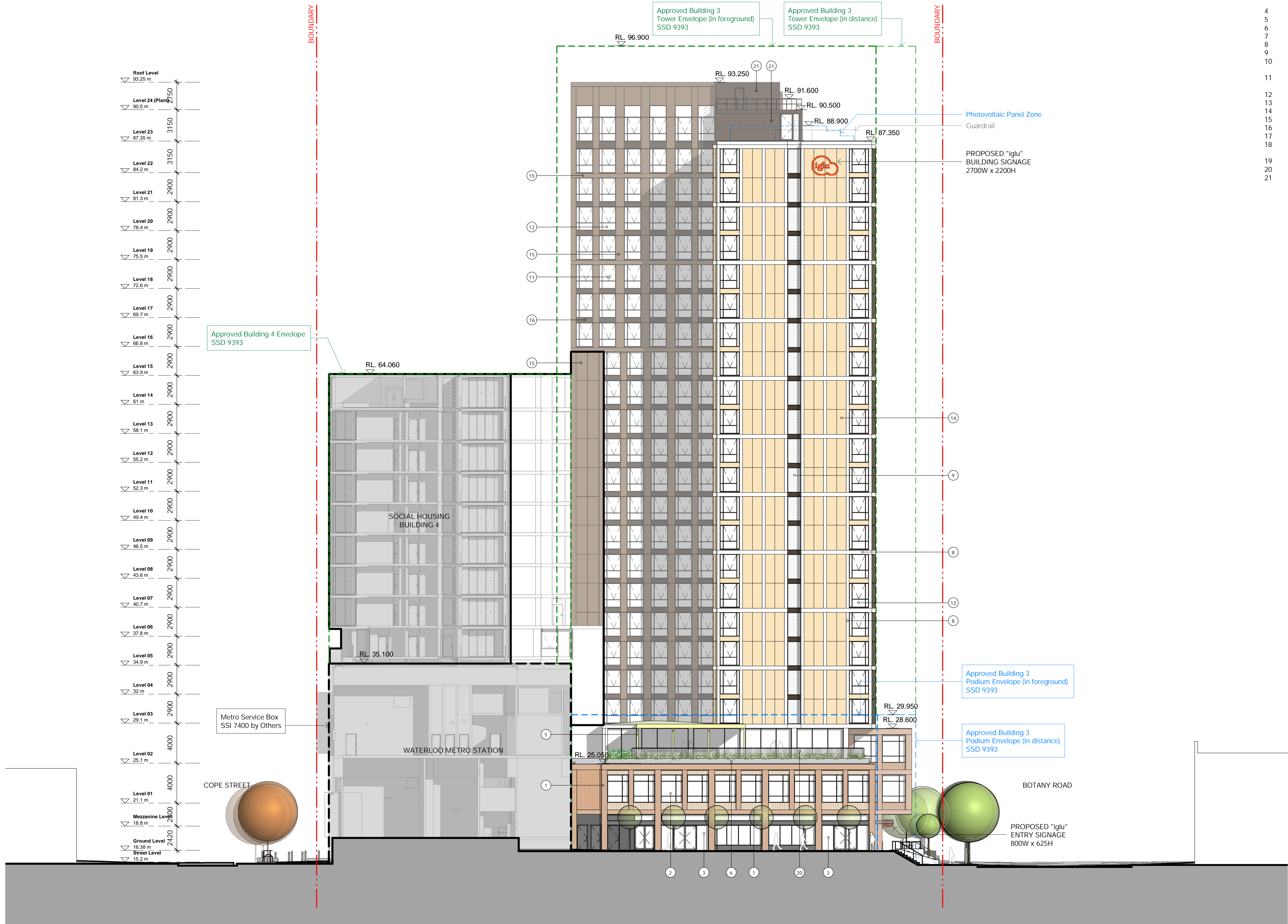
Status

Sheet number WMQ-BLD3-BSA-AR-DRG-DA125	Revision H
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PRELIMINARY



PRELIMINARY



Material/ Finishes Legend

#	Status	Description	Date
1	A	Brick - Red/Brown	01.06.20
2	B	Glass - Clear	15.06.20
3	C	Aluminium frame - Charcoal	29.07.20
4	D	Glass - Clear	30.07.20
5	E	Metal frame shopfront - Charcoal	26.08.20
6	F	Steel frame awning - Charcoal	31.08.20
7		Pergola	
8		Concrete planter box	
9		Aluminium louvres - Charcoal	
10		Aluminium - Light Grey	
11		Glass Louvre	
12		Angled perforated aluminium sunshade - Light Bronze	
13		Glass - Clear	
14		Aluminium frame - Dark Bronze	
15		Colourback glass	
16		Retractable awning	
17		Solid aluminium cladding - Light Bronze	
18		Perforated aluminium - Dark Bronze	
19		Rollershutter - Charcoal	
20		Glass - Clear	
21		Metal frame shopfront - Dark Bronze	
22		Steel frame awning - Dark Bronze	
23		Aluminium palisade balustrade - Charcoal	
24		Solid aluminium cladding - Dark Bronze	

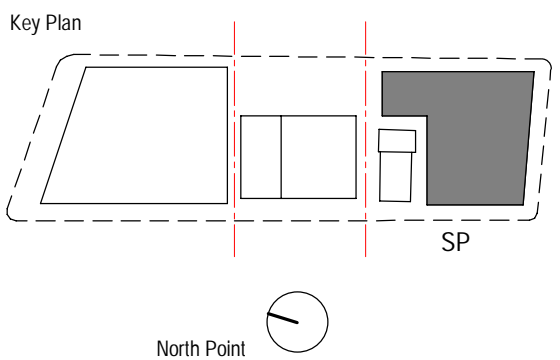
#	Status	Description	Date
A		ISSUE FOR INFORMATION	01.06.20
B		DRAFT SSDA ISSUE	15.06.20
C		SSDA ISSUE - FOR LANDOWNER'S CONSENT	29.07.20
D		SSDA ISSUE - FOR LANDOWNER'S CONSENT	30.07.20
E		SSDA ISSUE	26.08.20
F		SSDA ISSUE	31.08.20

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Project

WATERLOO METRO QUARTER DEVELOPMENT

Project number		Size check	
S12398		25mm	
Checked	Approved	Sheet size	Scale
JC	JC	A1	1 : 200

