ATTACHMENT 1
DESIGN REPORT – BATES SMART

MANDARIN CENTRE
CHATSWOOD

CONCEPT DESIGN REPORT

18 APRIL 2018

CLIENT
Blue Papaya Pty Ltd
Mandarin Developments Pty Ltd

PROJECT NUMBER
S11596

BATESSMART.

ARCHITECTURE
INTERIOR DESIGN
URBAN DESIGN
STRATEGY

MELBOURNE
1 Nicholson Street Melbourne
Victoria 3000 Australia
T +61 3 8664 6200
F +61 3 8664 6300

SYDNEY
243 Liverpool Street
East Sydney New South Wales
2010 Australia
T +61 2 8354 5100
F +61 2 8354 5199

WWW.BATESSMART.COM

1.0 INTRODUCTION

This report describes a concept design prepared for the site at 65 Albert Avenue, Chatswood, known as the Mandarin Centre.

The concept design forms part of a Planning Proposal for submission to the Department of Planning and Environment, and describes the proposed built form envelope, floor space area, and uses envisaged for the site.

This concept design follows several earlier proposals for the site, which are summarised briefly in Appendix 2.0.

The concept design may be summarised as follows:

/ A five-storey podium containing retail and commercial uses
/ A childcare/educational facility at the rooftop level of the podium
/ A commercial tower, with a rooftop RL of 172.15
/ A residential tower, with an inclined rooftop ranging from RL 174.30 to RL 192.90
/ A basement containing a supermarket, loading areas, and six levels of basement car parking

2.0 SITE LOCATION & CONTEXT

The Mandarin Centre is located at 65 Albert Avenue, Chatswood. The site is rectangular in shape, with a 73m street frontage to Albert Avenue, and approximately 49m frontage to Victor Street.

Chatswood Station is approximately 100 metres north-west of the site, and Chatswood Oval is approximately 120m to the south.

The site has a public connection at the first floor to an adjacent multi-storey carpark building diagonally opposite on Albert Ave, and with an entrance towards Chatswood Station at the second floor.

Aerial photograph of the site context

2.1
CBD SKYLINE

The proposed development is located towards the south-eastern side of the Chatswood CBD. The tower envelopes reflect this position within the existing skyline.

The tower envelopes have been considered with respect to solar access to nearby public spaces, and no overshadowing of Chatswood Oval is proposed.

View from Chatswood Oval with indicative tower locations

2.2 EXISTING BUILT FORM

The existing Mandarin Centre building occupies the full extent of the site, and contains primarily retail uses.

The main pedestrian access points are located at:
/ The corner of Albert Avenue and Victor Street
/ The raised pedestrian bridge over Albert Avenue
/ The north-west corner of the site, towards Chatswood Station

Entrance from the corner of Albert Avenue and Victor Street

Eastern approach from Albert Avenue

Northern approach from Victor Street

Western corner entrance from Chatswood station approach

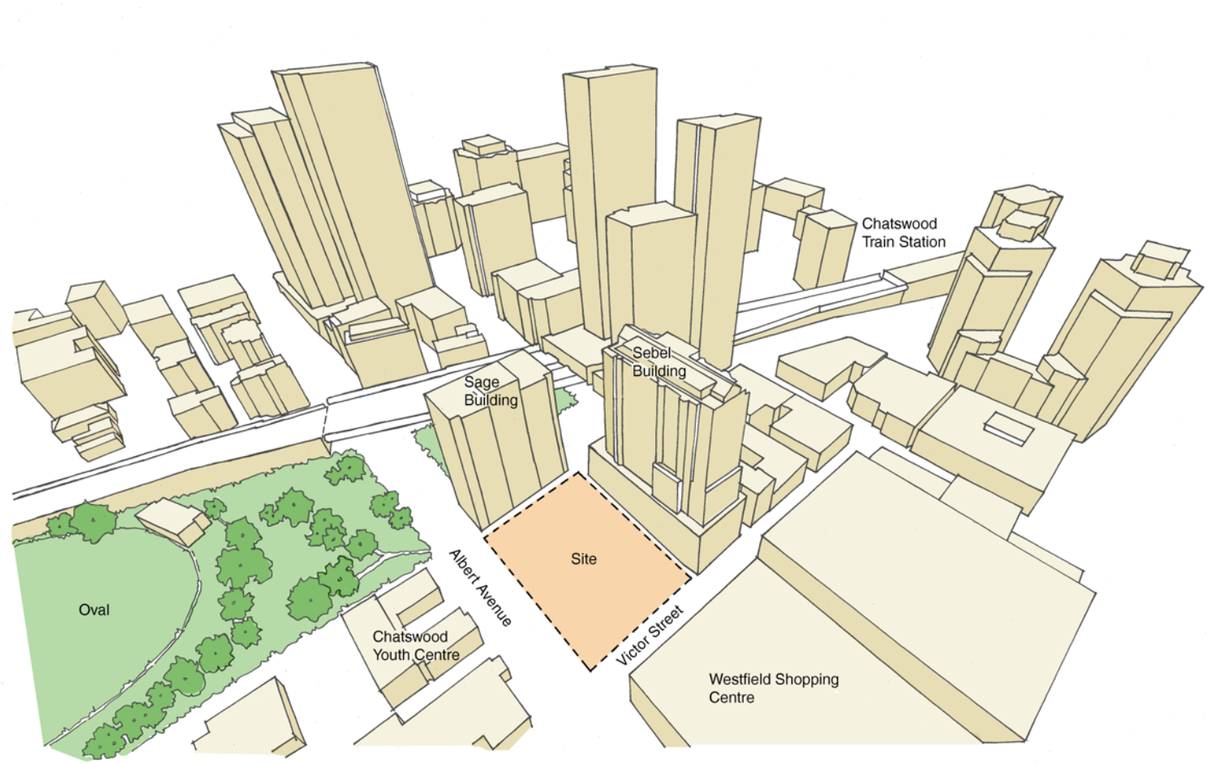
Western approach from Albert Avenue

3.0
SITE ANALYSIS

SITE

The site is generally rectangular in shape with a 73m street frontage to Albert Avenue, and approximately 49m frontage to Victor Street.

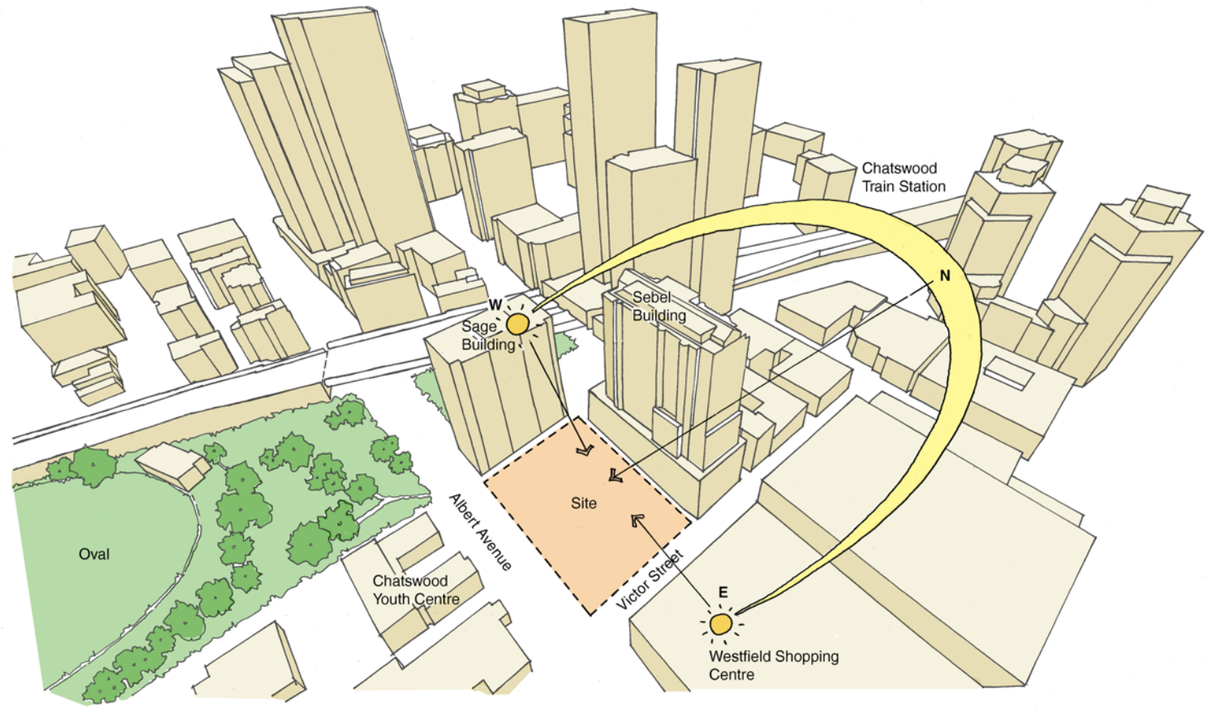
The “Sebel” building is immediately adjacent to the north of the site, and the “Sage” building is adjacent to the west.



ORIENTATION AND SOLAR ACCESS

The site receives good solar access from the east and north-east.

Solar access from the north-west and west is limited by adjacent buildings.

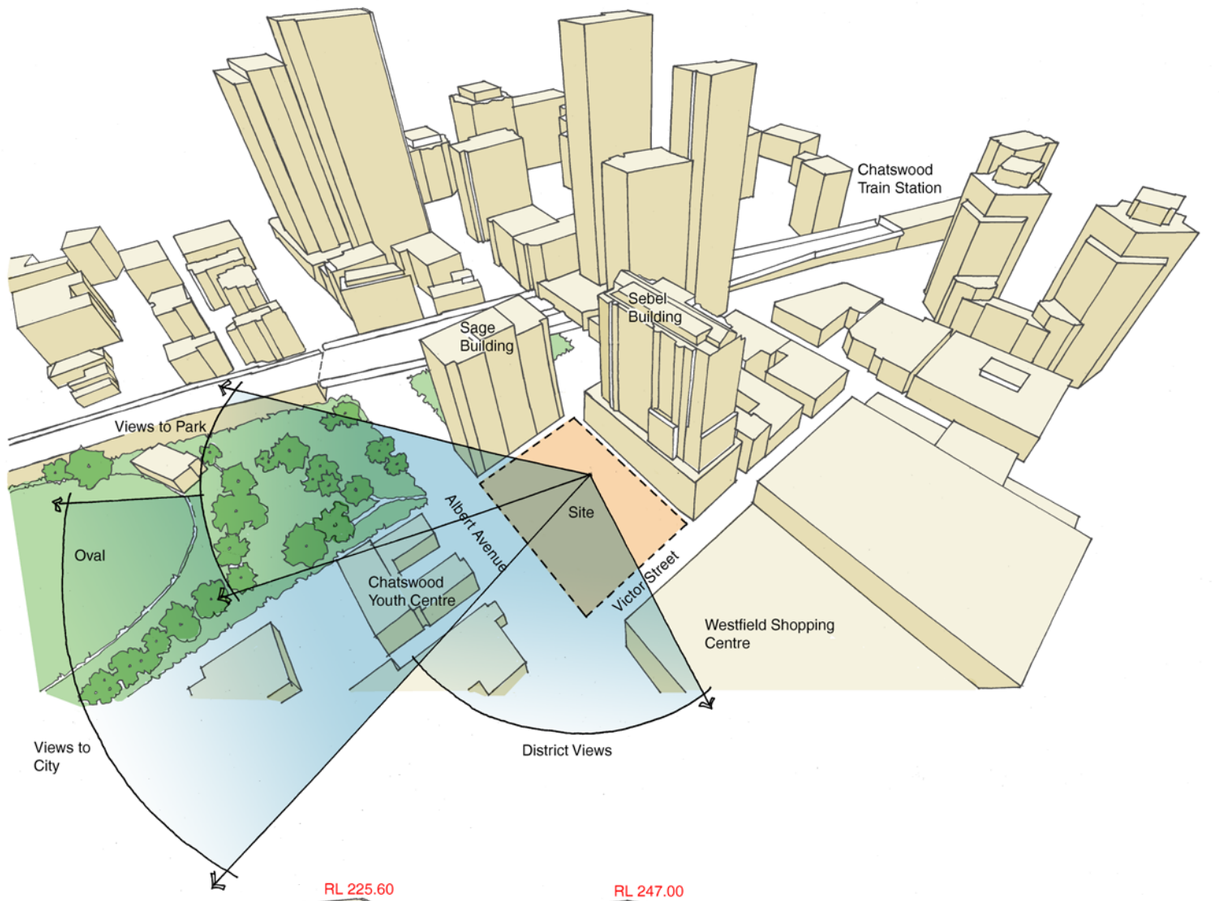


3.1 EXISTING SITE ATTRIBUTES

VIEWS FROM THE SITE

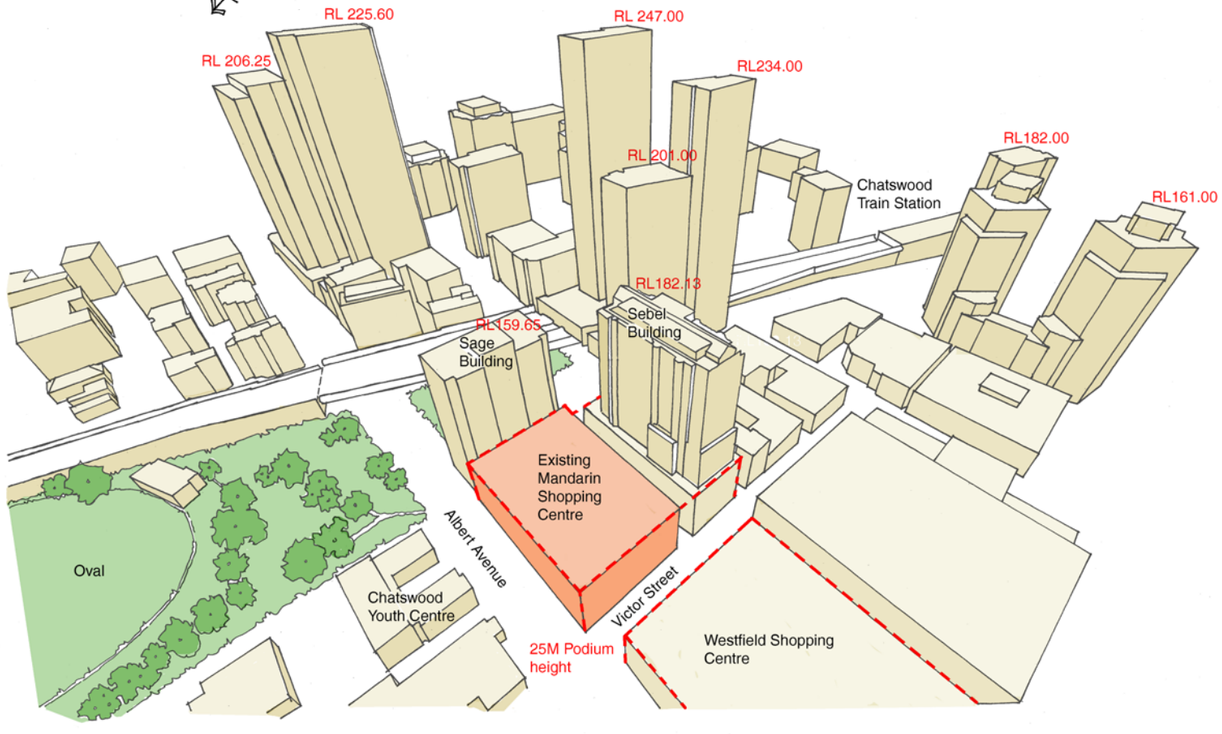
The subject site enjoys excellent views south and east of the site.

The south and south-west orientation enjoys park views and distant city views whilst the east enjoys district views. The proximity of the buildings north and west of the site reduce outlook in this direction.



EXISTING ENVELOPE

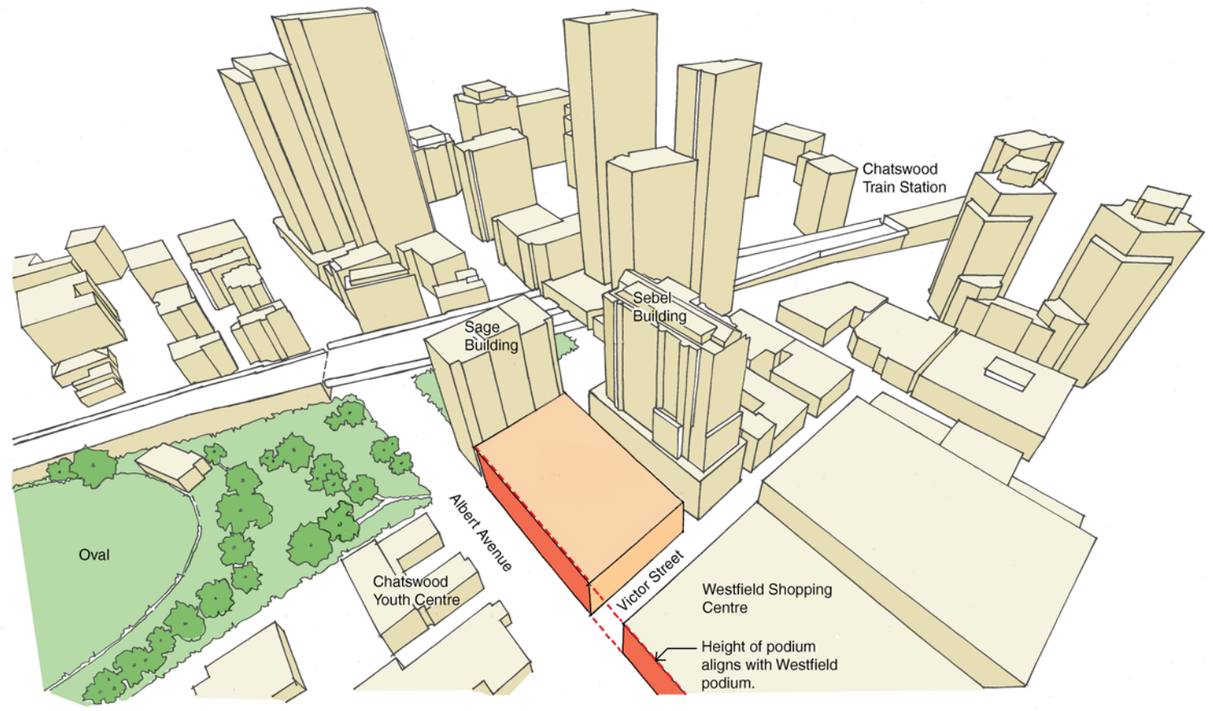
The existing Mandarin Centre building has a five-to-six storey podium with a setback at the top level. The podium height is similar to the existing Westfield shopping centre opposite on Victor Street, and the podium of the adjacent Sebel building.



