

Harold Street / Sorrell Street Parramatta

Urban Design Report

For Rebel Property Group Pty Ltd
November 2015



Contents

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1 Introduction and context

1.1 Introduction

This report has been prepared by Architectus on behalf of Rebel Property Group Pty Ltd. The subject site is located at the corner of Sorrell Street and Harold Street North Parramatta and comprises of 4 lots including 53 Sorrell Street, 23, 25 and 27 Harold Street (the Site).

The Site is located within Parramatta Local Government Area. It is adjacent to the current City Centre boundary however the Parramatta CBD Planning Strategy (Adopted by Council April 2015) the site is noted as within the proposed future CBD boundary and subject to a potential 6:1 FSR ‘subject to further urban design refinement’.

The Report includes analysis of the site and its context, an urban design strategy for the site, options, conclusions and recommendations with regard to the above.



Street view of lots - 23-27 Harold Street



View from corner of Sorrell Street and Harold Street - heritage item 'Currawong House' located on one of the four lots - 53 Harold Street

1.2 The Site

The Site

The Site is 4 lots comprising 53 Sorrell Street, 23, 25 and 27 Harold Street.

The site area is a total of 2,410.6m² including:

- 23 Harold Street - 499.5m²
- 25 Harold Street - 531.1m²
- 27 Harold Street - 610.8m²
- 53 Sorrell Street - 769.2m²

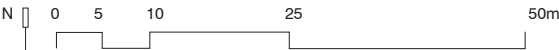
53 Sorrell Street includes an existing heritage house which is proposed to be retained.

Immediate context

A 4 storey commercial building is located immediately to the west of the Site. The area located immediately east to the existing Parramatta City Centre boundary (Sorrell Street) is of residential character with predominantly 3 storey townhouses and residential flat buildings. There are significant amount of trees in this neighbourhood.



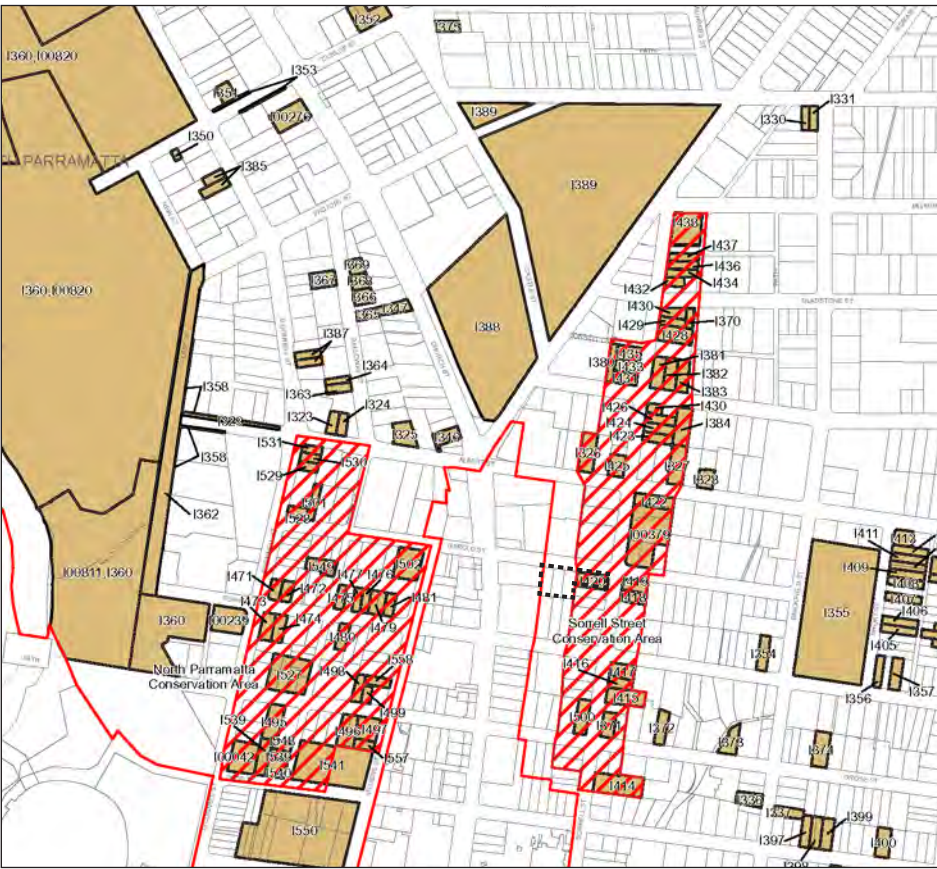
Aerial photograph of the Site and its context



Heritage

Lot 53 Sorrell Street is a heritage item and located within Sorrell Street Heritage Conservation Area. The 3 other lots (23-27 Harold Street) of the Site are not within the Heritage Conservation Area.

Architectus notes that the west side of Sorrell Street (within the City Centre) has few heritage items, while the east side of Sorrell Street has many heritage items.

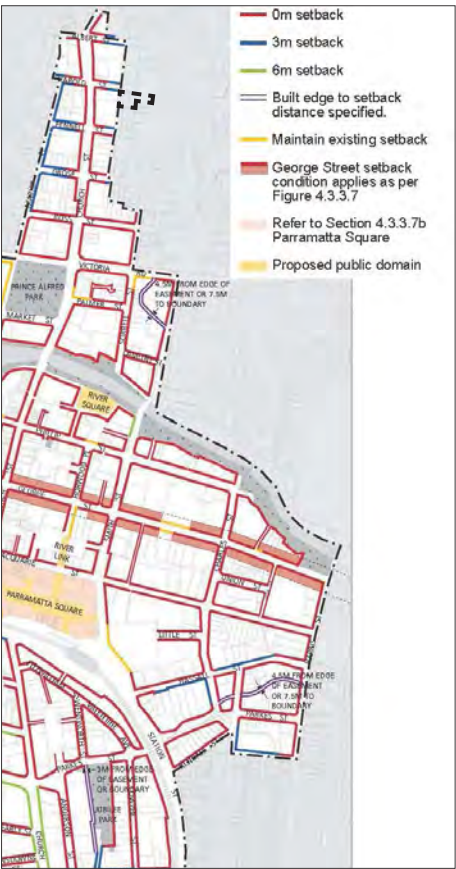


- Heritage**
- Conservation area - General
 - Item - Archaeological
 - Item - General

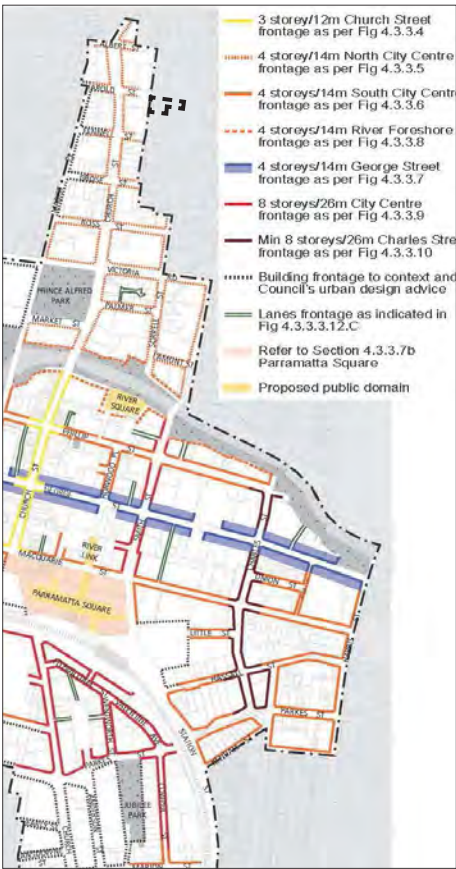
Parramatta Development Control Plan 2011:

For sites in the existing City Centre, west of the site, the DCP currently allows buildings up to 4 storeys / 14m height to be built 3m from the street alignment. An upper level setback of 4m is required for all levels above.

Building Alignment



Street Frontage Height



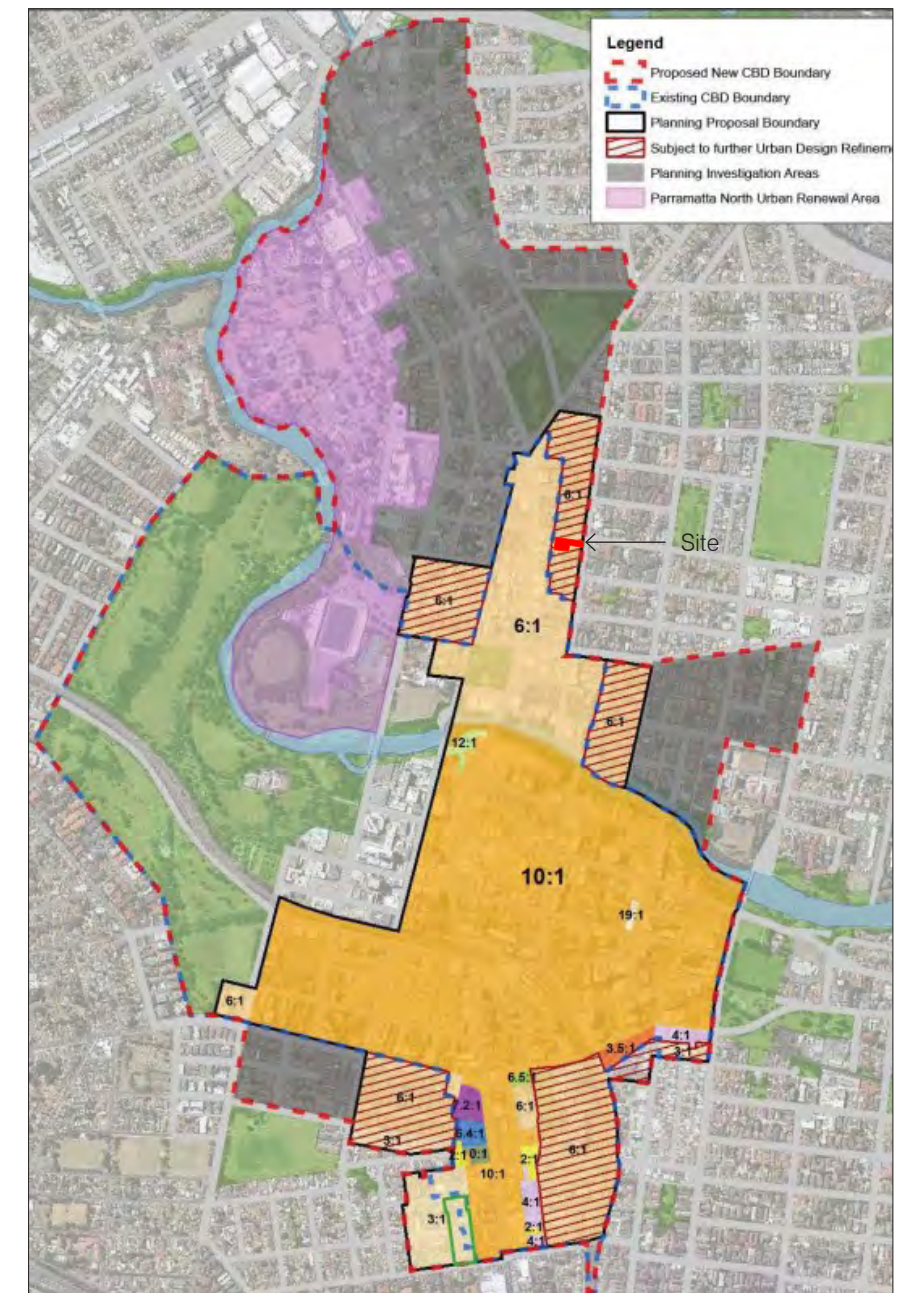
1.4 Parramatta CBD Planning Strategy

The Parramatta CBD Planning Strategy was adopted by Parramatta City Council on 27 April 2015. It represents further development from Architectus and SGS' 2014 Parramatta City Centre Planning Framework.

The Planning Strategy recommends increasing the existing CBD boundary to include the site and notes a potential 6:1 FSR for the area 'subject to further urban design refinement'.



'City Centre boundaries' - Extract from Parramatta CBD Planning Framework



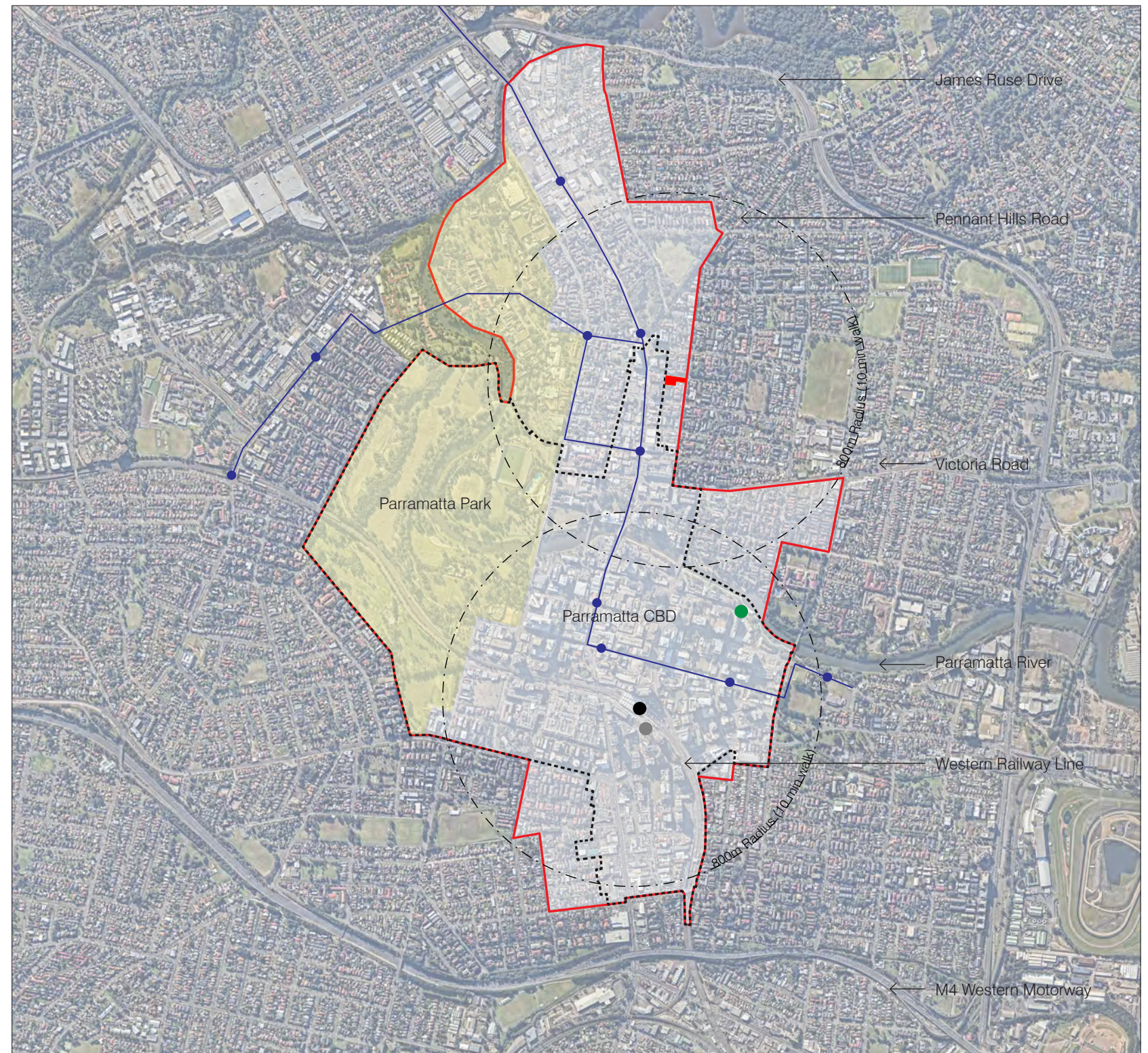
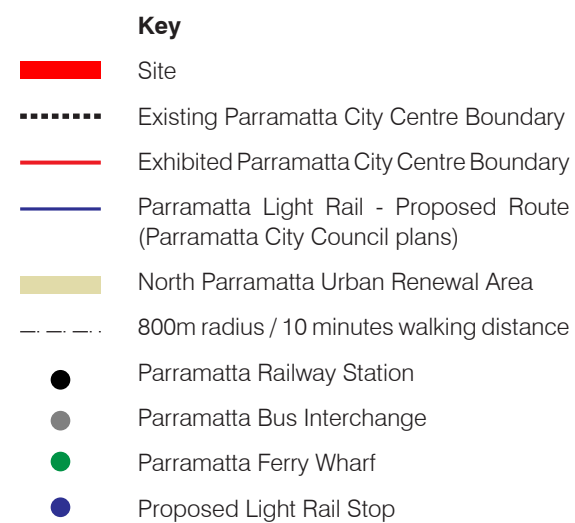
'Implementation Plan' - Extract from Parramatta CBD Planning Framework

2 Planning context

2.1 Site context

The Site is located immediately east of the existing Parramatta City Centre boundary and within the newly exhibited Parramatta City Centre area under Parramatta CBD Planning Strategy adopted by Council on 27th April 2015. The Site is located approximately:

- 100m (1 min walk) from bus stops along Church Street;
- 200m (2 mins walk) from the potential future light rail stops;
- 1,000m (10-15 mins walk) from Parramatta Ferry Wharf; and
- 1,400m (15-20 mins walk) from Parramatta Railway Station.

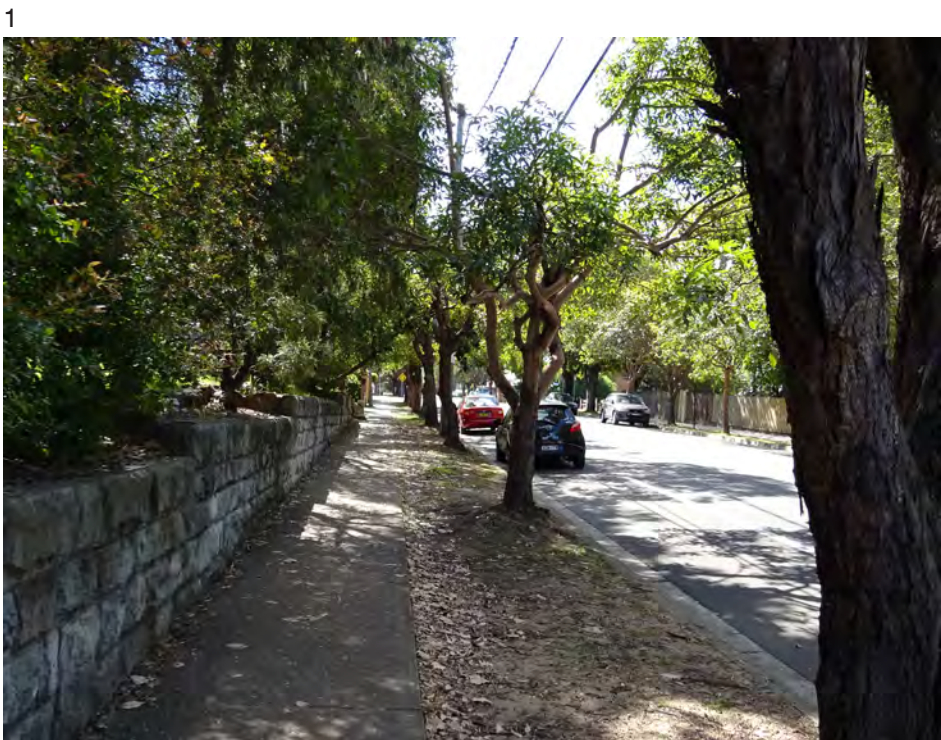


Location of Site in strategic context in relation with the City Centre boundary, existing and future public transport



Oblique aerial view of local context

2.2 Site and context photos



Sorrell Street is a Heritage Conservation Area. This area has a residential character with 1-3 storey dwelling houses and townhouses covered by large street trees.



The lots across from the Site on Harold Street mainly include 3 storey townhouses with large trees planted in front setbacks.



View of Site from corner of Sorrell and Harold Street with existing street trees along Harold Street.



4 storey commercial building located immediately to west of Site.

5



Recent 9 storey mixed use development at corner of Church Street and Harold Street.

6



6 storey residential flat building located on Harold Street.

7



Cafe and shop located at corner of Church Street and Harold Street.

8



9



3 storey residential flat buildings and a 6 storey commercial building along Fennell Street, located to south of Site.

10



Recent residential development along Sorrell Street near corner of Victoria Road (south of the site, beyond the Heritage Conservation Area).



2.3 Local building heights and use



Building use and height plan

3 Urban Design Strategy

3.1 Built Form Strategy

The options provided in the following section are generally based on an extrapolation of the current DCP controls applicable to the existing City Centre sites located immediately west of the site. These allow buildings up to 4 storeys / 14m height to be built with a 3m street setback. An upper level setback of 4m is required for all levels above.

The following principles are applied.

Street Level Setback

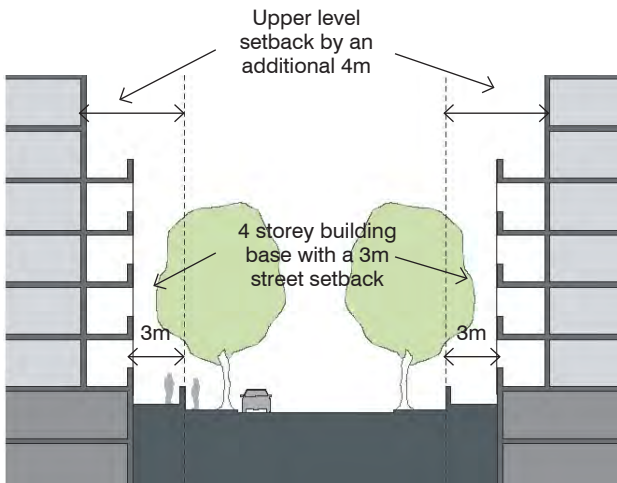
Create a 4 storey building base that is setback 3m from the street alignment, consistent with the DCP. The 3m setback should be delineated with suitable landscaping to improve amenity of the street level apartments.

Upper Level Setback

Setback towers from 4 storey building base by an additional 4m, consistent with the DCP. This will result in towers setback 7m (3m + 4m) from the street alignment and create well-proportioned streets defined by tall towers.

Heritage

Create a desirable separation between the heritage building ‘Currawong House’ and the proposed residential tower. This will lead to a 15-24m wide ‘heritage courtyard’ with deep soil planting between the existing and proposed buildings. Note there is an existing large tree on the Site located in the ‘heritage courtyard’.



