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We acknowledge and respect the Cammeraygal people as the Traditional Custodians of the land and waters of the place where the site is located and recognise the deep relationship and connection they have to Country.



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## Executive Summary



# Executive Summary

## Project Proposal

The ambition of the project is to provide a new sunlit and active public space, 2,357m<sup>2</sup> of flexible commercial space and 143 new apartments which are a respectful and elegant addition to the centre of Chatswood. Under the Housing SEPP, the development includes 32 affordable housing and 30 adaptable units.

The site is located to the north of the transport interchange with three distinct street frontages. It is bounded by Help Street to the south, Cambridge Lane to the west and McIntosh Street to the north.

The proposal involves the demolition of the existing buildings on site and construction of a new apartment tower that complies with the relevant planning legislation, maintains existing public and private amenity while providing a high level of residential amenity and supporting the Chatswood CBD Strategy.

The design proposal consists of a 35 storey tower and podium with 5 levels of basement parking.

This Design Report outlines the detailed analysis, design strategies and compliance with the planning controls implemented to achieve the project's ambitions.

## Project Summary

|                       |                     |
|-----------------------|---------------------|
| Site Area             | 2,290m <sup>2</sup> |
| Commercial Space      | 2,357m <sup>2</sup> |
| Public Space          | 695m <sup>2</sup>   |
| Communal Open Space   | 431m <sup>2</sup>   |
| Communal Indoor Space | 186m <sup>2</sup>   |

### Council Planning Controls

|                         | DCP Control | Area                 |
|-------------------------|-------------|----------------------|
| Total FSR               | 6 : 1       |                      |
| Minimum Commercial Area | 17% of GFA  | 2,336m <sup>2</sup>  |
| Residential Area        | 83% of GFA  | 11,404m <sup>2</sup> |
| Total GFA               |             | 13,740m <sup>2</sup> |

### In-fill Affordable Housing Uplift

|                            |          |                       |
|----------------------------|----------|-----------------------|
| Bonus GFA Uplift           | + 29.69% | + 4,080m <sup>2</sup> |
| Height Limit Uplift        | + 29.22% | + 26.3m               |
| Height Limit               | 116.3m   | (90 + 26.3m)          |
| Affordable Housing Minimum | 14.85%   | 2,645.8m <sup>2</sup> |

### SEPP Planning Controls Applied

|                            | SEPP (+29.69%)        | Proposed              |
|----------------------------|-----------------------|-----------------------|
| Total GFA Inc Uplift       | 17,826m <sup>2</sup>  | 17,820m <sup>2</sup>  |
| Minimum Commercial GFA     | 2,336m <sup>2</sup>   | 2,357m <sup>2</sup>   |
| Residential GFA Inc Uplift | 15,490m <sup>2</sup>  | 15,463m <sup>2</sup>  |
| Affordable Housing         | 2,645.8m <sup>2</sup> | 2,649.6m <sup>2</sup> |

|                        | Proposed   |
|------------------------|------------|
| Total FSR              | 7.78 : 1   |
| Retail/Commercial Area | 13% of GFA |
| Residential Area       | 87% of GFA |

| Apartment Type     | Quantity | Percentage |
|--------------------|----------|------------|
| 1 bed              | 13       | 9.09%      |
| 1 bed (affordable) | 17       | 11.89%     |
| 2 bed              | 66       | 46.15%     |
| 2 bed (affordable) | 15       | 10.49%     |
| 3 bed +            | 34       | 23.78%     |
| Total              | 143      |            |

| ADG Compliance                      | Quantity   | Percentage |
|-------------------------------------|------------|------------|
| Solar                               | 111 of 143 | 77.6%      |
| Cross Ventilation (First 9 Storeys) | 22 of 34   | 64.7%      |

| Carparking            | Quantity                |
|-----------------------|-------------------------|
| Residential           | 176 (Inc 30 accessible) |
| Residential - Visitor | 21 (Inc 2 accessible)   |
| Commercial            | 9 (Inc 2 accessible)    |
| Total                 | 206                     |
| Motorcycle Parking    | 17                      |
| Bike Parking          | 58                      |





# Executive Summary

## Site Information

|          |                                |
|----------|--------------------------------|
| Address  | 3-5 Help Street, Chatswood NSW |
| Lot No.  | SP 52320                       |
|          | SP 134                         |
| LGA      | Willoughby Council             |
| Lot Size | 2290m <sup>2</sup>             |

## LEP and DCP Controls

|                    |                 |
|--------------------|-----------------|
| Zone               | MU1 - Mixed Use |
| Height of Building | 90m             |
| Commercial FSR     | 17% of GFA      |
| Residential FSR    | 83% of GFA      |
| Total FSR          | 6:1             |
| Heritage           | N/A             |





# Project Vision



There are four big ideas that make this proposal a distinctive new addition to the city scape of Chatswood. These principles were developed in our design excellence winning competition proposal and have continued to guide the ongoing design development.

**A new public space,** Cambridge Walk, which opens up connections to the north of the site.

**Landscape derived from place** - a series of garden terraces incorporate the natural environment of Chatswood and rise from Cambridge Walk up through the building.

**A sculpted building for the city** which fits into the context, captures the outlook and sun whilst protecting the amenity of adjoining buildings

**No dud apartments** but a great diversity of housing types where everyone has a view and access to a dual outlook.

## 01. A new public space

Proposed design creates a new sunlit open space, Cambridge Walk, extending and expanding the existing public space by more than 50%. This creates north facing, activated and tree lined 9m wide promenade, and provides an elegant address for commercial and residential entries. Existing east-west pedestrian links under the rail line are better connected to Help St and an opportunity is created to bring to life the future vision for Chatswood 's new north-south connection.



## 03. Sculpted for the city

The striking folding form of the building expresses and celebrates a key node in the city that it occupies.

It's form has been derived from the complying envelope, refined to maximise the North-East outlook and sun for the residents, while protecting solar access to the Regent building to the south of the site and Cambridge building to the West.

The architecture is detailed and highly articulated in response to the varying boundary conditions, providing privacy and solar protection.



## 04. No dud apartments

Flexible and adaptable, the apartment floorplates arrange the bulk of the apartments towards the highly prized north-eastern corner of the site. Majority of the apartments on each level enjoy the northeastern outlook and sun. 85% of apartments are dual-aspect. Common and private gardens are integrated with the apartments, providing amenity and outlook.

## 02. Landscape derived from place

We have worked closely with Common Grounds to develop a rich landscape strategy that enhances the public domain for all the people in the area.

The two principal local landscapes, the Sandstone Ridgetop Woodlands, and Blue Gum Forest, inhabit the environments created by the building over a series of garden terraces. This creates a series of common and private gardens, accessed by the commercial and residential uses and highly visible from the public domain.

The 'Parent Rock' Sydney sandstone that underpins these landscapes forms the colour palette for the architecture, uniting it with the landscape, and connecting the architecture to the history of the place.





## Planning Context



## 02 Planning Context

### Chatswood CBD Strategy 2036

A planning proposal was submitted and approved for 3-5 Help Street (discussed separately below) in response to the broader Chatswood CBD Planning and Urban Design Strategy 2036. At its core, the strategy aims to guide growth and provide a robust framework for development of this strategic centre.

The Vision statement for this strategy is:

**Chatswood CBD will be confident, fine grain and green. It will be a diverse, vibrant, active and accessible place, with attractive places for residents, workers and visitors to enjoy.**

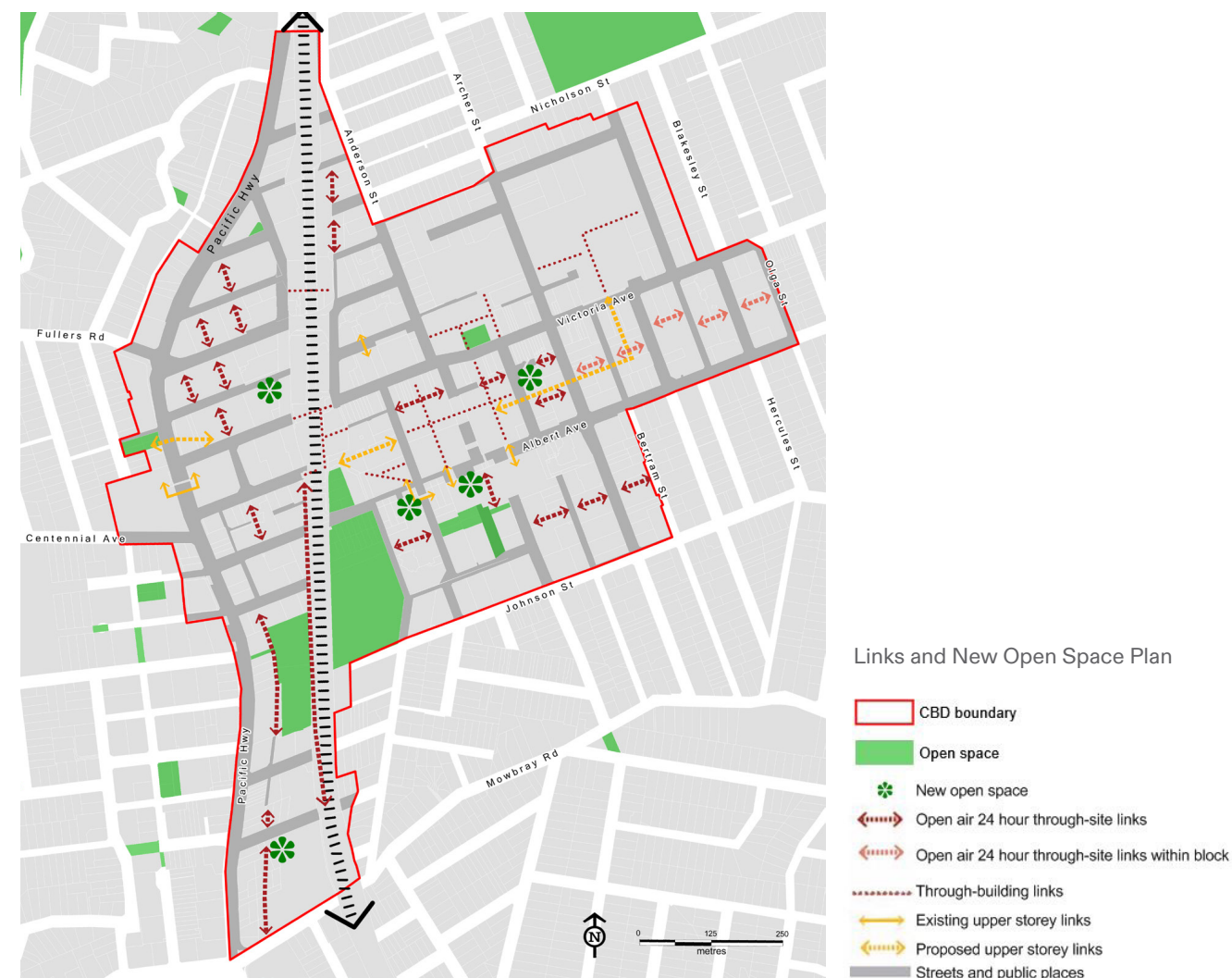
To achieve this vision, the following principles have been established to guide future development:

1. Promoting office growth in the core
2. Residential growth on the periphery of the CBD
3. Diverse mix of uses
4. Great public places
5. Sustainable and active transport
6. Urban design quality
7. Greening the centre

The CBD to which this area applies is outlined in the diagram below. This has been developed to achieve a balanced level of growth, expanding the existing centre to the north and south.

Future amendments to the LEP Land Use, Floor Space Ratio and Building Height controls will define the built envelope of the future CBD. These spatial controls are supported by DCP controls that drive high quality urban design outcomes.

Some of the key principles that have shaped the proposed 3-5 Help Street development include maximising active street frontages at ground level and establishing a stronger north-south pedestrian connection adjacent the Chatswood rail corridor.





# Willoughby LEP



# 02 Planning Context

Willoughby LEP 2012

## Land Zoning

Zone: MU1 Mixed Use

Compliant: YES

The proposed 35 storey apartment building with 5 storey basement and active commercial podium is aligned with the development objectives of the MU1 Mixed Use zone.

## Height of Buildings

Maximum Building Height: 90m

Compliant: NO\*

\*The building envelope exceeds the maximum 90m height limit allowable under the Willoughby LEP. The development is eligible for a 26.3m height bonus (29.22%) through the Housing SEPP. The building's tallest point at RL209.4m is below the 116.3m maximum building height.

## Floor Space Ratio

Maximum Total FSR: 6 : 1  
Maximum Total GFA: 13,740m<sup>2</sup>  
Total FSR: 7.78 : 1  
Total GFA: 17,820m<sup>2</sup>

Compliant: NO\*

Minimum Commercial FSR: 17% of GFA  
Commercial FSR: 17% of GFA  
Commercial GFA: 2,357m<sup>2</sup>

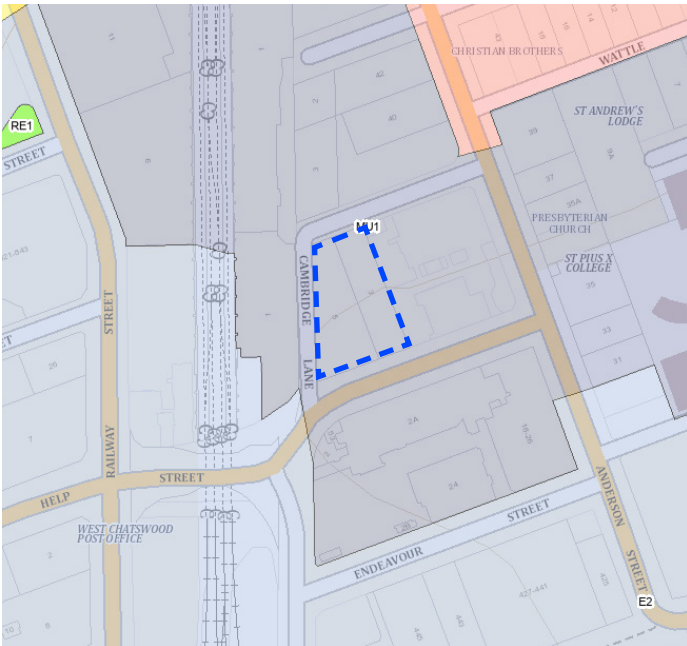
Maximum Residential FSR: 83% of GFA  
Residential FSR Inc Uplift: 113% of GFA  
Residential GFA Inc Uplift: 15,463m<sup>2</sup>

## Lot Size

Minimum Lot Size: 2000m<sup>2</sup>

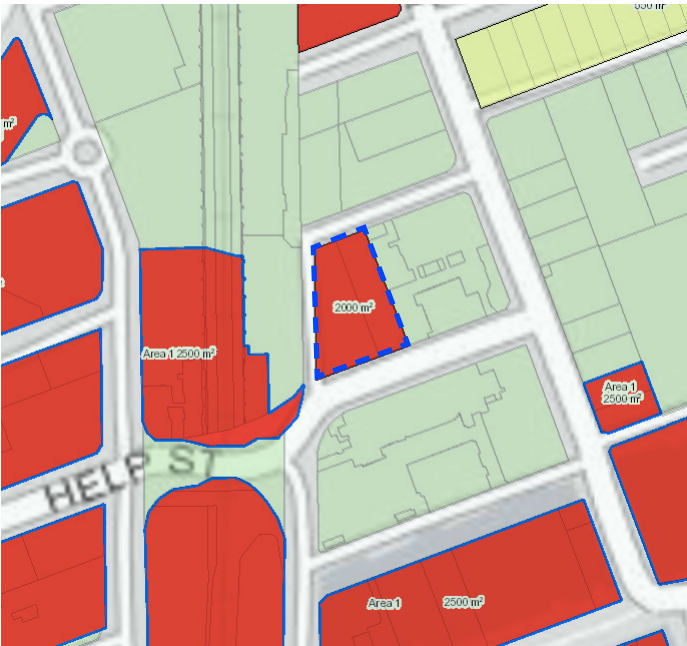
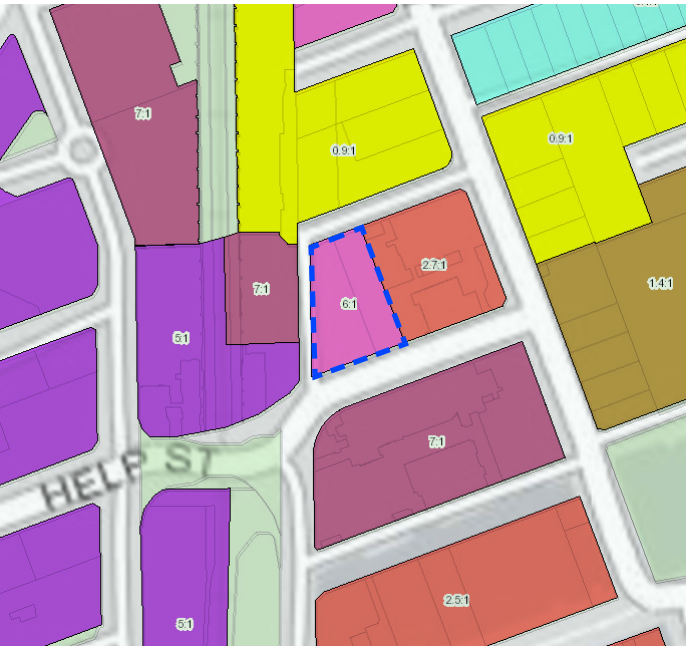
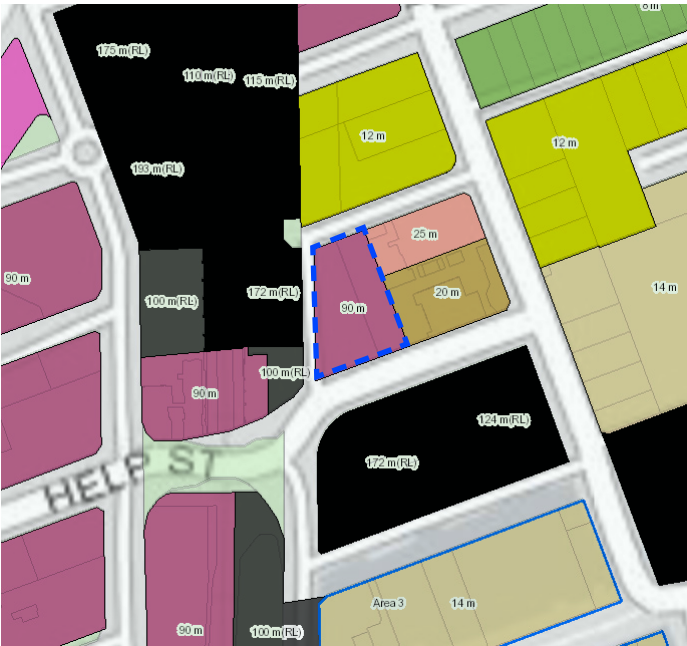
Compliant: YES

The total site area of 2290m<sup>2</sup> exceeds the minimum lot size.



Land Zoning Map

- 2(a) - Residential (Low Density)
- A - Residential Zone - Medium Density Residential
- AGB - Agribusiness
- B - Business Zone - Local Centre
- B1 - Neighbourhood Centre
- B2 - Local Centre
- B3 - Commercial Core
- B4 - Mixed Use
- MU - Mixed Use
- MU1 - Mixed Use



Lot Size Map

- 0 - 199 sq m
- 200 - 249 sq m
- 250 - 299 sq m
- 300 - 349 sq m
- 350 - 399 sq m
- 400 - 449 sq m
- 450 - 474 sq m
- 475 - 499 sq m
- 500 - 524 sq m
- 525 - 549 sq m
- 550 - 574 sq m
- 575 - 599 sq m
- 600 - 624 sq m
- 625 - 649 sq m
- 650 - 674 sq m
- 675 - 699 sq m
- 700 - 749 sq m
- 750 - 799 sq m
- 800 - 899 sq m
- 900 - 999 sq m
- 1000 - 1999 sq m
- 2000 - 2999 sq m
- 3000 - 4999 sq m
- 5000 - 9999 sq m

Floor Space Ratio Map

- 0.9 - 0.94
- 0.95 - 0.99
- 1 - 1.09
- 1.1 - 1.19
- 1.2 - 1.29
- 1.3 - 1.39
- 1.4 - 1.49
- 1.5 - 1.99
- 2 - 2.49
- 2.5 - 2.99
- 3 - 3.49
- 3.5 - 3.99
- 4 - 4.49
- 4.5 - 4.99
- 5 - 5.99
- 6 - 6.99

Source: NSW Planning Portal Digital EPI Viewer  
Accessed: 05-06-2023





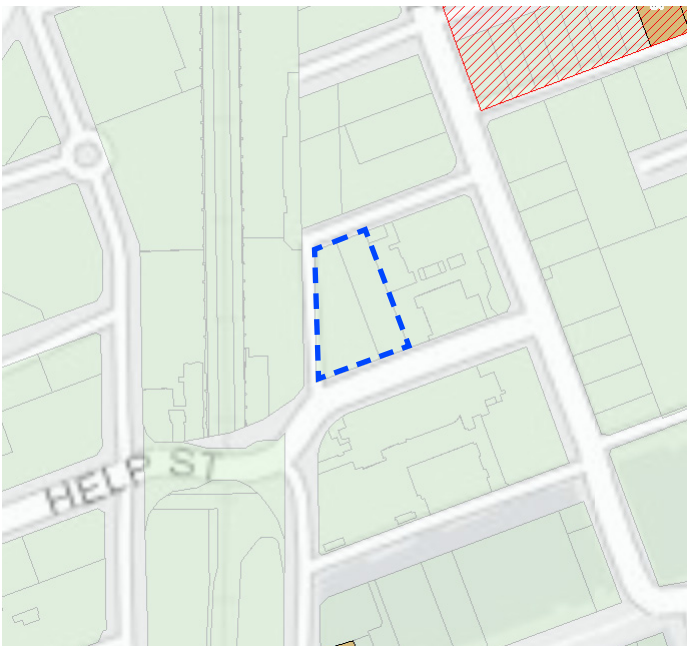
# 02 Planning Context

Willoughby LEP 2012

## Heritage

Heritage: Not applicable

North Chatswood Heritage Conservation Area is located approximately 170m north east of the site.



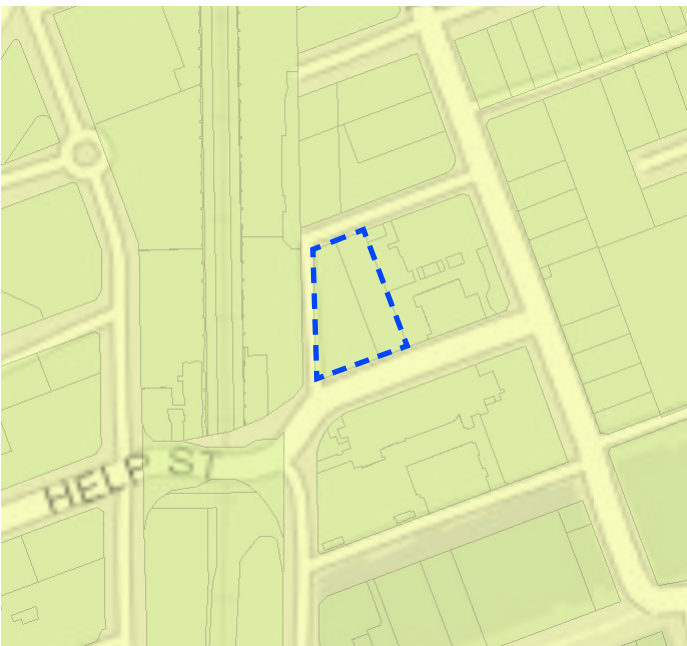
Heritage Map

- Aboriginal Place of Heritage Significance
- Conservation Area - Aboriginal
- Conservation Area - Archaeological
- Conservation Area - General
- Conservation Area - Landscape
- Item - Aboriginal
- Item - Archaeological
- Item - General
- Item - Landscape

## Acid Sulfate Soils

Acid Sulfate Soils: Class 5

The majority of Chatswood is identified as a Class 5 area for Acid Sulfate Soils. This is the lowest classification of Acid Sulfate Soils and is considered in the Geotechnical report included with the SSDA.



Acid Sulfate Soils Map

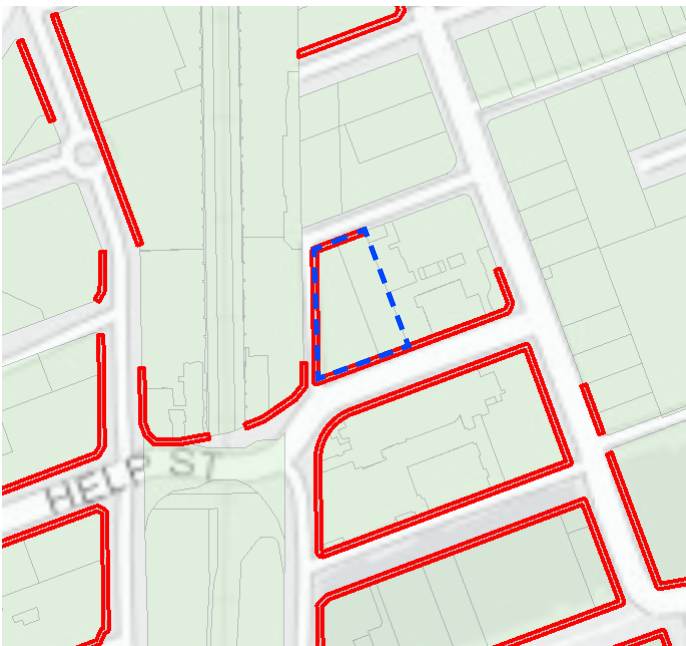
- Class 1
- Class 2
- Class 2a
- Class 2b
- Class 3
- Class 4
- Class 5
- Non Standard Values

## Active Street Frontages

Active Frontages: Help Street  
Cambridge Lane  
Mcintosh Street

Compliant: YES

The objective of this clause is to promote uses that attract pedestrian traffic along certain ground floor street frontages. The proposal achieves this by creating an active commercial ground plane with 3 tenancies.



Active Street Frontages Map





# Site Specific DCP E.3.10



## 02 Planning Context

### Site Specific Development Control Plan E.3.10

#### Objectives

3-5 Help Street is subject to a site specific Development Control Plan. The aims and objectives of this Plan are to:

- Provide guidelines for a mixed use development on the site.
- Provide a development that ensures the viability of adjoining and surrounding sites for future development.
- Minimise traffic impacts on the surrounding road network
- Ensure development on the site minimises impacts to the amenity of neighbouring residential properties.
- Provide landscaping in and surrounding the site that enhances the presentation of the site as well as the amenity of the development.
- Achieves architectural and urban design excellence.
- Maximise activation to Help Street, McIntosh Street and Cambridge Lane.

#### Built Form

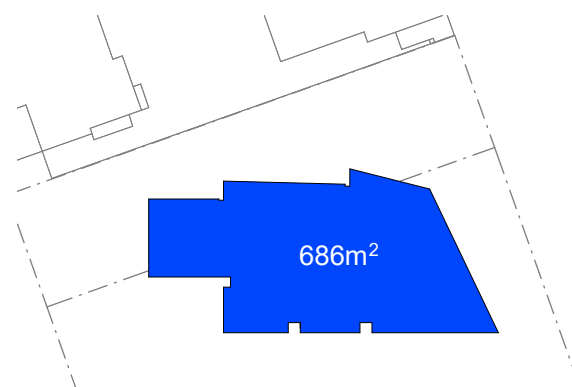
1. The maximum tower floor plate that applies to this site for residential towers above a podium is 700m<sup>2</sup>.

**Compliant: YES**

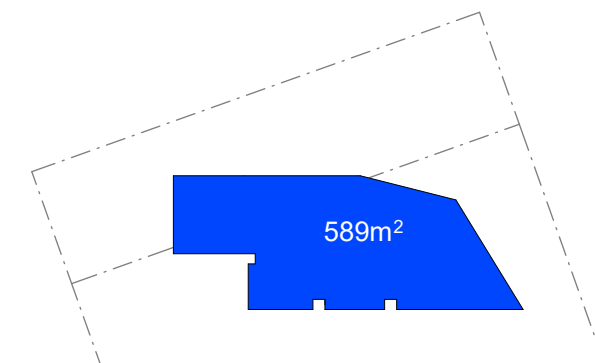
The floor plate size above podium varies depending on the level. From Level 06 and above, the tower has a highly compact floor plate of 686m<sup>2</sup>. The floor plate reduces further and splayes from L32 to minimise potential overshadowing impacts to Area 1.

Due to the splayed singular building form transitioning from podium to tower between Levels 02-05, these levels have a slightly larger floor plate of 780m<sup>2</sup>. This occurs only for 4 levels as a means of transitioning the scale of the building between the podium and the tower. This architectural strategy was strongly supported by the competition jury and has been retained in the SSDA and S4.55 scheme.

Level 06-31 Floor Plate



Level 32-33 Floor Plate



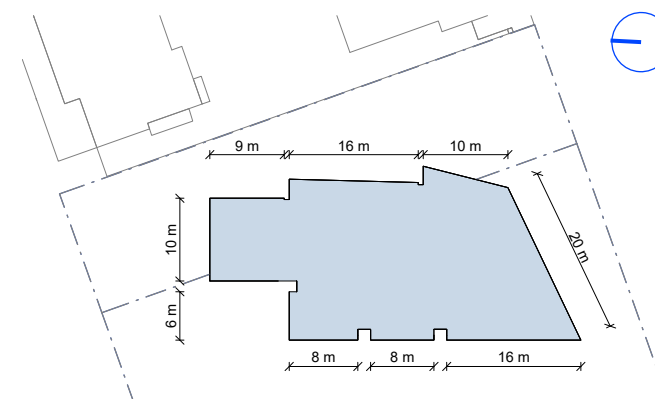
2. The width of each side of any tower should be minimised and design elements that contribute to building bulk should be minimised.

**Compliant: YES**

The width of the tower is dictated by the DCP building setbacks and solar planes established to maintain a minimum of 2hrs of sunlight in mid winter to neighbouring developments at 2A Help St and 1 Cambridge Lane.

The form of the tower includes a series of steps and recesses which break down the building form into smaller, finer grain elements. The facade lengths are indicated in the diagram below.

Building Widths



3. The building layout is to be in accordance with Figure 2 subject to other requirements in this plan.

**Compliant: YES**

All setbacks have been adhered to in the proposed design with the exception of a minor deviation in the South East corner. This is to align with the wall of the neighbouring development at 28 Anderson Street and maintain the established street wall. This urban response was presented at competition stage and commended by the competition jury for the consolidation of urban form.

Setbacks (Figure 2 from DCP E.3.10)





## 02 Planning Context

### Site Specific Development Control Plan E.3.10

#### Height of Building

1. The maximum building height is to include all structures located at roof level, including lift over runs and any other architectural features.

All plant and lift overruns are still contained under the uplifted height limit of 116.3m as permissible by the Housing SEPP

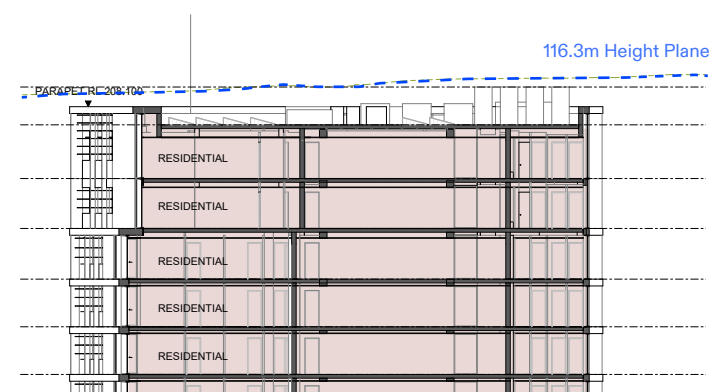
**Compliant:** NO\*

2. All roof top lift over runs or exposed structures are to be integrated with the building.

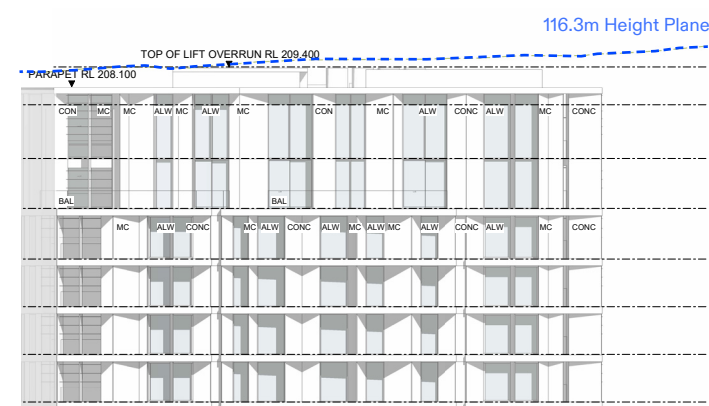
A roof parapet conceals the lift overruns and roof level plant and equipment from view. The parapet architecturally is a continuation of the facade of L33, thus completely integrated with the building.

**Compliant:** YES

North-South Section



East Elevation



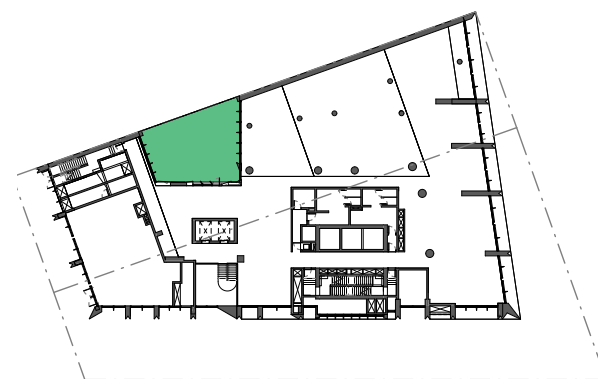
3. Flat roof areas shall incorporate useable outdoor recreation space where suitable, within the maximum building height.

Roof areas on Mezzanine, Level 1, Level 2 and Level 6 are utilised for outdoor recreation space. The spaces have been distributed to provide ease of access for both future commercial tenants and residential community.

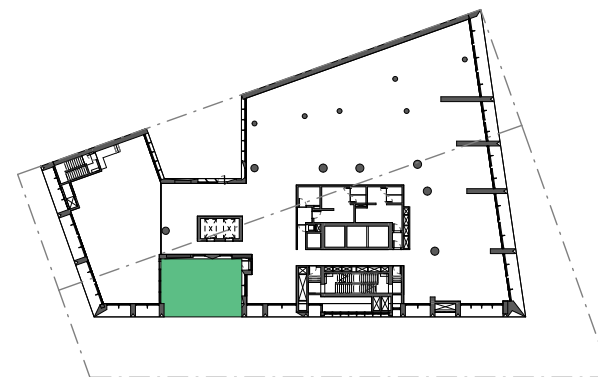
Pocket roof gardens in the podium provide opportunities for breakout spaces on each commercial level. These are a key part of providing a healthy office environment for future tenants. They also create moments of relief in the built form and are a vertical extension of the green ground plane.

Communal residential gardens on Level 2 provide a variety of indoor and outdoor spaces catering to a variety of programs. Located to the north of the development, the outdoor gardens have good solar access and provide a high level amenity to residents.

Mezzanine Outdoor Space - Commercial



Level 01 Outdoor Space Commercial

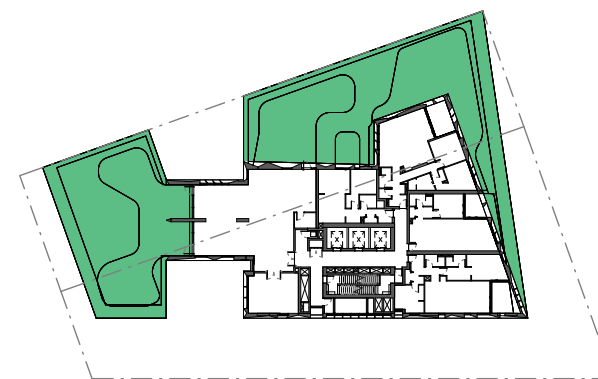


Similarly, the private gardens on Level 2 and 6 soften the building envelope and provide select apartments with a dedicated outdoor terrace.

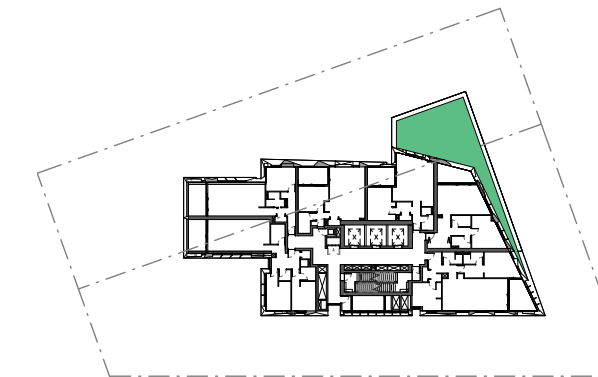
The tower roof is utilised for solar panels, plant and equipment. Due to the harsh exposure to environmental elements - sun, wind and rain, this roof area was not well suited to outdoor recreation.

**Compliant:** YES

Level 02 Outdoor Space - Residential communal & private



Level 06 Outdoor Space - Residential



#### Setbacks and Street Frontage Heights

1. The building setbacks are to be in accordance with Figure 3 (Setbacks and street frontage heights) – except where additional setback is provided. Setbacks are as follows:

a) Help Street, MacIntosh Street, and Cambridge Lane frontages

- i) Minimum 3m setback at ground level from the street boundary to the podium street wall
- ii) 6 - 14m podium street wall height at the required setback
- iii) Minimum 7.5m setback from the street boundary to the tower

b) Cambridge Lane

- i) Minimum 6m setback at ground level along the Cambridge boundary of the site, opposite the publicly accessibly open space at 1 Cambridge Street, for the purposes of publicly accessible open space. In this regard 3m is to comprise footpath and the remaining 3m is to comprise deep soil and landscaping planting.

c) In regards the tower,

- i) Minimum 7.5m setback from the street boundary to the tower
- ii) Minimum 4.5m from any side (neighbouring) boundaries to the tower

**Compliant:** YES\*

Refer to section 6.0 Compliance of this Design Report for diagrammatic analysis of the setbacks and street wall height.