3.2 STREETWALL ALIGNMENTS

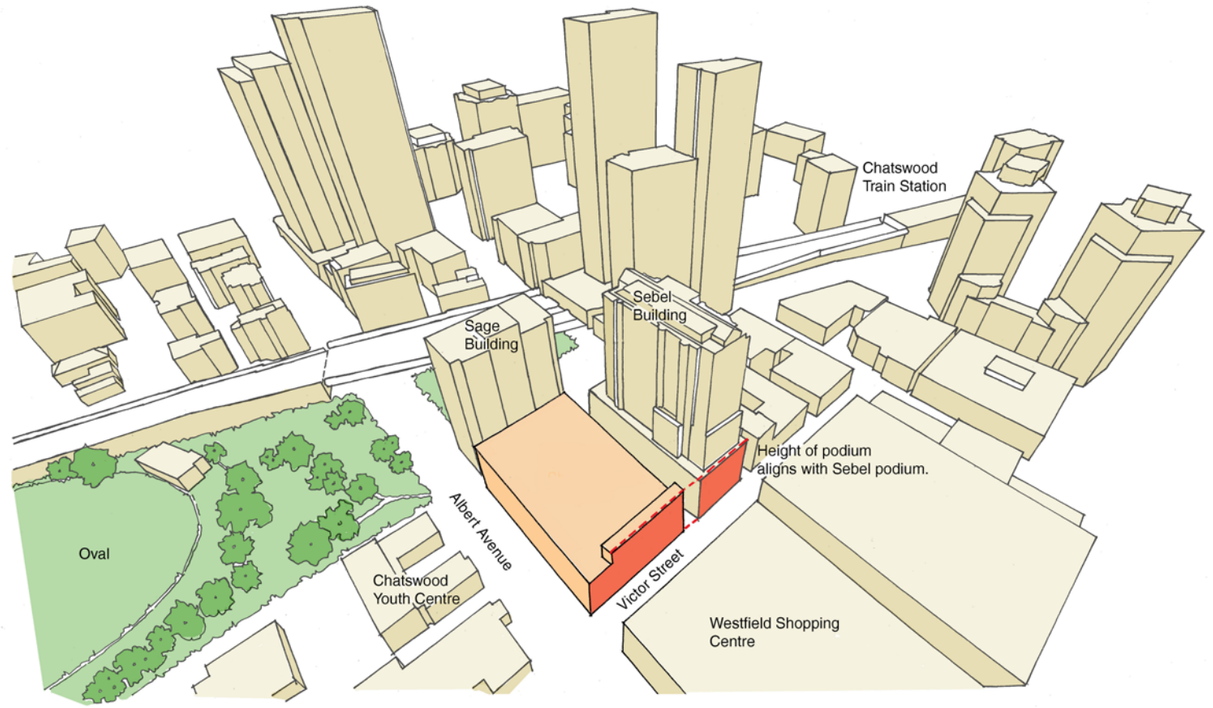
ALBERT AVENUE PODIUM ALIGNMENT

The height of the podium is proposed to align with the adjacent Westfield podium in order to form a consistent street wall expression along Albert Avenue.



VISTOR STREET PODIUM ALIGNMENT

On the Victor Street frontage, the height of the podium is increased to form an alignment with the adjacent Sebel building podium.

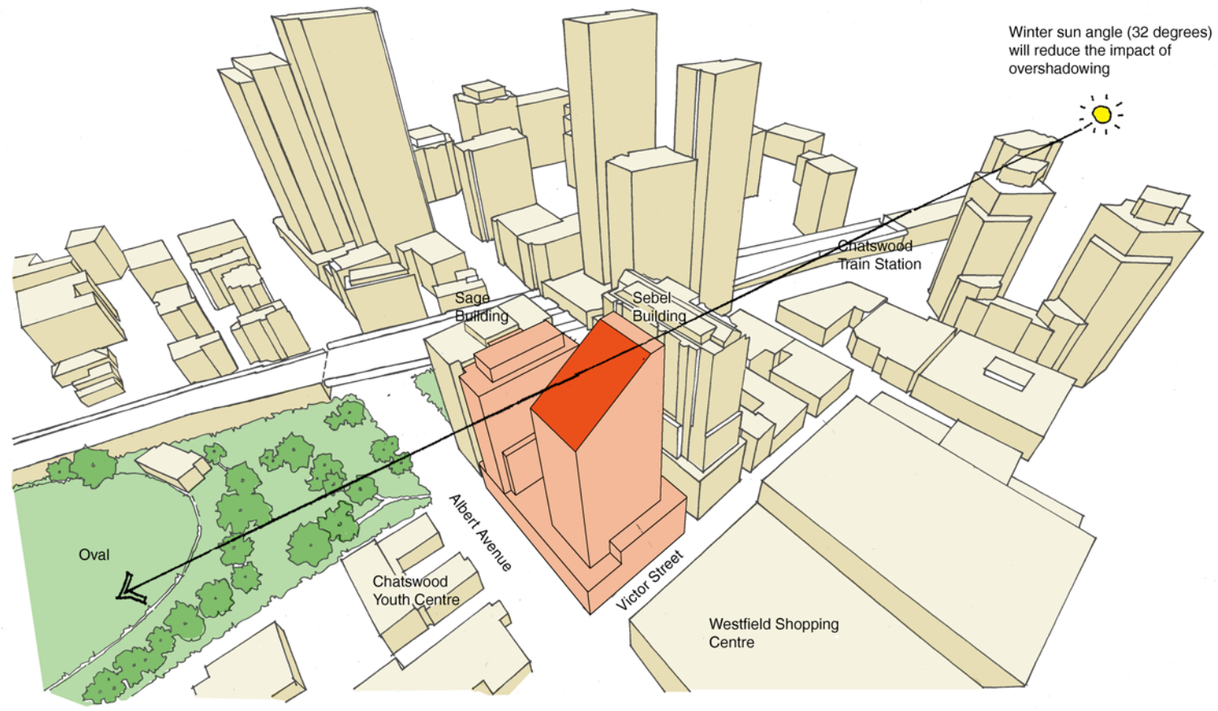


3.3 TOWER FORM

WINTER SUN ANGLE

Solar access to Chatswood Oval is to be maintained at all times of the year. The proposed building envelope has been limited in height to ensure that solar access to the oval is not obstructed at midwinter, when shadows are longest.

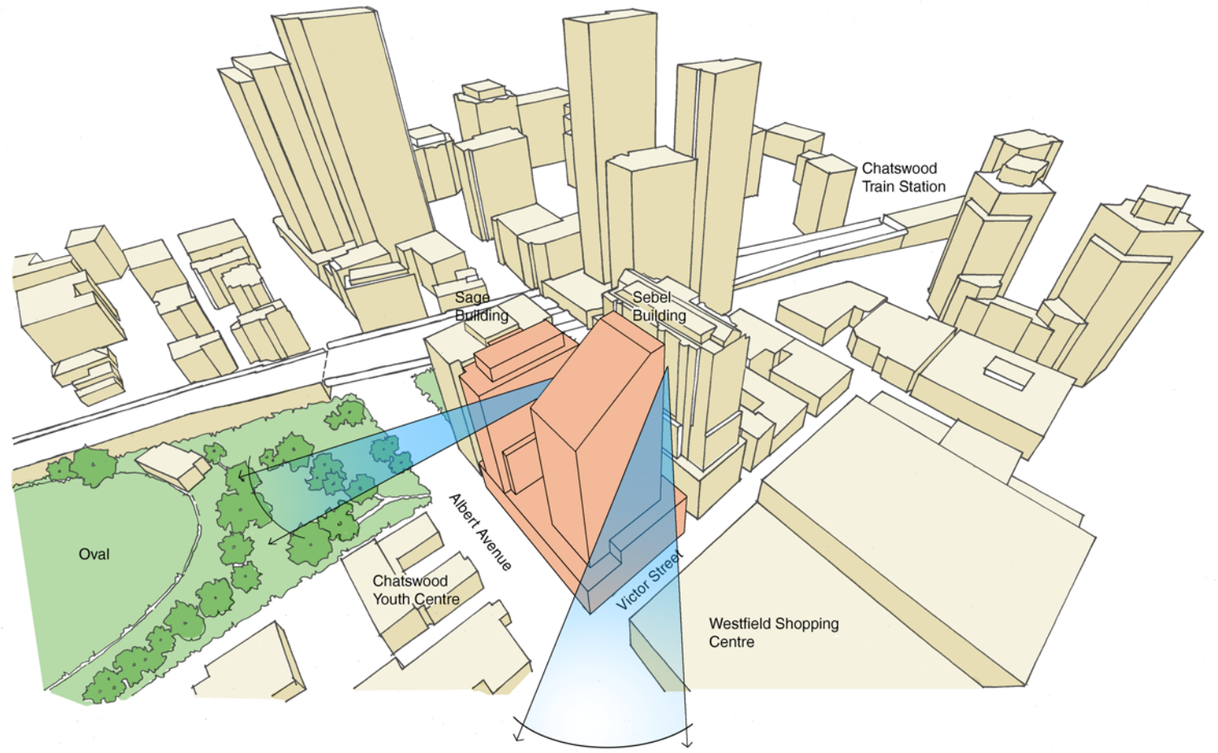
The commercial tower is proposed to have a flat roof, below the plane of shadow affecting the oval. The residential tower is proposed to have an inclined roof form determined by the winter sun angle.



VIEWS FROM ADJACENT APARTMENTS

The two tower design allows for views through the site from the Sebel building residencies.

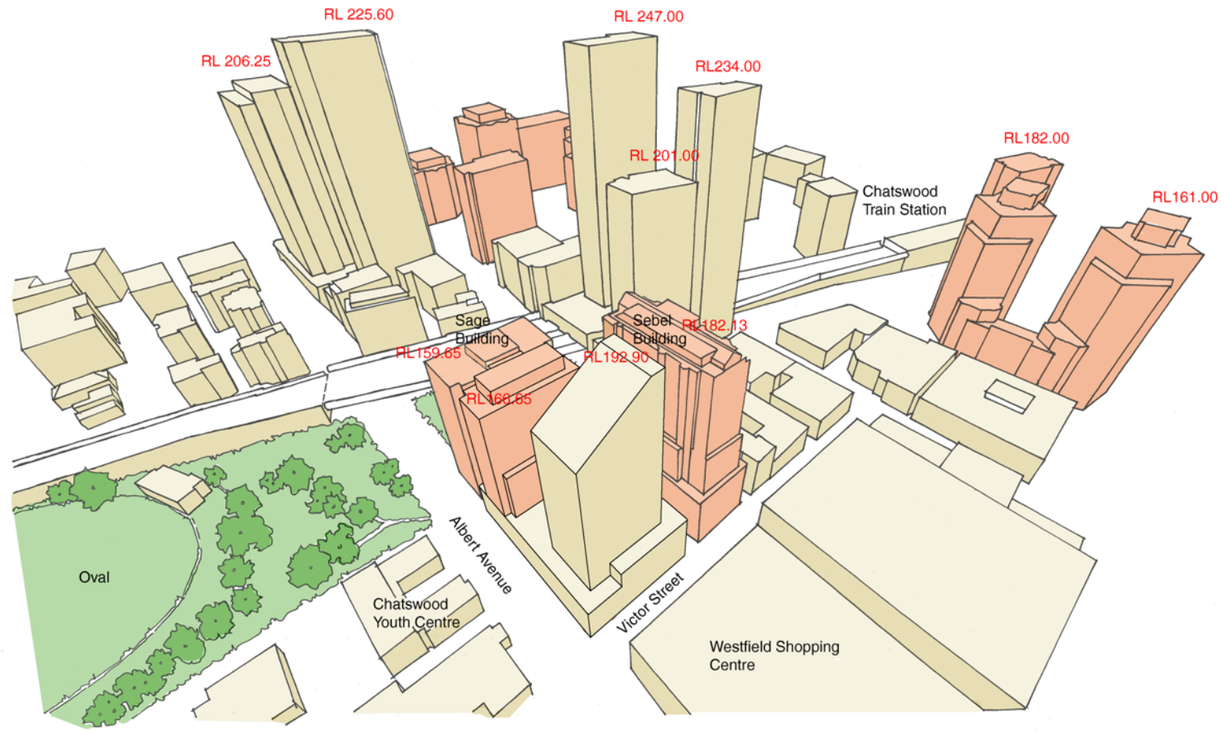
Please refer to Appendix 2 of this report (Project History) for a comparison of views available from the Sebel in other massing options for the site.



3.4 SURROUNDING HEIGHT CONTEXT

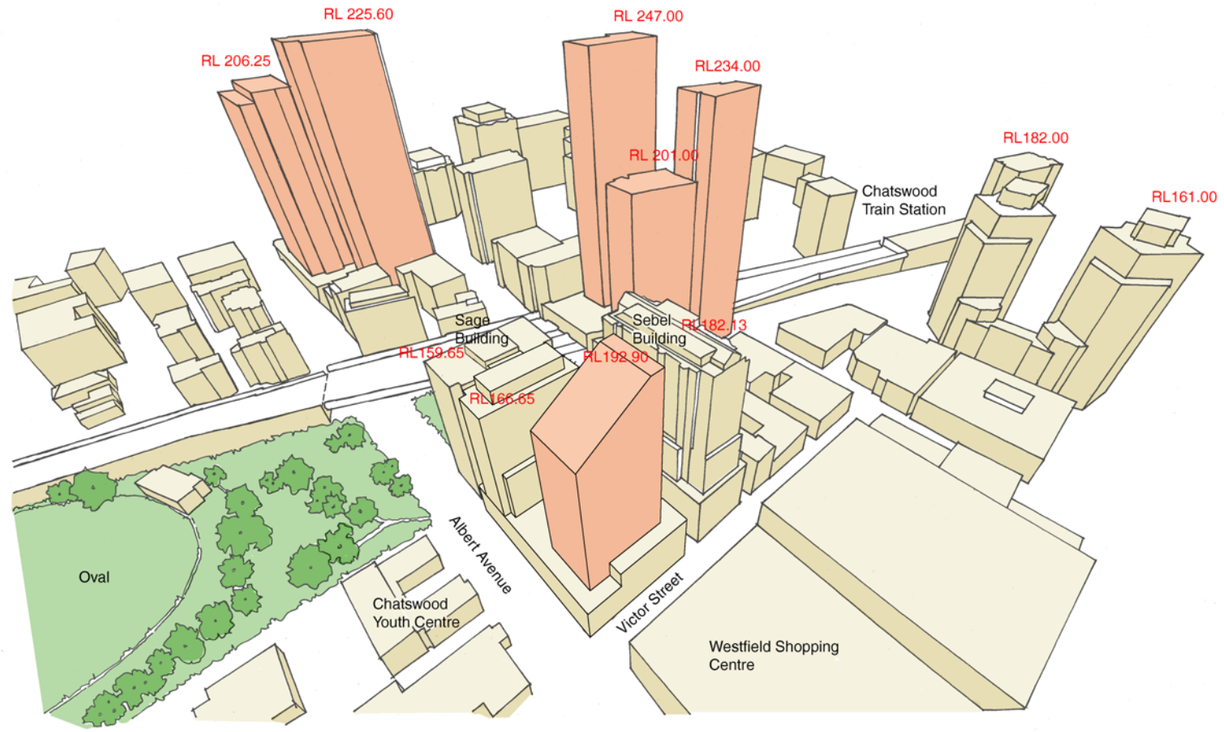
HEIGHTS UP TO RL 185

Nearby buildings with a mid-scale height, similar to the proposed commercial tower, are shown highlighted in red



