

Victoria Road Drummoyne

CAPACITY TESTING OF SELECTED SITES

Draft Report

Prepared by Studio GL for City of Canada Bay

March 2019

Chapter 1 - Selected Sites

- 1-1 About this study3
- 1-2 Selected sites4
- 1-3 Building envelope controls.....5

Chapter 2 - Capacity Testing

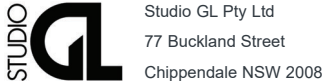
- 2-1 Test results commentary6
- 2-2 Site A (mid block)7
- 2-3 Site B (corner block north)10
- 2-4 Site C (corner block south)13

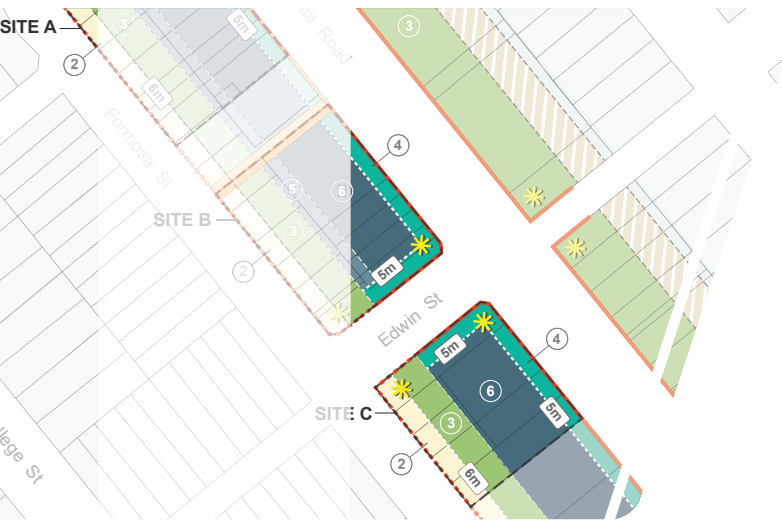
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CHAPTER 1 SELECTED SITES

1-1 About this study

This built form capacity study for selected areas along Victoria Road in Drummoyne has been prepared to test the theoretical quantity of floor space that could be achieved by potential future development.

The building massing proposed is based on revised built form envelope controls that were recommended in the 'Victoria Road Urban Design Review', adopted by the City of Canada Bay Council in December 2019.

Methodology

The first phase of the study identified appropriate areas for testing, that have a realistic potential to be amalgamated in the near future to maximise development capacity under the (revised) controls.

An analysis of land ownership and development status identified:

- Council-owned land;
- Strata ownership properties;
- Lots with listed heritage items;
- Recently built development; and
- Current development applications received.

Properties included for consideration were council owned land, private land and older stock strata titled developments, while recent developments and lots with listed heritage items are excluded.

Another consideration was the 'bonus' floor space ratio (FSR) that applies to land in 'Area 3' as per the City of Canada Bay LEP 2013. This clause allows sites above a certain area threshold additional floor space:

- Sites above 1,500m² = 2.75:1
- Sites above 2,000m² = 3.0:1

Based on these criteria, three sites are identified for this study: 'Site A', 'Site B' and 'Site C'. Each site is located in the LEP 'Area 3' and each contains council owned and privately owned land. Sites B and C also include privately owned older building stock strata property with some potential to redevelop in the near future.

During the second phase of this study, potential future building massing within the permissible built form envelopes was developed, based on the following assumptions:

- Commercial/ retail use on the ground floor;
- Residential use on upper floors; and
- Application of key requirements of the NSW Apartment Design Guide (ADG) for minimum separation distances and floor plate depth.

The floor space capacity calculations for Sites A, B and C measured the floor plate areas of the new building massing and did not take into account existing development.