The proposed podium is designed to align with 28 Anderson Street, resulting in a minor non-compliance with the 3m setback in the south east corner of the site. This unifies the built form, is a stronger urban response and was supported at both competition and Pre-DA stage.

2. In addition to Control 1:

a) Setbacks may be greater and street wall heights may be lower.

b) Additional ground level setbacks are sought that contribute to public realm.

**Compliant:** YES\* Refer section 06 Compliance

Refer to section 6.0 Compliance of this Design Report for diagrammatic analysis of the setbacks and street wall height.

Additional ground level setbacks above the DCP requirement are proposed to Cambridge Lane and Help Steet.



# 02 Planning Context

## Site Specific Development Control Plan E.3.10

### Building Exterior

1. Facades are to be articulated and should incorporate recesses and projecting elements that do not encroach into required setbacks.

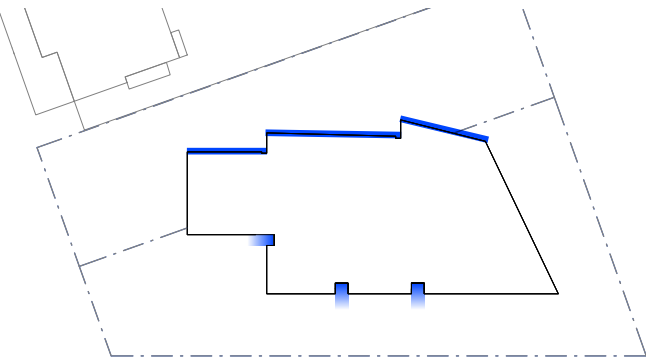
Both the tower and podium facade have been carefully sculpted to articulate the facade and building form. At a macro scale, the building's floor plate has splayed edges to open apartments up to northern light and large recesses break down the street wall.

At a detail scale, the generous facade depth allow for a geometry of folding planes to wrap the tower. The angles of the geometry play with light and shade, creating a dynamic facade that changes with time of day.

The deep reveals of the podium, are an environmental and architectural response. These provide shading to the commercial areas and create opportunities for the ground floor tenancies to occupy the building edge.

Compliant: YES

Tower Building Articulation



2. Extensive blank walls shall be avoided at street level.

The design maximises frontage widths of the commercial tenancies, lobbies and residential entries. Plant and service entries are located internally or limited to their minimum width and removed from the primary public domain, Cambridge Lane where possible.

Compliant: YES

### Amenity

1. A Wind Assessment shall be submitted at Development Application Stage.

Refer Wind Assessment prepared by ARUP.

2. A detailed Acoustic Assessment shall be submitted at Development Application Stage.

Refer Noise Impact Assessment prepared by PWNA.

3. Residential units shall be designed to maximise solar access, cross ventilation, visual and acoustic privacy.

The residential units have been designed to provide a high level of amenity for future occupants. They easily exceed the ADG requirements and maintain the core design principle of 'no dud apartments'. Please refer to Section 06 Compliance for further details of the numerical requirements.

Compliant: YES

### Open Space and Landscaping

1. Open space at ground level shall be available as publicly accessible open space.

2. Tree planting must be provided along the Cambridge Lane frontage within the 6m setback area (3m being soft landscaping).

3. All roofs up to 30 metres from ground are to be green roofs. These are to provide a balance of passive and active green spaces that maximise solar access.

4. A minimum of 2 hours of sun access is to be provided to the public open space on the site.

5. Public domain improvements shall be provided to all street frontages to Council requirements.

6. A minimum of 20% of the site is to be provided as soft landscaping, which may be located on Ground, Podium and roof top levels or green walls of buildings.

7. Deep soil planting is to be provided within the setback to Cambridge Lane. Deep soil plantings include trees and shrubs, and are to be unimpeded by buildings or structures below ground.

8. A Landscape Plan is to be provided at Development Application stage detailing all public domain at ground level, street tree planting, planting and space allocation at podium and roof top levels. This is to include species, container size at planting, spacing and approximate size at maturity.

9. Street tree planting is at the cost of the proponent, with location and species to be determined in consultation with Council at Development Application stage.

10. All existing aerial cables which may include for electricity, communications and other cables connecting to street poles and buildings around the site shall be removed and installed underground in accordance with the requirements of the relevant service authorities. Ausgrid lighting poles are to be provided to the requirements of Ausgrid for street lighting and shall be positioned compatible to the landscaping design around the site.

Refer Landscape Design Drawings prepared by Studio Georgouras.

## 02 Planning Context

### Site Specific Development Control Plan E.3.10

#### Links

1. The development is to incorporate publicly accessible through site links and open space in accordance with Figure 4 below.

The CBD Strategy identifies an open air 24 hour through site link that is a continuation of Cambridge Lane to the north of our site. The proposal has an important role in establishing this desired north south connection. It will define the framework for the future continuation of public domain works.

A generous setback to Cambridge Lane, supported by an active commercial podium provides a highly successful urban response to the site and it's surrounding area.

**Compliant:** YES

2. Through site links and open space in addition to Figure 4 is required on a site by site basis.

At the core of the site's public domain strategy is a 9m wide landscaped promenade along Cambridge Lane. This in combination with the generous garden addressing the corner of Help St contributes to the overall 'green' ground plane of greater Chatswood.

**Compliant:** YES

3. The ground level setback on Help St, McIntosh Street and Cambridge Lane is to be unobstructed, with the only exception being ground level landscaping.

The ground level of the building is unobstructed. The landscaping is at the perimeter of the site and highly permeable to allow access to the building's commercial podium from the transport interchange and neighbouring developments.

**Compliant:** YES

4. All publicly accessible open space and links are to be the responsibility of the relevant ownership entity, with an easement for public access to be created over these areas.

**Compliant:** YES

#### Active Street Frontages

1. At ground level buildings are to maximise active frontages to Help Street, McIntosh Street and Cambridge Lane.

Active commercial frontages and lobby entries have been maximised. Plant and service areas have been limited and relocated on basement levels or internally where possible.

**Compliant:** YES

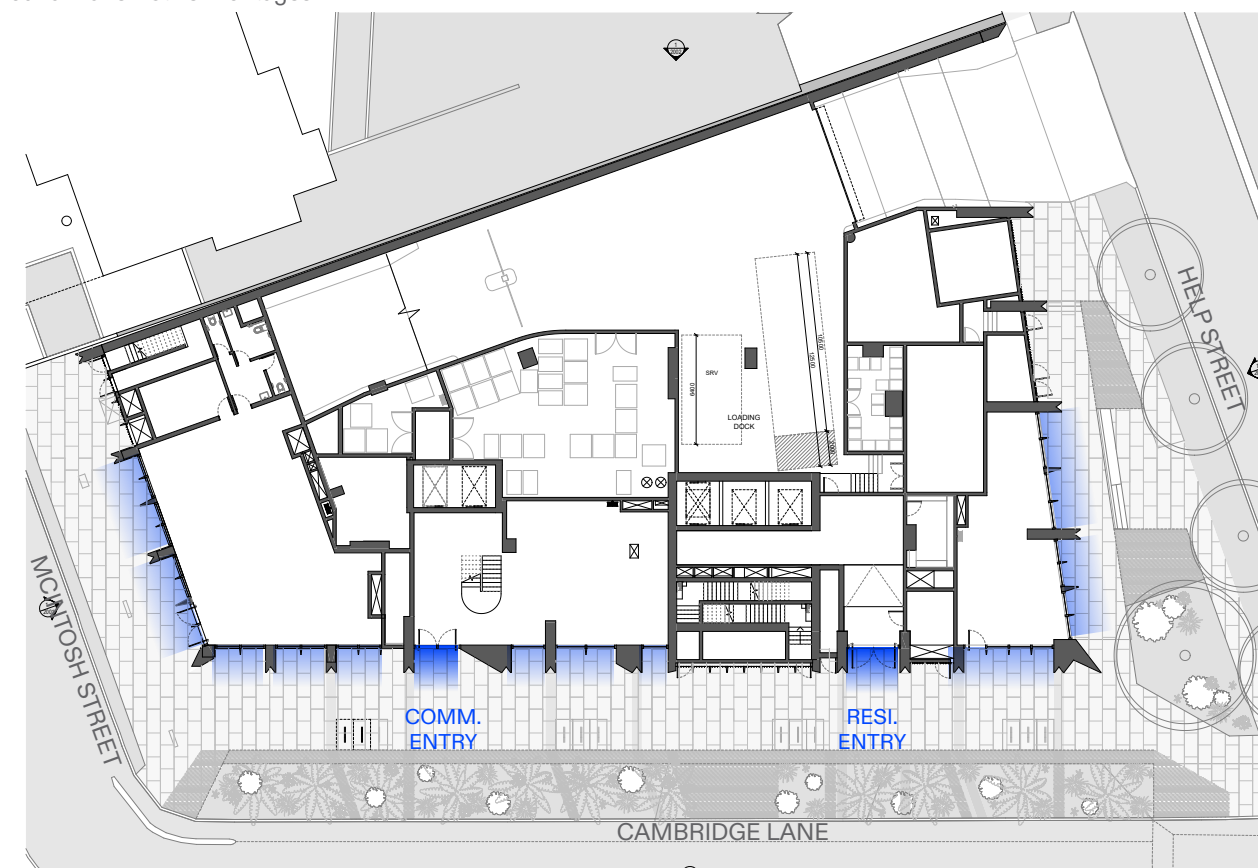
2. A building has an active street frontage if all premises on the ground floor of the building facing the street(s) are used for the purpose of commercial premises or non-residential purposes and provide elements of visual interest when viewed from the street.

Active uses address all 3 frontages of the site and have been prioritised for Cambridge Lane and the corners of the site. Exceptions to the active frontage are limited to driveway access, fire egress, substation, gas meters and fire boosters that require direct access to the street.

**Compliant:** YES



Ground Plane Active Frontages





## 02 Planning Context

### Site Specific Development Control Plan E.3.10

#### Traffic and Transport

1. Vehicle access to / egress from the development is to be minimised.

Access is via a single driveway off Help Street.

Compliant: YES

2. Vehicle access and egress is to be designed and located to achieve safety, minimise conflicts between pedestrians and vehicles and create a high quality streetscape.

Refer Transport Impact Assessment prepared by PDC Consultants.

Compliant: YES

3. All car parking facilities are to be located below ground level.

All commercial, residential and visitor carparking is provided in the building's basement.

Compliant: YES

4. Other strategies for car parking reduction, such as reciprocal arrangements for sharing parking and car share, are to be included in any future Development Application

Refer Transport Impact Assessment prepared by PDC Consultants.

Compliant: YES

#### Waste Management, Loading and Services

1. All loading and unloading services are required to occur at basement level on-site.

The loading dock is located on the Lower Ground floor to manage access control between loading and commercial/ residential parking. This also improves the spatial and functional efficiency of the basement levels, as it reduces distance of travel for service vehicles and limits the extent of MRV access. Refer Transport Impact Assessment prepared by PDC Consultants.

Compliant: YES

2. Other supporting functions such as garbage rooms, plant and other services are to be located in Basement levels.

Garbage rooms are located on the Lower Ground floor within the centre of the floor plate, utilising the low amenity floor space and allowing for ease of servicing. The plant and services on Ground floor have been limited to those requiring direct street access and are otherwise on Basement 1.

Compliant: YES

3. A Waste Management Plan shall be submitted at the Development Application stage.

Refer Waste Management Plan prepared by Elephants Foot.

Compliant: YES

4. Substations are to be provided within buildings, not within the streets, open spaces or setbacks and not facing key active street frontages. Substations are to be designed to ensure protection of residents from Electro Magnetic Radiation (EMR) emissions.

The substation is consciously located away from the new public space and active frontages along Cambridge Walk. McIntosh Street was not an option as no mains connection is available. Help Street is the most suitable, as it is compromised by the south facing aspect and adjacent arterial road.

The substation is located to the south east of the site. It is integrated within the building envelope and located in an area where it has minimal impact on the public domain.

The substation has been designed to comply with required blast clearances, access and ventilation.

Compliant: YES

#### Design Excellence

1. All developments that have a height of 35m or more are subject to a competitive design process.

2. The competitive design process must be undertaken in accordance with the Willoughby Design Excellence Policy and Willoughby Design Excellence Guidelines.

A design excellence competition was held at the end of 2022. The process was managed by Parade Consulting on behalf of the site owners. Three architecture firms were invited to provide submissions for the competition - Kann Finch, Nettleton Tribe and EM BE CE

The jury unanimously selected EMBECE's scheme as the winner of the competition.

Compliant: YES

#### Building Sustainability

1. A minimum of 5 stars GBCA building rating is expected. A higher rating is encouraged. An assessment report is to be submitted at Development Application stage.

Refer ESD Report.

# Housing SEPP



## 02 Planning Context

### Housing SEPP

16 Affordable housing requirements for additional FSR

1. The maximum floor space ratio for development that includes residential development to which this division applies is the maximum permissible floor space ratio for the land plus an additional floor space ratio of up to 30%

The development provides an additional 29.69% of the permissible floor space.

Compliant: YES

2. The minimum affordable housing component, which must be at least 10%

The development provides 2,649.6m<sup>2</sup> of affordable housing which equates to 14.87% of the total GFA.

Compliant: YES

3. If the development includes residential flat buildings or shop top housing, the maximum building height for a building used for residential flat buildings or shop top housing is the maximum permissible building height for the land plus an additional building height that is the same percentage as the additional floor space ratio permitted under subsection (1)

The development provides an additional 29.69% of floor space, which corresponds to a maximum permissible building height of 116.7m. The proposed maximum height is 116.3 metres, which is 400mm below the maximum allowable height to avoid any additional overshadowing to Area 05.

Compliant: YES

19 Non-discretionary development standards—the Act, s 4.15

2 (a) A minimum site area of 450m<sup>2</sup>

The site area is 2290m<sup>2</sup>.

Compliant: YES

2 (b) A minimum landscaped area that is the lesser of— 35m<sup>2</sup> per dwelling, or 30% of the site area. Landscaped area means the part of the site area not occupied by a building and includes a part used or intended to be used for a rainwater tank, swimming pool or open-air recreation facility, but does not include a part used or intended to be used for a driveway or parking area.

30% of the site area equates to 687m<sup>2</sup> required as landscape area. The proposal contains 24% soft landscaping which exceeds the DCP requirement for 20% of site area.

Compliant: NO\*

2 (c) A deep soil zone on at least 15% of the site area, where— each deep soil zone has minimum dimensions of 3m, and if practicable, at least 65% of the deep soil zone is located at the rear of the site

Section 19(3) states that this control does not apply as the development is subject to Chapter 4.

Compliant: N/A

2 (d) Living rooms and private open spaces in at least 70% of the dwellings receive at least 3 hours of direct solar access between 9am and 3pm at mid-winter

Section 19(3) states that this control does not apply as the development is subject to Chapter 4.

Compliant: N/A

2 (g) the minimum internal area, if any, specified in the Apartment Design Guide for the type of residential development

All apartment internal areas comply with the ADG requirements.

Compliant: YES

22A Requirement to provide car parking

(i) the following number of parking spaces for dwellings used for affordable housing—

(A) for each dwelling containing 1 bedroom—at least 0.4 parking spaces,

(B) for each dwelling containing 2 bedrooms—at least 0.5 parking spaces,

(C) for each dwelling containing at least 3 bedrooms— at least 1 parking space

|        |          |     |             |
|--------|----------|-----|-------------|
| 1 BR   | 17 units | 0.4 | 7 required  |
| 2 BR   | 15 units | 0.5 | 8 required  |
| 3 BR   | 0 units  | 1   | 0 required  |
| Total: |          |     | 15 required |

Compliant: YES

(ii) the following number of parking spaces for dwellings not used for affordable housing—

(A) for each dwelling containing 1 bedroom—at least 0.5 parking spaces,

(B) for each dwelling containing 2 bedrooms—at least 1 parking space,

(C) for each dwelling containing at least 3 bedrooms—at least 1.5 parking spaces,

|        |          |     |              |
|--------|----------|-----|--------------|
| 1 BR   | 11 units | 0.5 | 6 required   |
| 2 BR   | 66 units | 1   | 66 required  |
| 3 BR   | 34 units | 1.5 | 51 required  |
| Total: |          |     | 123 required |

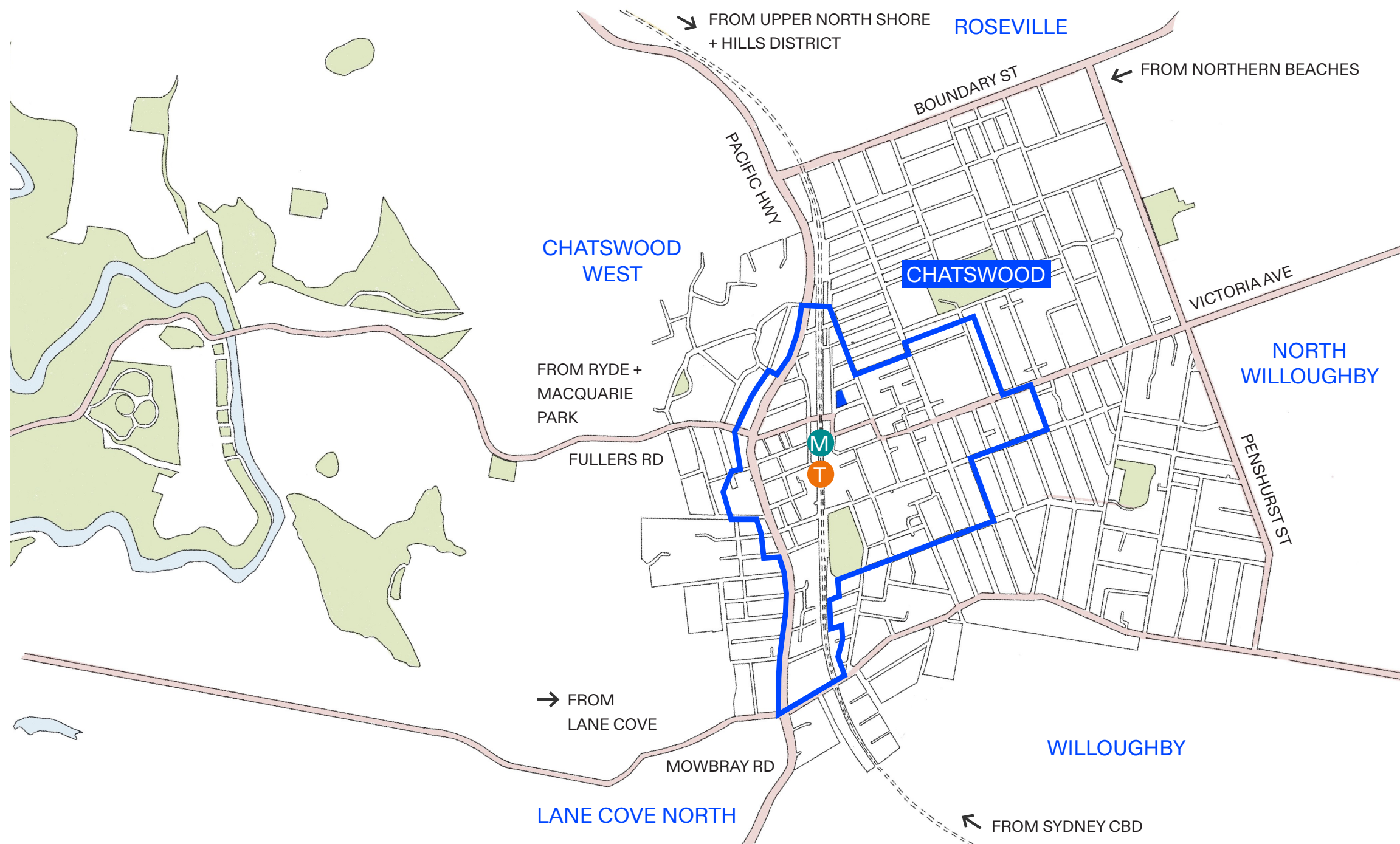
Compliant: YES

# Urban Analysis



## 03 Urban Analysis

Future Chatswood CBD



— Chatswood CBD boundary as per Willoughby Council Chatswood CBD Strategy 2036

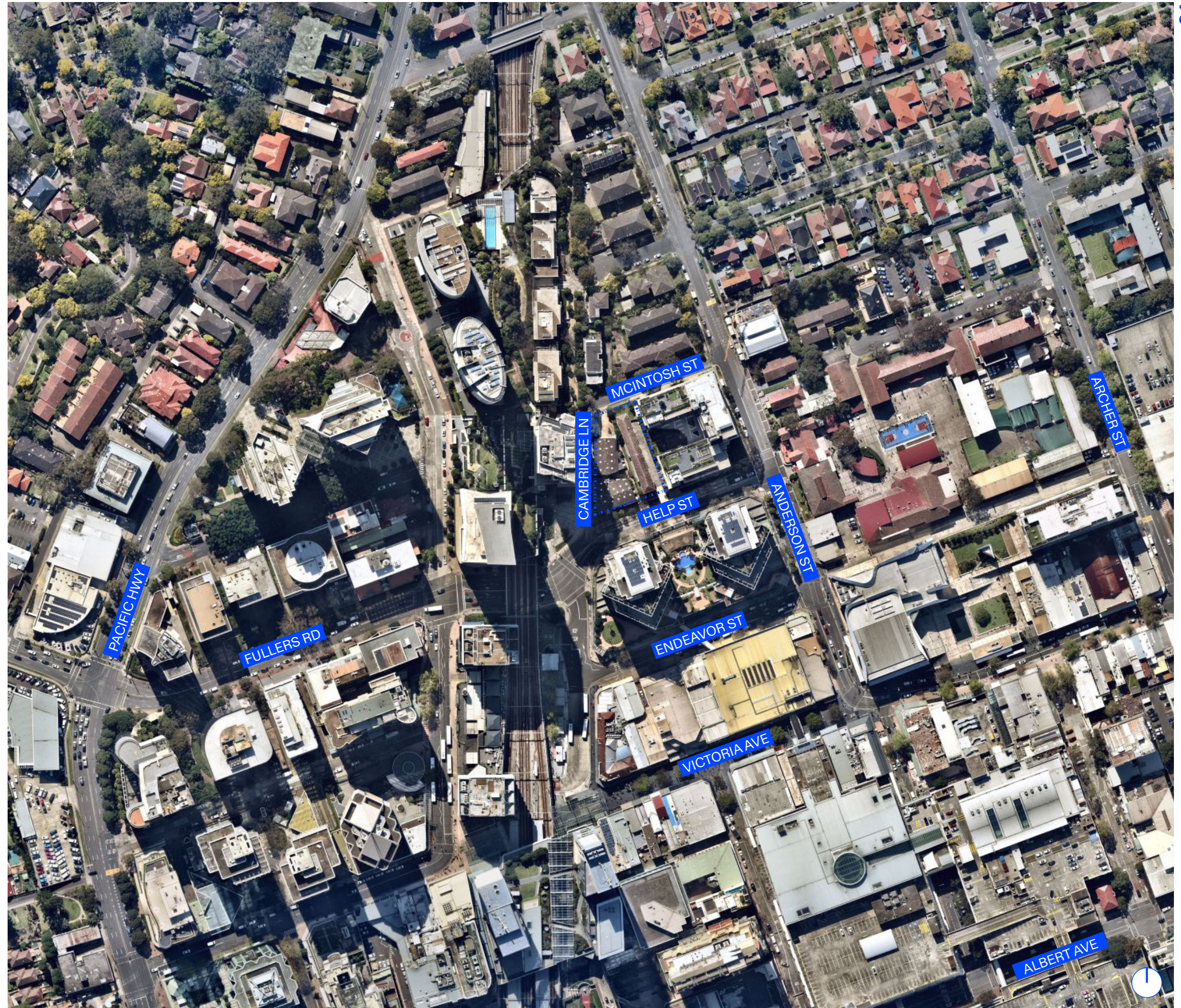




## 03 Urban Analysis

### Aerial Site Photograph

The aerial photograph shows the pattern of existing development around the site. It highlights the varied density and scale of buildings. There are clearly identifiable clusters of high density between Pacific Highway and along the rail corridor.





## 03 Urban Analysis

### Transport

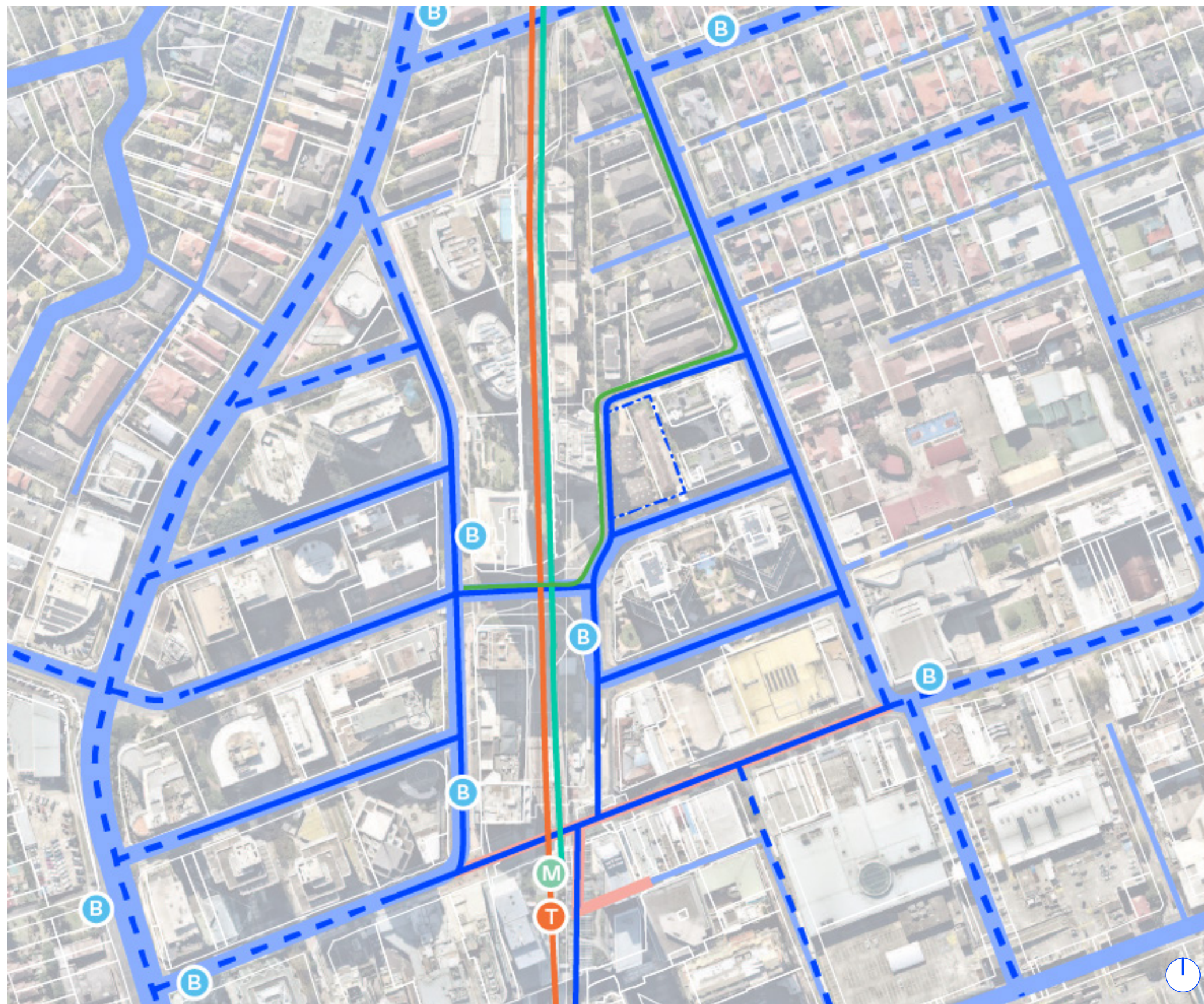
The site is well located, in close proximity to the Chatswood transport interchange. The train station is approximately 200m south of the site and may be easily accessed via Orchard Rd. It is serviced by the North Shore train line and Metro North West line.

This location is also well connected to the road and bus network with access to Pacific Highway to the west and Anderson Street to the east.

Cambridge Lane bounds the western edge of the subject site. It is a 10km/h shared zone for pedestrians and cyclists. This is the start of a future north south link through Chatswood proposed as part of the 2036 CBD Strategy.

- Major Roads
- Minor Roads
- Streets
- 800m Walking Network
- 400m Walking Network
- Metro Line
- Train Line
- Bike Lane
- Pedestrian Street

Note: Walking Network shown is from 3-5 Help Street.



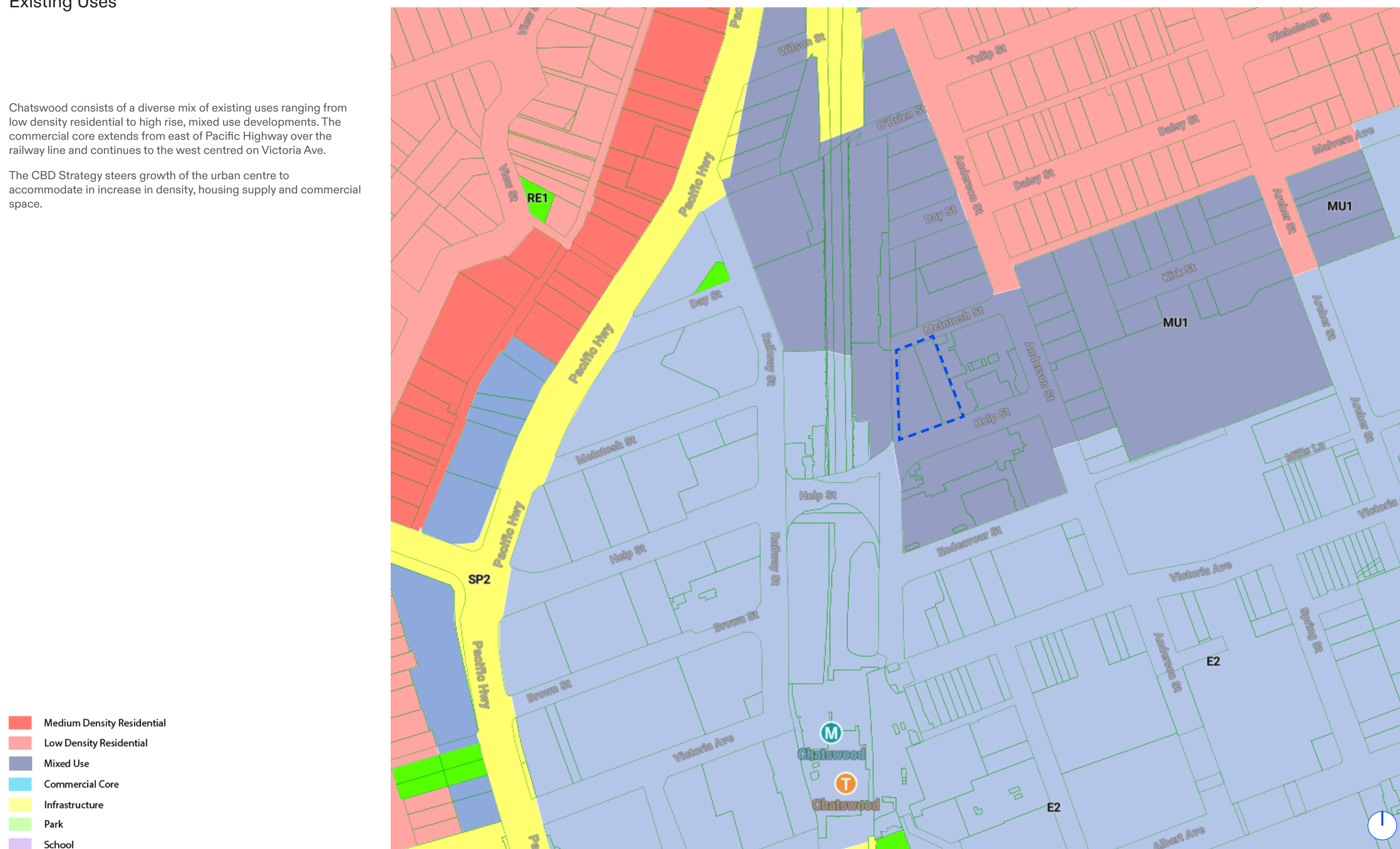


## 03 Urban Analysis

### Existing Uses

Chatswood consists of a diverse mix of existing uses ranging from low density residential to high rise, mixed use developments. The commercial core extends from east of Pacific Highway over the railway line and continues to the west centred on Victoria Ave.

The CBD Strategy steers growth of the urban centre to accommodate an increase in density, housing supply and commercial space.



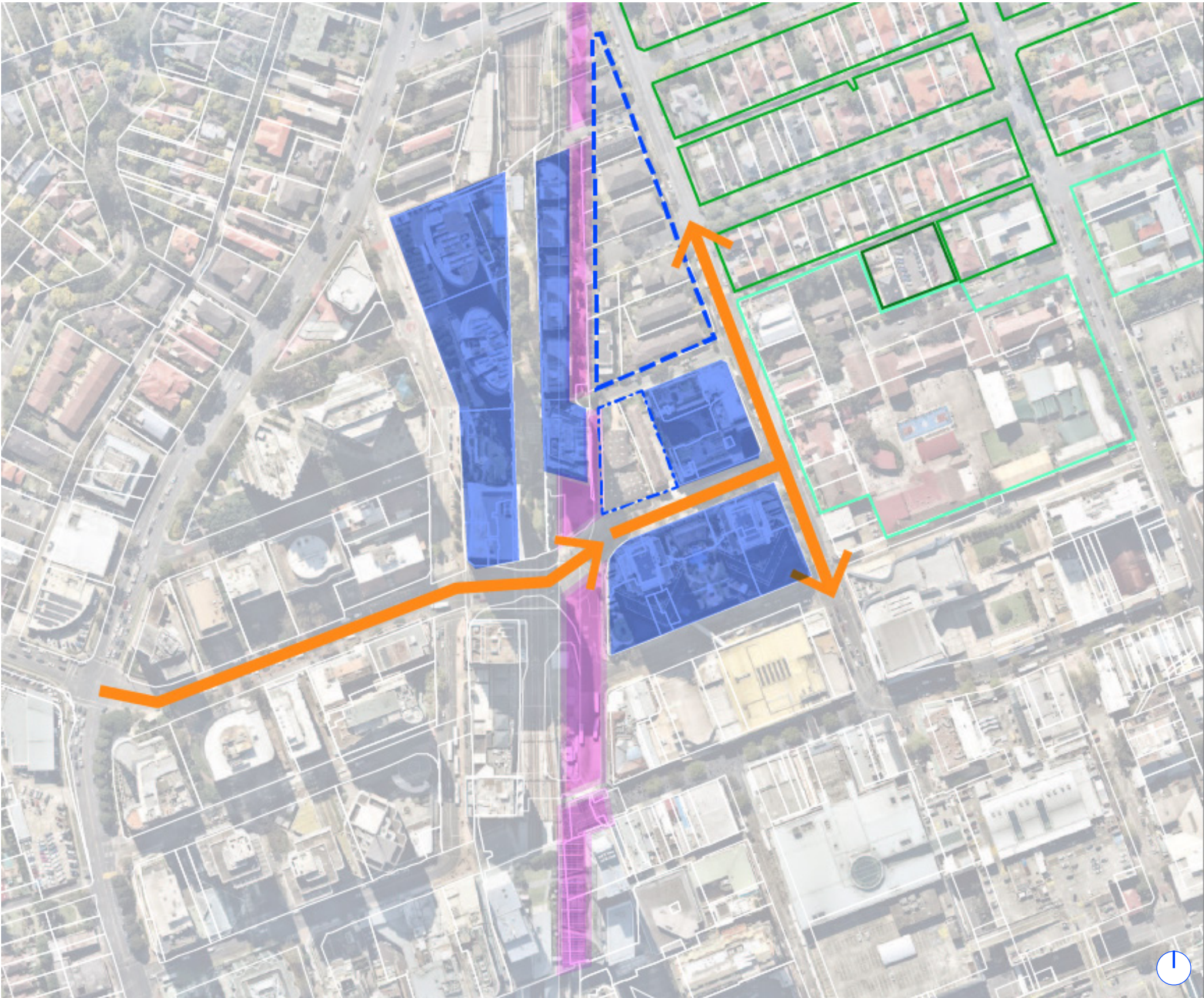


# 03 Urban Analysis

## Future Development

Guided by the Chatswood CBD strategy, the future development of the commercial core extends further to the north of the subject site. It includes a future north south pedestrian link which will be in part shaped by the proposed development. It will likely be the catalyst for future redevelopment to the north.