HEIGHTS ABOVE RL 185

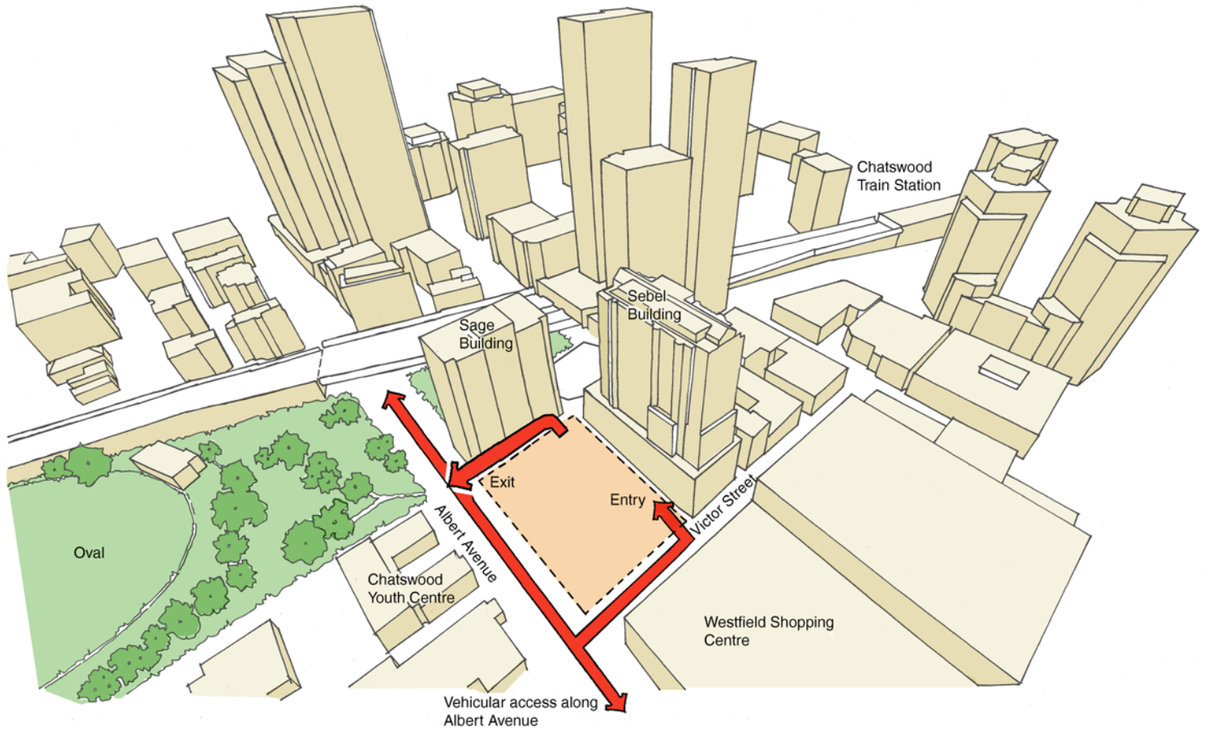
Nearby buildings with tower height above RL 185, similar to the proposed residential tower, are shown highlighted in red



4.0 SITE ACCESS ANALYSIS

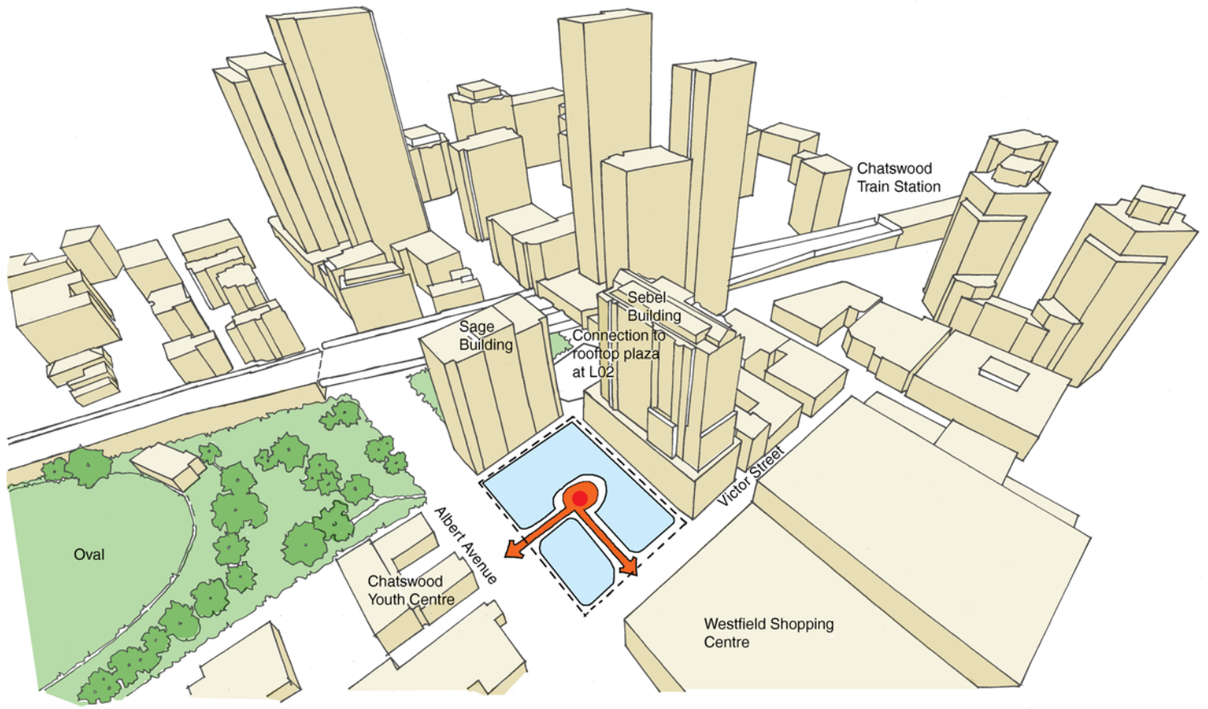
VEHICLE ACCESS

Basement parking is accessed via an entry point off Victor Street and an exit point from the opposite side of the site, between the Sebel building and the western site boundary.



PEDESTRIAN ACCESS

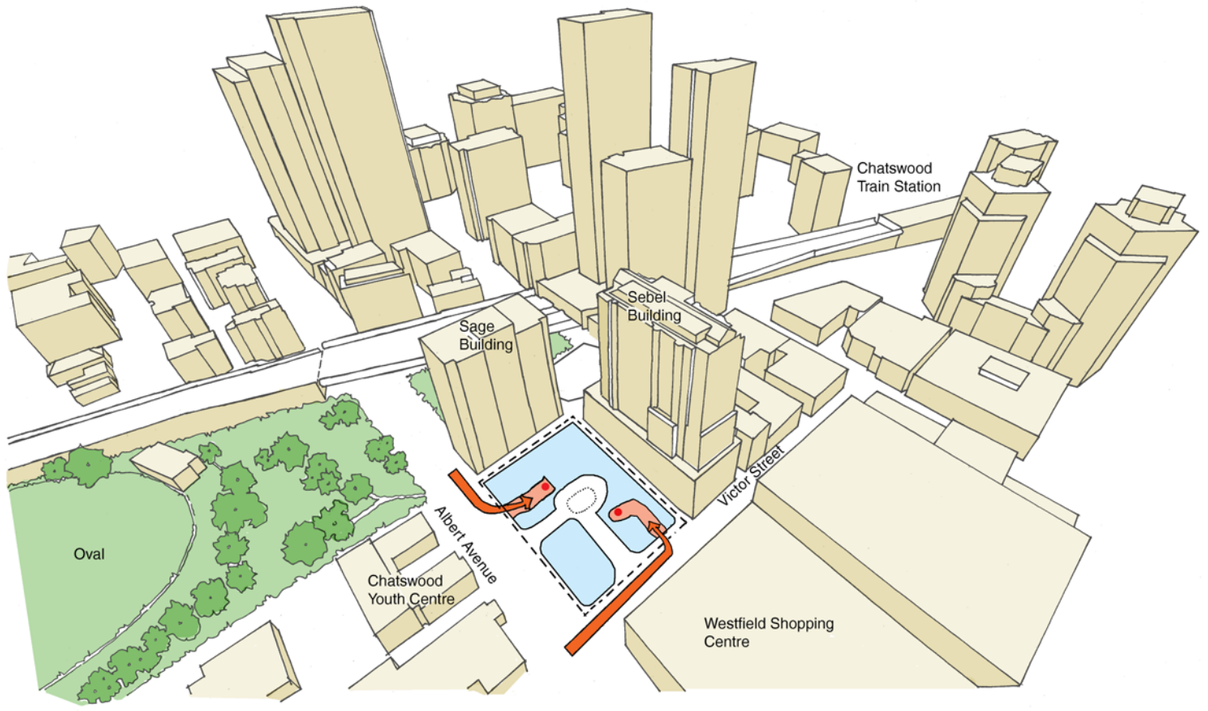
Generous circulation on ground level, flanked in retail, invites the public into the building and offers through-site connection. The Victor Street entry addresses pedestrians from the Westfield shopping entrance/exit on that street, and the Albert Avenue entry is centrally located on the building's frontage.



4.1 PEDESTRIAN ACCESS

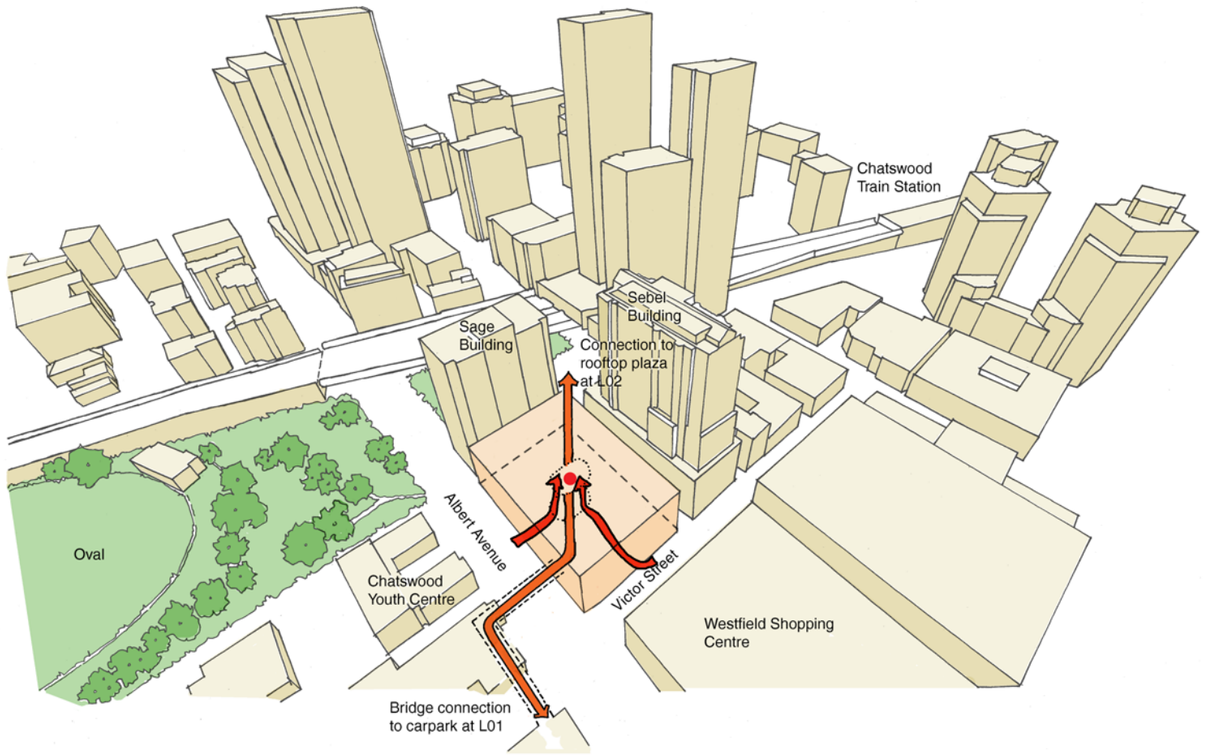
RESIDENTIAL ACCESS

Access to the commercial and residential towers above the retail centre is accessed via private lobbies on each street frontage.



PUBLIC THROUGH-SITE CONNECTIONS

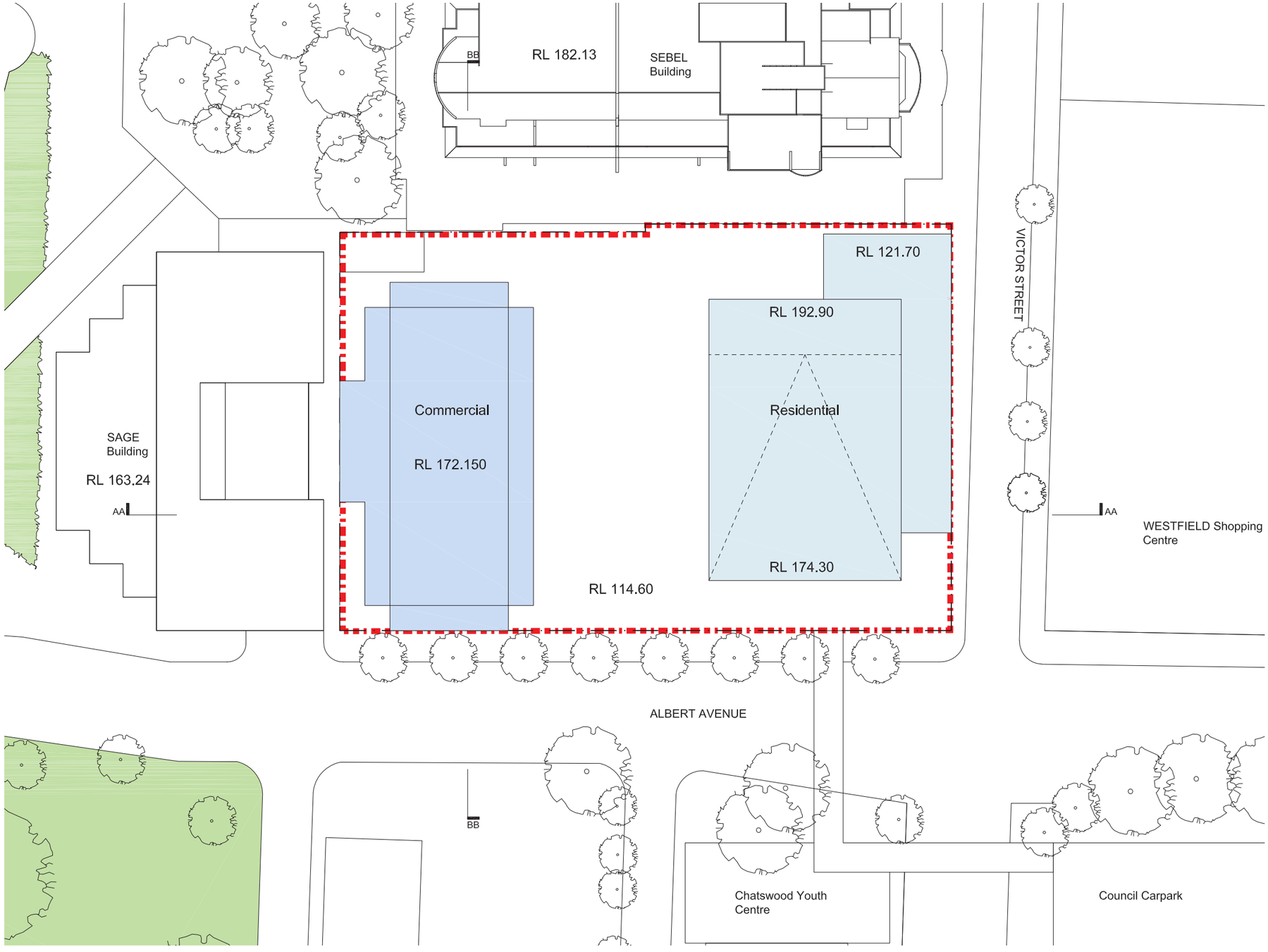
Visually connected vertical circulation offers through-site connection between the public carpark access on level one and the elevated paza access to Chatswood Station at level two.



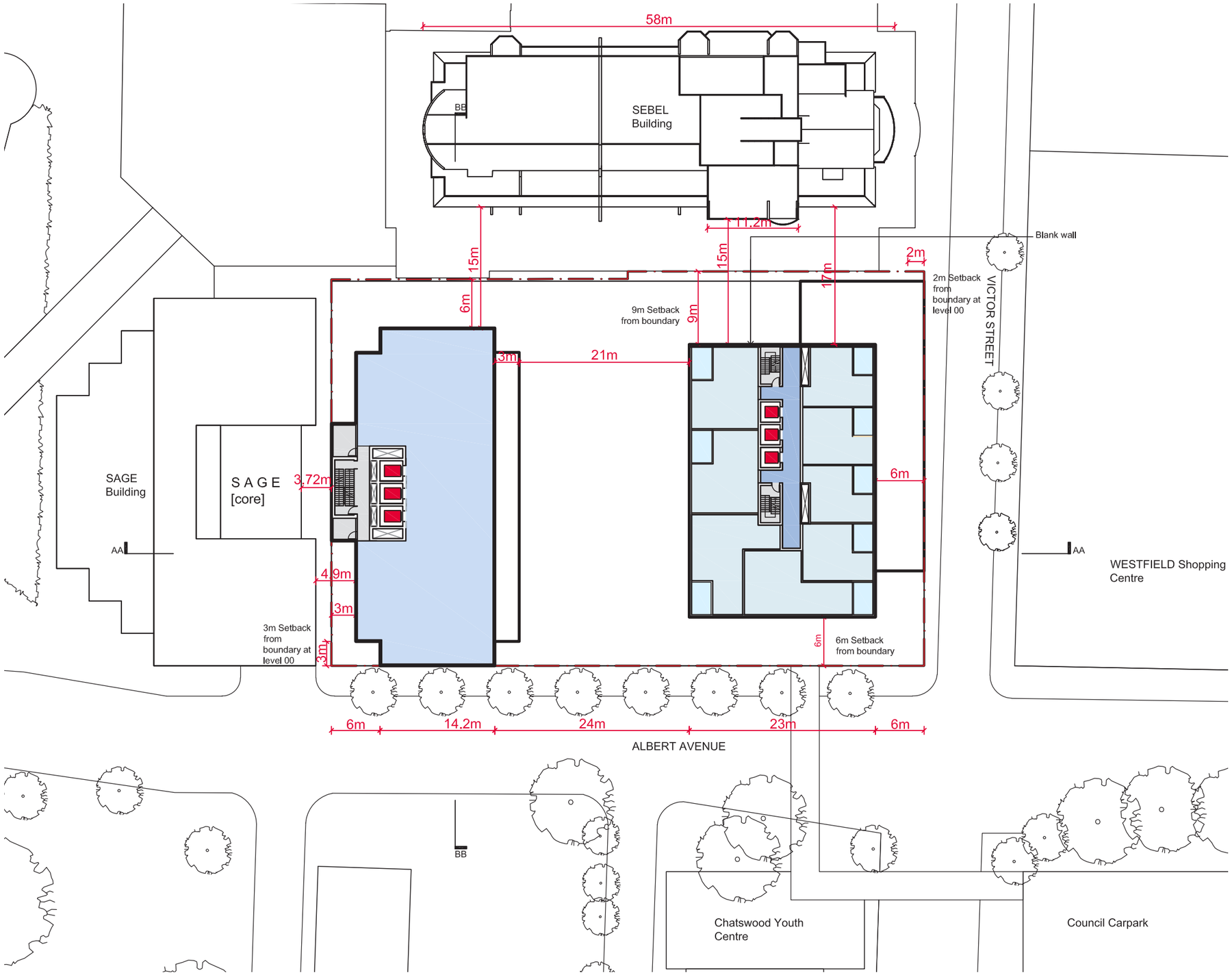
5.0
CONCEPT DESIGN

The design strategy is derived from our detailed understanding of the context, study of desire lines and a vision for place making.