1-2 Selected sites

Three following three areas have been identified for capacity testing:

- Site A - total area of 2,315m² composed of 965m² of Council owned land and 1,350m² in private ownership
- Site B - total area of 2,325m², composed of 835m² of Council owned land and 1,490m² in private ownership
- Site C - total area of 1,890m², composed of 595m² of Council owned land and 1,295m² in private ownership



Figure 1 Location diagram of selected sites for capacity testing

1-3 Building envelope controls

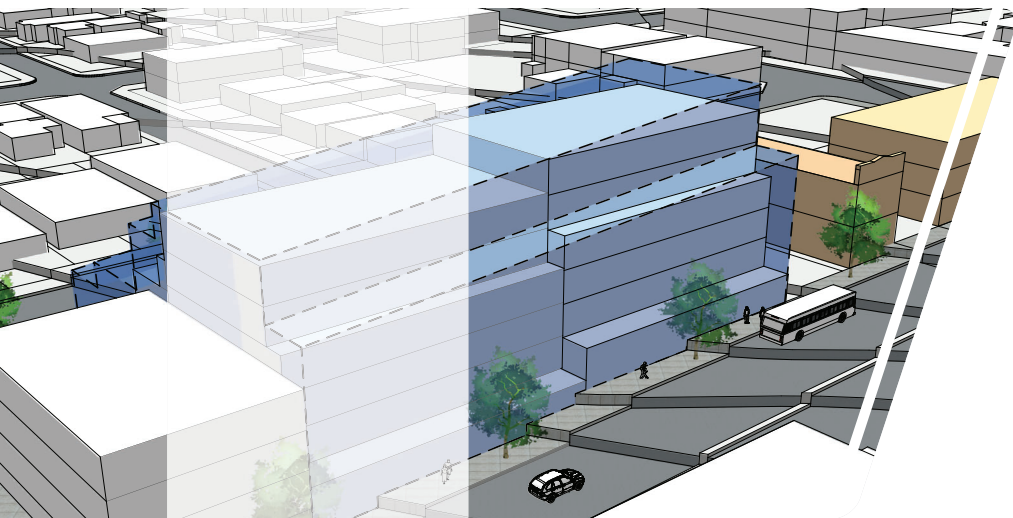
The building envelope capacity testing of Sites A, B & C is based on the draft planning and development controls that resulted from the Victoria Road Urban Design Review, which was adopted by Council in December 2019.

The key applicable controls that define the building envelopes are as follows:

- Modulated building heights with various upper level setbacks ranging from 2 storeys (8.5m maximum building height) to up to 6 storeys (20m maximum building height)
- Nil primary street setback
- 15m street wall height to Victoria Road and the majority of Edwin St
- 8.5m street wall height to Formosa St
- Mid-block pedestrian link (Site B) between Victoria Rd and Formosa St



Figure 2 Diagram of applicable built form envelope controls (draft March 2020)



CHAPTER 2

CAPACITY TESTING

2-1 Test results commentary

This chapter sets out the results of the capacity testing of the identified sites.

The assumptions used in the calculations include:

- Gross Building Area (GBA) calculated at 95% of measured floor plate
- Gross Floor Area (GFA) calculated at 90% of GBA for commercial / retail floors and 80% of GBA for residential floors.
- Net Saleable Area (NSA) calculated at 85% of GFA for all floors.

The assumed Dwelling Mix (DW), of 20% 1-bedroom, 60% 2-bedroom and 20% 3-bedroom dwellings, was advised by Council, based on their current proposed Local Environmental Plan figures. The typical dwelling sizes for each of these dwelling types was assumed to be 10% above the minimum dwelling sizes as set out in the Apartment Design Guide.

Car parking areas are excluded from the FSR calculations, but numbers were calculated as a possible check for the calculation of vehicle numbers by consultants undertaking additional studies in traffic movement around this area.

Summary of the findings per site:

Site A is the largest developable amalgamated site, with a land area of 2,315 m². The total Gross Floor Area (GFA), inclusive of commercial, retail, residential and other space is 6,165 m², spread over 6 storeys. The total number of dwellings was calculated to be 55. The Gross and Net Floor Space Ratio (FSR) is 2.71:1, well below the 3:1 allowable FSR for a site of this size.

Site B is the middle site. Initially the largest site, with a land area of 2,325 m², this site has a proposed pedestrian access path through it, which would reduce the developable site area (Net Site Area) to 2,200 m². The GFA is 6,275 m², spread over 6 storeys, with the total number of dwellings calculated at 55. Gross FSR is 2.7:1, and the Net FSR (excluding the dedicated pedestrian access) is 2.85:1, well below the 3:1 allowable FSR for a site of this size.