Setbacks

Building Form

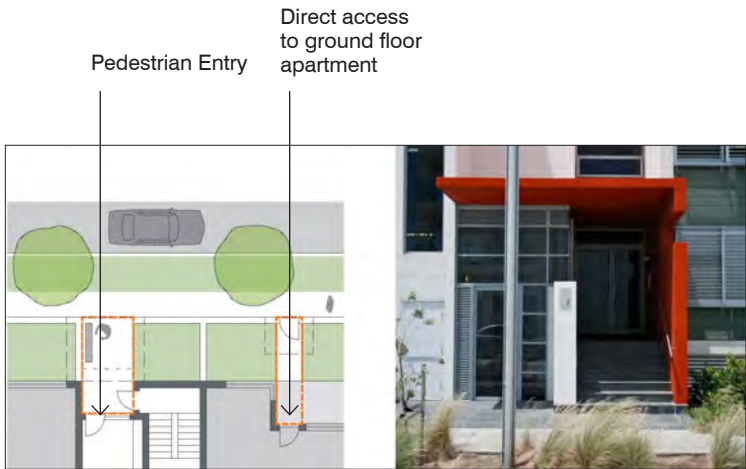
Towers placed on top of building base should have a maximum depth of 18m between glass line, consistent with the Apartment Design Guidelines. Maximum length of 45m should be used to make the towers appear slender.

Provide a desirable tower separation, as per SEPP 65 Apartment Design Guide - Building Separation, to allow adequate sunlight access and natural ventilation between towers. The in-between spaces are to be provided with an acceptable level of residential amenity including visual and acoustic privacy, daylight access and a desirable outlook for towers that have an internal address.

Tower alignment should address privacy and overshadowing issues.

Street Activation

Ground floor apartments should be made directly accessible from Harold Street. The pedestrian entry to the building should be clearly defined. Most apartments should address Harold Street and improve casual street surveillance, whilst facing north and allowing direct solar access in to the habitable areas.



Street connectivity

Side Setbacks for 4 Storey Building Base

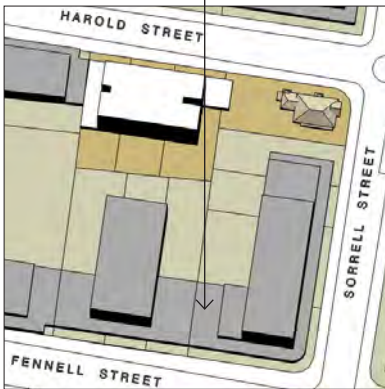
Approach 1: Building base to side boundaries

- This approach forms a continuous street frontage for 4 storey building base and is usually the preferred for dense city centres. (Also explained in Parramatta Development Control Plan Figure 4.3.3.1.5.)

Approach 2: Side setbacks based between building forms

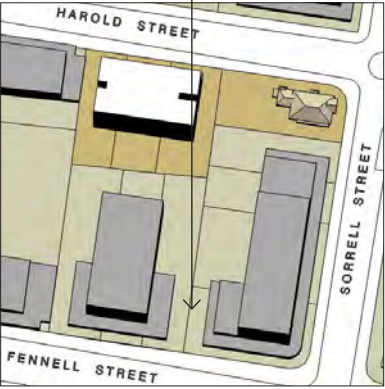
- This approach creates a non-continuous street frontages for building base and relies on building separation and setbacks from the side boundaries. This approach is usually preferred in predominantly residential areas. This is described using a 6m side setback for 4 storey building base (allowing separation which is consistent with the SEPP65 Apartment Design Guide).

Approach 1: Continuous street frontage for 4 storey building base

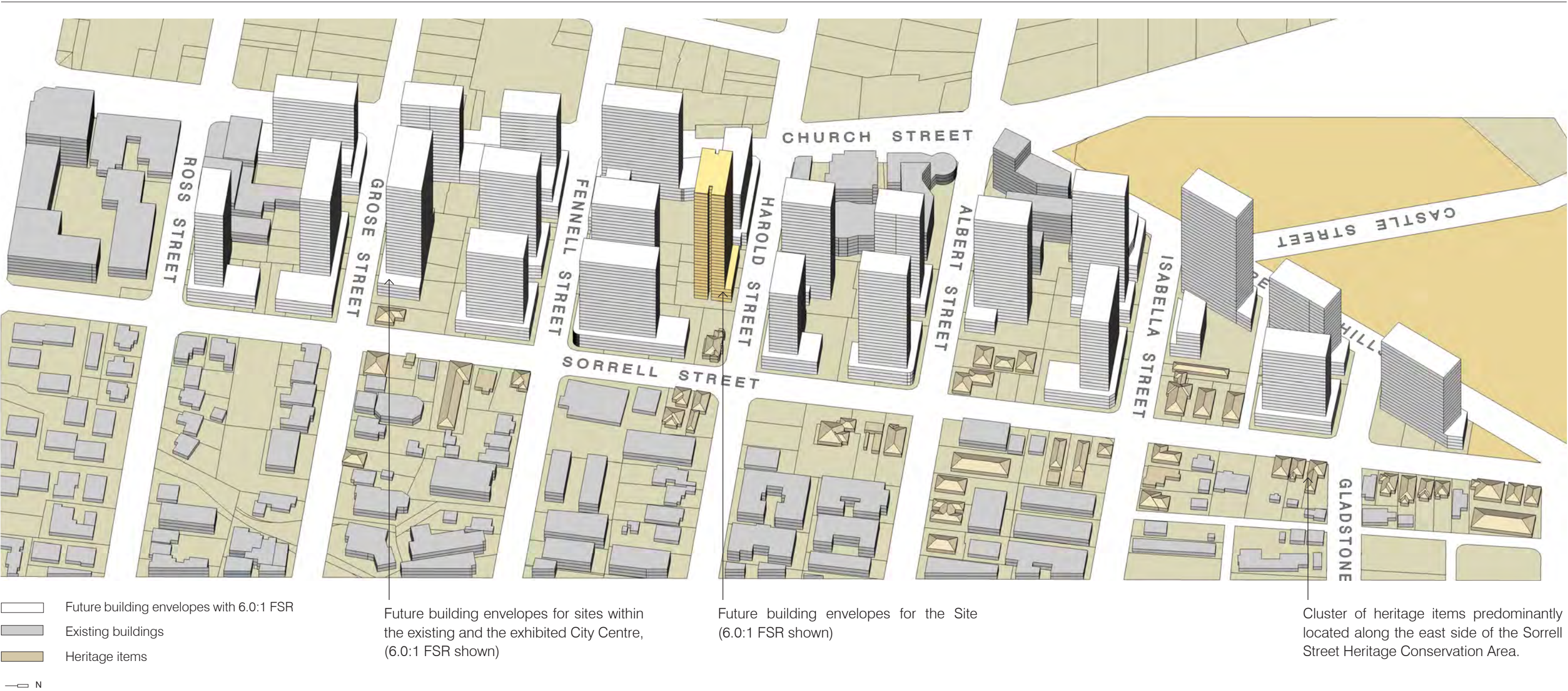


Side setbacks

Approach 2: Non-continuous street frontage with setbacks between buildings



3.2 Strategic Approach



Church Street is a key part of the Parramatta City Centre, strategically an alternative CBD to Central Sydney and a significant scale of development (6:1 FSR) is contemplated there within the CBD Planning Strategy.

The key urban design issue is the appropriate edge to the City Centre and scale contrast between the heritage items along the east side of Sorrell Street and Church Street/Sorrell Street blocks.

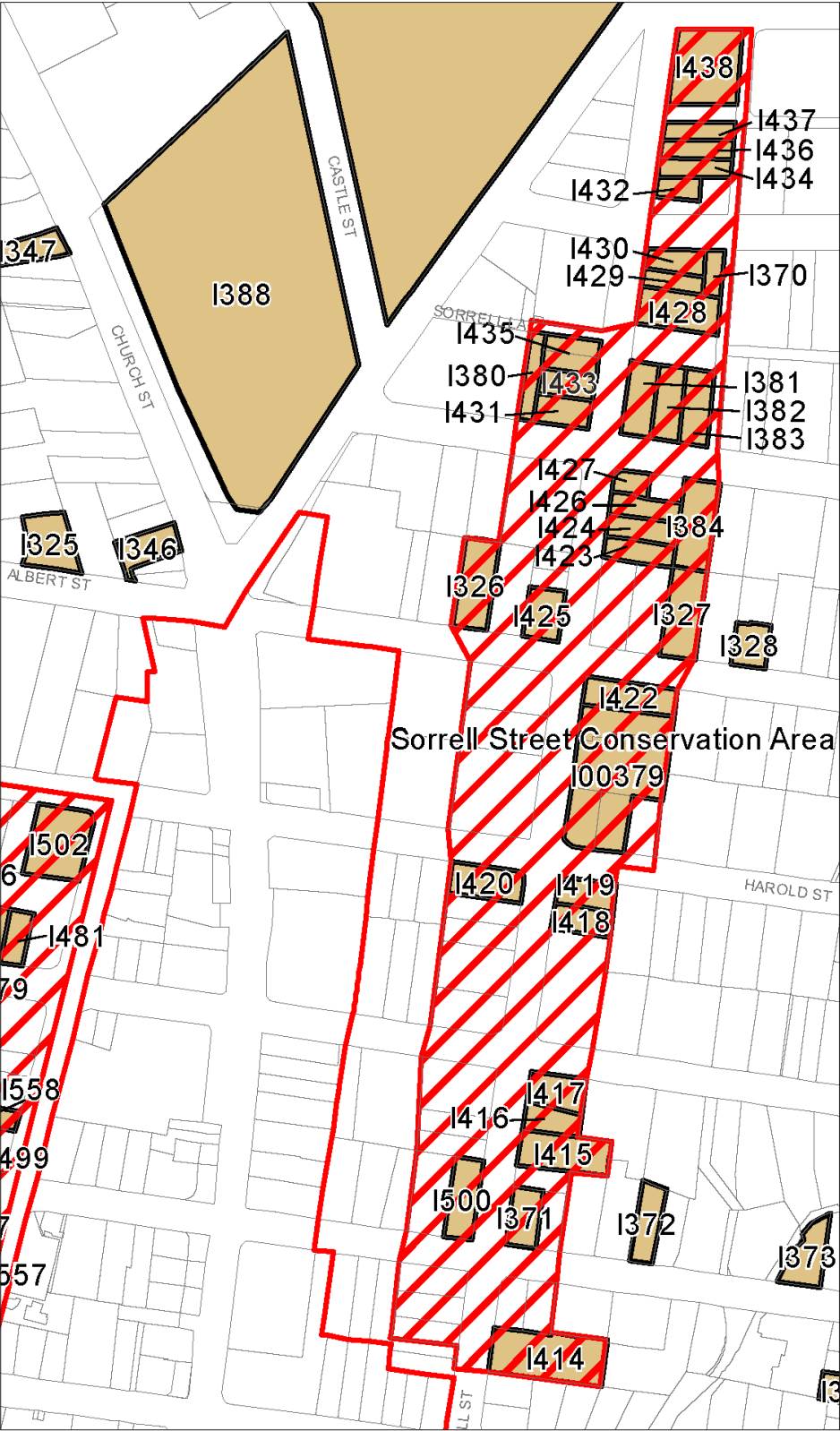
Within the testing shown in the following chapter the street blocks between Church Street and Sorrell Street are shown developed at varying FSRs assuming a logical amalgamation pattern of lots. The lot amalgamation includes small heritage buildings with large consolidated sites.

The smaller heritage items along the west side of Sorrell Street have been included with the large consolidated sites for their long term heritage protection, with FSR transferred to neighbouring towers.

The heritage items within the Heritage Conservation Area are predominantly located along the east side of Sorrell Street which will remain low scale.

The options tested describe the scale and transition issues to the conservation area with a range of FSRs.

Sorrell Street Heritage Conservation Area Map from Parramatta LEP 2011



Potential future building envelopes between Church Street / Sorrell Street street blocks (6:1 FSR shown)



3.3 Transition from heritage conservation area

Consideration of the appropriate design of the local area includes the appropriate transition from the Sorrell Street Heritage Conservation Area to the Parramatta City Centre (particularly its main spine on Church Street).

The Parramatta City Centre is an alternative CBD to Central Sydney. Together they are the main element of Global Sydney which will be only reinforced in the future with quicker connections between the two centres. The Parramatta City Centre should be compared with Central Sydney and how it addresses transition to Conservation Areas.

The Rocks Conservation Area is of world renown. There is a sharp transition between it and the CBD skyline. Such a contrast reinforces the

character of each. Similarly to the south of Central Sydney, the Central Park Development has a sharp transition between the 34 storey tower facing Broadway and the Chippendale Conservation Area to the south and west.

Within City Centre examples including those below, the transition between taller buildings and lower-scale heritage items is often handled through the development of appropriate lower-scale podium forms rather than through extensively stepped building heights.

Central Sydney / The Rocks Conservation Area



- Multiple State heritage designations, local heritage items and conservation area
- Scale change: ANL Centre at 45 storeys (188m) in Central Sydney (across the Cahill Expressway) to 2-4 storeys typical in The Rocks.
- One of Sydney's iconic views.

Central Park (Central Sydney) / Chippendale HCA



- The Central Park development is surrounded on two sides by the Chippendale heritage conservation area, including many local heritage items.
- Scale change: One Central at 34 storeys (117m) to 2-3 storeys typical one street back.

4 Options

4.1 Option 1 - Complying Scheme - 0.8:1 FSR

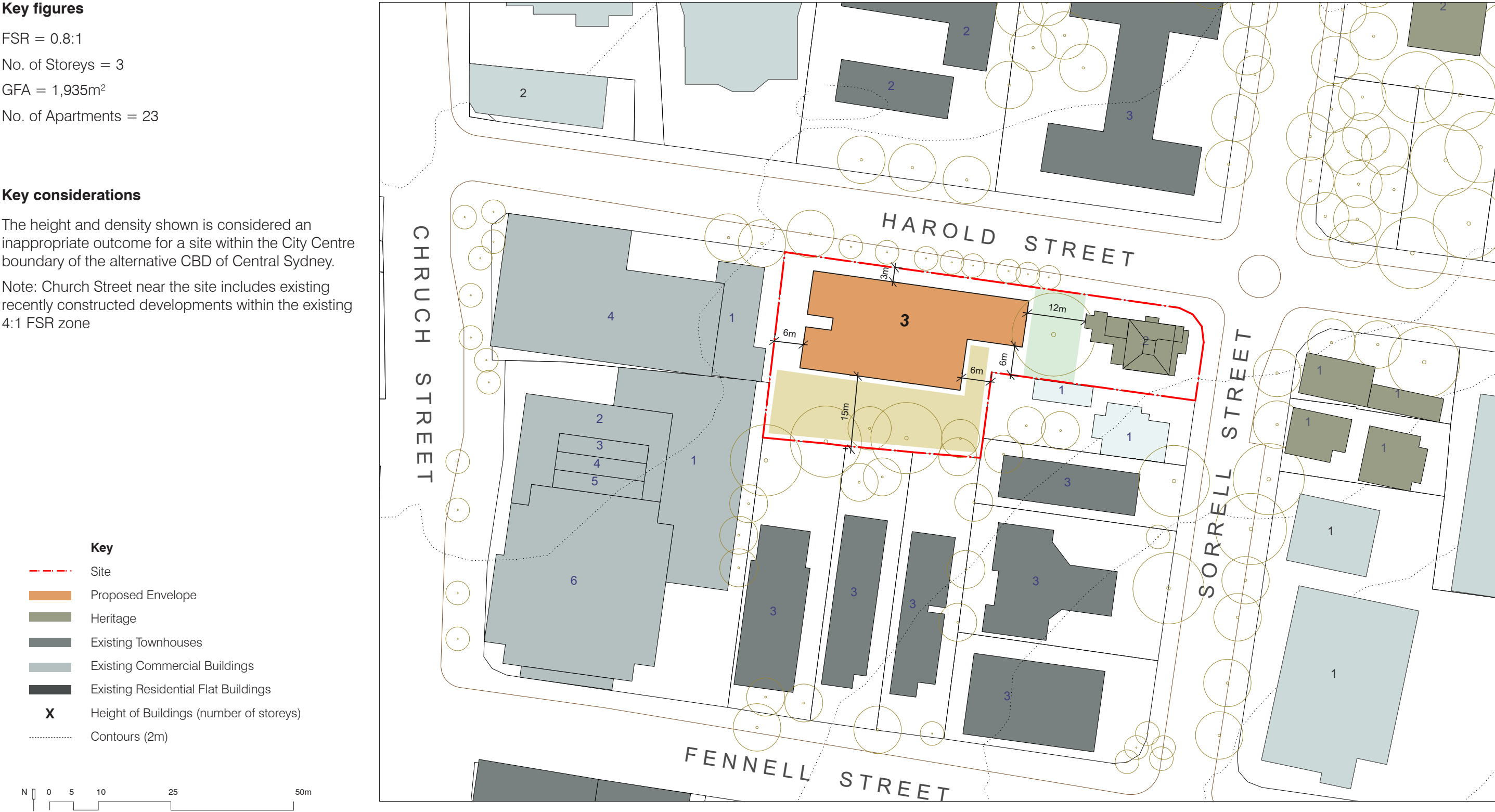
Key figures

FSR = 0.8:1
No. of Storeys = 3
GFA = 1,935m²
No. of Apartments = 23

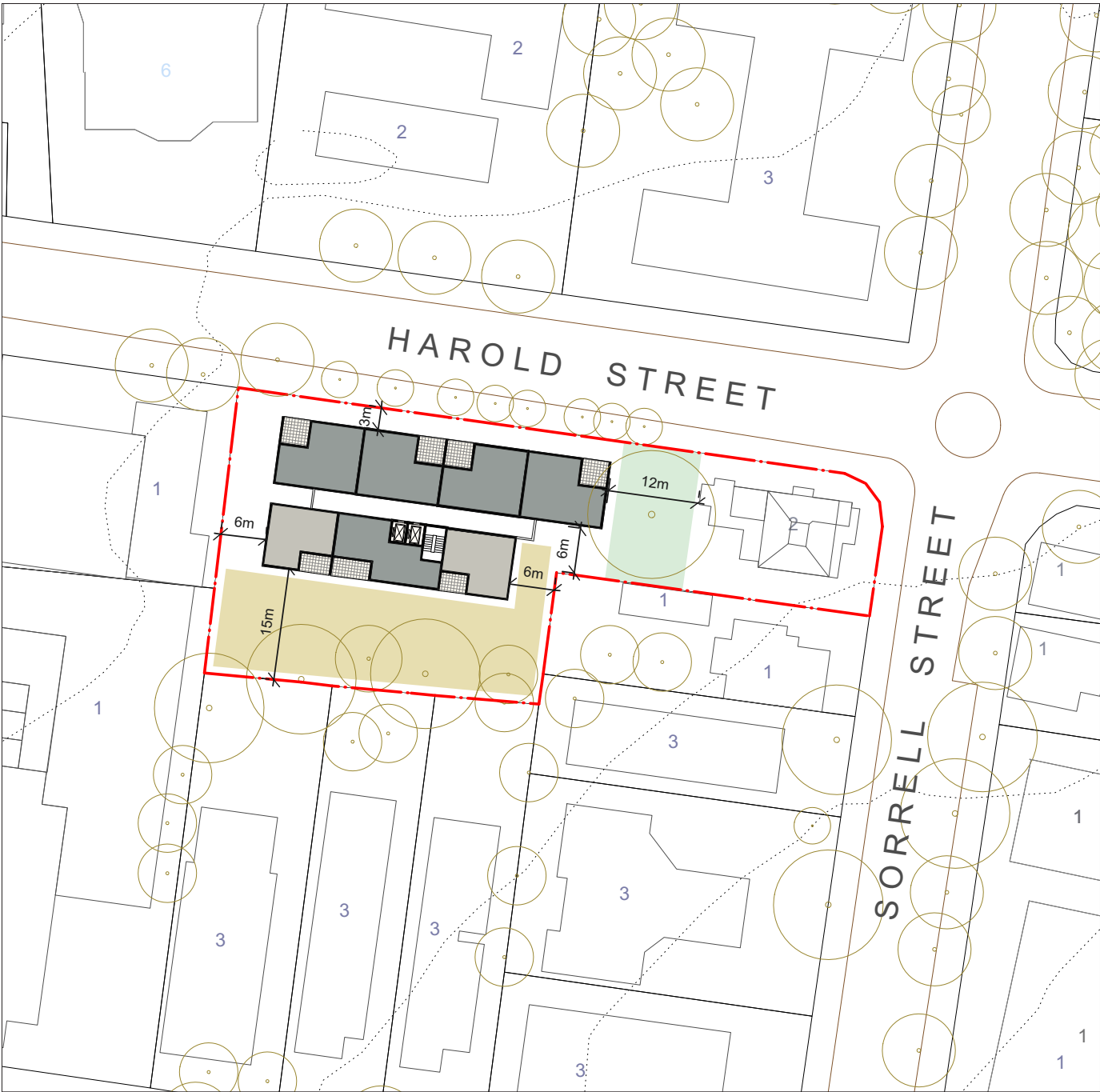
Key considerations

The height and density shown is considered an inappropriate outcome for a site within the City Centre boundary of the alternative CBD of Central Sydney.
Note: Church Street near the site includes existing recently constructed developments within the existing 4:1 FSR zone