- Developed
- Future Pedestrian Zone
- Future Development
- Low Density Residential
- Mixed Use
- Education
- Main Gateway





# 04

## Site Analysis



## 04 Site Analysis

### Streetscape

South West Corner - Intersection of Help Street + Cambridge Lane



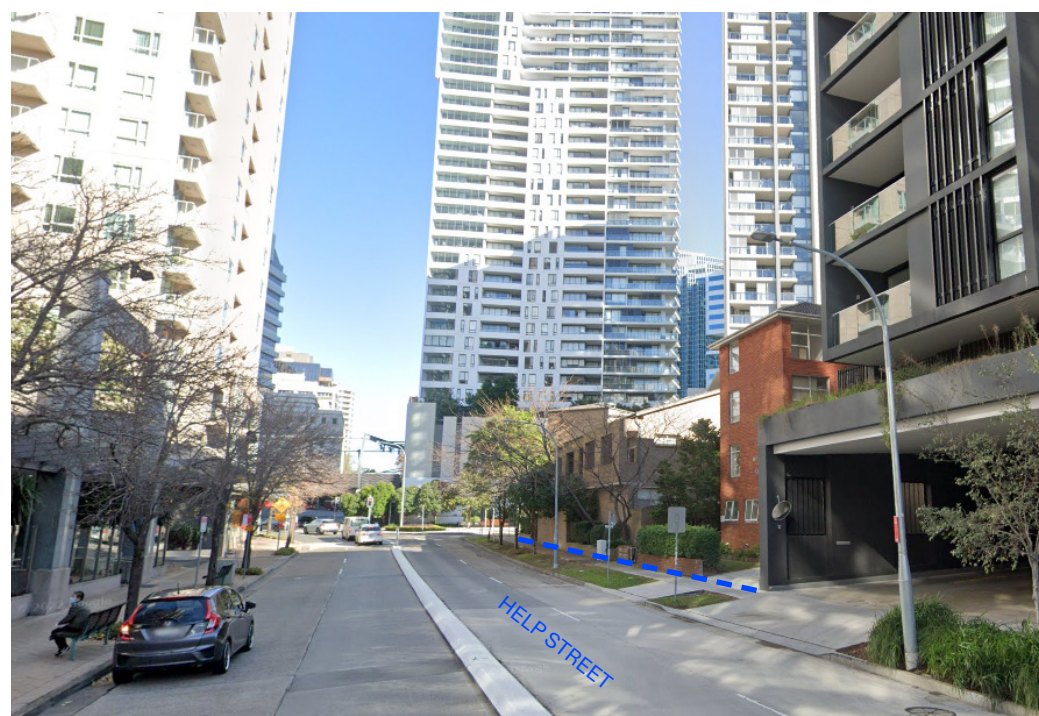
North West Corner - Intersection of McIntosh Street + Cambridge Lane



North East Corner - McIntosh Street



South East Corner - Help Street





## 04 Site Analysis

### Topography

The site has a fall of approximately 4m from North to South with the highest point in the North East corner and lowest to the South East.

The proposed design of the public domain negotiates the sloping site with a series of gentle ramps. This provides equitable access around the perimeter of the building, into the lobbies and various commercial tenancies.



Topography (2m Contour)



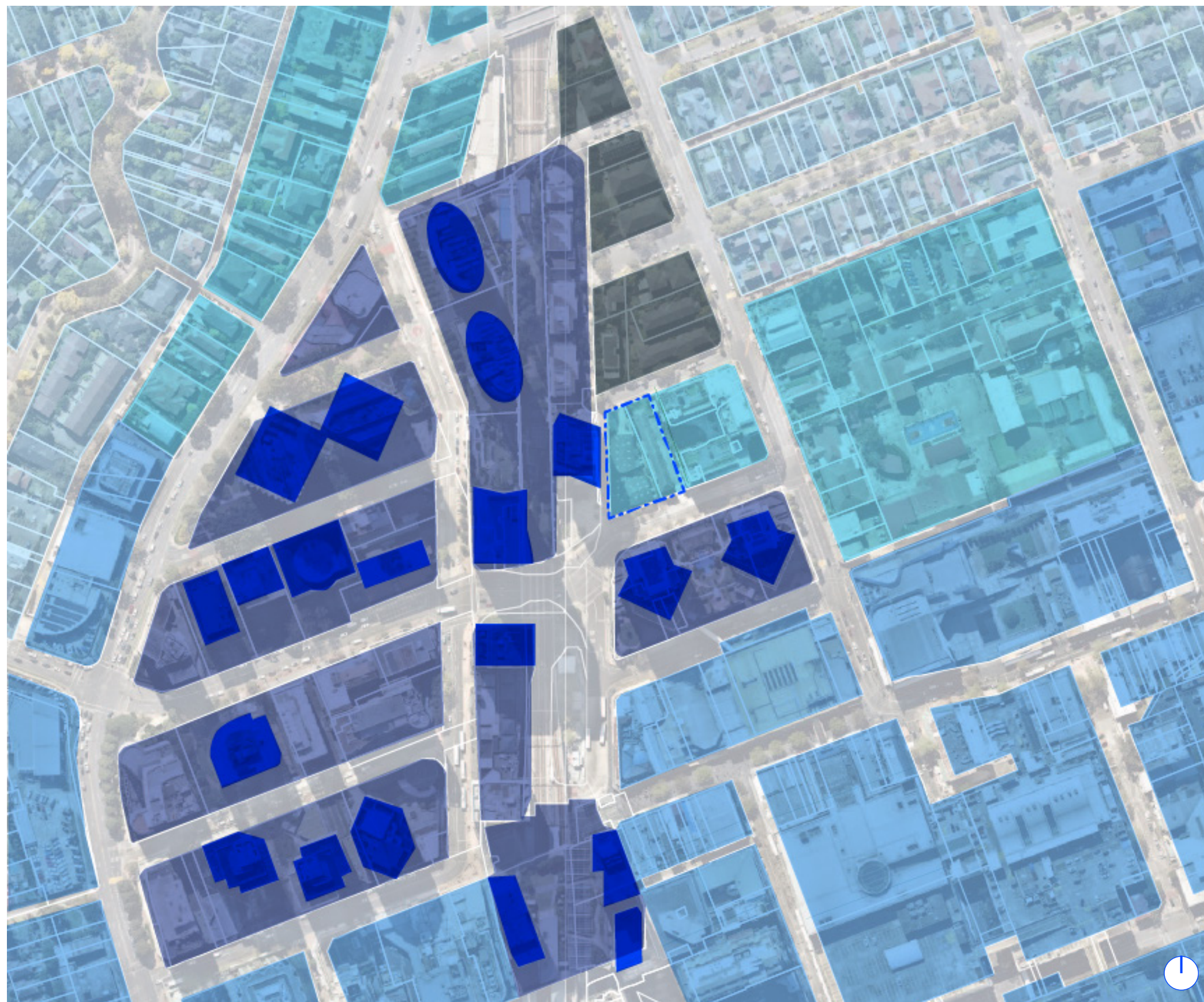


## 04 Site Analysis

### Building Heights

Chatswood is a highly diverse suburb with a wide range of development scales, ranging from modest single residential homes to large mixed use apartment towers. To the West and South of the site, is an area of mixed use developments greater than 15 storeys with a defined podium.

To the north and east is an area transitioning as part of the growing Chatswood CBD. Further north east there is another step change in scale, to a small dwellings that are part of the North Chatswood heritage conservation area.





## 04 Site Analysis

### Views

Located to the east of the commercial core, the site is afforded views over the low density residential areas, to the North Shore hinterland beyond.

There are also framed views towards the Sydney CBD to the South East between the two existing apartment towers at 2A Help St.

The design of the apartments seeks to carefully direct the outlook towards these view corridors. The language of the facade, consists of a window wall construction that creates a series of picture windows in each apartment, that frame unique views of the surround locale.



■ +15 Storeys  
■ Potential Redevelopment Zone



# Design Proposal



# Design Principles



# 01. Enhancing the public domain

## More public space with better amenity and activation

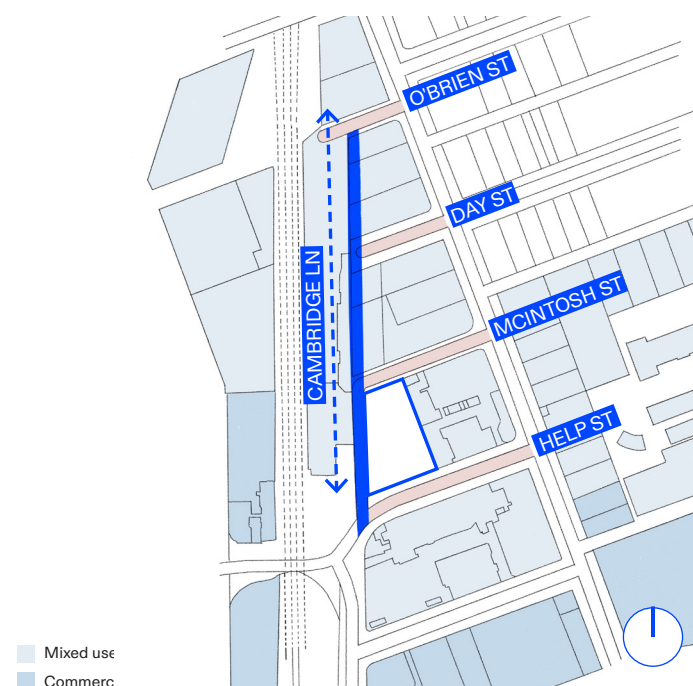
### Enabling a future vision for Chatswood

Our public domain strategy is simple. We propose more public space with better amenity, better integrated with the landscape, that is extended into the tower and finally that the new built form be a better fit, better defining the public spaces and relating to the neighbouring buildings.

We have significantly enhanced Cambridge Lane to create Cambridge Walk by setting the building back 7.5m from the boundary. This new public space, unlike Cambridge Plaza, is open to the north and sunlit. This new space is tree lined and fully activated with spaces for outdoor seating.

This strategy of commercial activation is extended to Help and McIntosh Streets while the street definition of Help street is folded to integrate better with the building to the east and open up to the plaza and pedestrian connection under the railway.

Cambridge Walk is strategically positioned to connect to the desired future pedestrian North-South axis identified by Willoughby Council in their Chatwood CBD Strategy 2036. More than just the connecting link, it will provide a significant new local destination and place of gathering with high levels of amenity.





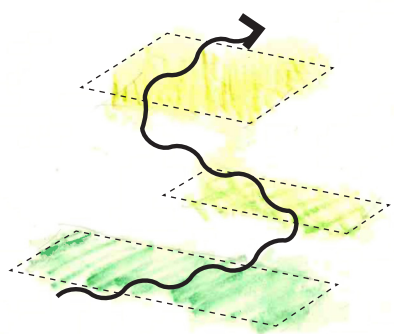
## 02. Landscape derived from place

### Designed by Common Grounds

The existing landscape conditions of the site have a number of unique opportunities. Through a considered approach the project has the opportunity to deliver several key objectives, ensuring we leverage these unique offerings.

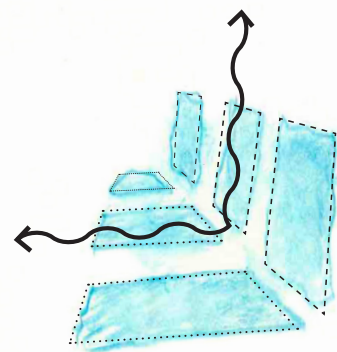
#### Create a series of distinct yet connected landscapes

The architecture provides a series of micro-climatic conditions with varying levels of wind, shade and positioning. The once indigenous ecosystems of the humid Blue Gum Forest and the Sandstone Heath, Woodland and Forest, are ideally placed to occupy these micro-climates



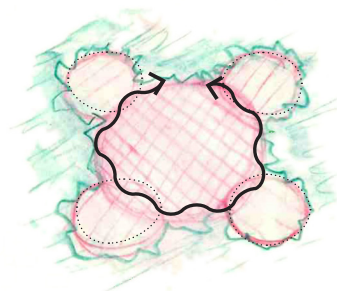
#### Ensure the landscape and architecture speak to one another

The landscape design learns from the local ecosystems - using this to occupy the habitats created by the building. the architecture responds to the landscape utilising the colours and materials of this landscape in the architecture



#### Create flexible and diverse spaces

In an age where working from home is the new normal, yet entertaining the kids is still the reality; we need flexible spaces that both stimulate yet provide solitude. Our landscape provides the flexibility for both.



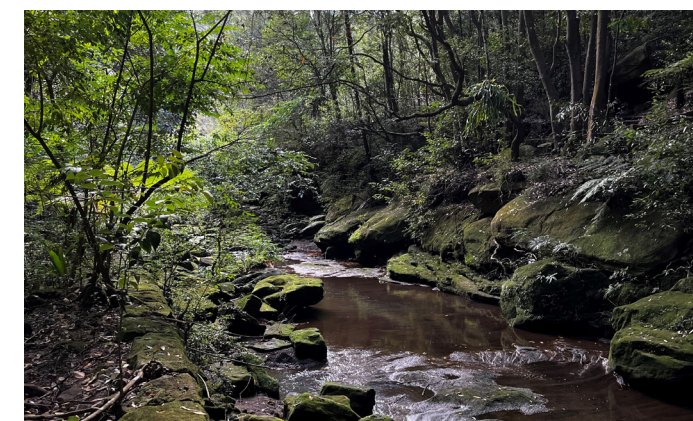
#### Connecting with Country

The site is located on Darug Country and is home to the Cammeraygal. It is connected to the vegetation communities of Sandstone Ridgetop Woodlands (to the west) and Blue Gum Forest (to the east).

A geotechnical study of the site, confirms that it is underlain by Ashfield Shale and Hawkesbury Sandstone. Through the bore hole samples taken, the colour of the actual stone on site could be identified. Below are images of these samples at various depths below the surface, with varying warm grey tones through each layer of stone.

The colour palette of the tower, is an expression and reflection of the site specific conditions.

The landscape also embeds this understanding of site into both planting and materiality. Endemic species from these two local vegetation communities showcases the history of the site. It is an acknowledgement and appreciation of the natural landscape.





### 03. Sculpted for the city

#### An elegant contribution to Chatswood's skyline

The proposed form is refined and sculpted, designed to maximise the amenity of future occupants, as well as that of the public domain and surrounding buildings.

The built form is a highly articulated response to the site topography, orientation, surrounding public domain, movement lines, adjoining buildings, and the broader urban setting.

The tower will form part of the north-eastern Chatswood CBD, between the high rise to the south and west and future high rise buildings to the north. The tower also forms an urban marker on the approach to Chatswood from the west.

The additional building height permissible under the Housing SEPP further enhances the proportions of the built form. It will provide an elegant contribution to an attractive and distinctive city skyline defined by tall slender towers.





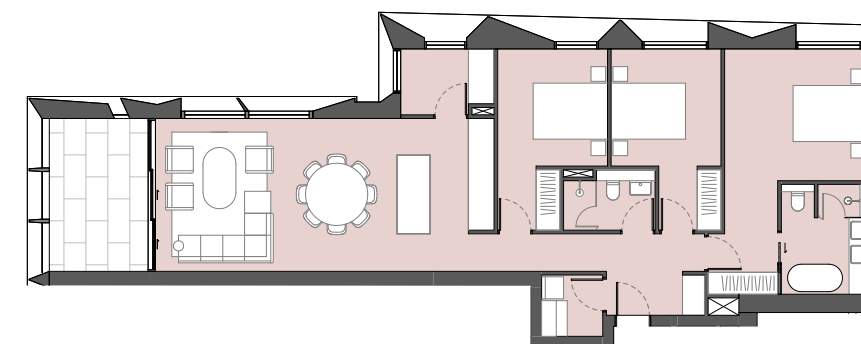
## 04. No dud apartments

### Elegant and comfortable living

Our design proposes a building centred on elegant and comfortable living set in a vibrant new neighbourhood. Flexible floorplates permit the type and mix of apartments to be optimised, while maximising sunlight, cross ventilation, views, outlook and ability to integrate work from home facilities.

The residents communal facilities provide additional amenities to respond to the changes in the way we live and work from home. The communal area opens to a generous north facing garden designed to accommodate a range of uses including working-from-garden. A dedicated residents' gym complements the communal spaces, enhancing the overall amenity offering and supporting residents' health and wellbeing.

The new residential address on Cambridge Walk sets the entry lobby in the middle of a new vibrant, sun lit and tree lined neighbourhood.



Typical High Rise  
North East Apartment Floor Plan



Uninterrupted North-East outlook characteristic for a typical north facing 3 Bed apartment.



## 05. Commercial strategy that supports an active public domain

High amenity and flexible to support the residential offering



Competition Entry Sketch



### Vibrant + active podium

Commercial uses have been carefully integrated in the design to ensure high quality user amenity and experience. Commercial spaces of various sizes activate the new public domain across Cambridge Lane, Help and McIntosh Streets. Flexible and adaptable, commercial floor area extends over two floors, with ample access to daylight and two outdoor landscaped areas.

### Commercial address

The new commercial address on Cambridge Walk is centred in a new vibrant, sun lit, and tree lined new public space. Convenient pick up and drop off exists along the shared way, with access to various modes of public transport, cafes, retail, and services. The entry is welcoming, with a double height lobby that has integrated food and beverage opening up to Cambridge Walk. This provides a convenient place to host meetings, outside the security line and a vibrant front door to the workplace.

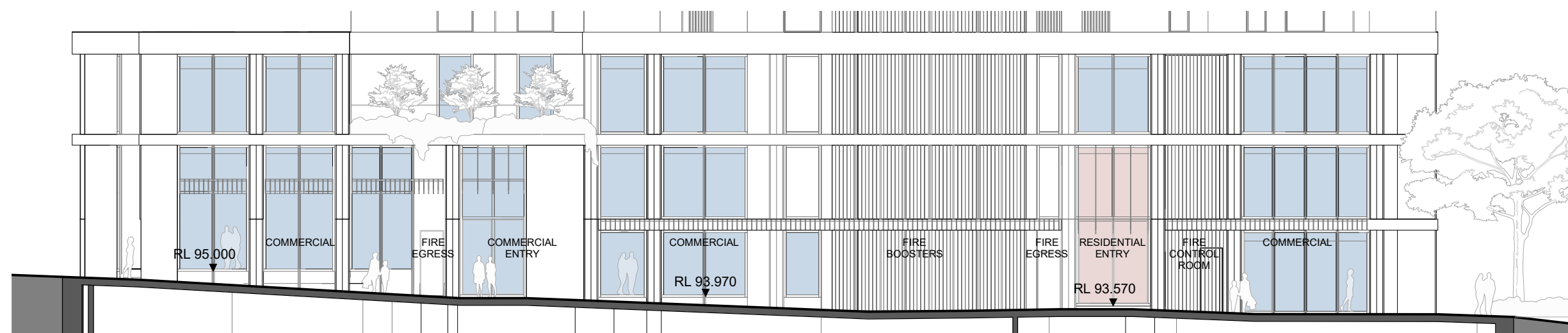
### Maximising commercial activation

The design provides commercial activation on all three street frontages. Different tenancy depths support different commercial uses, each shaping the vibrant, new public space. In addition, the expanded and landscaped new public domain on Cambridge Walk is activated throughout the day by placing the apartment and commercial entry lobbies along its length. The vehicle entry is located away from these main public spaces and where they are best able to connect to the traffic network.



## 06. A continuous, accessible, and active frontage

Welcoming and inclusive public space



### Maximising connectivity and frontage

With a substantial fall across the length of Cambridge Walk, commercial tenancies have been positioned to terrace down from McIntosh St to Help St, allowing for a continuous public domain. Entries to commercial spaces and lobbies are consolidated along Cambridge Walk, with only the northern tenancy accessed off McIntosh St due to site levels.

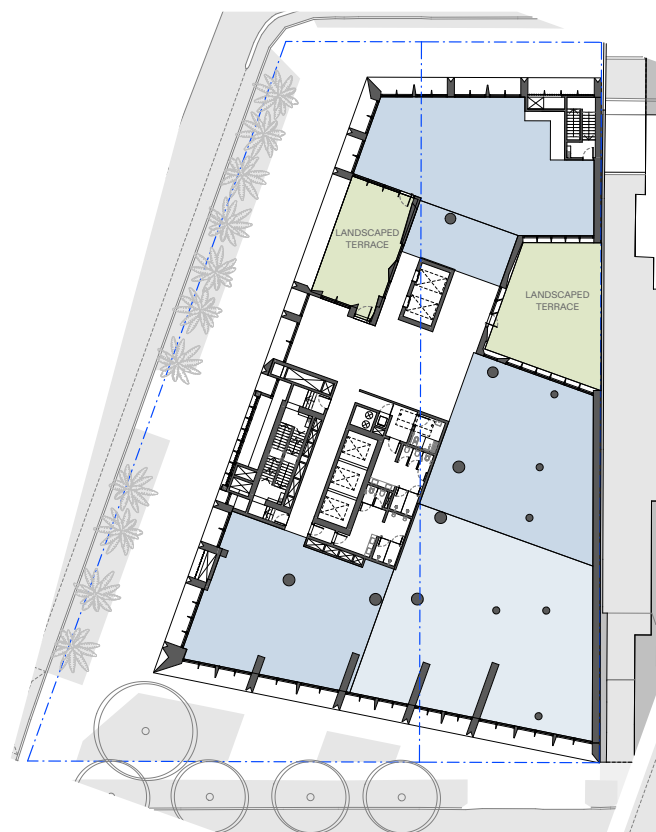
The glazed façade maximises visual connectivity to Cambridge Walk and improved activation. A variety of single height and double height spaces also presents an opportunity for different commercial experiences and uses. Entries are denoted with accent awnings and feature stone cladding to allow for improved wayfinding and a luxurious arrival experience.

0 1000 2000 3000  
Scale 1:100 mm



## 07. Flexible floorplate with high amenity

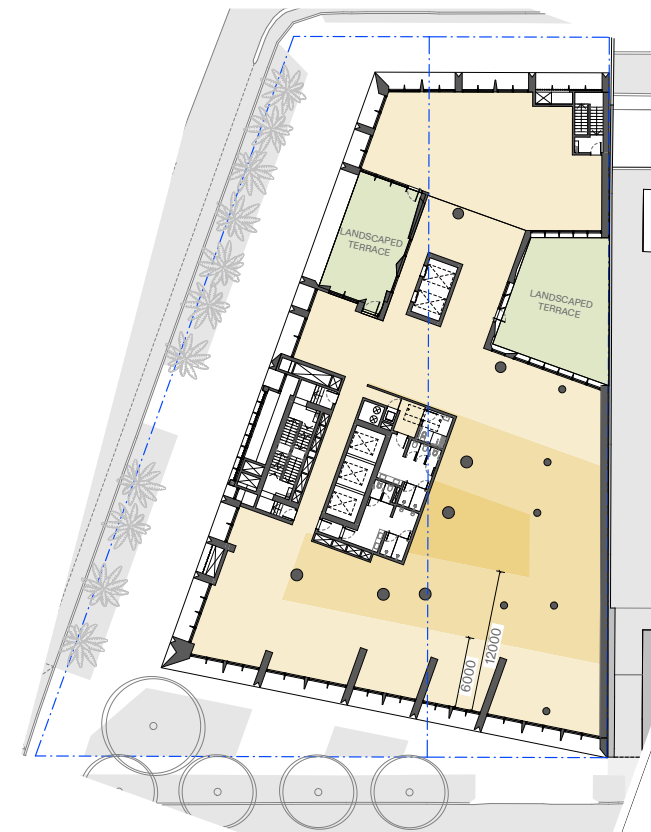
High amenity and flexible to support the residential offering



4 tenancies



3 tenancies



Single tenancy

### Enhanced tenancy flexibility

The location of the core, services, garden and outlook allow the floorplate to be leased as one or a series of different sized commercial spaces. The diagrams above show a small range of the potential tenancy options. The inherent flexibility afforded by these floorplates with generous frontages and pocket gardens, allows the development to future proof for the changing way we work.

### Improved outlook and amenity

Commercial office space has been designed to maximise the high value office floor area within 6m from the windows. Commercial floors have outlook to Cambridge Walk, Help Street or McIntosh Street as well as access and outlook to an elevated landscaped garden.



# Post-SSDA Evolution





Competition Scheme  
Total number of storeys: 27

### Competition Scheme - October 2022

Design competition submission prepared in response to the competition brief, Chatswood CBD strategy, LEP controls and the site specific DCP.



Approved DA Scheme  
Total number of storeys: 27

### Development Application - June 2023

Following the competition, the design was developed adopting the feedback from the jury and Pre-DA meeting. Refinements to the design have improved:

- The urban design response
- Quality of commercial space on ground level
- Constructibility
- Sustainable design strategies
- External finishes colour palette

Apartment mix has also been revised to prioritise amenity and density for the rapidly growing suburb.



Approved SSDA  
Total number of storeys: 35

### State Significant DA - SSD-76555711

Following the DA submission and subsequent changes to the Willoughby DCP, the design has been adapted in response to the In-fill Affordable Housing SEPP. The proposal provides 14% additional affordable housing and adopts the 28% additional height and FSR bonus afforded by the SEPP. The architectural response and design principles otherwise remain unchanged from the DA and competition schemes.

The approved SSDA proposal delivers:

- Additional 8 levels of apartments
- Additional half level of basement



Proposed S4.55  
Total number of storeys: 35

### S4.55 Modification Application

Following approval of the SSDA, the design has been refined to improve operational efficiency, constructability and alignment with current market demand. The modifications are an evolution of the approved scheme and retain the fundamental design intent and planning outcomes:

- Revised apartment mix to provide a greater proportion of larger dwellings, together with refinements to internal layouts
- Facade modifications to respond to updated apartment layouts and conversion of balconies to wintergardens on Levels L24-33.
- Optimisation of the building core and structural grid
- Increased floor-to-floor heights where required to accommodate structure and building services
- Increased lift overrun and pit depth to accommodate higher-speed lifts.
- Rationalised back-of-house areas
- Extension to a full Basement Level B5
- Inclusion of a residents' gym on Level L2

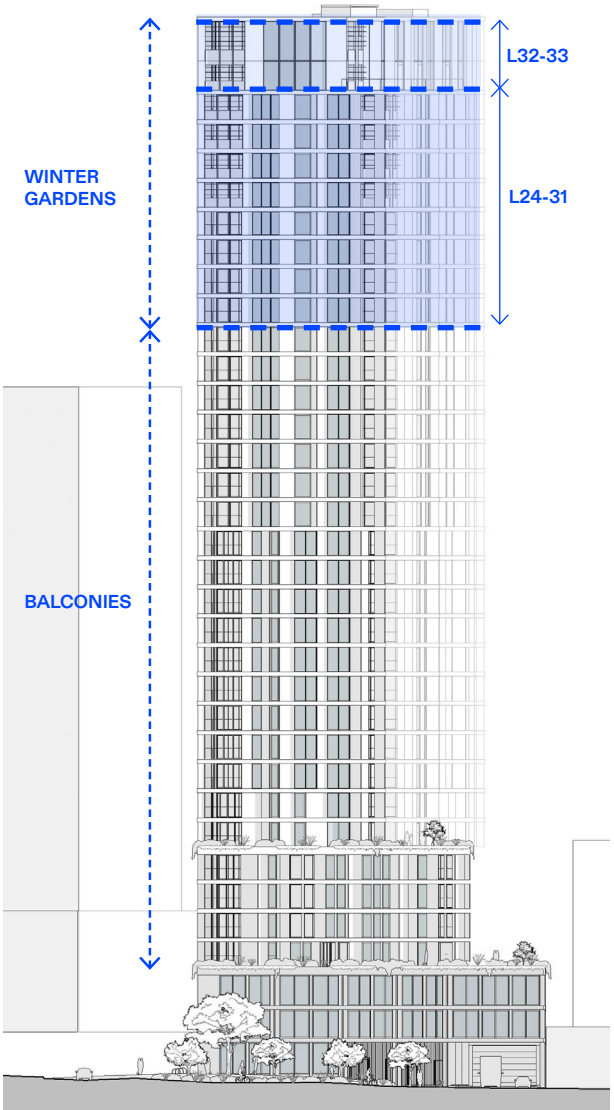
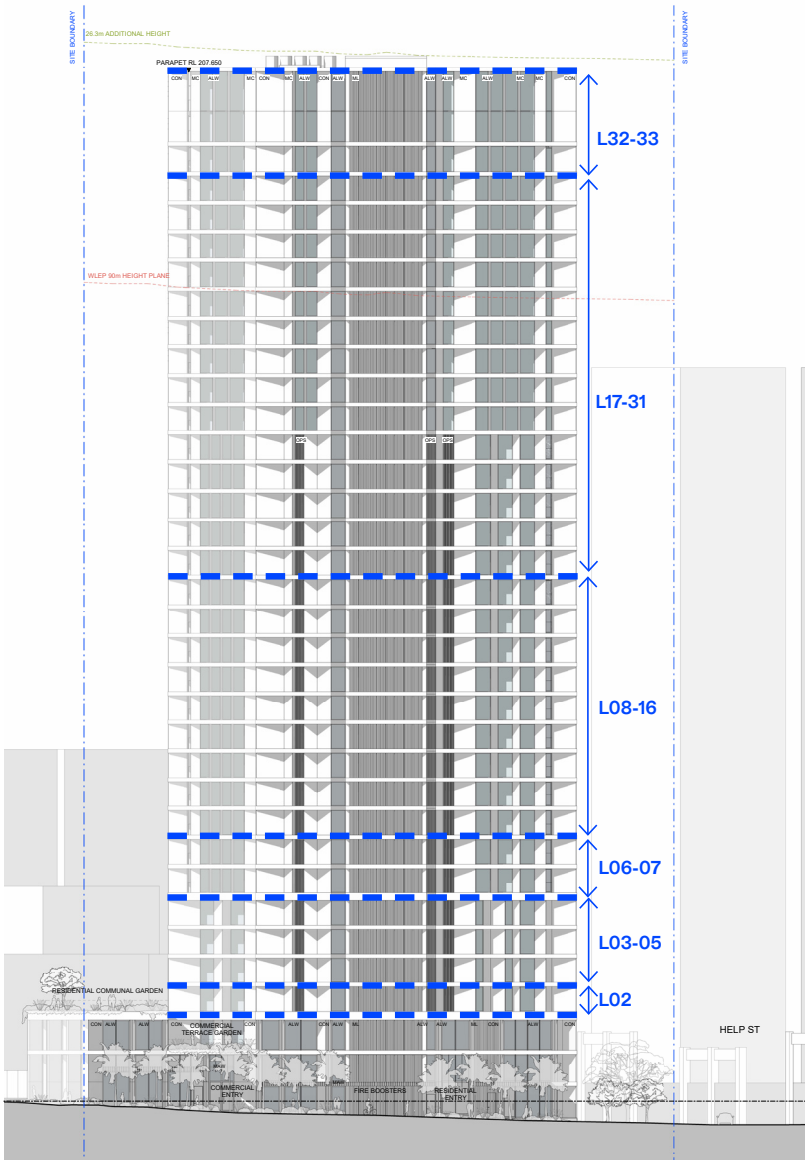


Amenity

|             | 1 Bed     | 2 Bed     | 3 Bed     | 4 Bed   | Total |
|-------------|-----------|-----------|-----------|---------|-------|
| Competition | 21<br>19% | 47<br>43% | 40<br>38% | 1<br>1% | 109   |
| DA          | 4<br>4%   | 47<br>50% | 43<br>46% | 0       | 94    |
| SSDA        | 55<br>35% | 89<br>55% | 16<br>10% | 0       | 160   |
| S4.55       | 28<br>20% | 81<br>57% | 30<br>21% | 4<br>3% | 143   |

1. Apartment Mix

The apartment mix has been revised to increase the proportion of larger dwellings, including the introduction of four 4-bedroom penthouses. This updated mix responds to current market demand and reflects evolving patterns of apartment living, where larger and more adaptable homes are increasingly sought to accommodate families, multigenerational households and flexible work-from-home arrangements.



2. Winter Gardens

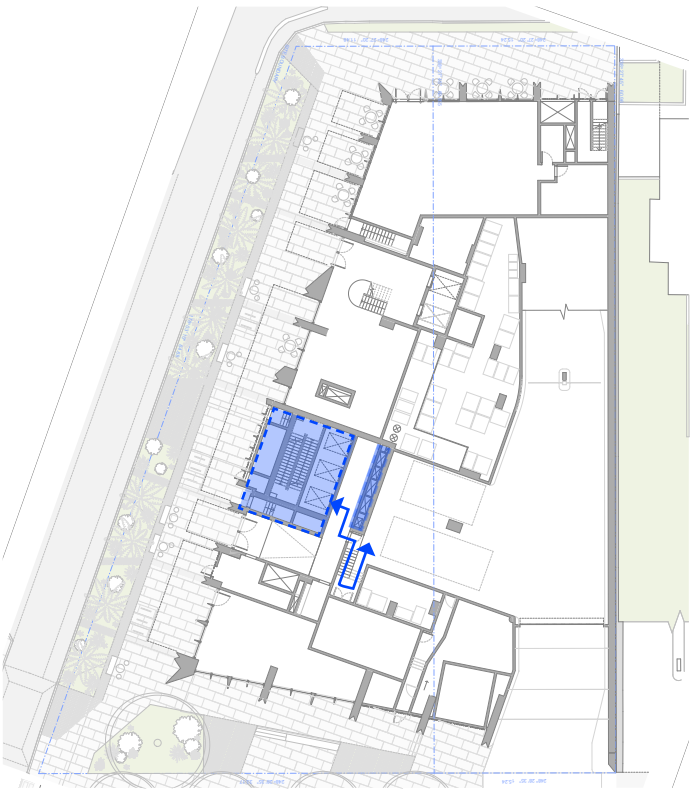
The conversion of balconies to wintergardens on Levels 24 to 33 enhances residential amenity by providing flexible spaces that can be opened or closed in response to changing weather conditions. The operability allows the wintergarden to function as a direct extension of the living space all year round

This is particularly beneficial at the upper levels of the tower, where increased wind exposure can limit the usability of open balconies. The wintergardens assist in moderating external conditions, improving internal room comfort and providing an additional acoustic buffer.

Their design is deliberately minimal, ensuring seamless integration with the SSDA approved facade design strategy.



Operational Efficiency



Approved SSDA



Proposed S4.55

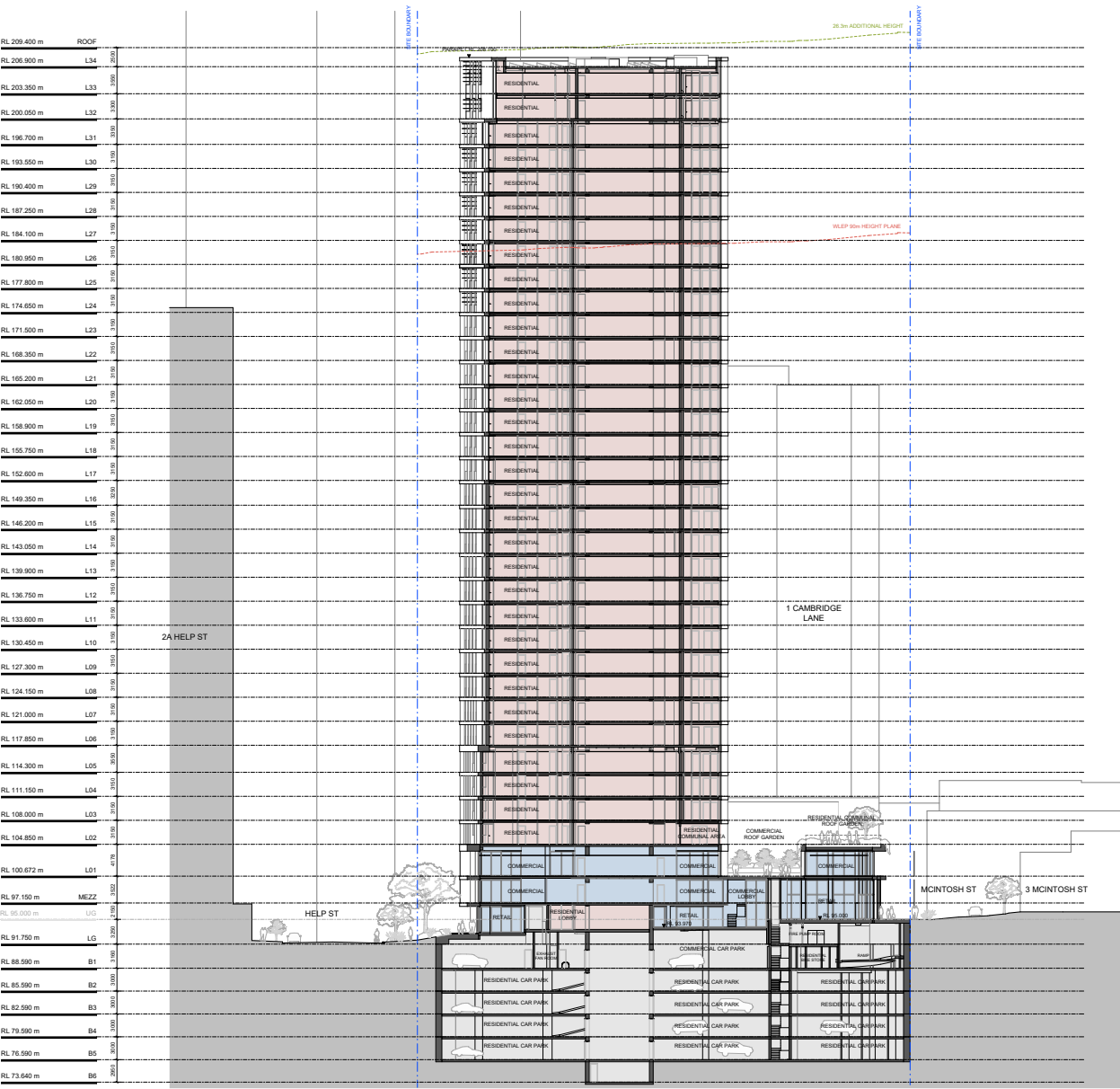
3. Building Core Optimised

The residential building core has been optimised to improve circulation and servicing efficiency. The reconfiguration includes relocation of the lift and service riser banks within the core and the introduction of a through-lift, enabling direct connection between the residential tower and loading dock.

This significantly improves operational efficiency for move-ins, deliveries and day-to-day servicing, as well as enhancing waste management logistics.