5.1 SITE PLAN & BUILDING HEIGHTS



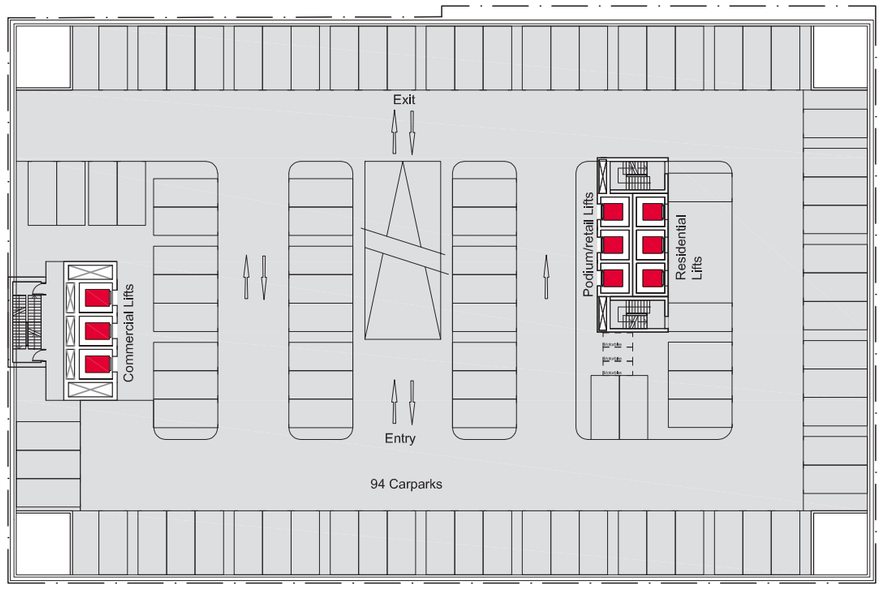
5.2 TYPICAL LEVEL SETBACKS



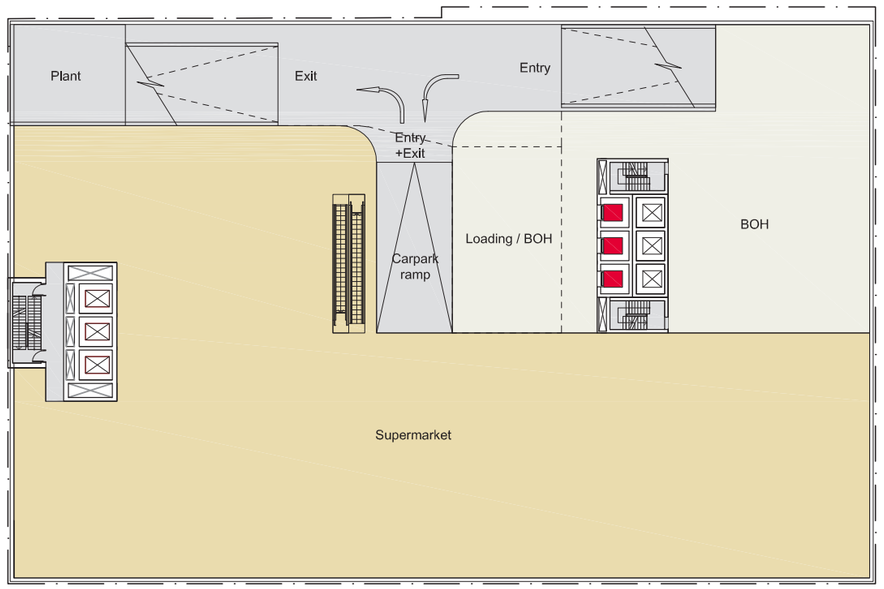
6.0 PLANS

Pedestrian connectivity, retail activation, and coherent built form outcomes are key factors driving the concept design

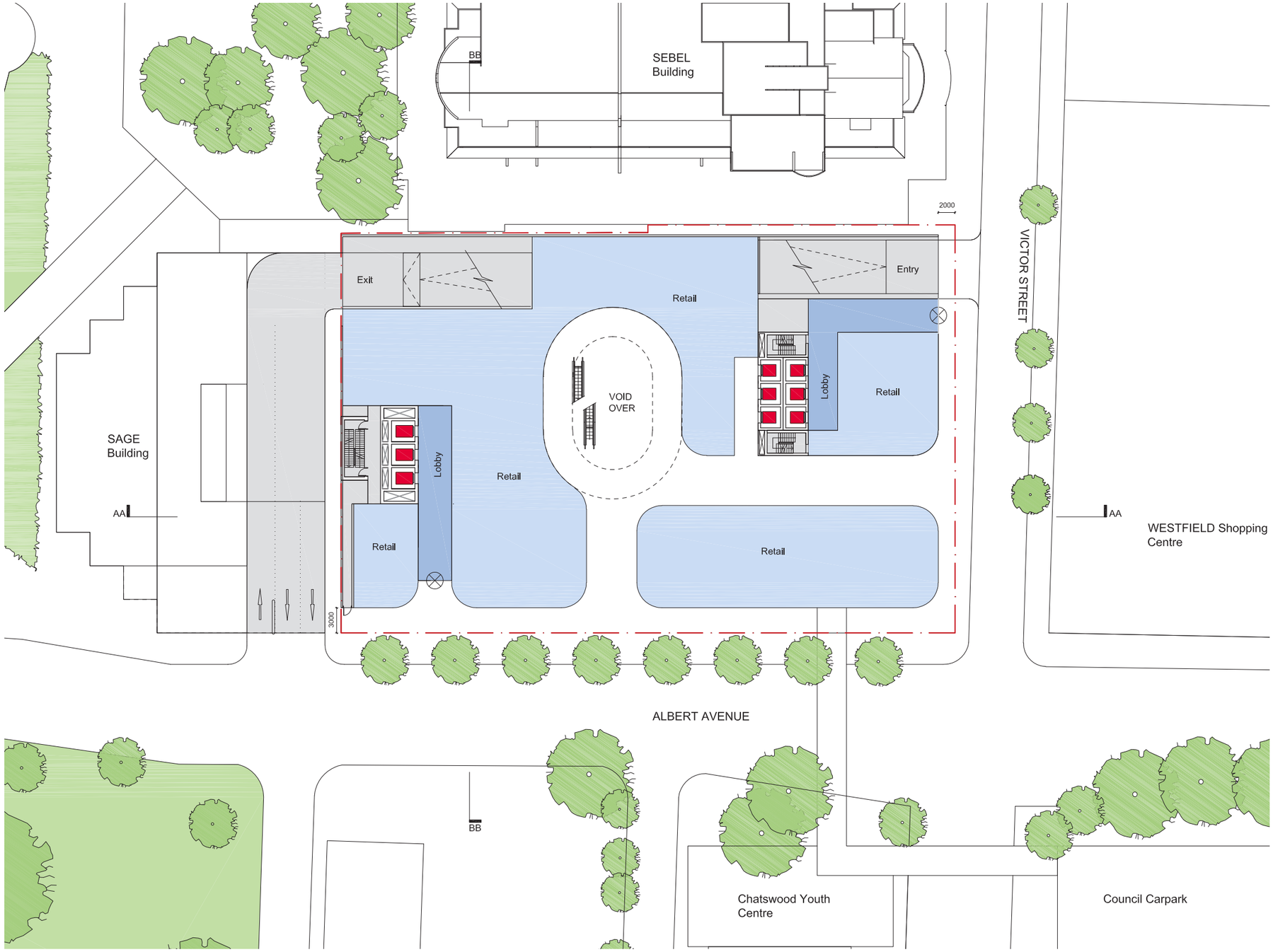
6.1 TYPICAL LOWER BASEMENT LEVEL



6.2 BASEMENT LEVEL 1

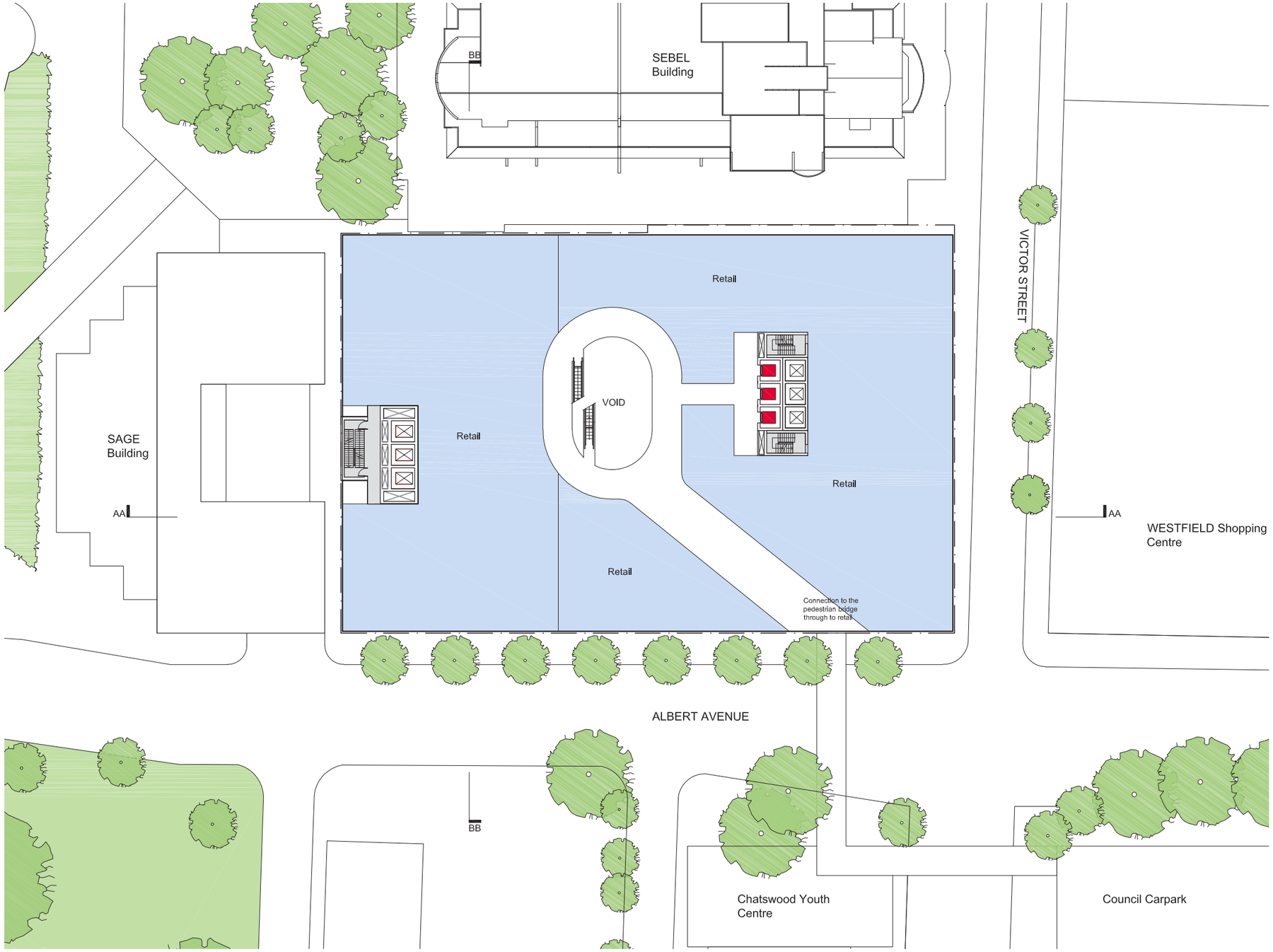


6.3 GROUND FLOOR

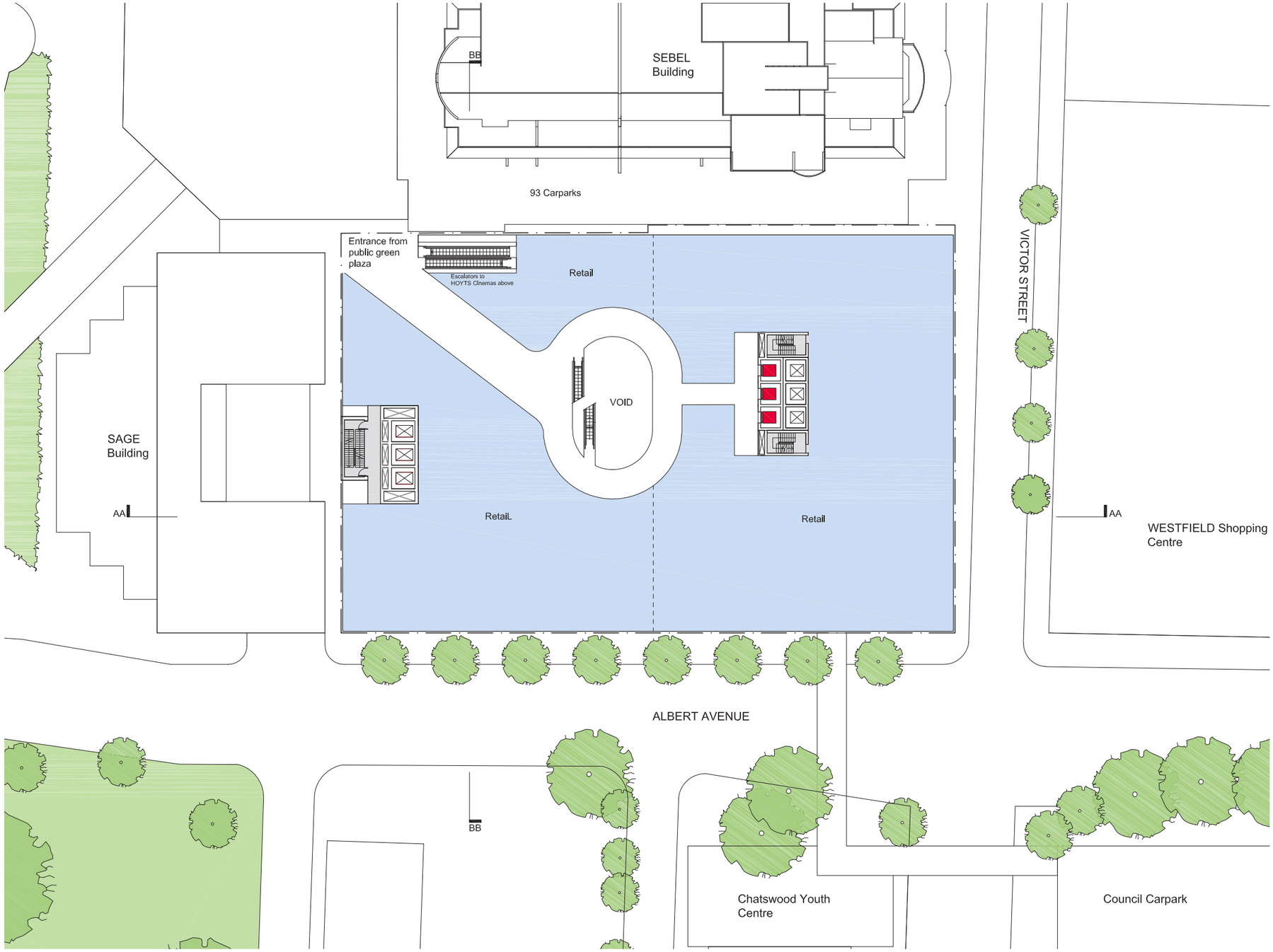


Generous circulation areas on ground level, flanked with retail, invites the public into the building and offers through-site connectivity towards Chatswood Station