Site C is the smallest of the three sites, with a land area of 1,890 m². The GFA is 5,179 m², spread over 6 storeys, with the total number of dwellings calculated at 48. The Gross and Net GFA is 2.74:1, which is close to the 2.75:1 allowable for any site over 1,500 m², and under 2,000m².

2-2 Site A (mid block)

Maximum building envelope

The adjacent model view shows the maximum building envelope that applies to Site A based on the draft controls (refer to Figure 2). Within this maximum envelope, existing development ranges between 1-2 storeys in height.

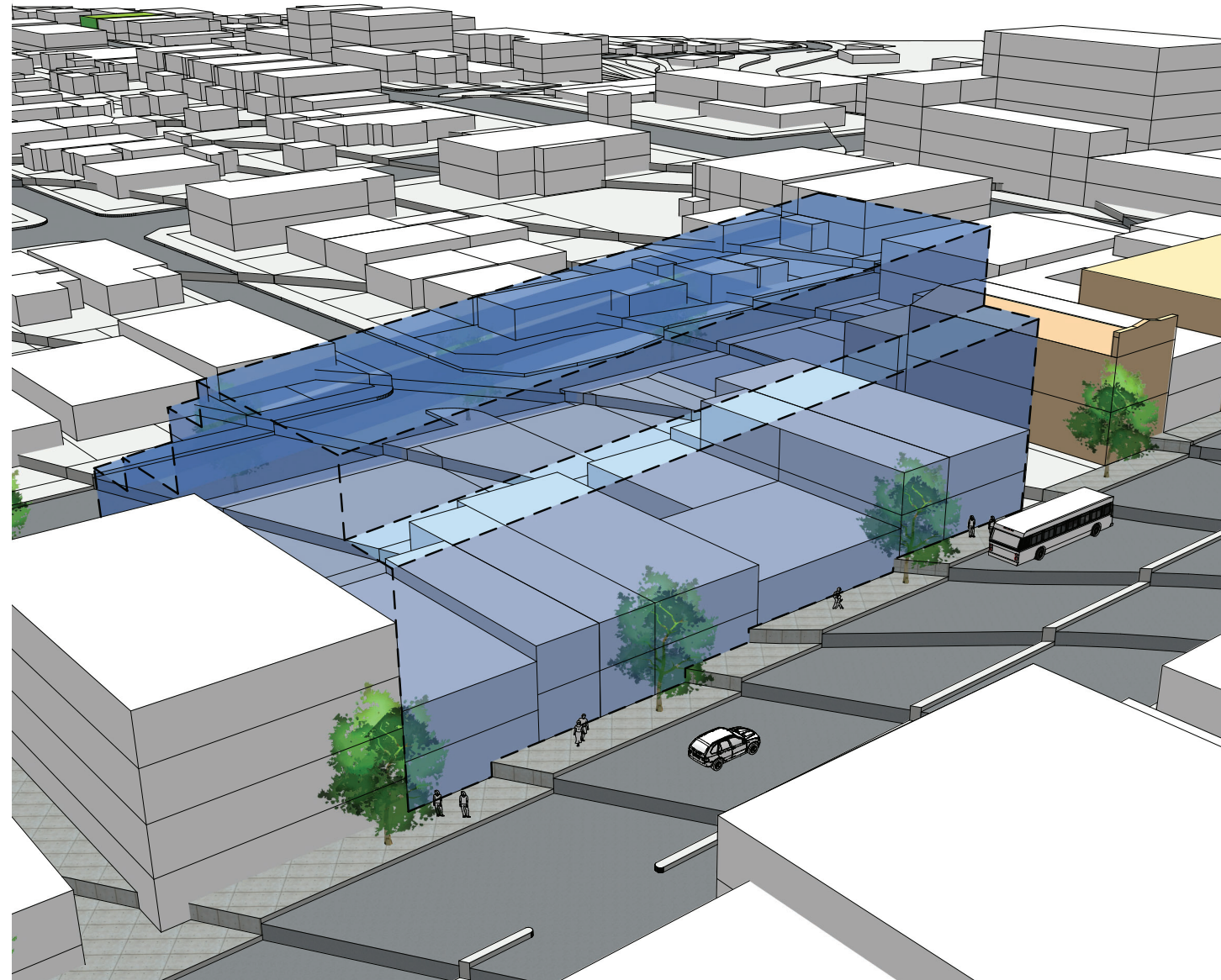


Figure 3 Site A - Existing development within maximum building envelope

2-2 Site A (mid block)

Proposed built form massing

New development within the permissible maximum building envelope can be up to six storeys in height. Along Victoria Road, the maximum street wall height is four storeys, and along Formosa Street a maximum of two storeys applies, before setbacks are required.