Constructability

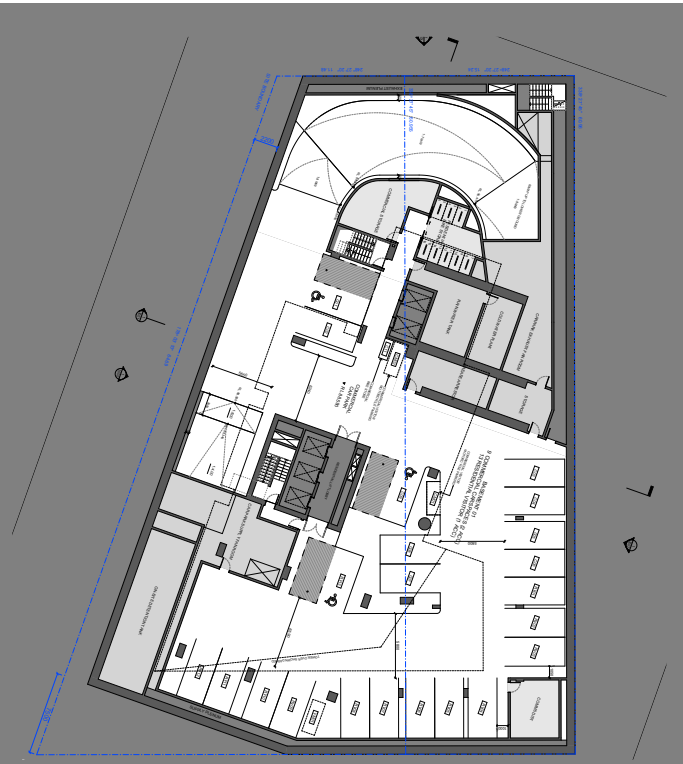


Proposed SSDA

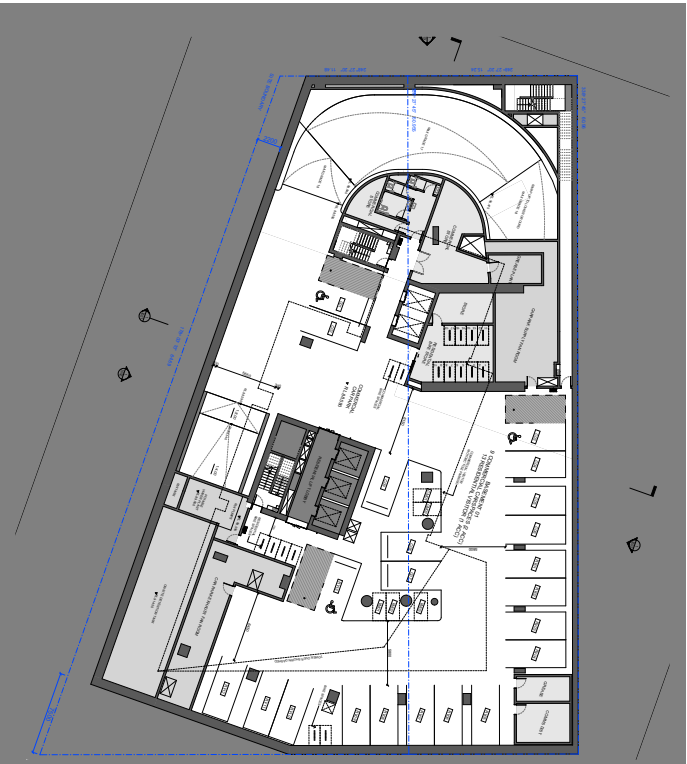
4. Increased floor to floor

Floor-to-floor heights in Basement Levels 3 to 5 have been increased by 150mm to 3,000mm, to accommodate a jet fan car park ventilation system and improve parking layout efficiency.

In addition, floor-to-floor heights at Levels 16, 31 and 32 have been increased to allow for revised structural zone requirements and services reticulation associated with transitions between apartment layouts. These changes ensure adequate space for services coordination and appropriate waterproofing at thresholds to outdoor areas, while maintaining compliant ceiling heights throughout.



Approved SSDA



Proposed S4.55

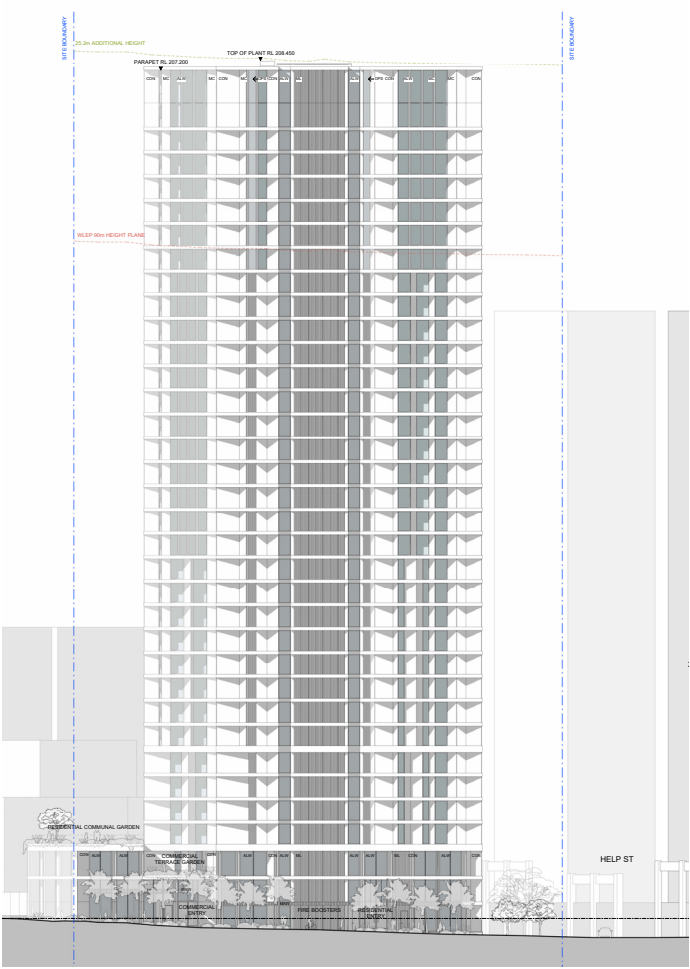
5. Structural Design Rationalisation

The basement structural grid has been rationalised to improve the efficiency of the layout for both parking and back-of-house areas. The basement design has also been extended to a full Basement Level 5, providing additional storage capacity and parking provisions.

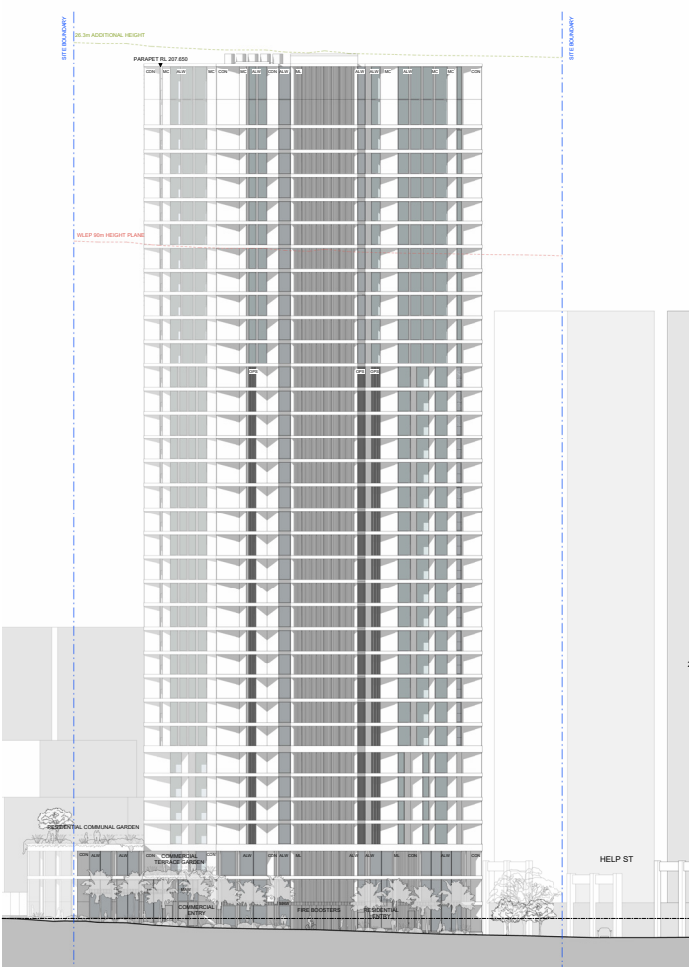
The design of the podium levels has also been refined to remove deep floor beams and increase floor-to-ceiling heights, thereby improving internal amenity, spatial quality and future flexibility of the commercial spaces.



Contextual Response



Approved SSDA



Proposed s4.55

6. Facade Optimisation

The façade has been adjusted to respond to the revised apartment mix, internal layouts and the building’s relationship to the surrounding context. These refinements maintain good solar access, thermal performance and outlook, while balancing visual privacy between neighbouring properties.

The overall façade expression remains unchanged, including the deep façade zones, expressed slab edges, and the dynamic expression of splayed columns and walls. The updates maintain the approved architectural language, with the addition of wintergardens to the upper levels of the tower, further enhancing residential amenity without compromising the façade composition.



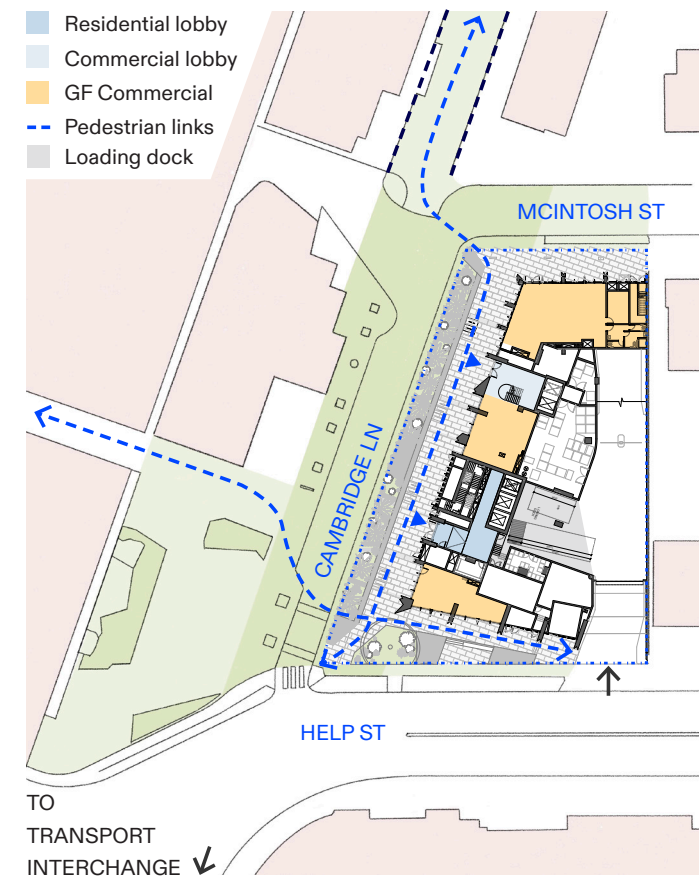
# Design Proposal



## Design Proposal

### A new public space for Chatswood

At the core of the proposed scheme is the new public space along Cambridge Walk. There is an opportunity on this site to provide a sunlit activated commercial precinct, enhance the adjacent public plaza, improve pedestrian links and be a catalyst for the implementation of the greater Chatswood CBD Strategy.



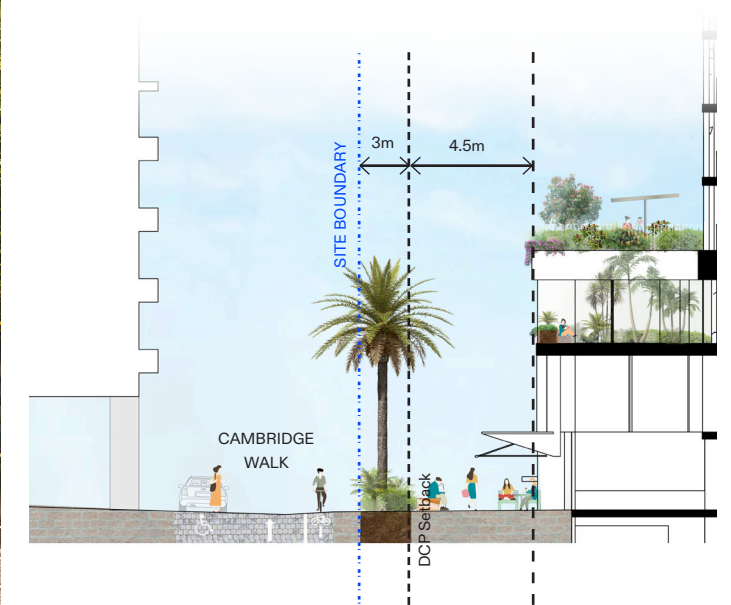
#### High quality public domain

Our proposal considers Cambridge Lane as a holistic shared space with the extension of the surface finishes from along the Cambridge building into the new public domain, Cambridge Walk. The increase in density and diversity of residents provided by the affordable housing uplift will further improve ground plane activation.



#### Extending the public domain

The new public domain is proposed to be extended into Help and McIntosh Streets so that it creates an environment that improves pedestrian movement through the site and into the tunnel link to Railway Street. Better integrated street furniture, landscape and paving unites these public spaces.



#### Generous and pedestrian friendly

Proposed new setback enables a generous pedestrian walkway, new 4m wide and 50 metres long landscaped strip and a new row of indigenous palm trees.



## Design Proposal

### Landscape derived from place

The proposed landscaping strategy is an expression of place, drawing from the local indigenous ecosystems. The building's architecture naturally creates a series of micro-climates, with varying degrees of sunlight, shade, exposure to wind and rain. The landscape architect's Studio Georgouras have harnessed this opportunity to create a variety of different landscape environments across the ground plane, commercial gardens on Mezzanine and Level 1, the Communal residential garden on Level 2 and private gardens on Level 6.

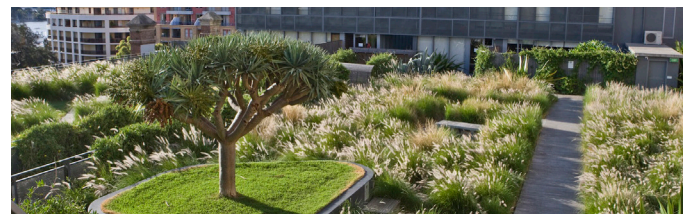
These spaces provide much needed amenity for residents and tenants in a highly urban environment but also soften the built form and provide visual amenity for the local community.

#### Terraced rooftop gardens maximised

The communal terraces will provide the amenity of a local park; without having to leave the building. The common spaces will provide the opportunity to work from a leafy seating, socialise with friends, exercise or just take some quite time to relax. The ability to plug into the more social spaces or alternatively switch off is at the core of the terraced rooftop garden space.

#### Private gardens

The private gardens have been designed to cater for absolutely everything; from a midweek dinner with friends, to a lazy solo Sunday afternoon on the sunbed. Both planting and materials have been used to provide privacy, shade and wind protection, without comprising on those spectacular views.



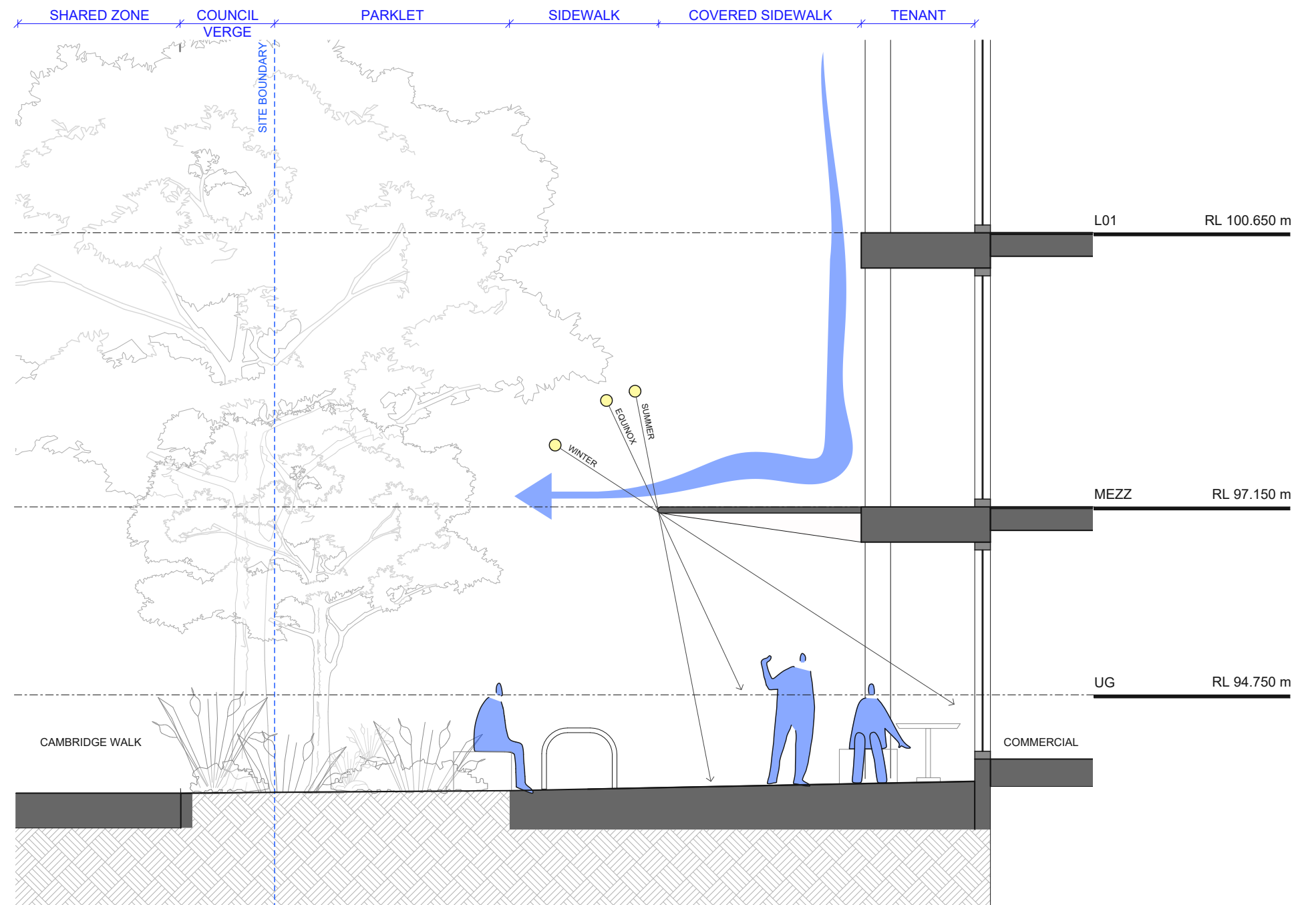


## Solar protection and access

The building's northern orientation and the westward splaying boundary ensures sufficient solar access to the public domain during winter, as demonstrated in the solar analysis below. Similarly, the use of awnings provides shade, protecting diners and pedestrians from the harsh summer sun. A heavily landscaped area along the western boundary helps regulate the microclimate of the public domain, mitigating the heat island effect during summer and creating a comfortable space for public use.

### Shade and wind protection

Awnings along the podium building provide a shaded and covered space for the diners, interrupted only by the distinctive entry canopies for the commercial and residential lobbies. To mitigate downwash wind loads - awnings are designed to intercept and redistribute the wind's flow. Deflecting the wind upwards or sideways away from the walking paths below.





Design Proposal

Unlocking an active public domain

The proposed development's vehicle access strategy and 5 levels of basement parking have been designed in conjunction with PDC Consultants and in accordance with Willoughby Council's requirements. Refer Traffic Report prepared by PDC Consultants and Architectural Drawings by EM BE CE.

The access strategy was designed to minimise disruption to pedestrian movement and maximise active frontages in high priority ground plane areas, such as Cambridge Walk. Through providing vehicle access via a single entry point, in the lowest impact location, we have unlocked the public domain for active commerical uses and entry lobbies.

Vehicle access to the site is via a driveway off Help Street, on the south east corner of the site. To accommodate the requirements of the proposed development, the existing driveway and crossover in this location is to be widened.

The driveway width has been sized to cater for commercial, residential and waste servicing requirements. It allows for left turn in and out, as well as forward entry and exit.

The loading dock provided on Lower Ground is located close to the entry to improve efficiency of servicing and provide access control for different users. There is provision for 1x SRV and 1x HRV to park at any one time. This loading zone is co-located with all waste rooms, servicing both commercial and residential.

All car and motorcycle parking spaces are located on Basement 1 to 5. A total of 206 car and 17 motorcycle parking spaces are provided, consisting of :

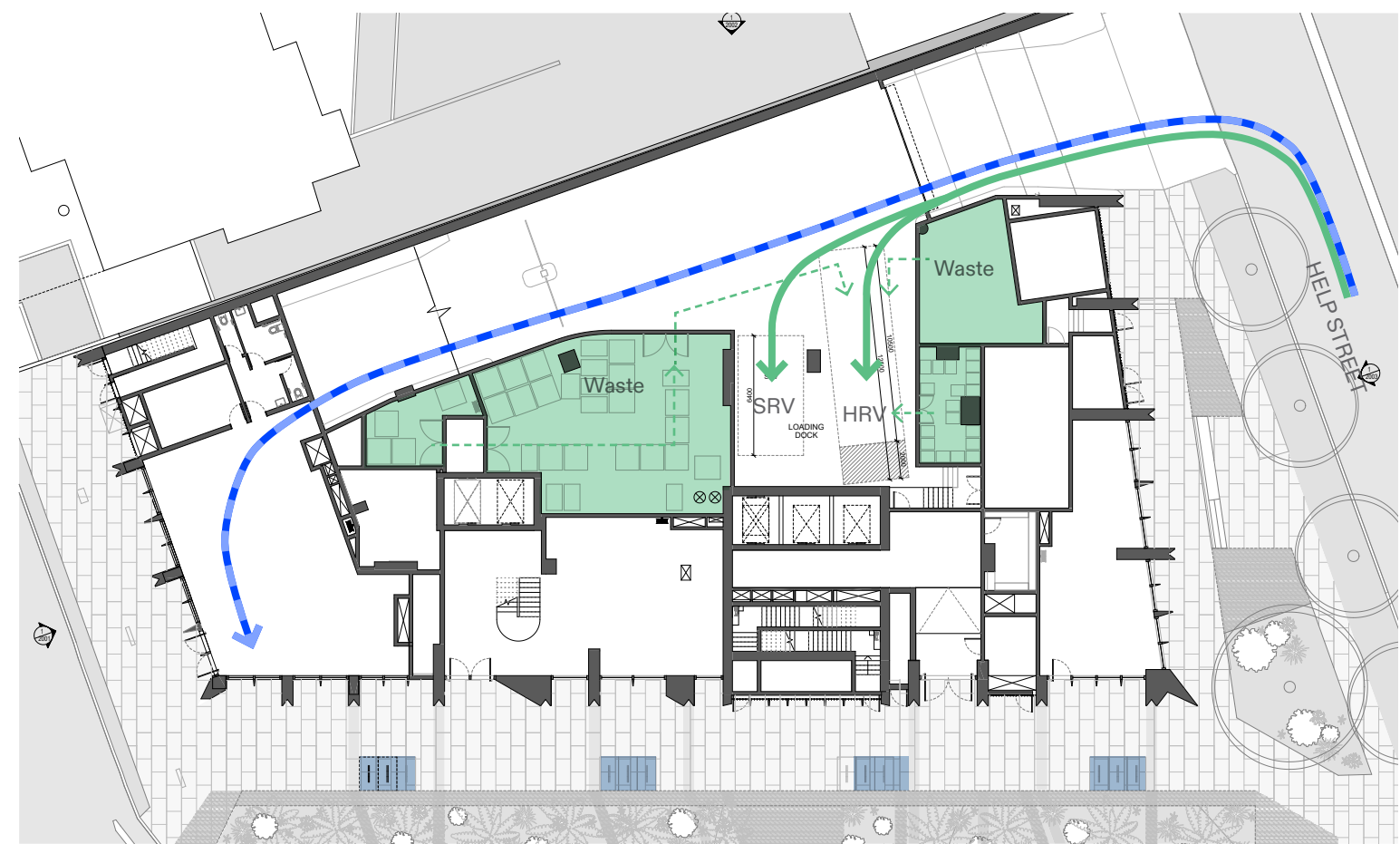
|             | # of Car Spaces | Accessible |
|-------------|-----------------|------------|
| Residential | 197             | 32         |
| Commercial  | 9               | 2          |

Commercial and visitor parking spaces are consolidated on Basement 1 where possible and residential parking spaces are on Basements 2-5. The typical Basement level car parking plan is in a loop formation, minimising blind or dead end aisles and allowing for efficient circulation through the levels.

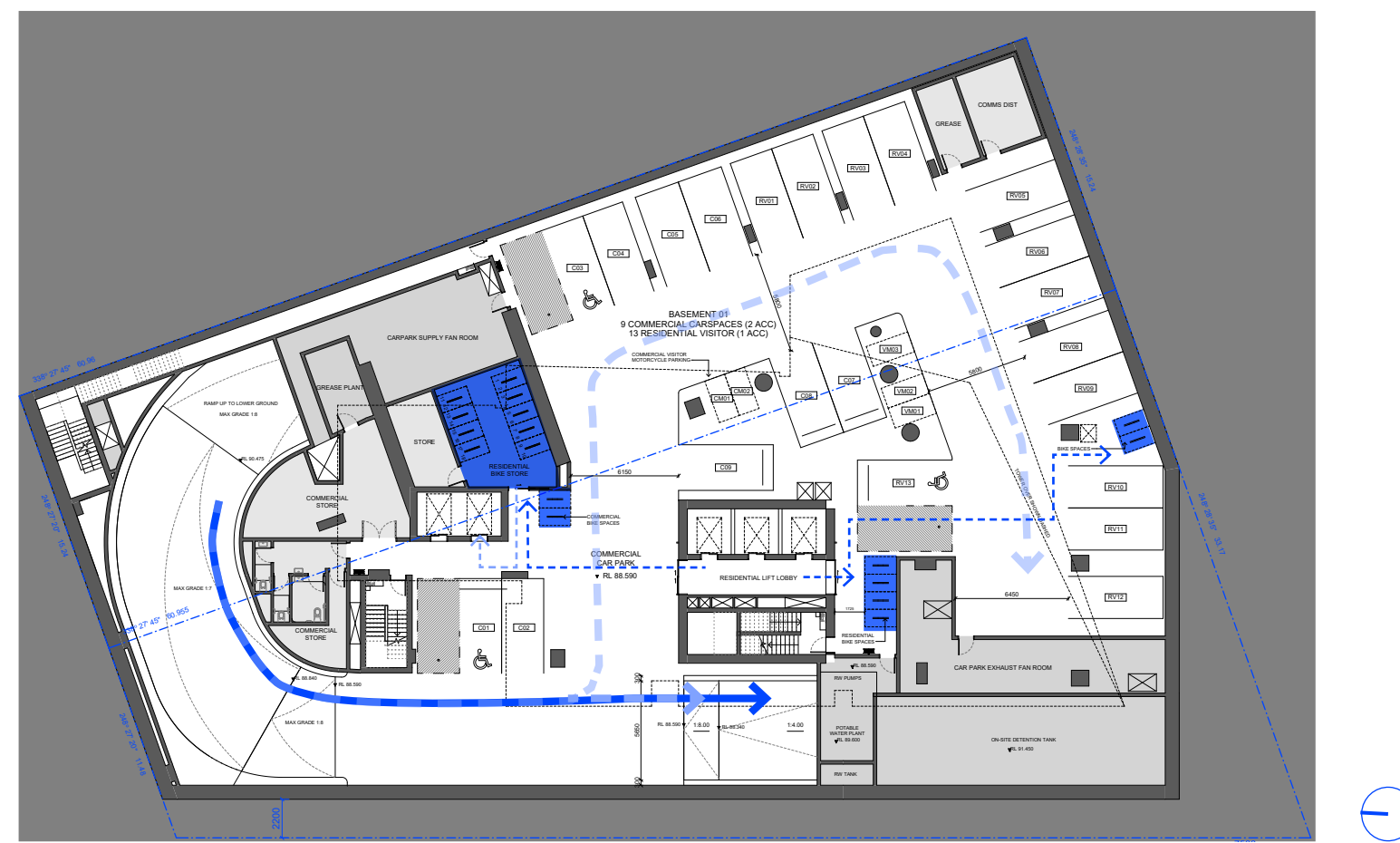
Residential and commercial each have dedicated bike parking areas on Basement 1, co-located with the lifts to allow for ease of access to and from. End of trip facilities are provided to each of the commercial levels to encourage active modes of transport for future tenants. Visitor bike parking rails are located along the new Cambridge Walk.

- Residential vehicle path
- Residential path to bike store
- Bike store
- Commercial/Visitor vehicle path
- Commercial path to bike store
- Visitor bike store
- Waste vehicle path
- Waste room to truck servicing
- Waste rooms

Lower Ground Plan



Basement 1 Plan

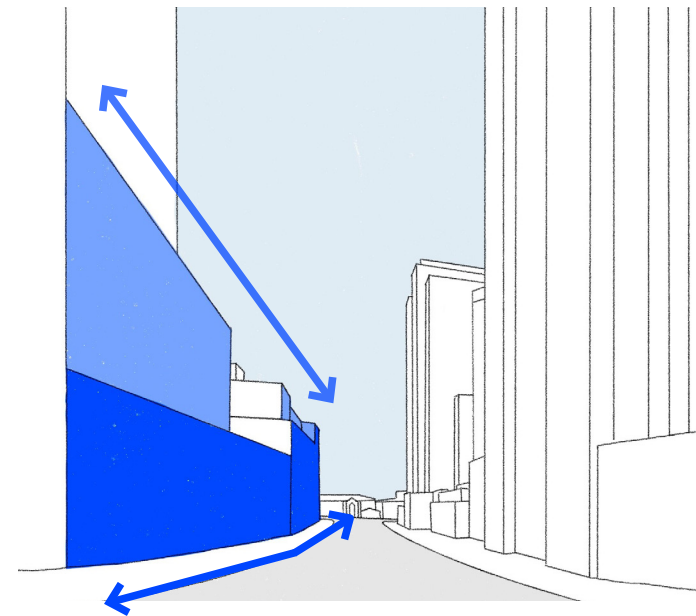




### A building form sculpted for the city

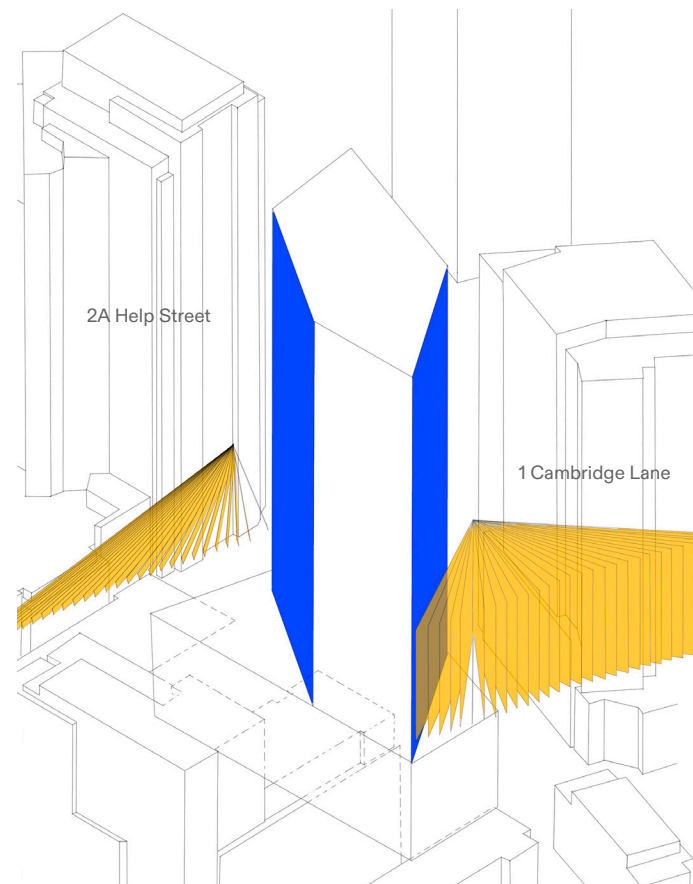
The buildings form is designed with the future occupants, neighbouring residents and broader Chatswood community in mind. The envelope is developed from a couple of key moves to improve amenity and the public domain:

- Create a unified podium and consistent street wall
- Increase ground plane setbacks to create a generous new promenade
- Provide an edge to the Chatswood CBD and marker for this prominent street corner



#### 01 Integrated podium

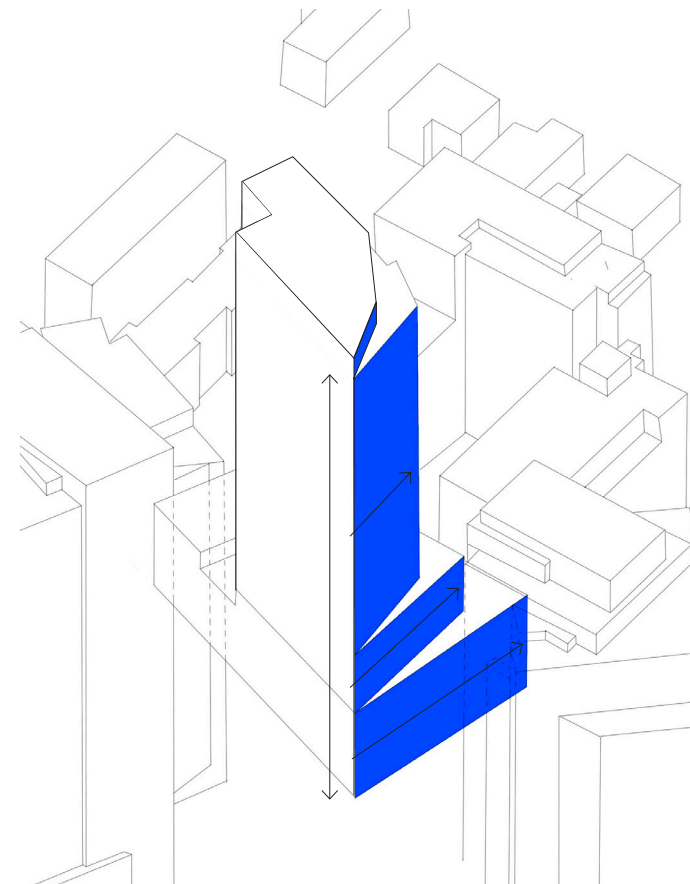
The proposed podium setbacks to Help St better integrate with 28 Anderson St. The existing DCP setbacks do not align with the building to the east. The proposal improves this condition by folding the street alignment from this corner to connect, generously widen and open the footpath (average width 5.5 metres) into Cambridge Plaza and Cambridge Walk. The base of the tower is modulated at Levels 4-8 to align with the setback of the top two storeys of 28 Anderson Street, and thus provide a better fitting urban form.



#### 02 Solar protection

The building envelope has been carved to protect solar access to the apartments of 1 Cambridge Lane and 2A Help St.

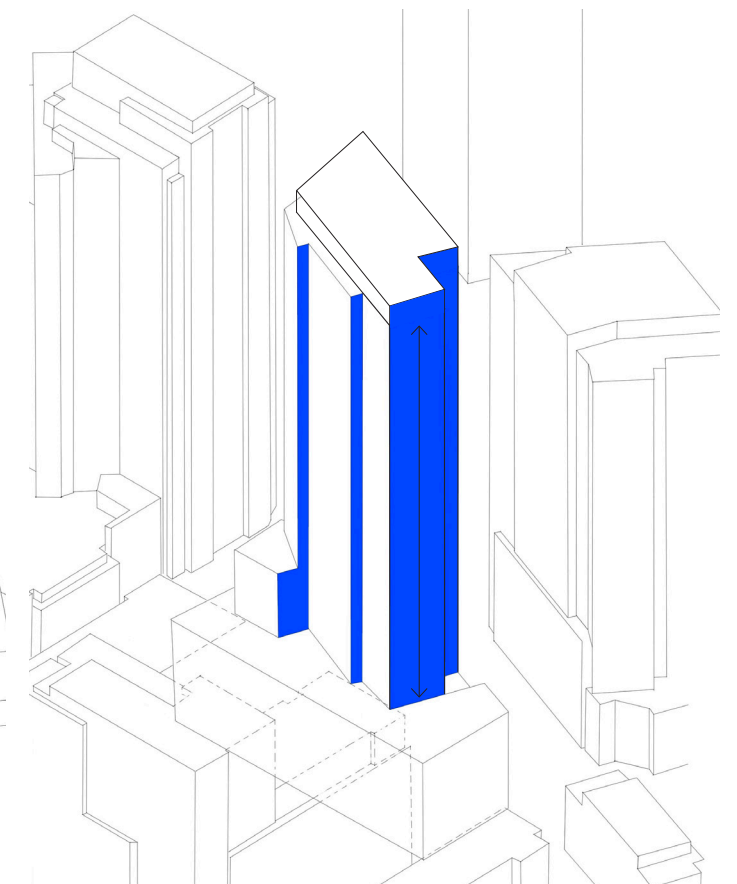
Due to the optimised form, the increase in height of 26.3m from the DA scheme has no additional overshadowing impacts on key public domain areas along Victoria Ave.



#### 03 Making an urban marker

Folds in the building form define the south west corner creates a singular element and marks the corner of Help Street and Cambridge Lane.

The additional height afforded by the Housing SEPP improve the proportions of the tower to create a more elegant built form.