2D Building Envelopes

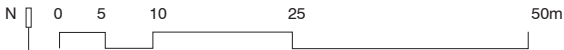
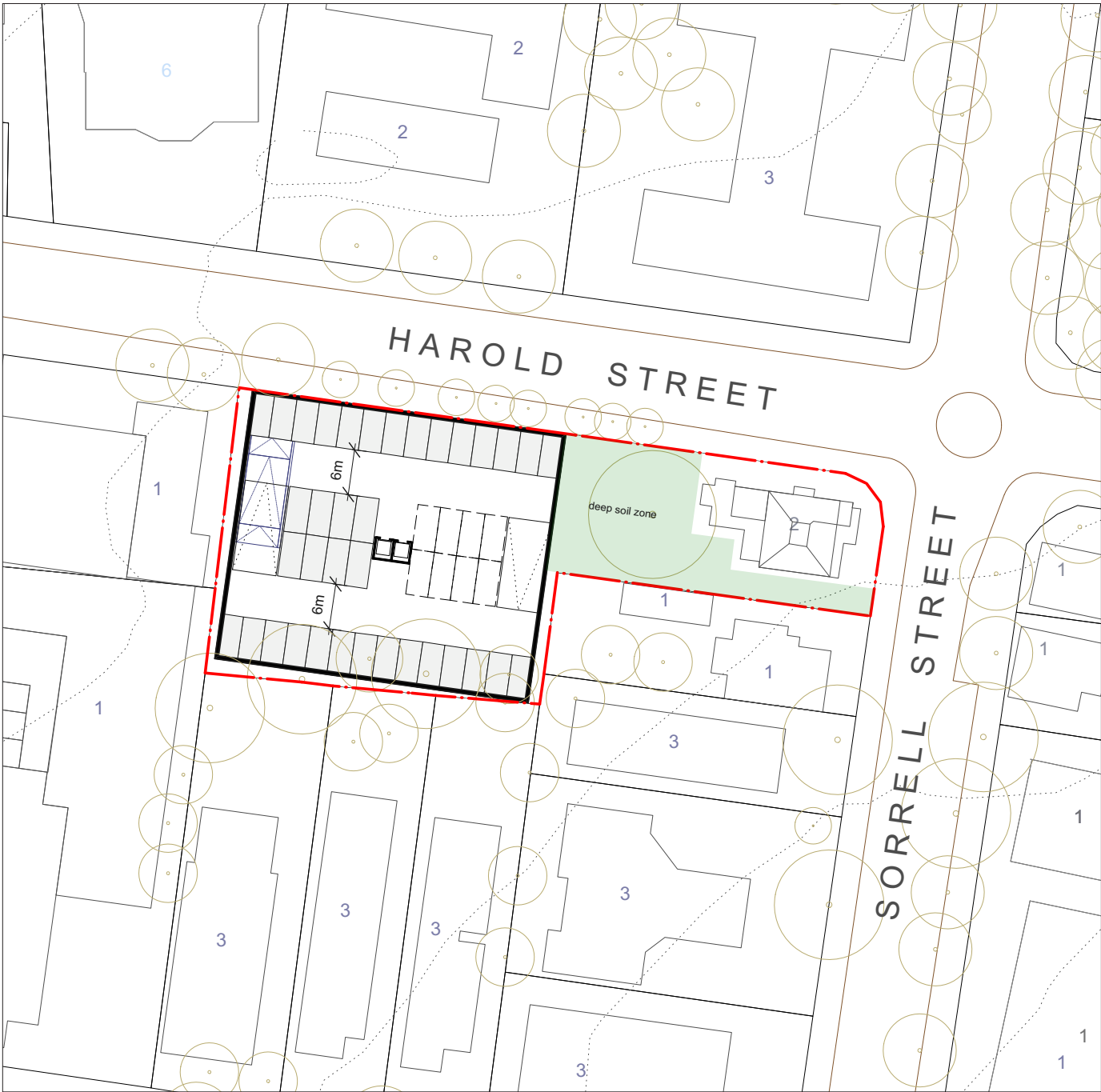


Typical Floor Plan



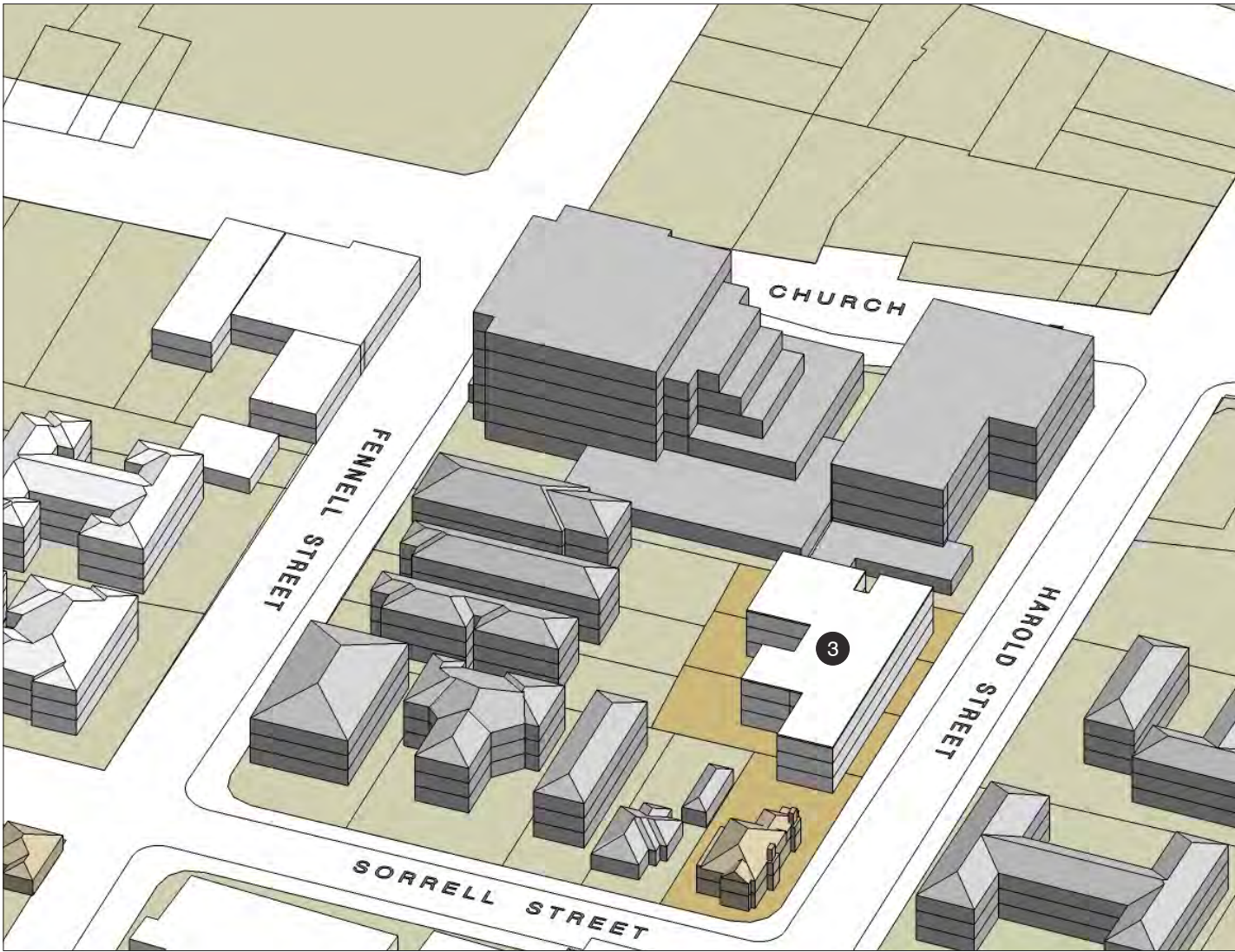
- 1 Bedroom Apartments
- 2 Bedroom Apartments
- 3 Bedroom Apartments
- Studios

Typical Basement for All Design Options

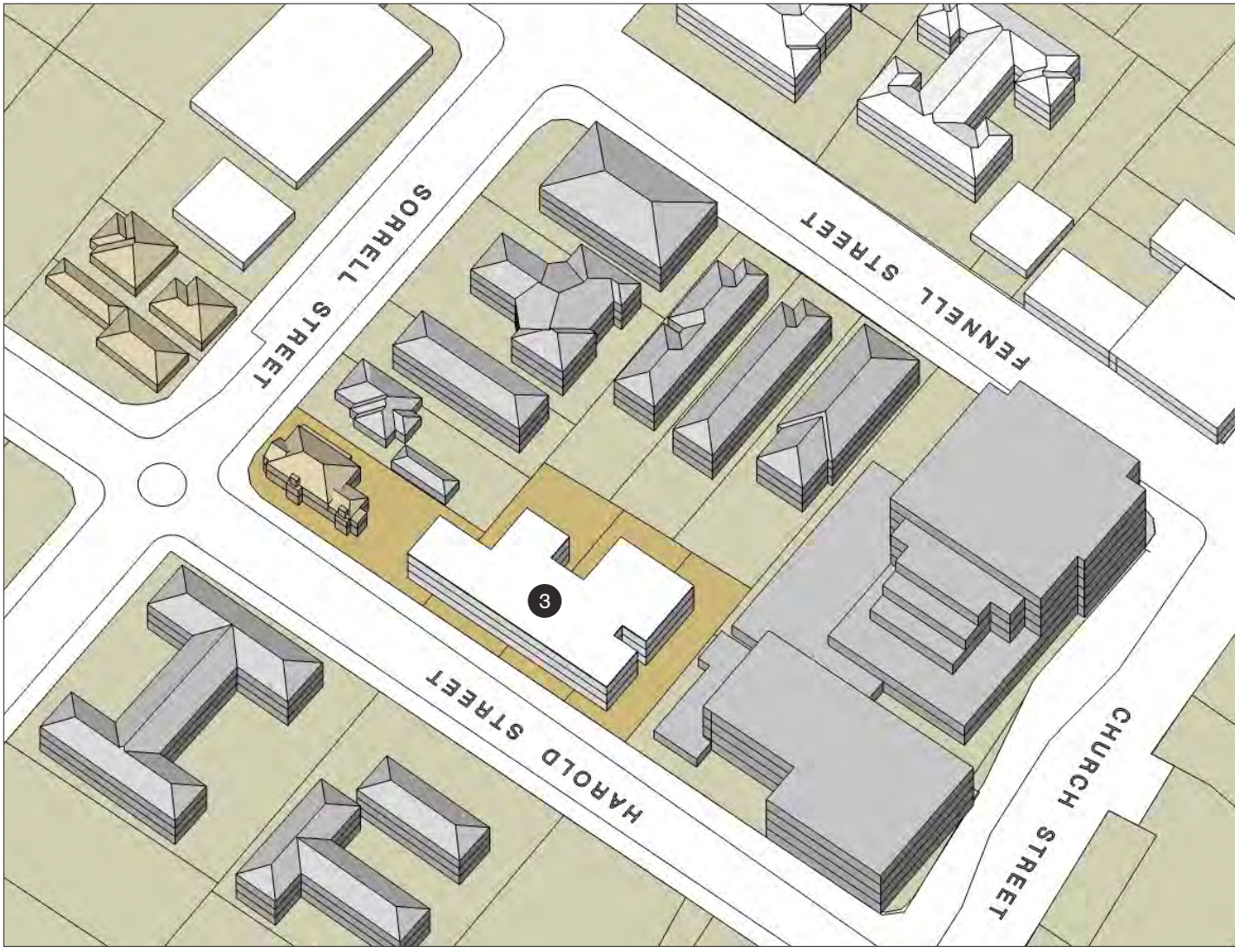


Option 1 - Complying Scheme - 0.8:1 FSR

3D View 1



3D View 2



- Proposed Building Envelopes
- Future Building Envelopes
- Existing Buildings

View from Corner of Harold Street & Sorrell Street



4.2 Option 2 - 4.0:1 FSR

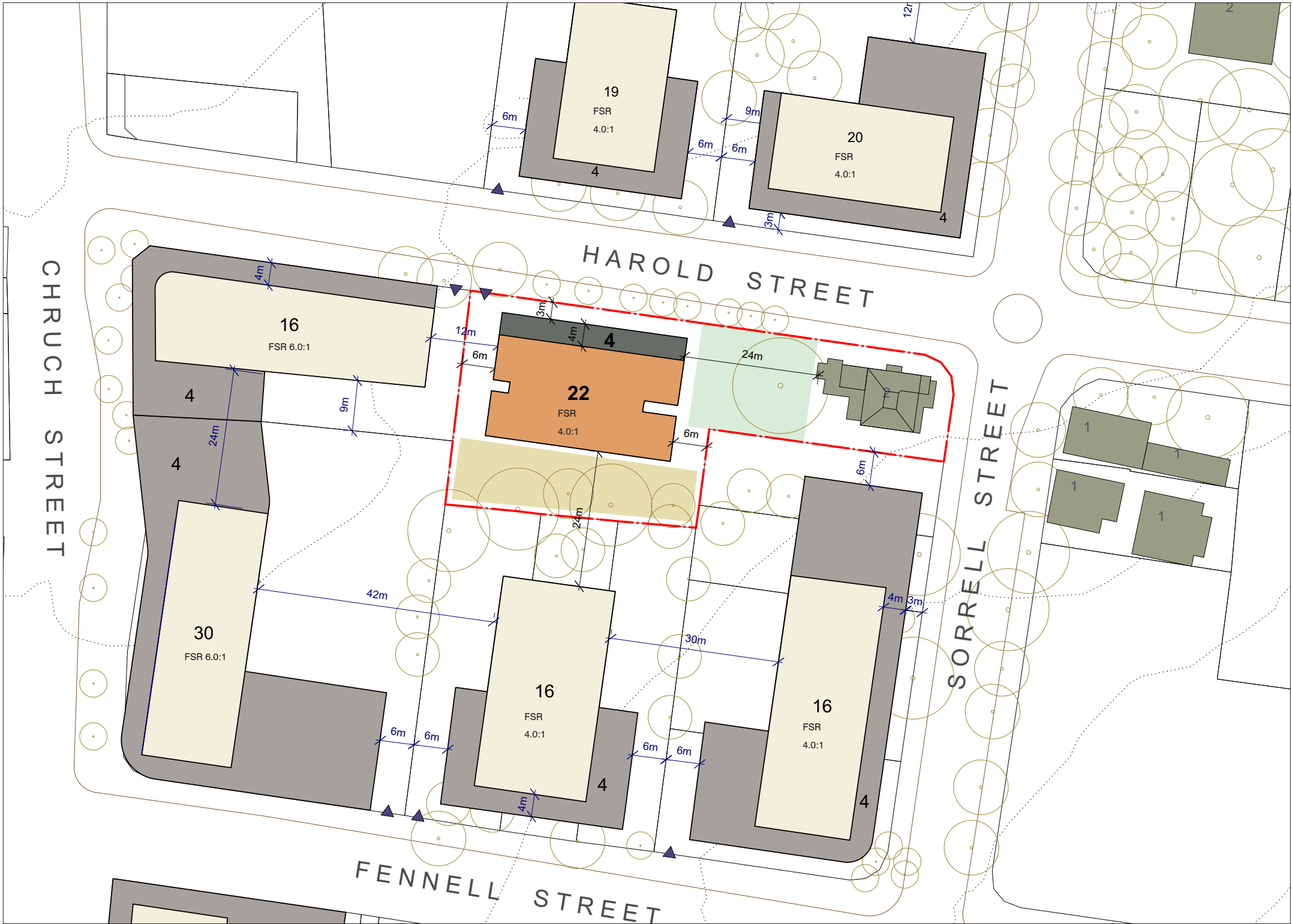
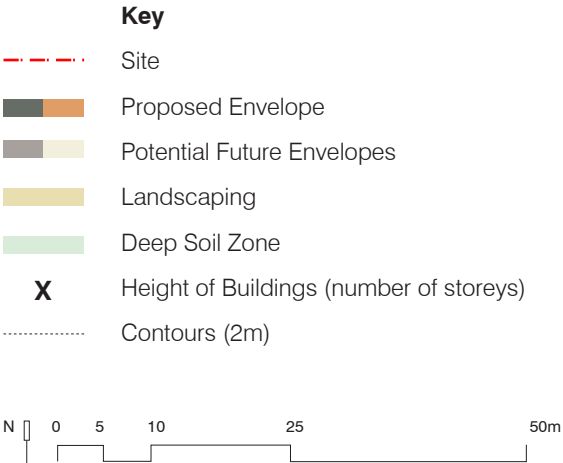
2D Building Envelopes

Key figures

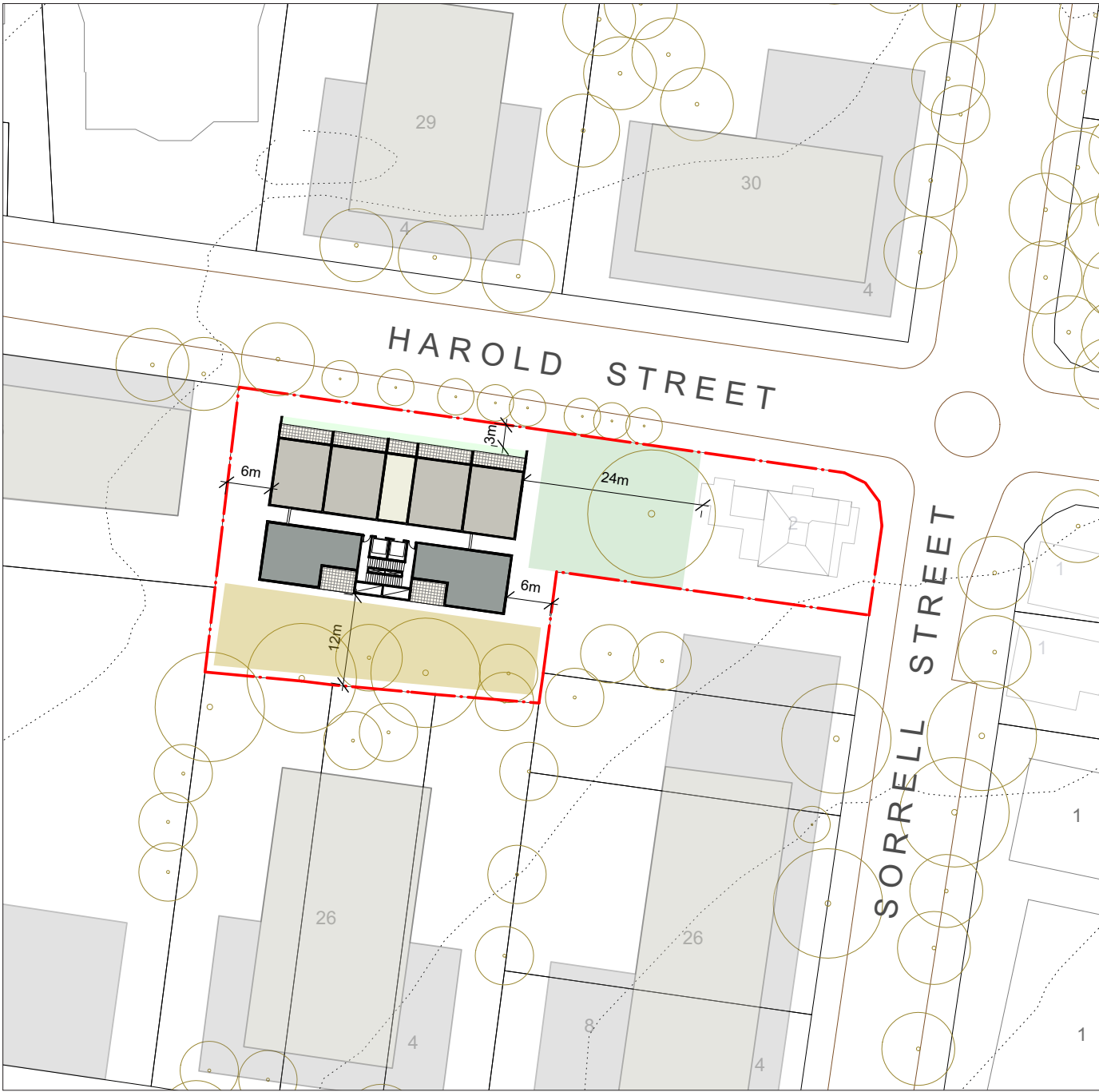
FSR = 4.0:1 (sites between Sorrell Street and the existing 6:1 zone facing Church Street)
No. of Storeys = 22
GFA = 9,650m²
No. of Apartments = 116

Key considerations

- Lower than the FSR recommended by the Parramatta CBD Planning Framework Study.
- This option demonstrates that 4.0:1 provides excellent amenity within street blocks with higher density.