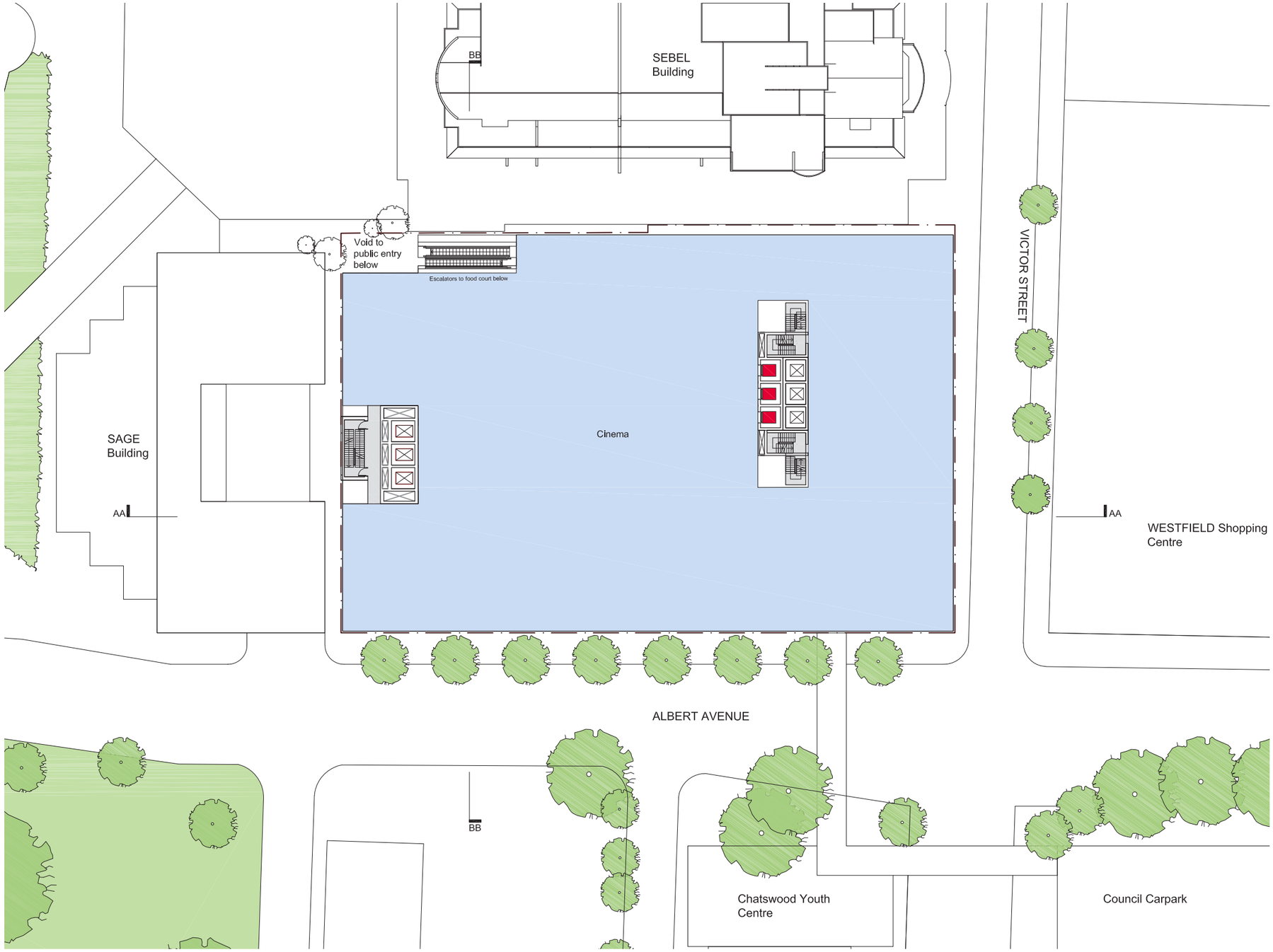
6.4 PODIUM LEVEL 1



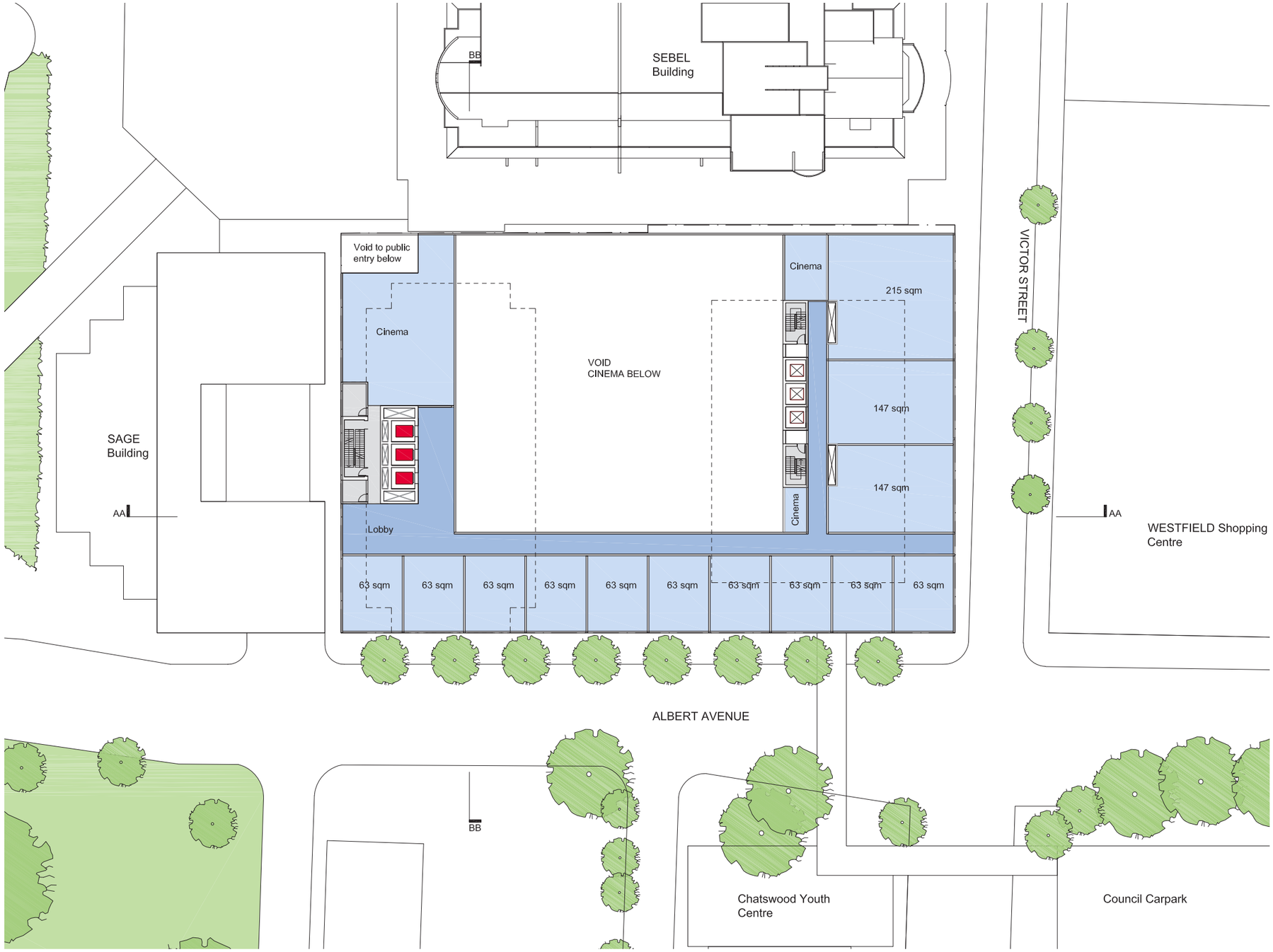
6.5 PODIUM LEVEL 2



6.6 PODIUM LEVEL 3



6.7 PODIUM LEVEL 4

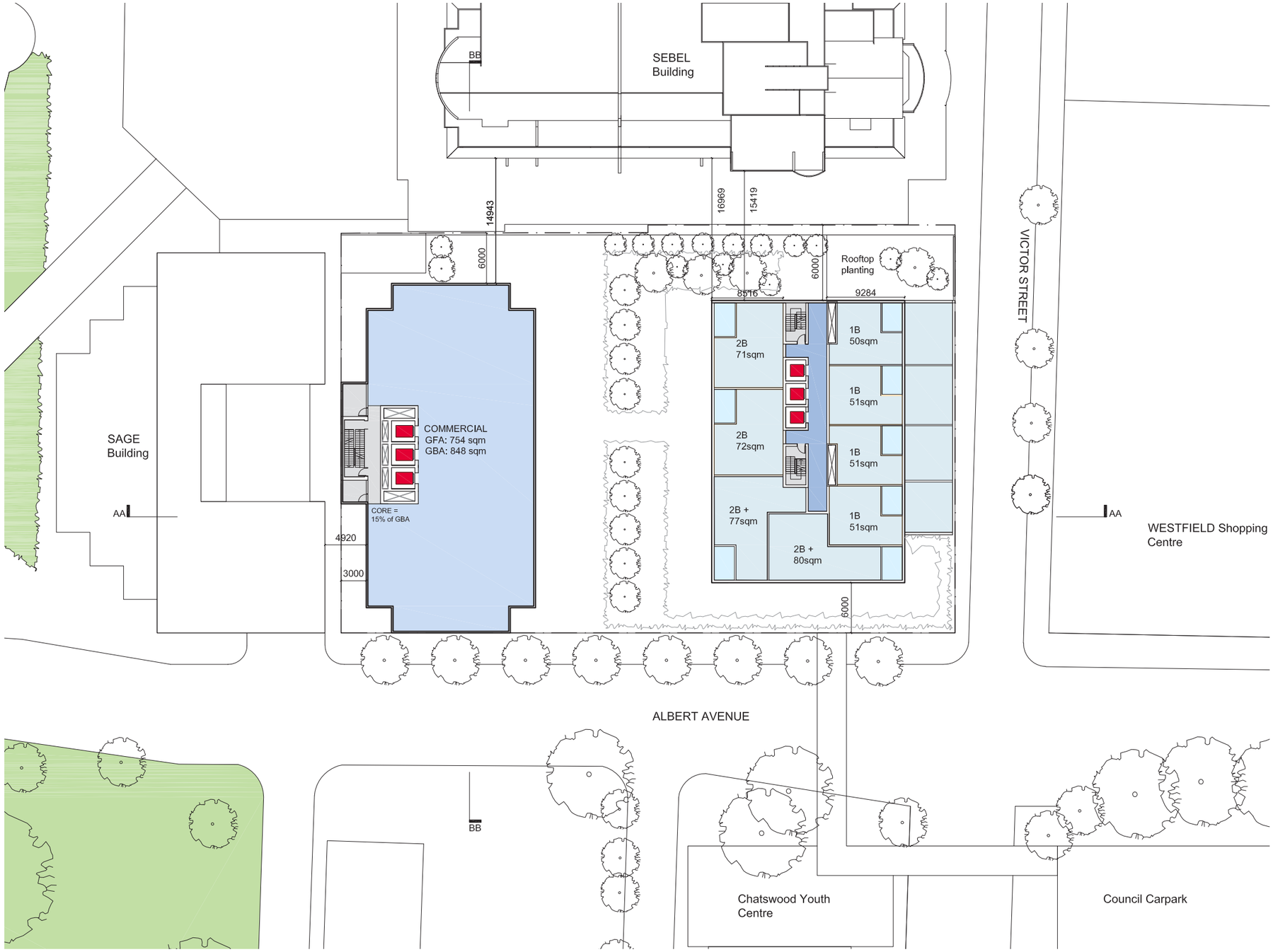


6.8 PODIUM LEVEL 5

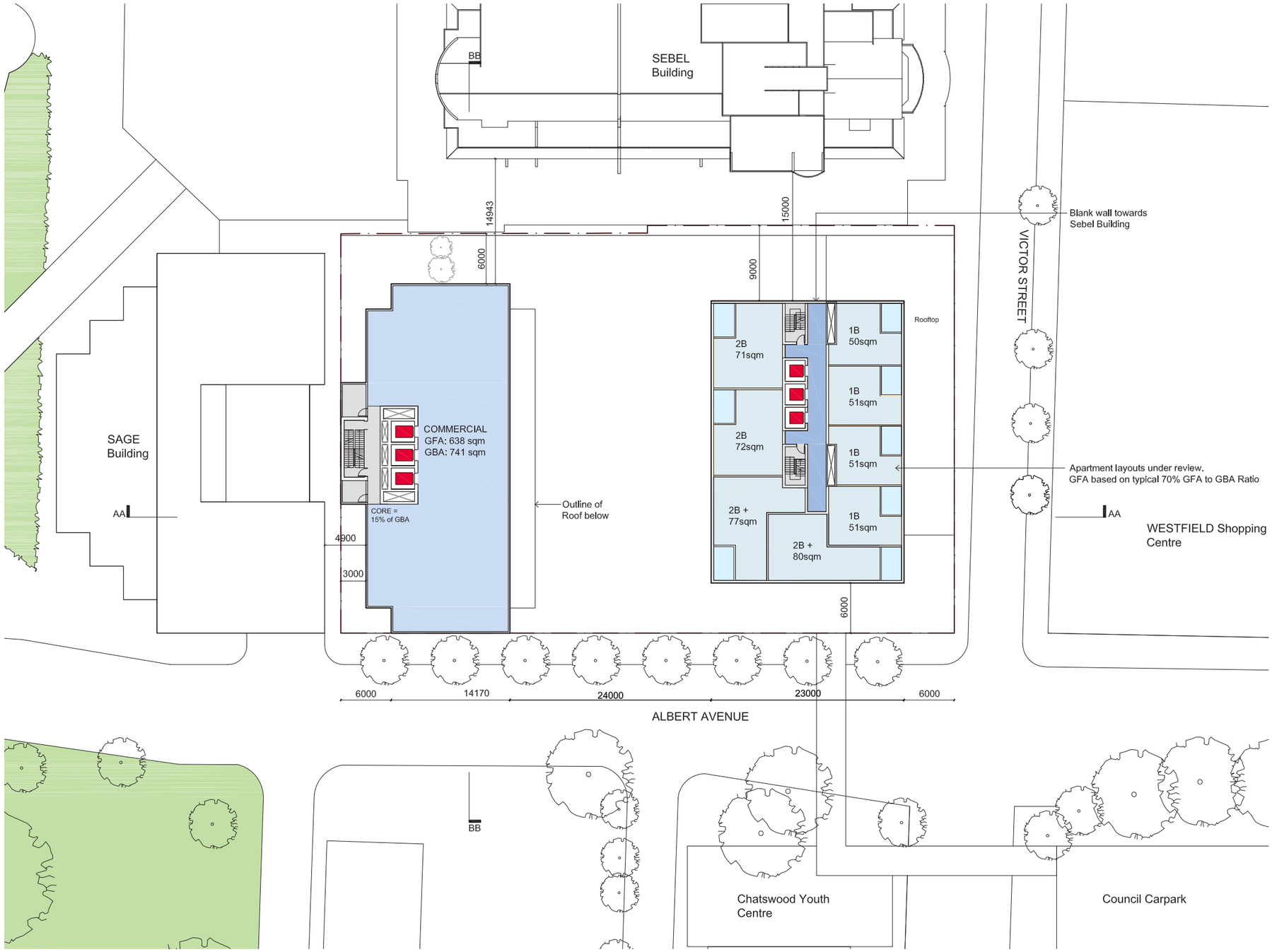
A mix of uses occupy the podium rooftop, including floorspace allocated to a childcare or educational facility. Planted screening is proposed to separate each usage type.

6.9 PODIUM LEVEL 6

6.10 TYPICAL LEVELS 7-10



6.11 TYPICAL LEVELS 11-18



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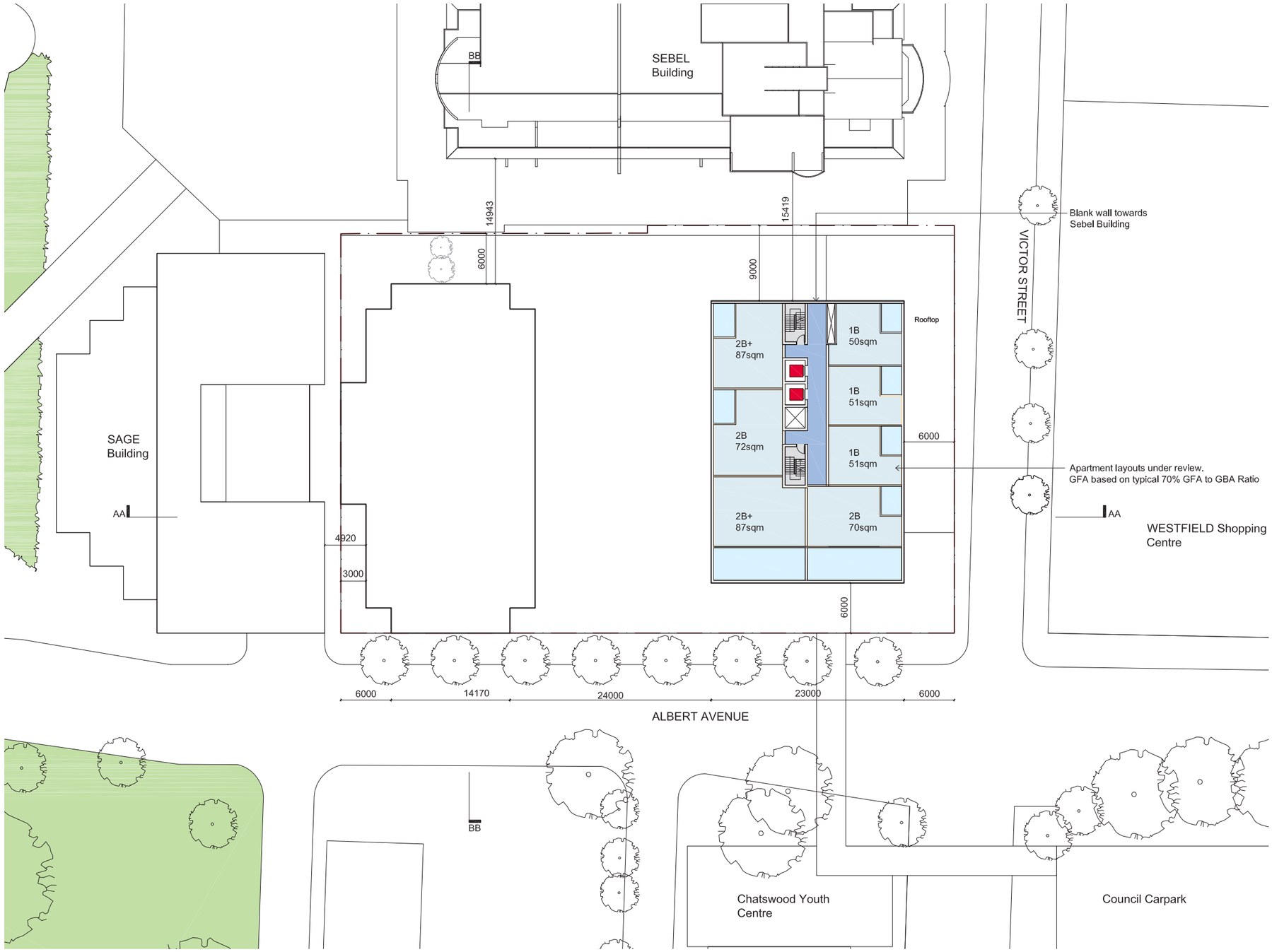
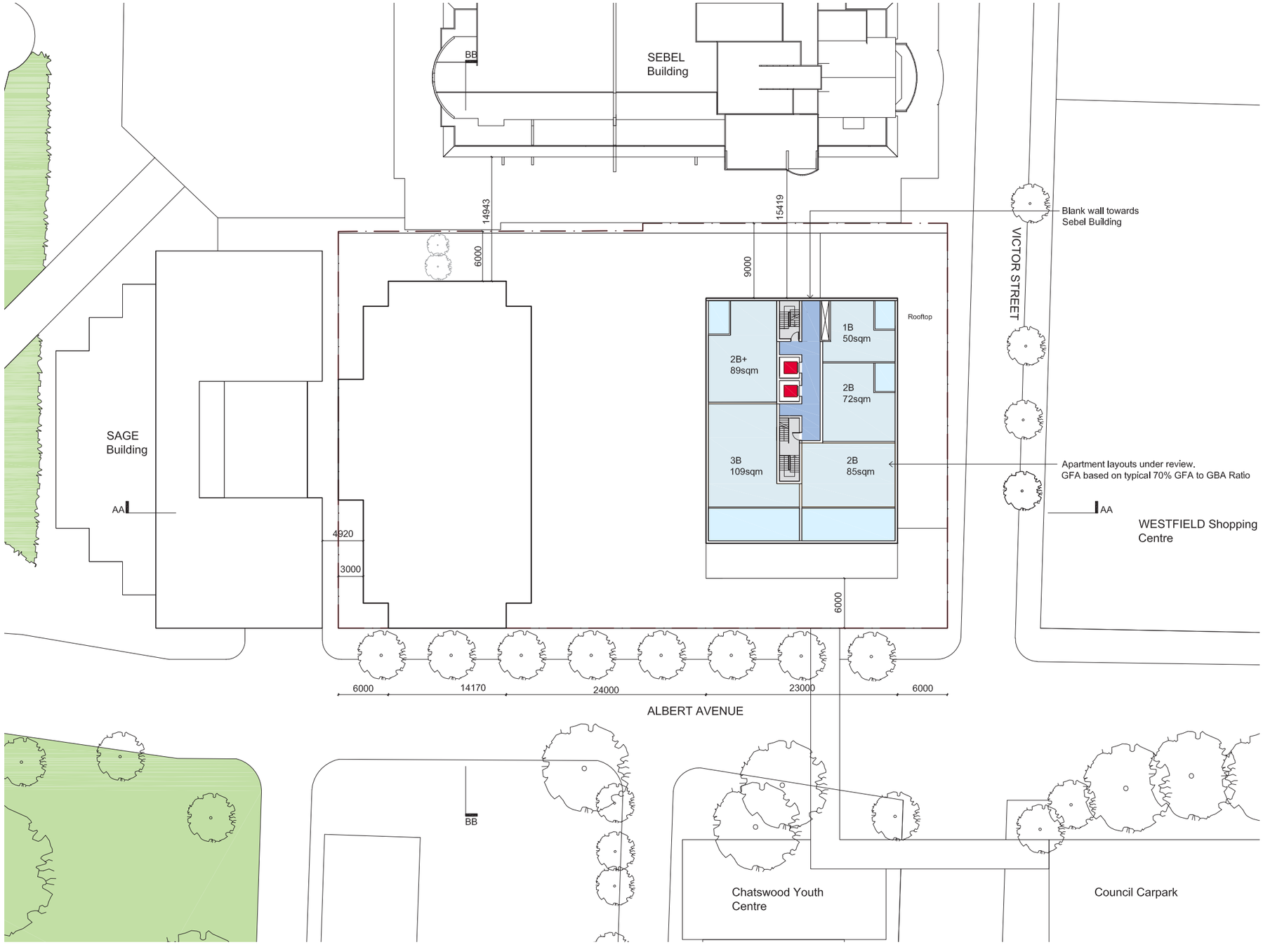
6.12
LEVEL 24