Sheet title

Elevation - North

Status

Sheet number

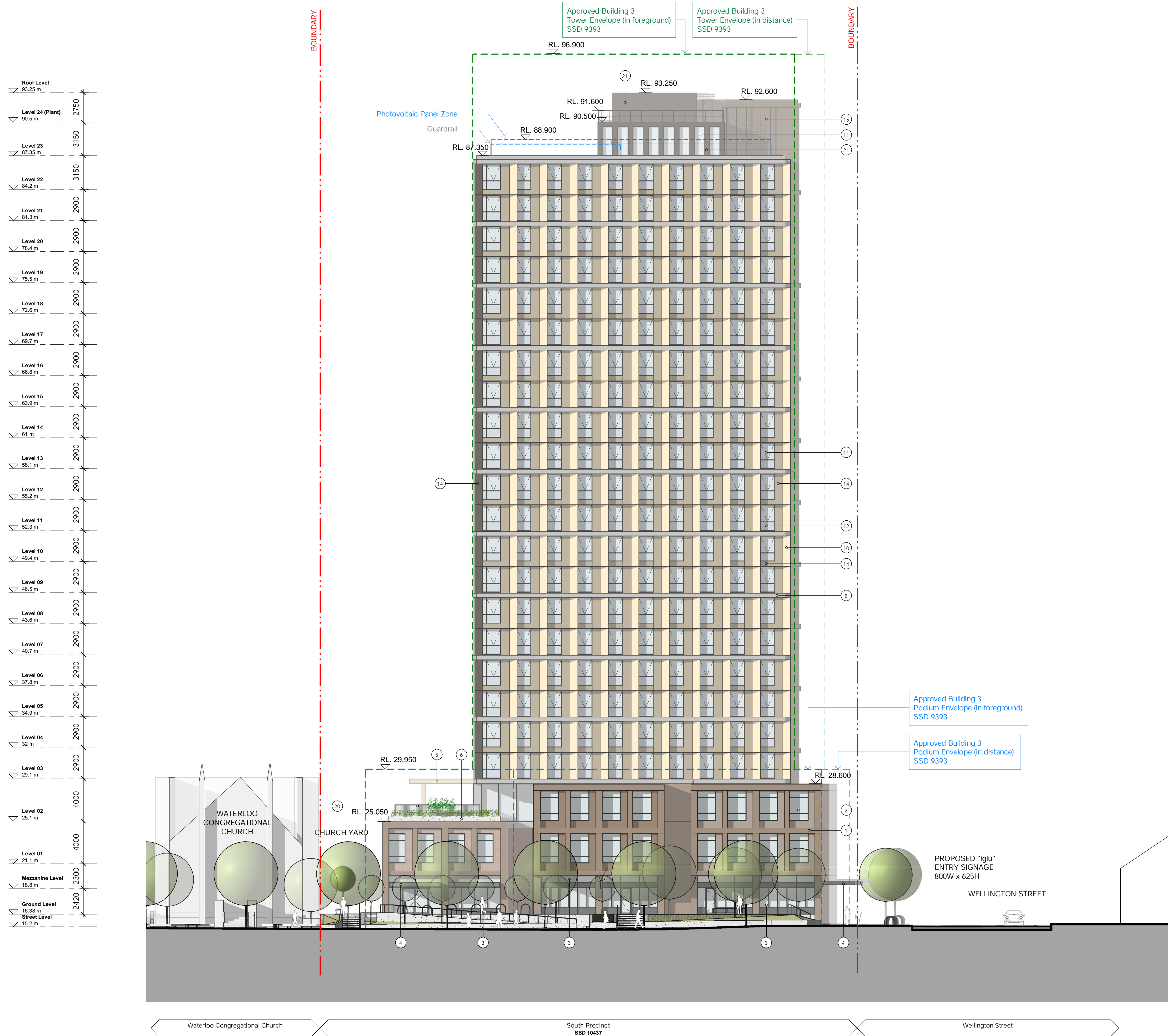
WMQ-BLD3-BSA-AR-DRG-DA140

Revision

F



PRELIMINARY

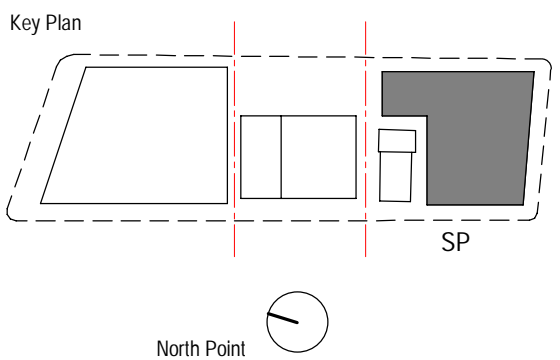


Material/ Finishes Legend

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2	Glass - Clear
3	Aluminium frame - Charcoal
4	Glass - Clear
5	Metal frame shopfront - Charcoal
6	Steel frame awning - Charcoal
7	Pergola
8	Concrete planter box
9	Aluminium louvres - Charcoal
10	Aluminium - Light Grey
11	Glass Louvre
12	Angled perforated aluminium sunshade - Light Bronze
13	Glass - Clear
14	Aluminium frame - Dark Bronze
15	Colourback glass
16	Retractable awning
17	Solid aluminium cladding - Light Bronze
18	Perforated aluminium - Dark Bronze
19	Rollershutter - Charcoal
20	Glass - Clear
21	Metal frame shopfront - Dark Bronze
22	Steel frame awning - Dark Bronze
23	Aluminium palisade balustrade - Charcoal
24	Solid aluminium cladding - Dark Bronze

#	Status	Description	Date
A	ISSUE FOR INFORMATION	ISSUE FOR INFORMATION	01.06.20
B	DRAFT SSDA ISSUE	DRAFT SSDA ISSUE	15.06.20
C	SSDA ISSUE - FOR LANDOWNER'S CONSENT	SSDA ISSUE - FOR LANDOWNER'S CONSENT	29.07.20
D	SSDA ISSUE - FOR LANDOWNER'S CONSENT	SSDA ISSUE - FOR LANDOWNER'S CONSENT	30.07.20
E	SSDA ISSUE	SSDA ISSUE	26.08.20
F	SSDA ISSUE	SSDA ISSUE	31.08.20

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Project  
WATERLOO METRO QUARTER DEVELOPMENT

Project number		Size check	
S12398		25mm	
Checked	Approved	Sheet size	Scale
JC	JC	A1	1 : 200

Sheet title

Elevation - West

Status

Sheet number  
WMO-BLD3-BSA-AR-DRG-DA141

Revision  
F



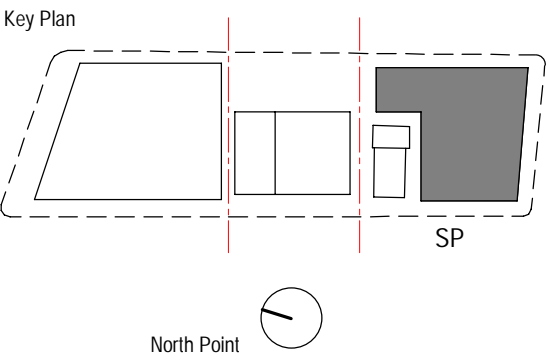


Material/ Finishes Legend

1	Brick - Red/Brown
2	Glass - Clear
3	Aluminium frame - Charcoal
4	Glass - Clear
5	Metal frame shopfront - Charcoal
6	Steel frame awning - Charcoal
7	Pergola
8	Concrete planter box
9	Aluminium louvres - Charcoal
10	Aluminium - Light Grey
11	Glass Louvre
12	Angled perforated aluminium sunshade - Light Bronze
13	Glass - Clear
14	Aluminium frame - Dark Bronze
15	Colourback glass
16	Retractable awning
17	Solid aluminium cladding - Light Bronze
18	Perforated aluminium - Dark Bronze
19	Rollershutter - Charcoal
20	Glass - Clear
21	Metal frame shopfront - Dark Bronze
22	Steel frame awning - Dark Bronze
23	Aluminium palisade balustrade - Charcoal
24	Solid aluminium cladding - Dark Bronze

#	Status	Description	Date
A	ISSUE FOR INFORMATION	ISSUE FOR INFORMATION	01.06.20
B	DRAFT SSDA ISSUE	DRAFT SSDA ISSUE	15.06.20
C	SSDA ISSUE - FOR LANDOWNER'S CONSENT	SSDA ISSUE - FOR LANDOWNER'S CONSENT	29.07.20
D	SSDA ISSUE - FOR LANDOWNER'S CONSENT	SSDA ISSUE - FOR LANDOWNER'S CONSENT	30.07.20
E	SSDA ISSUE	SSDA ISSUE	26.08.20
F	SSDA ISSUE	SSDA ISSUE	31.08.20