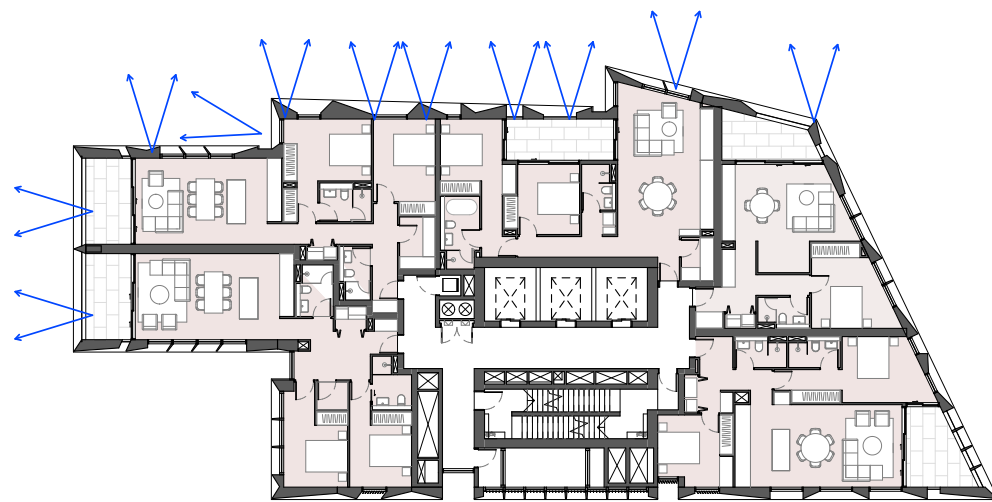
#### 04 Vertical articulation

Folding north-east openings along the Eastern façade ensures 2h solar access in mid-winter to 77.6% of all apartments.



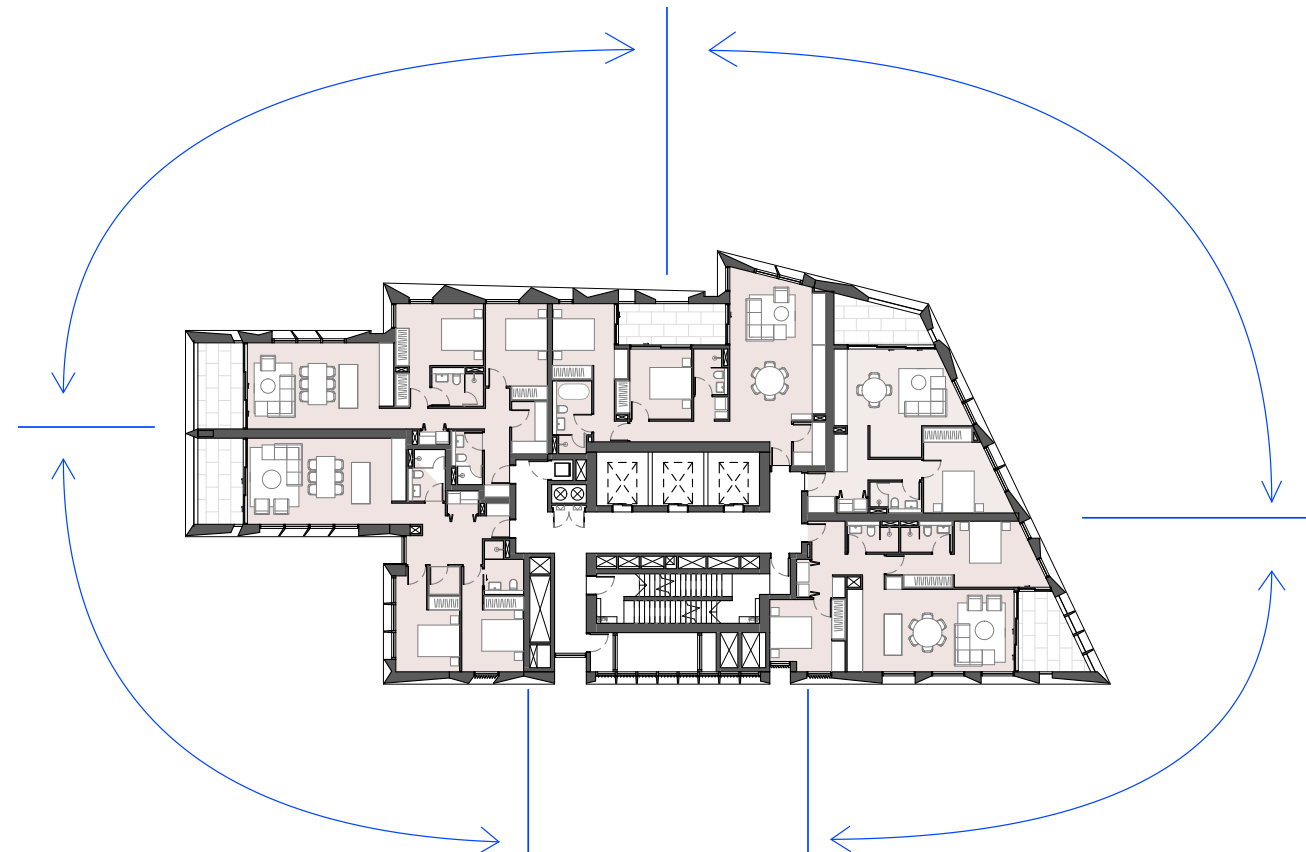
Post SSDA approval, the apartment mix changed in favour of a greater number of larger apartments. This responds to the evolving demographic of apartment dwellers and a shift in how we live/work. This is also a reflection of the project team's strong commitment to providing 'no dud apartments'. Each affordable and market apartment offers a high level of amenity with framed views, optimised solar access, privacy from neighbouring dwellings and nearly all are dual aspect.

The proposal provides 32 much needed affordable apartments for low to moderate income households within the Chatswood CBD and in close proximity to the transport interchange.



### North-East aspect maximised

Building form and floorplate has been designed to maximise the potential to exploit the views to the NE



### Dual-aspect apartments

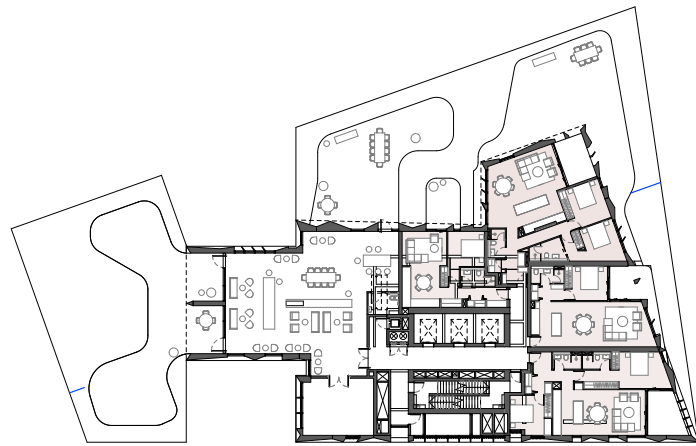
Floorplates have optimised the number of apartments with two aspects with 85.3% of apartments having dual-aspect.



### Typical floor plates

The residential floorplates are designed to be flexible and allow for a variety of apartment layouts. Each apartment has been designed to provide future residents with a high level of amenity. 85.3% of apartments are dual aspect, achieving cross ventilation and an abundance of natural light. Deep reveals and an articulated facade design optimises solar access and maintains thermal comfort.

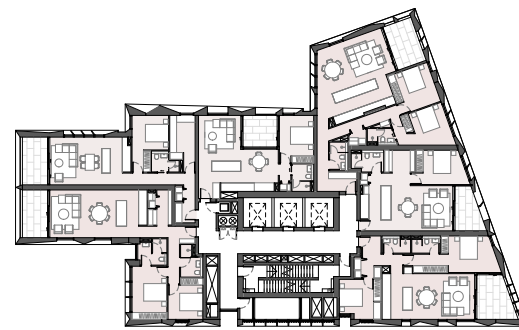
Bedroom and balcony sizes meet and exceed the minimum dimensions required by the ADG. Ample storage is also integrated into each apartment layout and supplemented by basement storage cages to meet ADG storage requirements.



Low Rise L02

2 x 1 Bed - 1 Bath

2 x 2 Bed - 2 Bath



Typical Low Rise L03-05

3 x 1 Bed - 1 Bath

3 x 2 Bed - 2 Bath



Typical Mid Rise L06-07

4 x 1 Bed - 1 Bath

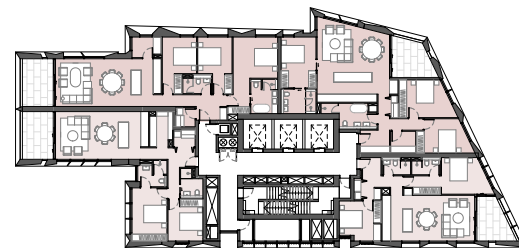
2 x 2 Bed - 2 Bath



Typical High Rise L08-16

1 x 1 Bed - 1 Bath

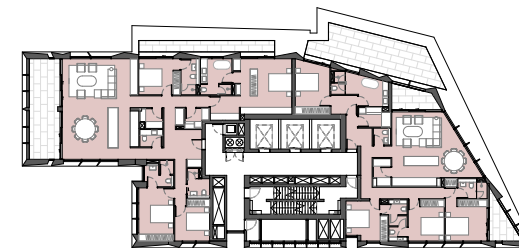
4 x 2 Bed - 2 Bath



Typical High Rise L17-31

2 x 2 Bed - 2 Bath

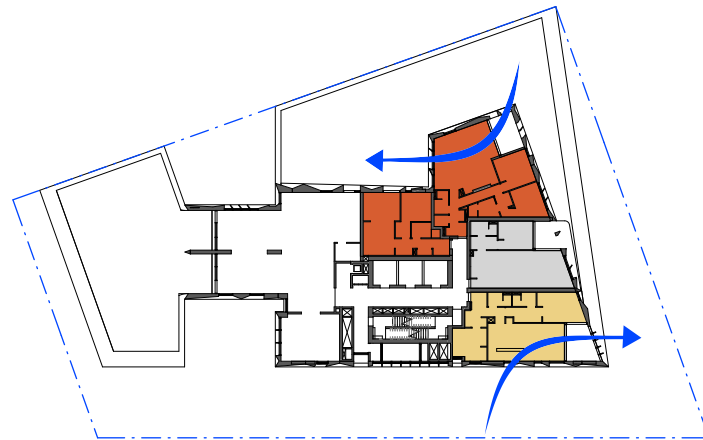
2 x 3 Bed - 2 Bath



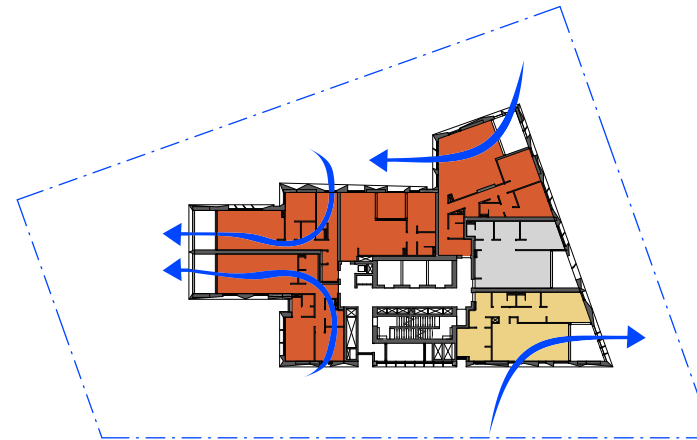
Typical High Rise L32-33

2 x 4 Bed - 4 Bath

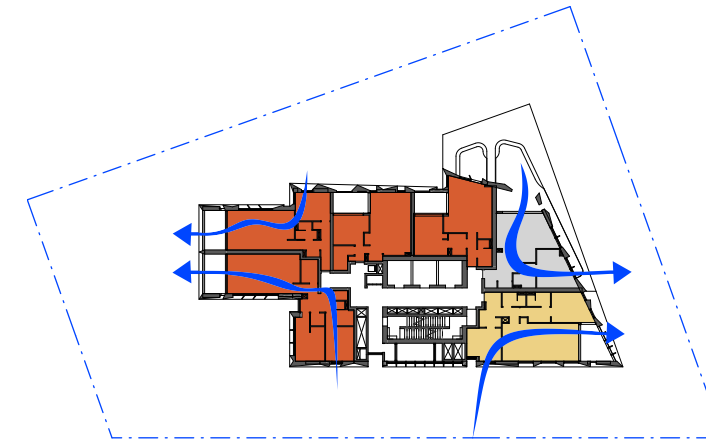




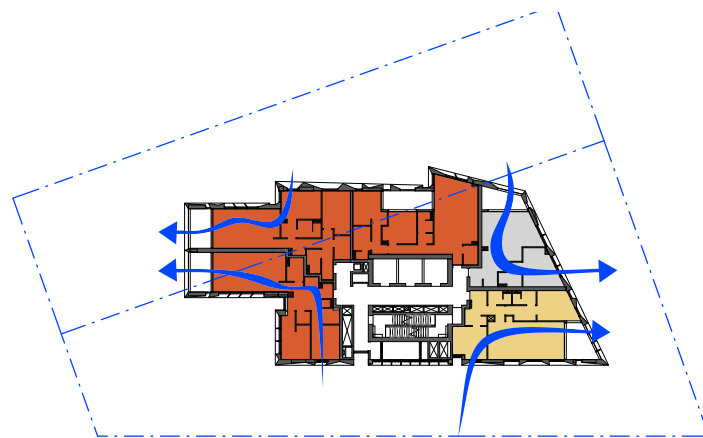
Low Rise L02



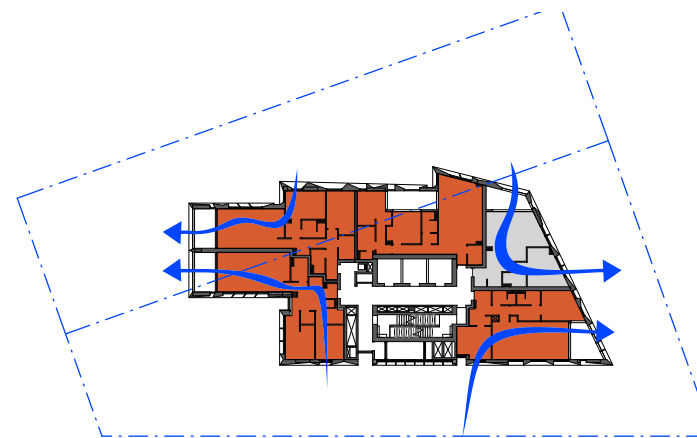
Typical Low Rise L03-05



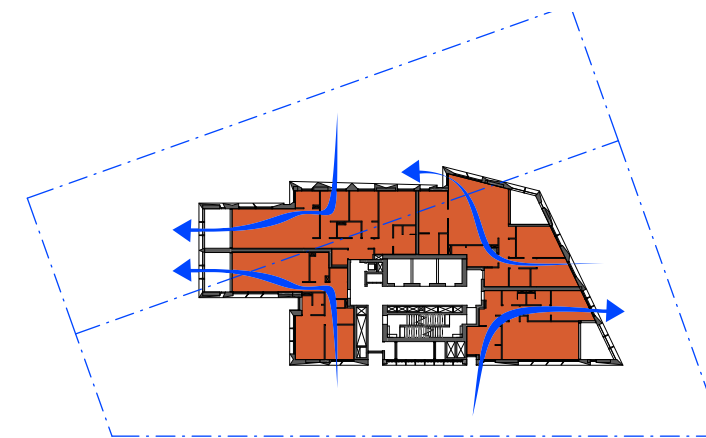
Typical Low Rise L06-07



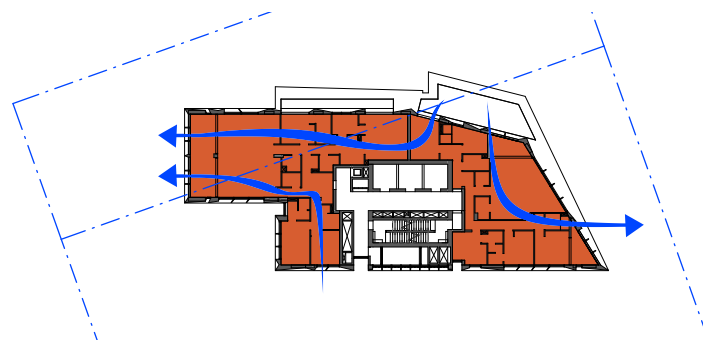
Typical Mid Rise L08-15



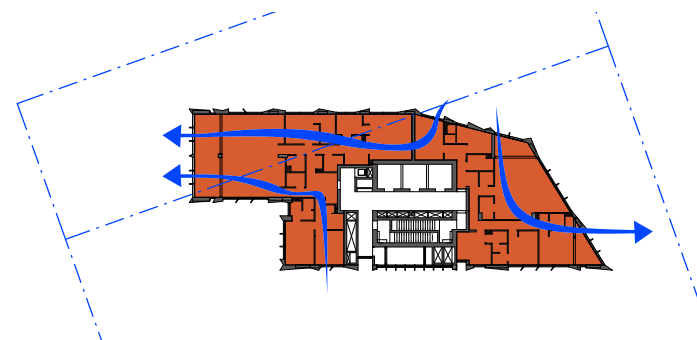
Typical Mid Rise L16



Typical High Rise L17-31



High Rise L32



High Rise L33

- More than 2hrs direct sunlight
- 0 to 2 hrs direct sunlight
- No direct sunlight
- ➡ Cross ventilation

| UNIT NO. | BEDROOMS | BALCONY AREA | WINTER GARDEN AREA | AFFORDABLE | ADAPTABLE | CROSS V | NO SOLAR | Solar (0-2) | Solar (2+) |
|----------|----------|--------------|--------------------|------------|-----------|---------|----------|-------------|------------|
| 33.02    | 4        |              | 24                 |            |           | ✓       |          |             | ✓          |
| 33.01    | 4        |              | 14                 |            |           | ✓       |          |             | ✓          |
| 32.02    | 4        | 17           | 24                 |            |           | ✓       |          |             | ✓          |
| 32.01    | 4        | 38           | 14                 |            |           | ✓       |          |             | ✓          |
| 31.04    | 2        |              | 12                 |            |           | ✓       |          |             | ✓          |
| 31.03    | 3        |              | 12                 |            | ✓         | ✓       |          |             | ✓          |
| 31.02    | 3        |              | 11                 |            | ✓         | ✓       |          |             | ✓          |
| 31.01    | 2        |              | 11                 |            |           | ✓       |          |             | ✓          |
| 30.04    | 2        |              | 12                 |            |           | ✓       |          |             | ✓          |
| 30.03    | 3        |              | 12                 |            | ✓         | ✓       |          |             | ✓          |
| 30.02    | 3        |              | 11                 |            | ✓         | ✓       |          |             | ✓          |
| 30.01    | 2        |              | 11                 |            |           | ✓       |          |             | ✓          |
| 29.04    | 2        |              | 12                 |            |           | ✓       |          |             | ✓          |
| 29.03    | 3        |              | 12                 |            | ✓         | ✓       |          |             | ✓          |
| 29.02    | 3        |              | 11                 |            | ✓         | ✓       |          |             | ✓          |
| 29.01    | 2        |              | 11                 |            |           | ✓       |          |             | ✓          |
| 28.04    | 2        |              | 12                 |            |           | ✓       |          |             | ✓          |
| 28.03    | 3        |              | 12                 |            | ✓         | ✓       |          |             | ✓          |
| 28.02    | 3        |              | 11                 |            | ✓         | ✓       |          |             | ✓          |
| 28.01    | 2        |              | 11                 |            |           | ✓       |          |             | ✓          |
| 27.04    | 2        |              | 12                 |            |           | ✓       |          |             | ✓          |
| 27.03    | 3        |              | 12                 |            | ✓         | ✓       |          |             | ✓          |
| 27.02    | 3        |              | 11                 |            | ✓         | ✓       |          |             | ✓          |
| 27.01    | 2        |              | 11                 |            |           | ✓       |          |             | ✓          |
| 26.04    | 2        |              | 12                 |            |           | ✓       |          |             | ✓          |
| 26.03    | 3        |              | 12                 |            | ✓         | ✓       |          |             | ✓          |
| 26.02    | 3        |              | 11                 |            | ✓         | ✓       |          |             | ✓          |
| 26.01    | 2        |              | 11                 |            |           | ✓       |          |             | ✓          |
| 25.04    | 2        |              | 12                 |            |           | ✓       |          |             | ✓          |
| 25.03    | 3        |              | 12                 |            | ✓         | ✓       |          |             | ✓          |
| 25.02    | 3        |              | 11                 |            | ✓         | ✓       |          |             | ✓          |
| 25.01    | 2        |              | 11                 |            |           | ✓       |          |             | ✓          |
| 24.04    | 2        |              | 12                 |            |           | ✓       |          |             | ✓          |
| 24.03    | 3        |              | 12                 |            | ✓         | ✓       |          |             | ✓          |
| 24.02    | 3        |              | 11                 |            | ✓         | ✓       |          |             | ✓          |
| 24.01    | 2        |              | 11                 |            |           | ✓       |          |             | ✓          |
| 23.04    | 2        | 12           |                    |            |           | ✓       |          |             | ✓          |
| 23.03    | 3        | 12           |                    |            | ✓         | ✓       |          |             | ✓          |
| 23.02    | 3        | 12           |                    |            | ✓         | ✓       |          |             | ✓          |
| 23.01    | 2        | 11           |                    |            |           | ✓       |          |             | ✓          |
| 22.04    | 2        | 12           |                    |            |           | ✓       |          |             | ✓          |
| 22.03    | 3        | 12           |                    |            | ✓         | ✓       |          |             | ✓          |
| 22.02    | 3        | 12           |                    |            | ✓         | ✓       |          |             | ✓          |
| 22.01    | 2        | 11           |                    |            |           | ✓       |          |             | ✓          |
| 21.04    | 2        | 12           |                    |            |           | ✓       |          |             | ✓          |
| 21.03    | 3        | 12           |                    |            | ✓         | ✓       |          |             | ✓          |
| 21.02    | 3        | 12           |                    |            | ✓         | ✓       |          |             | ✓          |
| 21.01    | 2        | 11           |                    |            |           | ✓       |          |             | ✓          |
| 20.04    | 2        | 12           |                    |            |           | ✓       |          |             | ✓          |
| 20.03    | 3        | 12           |                    |            | ✓         | ✓       |          |             | ✓          |
| 20.02    | 3        | 12           |                    |            | ✓         | ✓       |          |             | ✓          |
| 20.01    | 2        | 11           |                    |            |           | ✓       |          |             | ✓          |
| 19.04    | 2        | 12           |                    |            |           | ✓       |          |             | ✓          |
| 19.03    | 3        | 12           |                    |            | ✓         | ✓       |          |             | ✓          |
| 19.02    | 3        | 12           |                    |            | ✓         | ✓       |          |             | ✓          |
| 19.01    | 2        | 11           |                    |            |           | ✓       |          |             | ✓          |
| 18.04    | 2        | 12           |                    |            |           | ✓       |          |             | ✓          |
| 18.03    | 3        | 12           |                    |            | ✓         | ✓       |          |             | ✓          |
| 18.02    | 3        | 12           |                    |            | ✓         | ✓       |          |             | ✓          |
| 18.01    | 2        | 11           |                    |            |           | ✓       |          |             | ✓          |
| 17.04    | 2        | 12           |                    |            |           | ✓       |          |             | ✓          |
| 17.03    | 3        | 12           |                    |            | ✓         | ✓       |          |             | ✓          |
| 17.02    | 3        | 12           |                    |            | ✓         | ✓       |          |             | ✓          |
| 17.01    | 2        | 11           |                    |            |           | ✓       |          |             | ✓          |
| 16.05    | 2        | 10           |                    |            |           | ✓       |          |             | ✓          |
| 16.04    | 2        | 10           |                    |            |           | ✓       |          |             | ✓          |
| 16.03    | 2        | 11           |                    |            |           |         |          |             | ✓          |
| 16.02    | 1        | 10           |                    |            |           | ✓       | ✓        |             |            |
| 16.01    | 2        | 11           |                    |            |           | ✓       |          |             | ✓          |
| 15.05    | 2        | 10           |                    |            |           | ✓       |          |             | ✓          |
| 15.04    | 2        | 10           |                    |            |           | ✓       |          |             | ✓          |
| 15.03    | 2        | 11           |                    |            |           |         |          |             | ✓          |
| 15.02    | 1        | 10           |                    |            |           | ✓       | ✓        |             |            |
| 15.01    | 2        | 11           |                    |            |           | ✓       |          | ✓           |            |
| 14.05    | 2        | 10           |                    |            |           | ✓       |          |             | ✓          |
| 14.04    | 2        | 10           |                    |            |           | ✓       |          |             | ✓          |
| 14.03    | 2        | 11           |                    |            |           |         |          |             | ✓          |
| 14.02    | 1        | 10           |                    |            |           | ✓       | ✓        |             |            |
| 14.01    | 2        | 11           |                    |            |           | ✓       |          | ✓           |            |
| 13.05    | 2        | 10           |                    |            |           | ✓       |          |             | ✓          |
| 13.04    | 2        | 10           |                    |            |           | ✓       |          |             | ✓          |
| 13.03    | 2        | 11           |                    |            |           |         |          |             | ✓          |

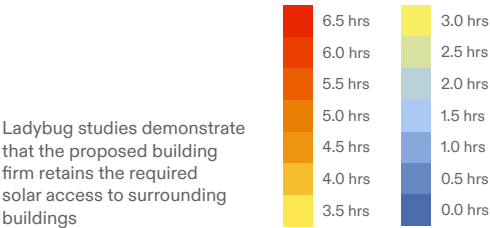
| UNIT NO. | BEDROOMS | BALCONY AREA | WINTER GARDEN AREA | AFFORDABLE | ADAPTABLE | CROSS V | NO SOLAR | Solar (0-2) | Solar (2+) |
|----------|----------|--------------|--------------------|------------|-----------|---------|----------|-------------|------------|
| 13.02    | 1        | 10           |                    |            |           | ✓       | ✓        |             |            |
| 13.01    | 2        | 11           |                    |            |           | ✓       |          | ✓           |            |
| 12.05    | 2        | 10           |                    |            |           | ✓       |          |             | ✓          |
| 12.04    | 2        | 10           |                    |            |           | ✓       |          |             | ✓          |
| 12.03    | 2        | 11           |                    |            |           |         |          |             | ✓          |
| 12.02    | 1        | 10           |                    |            |           | ✓       | ✓        |             |            |
| 12.01    | 2        | 11           |                    |            |           | ✓       |          | ✓           |            |
| 11.05    | 2        | 10           |                    |            |           | ✓       |          |             | ✓          |
| 11.04    | 2        | 10           |                    |            |           | ✓       |          |             | ✓          |
| 11.03    | 2        | 11           |                    |            |           |         |          |             | ✓          |
| 11.02    | 1        | 10           |                    |            |           | ✓       | ✓        |             |            |
| 11.01    | 2        | 11           |                    |            |           | ✓       |          | ✓           |            |
| 10.05    | 2        | 10           |                    |            |           | ✓       |          |             | ✓          |
| 10.04    | 2        | 10           |                    |            |           | ✓       |          |             | ✓          |
| 10.03    | 2        | 11           |                    |            |           |         |          |             | ✓          |
| 10.02    | 1        | 10           |                    |            |           | ✓       | ✓        |             |            |
| 10.01    | 2        | 11           |                    |            |           | ✓       |          | ✓           |            |
| 9.05     | 2        | 10           |                    |            |           | ✓       |          |             | ✓          |
| 9.04     | 2        | 10           |                    |            |           | ✓       |          |             | ✓          |
| 9.03     | 2        | 11           |                    |            |           |         |          |             | ✓          |
| 9.02     | 1        | 10           |                    |            |           | ✓       | ✓        |             |            |
| 9.01     | 2        | 11           |                    |            |           | ✓       |          | ✓           |            |
| 8.05     | 2        | 10           |                    |            |           | ✓       |          |             | ✓          |
| 8.04     | 2        | 10           |                    |            |           | ✓       |          |             | ✓          |
| 8.03     | 2        | 11           |                    |            |           |         |          |             | ✓          |
| 8.02     | 1        | 10           |                    |            |           | ✓       | ✓        |             |            |
| 8.01     | 2        | 11           |                    |            |           | ✓       |          | ✓           |            |
| 7.06     | 2        | 10           |                    | ✓          |           | ✓       |          |             | ✓          |
| 7.05     | 1        | 10           |                    | ✓          |           | ✓       |          |             | ✓          |
| 7.04     | 1        | 8            |                    | ✓          |           |         |          |             | ✓          |
| 7.03     | 1        | 8            |                    | ✓          |           |         |          |             | ✓          |
| 7.02     | 1        | 9            |                    | ✓          |           | ✓       | ✓        |             |            |
| 7.01     | 2        | 11           |                    | ✓          |           | ✓       |          | ✓           |            |
| 6.06     | 2        | 10           |                    | ✓          |           | ✓       |          |             | ✓          |
| 6.05     | 1        | 10           |                    | ✓          |           | ✓       |          |             | ✓          |
| 6.04     | 1        | 8            |                    | ✓          |           |         |          |             | ✓          |
| 6.03     | 1        | 8            |                    | ✓          |           |         |          |             | ✓          |
| 6.02     | 1        | 52           |                    | ✓          |           | ✓       | ✓        |             |            |
| 6.01     | 2        | 11           |                    | ✓          |           | ✓       |          | ✓           |            |
| 5.06     | 2        | 10           |                    | ✓          |           | ✓       |          |             | ✓          |
| 5.05     | 1        | 10           |                    | ✓          |           | ✓       |          |             | ✓          |
| 5.04     | 1        | 8            |                    | ✓          |           |         |          |             | ✓          |
| 5.03     | 2        | 11           |                    | ✓          |           | ✓       |          |             | ✓          |
| 5.02     | 1        | 8            |                    |            |           |         | ✓        |             |            |
| 5.01     | 2        | 12           |                    | ✓          |           | ✓       |          | ✓           |            |
| 4.06     | 2        | 10           |                    | ✓          |           | ✓       |          |             | ✓          |
| 4.05     | 1        | 10           |                    | ✓          |           |         |          |             | ✓          |
| 4.04     | 1        | 8            |                    | ✓          |           | ✓       |          |             | ✓          |
| 4.03     | 2        | 11           |                    | ✓          |           |         |          |             | ✓          |
| 4.02     | 1        | 8            |                    |            |           | ✓       | ✓        |             |            |
| 4.01     | 2        | 12           |                    | ✓          |           | ✓       |          | ✓           |            |
| 3.06     | 2        | 10           |                    | ✓          |           | ✓       |          |             | ✓          |
| 3.05     | 1        | 10           |                    | ✓          |           | ✓       |          |             | ✓          |
| 3.04     | 1        | 8            |                    |            |           |         |          |             | ✓          |
| 3.03     | 2        | 11           |                    | ✓          |           | ✓       |          |             | ✓          |
| 3.02     | 1        | 8            |                    | ✓          |           |         | ✓        |             |            |
| 3.01     | 2        | 12           |                    | ✓          |           | ✓       |          | ✓           |            |
| 2.04     | 1        | 13           |                    | ✓          |           |         |          |             | ✓          |
| 2.03     | 2        | 124          |                    | ✓          |           | ✓       |          |             | ✓          |
| 2.02     | 1        | 14           |                    | ✓          |           |         | ✓        |             |            |
| 2.01     | 2        | 12           |                    | ✓          |           | ✓       |          | ✓           |            |



North-West Proposed condition



North-East Proposed condition



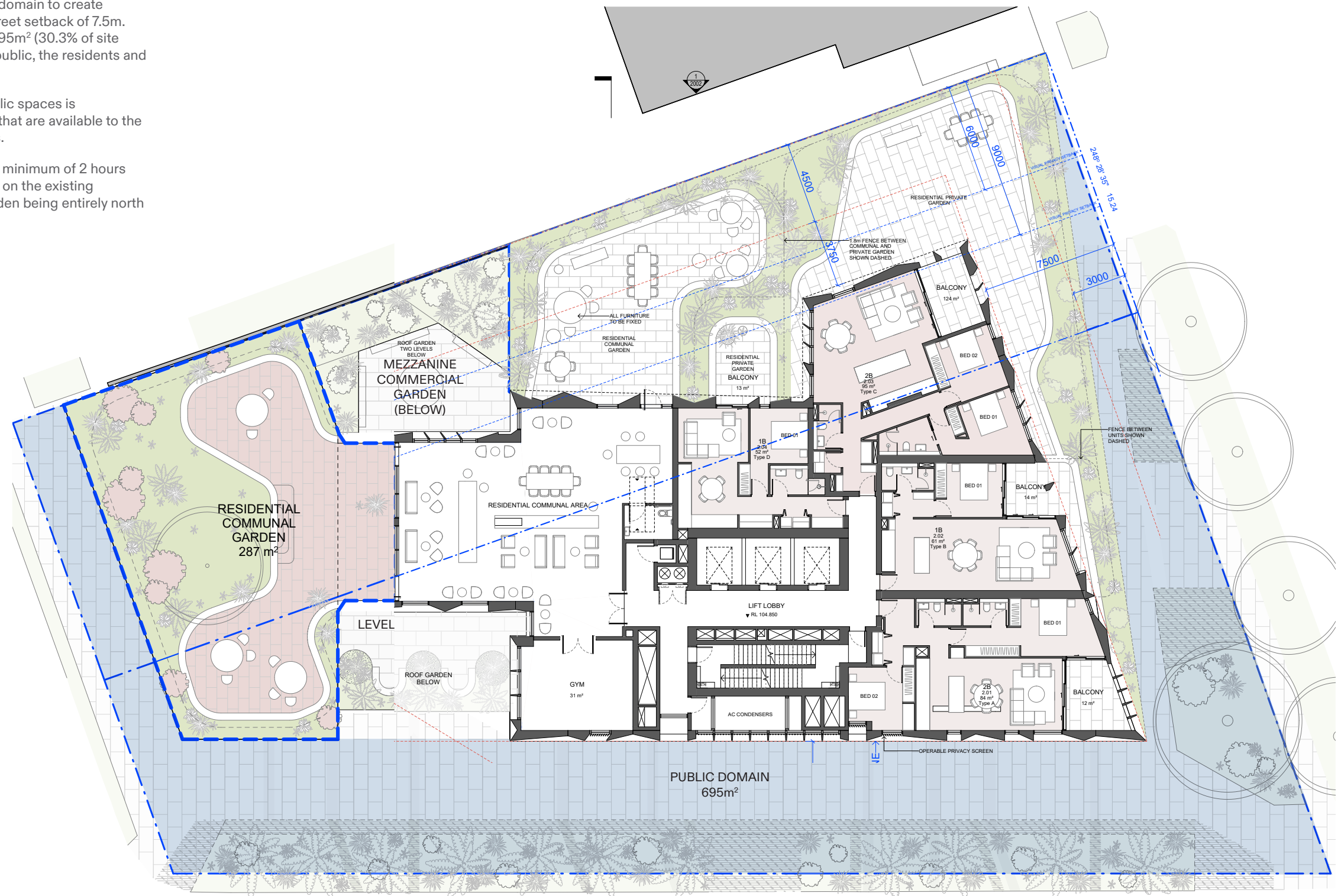


On Level 02, there are a variety of open, covered outdoor and internal communal spaces, including a dedicated residential gym. The combined area of communal space is 617m<sup>2</sup> (27% of the site area), 431m<sup>2</sup> of that space being external (19% of site area).

The outdoor area, which is slightly less than the 25% of site area as stipulated in the ADG, is a result of the site's location in a dense urban area and our public domain strategy which increases the area of ground level public domain to create Cambridge Walk, through a significant street setback of 7.5m. This new public domain with an area of 695m<sup>2</sup> (30.3% of site area) offers high levels of amenity to the public, the residents and the commercial tenants.

This high provision of communal and public spaces is supported by significant private gardens that are available to the commercial tenants and private residents.

All outdoor spaces receive more than the minimum of 2 hours between 9 am – 3pm on June 21st based on the existing surrounding context, with the largest garden being entirely north facing.



Amenity - Adaptable Apartments

To accommodate the diverse future community, over 20% of all apartments (30 of 143) have been designed to be adaptable. The apartment proportions throughout the building are generous and exceed the ADG minimum sizes. Minimal modifications are required between pre and post adaptation.

Each adaptable apartment also has an accessible car space in the building's basement with dedicated shared zone. A step free path of travel is available to all residents around the buildings public domain, into the lobbies, communal spaces, private apartment and car space.