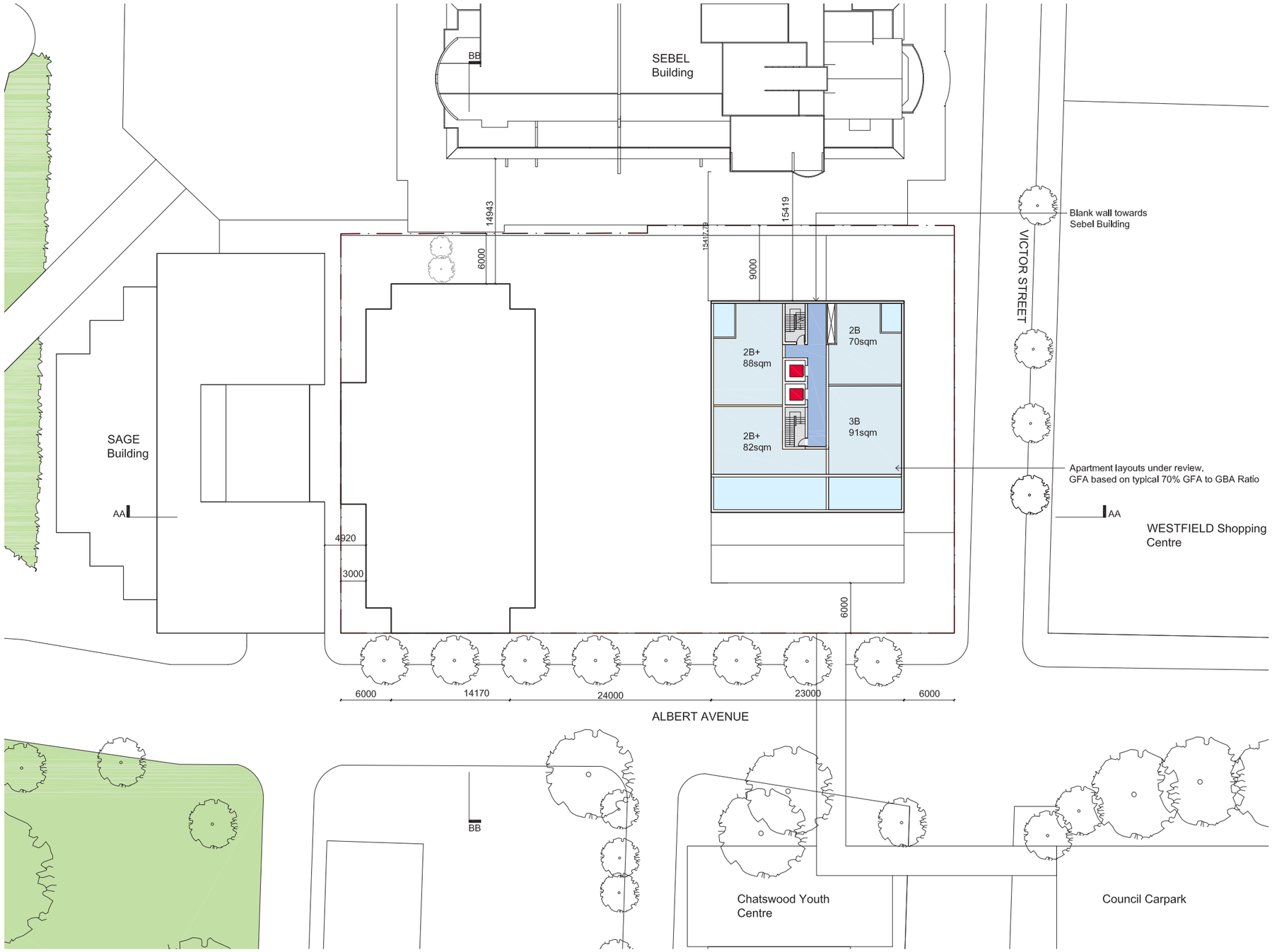

BB
SEBEL
Building
14943
15419
6000
9000
Blank wall towards
Sebel Building
VICTOR STREET
Rooftop
2B+
87sqm
1B
50sqm
1B
51sqm
2B
72sqm
1B
51sqm
6000
Apartment layouts under review.
GFA based on typical 70% GFA to GBA Ratio
2B+
87sqm
2B
70sqm
AA
WESTFIELD Shopping
Centre
SAGE
Building
AA
4920
3000
6000
6000
14170
24000
23000
6000
ALBERT AVENUE
BB
Chatswood Youth
Centre
Council Carpark

6.13 LEVEL 25

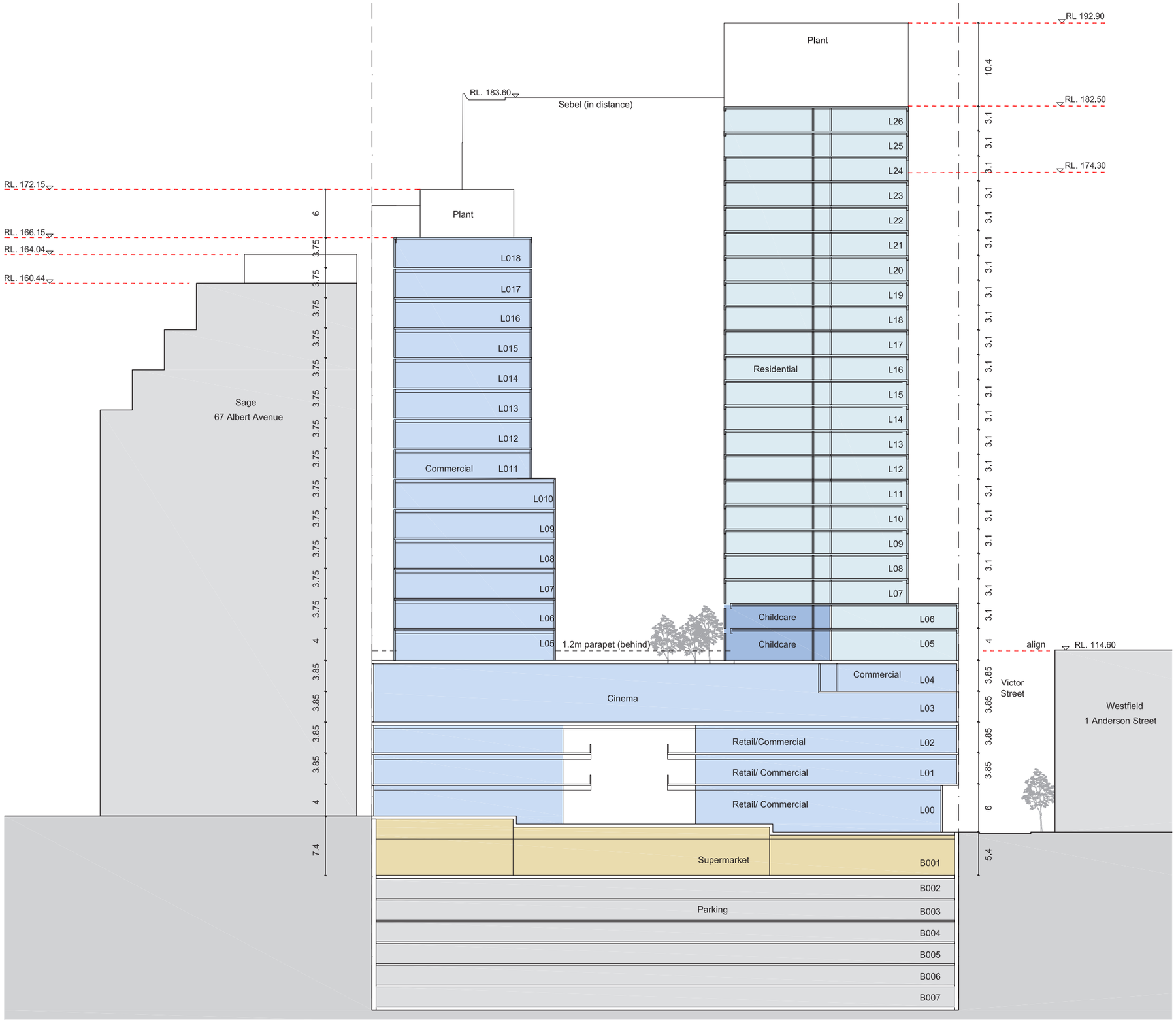
The uppermost residential levels step back from the southern edge to improve solar access to adjacent public spaces



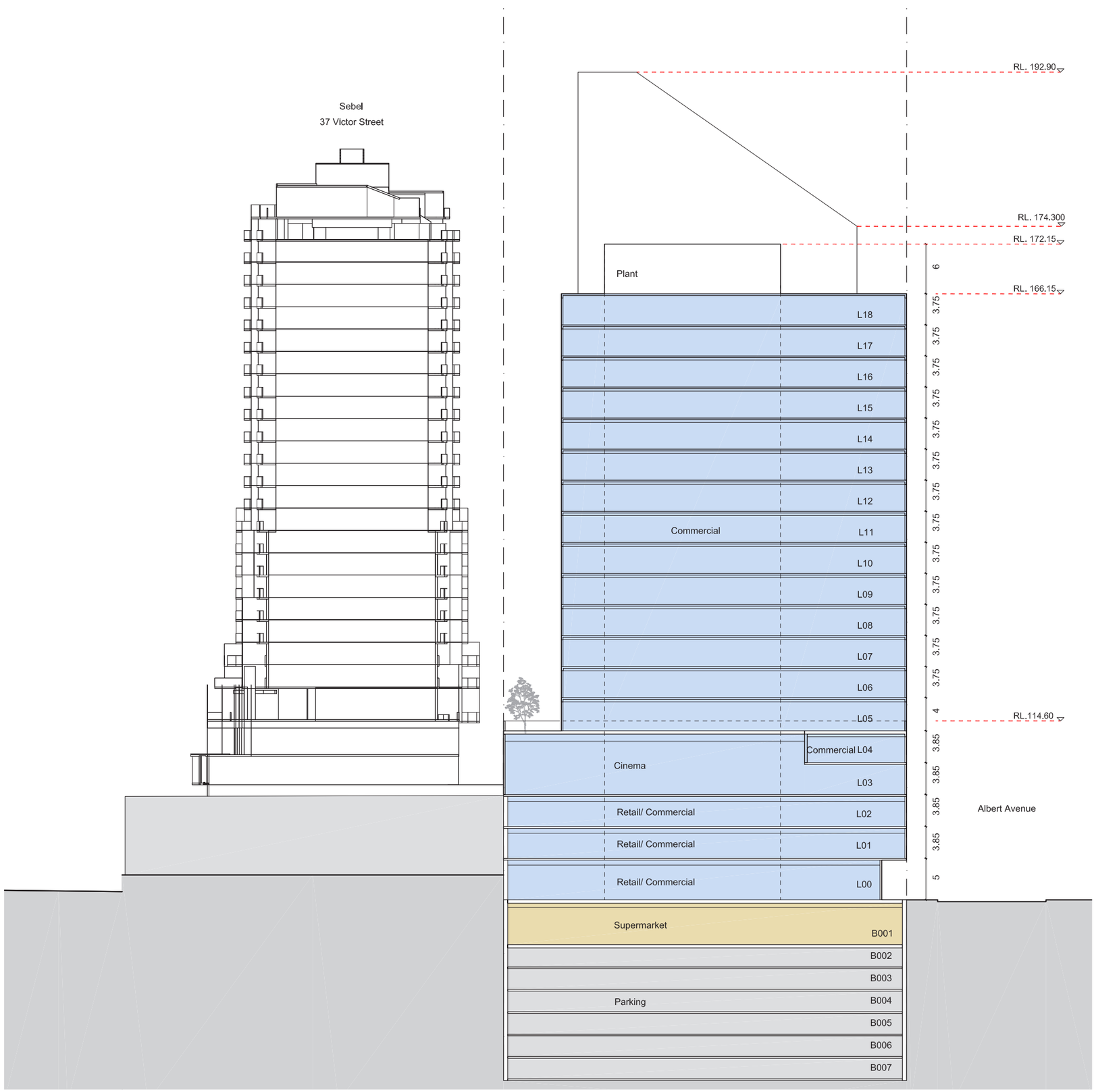
6.14 LEVEL 26


SEBEL
Building
BB
SAGE
Building
AA
14943
15419
15417.79
6000
9000
4920
3000
6000
2B+
88sqm
2B
70sqm
2B+
82sqm
3B
91sqm
Blank wall towards
Sebel Building
VICTOR STREET
Apartment layouts under review.
GFA based on typical 70% GFA to GBA Ratio
AA
WESTFIELD Shopping
Centre
6000
14170
24000
23000
6000
ALBERT AVENUE
BB
Chatswood Youth
Centre
Council Carpark

7.1 SECTION AA



7.2 SECTION BB



8.0 APARTMENT AMENITY

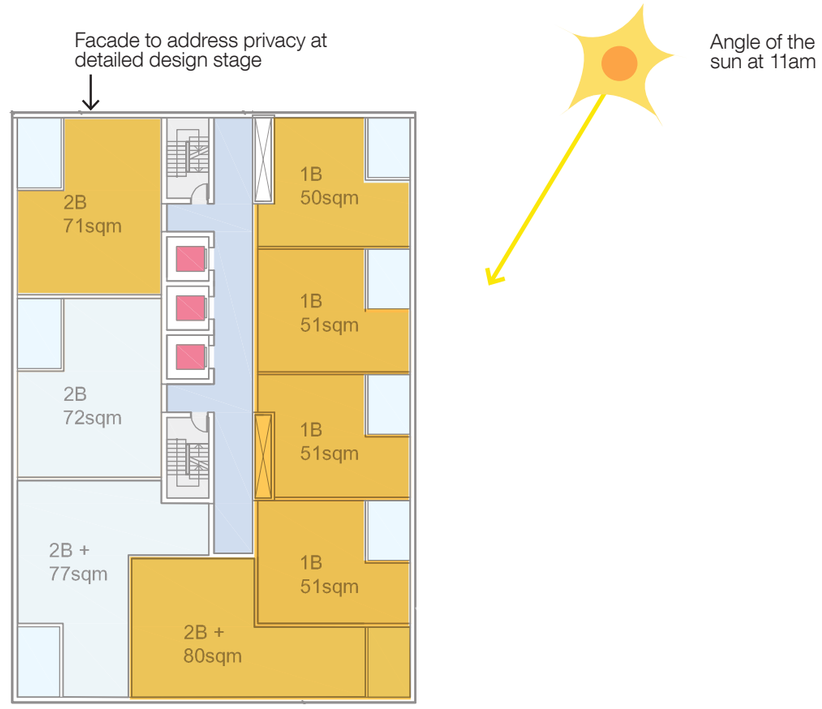
SOLAR ACCESS

3D solar studies indicate that the concept design will achieve compliance with the ADG solar access provisions, i.e. 70% of apartments receive two hours of direct sunlight to living areas at June 21 between 9am and 3pm.