Figure 4 Site A - Proposed built form massing within maximum building envelope

2-2 Site A (mid block)

Total GROSS Site Area (from CAD)	2,315 m ²
Total NET Site Area	2,315 m ²
Total GROSS FSR	2.71 : 1
Total NET FSR	2.71 : 1
Total GFA (res, comm, retail, other)	6,282 m ²
Total no. of dwellings	55 dw

Definitions + calculation assumptions

FSR (gross) - Floor Space Ratio of gross site area

FSR (net) - Floor Space Ratio of net site area (developable area)

GBA = Gross Building Area, calculated at 95% of measured floor plate

GFA = Gross Floor Area, residential GFA calculated at 80% of GBA, commercial GFA calculated at 90% of GBA

NSA = Net Saleable Area, calculated at 85% of GFA

No. of dwellings, calculated using "Average Dwelling Size" (based on mix and typical dwelling size)

The 'typical dwelling size' applied is 10% higher than/above the minimum dwelling size in the Apartment Design Guide (ADG)

Commercial/ retail parking calculated at 1CS/40sqm GFA

Residential carparking calculated using "Average CS/DW" plus 1 visitor car space per 5 apartments

No. of car spaces per dwelling based on 'Maximum parking rates in B4 Mixed Use Zones' as per CCB DCP

Basement level car spaces calculated at 35sqm/space

Car parking areas are excluded from FSR calculation

Area calculation by level	Floor plate	Commercial component	Residential component	Carparking component
	as measured in CAD	as measured in CAD	as measured in CAD	as measured in CAD
Level -2 (basement)	2,000 m ²	m ²	m ²	2,000 m ²
Level -1 (basement)	2,000 m ²	m ²	m ²	2,000 m ²
Level 1 (ground floor)	2,300 m ²	1,850 m ²	m ²	450 m ²
Level 2	1,625 m ²	m ²	1,625 m ²	m ²
Level 3	1,445 m ²	m ²	1,445 m ²	m ²
Level 4	1,175 m ²	m ²	1,175 m ²	m ²
Level 5	1,065 m ²	m ²	1,065 m ²	m ²
Level 6	875 m ²	m ²	875 m ²	m ²
Subtotal	12,485 m²	1,850 m²	6,185 m²	4,450 m²

Area calculation by level	Commercial GBA	Commercial GFA	Commercial NSA	Residential GBA	Residential GFA	Residential NSA	No. of apartments	Required parking		Total parking
	95% of floor plate minus carparking	90% of Comm GBA	85% of Comm GFA	95% of floor plate minus carparking	80% of Res GBA	85% of Res GFA		based on dwelling mix	Commercial/ Retail	Residential
Level -2 (basement)	m ²	m ²	m ²	m ²	m ²	m ²	dw	cs	cs	57 cs
Level -1 (basement)	m ²	m ²	m ²	m ²	m ²	m ²	dw	cs	cs	57 cs
Level 1 (ground floor)	1,758 m ²	1,582 m ²	1,344 m ²	m ²	m ²	m ²	dw	40 cs	cs	ramp/ plant only
Level 2	m ²	m ²	m ²	1,544 m ²	1,235 m ²	1,050 m ²	14 dw	cs	16 cs	cs
Level 3	m ²	m ²	m ²	1,373 m ²	1,098 m ²	933 m ²	13 dw	cs	15 cs	cs
Level 4	m ²	m ²	m ²	1,116 m ²	893 m ²	759 m ²	10 dw	cs	12 cs	cs
Level 5	m ²	m ²	m ²	1,012 m ²	809 m ²	688 m ²	9 dw	cs	11 cs	cs
Level 6	m ²	m ²	m ²	831 m ²	665 m ²	565 m ²	8 dw	cs	9 cs	cs
Subtotal	1,758 m²	1,582 m²	1,344 m²	5,876 m²	4,701 m²	3,996 m²	55 dw	40 cs	62 cs	114 cs

Dwelling Mix (Apartments)	Assumed dwelling mix	Typical dwelling size	No. of car spaces/dw
1-Bedroom	20%	55 m ²	0.6
2-Bedroom	60%	77 m ²	0.9
3-Bedroom	20%	99 m ²	1.4
Average dwelling size (NSA) >		77 m²	0.9

< Average CS/DW

2-3 Site B (corner block north)

Maximum building envelope

The adjacent model view shows the maximum building envelope that applies to Site B based on the draft controls (refer to Figure 2). Within this maximum envelope, existing development ranges between 1-2 storeys in height.