Typical High Rise L17-31  
2 Adaptable units per level

| UNIT NO. | BEDROOMS | AFFORDABLE | ADAPTABLE |
|----------|----------|------------|-----------|
| 33.02    | 4        |            |           |
| 33.01    | 4        |            |           |
| 32.02    | 4        |            |           |
| 32.01    | 4        |            |           |
| 31.04    | 2        |            |           |
| 31.03    | 3        |            | ✓         |
| 31.02    | 3        |            | ✓         |
| 31.01    | 2        |            |           |
| 30.04    | 2        |            |           |
| 30.03    | 3        |            | ✓         |
| 30.02    | 3        |            | ✓         |
| 30.01    | 2        |            |           |
| 29.04    | 2        |            |           |
| 29.03    | 3        |            | ✓         |
| 29.02    | 3        |            | ✓         |
| 29.01    | 2        |            |           |
| 28.04    | 2        |            |           |
| 28.03    | 3        |            | ✓         |
| 28.02    | 3        |            | ✓         |
| 28.01    | 2        |            |           |
| 27.04    | 2        |            |           |
| 27.03    | 3        |            | ✓         |
| 27.02    | 3        |            | ✓         |
| 27.01    | 2        |            |           |
| 26.04    | 2        |            |           |
| 26.03    | 3        |            | ✓         |
| 26.02    | 3        |            | ✓         |
| 26.01    | 2        |            |           |
| 25.04    | 2        |            |           |
| 25.03    | 3        |            | ✓         |
| 25.02    | 3        |            | ✓         |
| 25.01    | 2        |            |           |
| 24.04    | 2        |            |           |
| 24.03    | 3        |            | ✓         |
| 24.02    | 3        |            | ✓         |
| 24.01    | 2        |            |           |
| 23.04    | 2        |            |           |
| 23.03    | 3        |            | ✓         |
| 23.02    | 3        |            | ✓         |
| 23.01    | 2        |            |           |
| 22.04    | 2        |            |           |
| 22.03    | 3        |            | ✓         |
| 22.02    | 3        |            | ✓         |
| 22.01    | 2        |            |           |
| 21.04    | 2        |            |           |
| 21.03    | 3        |            | ✓         |
| 21.02    | 3        |            | ✓         |
| 21.01    | 2        |            |           |
| 20.04    | 2        |            |           |
| 20.03    | 3        |            | ✓         |
| 20.02    | 3        |            | ✓         |
| 20.01    | 2        |            |           |
| 19.04    | 2        |            |           |
| 19.03    | 3        |            | ✓         |
| 19.02    | 3        |            | ✓         |
| 19.01    | 2        |            |           |
| 18.04    | 2        |            |           |
| 18.03    | 3        |            | ✓         |
| 18.02    | 3        |            | ✓         |
| 18.01    | 2        |            |           |
| 17.04    | 2        |            |           |
| 17.03    | 3        |            | ✓         |
| 17.02    | 3        |            | ✓         |
| 17.01    | 2        |            |           |
| 16.05    | 2        |            |           |
| 16.04    | 2        |            |           |
| 16.03    | 2        |            |           |
| 16.02    | 1        |            |           |
| 16.01    | 2        |            |           |
| 15.05    | 2        |            |           |
| 15.04    | 2        |            |           |
| 15.03    | 2        |            |           |
| 15.02    | 1        |            |           |

| UNIT NO. | BEDROOMS | AFFORDABLE | ADAPTABLE |
|----------|----------|------------|-----------|
| 15.01    | 2        |            |           |
| 14.05    | 2        |            |           |
| 14.04    | 2        |            |           |
| 14.03    | 2        |            |           |
| 14.02    | 1        |            |           |
| 14.01    | 2        |            |           |
| 13.05    | 2        |            |           |
| 13.04    | 2        |            |           |
| 13.03    | 2        |            |           |
| 13.02    | 1        |            |           |
| 13.01    | 2        |            |           |
| 12.05    | 2        |            |           |
| 12.04    | 2        |            |           |
| 12.03    | 2        |            |           |
| 12.02    | 1        |            |           |
| 12.01    | 2        |            |           |
| 11.05    | 2        |            |           |
| 11.04    | 2        |            |           |
| 11.03    | 2        |            |           |
| 11.02    | 1        |            |           |
| 11.01    | 2        |            |           |
| 10.05    | 2        |            |           |
| 10.04    | 2        |            |           |
| 10.03    | 2        |            |           |
| 10.02    | 1        |            |           |
| 10.01    | 2        |            |           |
| 9.05     | 2        |            |           |
| 9.04     | 2        |            |           |
| 9.03     | 2        |            |           |
| 9.02     | 1        |            |           |
| 9.01     | 2        |            |           |
| 8.05     | 2        |            |           |
| 8.04     | 2        |            |           |
| 8.03     | 2        |            |           |
| 8.02     | 1        |            |           |
| 8.01     | 2        |            |           |
| 7.06     | 2        | ✓          |           |
| 7.05     | 1        | ✓          |           |
| 7.04     | 1        | ✓          |           |
| 7.03     | 1        | ✓          |           |
| 7.02     | 1        | ✓          |           |
| 7.01     | 2        | ✓          |           |
| 6.06     | 2        | ✓          |           |
| 6.05     | 1        | ✓          |           |
| 6.04     | 1        | ✓          |           |
| 6.03     | 1        | ✓          |           |
| 6.02     | 1        | ✓          |           |
| 6.01     | 2        | ✓          |           |
| 5.06     | 2        | ✓          |           |
| 5.05     | 1        | ✓          |           |
| 5.04     | 1        | ✓          |           |
| 5.03     | 2        | ✓          |           |
| 5.02     | 1        | ✓          |           |
| 5.01     | 2        | ✓          |           |
| 4.06     | 2        | ✓          |           |
| 4.05     | 1        | ✓          |           |
| 4.04     | 1        | ✓          |           |
| 4.03     | 2        | ✓          |           |
| 4.02     | 1        |            |           |
| 4.01     | 2        | ✓          |           |
| 3.06     | 2        | ✓          |           |
| 3.05     | 1        | ✓          |           |
| 3.04     | 1        | ✓          |           |
| 3.03     | 2        | ✓          |           |
| 3.02     | 1        | ✓          |           |
| 3.01     | 2        | ✓          |           |
| 2.04     | 1        | ✓          |           |
| 2.03     | 2        | ✓          |           |
| 2.02     | 1        | ✓          |           |
| 2.01     | 2        | ✓          |           |



# Design Proposal

## Architectural Character

Our facade approach is to express the construction of the building as well as the technical elements required to ensure great amenity for the apartments in the simplest way possible.

There is the direct expression of the concrete structure of the building. This is shaped to provide solar control and privacy screening.

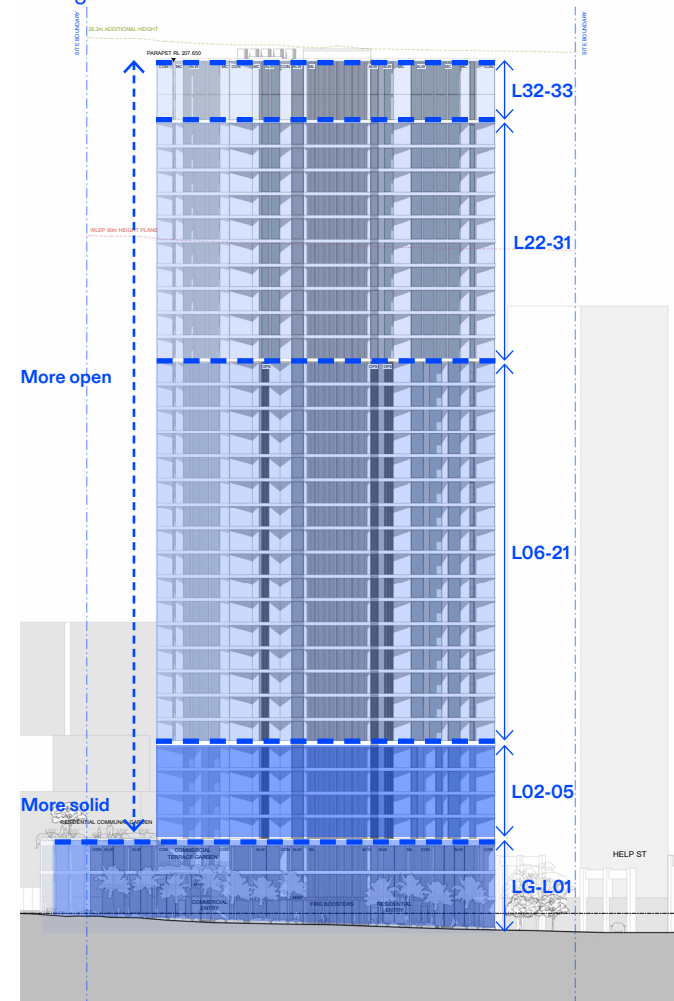
A simple stick facade system provides the weather line.

This is supported by a system of aluminum blades to manage solar and privacy constraints and aluminum lining to provide the required solid to void ratios. Insulation is applied within, in the lining zone which also allows for the reticulation of services.

This simple kit of parts is simply adjusted in relation to context, opening to views and closing to neighbours and also able to adjust to changing mix or internal layouts.

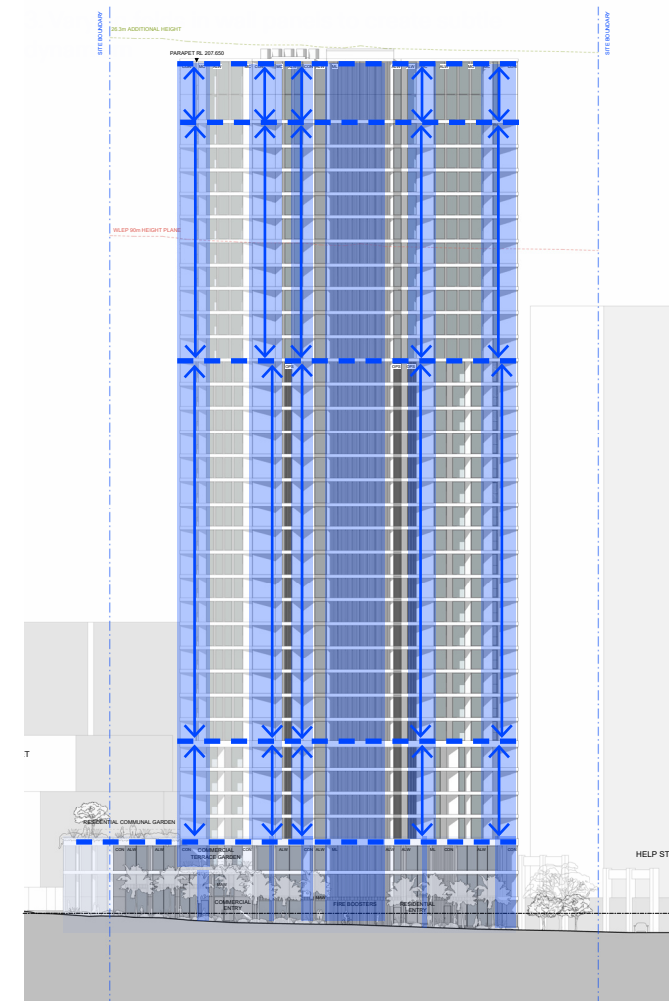
## Tower Principles

1. Dividing the building into strata that relate to changes in proximity to neighbouring buildings



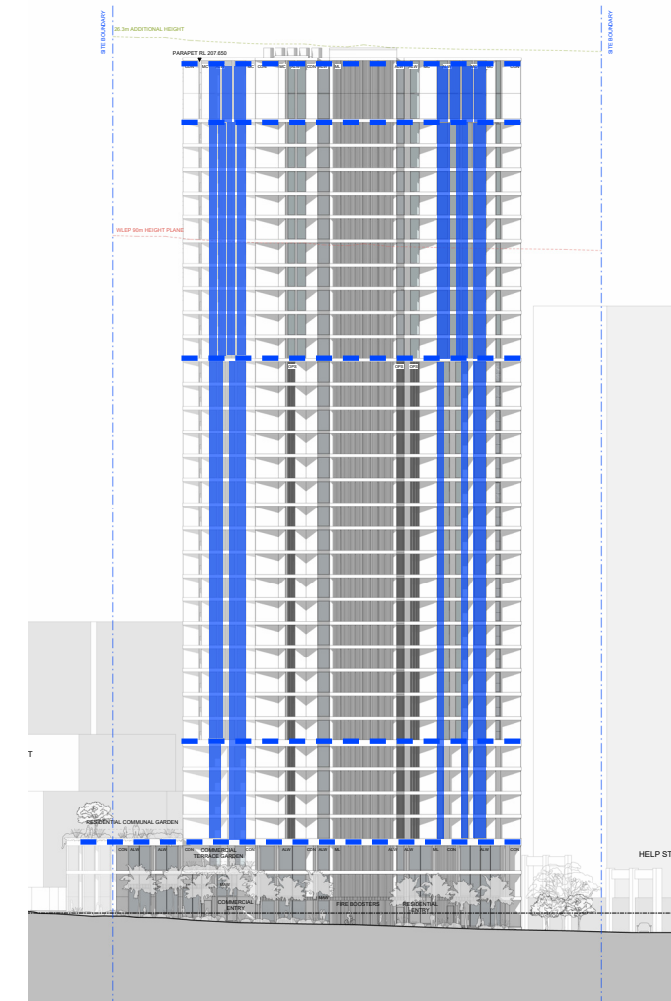
West Elevation

2. Emphasising vertical continuity through structural expression



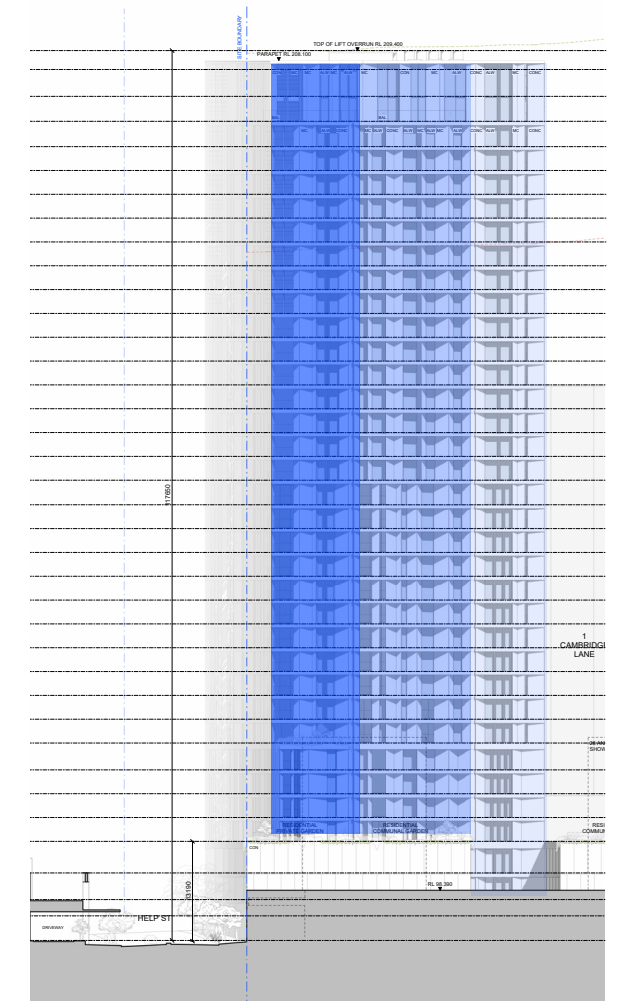
West Elevation

4. Increasing openness up the tower to respond to changes in context and capture views

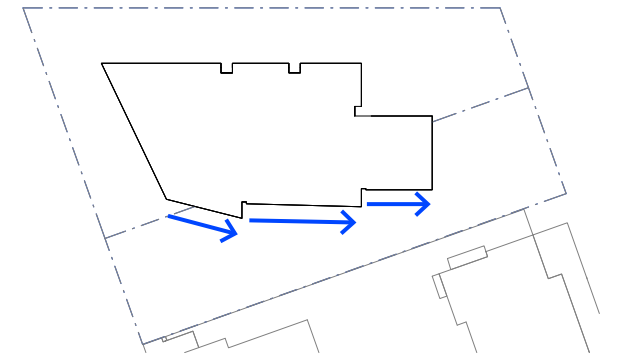


West Elevation

5. Varied facade depth to distinguish facade planes



East Elevation



# Design Proposal

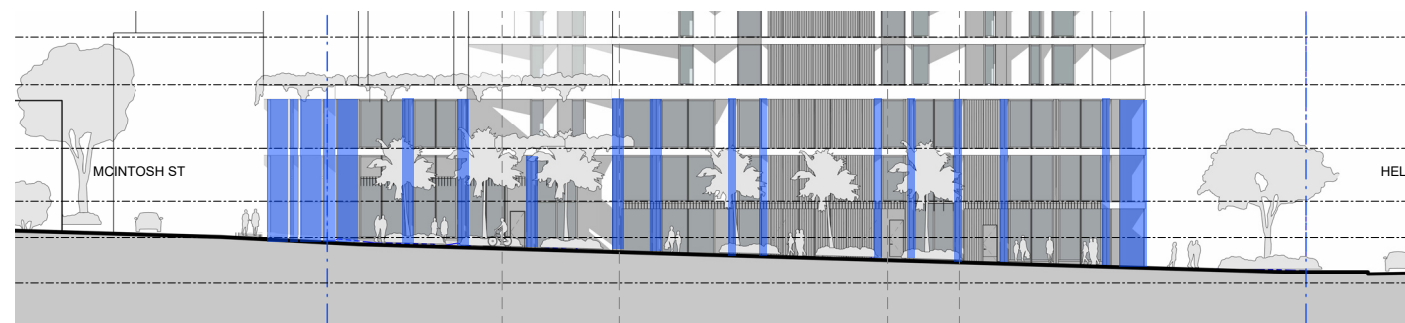
## Architectural Character

Applying the same principles as the tower, the podium design is an honest expression of the tectonics of the building. The shaped concrete columns, clearly defined horizontal stratum, carry the architectural language of the tower to ground.

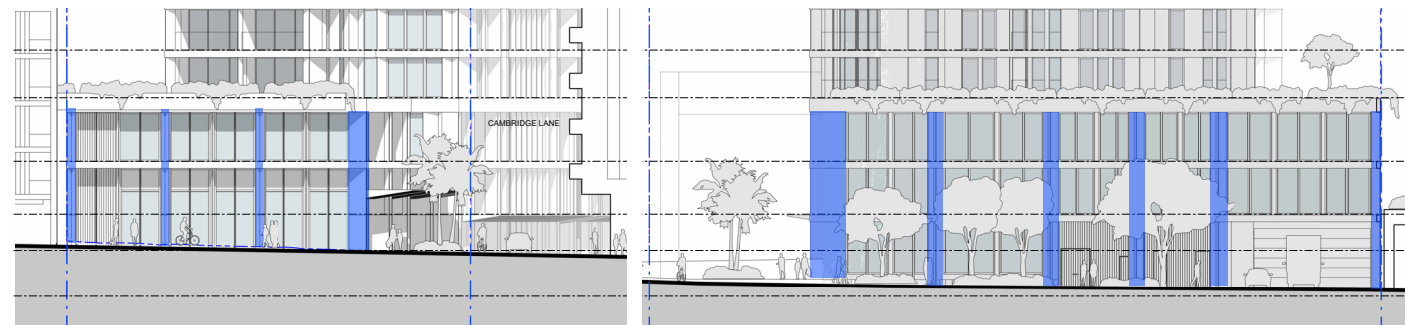
The clarity of structural expression and carefully sculpted geometry of the podium and tower walls work together to achieve a singular urban marker.

## Podium Principles

### 1. Expressed structure to enhance vertical articulation



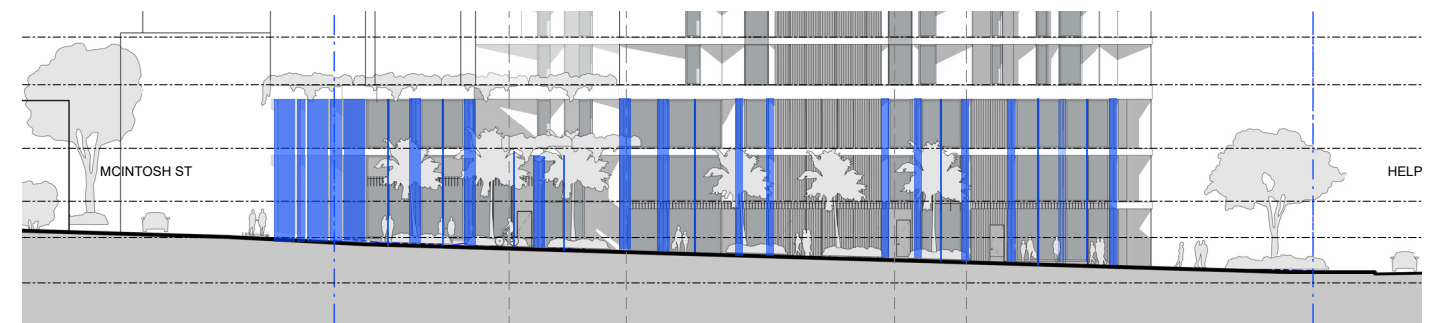
West Elevation



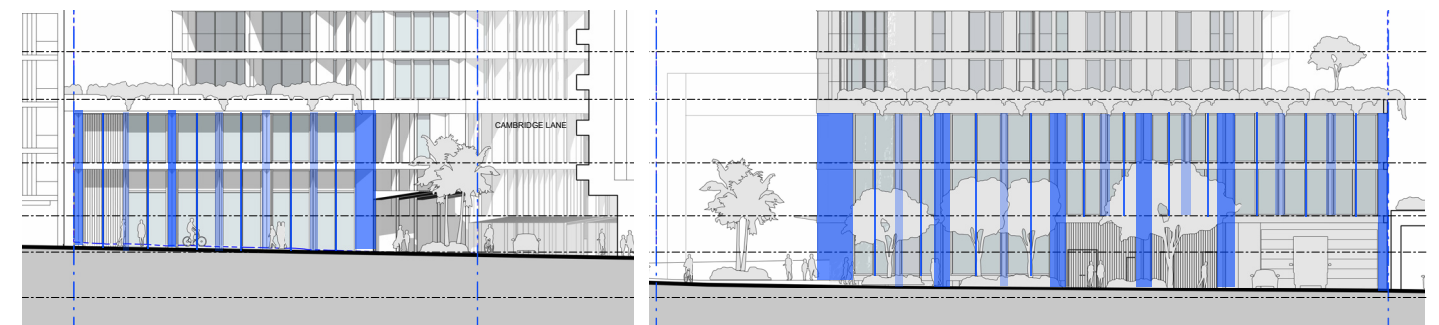
North Elevation

South Elevation

### 2. Hierarchy of vertical elements to create depth



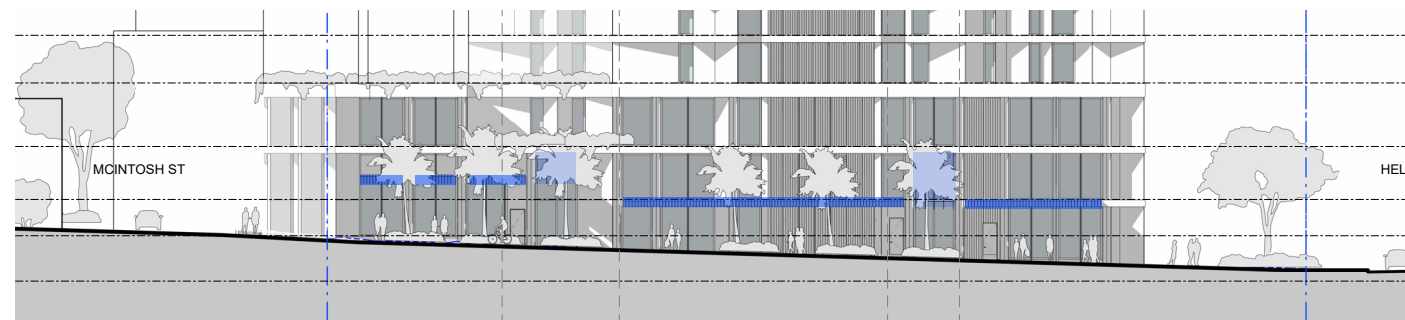
West Elevation



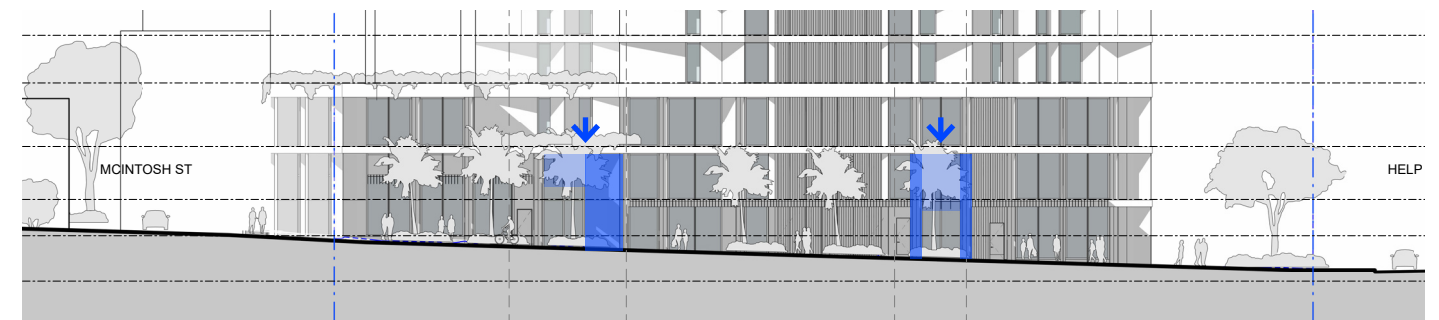
North Elevation

South Elevation

### 3. Varied awning expression across Cambridge Walk to denote main entries



### 4. Differentiating entries to residential and commercial lobbies





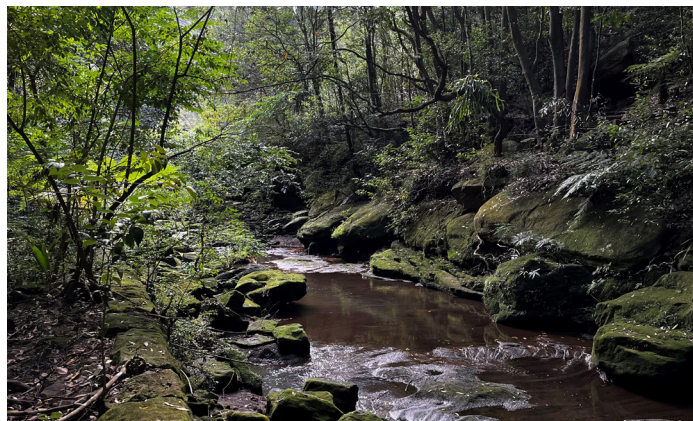
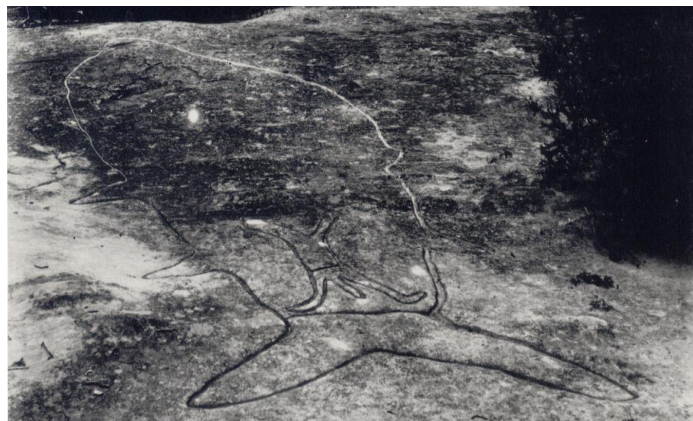
The building's material palette has been reviewed and consciously developed as a response to place. It is inspired by the Ashfield Shale and Hawkesbury Sandstone found deep within the site. Taupe coloured concrete and rich tones of metal are a positive addition to the surrounding grey and white buildings, characteristic of this part of Chatswood.

The subtle palette accentuates the buildings sculptural geometry. Varying gloss levels and material textures add to the play of light/shade across each facade of the building throughout the day.

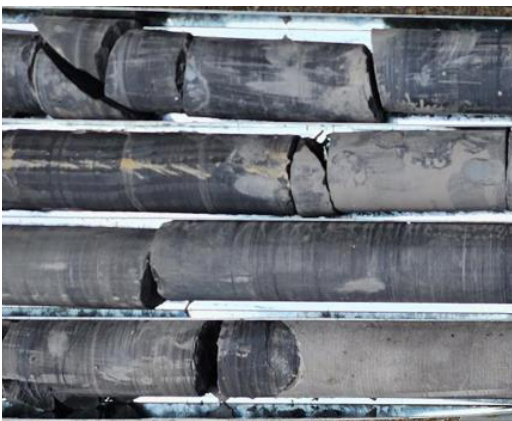
Feature finishes are proposed to define the lobby entries, creating a beautifully curated entry sequence for future tenants and residents. Materials addressing the ground plane, within balconies and on terraces have been selected with texture and tactile experience in mind.

This S4.55 modification proposes no change to the currently approved SSDA scheme's materiality.

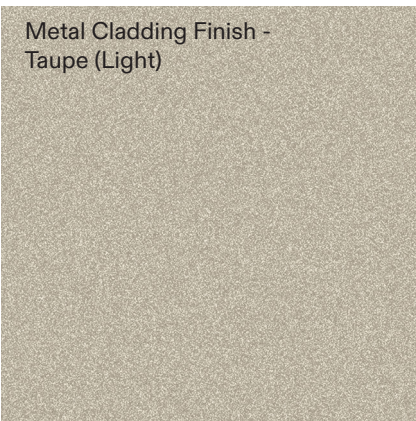
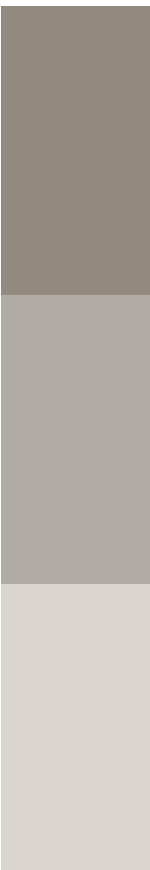
Local vegetation communities



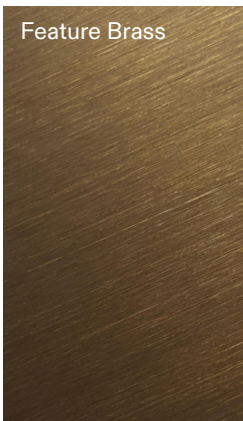
Site samples



External finishes



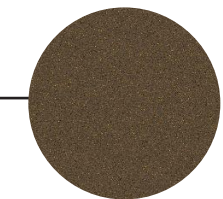
Entry lobby finishes



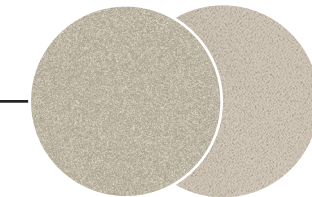


## Materiality - Tower

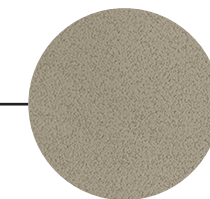
This S4.55 modification proposes no change to the currently approved SSDA scheme's materiality.



Powdercoated metal  
louvres, window frames  
and fins



Painted concrete walls +  
metal cladding panels



Painted concrete  
slab edges

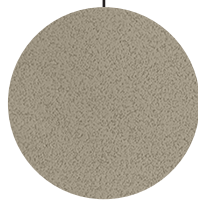


## Materiality

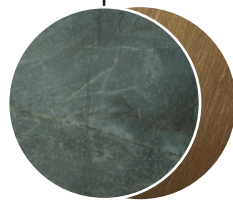
This S4.55 modification proposes no change to the currently approved SSDA scheme's materiality.



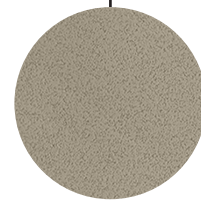
Powdercoated metal  
louvres, awnings,  
window frames and fins



Painted concrete  
podium walls + slab  
edges



Commercial + residential  
lobby feature entry stone  
+ brass finishes



Painted concrete  
podium walls + slab  
edges



Powdercoated metal  
louvres, awnings,  
window frames and fins

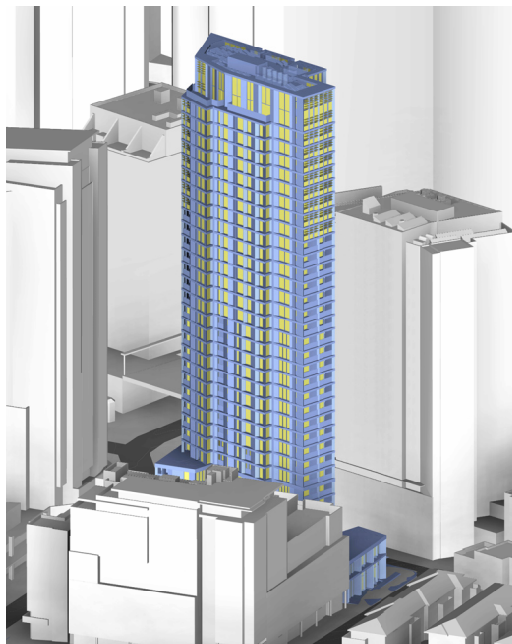


# Impact Assessment

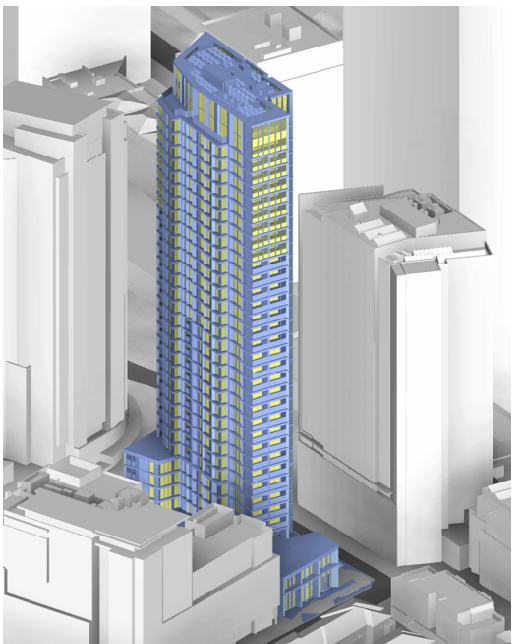


Views from the Sun - Existing Conditions

This S4.55 modification proposes no material change to the currently approved SSDA scheme's solar access..



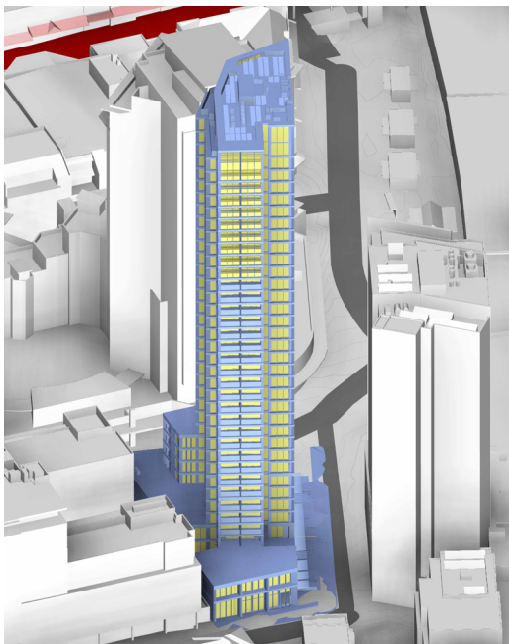
June 22 09:00



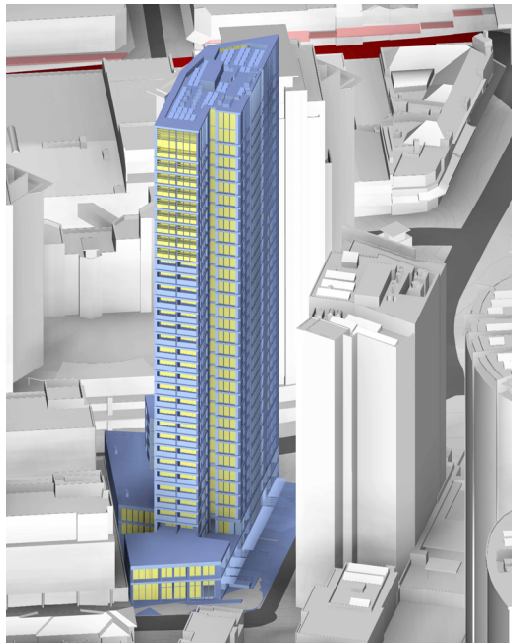
June 22 10:00



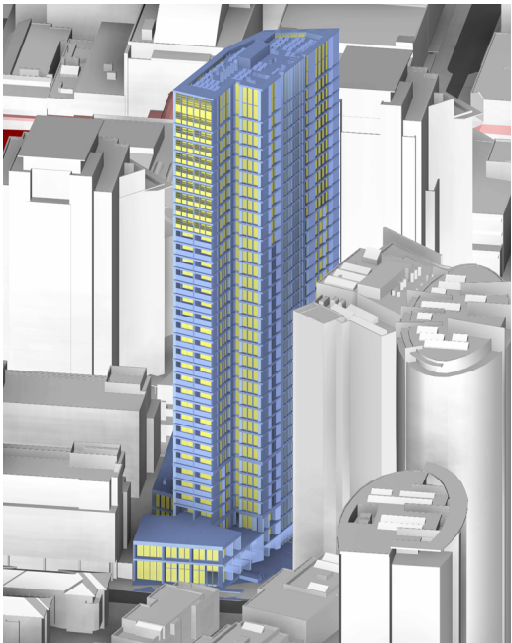
June 22 11:00



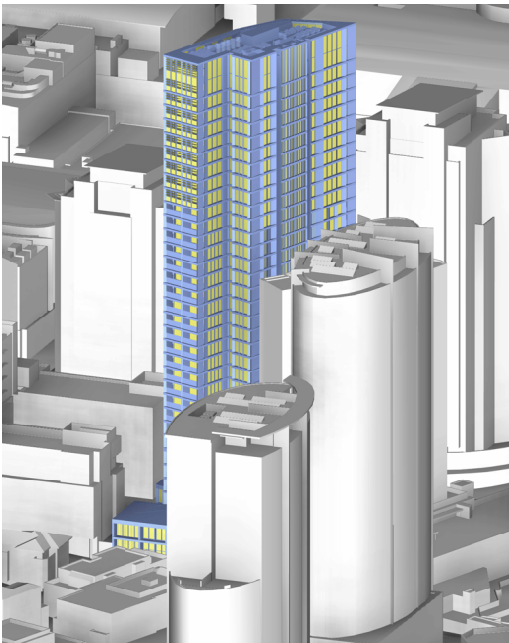
June 22 12:00



June 22 13:00



June 22 14:00



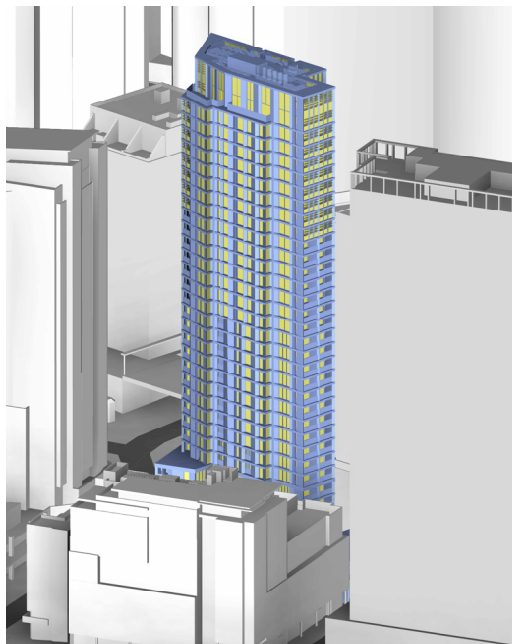
June 22 15:00

Region highlighted in red denotes Area 5 as specified in Willoughby Council LEP 2012.