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Project  
WATERLOO METRO QUARTER DEVELOPMENT

Project number <b>S12398</b>	Size check 25mm
Checked JC	Approved JC
Sheet size A1	Scale 1 : 200

Sheet title

Elevation - South

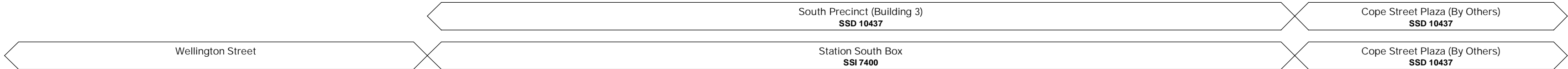
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Sheet number  
WMQ-BLD3-BSA-AR-DRG-DA142

Revision  
F

PRELIMINARY

PRELIMINARY

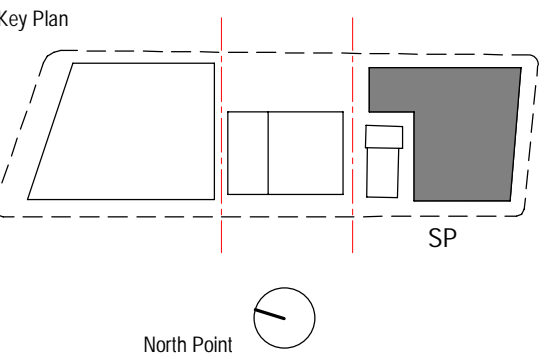


Material/ Finishes Legend

#	Status	Description	Date
1	A	Brick - Red/Brown	01.06.20
2	B	Glass - Clear	15.06.20
3	C	Aluminium frame - Charcoal	29.07.20
4	D	Glass - Clear	30.07.20
5	E	Metal frame shopfront - Charcoal	26.08.20
6	F	Steel frame awning - Charcoal	31.08.20
7		Pergola	
8		Concrete planter box	
9		Aluminium louvres - Charcoal	
10		Aluminium - Light Grey	
11		Glass Louvre	
12		Angled perforated aluminium sunshade - Light Bronze	
13		Glass - Clear	
14		Aluminium frame - Dark Bronze	
15		Colourback glass	
16		Retractable awning	
17		Solid aluminium cladding - Light Bronze	
18		Solid aluminium cladding - Medium Bronze	
19		Perforated aluminium - Dark Bronze	
20		Rollershutter - Charcoal	
21		Glass - Clear	
22		Metal frame shopfront - Dark Bronze	
23		Steel frame awning - Dark Bronze	
24		Aluminium palisade balustrade - Charcoal	
25		Solid aluminium cladding - Dark Bronze	

#	Status	Description	Date
1	A	Brick - Red/Brown	01.06.20
2	B	Glass - Clear	15.06.20
3	C	Aluminium frame - Charcoal	29.07.20
4	D	Glass - Clear	30.07.20
5	E	Metal frame shopfront - Charcoal	26.08.20
6	F	Steel frame awning - Charcoal	31.08.20

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Project  
WATERLOO METRO QUARTER DEVELOPMENT

Project number		Size check	
S12398		25mm	
Checked	Approved	Sheet size	Scale
JC	JC	A1	1 : 200

Sheet title

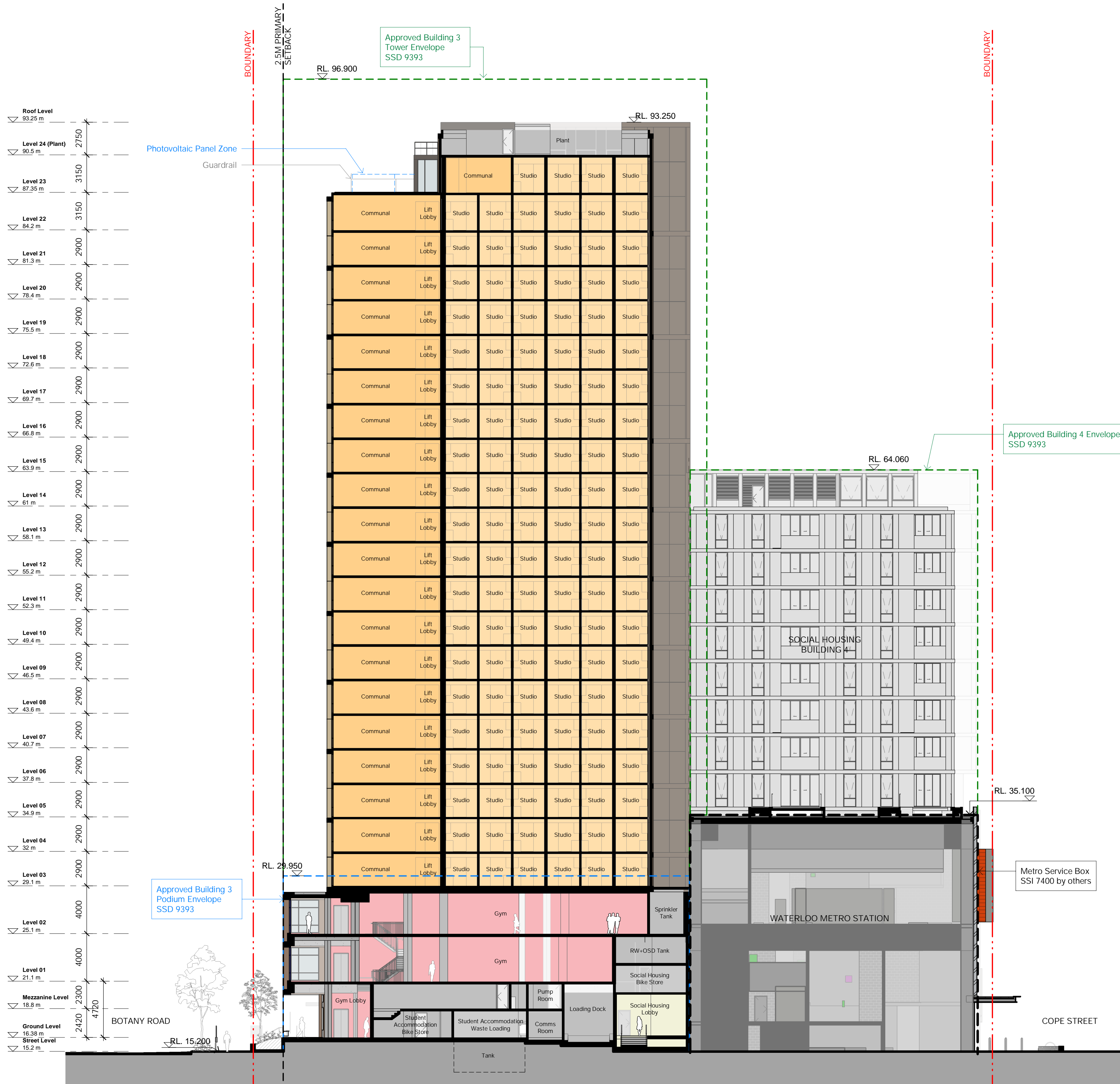
Elevation - East

Status

Sheet number	Revision
WMQ-BLD3-BSA-AR-DRG-DA143	F



PRELIMINARY



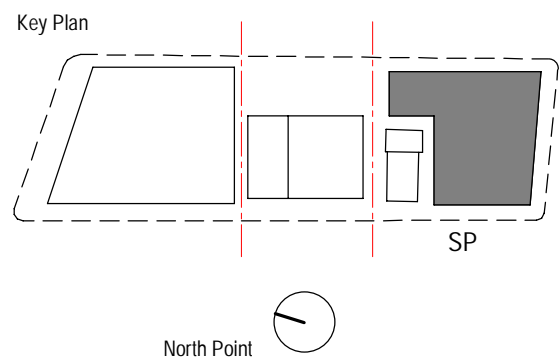
Recent revision history		
#	Status	Description
A	ISSUE FOR INFORMATION	24.04.20
B	ISSUE FOR INFORMATION	15.05.20
C	ISSUE FOR INFORMATION	01.06.20
D	DRAFT SSDA ISSUE	15.06.20
E	SSDA ISSUE - FOR LANDOWNERS' CONSENT	29.07.20
F	SSDA ISSUE - FOR LANDOWNERS' CONSENT	30.07.20
G	SSDA ISSUE	26.08.20