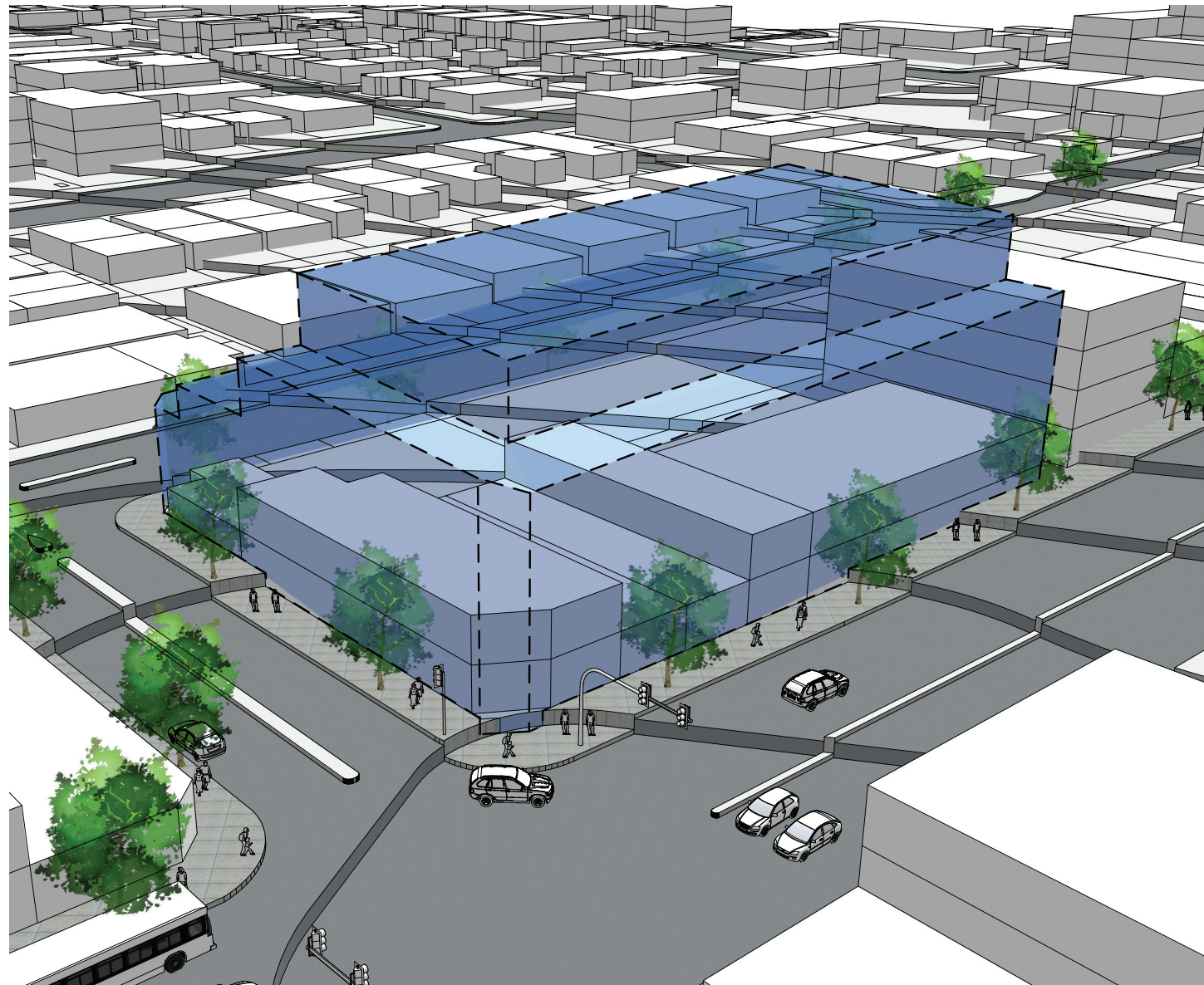


Figure 5 Site B - Existing development within maximum building envelope

2-3 Site B (corner block north)

Proposed built form massing

New development within the permissible maximum building envelope can be up to six storeys in height. Along Victoria Road and Edwin Street, the maximum street wall height is four storeys, and along Formosa Street a maximum of two storeys applies, before setbacks are required. The existing pedestrian through-site link along the north-western boundary is widened by 3m.