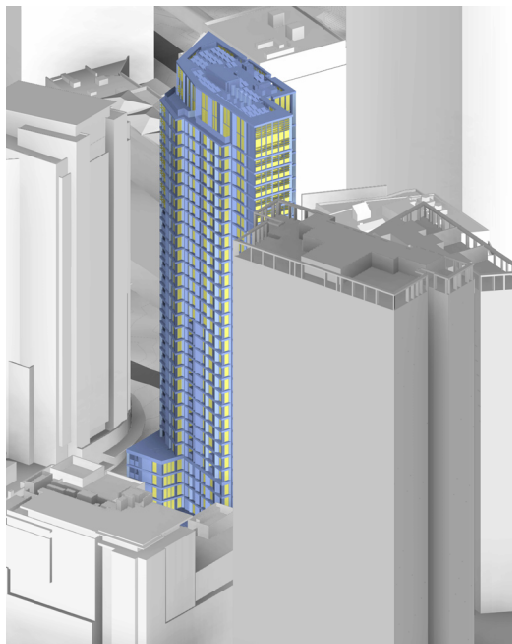


Views from the Sun - Future Conditions

This S4.55 modification proposes no material change to the currently approved SSDA scheme's solar access..



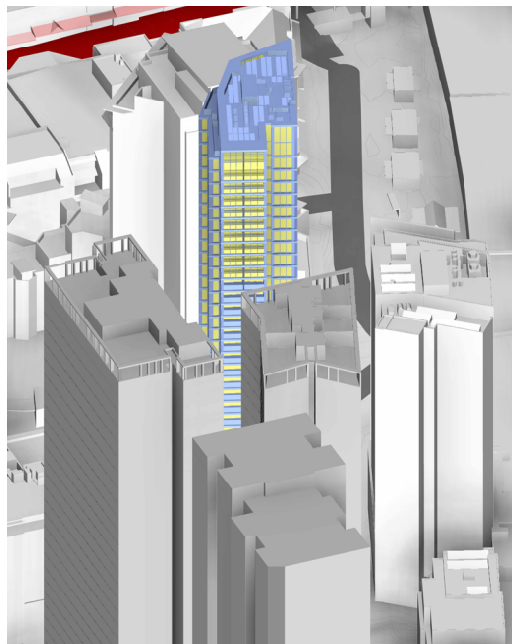
June 22 09:00



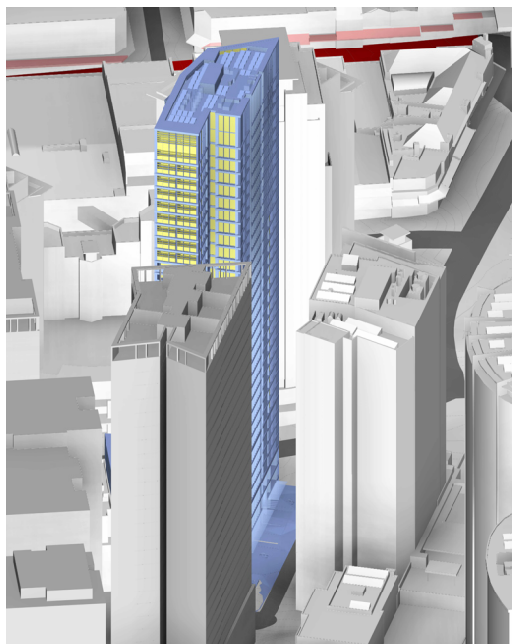
June 22 10:00



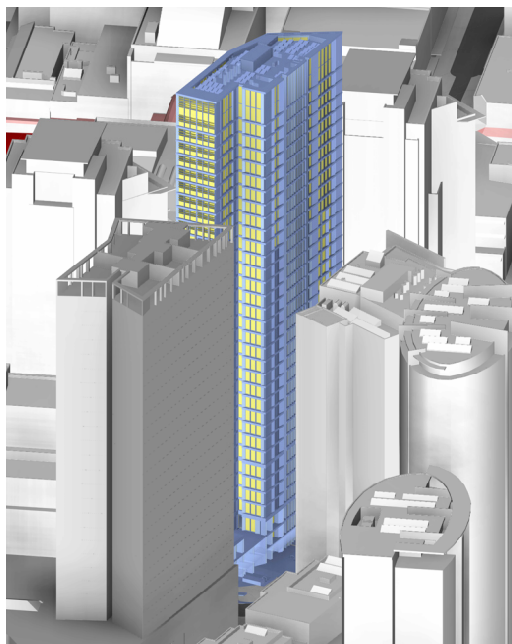
June 22 11:00



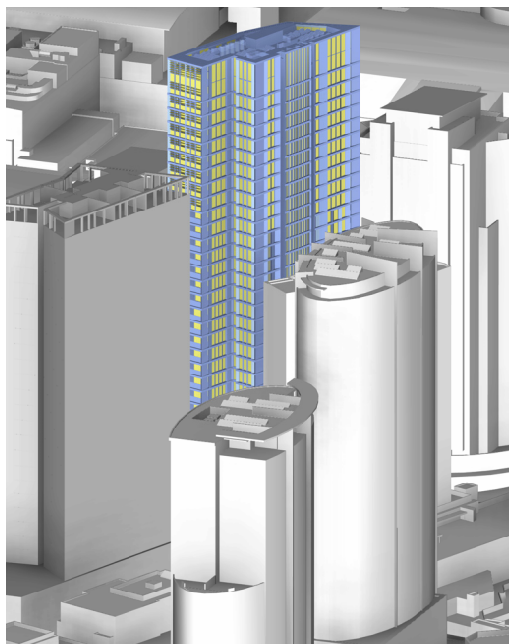
June 22 12:00



June 22 13:00



June 22 14:00



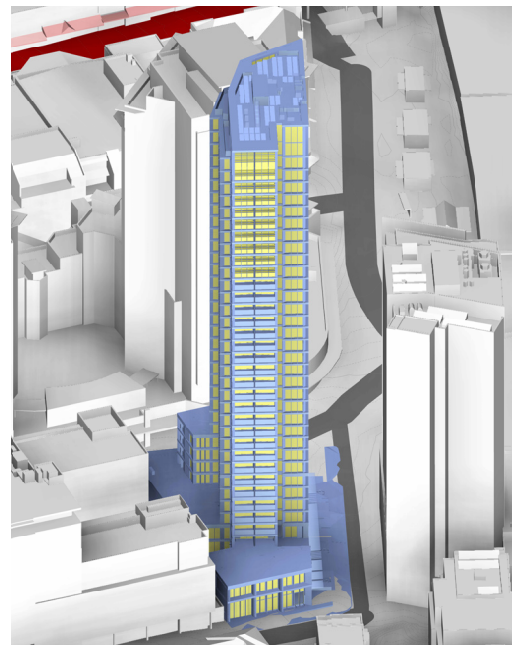
June 22 15:00

Region highlighted in red denotes Area 5 as specified in Willoughby Council LEP 2012.

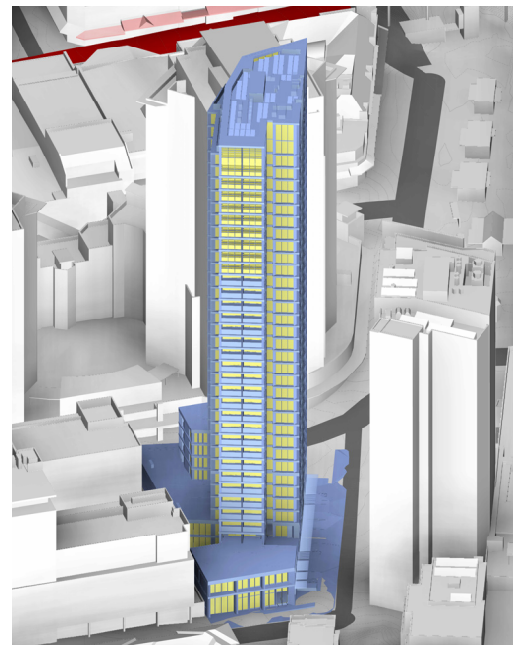


## Impact Assessment

### Views from the Sun - Existing Conditions Area 05 Impact Study



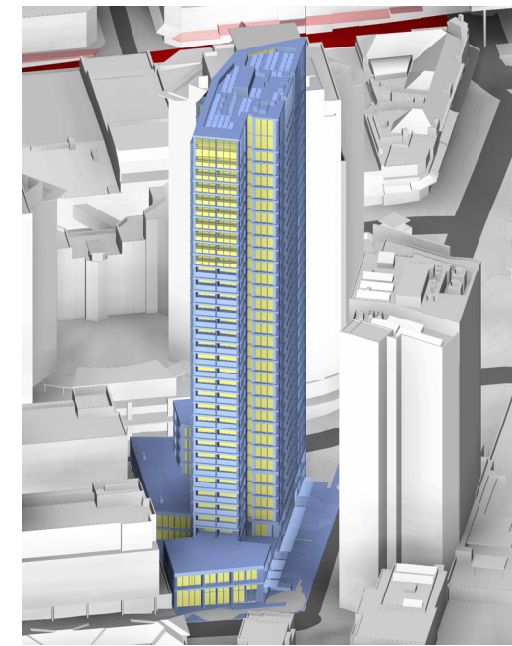
June 22 12:00



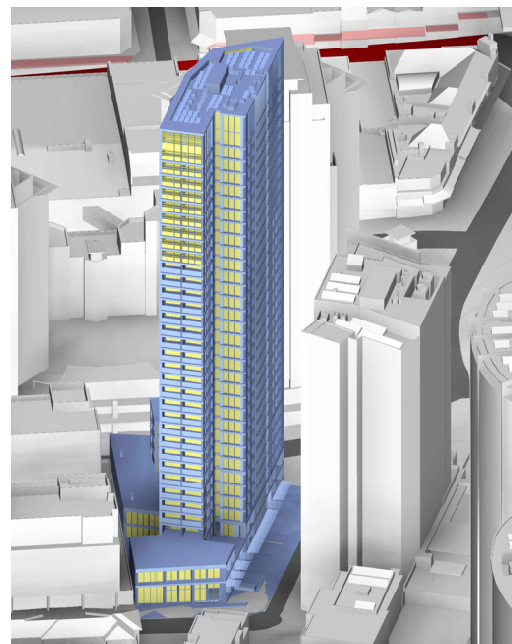
June 22 12:15



June 22 12:30



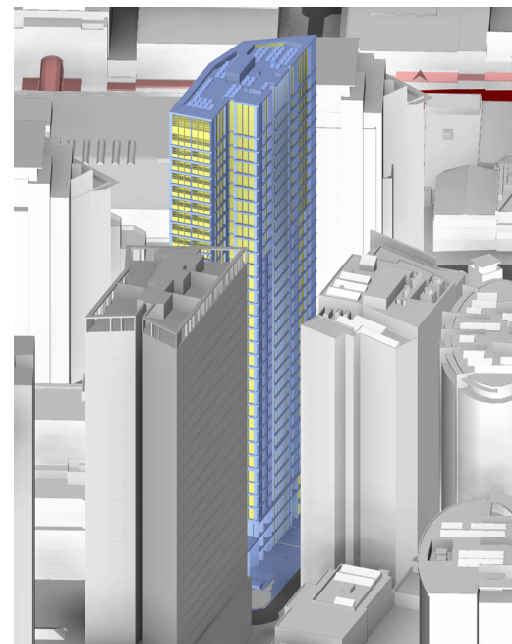
June 22 12:45



June 22 13:00



June 22 13:15



June 22 13:30



June 22 13:45

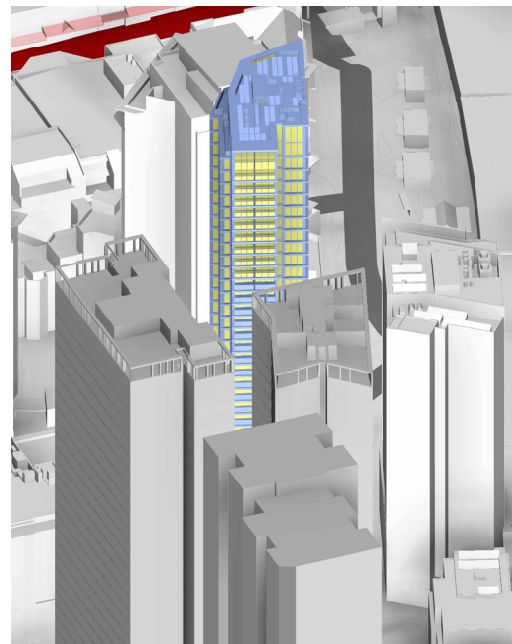
Region highlighted in red denotes Area 5 as specified in Willoughby Council LEP 2012.

*This S4.55 modification proposes no material change to the currently approved SSDA scheme's solar access..*

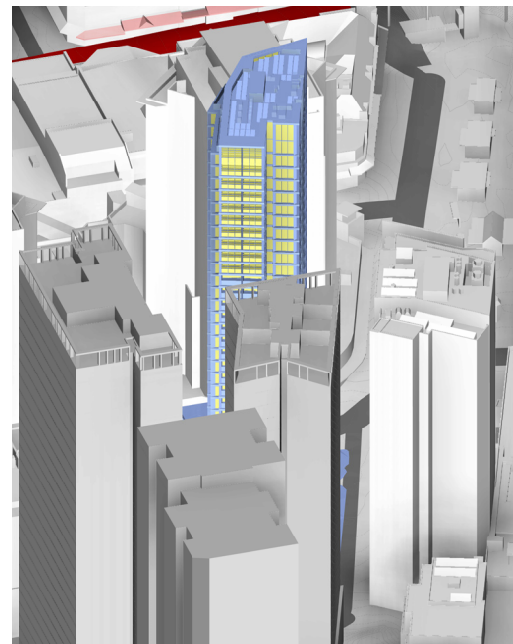


## Impact Assessment

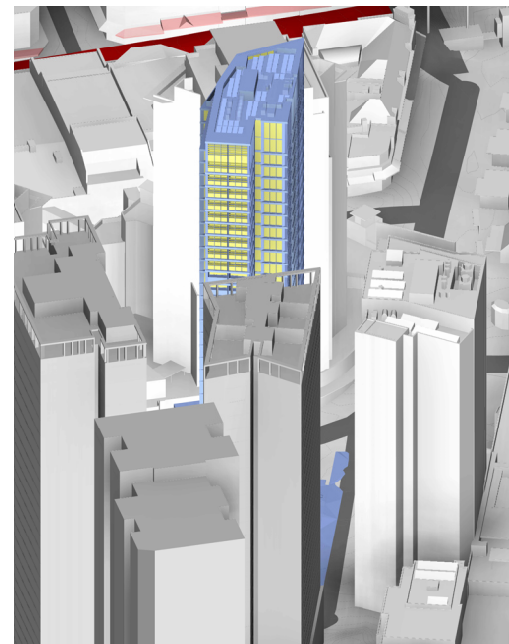
### Views from the Sun - Future Conditions Area 05 Impact Study



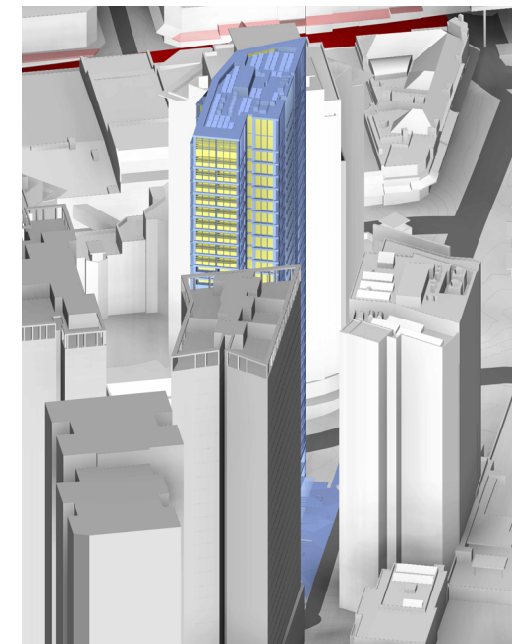
June 22 12:00



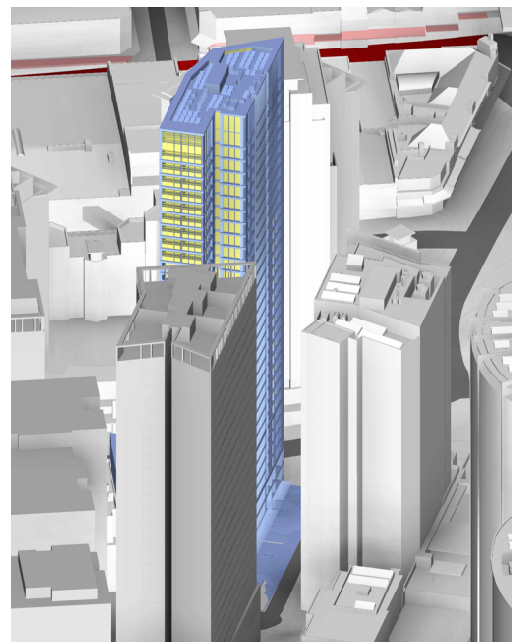
June 22 12:15



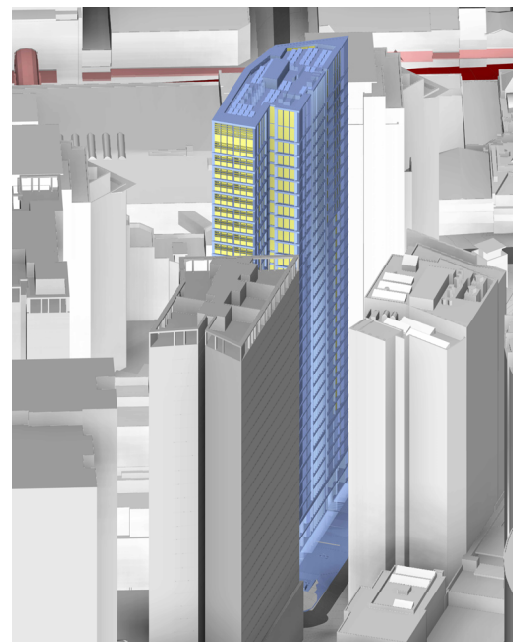
June 22 12:30



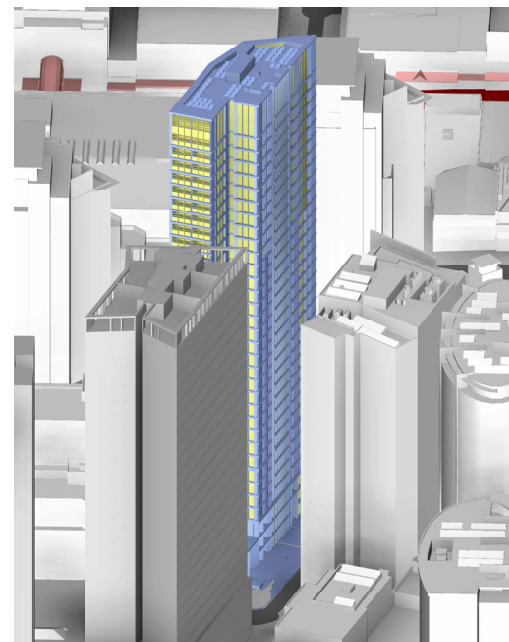
June 22 12:45



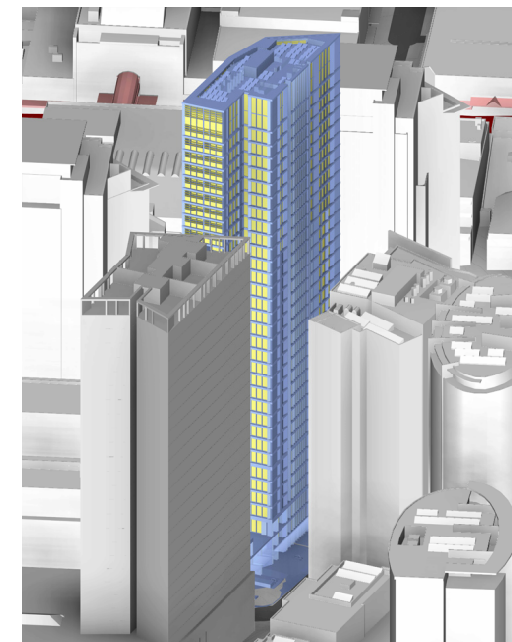
June 22 13:00



June 22 13:15



June 22 13:30

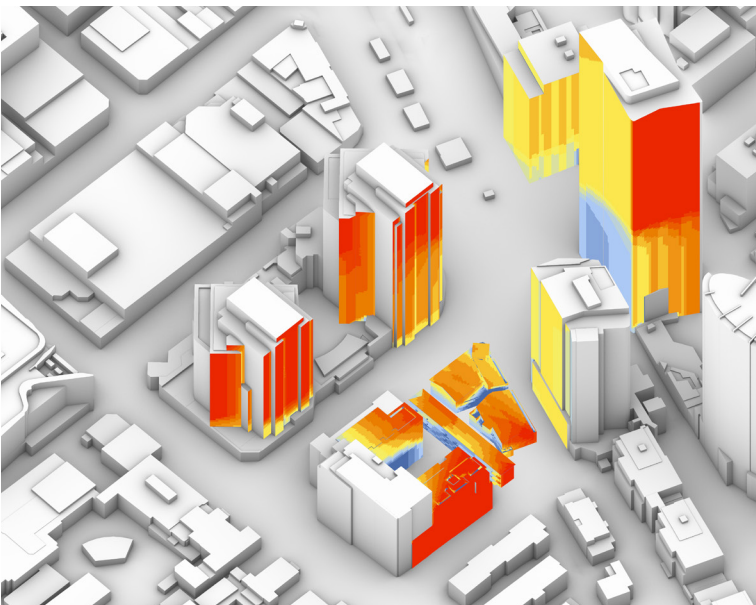


June 22 13:45

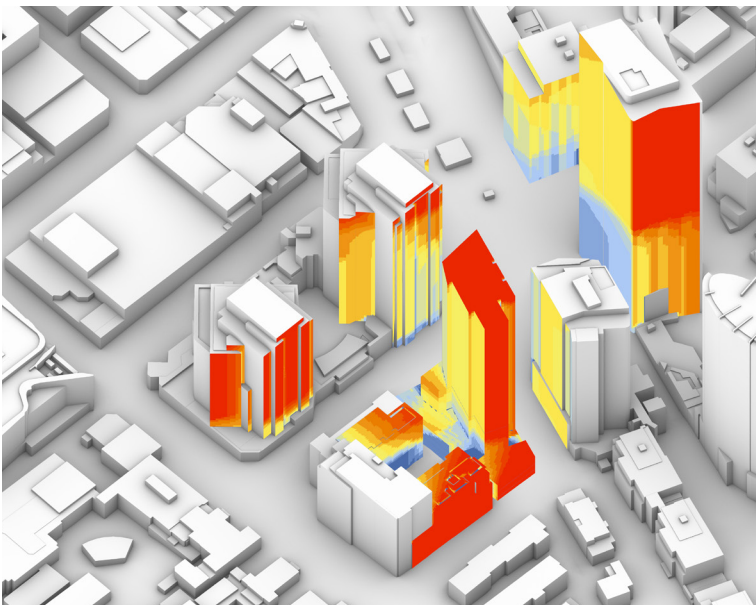
Region highlighted in red denotes Area 5 as specified in Willoughby Council LEP 2012.

This S4.55 modification proposes no material change to the currently approved SSDA scheme's solar access..

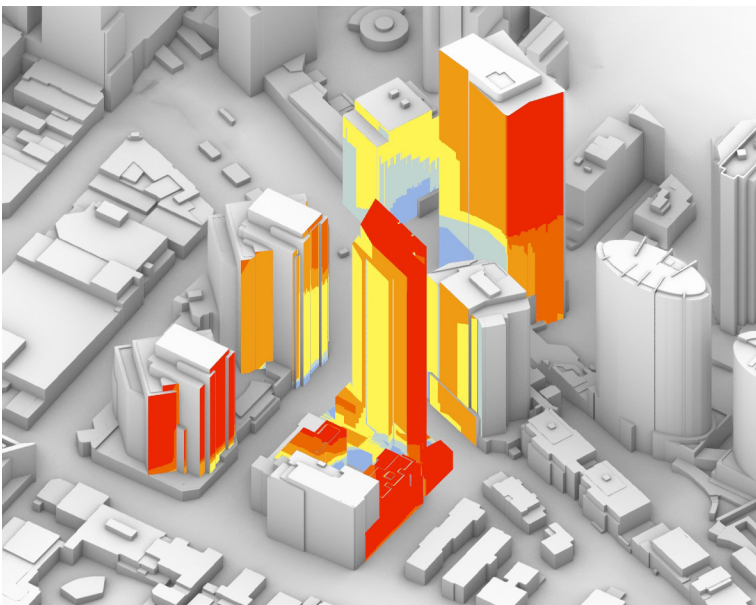




North-East  
Existing condition



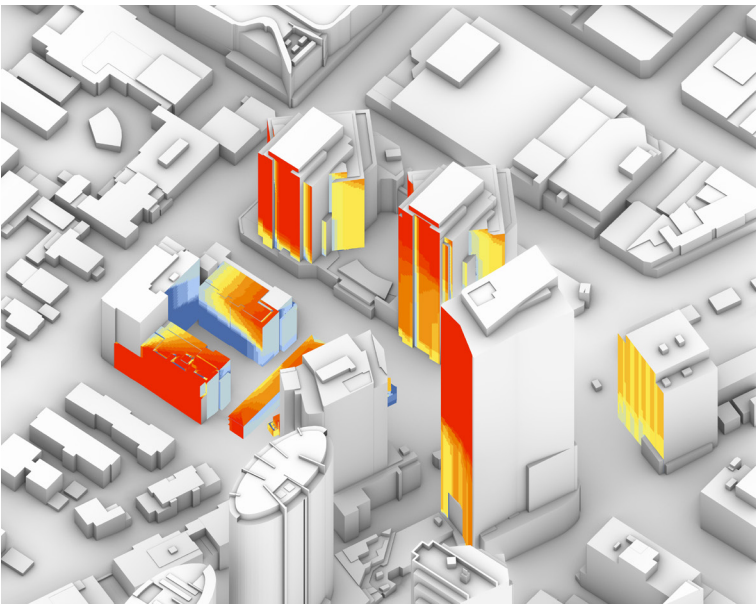
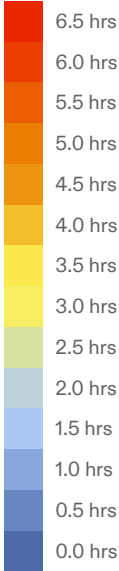
North-East  
Approved DA Scheme



North-East  
Proposed SSDA/S4.55 condition

Ladybug studies demonstrate that the proposed building firm retains the required solar access to surrounding buildings

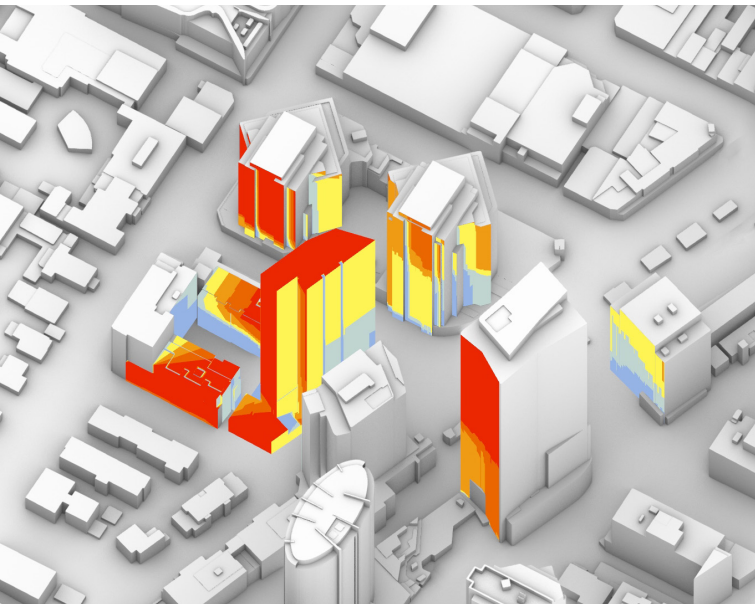
Legend



North-West  
Existing condition



North-West  
Approved DA Scheme



North-West  
Proposed SSDA/S4.55 condition



# Impact Assessment

## Shadow Diagrams

### Winter Solstice

This S4.55 modification proposes no material change to the approved SSDA scheme's overshadowing, including of Victoria Avenue.



09:00 am



10:00 am



11:00 am



12:00 pm



01:00 pm



02:00 pm



03:00 pm

#### Legend

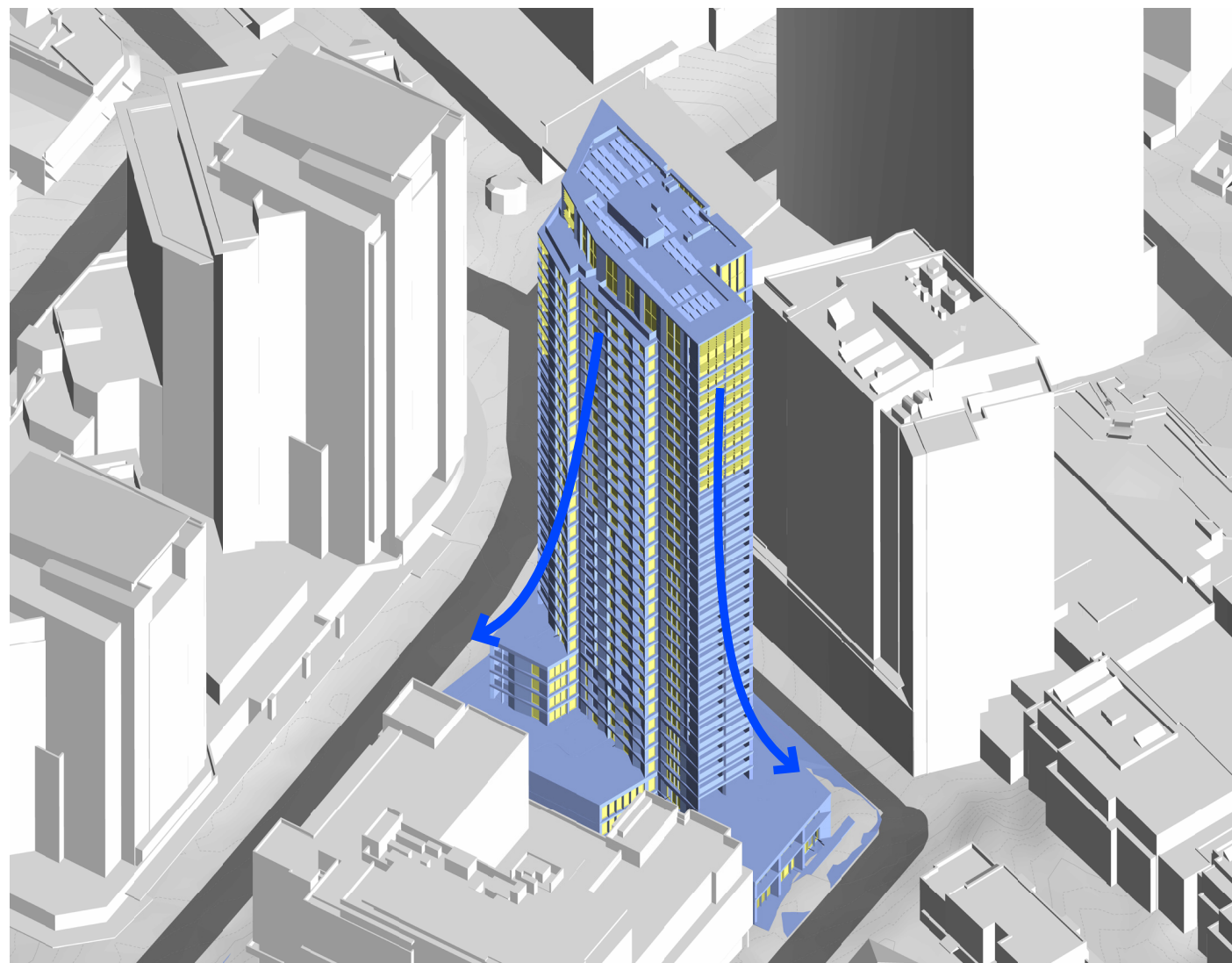
-  Area 5
-  Shadow cast by approved SSDA Scheme
-  Shadow cast by approved SSDA Scheme on ground plane
-  Shadow cast by existing buildings on site
-  Additional Shadow cast by proposed s4.55 scheme on ground plane
-  Additional Shadow cast by proposed s4.55 scheme
-  Solar Gain



For further detailed analysis, refer to pedestrian wind environmental assessment.

The building's form has been designed to reduce windy conditions at ground level in the public domain. The stepped, articulated east facade and terraced podium help to reduce downwash to the street. Along Cambridge walk, awning structures also assist in alleviating downwash onto the public domain and provide a more comfortable experience for pedestrians circulating through these areas.

Solid recessed balustrades along balconies assist in wind protection and building entrances are located away from corners where wind conditions are the strongest.