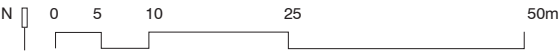
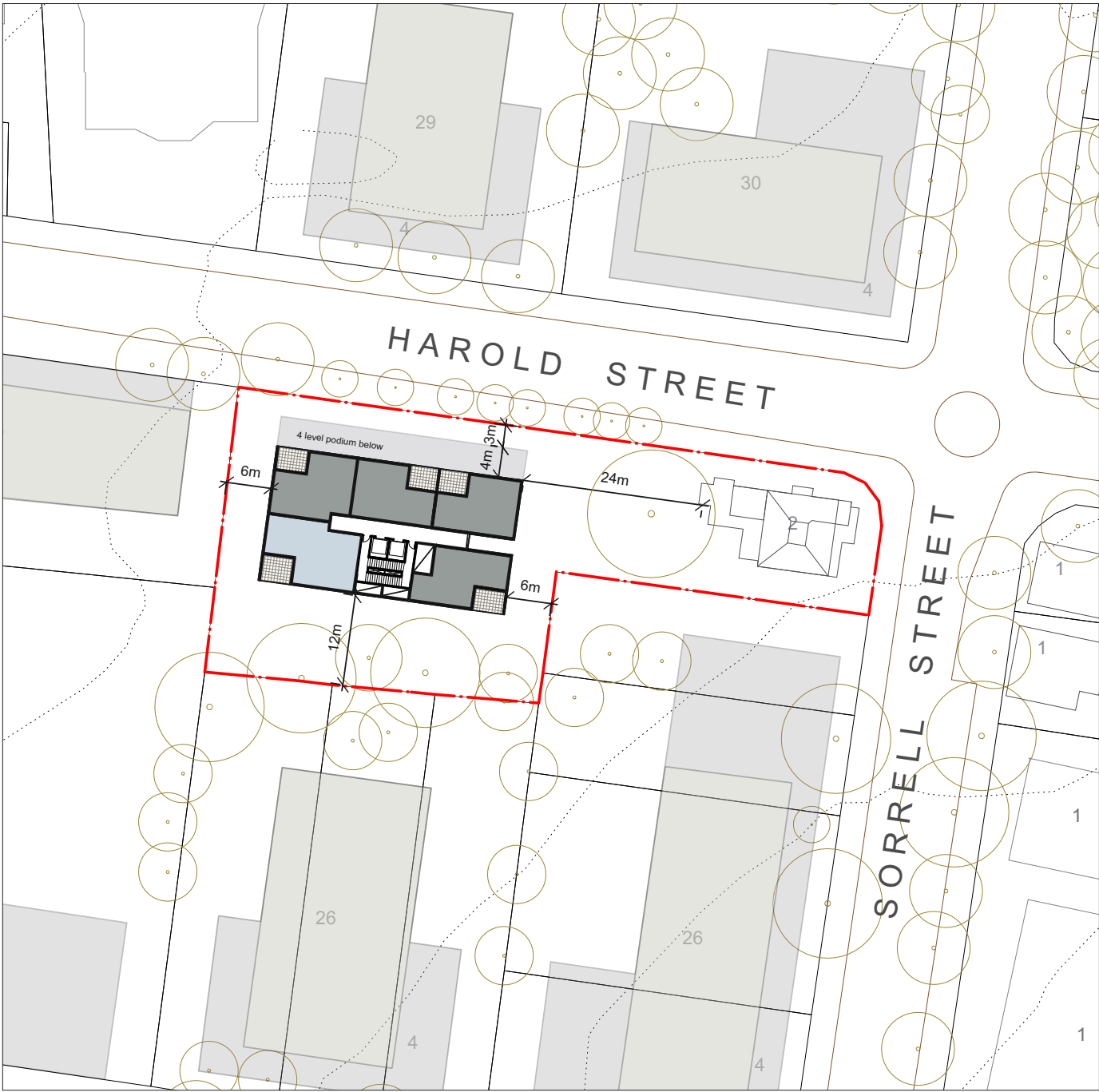


Typical Podium Level Plan [Level 1-4]



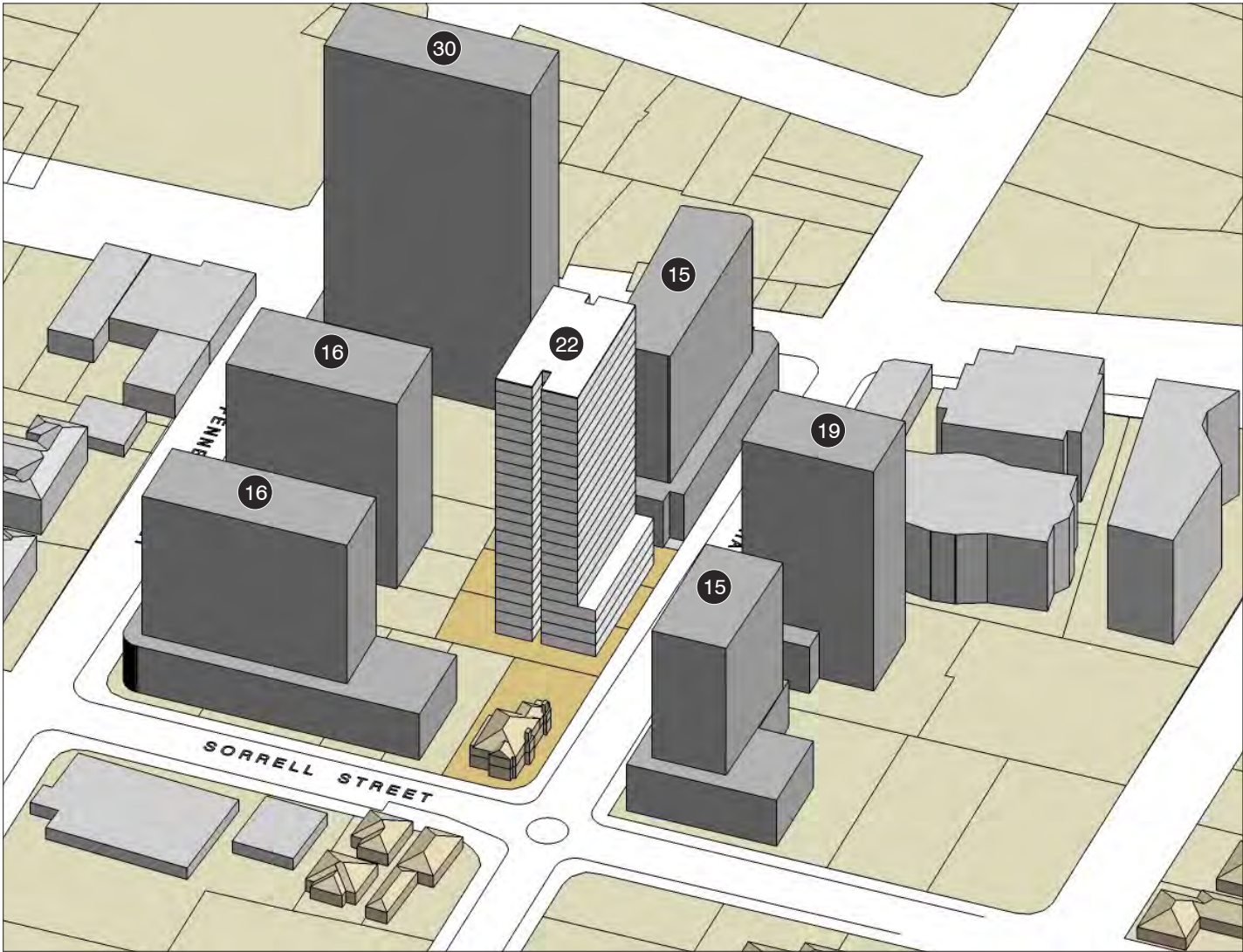
- 1 Bedroom Apartments
- 2 Bedroom Apartments
- 3 Bedroom Apartments
- Studios

Typical Tower Level Plan [Level 5-22]



Option 2 - 4.0:1 FSR

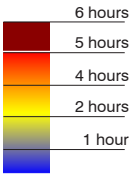
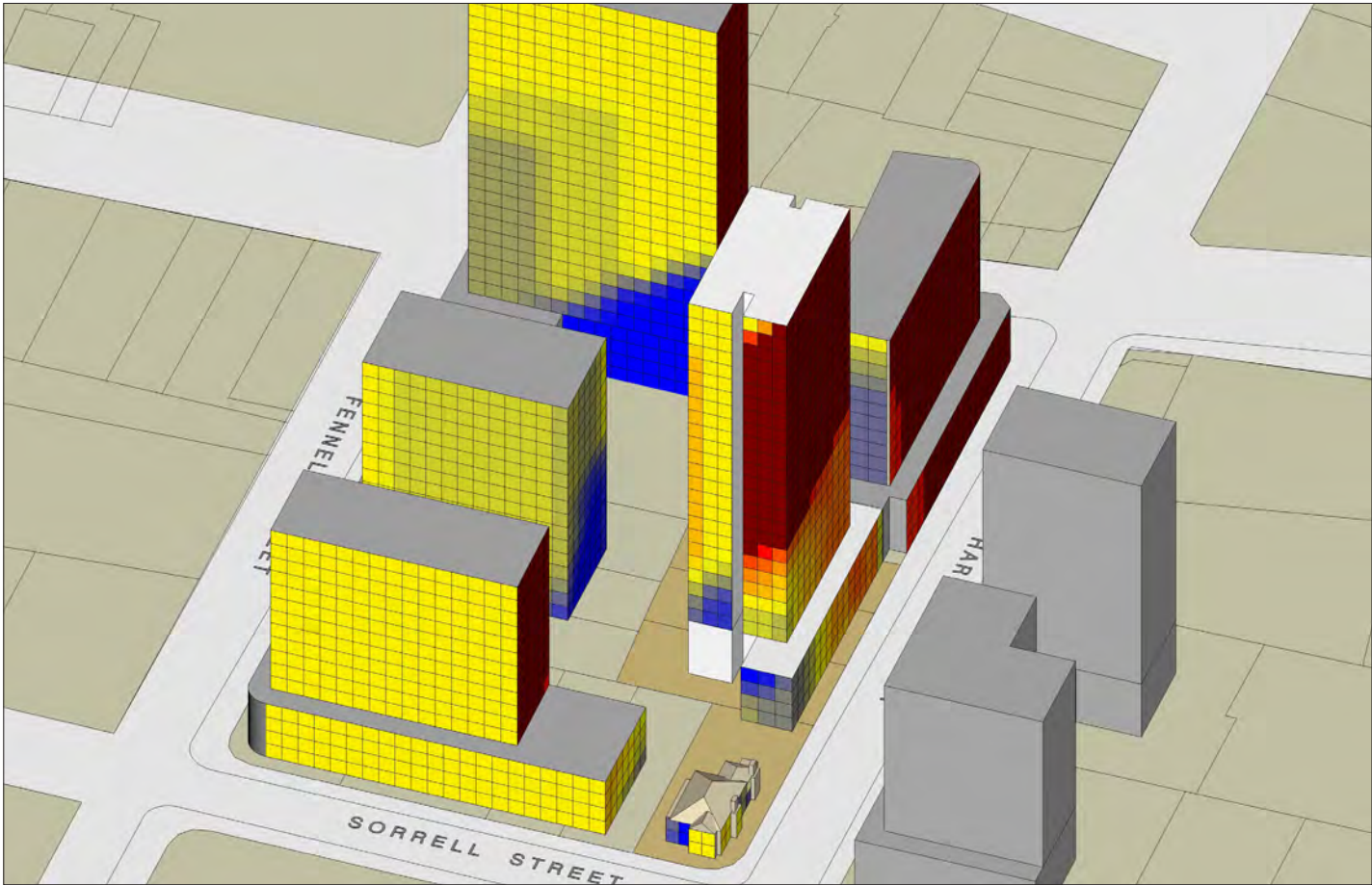
3D View 1



3D View 2

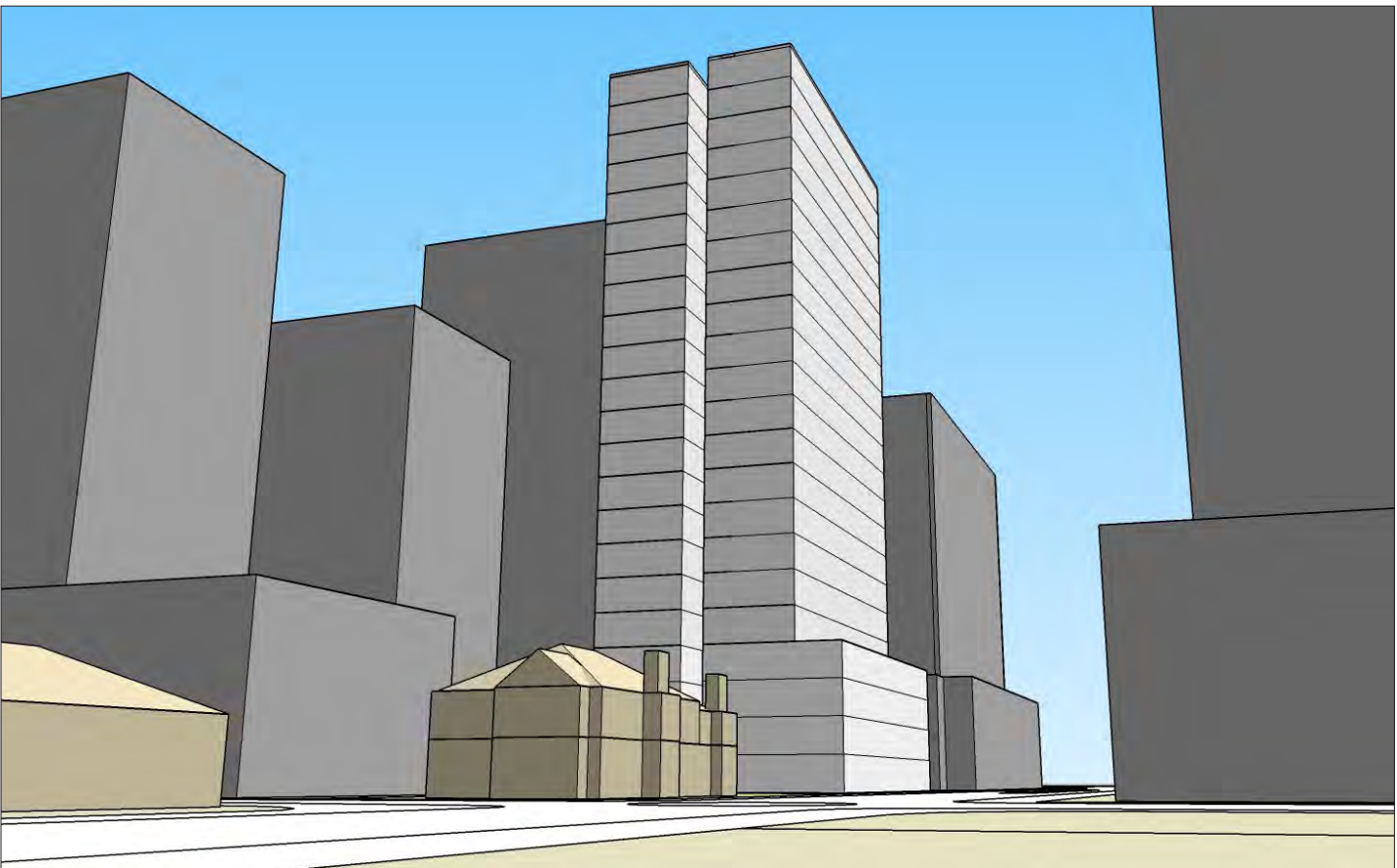


3D view showing high level solar access gradient achieved in number of hours during mid-winter
The built form significantly exceeds solar access requirements.



Solar access gradient
9am-3pm mid-winter

View from Corner of Harold Street & Sorrell Street



4.3 Option 3A - 6.0:1 FSR (with a continuous building base)

Key figures

FSR = 6:1 (Church St to Sorrell St)

No. of Storeys = 31

GFA = 14,465m²

No. of Apartments = 174

Key considerations

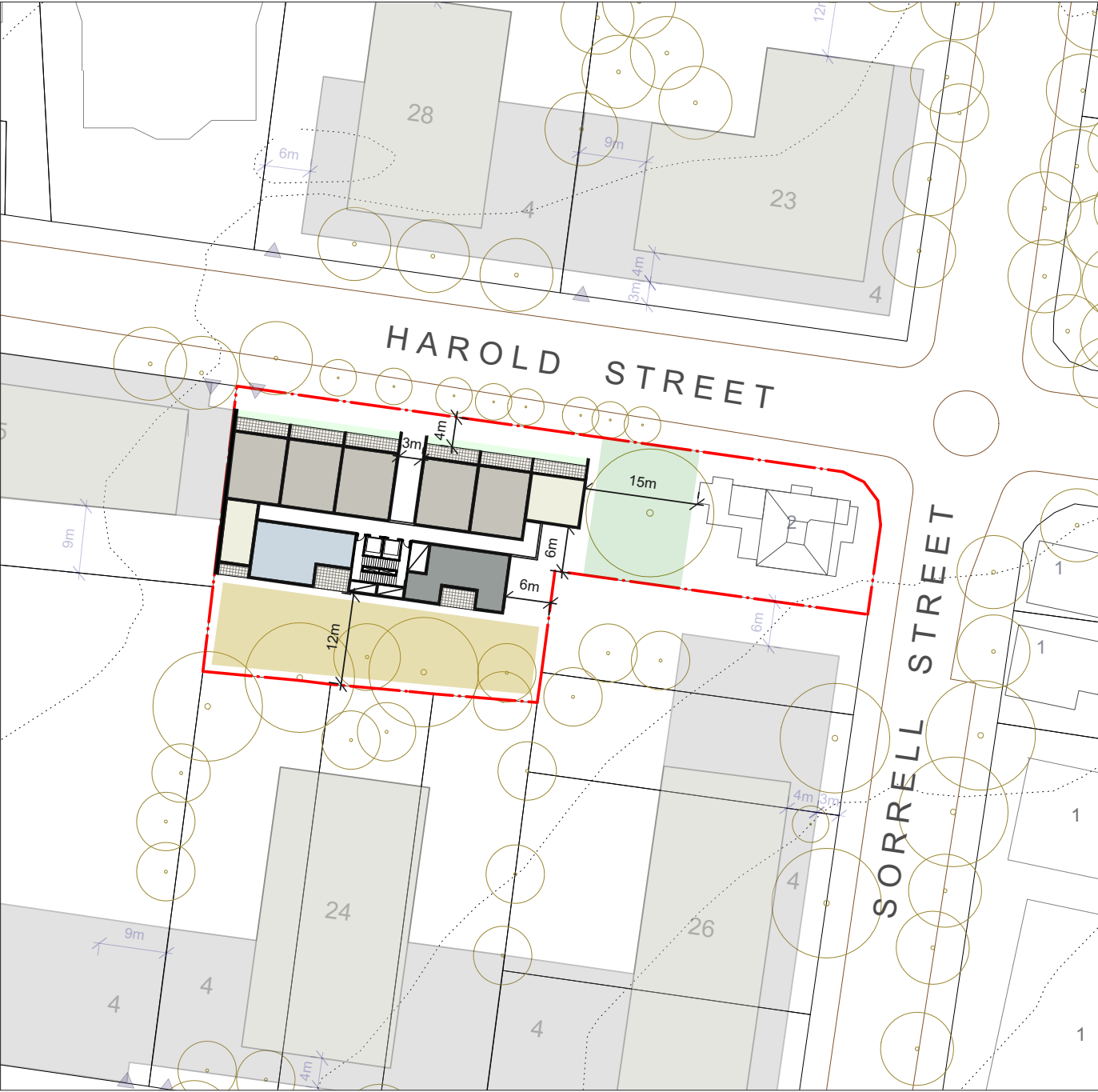
- Matches the FSR indicatively applied by the Parramatta CBD Planning Framework Study.
- Proposes a continuous building base/podium, where the first 4 levels are built to the side boundary. This engages with the height of the heritage building.
- Slightly lower heights than Option 3B.
- The street block size and the location of towers result in buildings with high amenity due to good tower separation.

Note: Church Street sites shown at 6.0:1

2D Building Envelopes

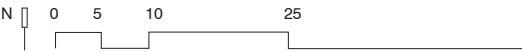
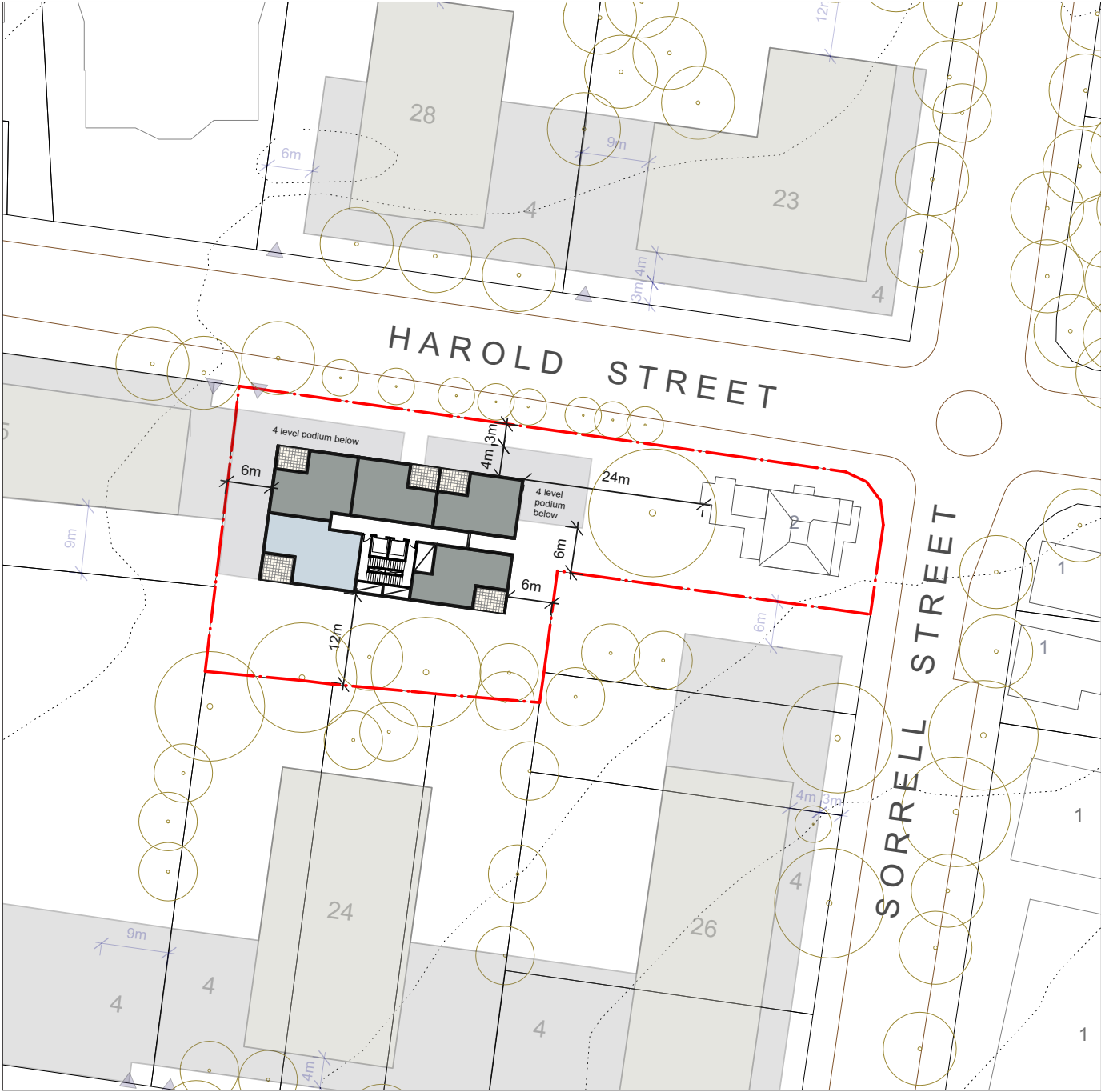


Typical Podium Level Plan [Level 1 - 4]