Figure 6 Site B - Proposed built form massing within maximum building envelope

2-3 Site B (corner block north)

Total GROSS Site Area (from CAD)	2,325 m ²
Total NET Site Area	2,200 m ²
Total GROSS FSR	2.70 : 1
Total NET FSR	2.85 : 1
Total GFA (res, comm, retail, other)	6,275 m ²
Total no. of dwellings	55 dw

Definitions + calculation assumptions

FSR (gross) - Floor Space Ratio of gross site area
 FSR (net) - Floor Space Ratio of net site area (developable area)
 GBA = Gross Building Area, calculated at 95% of measured floor plate
 GFA = Gross Floor Area, residential GFA calculated at 80% of GBA, commercial GFA calculated at 90% of GBA
 NSA = Net Saleable Area, calculated at 85% of GFA

No. of dwellings, calculated using "Average Dwelling Size" (based on mix and typical dwelling size)
 The 'typical dwelling size' applied is 10% higher than/above the minimum dwelling size in the Apartment Design Guide (ADG)
 Commercial/ retail parking calculated at 1CS/40sqm GFA
 Residential carparking calculated using "Average CS/DW" plus 1 visitor car space per 5 apartments
 No. of car spaces per dwelling based on 'Maximum parking rates in B4 Mixed Use Zones' as per CCB DCP
 Basement level car spaces calculated at 35sqm/space
 Car parking areas are excluded from FSR calculation

Area calculation by level	Floor plate	Commercial component	Residential component	Carparking component
	as measured in CAD	as measured in CAD	as measured in CAD	as measured in CAD
Level -2 (basement)	2,000 m ²	m ²	m ²	2,000 m ²
Level -1 (basement)	2,000 m ²	m ²	m ²	2,000 m ²
Level 1 (ground floor)	2,300 m ²	1,850 m ²	m ²	450 m ²
Level 2	1,625 m ²	m ²	1,625 m ²	m ²
Level 3	1,445 m ²	m ²	1,445 m ²	m ²
Level 4	1,175 m ²	m ²	1,175 m ²	m ²
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Subtotal	12,485 m²	1,850 m²	6,185 m²	4,450 m²

Area calculation by level	Commercial GBA	Commercial GFA	Commercial NSA	Residential GBA	Residential GFA	Residential NSA	No. of apartments	Required parking		Total parking
	95% of floor plate minus carparking	90% of Comm GBA	85% of Comm GFA	95% of floor plate minus carparking	80% of Res GBA	85% of Res GFA		based on dwelling mix	Commercial/ Retail	Residential
Level -2 (basement)	m ²	m ²	m ²	m ²	m ²	m ²	dw	cs	cs	57 cs
Level -1 (basement)	m ²	m ²	m ²	m ²	m ²	m ²	dw	cs	cs	57 cs
Level 1 (ground floor)	1,758 m ²	1,582 m ²	1,344 m ²	m ²	m ²	m ²	dw	40 cs	cs	ramp/ plant only
Level 2	m ²	m ²	m ²	1,544 m ²	1,235 m ²	1,050 m ²	14 dw	cs	16 cs	cs
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Level 6	m ²	m ²	m ²	831 m ²	665 m ²	565 m ²	8 dw	cs	9 cs	cs
Subtotal	1,758 m²	1,582 m²	1,344 m²	5,876 m²	4,701 m²	3,996 m²	55 dw	40 cs	62 cs	114 cs

Dwelling Mix (Apartments)	Assumed dwelling mix	Typical dwelling size	No. of car spaces/dw
1-Bedroom	20%	55 m ²	0.6
2-Bedroom	60%	77 m ²	0.9
3-Bedroom	20%	99 m ²	1.4
Average dwelling size (NSA) >		77 m²	0.9

< Average CS/DW

2-4 Site C (corner block south)

Maximum building envelope

The adjacent model view shows the maximum building envelope that applies to Site C based on the draft controls (refer to Figure 2). Within this maximum envelope, existing development ranges between 1-3 storeys in height.