NATURAL VENTILATION

Balcony positions, along with operable windows incorperated into the facade, will facilitate the provision of natural cross ventialtion for all apartments.

At least 60% of apartments are required to be naturally cross ventilated.



Typical Plan

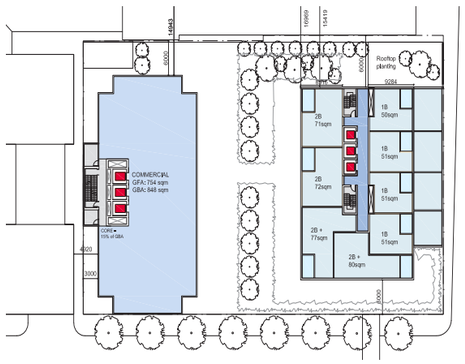
Apartments highlighted in dark orange receive two hours of direct sunlight to living areas in mid winter

9.0 AREA CALCULATIONS

Site Areas & Calculations		
Site Area	3,519	sqm
GFA	39,093	sqm
FSR	11.11	:1

Measured Areas								Measured Apartment Mix							Solar Access
Level	GFA - Residential	GFA - Commercial	GFA - Childcare / Education	GFA - Retail / Other	GFA - Total	NLA - Retail	NLA - Commercial	1B	1B+study	2B	2B+study	3B	Total	Compliance
Level 28														
Level 27	Plant													
Level 26	400				400					1	2	1	4	3
Level 25	480				480			1		2	1	1	5	3
Level 24	530				530			3		2	2		7	6
Level 23	578				578			4			2	1	7	6
Level 22	578				578			4			2	1	7	6
Level 21	578				578			4			2	1	7	6
Level 20	578				578			4			2	1	7	6
Level 19	578	Plant			578			4		2	2		8	5
Level 18	578	638			1,216		604	4		2	2		8	5
Level 17	578	638			1,216		604	4		2	2		8	5
Level 16	578	638			1,216		604	4		2	2		8	5
Level 15	578	638			1,216		604	4		2	2		8	5
Level 14	578	638			1,216		604	4		2	2		8	5
Level 13	578	638			1,216		604	4		2	2		8	5
Level 12	578	638			1,216		604	4		2	2		8	5
Level 11	578	638			1,216		604	4		2	2		8	5
Level 10	578	754			1,332		709	4		2	2		8	5
Level 9	578	754			1,332		709	4		2	2		8	5
Level 8	578	754			1,332		709	4		2	2		8	5
Level 7	578	754			1,332		709	4		2	2		8	5
Level 6	412	754	430		1,596		709	2	2			1	5	5
Level 5	412	638	430		1,480		604	2	2			1	5	5
Level 4 - Podium		1,573		294	1,867	274	1,139							
Level 3 - Podium				3,172	3,172	3,106								
Level 2 - Podium				3,218	3,218	2,632								
Level 1 - Podium				3,259	3,259	2,701								
Ground Level				2,550	2,550	1,702								
Basement 001 - Supermarket				2,595	2,595	2,595								
Basement 002														
Basement 003														
Basement 004														
Basement 005														
Basement 006														
Basement 007														

	GFA - Residential	GFA - Commercial	GFA - Childcare/Edu	GFA - Retail/Other	Total GFA	NLA Retail	NLA Commercial	1B	1B+study	2B	2B+study	3B	Total	Total
Total	**12,060**	**11,085**	**860**	**15,088**	**39,093**	**13,010**	**10,120**	**76**	**4**	**31**	**39**	**8**	**158**	**111**



Key Plan

Typical Floor-to-Floor Heights	
Residential	3.1m
Commercial - Tower	3.75m
Commercial - Podium	3.85m

Residential Mix (by apartments nos.)		
	No. Units	Percentage
1 bedroom	80	51%
2 bedroom	70	44%
3 bedroom	8	5%
Total	**158**	**70.3%**

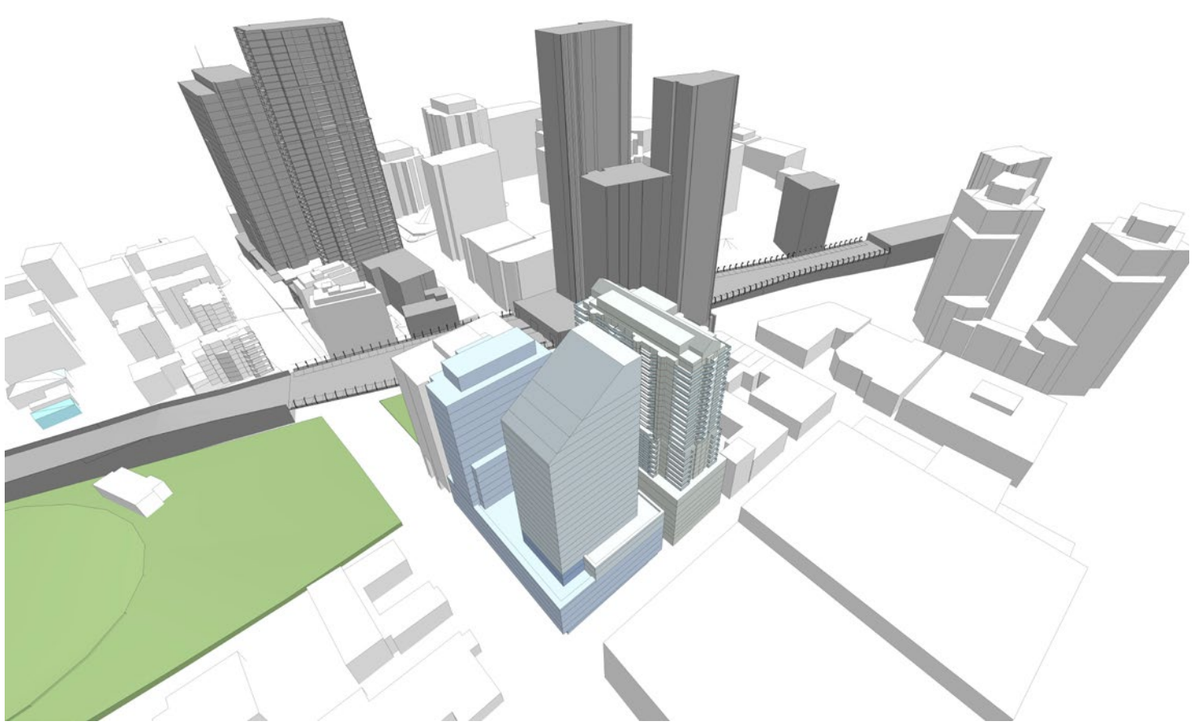
Definitions

GFA- as per Council definition- in summary, the sum of the floor area of each floor of a building measured from the internal face of external walls.
GBA -The sum of the floor area of each floor of a building measured to inside face of exterior walls and including balconies and the like but ignoring any projecting façade elements
All areas measured are approximate only and should not be relied upon.

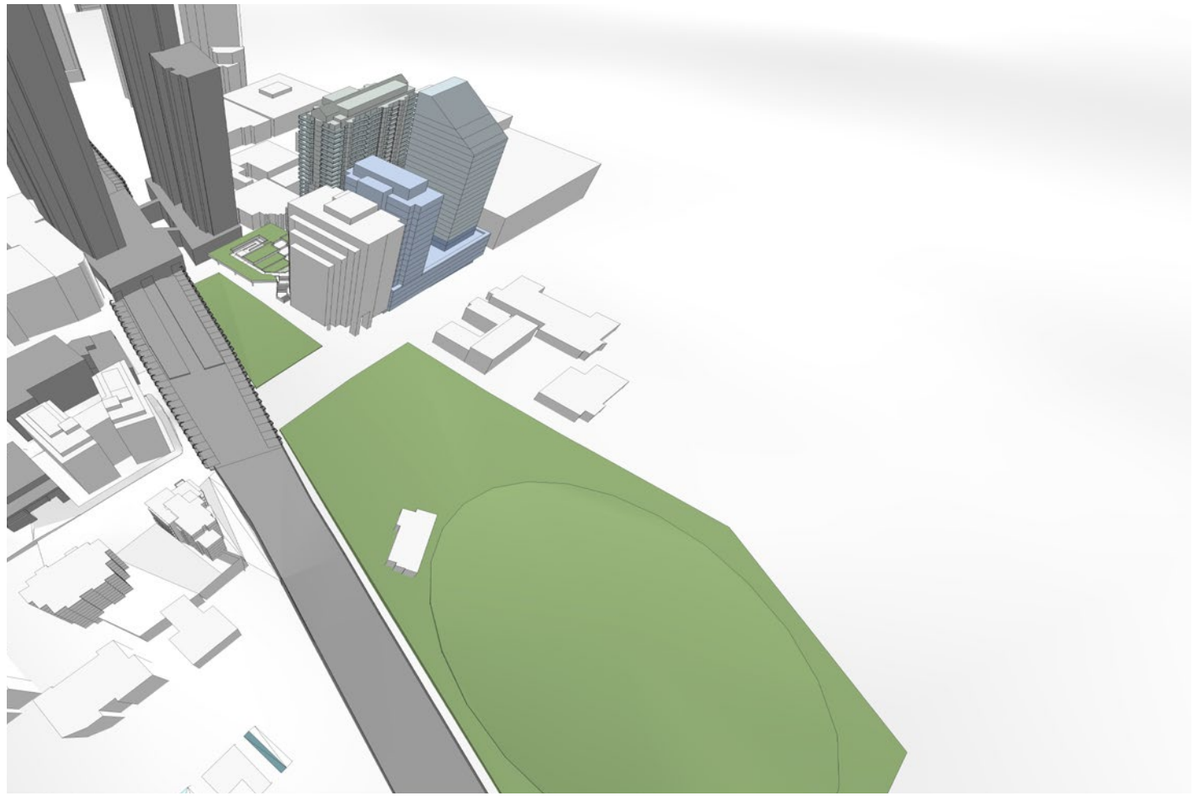
10.0
PERSPECTIVE VIEWS

The residential and commercial tower forms are envisaged to express individual identities within a unified whole.