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Project  
WATERLOO METRO QUARTER DEVELOPMENT

Project number		Size check	
S12398		25mm	
Checked	Approved	Sheet size	Scale
JC	JC	A1	1 : 200

Sheet title

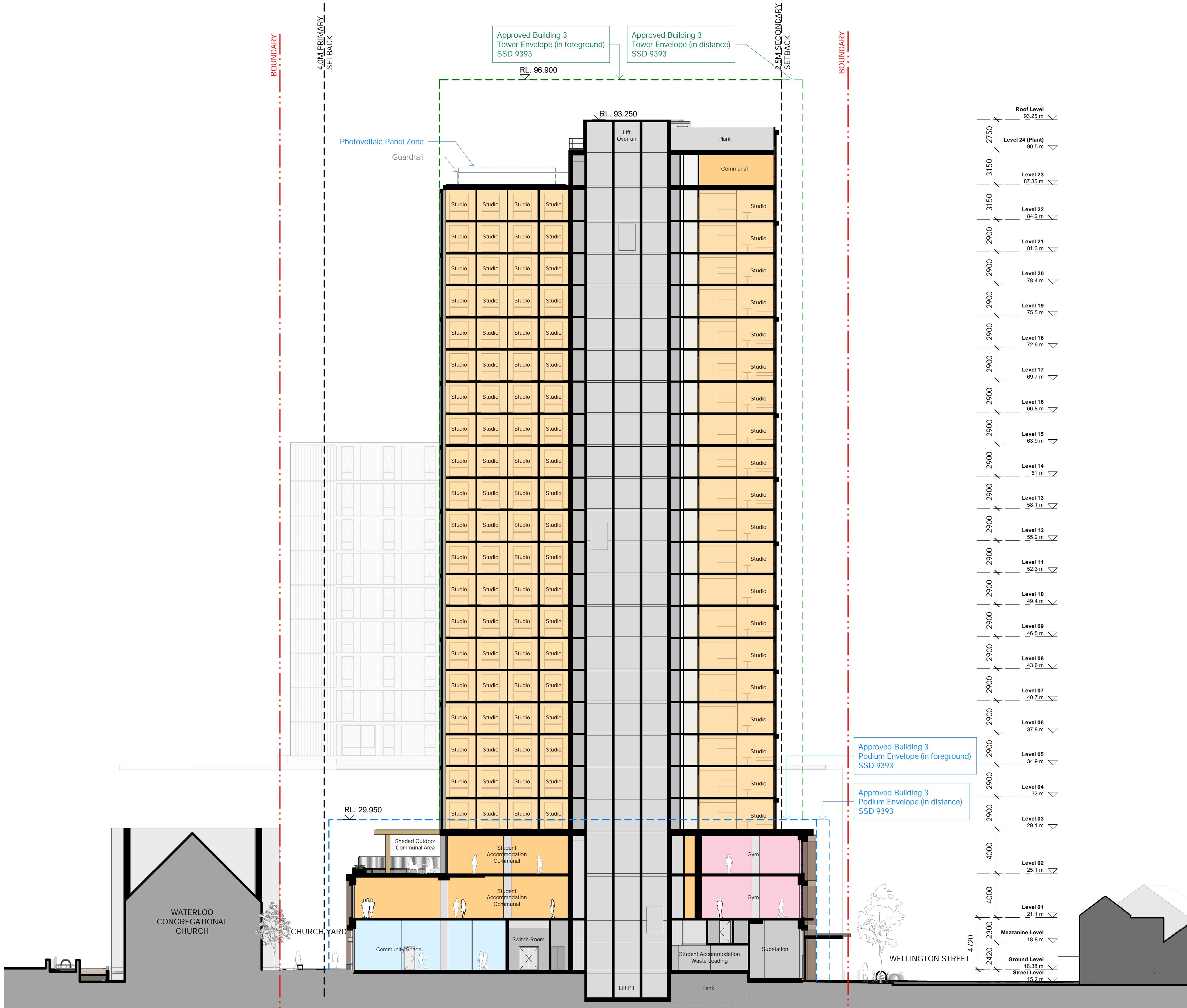
Section E-W

Status

Sheet number  
WMQ-BLD3-BSA-AR-DRG-DA150

Revision  
G

PRELIMINARY



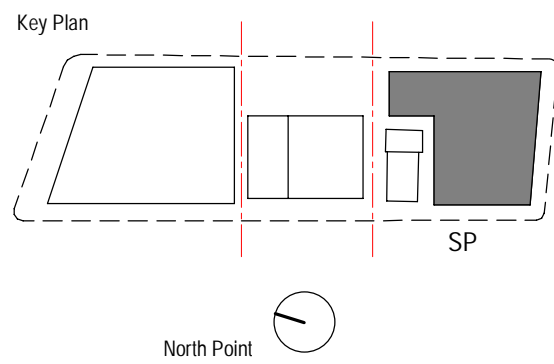
Recent revision history		
#	Status	Description
A		COST PLAN B
B		ISSUE FOR INFORMATION
C		ISSUE FOR INFORMATION
D		ISSUE FOR INFORMATION
E		DRAFT SSDA ISSUE
F		SSDA ISSUE - FOR LANDOWNER'S CONSENT
G		SSDA ISSUE

Notes

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Consultant

**BATESSMART**

Project

WATERLOO METRO QUARTER DEVELOPMENT

Project number		Size check	
S12398		25mm	
Checked	Approved	Sheet size	Scale
JC	JC	A1	1 : 200