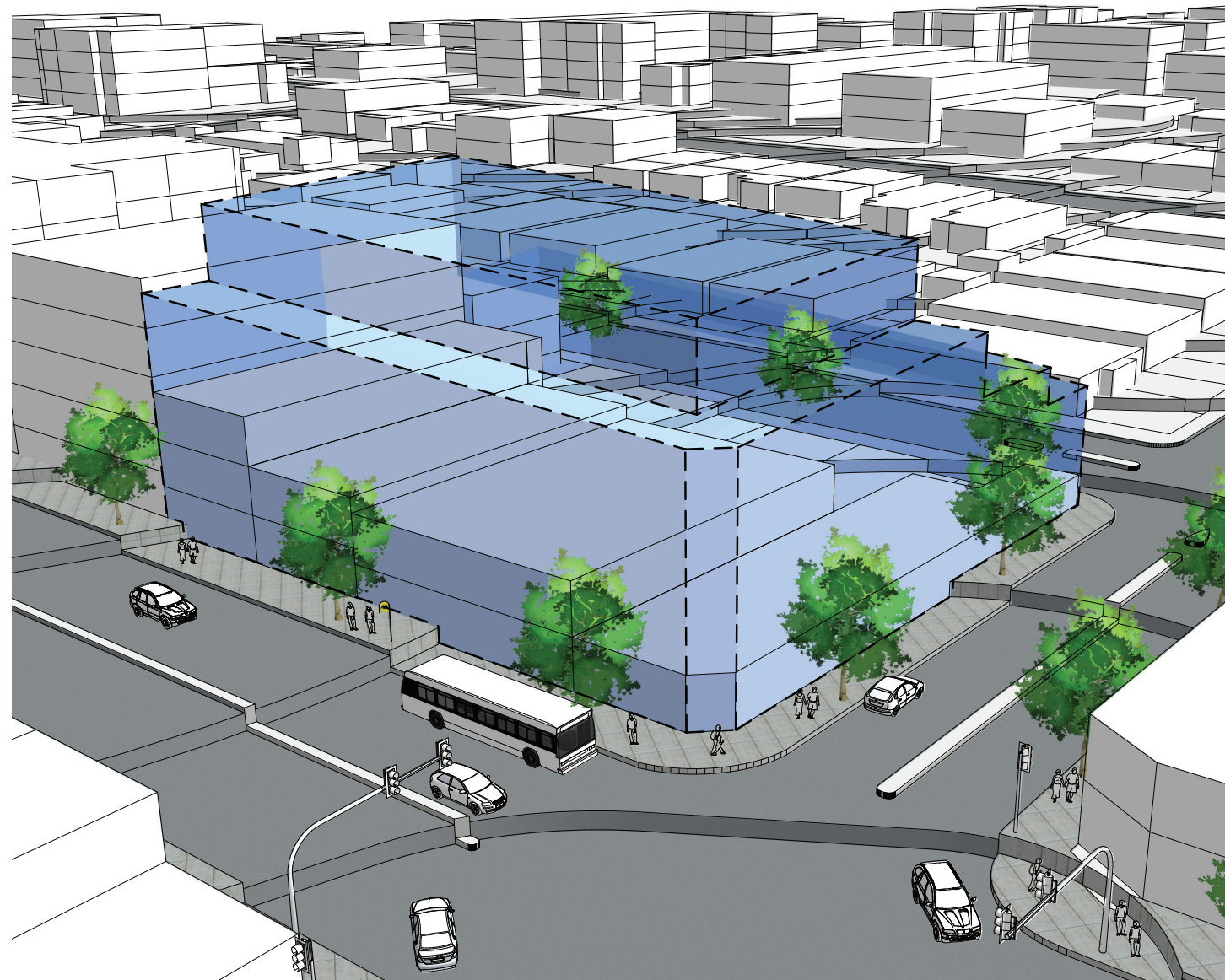


Figure 7 Site C - Existing development within maximum building envelope

2-4 Site C (corner block south)

Proposed built form massing

New development within the permissible maximum building envelope can be up to six storeys in height. Along Victoria Road and Edwin Street, the maximum street wall height is four storeys, and along Formosa Street a maximum of two storeys applies, before setbacks are required.