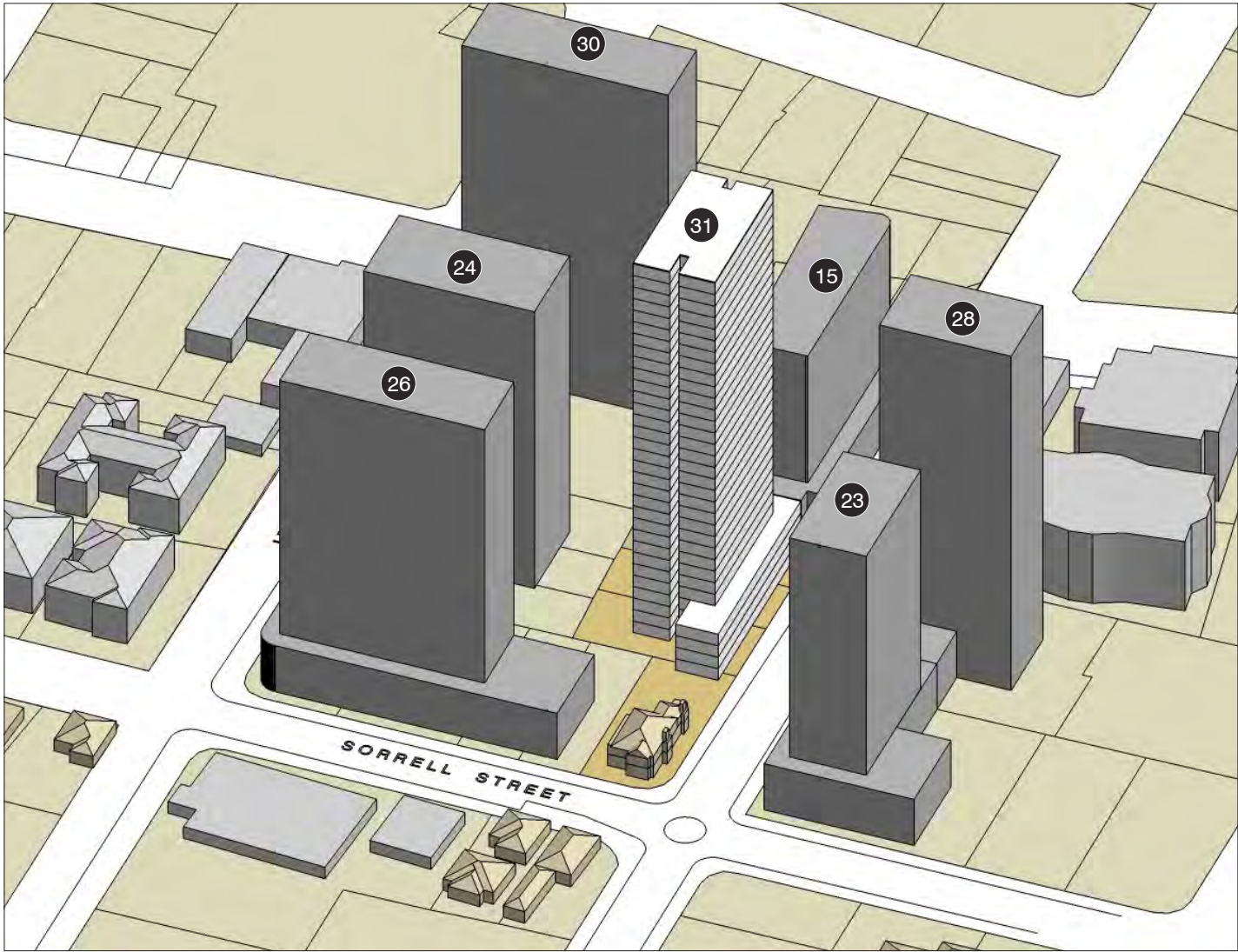
- 1 Bedroom Apartments
- 2 Bedroom Apartments
- 3 Bedroom Apartments
- Studios

Typical Tower Level Plan [Level 5 - 31]

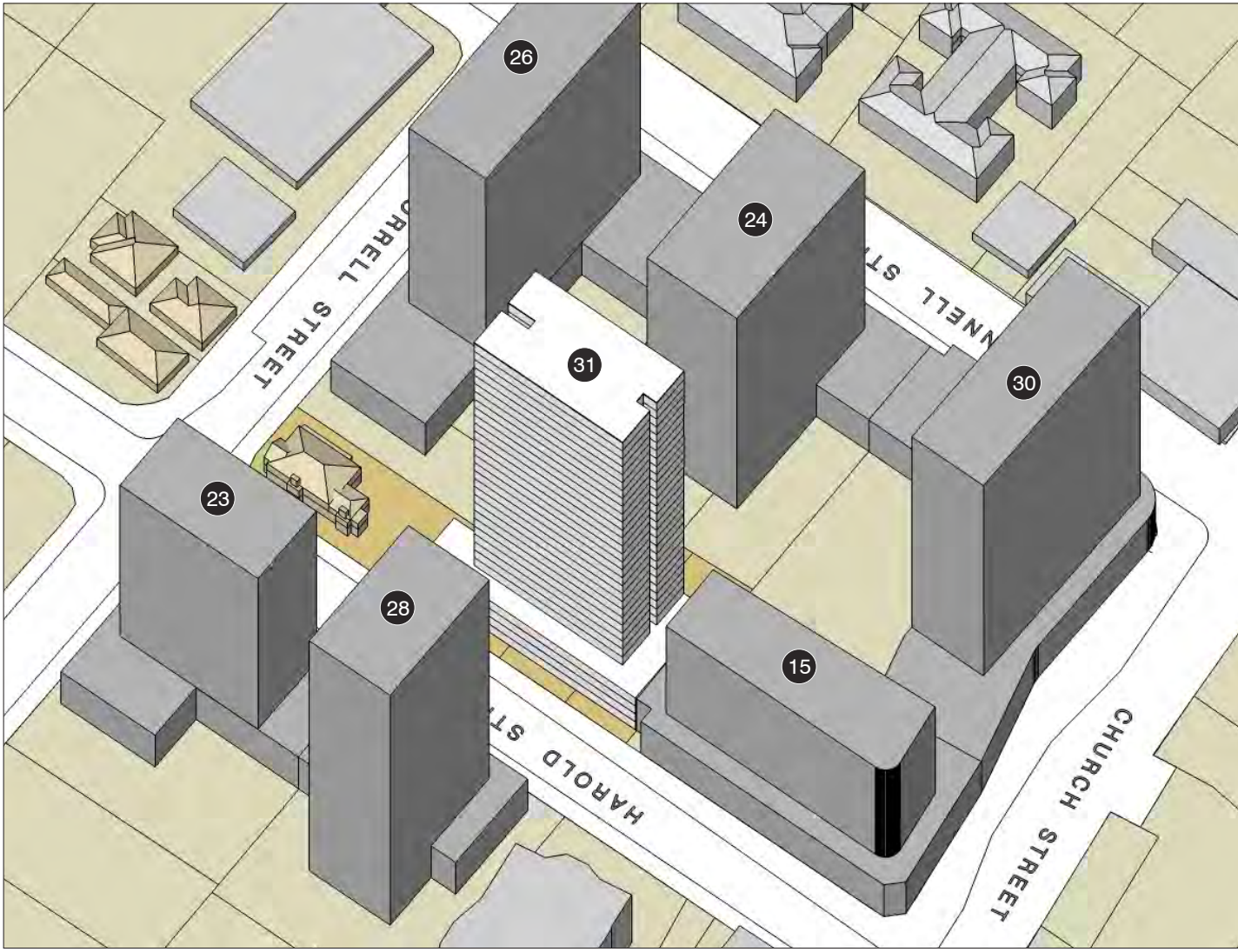


Option 3A - 6.0:1 FSR (with a continuous building base)

3D View 1

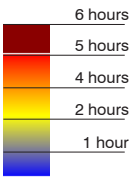
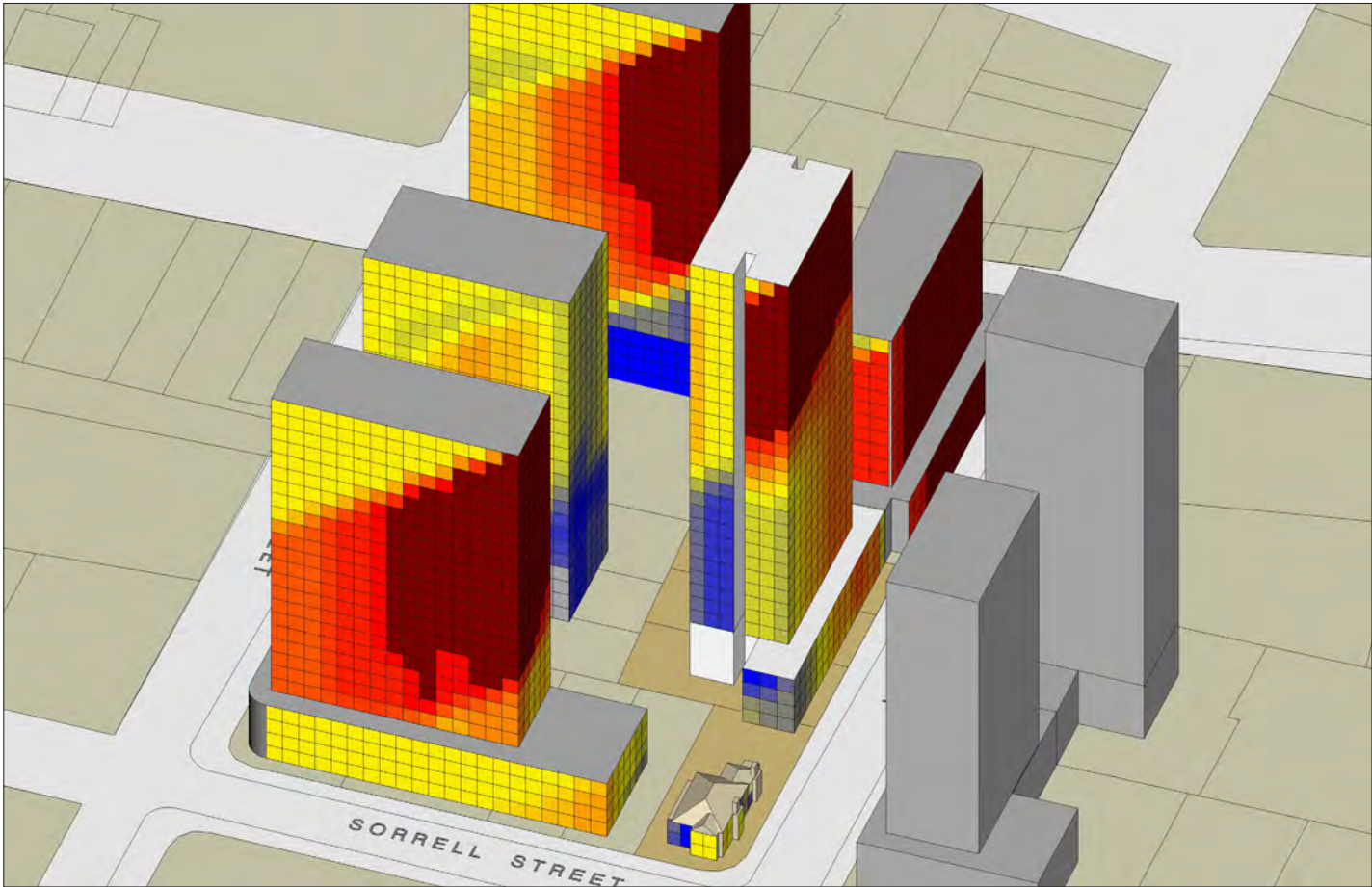


3D View 2



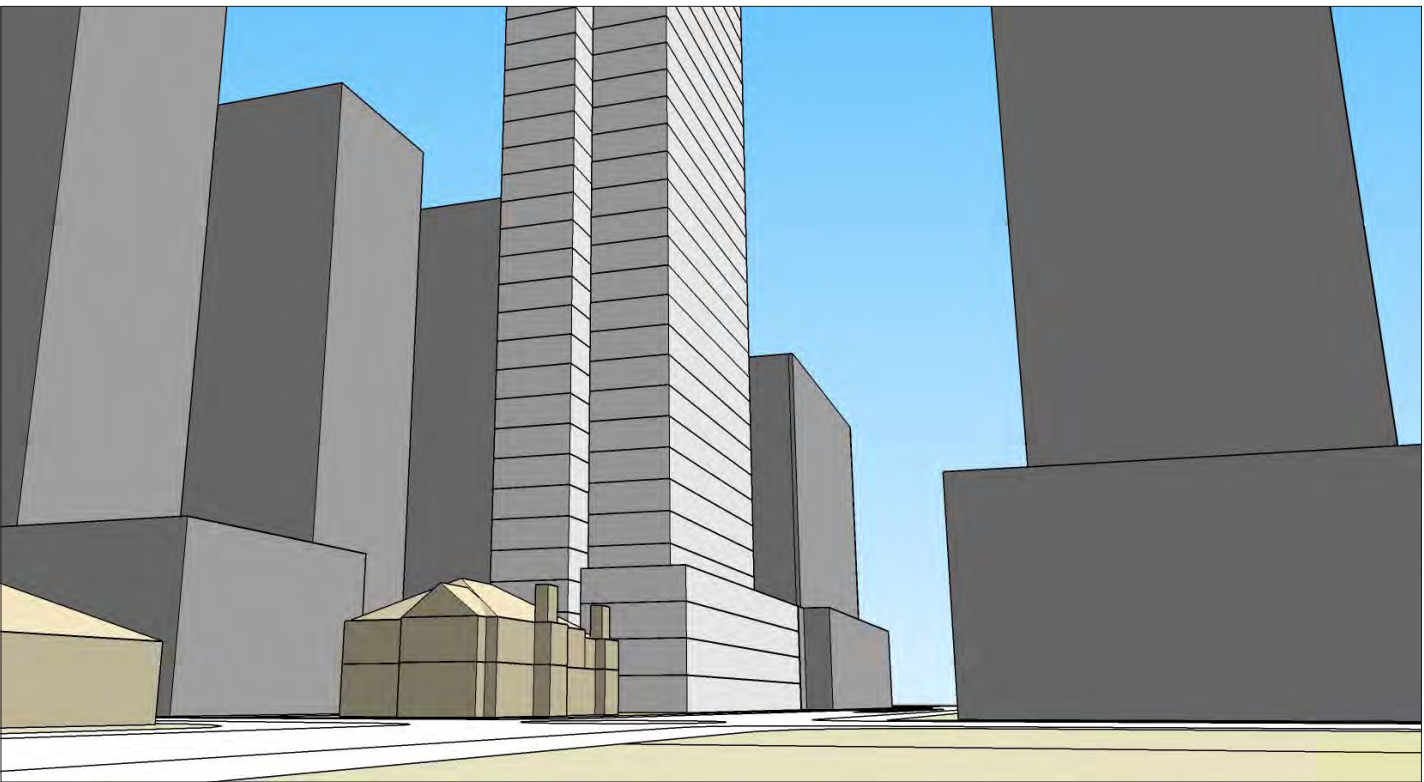
- Proposed Building Envelopes
- Future Building Envelopes
- Heritage items

3D view showing high level solar access gradient achieved in number of hours during mid-winter
The built form readily achieves solar access requirements.



Solar access gradient
9am-3pm mid-winter

View from Corner of Harold Street & Sorrell Street



4.4 Option 3B - 6.0:1 FSR (with setbacks for building base)

Key figures

FSR = 6.0:1 (Church St to Sorrell St)

No. of Storeys = 33

GFA = 14,465m²

No. of Apartments = 174

Key considerations

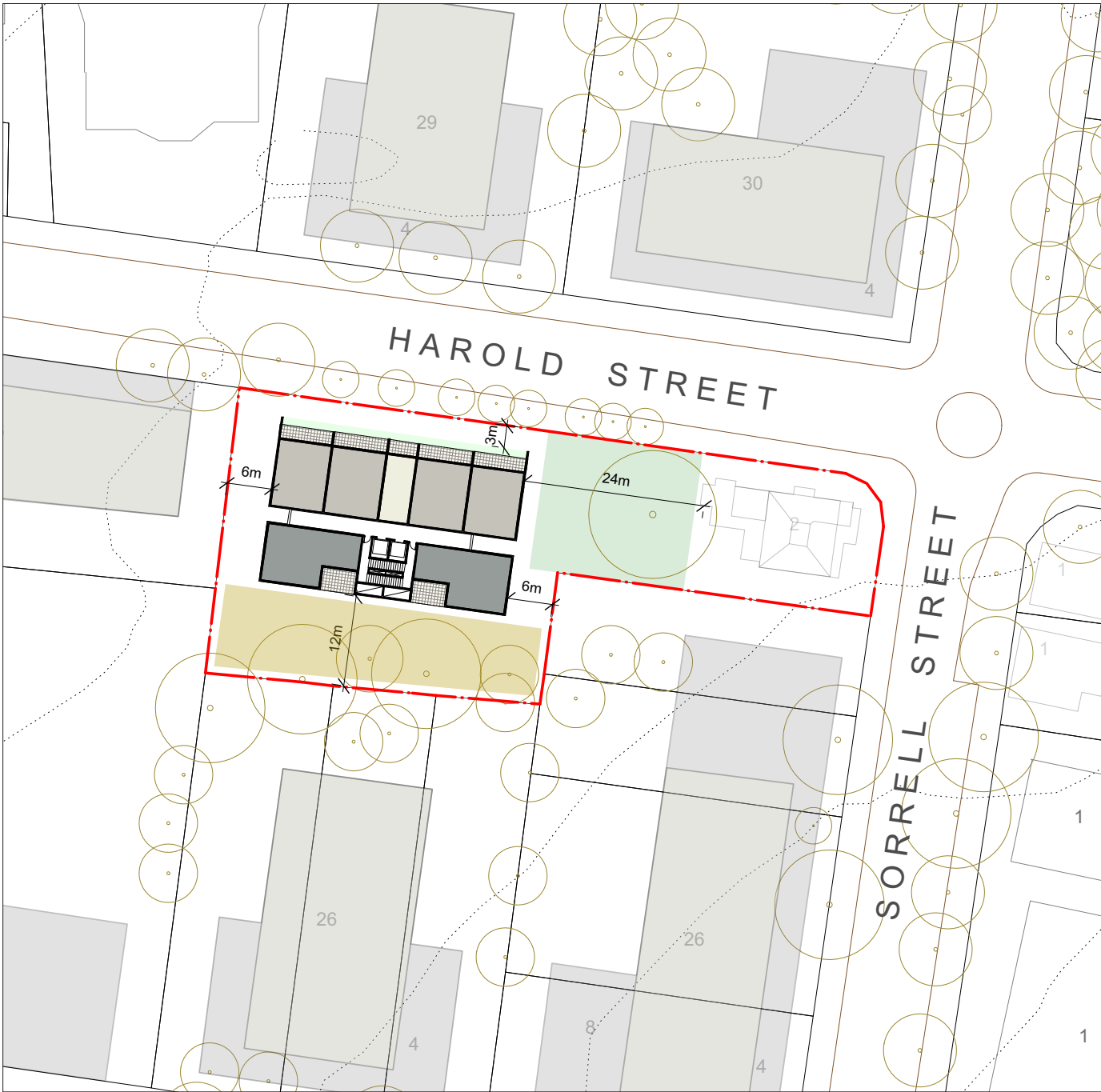
- Matches the FSR indicatively applied by the Parramatta CBD Planning Framework Study.
- Non-continuous building base/podium, where separation is provided between building forms even at lower levels allowing a landscaped break between buildings.
- Slightly taller than Option 3A.
- The street block size and the location of towers result in buildings with high amenity due to good tower separation.

Note: Church Street sites shown at 6.0:1

2D Building Envelopes

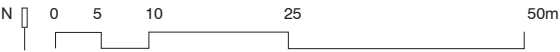
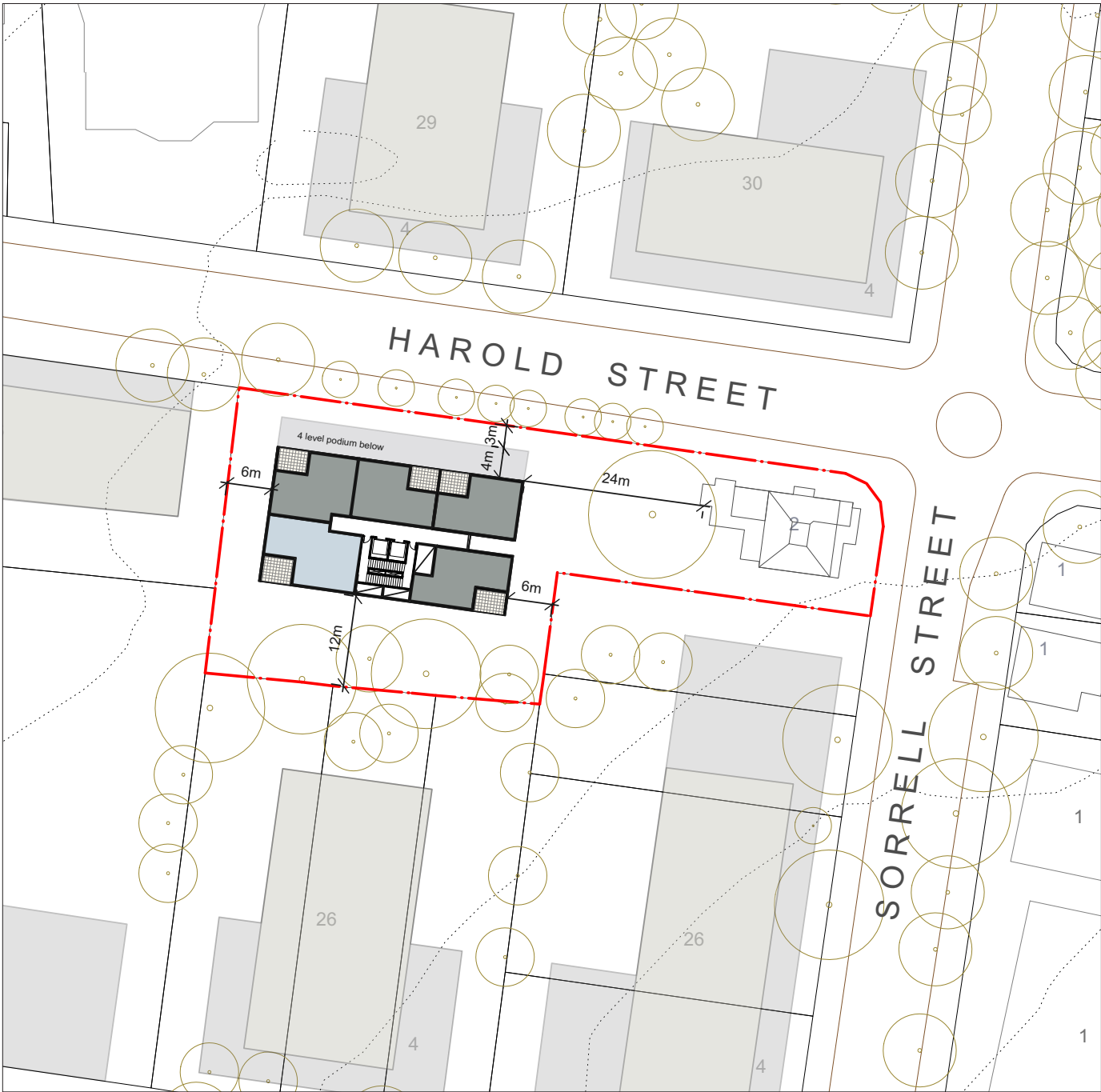


Typical Podium Level Plan [Level 1 - 4]