Sheet title

Section N-S

Status

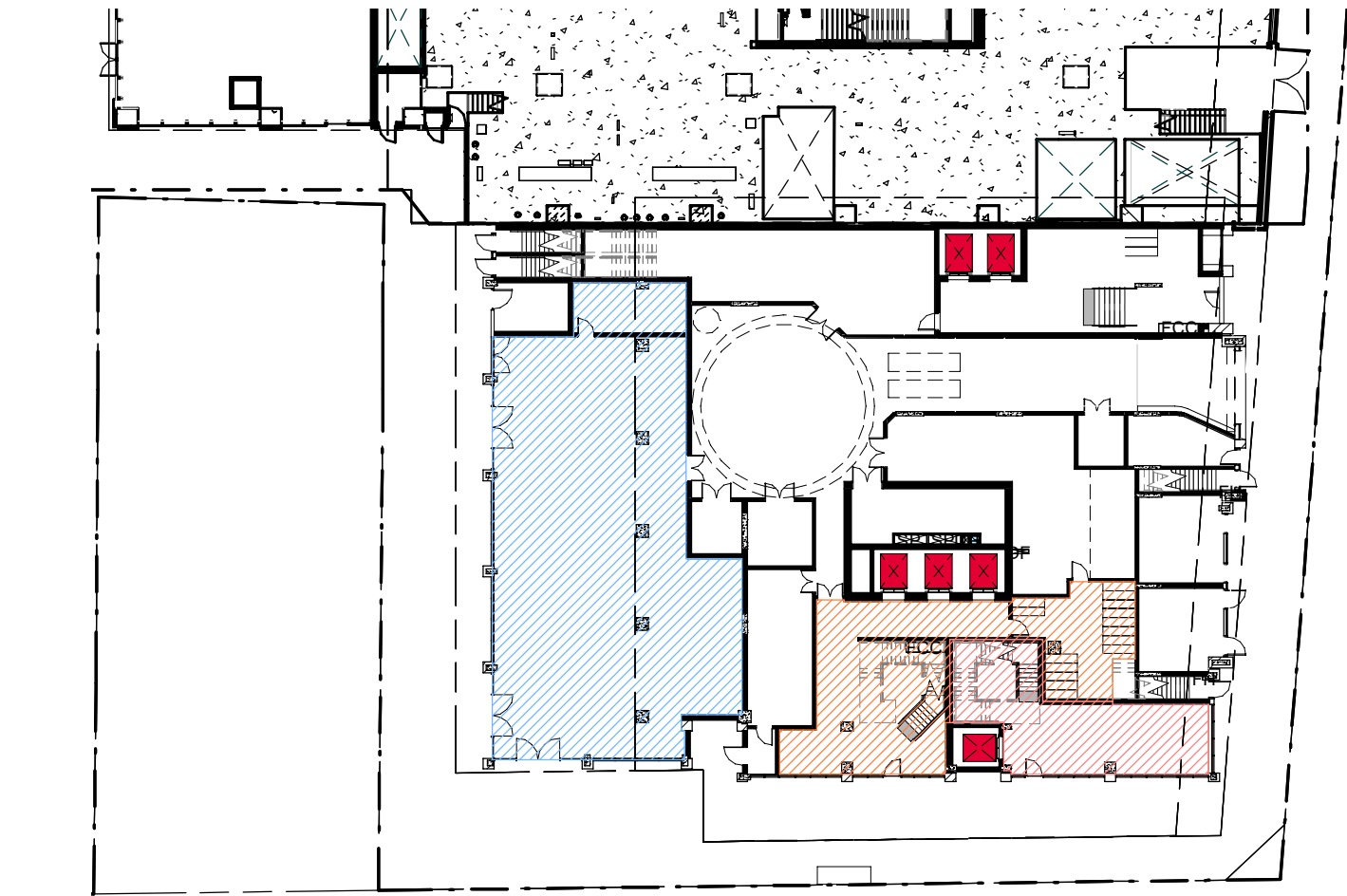
Sheet number

WMO-BLD3-BSA-AR-DRG-DA151

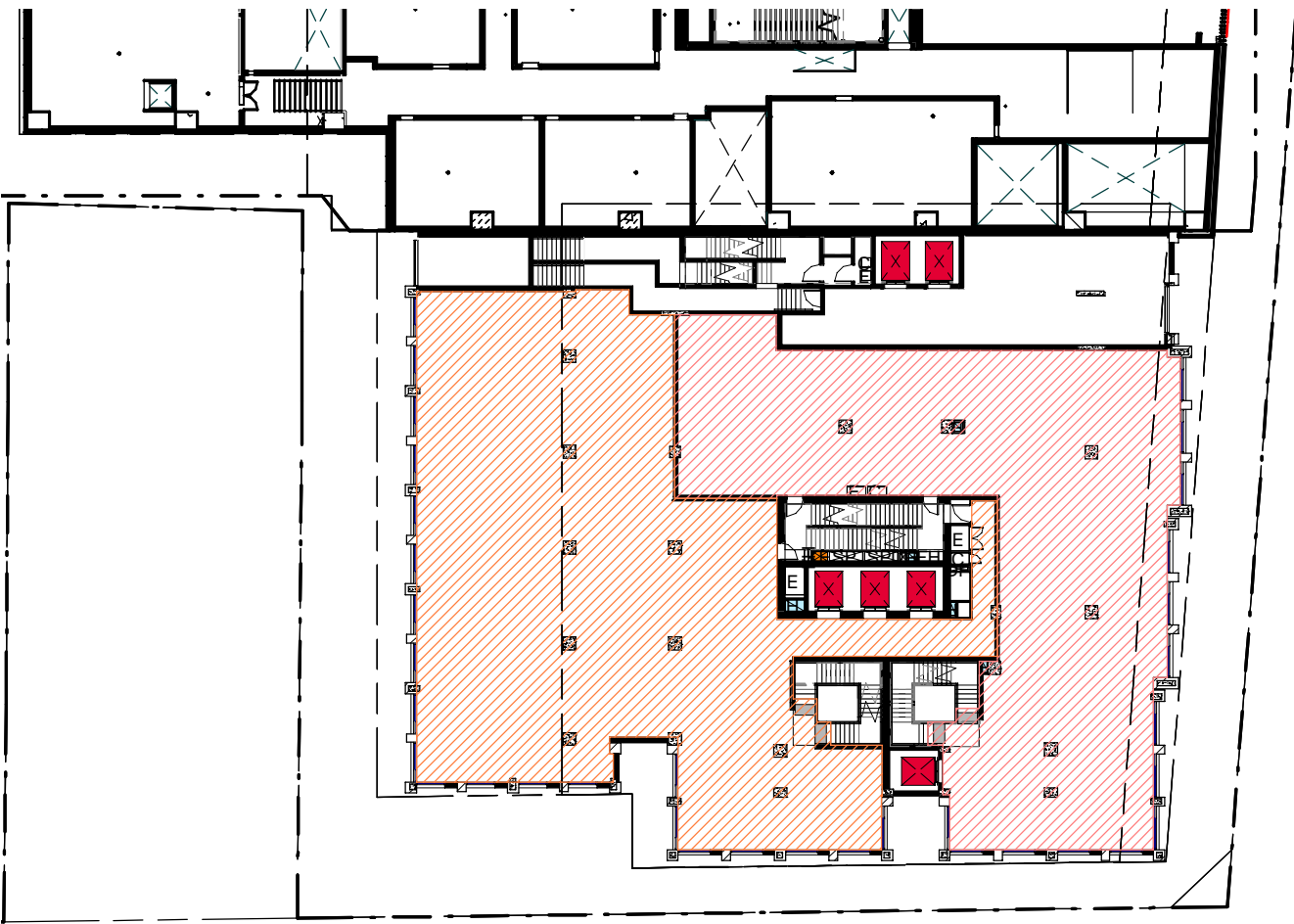
Revision

G

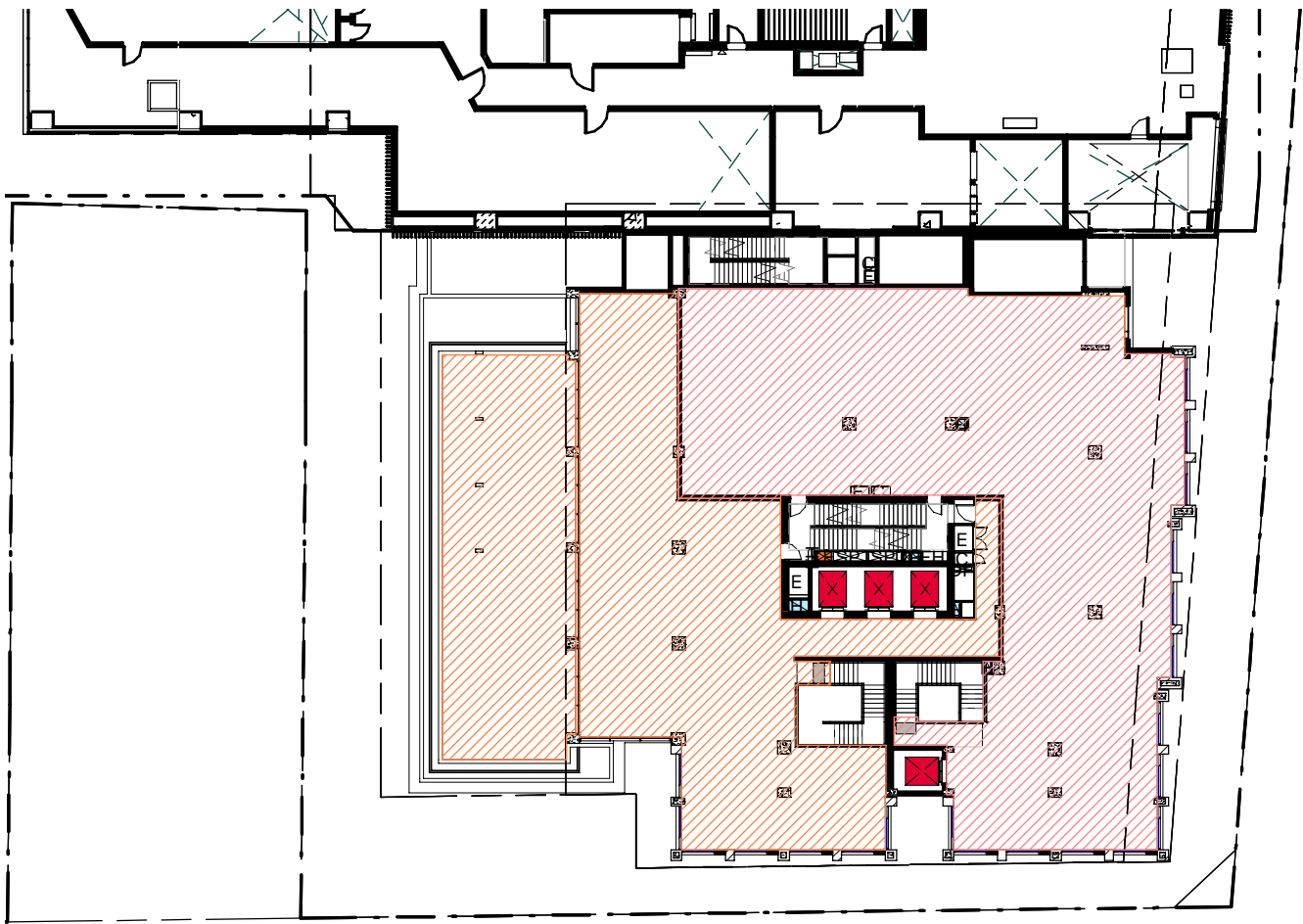




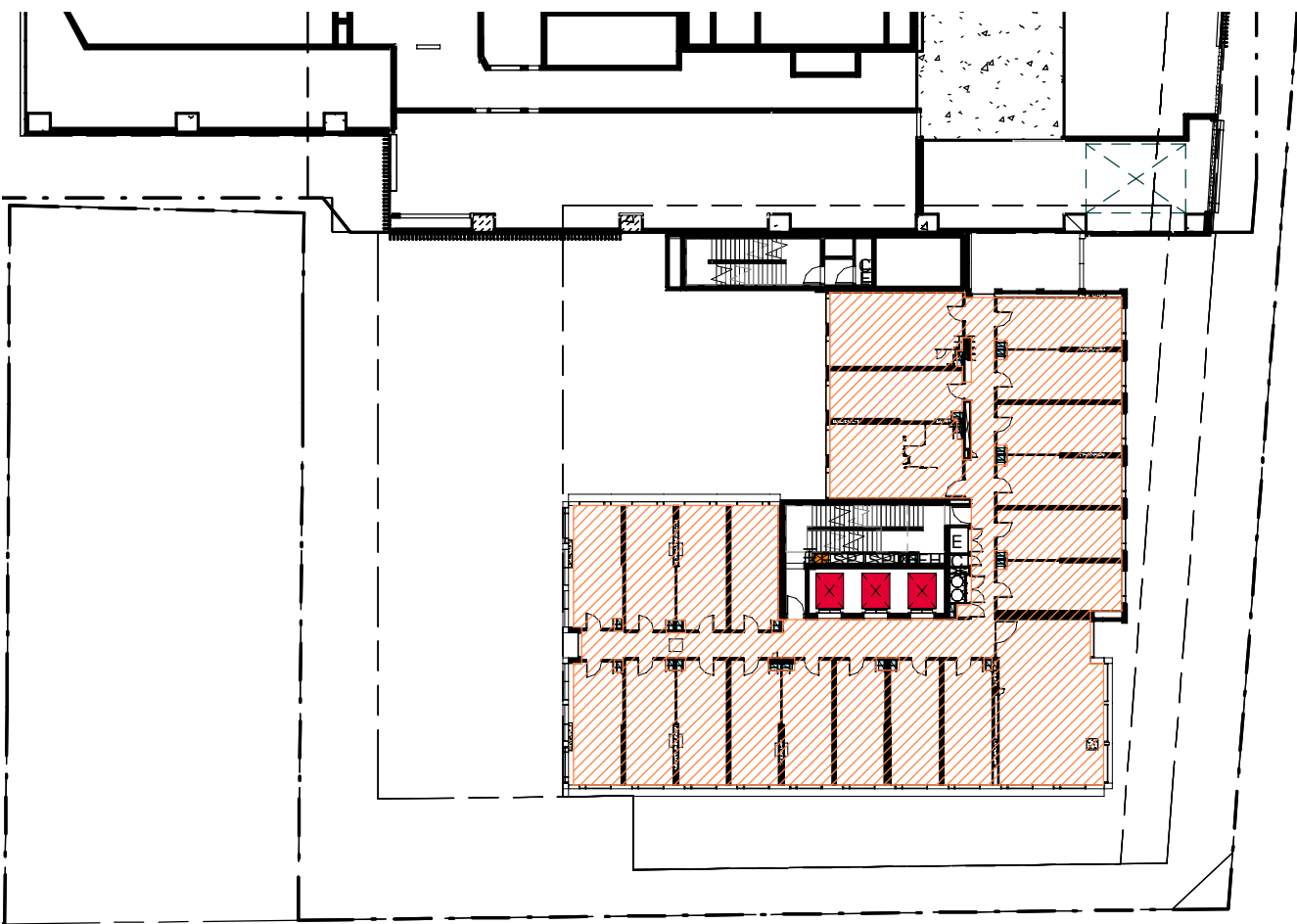
1 Ground Level\_GFA  
1 : 400



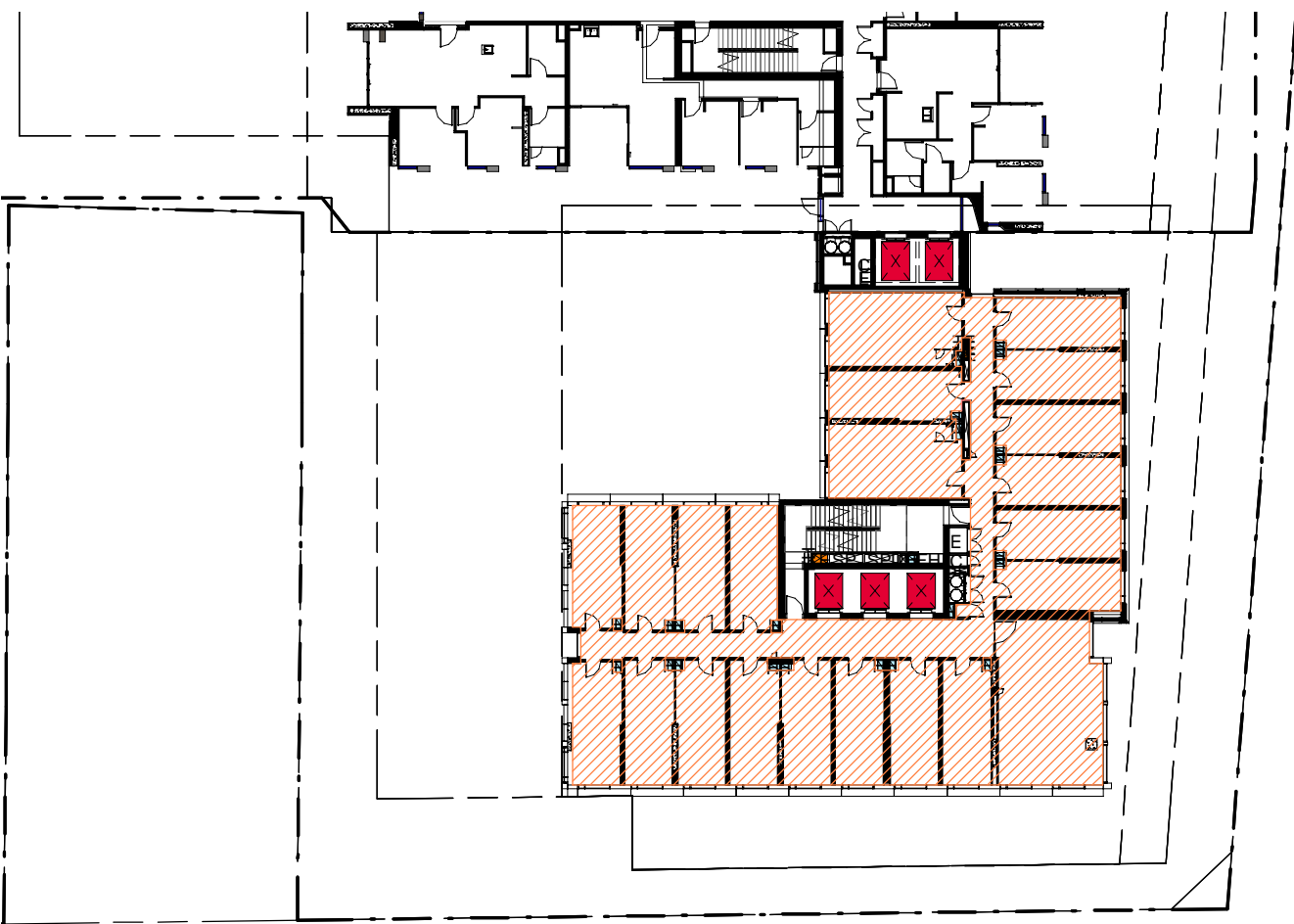
3 Level 01\_GFA  
1 : 400



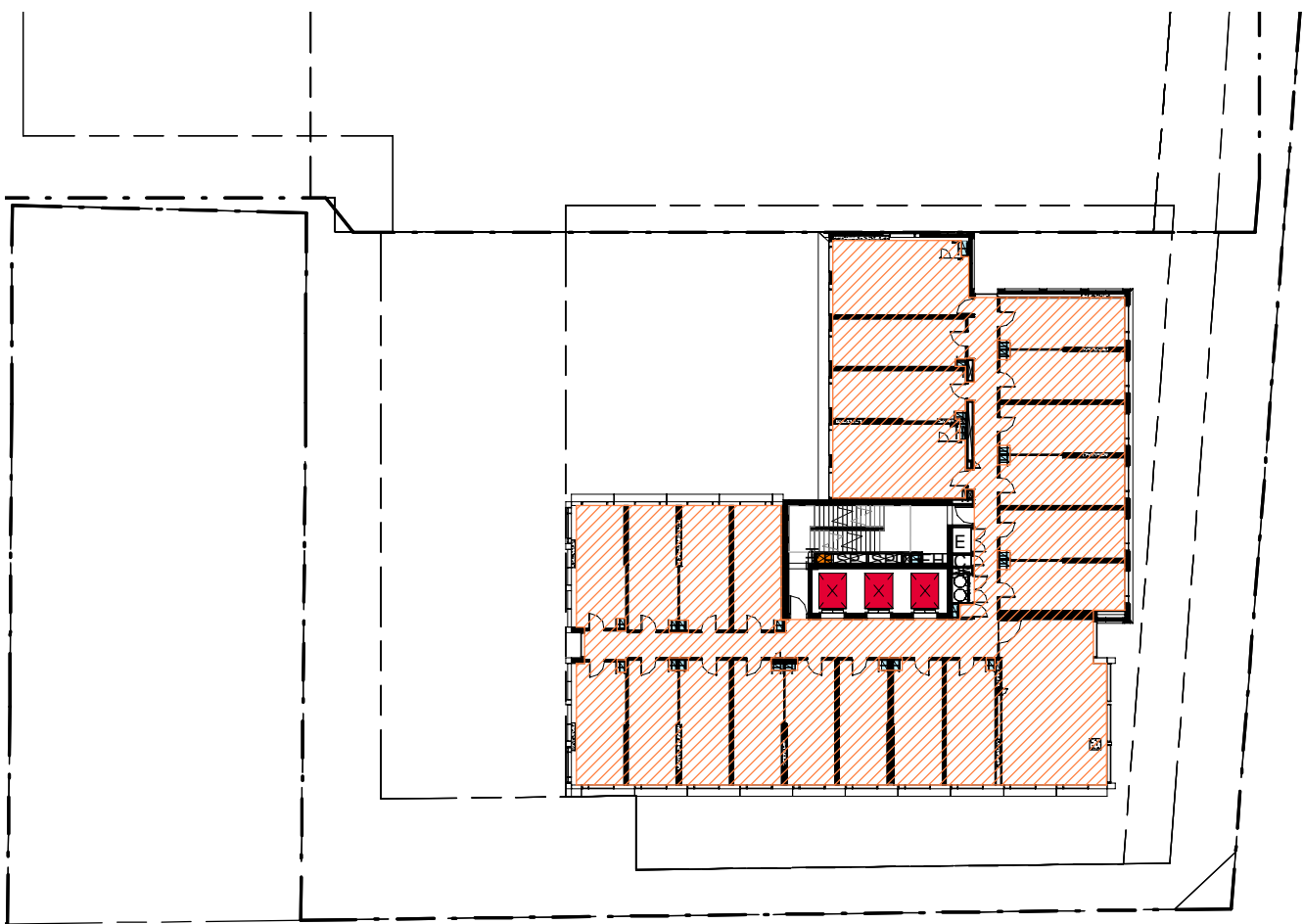
2 Level 02\_GFA  
1 : 400



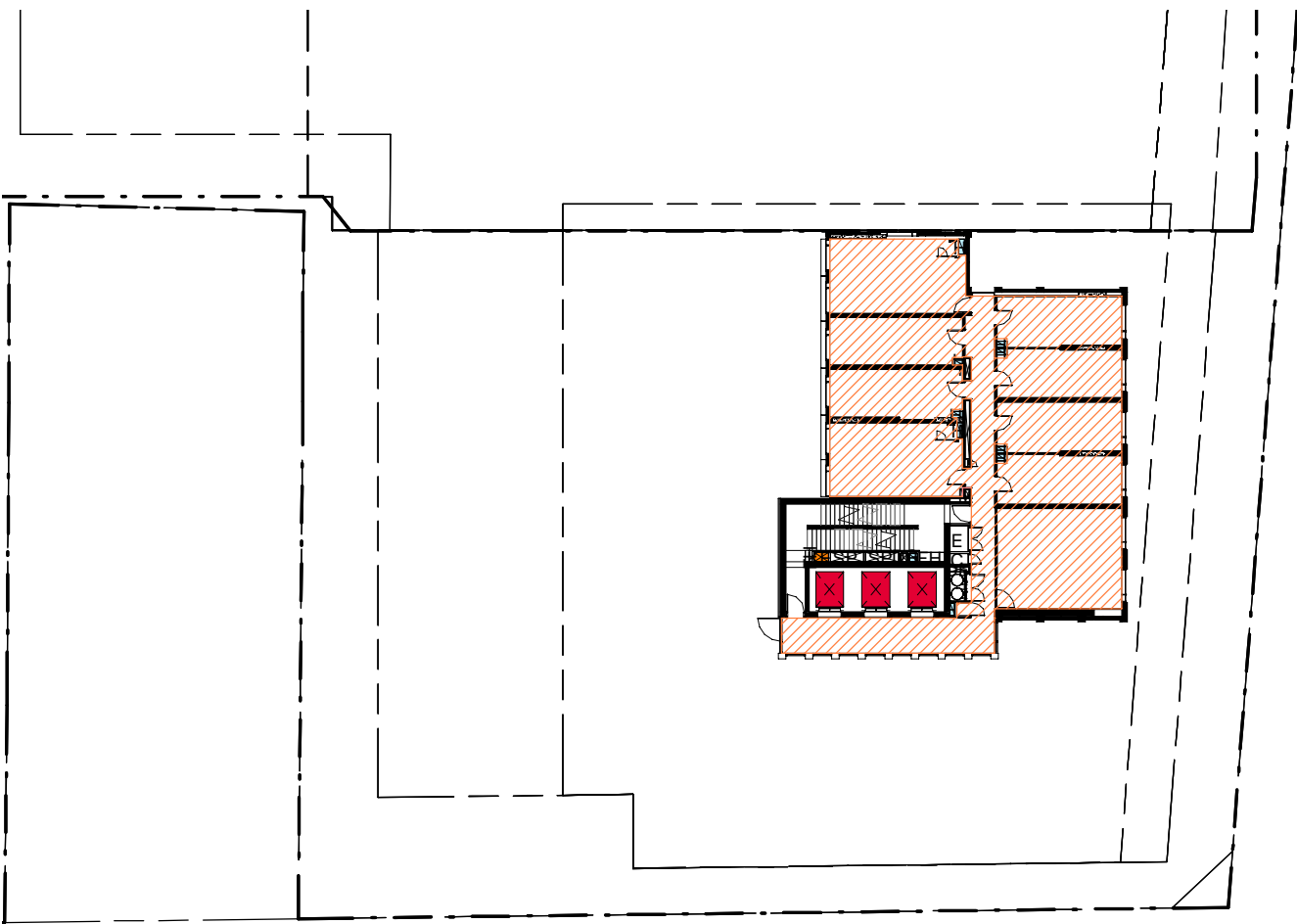
6 Level 03-05\_GFA  
1 : 400



7 Level 06-15\_GFA  
1 : 400



8 Level 16 -22 GFA  
1 : 400



5 Level 23\_GFA  
1 : 400

PRELIMINARY

BUILDING 3 AREA SUMMARY (GFA)	
Ground (Community Space)	300m <sup>2</sup>
Ground (Student Acc.)	118m <sup>2</sup>