Figure 8 Site C - Proposed built form massing within maximum building envelope

2-4 Site C (corner block south)

Total GROSS Site Area (from CAD)	1,890 m ²
Total NET Site Area	1,890 m ²
Total GROSS FSR	2.74 : 1
Total NET FSR	2.74 : 1
Total GFA (res, comm, retail, other)	5,179 m ²
Total no. of dwellings	48 dw

Definitions + calculation assumptions

FSR (gross) - Floor Space Ratio of gross site area

FSR (net) - Floor Space Ratio of net site area (developable area)

GBA = Gross Building Area, calculated at 95% of measured floor plate

GFA = Gross Floor Area, residential GFA calculated at 80% of GBA, commercial GFA calculated at 90% of GBA

NSA = Net Saleable Area, calculated at 85% of GFA

No. of dwellings, calculated using "Average Dwelling Size" (based on mix and typical dwelling size)

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No. of car spaces per dwelling based on 'Maximum parking rates in B4 Mixed Use Zones' as per CCB DCP

Basement level car spaces calculated at 35sqm/space

Car parking areas are excluded from FSR calculation

Area calculation by level	Floor plate	Commercial component	Residential component	Carparking component
	as measured in CAD	as measured in CAD	as measured in CAD	as measured in CAD
Level -2 (basement)	1,600 m ²	m ²	m ²	1,600 m ²
Level -1 (basement)	1,600 m ²	m ²	m ²	1,600 m ²
Level 1 (ground floor)	1,890 m ²	1,240 m ²	m ²	650 m ²
Level 2	1,530 m ²	m ²	1,530 m ²	m ²
Level 3	1,350 m ²	m ²	1,350 m ²	m ²
Level 4	1,080 m ²	m ²	1,080 m ²	m ²
Level 5	730 m ²	m ²	730 m ²	m ²
Level 6	730 m ²	m ²	730 m ²	m ²
Subtotal	10,510 m²	1,240 m²	5,420 m²	3,850 m²

Area calculation by level	Commercial GBA	Commercial GFA	Commercial NSA	Residential GBA	Residential GFA	Residential NSA	No. of apartments	Required parking		Total parking
	95% of floor plate minus carparking	90% of Comm GBA	85% of Comm GFA	95% of floor plate minus carparking	80% of Res GBA	85% of Res GFA	based on dwelling mix	Commercial/ Retail	Residential	Total car spaces delivered
Level -2 (basement)	m ²	m ²	m ²	m ²	m ²	m ²	dw	cs	cs	46 cs
Level -1 (basement)	m ²	m ²	m ²	m ²	m ²	m ²	dw	cs	cs	46 cs
Level 1 (ground floor)	1,178 m ²	1,060 m ²	901 m ²	m ²	m ²	m ²	dw	27 cs	cs	ramp/ plant only
Level 2	m ²	m ²	m ²	1,454 m ²	1,163 m ²	988 m ²	14 dw	cs	15 cs	cs
Level 3	m ²	m ²	m ²	1,283 m ²	1,026 m ²	872 m ²	12 dw	cs	14 cs	cs
Level 4	m ²	m ²	m ²	1,026 m ²	821 m ²	698 m ²	10 dw	cs	11 cs	cs
Level 5	m ²	m ²	m ²	694 m ²	555 m ²	472 m ²	6 dw	cs	7 cs	cs
Level 6	m ²	m ²	m ²	694 m ²	555 m ²	472 m ²	6 dw	cs	7 cs	cs
Subtotal	1,178 m²	1,060 m²	901 m²	5,149 m²	4,119 m²	3,501 m²	48 dw	27 cs	55 cs	91 cs

Dwelling Mix (Apartments)	Assumed dwelling mix	Typical dwelling size	No. of car spaces/dw
1-Bedroom	20%	55 m ²	0.6
2-Bedroom	60%	77 m ²	0.9
3-Bedroom	20%	99 m ²	1.4
Average dwelling size (NSA) >		77 m²	0.9

< Average CS/DW