10.1
AERIAL VIEWS

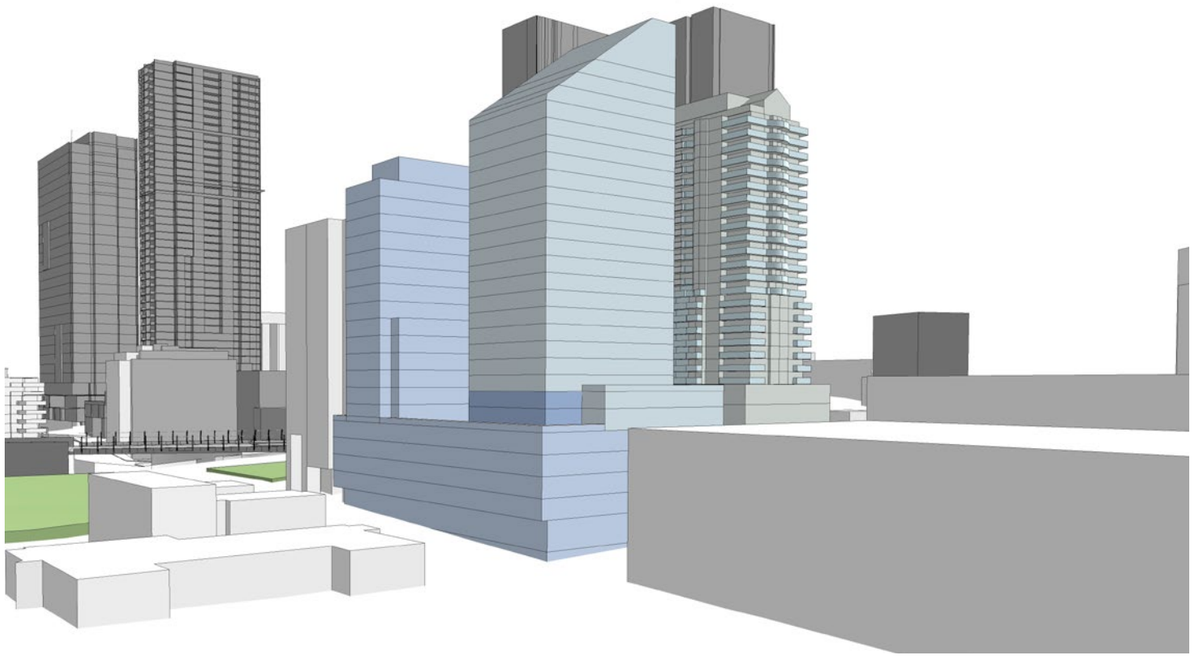


AERIAL VIEW FROM SOUTH-EAST

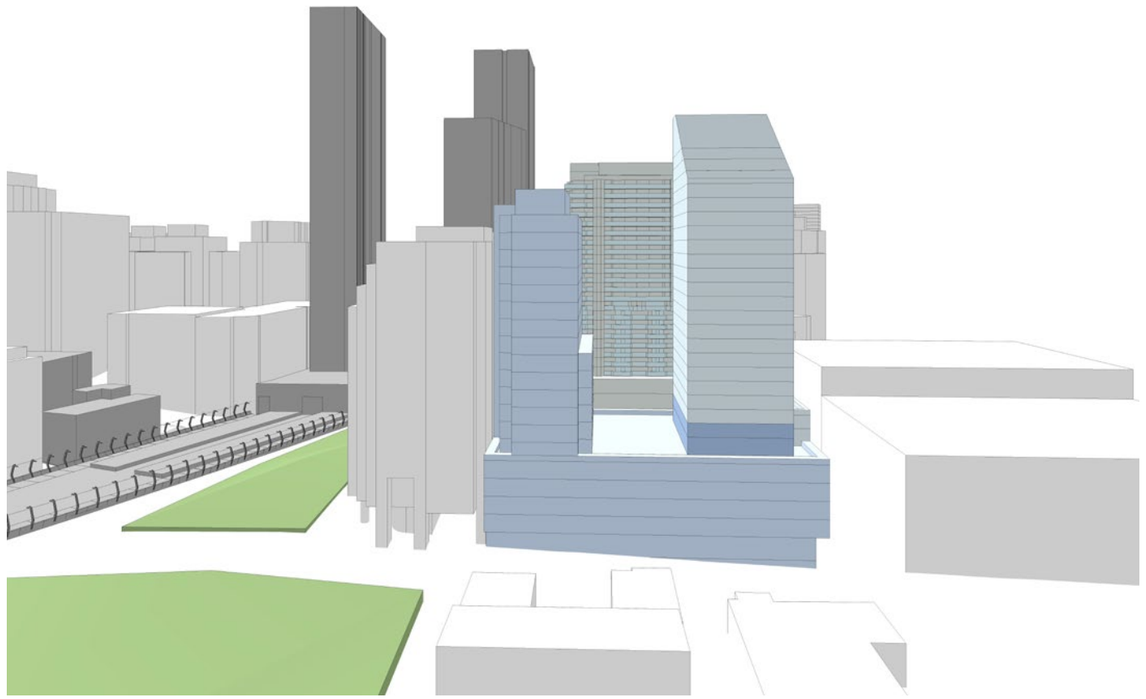


AERIAL VIEW FROM SOUTH-WEST

10.2
ELEVATED VIEWS

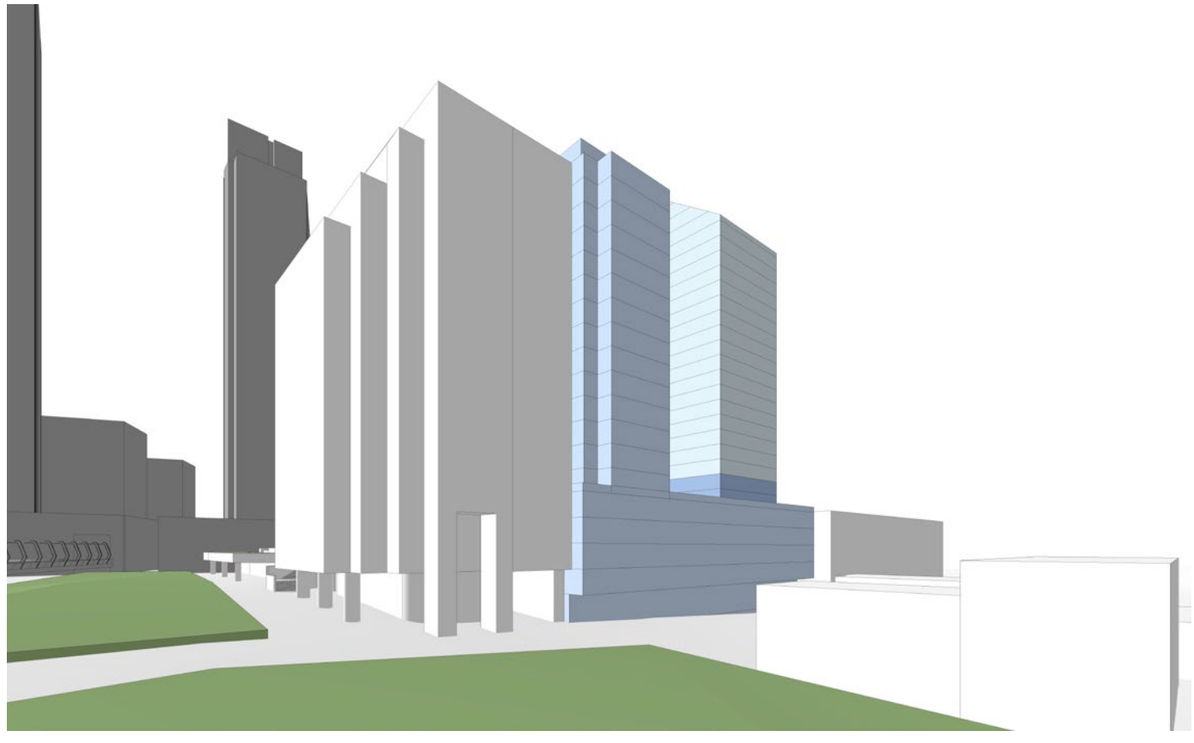


ELEVATED VIEW FROM EAST

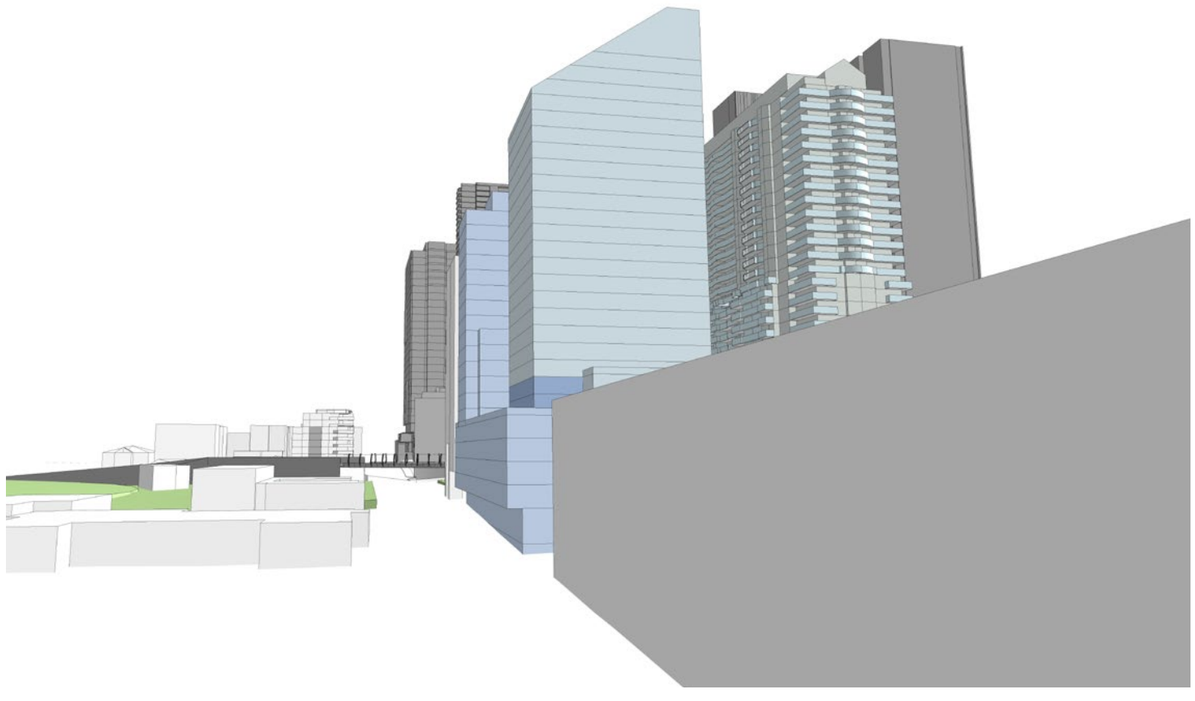


ELEVATED VIEW FROM SOUTH

10.3 VIEWS FROM SURROUNDINGS

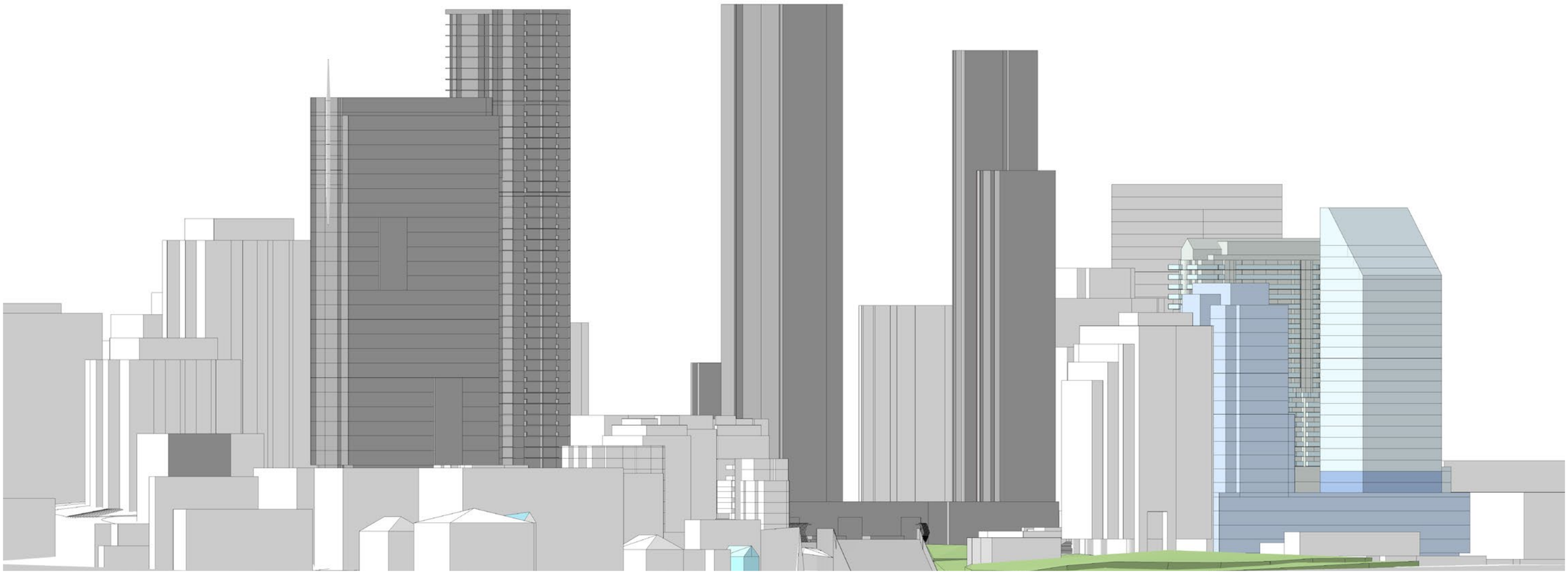


VIEW FROM CHATSWOOD PARK



VIEW WEST ALONG ALBERT AVENUE

10.4 SKYLINE



SKYLINE FROM SOUTH

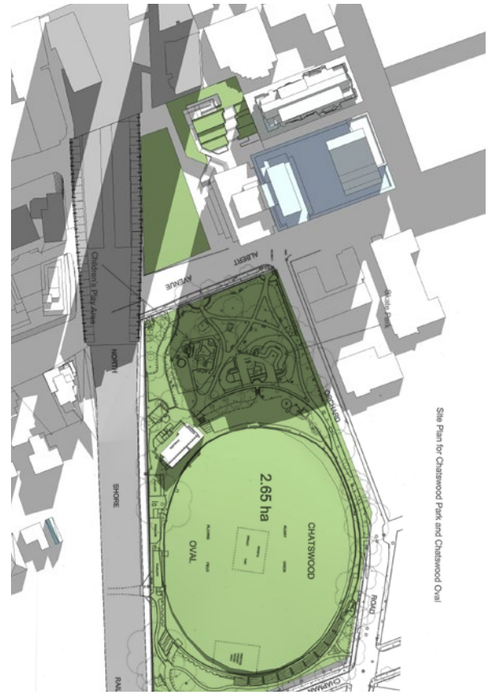
11.0 APPENDICES

APPENDIX 1.0
SHADOW STUDIES

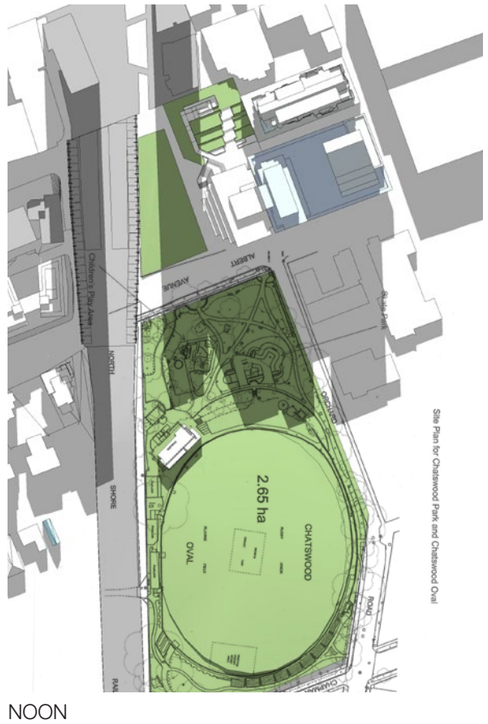
WINTER SOLSTICE - JUNE 21

9AM

10AM

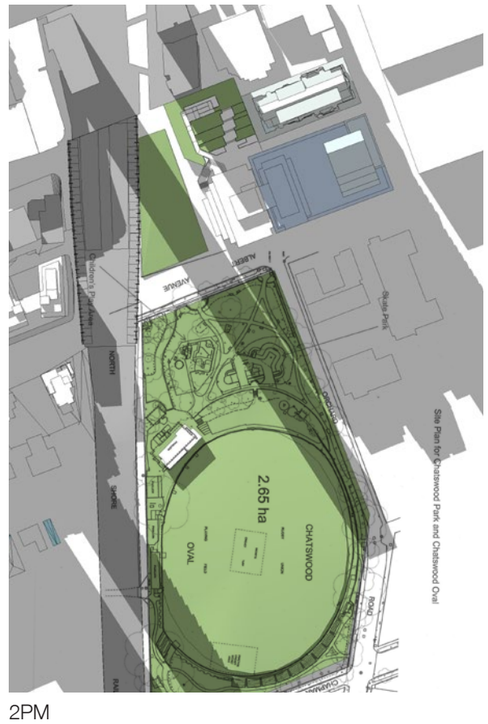


11AM



NOON

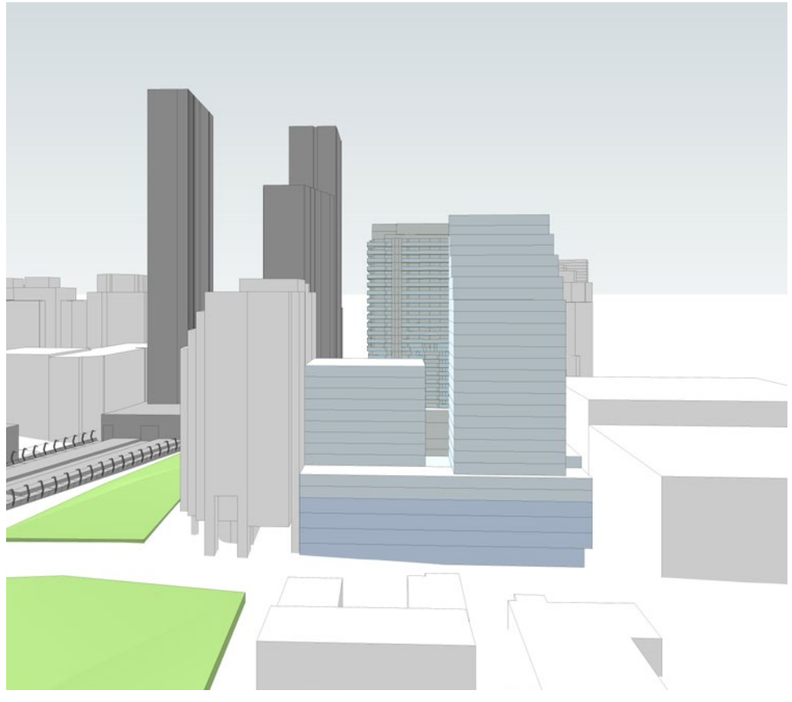
1PM



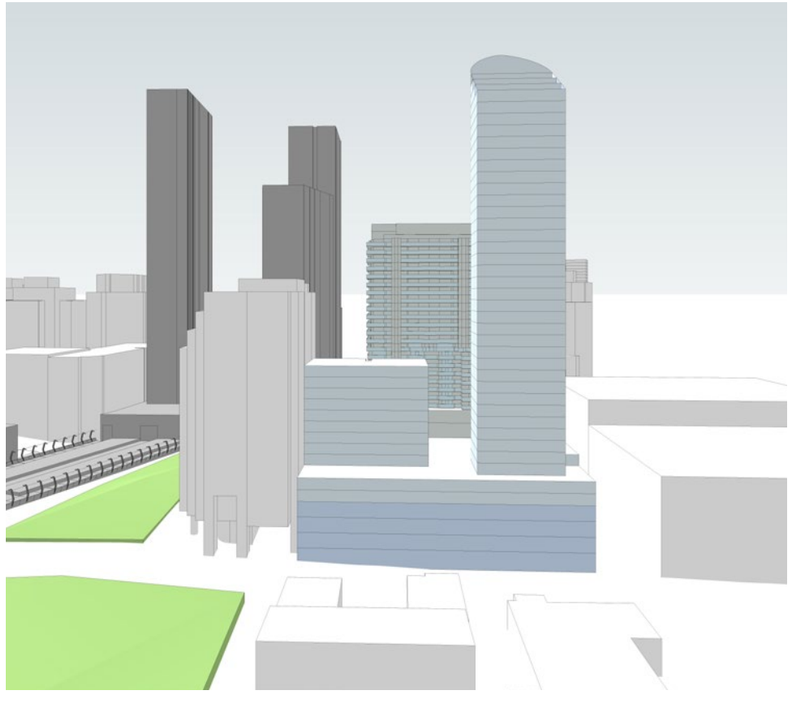
2PM

3PM

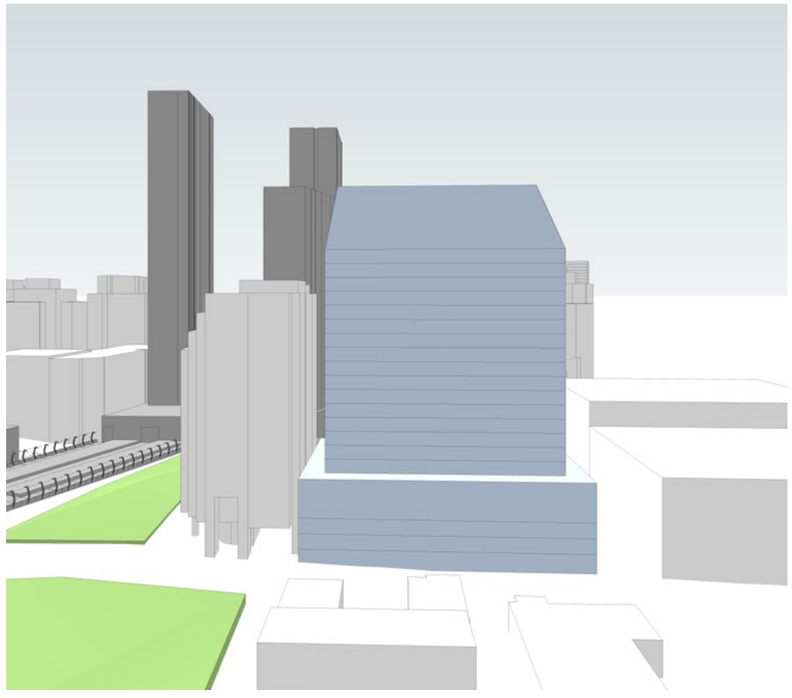
APPENDIX 2.0
PROJECT HISTORY



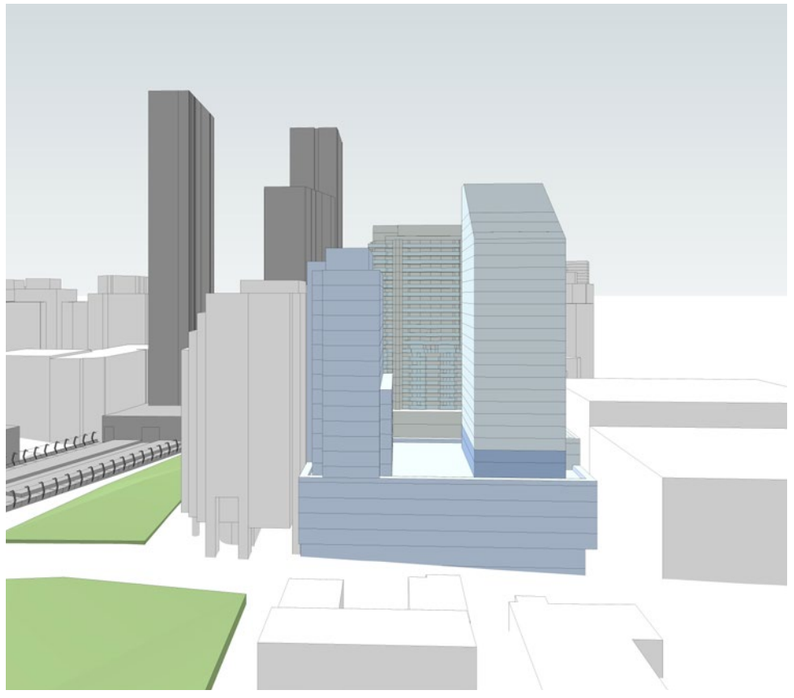
2014 - GATEWAY PROPOSAL



2016 - PLANNING PROPOSAL



2017 - CONCEPT DESIGN UNDER DRAFT CBD STRATEGY



2018 - DRAFT CONCEPT DESIGN