Ground (Commercial)	67m <sup>2</sup>
Level 01 (Student Acc.)	536m <sup>2</sup>
Level 01 (Commercial)	419m <sup>2</sup>
Level 02 (Student Acc.)	303m <sup>2</sup>
Outdoor (Student Acc.)	157m <sup>2</sup>
Level 02 (Commercial)	487m <sup>2</sup>
Level 03-05	538m <sup>2</sup>
Level 06-15	538m <sup>2</sup>
Level 16-22	559m <sup>2</sup>
Level 23	265m <sup>2</sup>
TOTAL	13,402m <sup>2</sup>

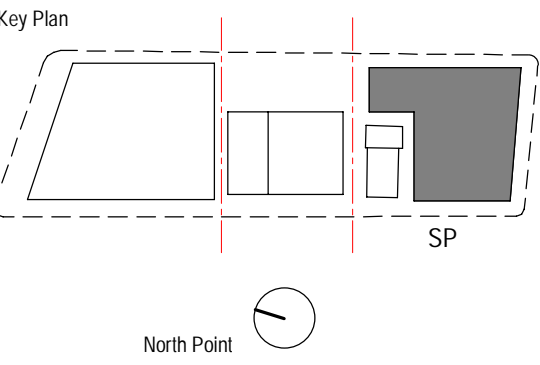
GROSS FLOOR AREA - Sydney LEP 2012 Standard Definition

*Gross Floor Area means* the sum of the floor area of each floor of a building measured from the internal face of external walls, or from the internal face of walls separation the building from any other building, measured at a height of 1.4 metres above the floor, and includes:

- (a) the area of a mezzanine, and  
(b) habitable rooms in a basement or an attic, and  
(c) any shop, auditorium, cinema, and the like, in a basement or attic but excludes:  
(d) any area for common vertical circulation, such as lifts and stairs, and  
(e) any basement:  
(i) storage, and  
(ii) vehicular access, loading areas, garbage and services, and  
(f) plant rooms, lift towers and other areas used exclusively for mechanical services or ducting, and  
(g) car parking to meet and requirement of the consent authority (including access to that carparking), and  
(h) any space used for the loading or unloading of goods (including access to it), and  
(i) terraces and balconies with the outer walls less than 1.4 metres high, and  
(j) voids above a floor at the level of a storey or storey above

Recent revision history		
#	Status	Description
A	ISSUE FOR INFORMATION	15.05.20
B	ISSUE FOR INFORMATION	01.06.20
C	DRAFT SSDA ISSUE	15.06.20
D	SSDA ISSUE - FOR LANDOWNER'S CONSENT	27.07.20
E	SSDA ISSUE	26.08.20

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Consultant  
**BATESSMART**

Project  
WATERLOO METRO QUARTER DEVELOPMENT

Project number	Size check
S12398	25mm
Checked JC	Approved JC
Sheet size A1	Scale 1 : 400

Sheet title

Area Calculation (GFA)

Status

Sheet number  
WMQ-BLD3-BSA-AR-DRG-DA160

Revision  
E

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