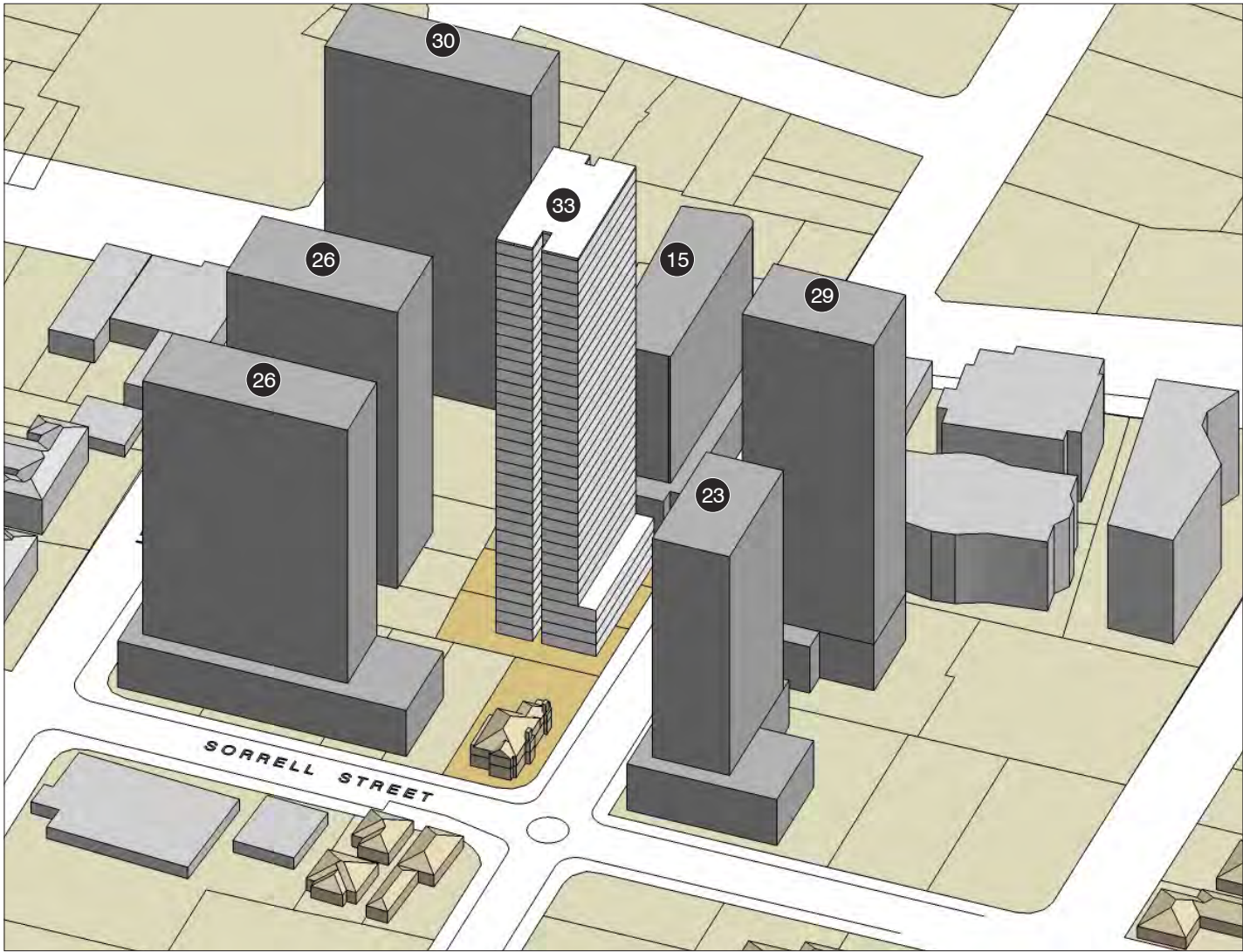
- 1 Bedroom Apartments
- 2 Bedroom Apartments
- 3 Bedroom Apartments
- Studios

Typical Tower Level Plan [Level 5-33]

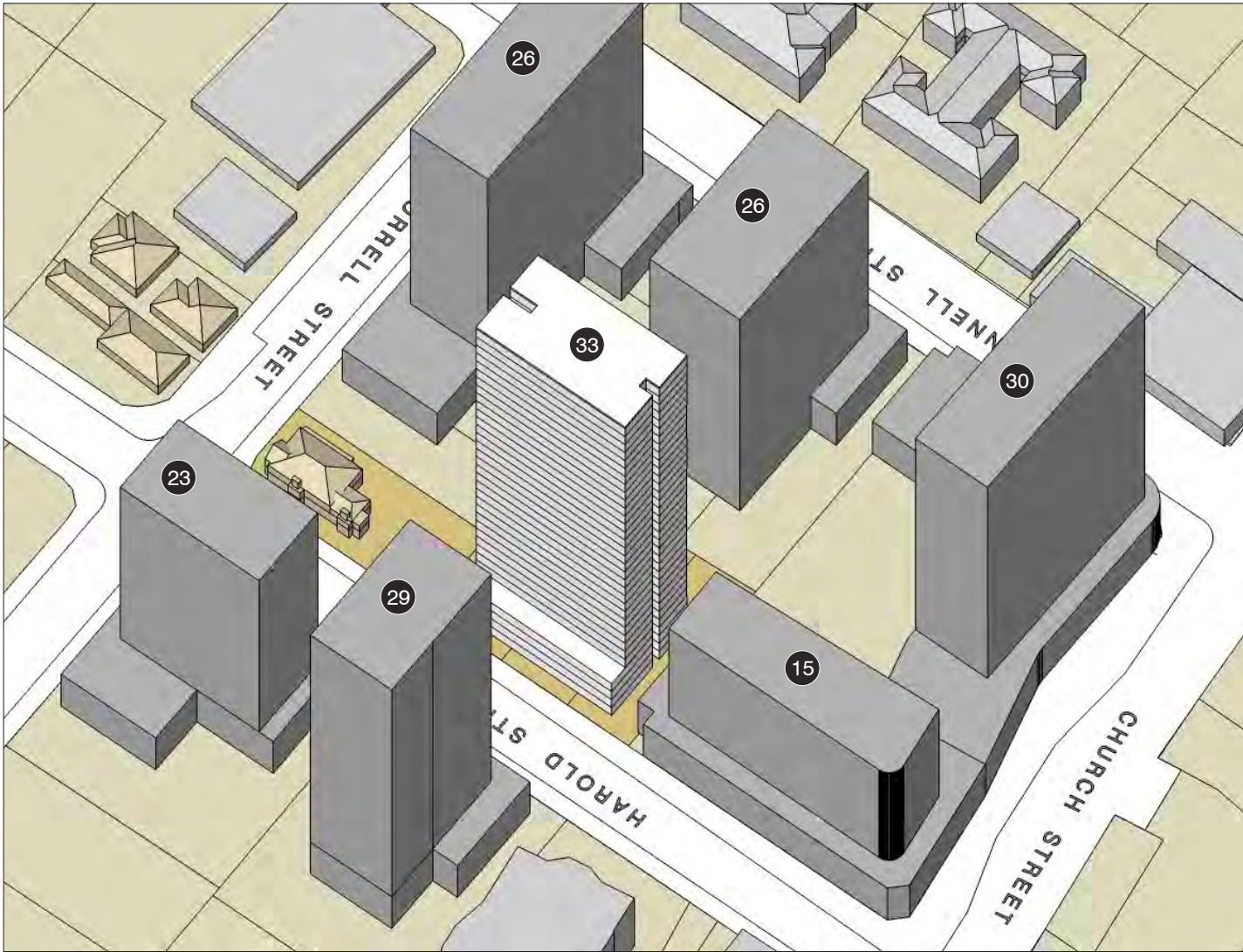


Option 3B - 6.0:1 FSR (with setbacks for building base)

3D View 1

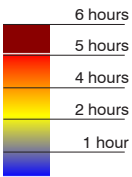
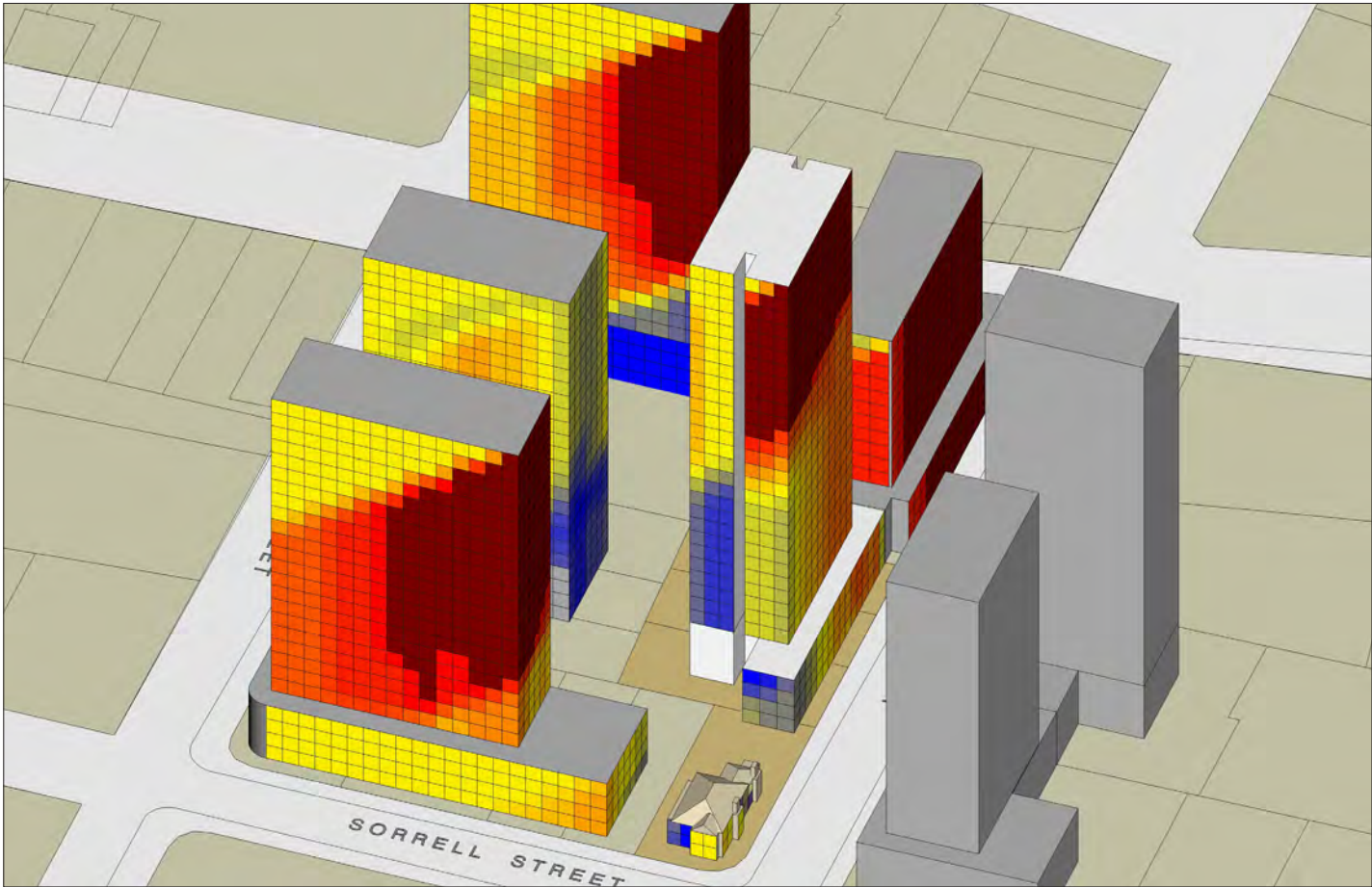


3D View 2



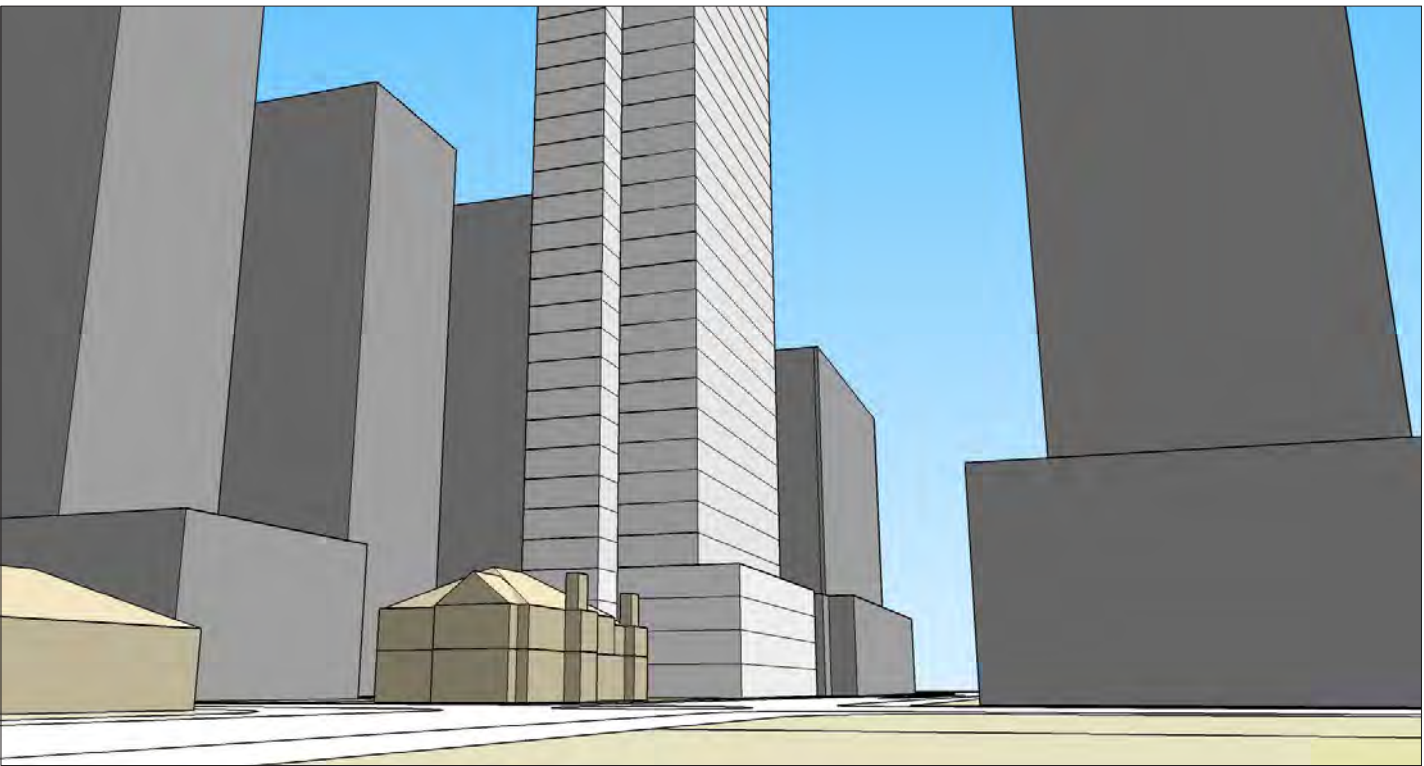
- Proposed Building Envelopes
- Future Building Envelopes
- Heritage items

3D view showing high level solar access gradient achieved in number of hours during mid-winter
The built form readily achieves solar access requirements.



Solar access gradient
9am-3pm mid-winter

View from Corner of Harold Street & Sorrell Street



4.5 Option 4 - 8.0:1 FSR

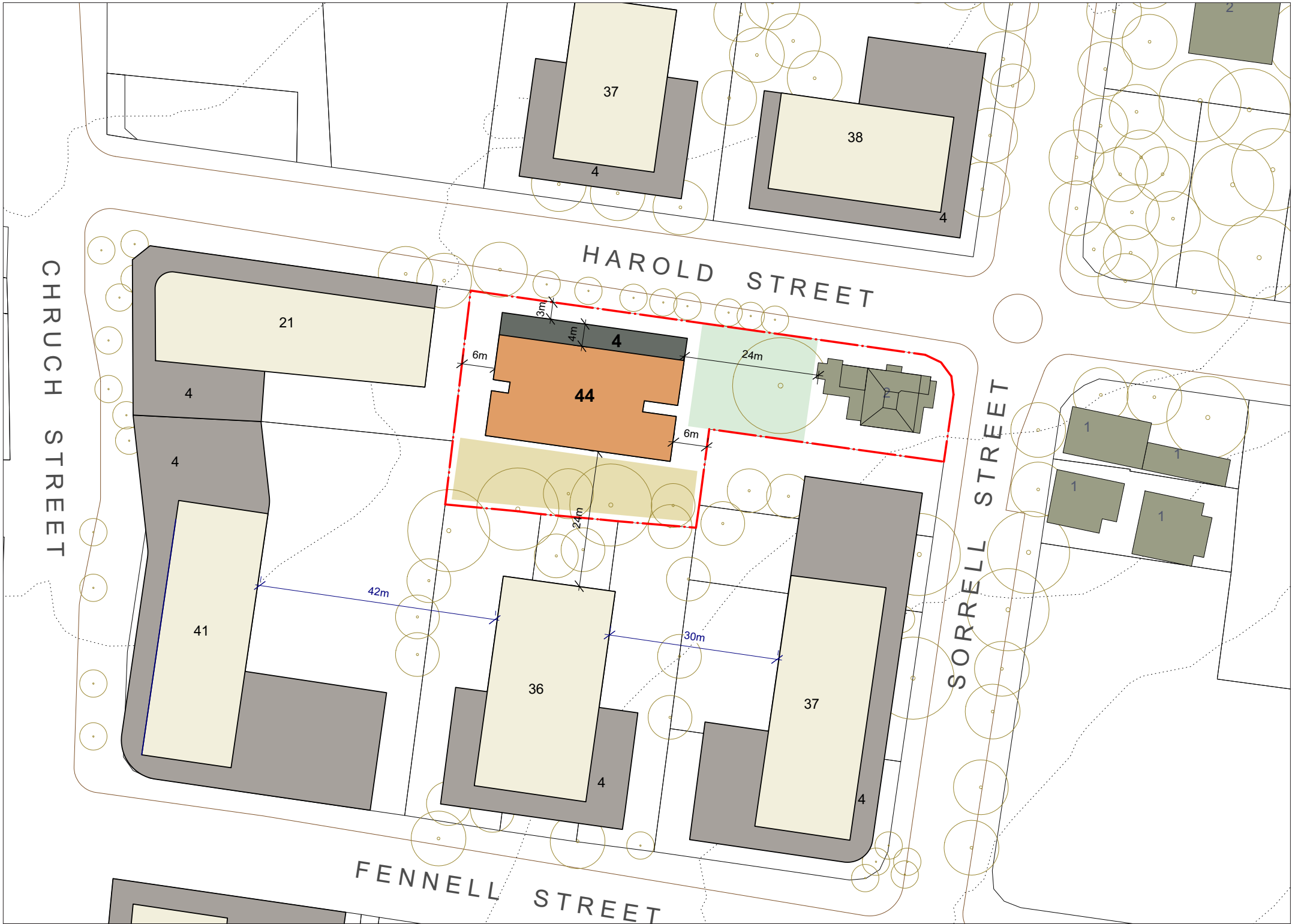
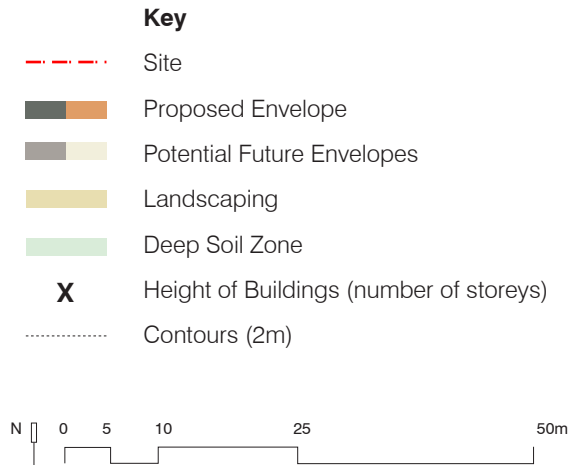
2D Building Envelopes

Key figures

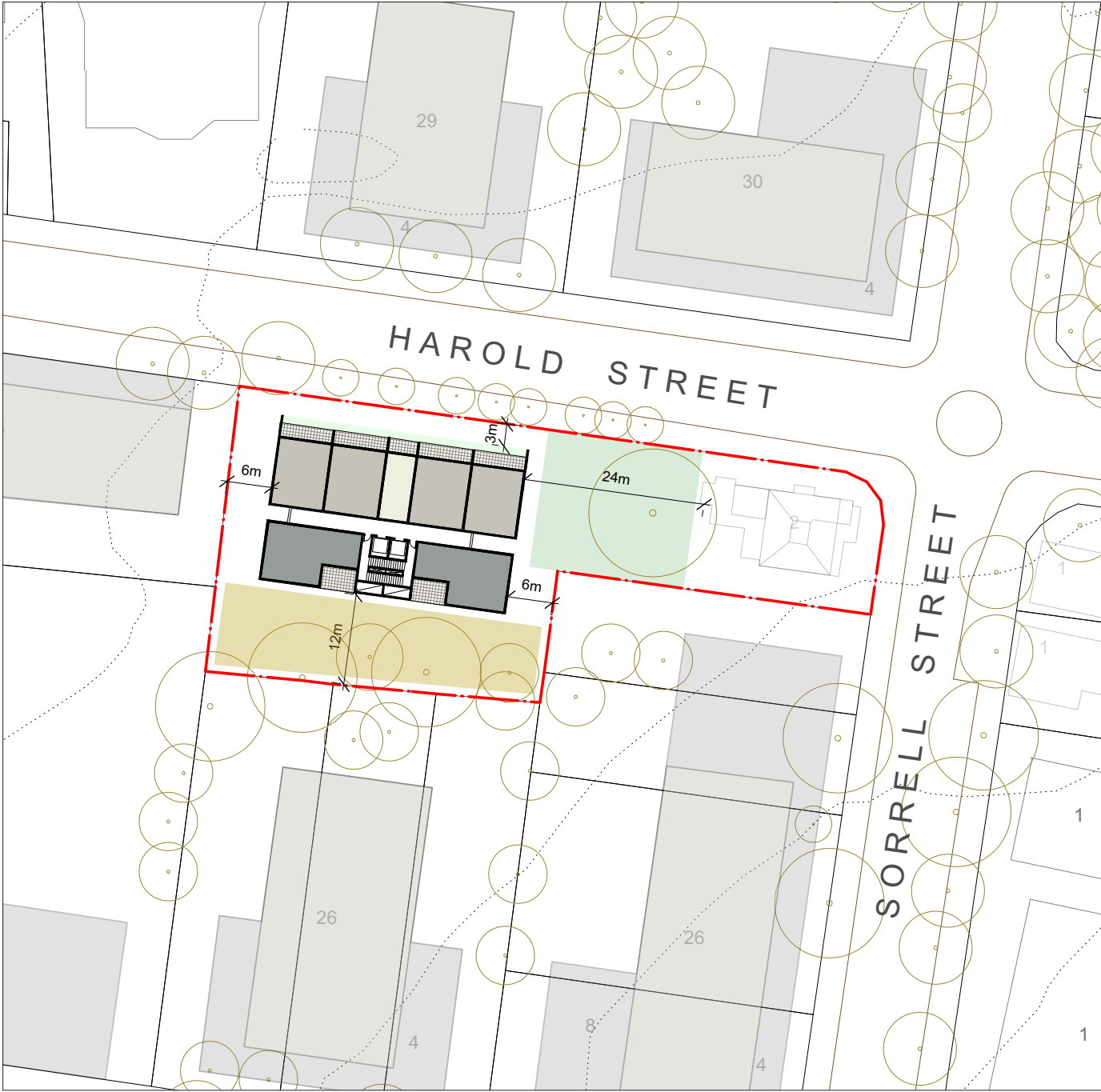
FSR = 8.0:1 (Church St to Sorrell St)
No. of Storeys = 44
GFA = 19,280m²
No. of Apartments = 231

Key considerations

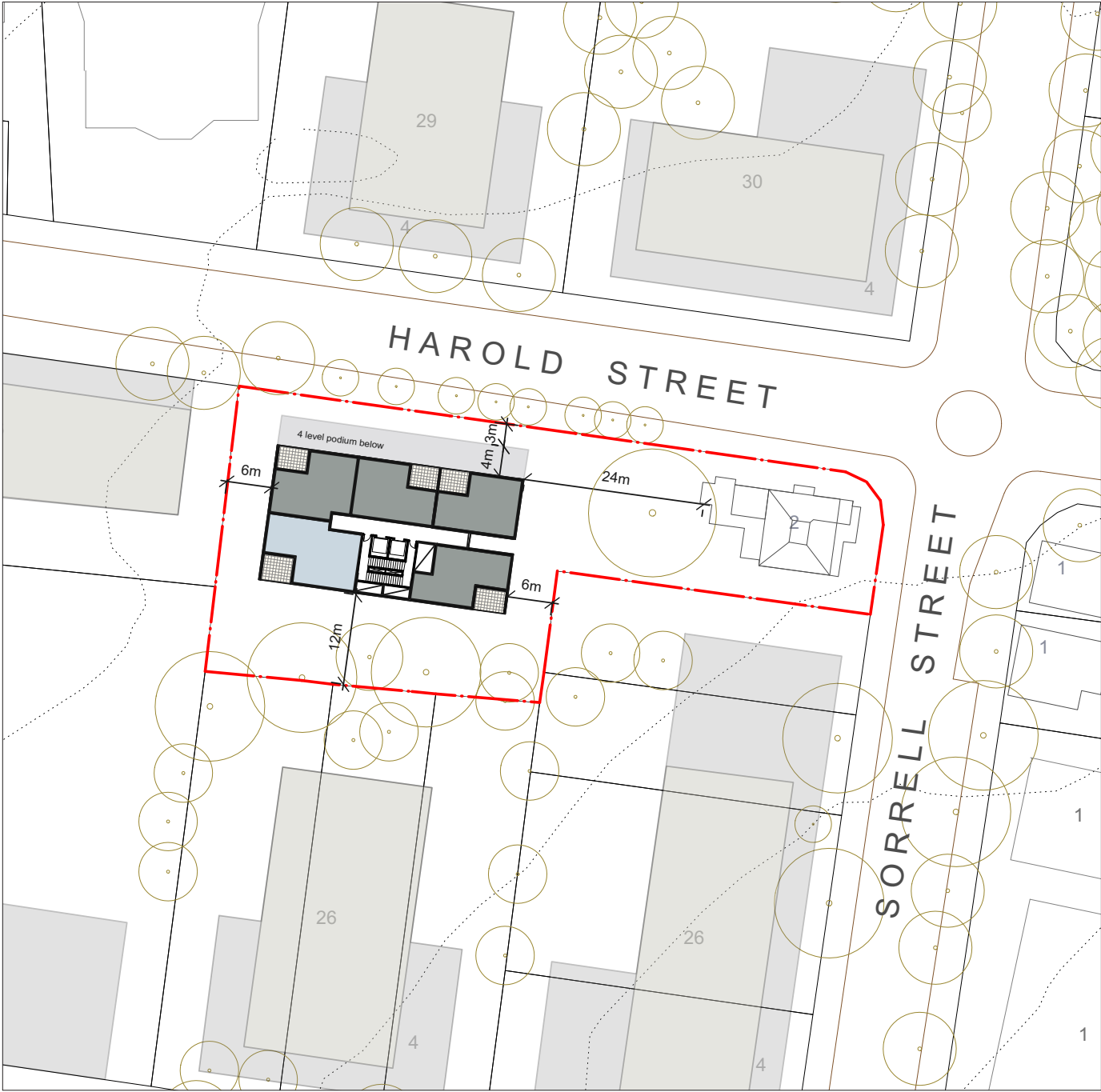
- Greater FSR than recommended by the Parramatta CBD Planning Framework Study.
- As shown due to the context of taller buildings in the local area this option does not meet solar access standards of SEPP 65 Apartment Design Guide for some buildings.
- Architectus consider that towers greater than 35 storeys are more appropriate with the main part of the City Centre rather than the northern Church Street spine.



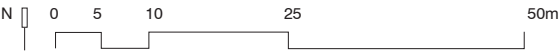
Typical Podium Level Plan [Level 1-4]



Typical Tower Level Plan [Level 5-44]

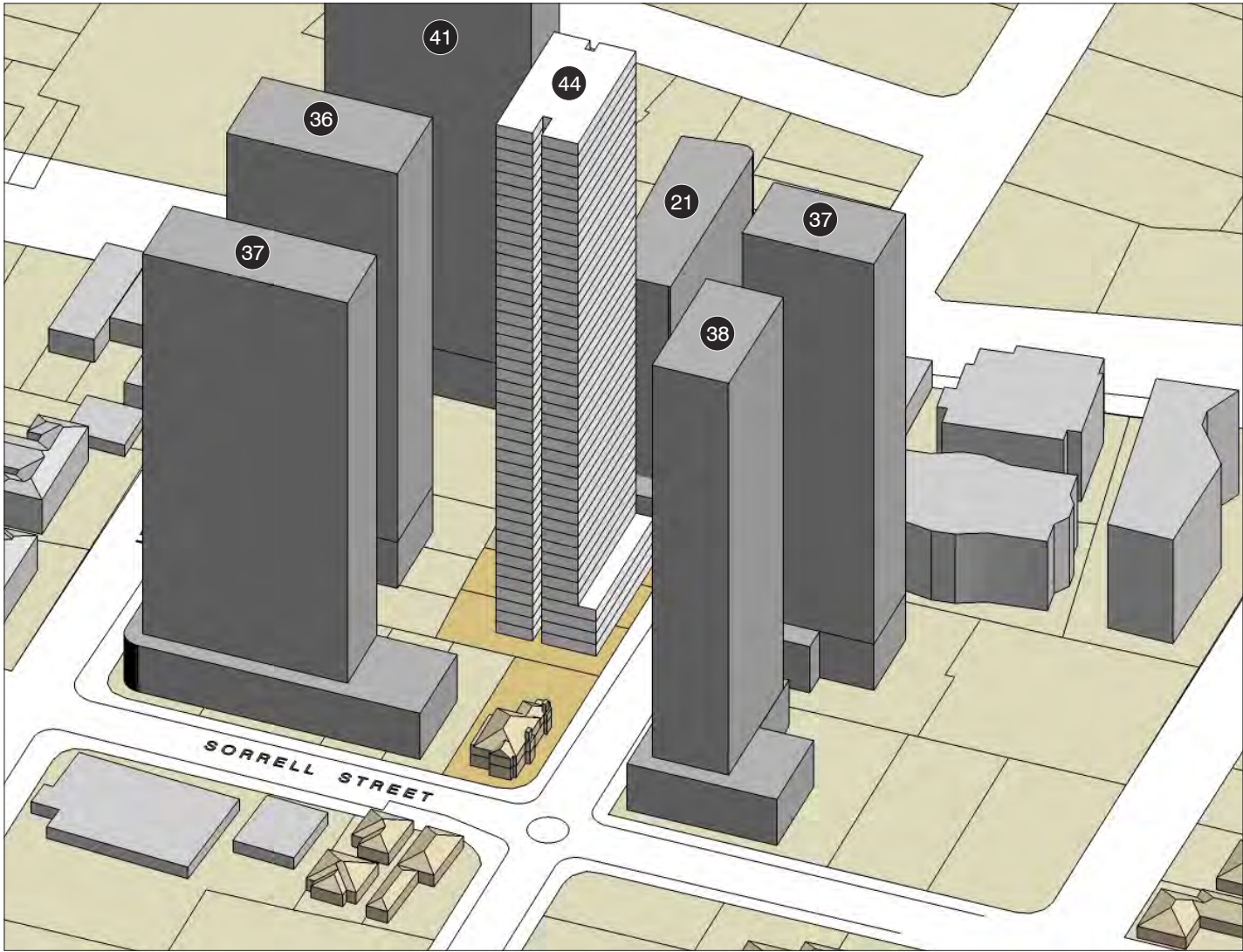


- 1 Bedroom Apartments
- 2 Bedroom Apartments
- 3 Bedroom Apartments
- Studios

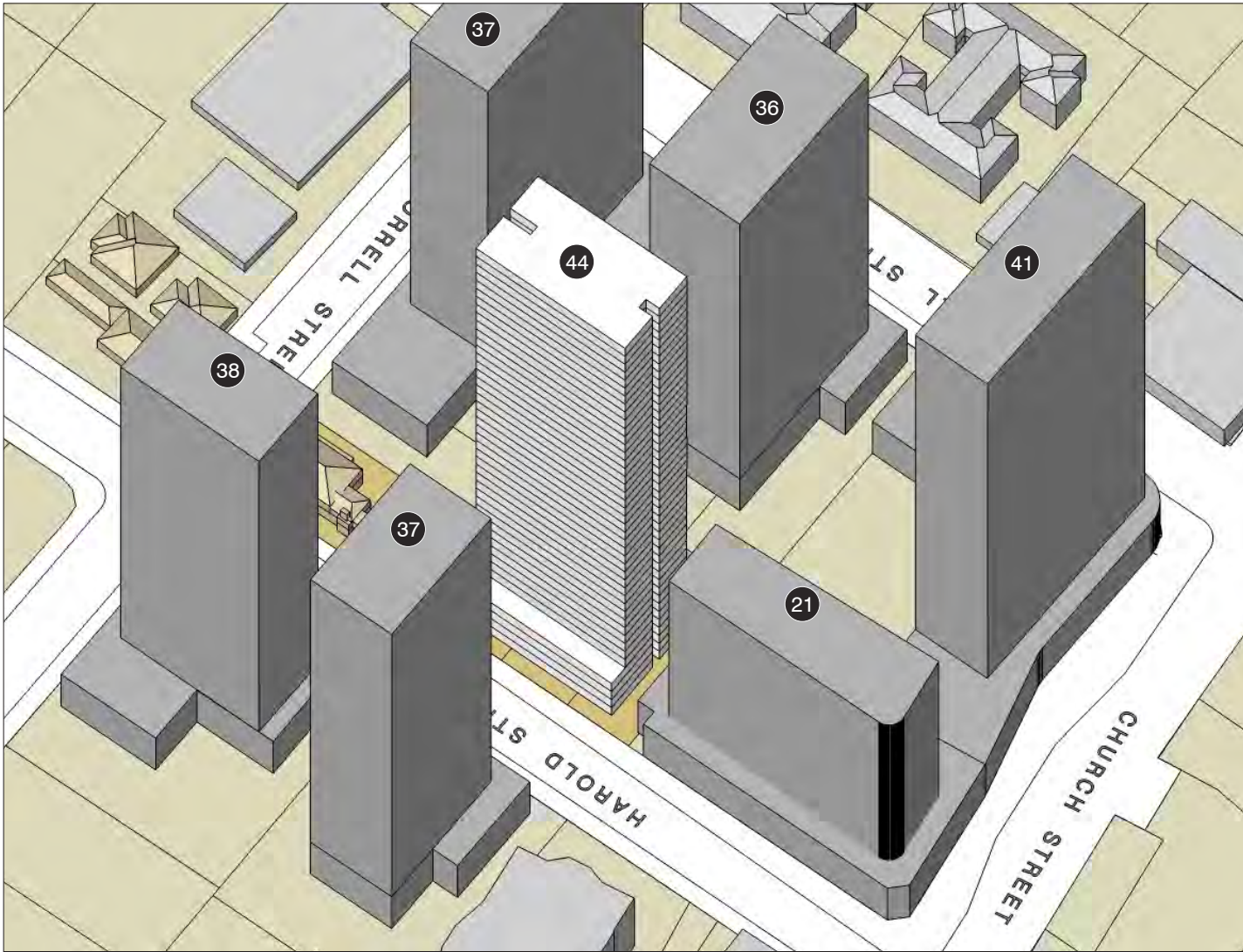


Option 4 - 8.0:1 FSR

3D View 1

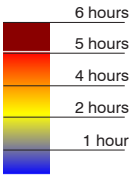
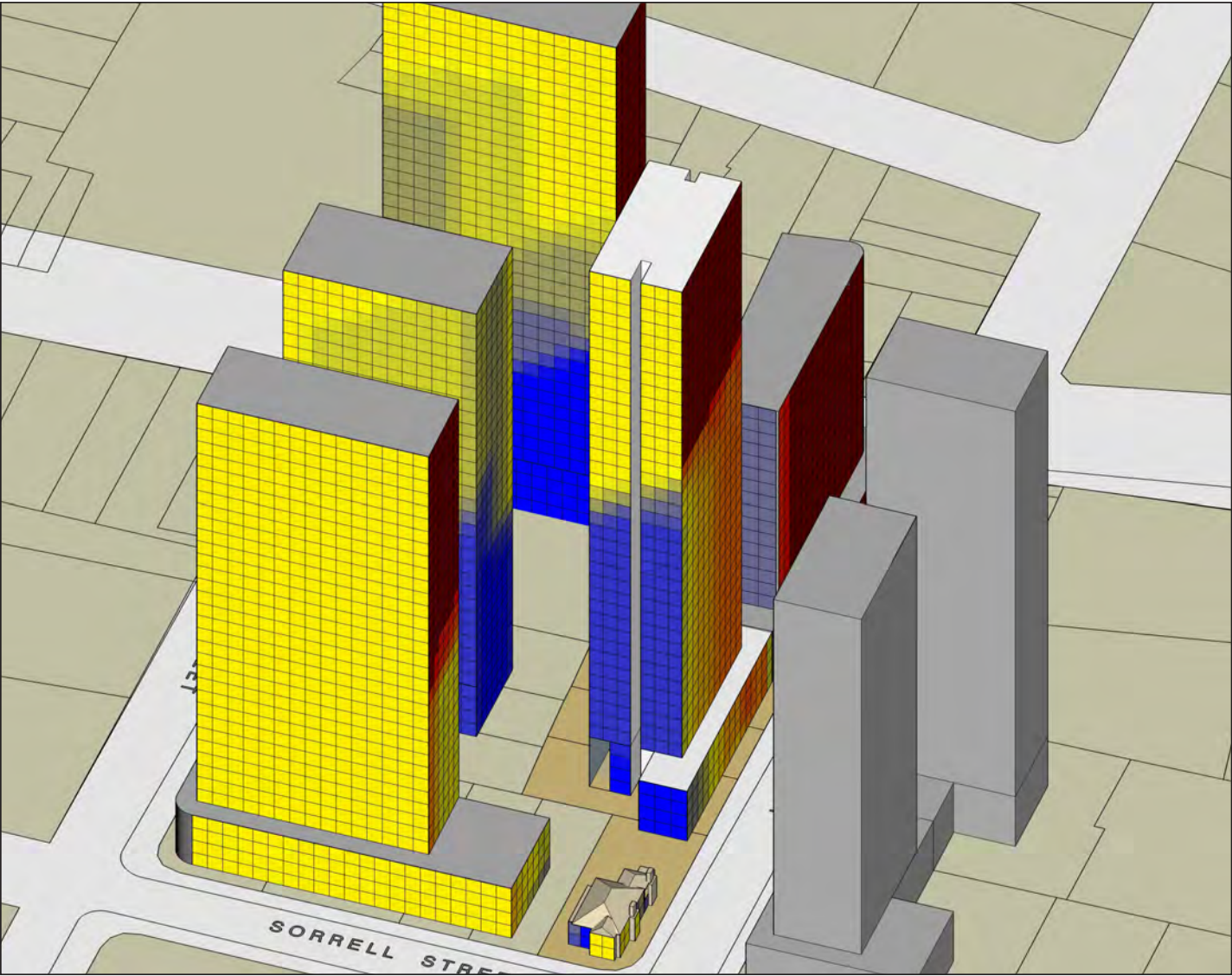


3D View 2



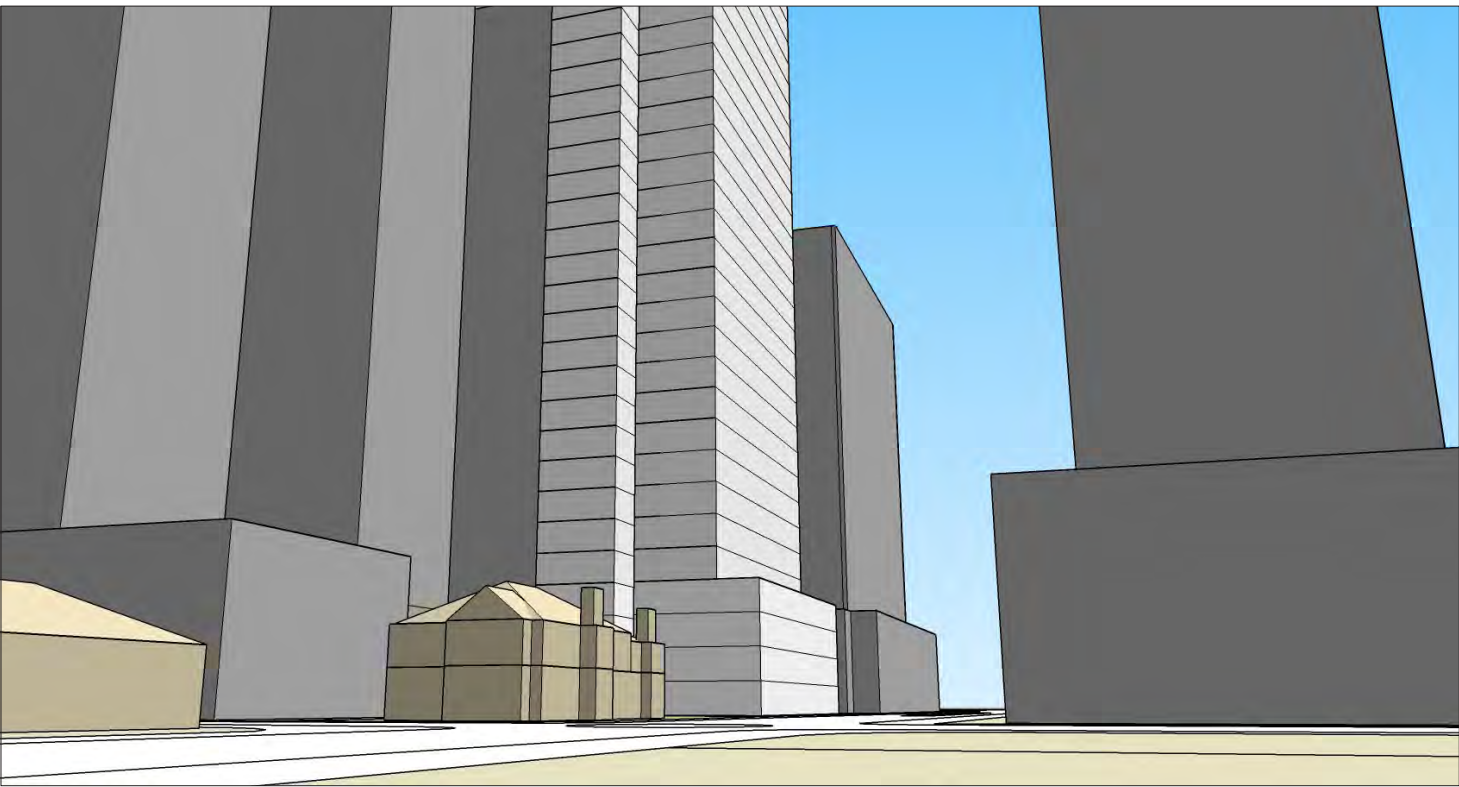
- Proposed Building Envelopes
- Future Building Envelopes
- Heritage items

3D view showing high level solar access gradient achieved in number of hours during mid-winter
Solar access requirements are difficult to achieve



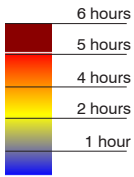
Solar access gradient
9am-3pm mid-winter

View from Corner of Harold Street & Sorrell Street

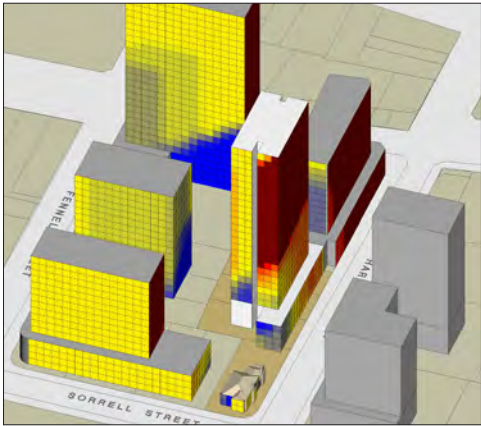


4.6 Comparison of Options

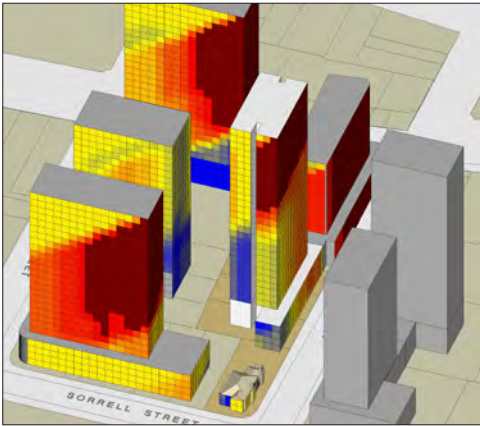
	Option 1	Option 2	Option 3A	Option 3B	Option 4
FSR (Site Area = 2,410.6m ²)	0.8:1	4:1	6:1	6:1	8:1
Number of Storeys	3	22	31	33	44
GFA	1,935m ²	9,650m ²	14,465m ²	14,465m ²	19,280m ²
Number of Apartments	23	116	174	174	231
Solar access 2 hours minimum between 9am-3pm mid-winter	☑	☑	☑	☑	☒



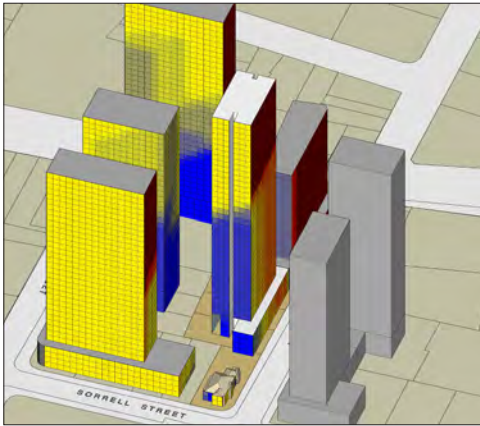
Solar access gradient
9am-3pm mid-winter



Option 2 - 4:1 FSR (70%)



Option 3A & 3B - 6:1 FSR (70%)



Option 4 - 8:1 FSR (<70%)

5 Conclusion and recommendations

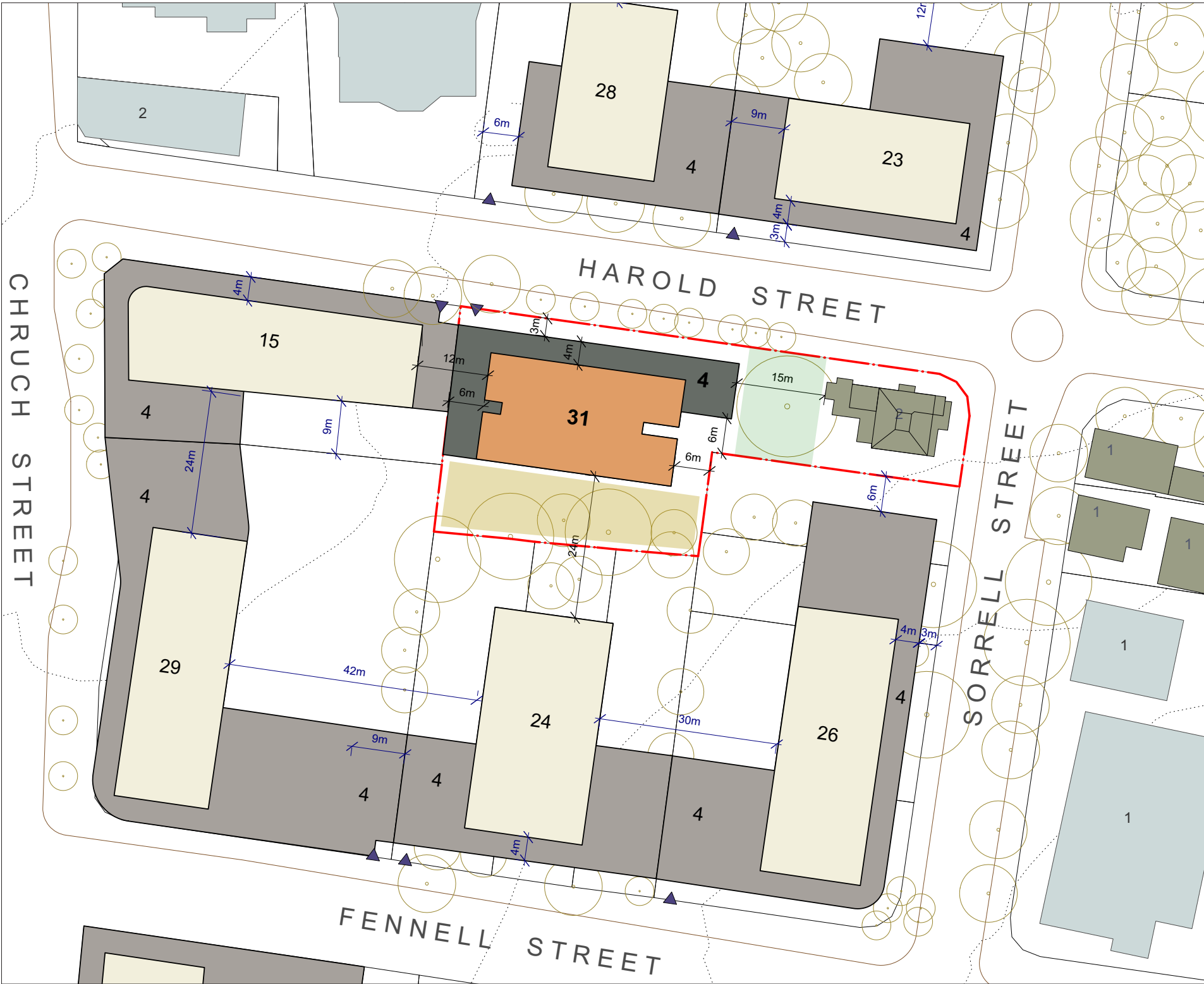
Option 3A as tested is the preferred option recommended for a planning proposal. It is reproduced adjacent. It has been selected as it is:

- Consistent with the FSR proposed for adjacent sites along northern Church Street within the existing Parramatta City Centre.
- Allows building envelopes within the site's context (if implemented similarly) to be consistent with the Apartment Design Guide requirements for 2 hours sun access to 70% of apartments.
- From an urban design perspective the transition between taller buildings on Church Street and heritage buildings on Sorrell Street is more successfully handled by a podium building form which engages with the lower level scale rather than the need for substantially stepping the heights of whole buildings.

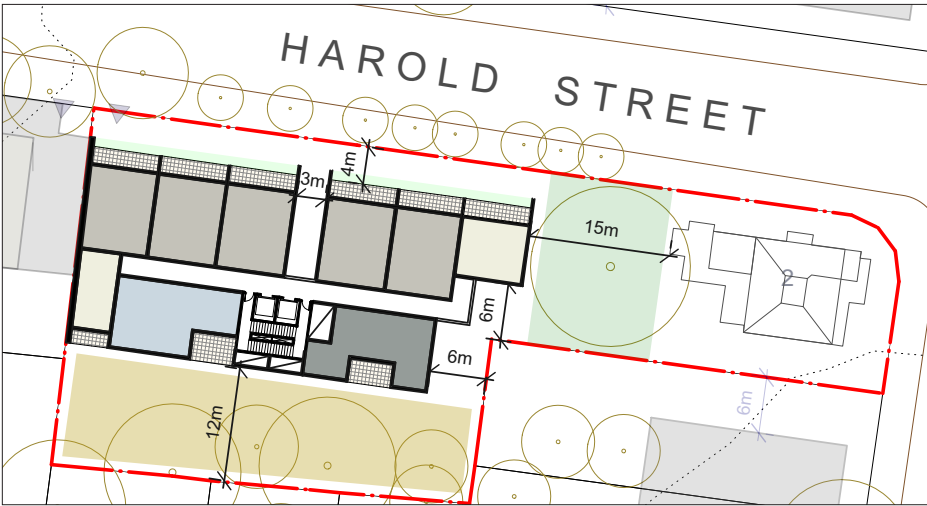
This option requires a change of controls to allow for:

- 6:1 floor space ratio
- 98m height control

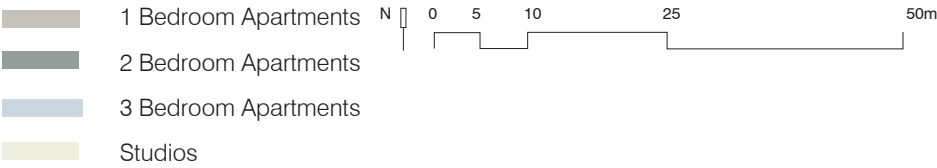
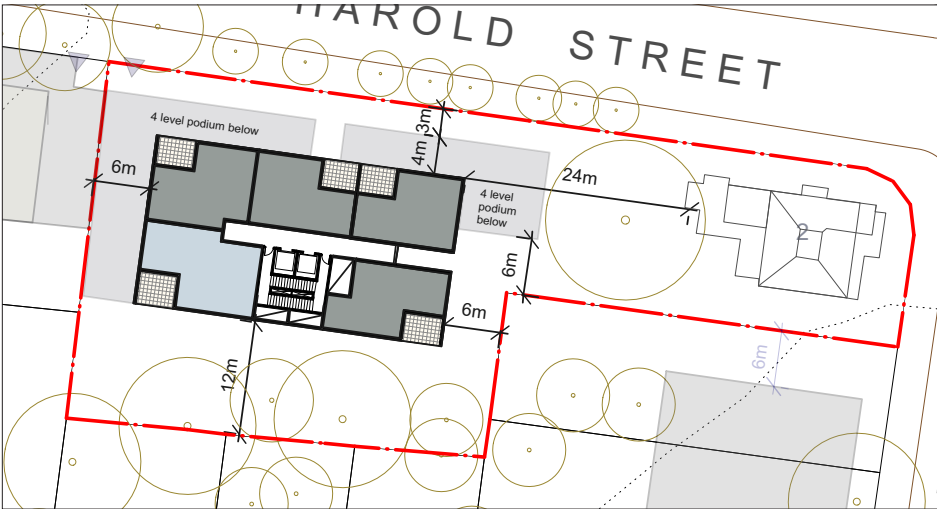
2D Building Envelopes



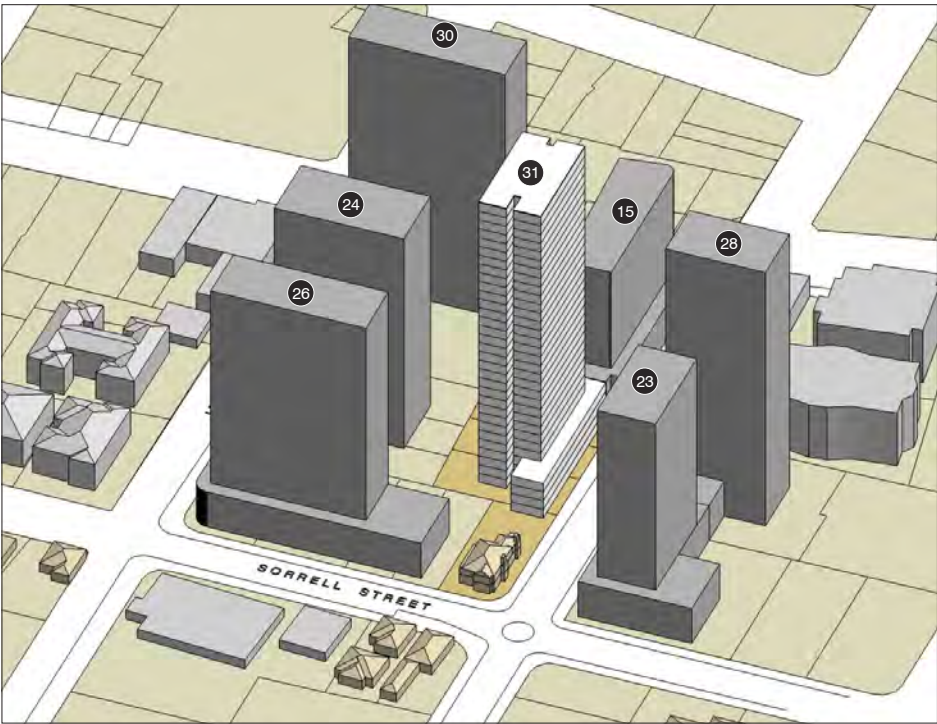
Typical Podium Level Plan [Level 1 - 4]



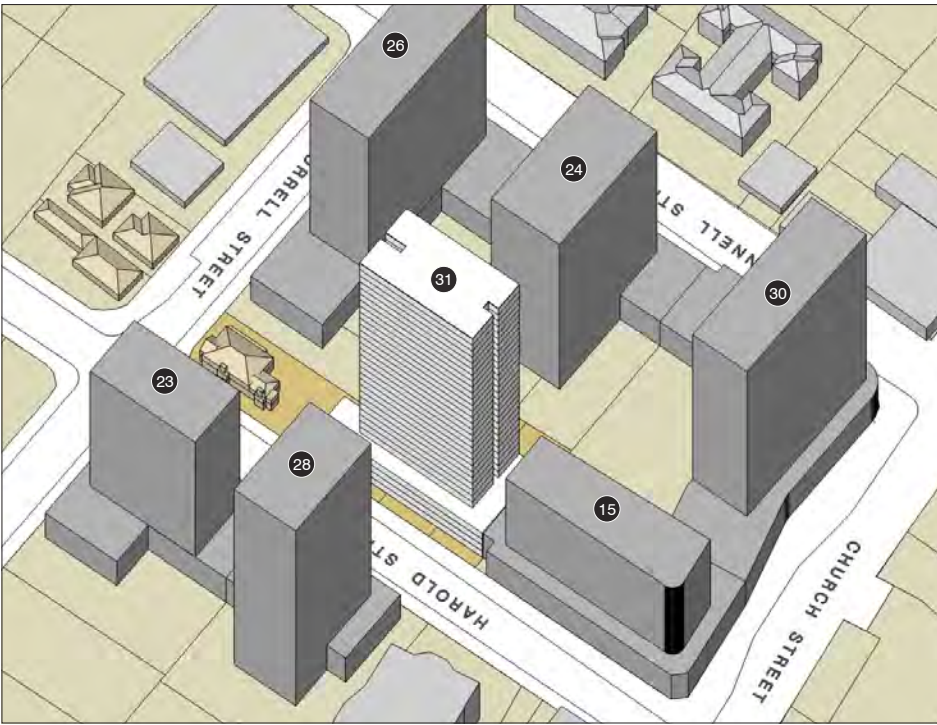
Typical Tower Level Plan [Level 5 - 31]



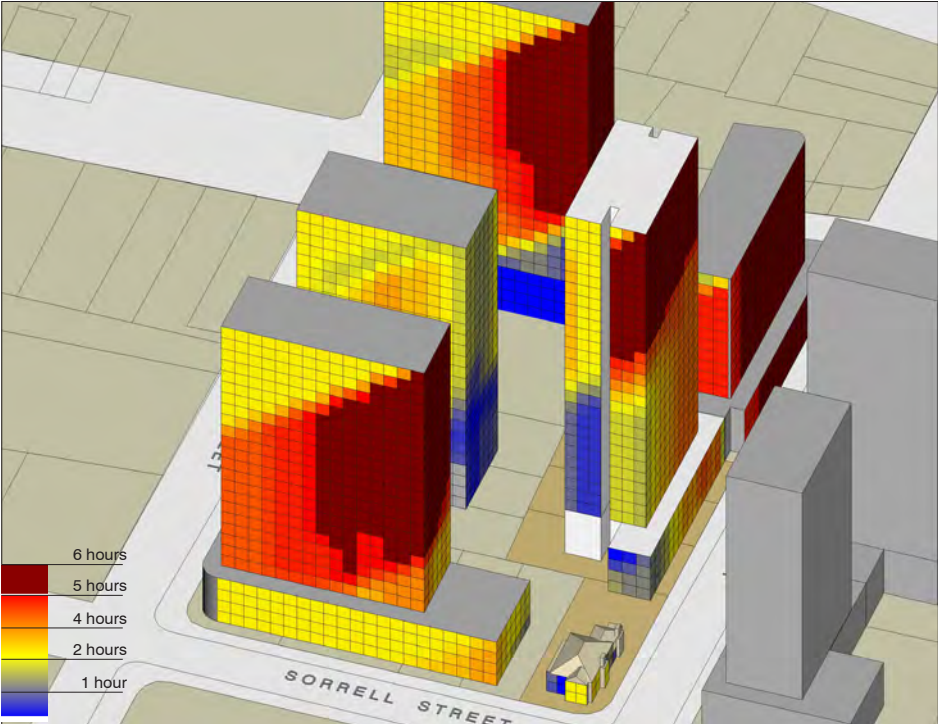
3D View 1



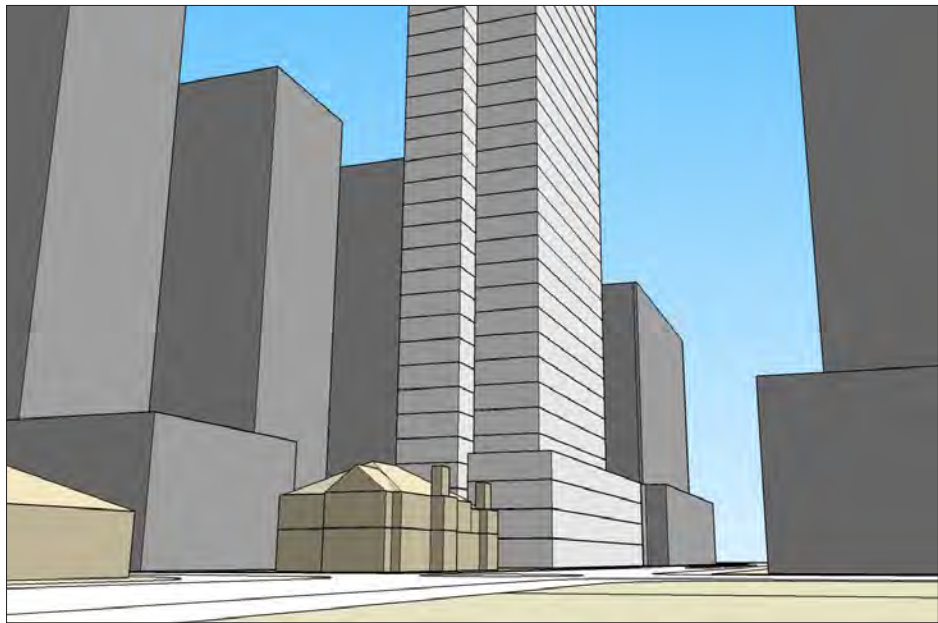
3D View 2



3D view showing solar access requirement capable of being achieved



View from Corner of Harold Street & Sorrell Street



Appendix: Building Envelope Areas

Building Envelope Areas

Building Envelope Testing Method

Residential envelopes:

The building envelopes are based on the SEPP 65 Apartment Design Guide and is accurate for preparation of masterplans, urban design studies or feasibility testing. Page 29 Figure 2B.2 of the Apartment Design Guide states *“Building envelopes define the ‘container’ within which a building is designed. They are a useful tool to gain an understanding of the future urban form and scale of an area. The gross floor area of the building is typically 25-30% less than that of the envelope.”*

The 25% deduction from the envelope allows for building articulation area, external walls, balconies, partition walls, lift cores, stair-wells, ducts, risers and the like, which are contained within the building envelopes.

Setbacks:

The concept of creating a tower setback above a 4 storey building base is derived from the Parramatta City Centre Development Control Plan 2011 which currently requires buildings up to 4 storeys / 14m height to be built to the street alignment for the existing City Centre sites located immediately west of the Site. An upper level setback of 4m is assigned for all levels above in the proposed design options consistent with the DCP requirement for towers.

Area Calculations

Option 1							
0.8:1							
Site Area		2,410					
Total Gross Floor Area		1,935					
Floor Space Ratio		0.80					
Level	Retail Building Envelope Area (m2)	Residential Building Envelope Area (m2)	Retail Gross Floor Area (m2)	Residential Gross Floor Area (m2)	Total GFA	Residential NLA (m2)	Average No. of Dwellings
1		860	0	645			
2		860		645			
3		860		645			
Total			0	1935	1935	1742	23

[illegible]

Note:

Residential Envelopes to GFA use 75 % efficiency

Retail Envelopes to GFA use 80% efficiency

Residential GFA to Residential NLA is achieved by a further 90% efficiency which deducts areas like partition walls, internal corridors and the like.

Average apartment size is assumed at 75m² NLA per dwelling, as a 2 bedroom apartment

GFA = Gross Floor Area

NLA = Nett Lettable Area / Nett Leasable Area

Option 3A - 6:1 Continuous Building Base							
Harold Sorrell Street North Parramatta							
Site Area		2,410					
Total Gross Floor Area		14,465					
Floor Space Ratio		6.00					
Level	Retail Building Envelope Area (m2)	Residential Building Envelope Area (m2)	Retail Gross Floor Area (m2)	Residential Gross Floor Area (m2)	Total GFA	Residential NLA (m2)	Average No. of Dwellings
1		920	0	690			
2		920		690			
3		920		690			
4		920		690			
5		578		434			
6		578		434			
7		578		434			
8		578		434			
9		578		434			
10		578		434			
11		578		434			
12		578		434			
13		578		434			
14		578		434			
15		578		434			
16		578		434			
17		578		434			
18		578		434			
19		578		434			
20		578		434			
21		578		434			
22		578		434			
23		578		434			
24		578		434			
25		578		434			
26		578		434			
27		578		434			
28		578		434			
29		578		434			
30		578		434			
31		578		434			
				0			
				0			
				0			
Total			0	14465	14465	13018	174

Option 3B - 6:1 Side Setbacks using ADG Separation							
Harold Sorrell Street North Parramatta							
Site Area		2,410					
Total Gross Floor Area		14,463					
Floor Space Ratio		6.00					
Level	Retail Building Envelope Area (m2)	Residential Building Envelope Area (m2)	Retail Gross Floor Area (m2)	Residential Gross Floor Area (m2)	Total GFA	Residential NLA (m2)	Average No. of Dwellings
1		710	0	533			
2		710		533			
3		710		533			
4		710		533			
5		578		434			
6		578		434			
7		578		434			
8		578		434			
9		578		434			
10		578		434			
11		578		434			
12		578		434			
13		578		434			
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23		578		434			
24		578		434			
25		578		434			
26		578		434			
27		578		434			
28		578		434			
29		578		434			
30		578		434			
31		578		434			
32		578		434			
33		260		195			
				0			
Total			0	14463	14463	13017	174

Option 4 - 8:1 Harold Sorrell Street North Parramatta							
Site Area		2,410					
Total Gross Floor Area		19,280					
Floor Space Ratio		8.00					
Level	Retail Building Envelope Area (m2)	Residential Building Envelope Area (m2)	Retail Gross Floor Area (m2)	Residential Gross Floor Area (m2)	Total GFA	Residential NLA (m2)	Average No. of Dwellings
1		710	0	533			
2		710		533			
3		710		533			
4		710		533			
5		578		434			
6		578		434			
7		578		434			
8		578		434			
9		578		434			
10		578		434			
11		578		434			
12		578		434			
13		578		434			
14		578		434			
15		578		434			
16		578		434			
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33		578		434			
34		578		434			
35		578		434			
36		578		434			
37		578		434			
38		578		434			
39		578		434			
40		578		434			
41		578		434			
42		578		434			
43		578		434			
44		325		244			
				0			
Total			0	19280	19280	17352	231