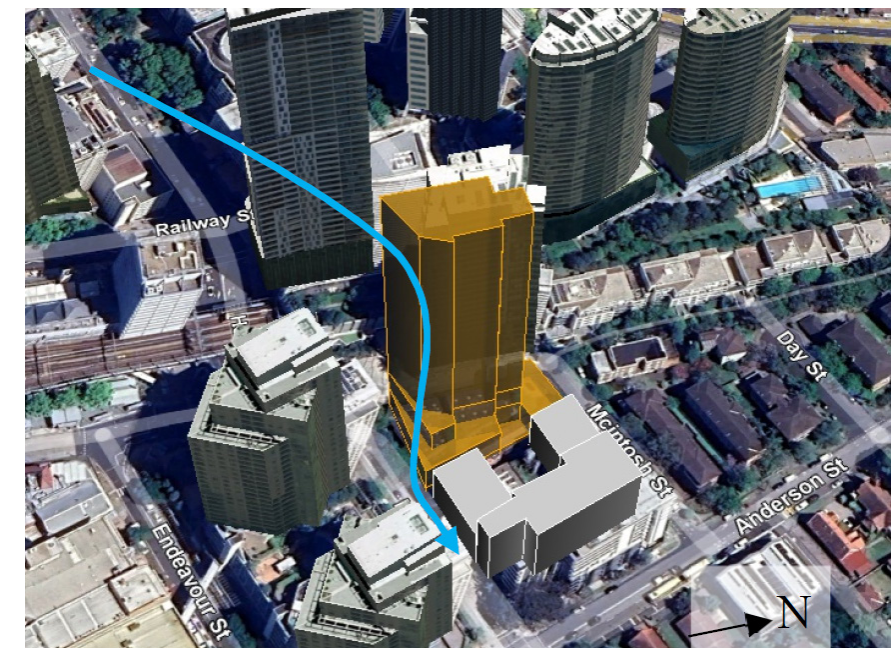


Articulated facade and terraced podium assist in mitigating downwash to street level



Flow patterns around site for winds from the southern quadrant (Google Earth, 2024)

*3-5 Help Street Environmental Wind Assessment Report (Arup)*



Flow patterns around site for winds from the south-west (Google Earth, 2024)

*(3-5 Help Street Environmental Wind Assessment Report (Arup))*



# Area Schedules



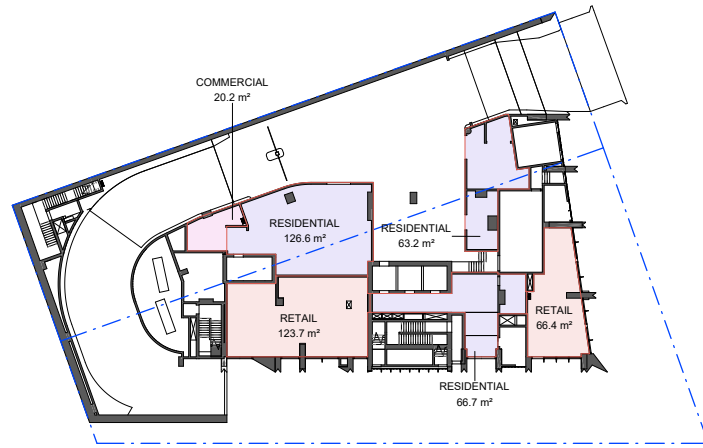
|             | Area(sqm) | % of GFA | FSR     |
|-------------|-----------|----------|---------|
| SITE AREA   | 2290      |          |         |
| COMMERCIAL  | 2003      | 11.24%   | 0.87 :1 |
| RETAIL      | 354       | 1.99%    | 0.15 :1 |
| RESIDENTIAL | 15463     | 86.78%   | 6.75 :1 |
| TOTAL       | 17820     |          | 7.78 :1 |

| LEVEL    | COMMERCIAL | RETAIL | RESIDENTIAL | APARTMENT NUMBERS                  |       |       |       |       | SEPP 65                            |            |          |            |
|----------|------------|--------|-------------|------------------------------------|-------|-------|-------|-------|------------------------------------|------------|----------|------------|
|          | GFA        | GFA    | GFA         | 1 BED                              | 2 BED | 3 BED | 4 BED | Total | Solar (0-2)                        | Solar (2+) | No solar | Cross Vent |
| L33      |            |        | 422         |                                    |       |       | 2     | 2     |                                    | 2          |          | 2          |
| L32      |            |        | 422         |                                    |       |       | 2     | 2     |                                    | 2          |          | 2          |
| L31      |            |        | 509         |                                    | 2     | 2     |       | 4     |                                    | 4          |          | 4          |
| L30      |            |        | 509         |                                    | 2     | 2     |       | 4     |                                    | 4          |          | 4          |
| L29      |            |        | 509         |                                    | 2     | 2     |       | 4     |                                    | 4          |          | 4          |
| L28      |            |        | 509         |                                    | 2     | 2     |       | 4     |                                    | 4          |          | 4          |
| L27      |            |        | 509         |                                    | 2     | 2     |       | 4     |                                    | 4          |          | 4          |
| L26      |            |        | 509         |                                    | 2     | 2     |       | 4     |                                    | 4          |          | 4          |
| L25      |            |        | 509         |                                    | 2     | 2     |       | 4     |                                    | 4          |          | 4          |
| L24      |            |        | 509         |                                    | 2     | 2     |       | 4     |                                    | 4          |          | 4          |
| L23      |            |        | 460         |                                    | 2     | 2     |       | 4     |                                    | 4          |          | 4          |
| L22      |            |        | 460         |                                    | 2     | 2     |       | 4     |                                    | 4          |          | 4          |
| L21      |            |        | 460         |                                    | 2     | 2     |       | 4     |                                    | 4          |          | 4          |
| L20      |            |        | 460         |                                    | 2     | 2     |       | 4     |                                    | 4          |          | 4          |
| L19      |            |        | 460         |                                    | 2     | 2     |       | 4     |                                    | 4          |          | 4          |
| L18      |            |        | 460         |                                    | 2     | 2     |       | 4     | 1                                  | 3          |          | 4          |
| L17      |            |        | 460         |                                    | 2     | 2     |       | 4     | 1                                  | 3          |          | 4          |
| L16      |            |        | 452         | 1                                  | 4     |       |       | 5     | 1                                  | 3          | 1        | 4          |
| L15      |            |        | 452         | 1                                  | 4     |       |       | 5     | 1                                  | 3          | 1        | 4          |
| L14      |            |        | 452         | 1                                  | 4     |       |       | 5     | 1                                  | 3          | 1        | 4          |
| L13      |            |        | 452         | 1                                  | 4     |       |       | 5     | 1                                  | 3          | 1        | 4          |
| L12      |            |        | 452         | 1                                  | 4     |       |       | 5     | 1                                  | 3          | 1        | 4          |
| L11      |            |        | 452         | 1                                  | 4     |       |       | 5     | 1                                  | 3          | 1        | 4          |
| L10      |            |        | 452         | 1                                  | 4     |       |       | 5     | 1                                  | 3          | 1        | 4          |
| L9       |            |        | 452         | 1                                  | 4     |       |       | 5     | 1                                  | 3          | 1        | 4          |
| L8       |            |        | 452         | 1                                  | 4     |       |       | 5     | 1                                  | 3          | 1        | 4          |
| L7       |            |        | 445         | 4                                  | 2     |       |       | 6     | 1                                  | 4          | 1        | 4          |
| L6       |            |        | 445         | 4                                  | 2     |       |       | 6     | 1                                  | 4          | 1        | 4          |
| L5       |            |        | 526         | 3                                  | 3     |       |       | 6     | 1                                  | 4          | 1        | 4          |
| L4       |            |        | 526         | 3                                  | 3     |       |       | 6     | 1                                  | 4          | 1        | 4          |
| L3       |            |        | 526         | 3                                  | 3     |       |       | 6     | 1                                  | 4          | 1        | 4          |
| L2       |            |        | 538         | 2                                  | 2     |       |       | 4     | 1                                  | 2          | 1        | 2          |
| L1       | 1076       |        |             |                                    |       |       |       |       |                                    |            |          |            |
| Mezz     | 907        |        |             |                                    |       |       |       |       |                                    |            |          |            |
| UG       |            | 164    |             |                                    |       |       |       |       |                                    |            |          |            |
| LG       | 20         | 190    | 257         |                                    |       |       |       |       |                                    |            |          |            |
| B1       |            |        |             |                                    |       |       |       |       |                                    |            |          |            |
| B2       |            |        |             |                                    |       |       |       |       |                                    |            |          |            |
| B3       |            |        |             |                                    |       |       |       |       |                                    |            |          |            |
| B4       |            |        |             |                                    |       |       |       |       |                                    |            |          |            |
| B5       |            |        |             |                                    |       |       |       |       |                                    |            |          |            |
| Subtotal | 2003       | 354    | 15463       | 28                                 | 81    | 30    | 4     | 143   | 17                                 | 111        | 15       | 122        |
|          |            |        |             | 19.6%                              | 56.6% | 21.0% | 2.8%  |       | 11.9%                              | 77.6%      | 10.5%    | 85.3%      |
|          |            |        |             | First nine storeys of the building |       |       |       |       | First nine storeys of the building |            |          |            |
|          |            |        |             | 34                                 |       |       |       |       | 22                                 |            |          |            |
|          |            |        |             |                                    |       |       |       |       | 64.7%                              |            |          |            |

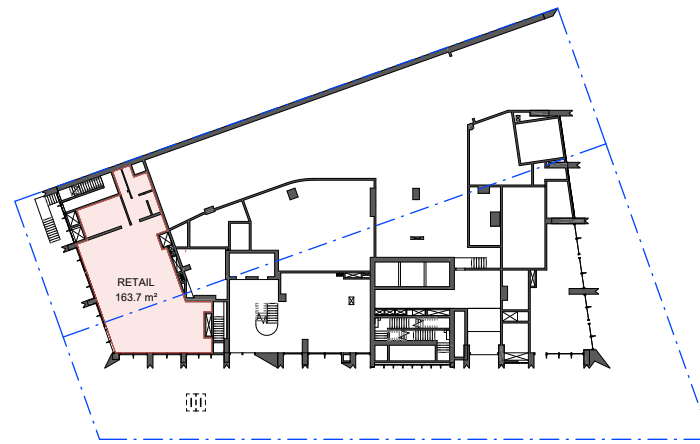
NOT FOR CONSTRUCTION

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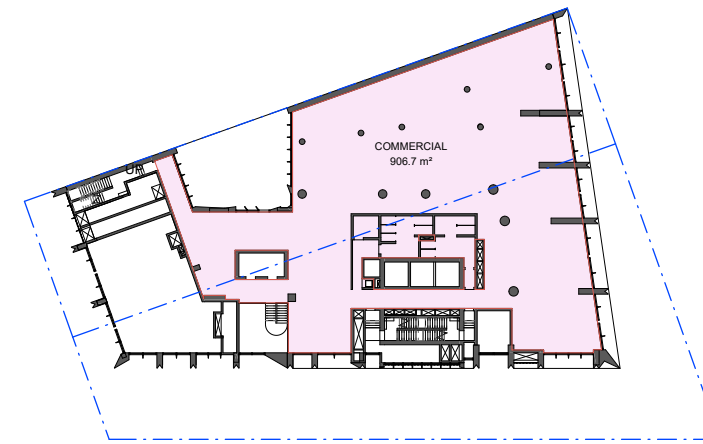




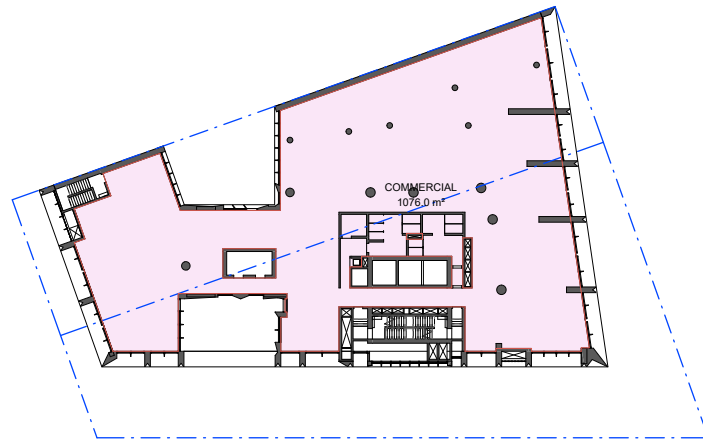
Lower Ground



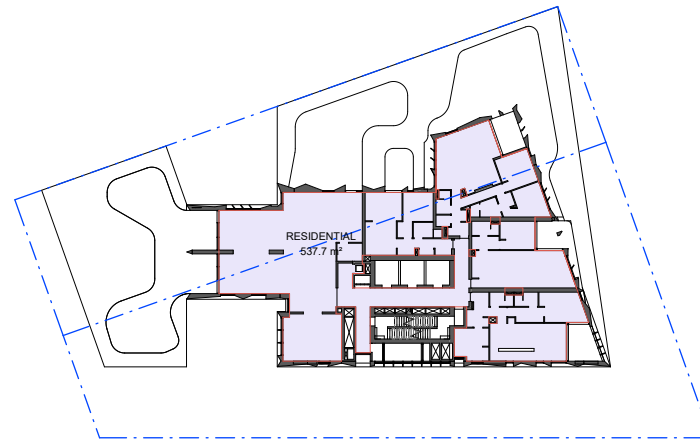
Upper Ground



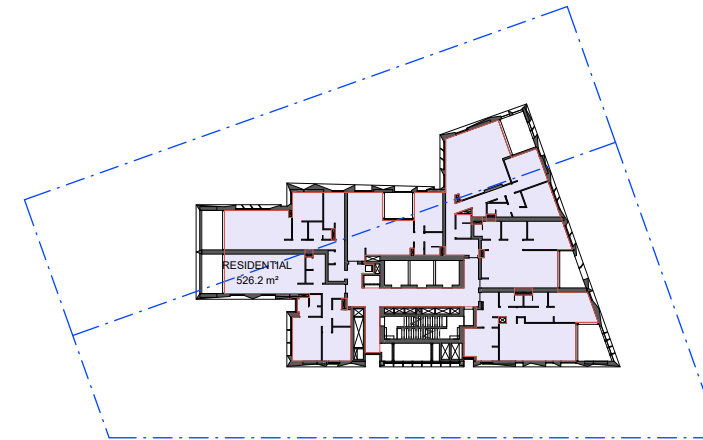
Mezzanine



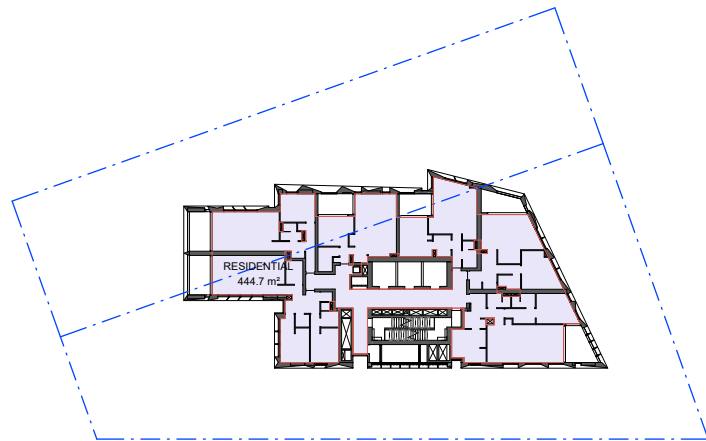
Level 01



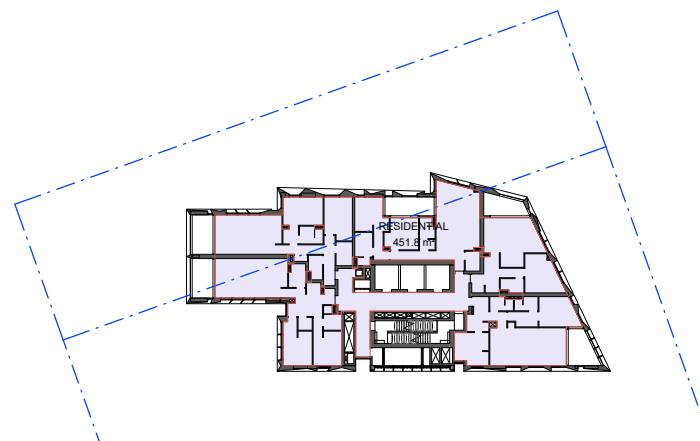
Level 02



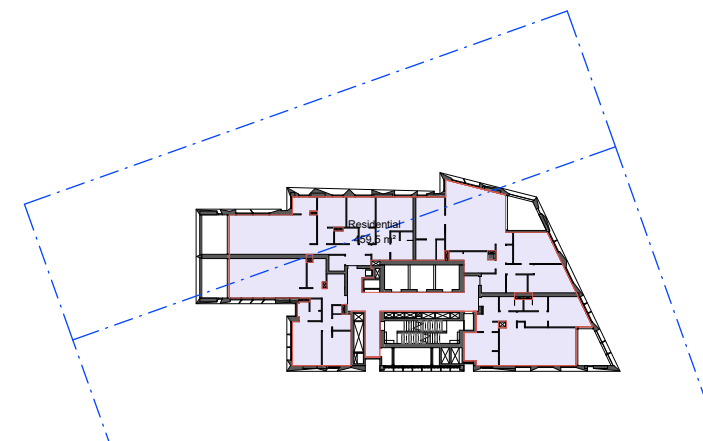
Level 03-05 Typical



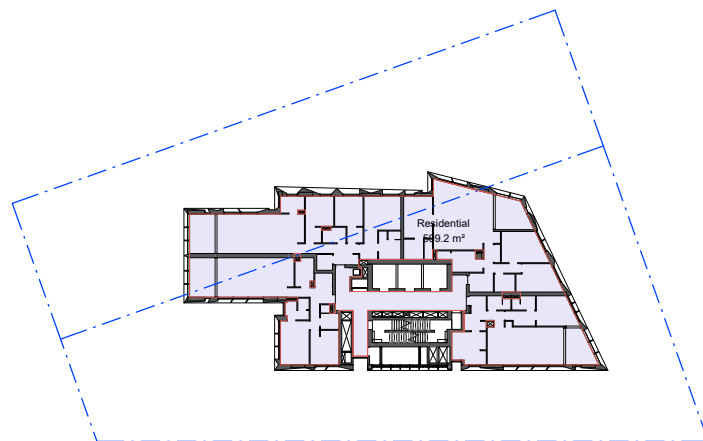
Level 06-07 Typical



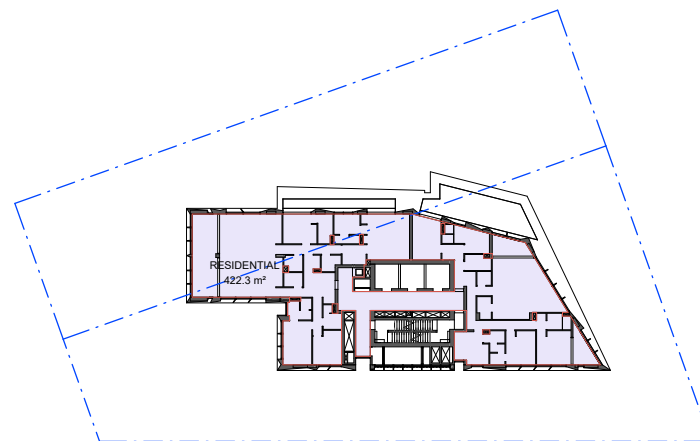
Level 08-16 Typical



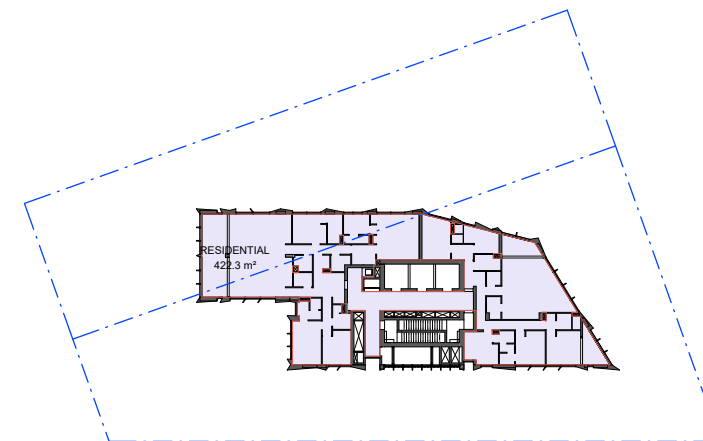
Level 17-23 Typical



Level 24-31



Level 32



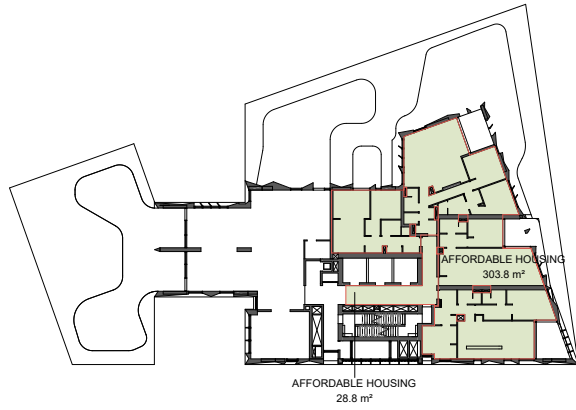
Level 33

## Gross Floor Area Plans

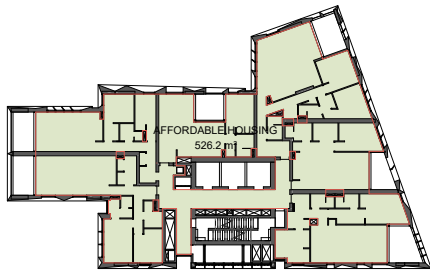
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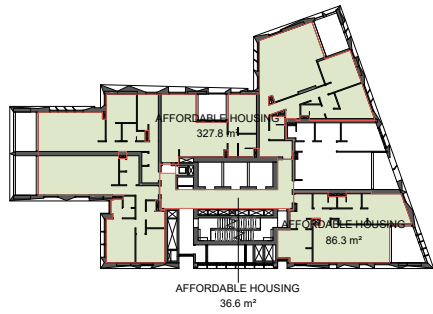




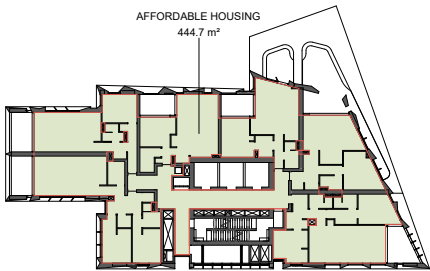
L02 Affordable Housing



L03 Affordable Housing



L04 - L05 Affordable Housing



L06 Affordable Housing



L07 Affordable Housing

# Affordable Housing Area Plans

| AFFORDABLE HOUSING AREA |           |
|-------------------------|-----------|
| L02                     | 332.6 m²  |
| L03                     | 526.2 m²  |
| L04                     | 450.7 m²  |
| L05                     | 450.7 m²  |
| L06                     | 444.7 m²  |
| L07                     | 444.7 m²  |
| Total                   | 2649.6 m² |

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# Photomontages





Views

South West  
Corner - Tower

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South West  
Corner - Podium



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Cambridge Lane



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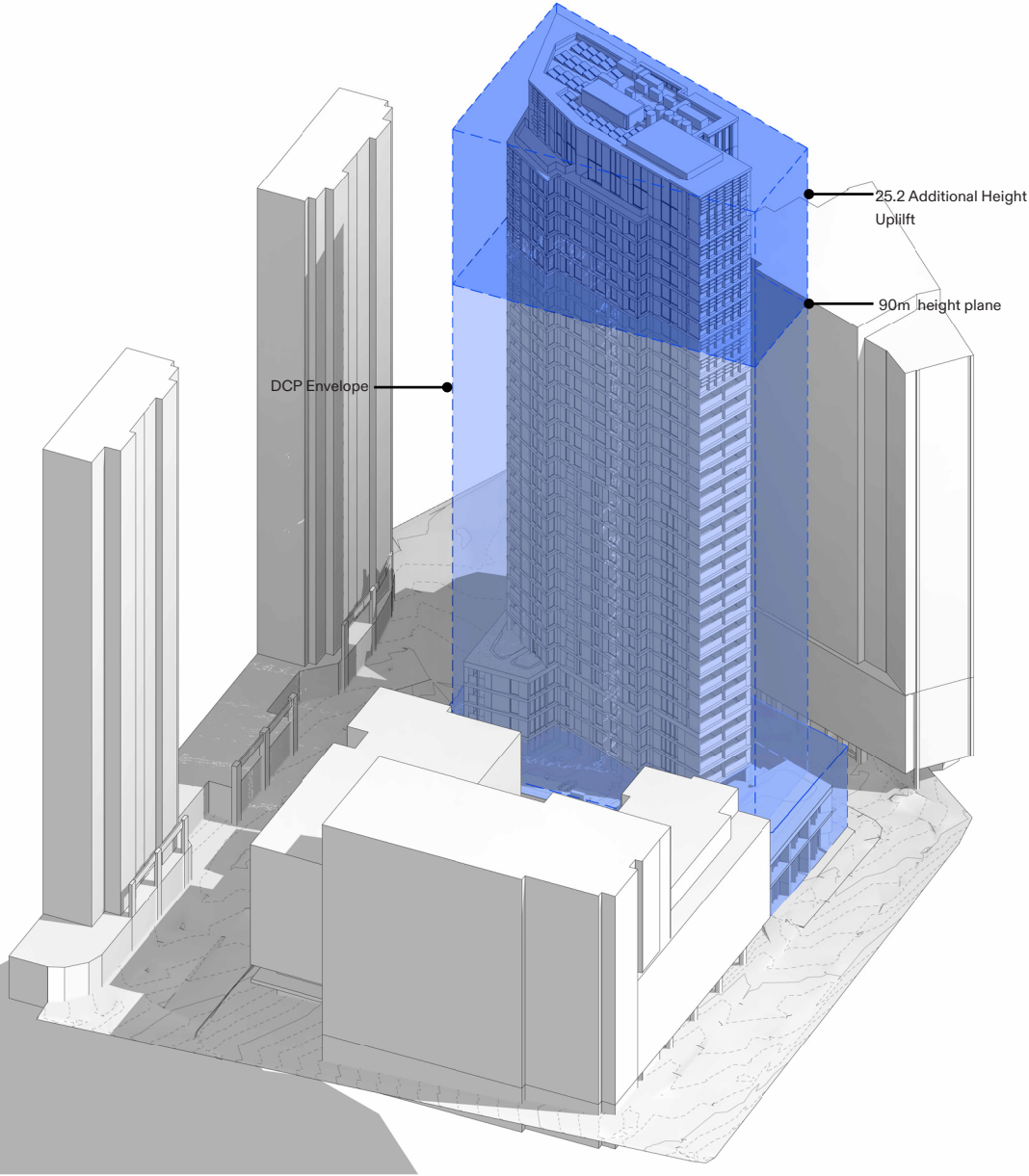
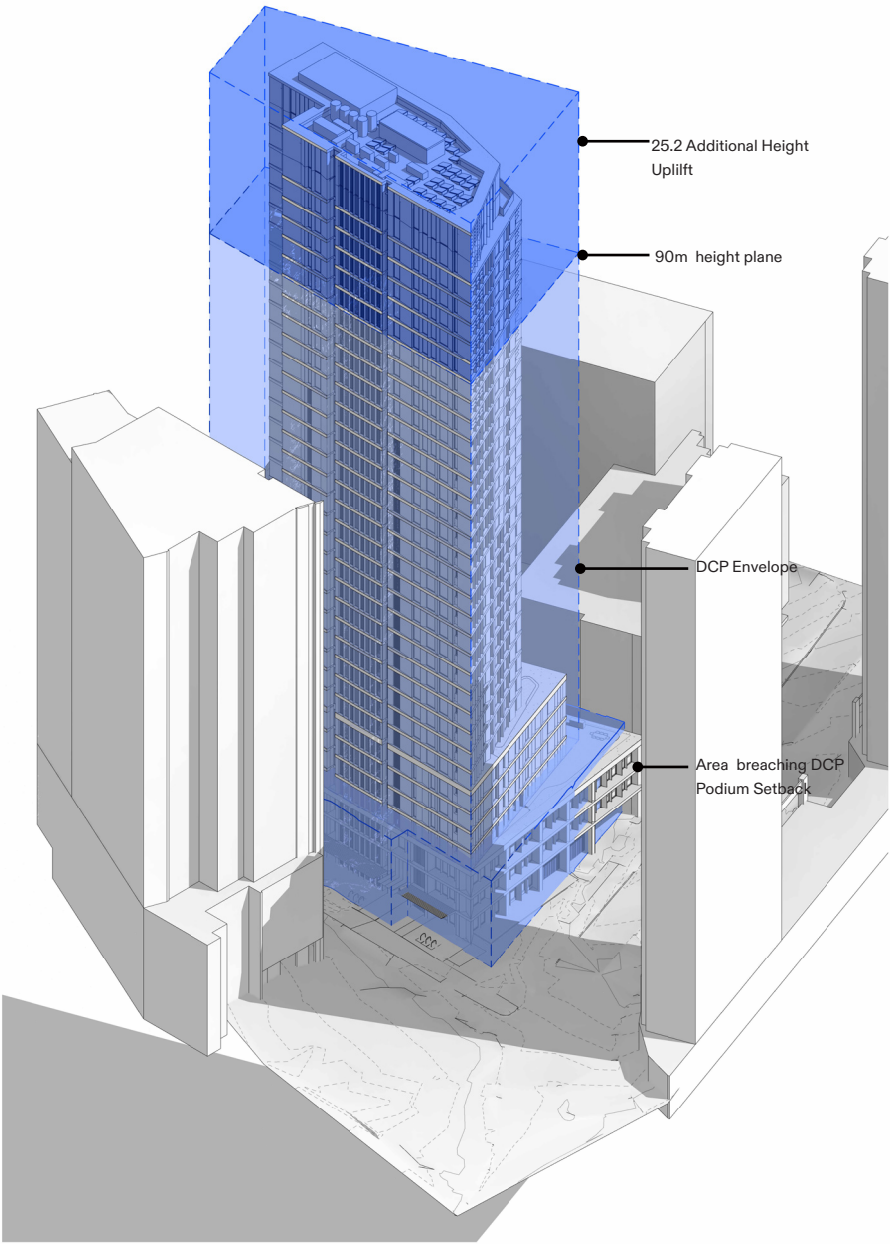
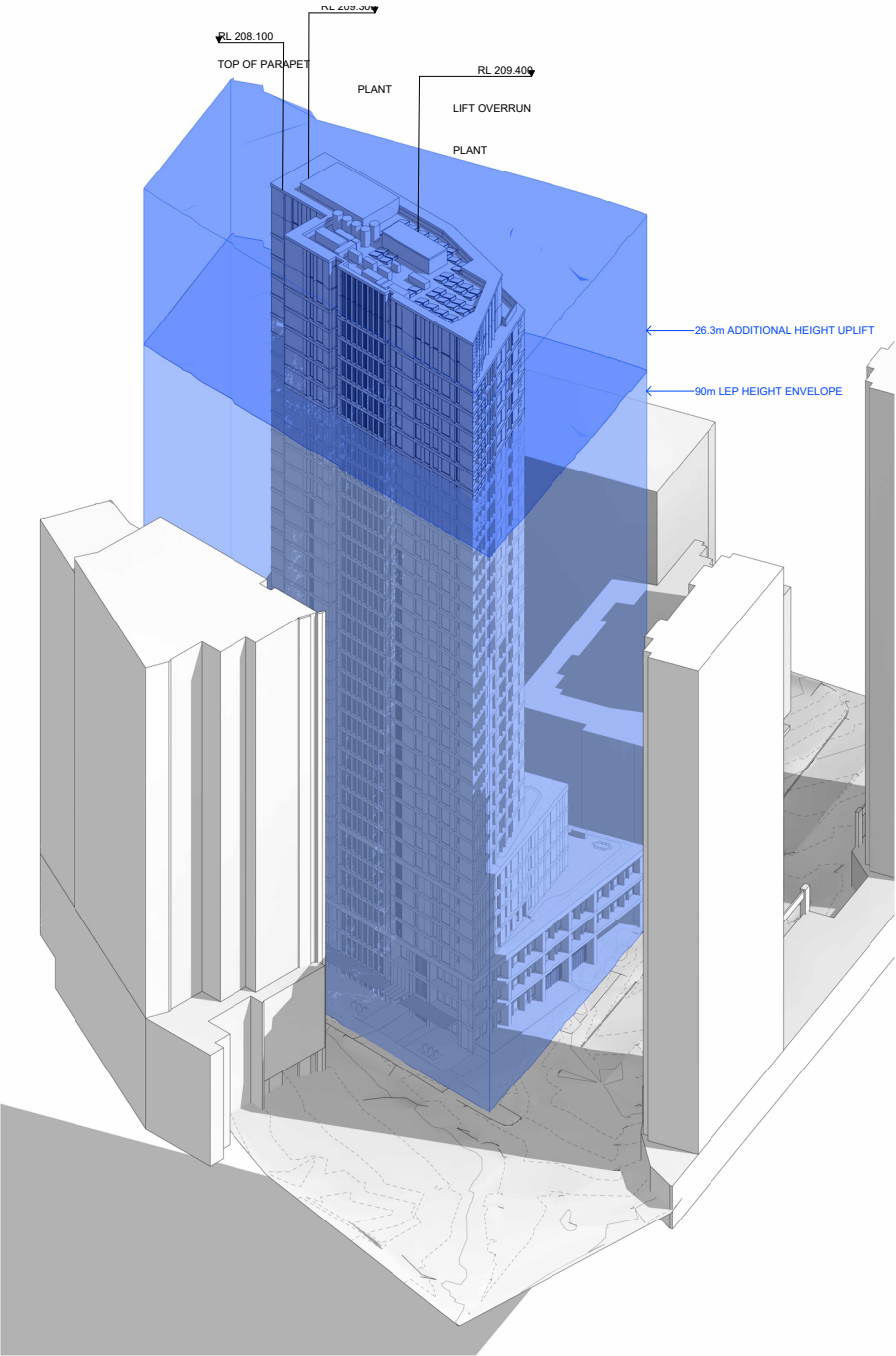
06

# Compliance



Compliance with Planning Controls

Building Envelope









2026

Prepared to accompany the Development Application submitted to Council.  
3-5 Help Street, Chatswood NSW.

Verification and Qualifications

EM BE CE are registered as Architects in New South Wales and are enrolled in the Division of Chartered Architects in the register of Architects pursuant to the Architect Act 1921.

Nominated Architects are: Mladen Prnjatovic 7468; Ben Green 7066; Chi Melhem 7754.

Registered Design Practitioners are: Mladen Prnjatovic and Chi Melhem.

Statement of Design

EM BE CE have been responsible for the design of the project since its inception and have worked with related professionals and experts in respect of the matter. The project has been designed to provide a development that is respectful of local planning and design controls and responds to the design quality principles identified in Schedule 9 of State Environmental Planning Policy (Housing) 2021.

EM BE CE verify that as required by Part 3 Section 29 of the Environmental Planning and Assessment Regulation 2021, the design principles set out in Schedule 9 Design of the State Environmental Planning Policy (Housing) 2021, and the objectives in Part 3 and Part 4 of the Apartment Design Guide have been achieved for the proposed development as described in the following document.

Signed



Ben Green- Director  
Director. Architect 7066 (NSW), 6305 (QLD)



Mladen Prnjatovic - Director  
Director. Architect 7468 (NSW), 6308 (QLD)  
Registered Design Practitioner

EM BE CE Pty Ltd Suite 3 / 414 Bourke St, Surry Hills, NSW 2010 Australia.  
+61 2 9125 0569. ACN 650 115 307 ABN 60 650 115 307

NSW Architects Registration Board. Nominated Architects are: Mladen Prnjatovic 7468; Ben Green 7066; Chi Melhem 7754



# ADG Compliance



# Housing SEPP principles

Principle No.1 -

Context and Neighbourhood Character

Good design responds and contributes to its context. Context is the key natural and built features of an area, their relationship and the character they create when combined. It also includes social, economic, health and environmental conditions. Responding to context involves identifying the desirable elements of an area’s existing or future character. Well designed buildings respond to and enhance the qualities and identity of the area including the adjacent sites, streetscape and neighbourhood. Consideration of local context is important for all sites, including sites in established areas, those undergoing change or identified for change.

The site is located at the northeastern edge of the Chatswood CBD. Existing residential and commercial towers from 12- 43 stories are located to the south and west of the site. Directly to the east and adjacent to the site is a recently redeveloped 6-10 story mixed use apartment building. Low rise single family homes are located to the north east of the site while the 3-4 storey walk ups to the north of the site are being redeveloped into high rise, mixed use buildings. As a result of this urban context the new tower will form part the new urban corridor to the northeast of the Chatswood CBD.

The proposal for the site is broadly compliant with the planning controls and site specific DCP. As a result it is consistent with the future context and objectives for the neighbourhood's character. The proposal will invigorate the currently vacant site, establishing a vibrant and active new mixed use precinct, providing a commercial space offering for existing and new residents, generate employment and promote future growth.

(Refer to sections 02-04 of the Design Report)

Principle No.2 -

Built Form and Scale

Good design achieves a scale, bulk and height appropriate to the existing or desired future character of the street and surrounding buildings.

Good design also achieves an appropriate built form for a site and the building's purpose in terms of building alignments, proportions, building type, articulation and the manipulation of building elements. Appropriate built form defines the public domain, contributes to the character of streetscapes and parks, including their views and vistas, and provides internal amenity and outlook.

The scale of the proposal respects both the existing context and the future desired character established by the LEP and DCP controls.

The street wall and podium setbacks have been refined to better integrate with the existing building to the east. Cambridge Lane has been significantly widened to create a new sunlit, landscaped public open space that responds to Council's ambitions to improve activation and pedestrian connections to the north of the CBD. The Help Street setback has been tapered to open up Help Street to the existing public space and pedestrian connection under the railway.

The base of the tower has been modified to provide additional roof terraces and a built form element that relates to the upper alignments of the existing building to the east. The tower itself has been sculpted to retain ADG solar access to adjacent residential buildings

The modification of the setbacks ensures the tower comes to ground at the junction of Help Street and Cambridge Lane. This forms an important urban marker in response to the geometry of the road network at the point at which Chatswood CBD is entered from the west underneath the railway.

The articulation of the built form also ensures apartment amenity is maximised by providing solar access, outlook and managing overlooking between new and old buildings.

(Refer to sections 02-05 of the Design Report)

Principle No.3 -

Density

Good design achieves a high level of amenity for residents and each apartment, resulting in a density appropriate to the site and its context. Appropriate densities are consistent with the area’s existing or projected population. Appropriate densities can be sustained by existing or proposed infrastructure, public transport, access to jobs, community facilities and the environment.

The site has both the surrounding infrastructure to support a significant residential development and the urban context to benefit from this type of development.

The scale and floor space of the project is in accordance with the planning controls for the precinct.

The detailed design of the building ensures a high level of amenity for all apartments within the project.

Activation is maximised through the provision of a new sunlit public space. Active frontages are maximised to activate both the existing and new public spaces.

The commercial floorspace supports the commercial ambitions of the town centre. This floor space is of a high quality, with the majority of the floorspace within 6m of the glass line and with outlook and access to external landscaped gardens. The floorplate has been designed to accommodate a range of tenancy types ensuring that this space is desirable in a highly competitive market.

The site is extremely well serviced by public transport being adjacent to the station and bus interchange. This public transport connectivity supports the sites increase in density.

(Refer to sections 02-05 of the Design Report)

Principle No.4 -

Sustainability

*Good design combines positive environmental, social and economic outcomes. Good sustainable design includes use of natural cross ventilation and sunlight for the amenity and livability of residents and passive thermal design for ventilation, heating and cooling reducing reliance on technology and operation costs. Other elements include recycling and reuse of materials and waste, use of sustainable materials, and deep soil zones for groundwater recharge and vegetation.*

The design has been developed to maximise passive solar design. 85% apartments are dual aspect with good solar access. The facade of aluminium framed glazing, vertical fins, metal clad wall panels and projecting slab edges provides an appropriate solid to void to the interior, insulation, solar and privacy control as well as controlled ventilation.

We have worked with the project team to ensure we meet the requirements of the brief, comply with Basix and the 4 Star Green star residential requirements. Sustainable design initiatives include:

- Rainwater storage and reuse on site
- Rooftop communal open space and landscaping
- Climate and location suitable plant selections
- Natural light to corridors and lobbies
- Solar panel system installed on the tower roof
- Energy efficient lighting
- Communal recycling facilities
- Efficient building services
- Bicycle parking

(Refer to Sustainability and BASIX Report prepared by Aspire)



# Housing SEPP principles

## Principle No.5 - Landscape

Good design recognises that together landscape and buildings operate as an integrated and sustainable system, resulting in attractive developments with good amenity. A positive image and contextual fit of well designed developments is achieved by contributing to the landscape character of the streetscape and neighbourhood.

Good landscape design enhances the development’s environmental performance by retaining positive natural features which contribute to the local context, co-ordinating water and soil management, solar access, micro-climate, tree canopy, habitat values, and preserving green networks. Good landscape design optimises usability, privacy and opportunities for social interaction, equitable access, respect for neighbours’ amenity, provides for practical establishment and long term management.

EM BE CE has worked closely with Studio Georgouras to create an appropriate landscape approach which integrates Designing with Country. Plant species have been selected which are endemic to the site.

A number of our built form moves have maximized the public benefits of our landscape design.

The expansion of Cambridge Lane ensures that all the deep soil landscape is part of the public domain.

The podium landscape provides garden spaces for the commercial areas as well as common and private residential gardens. The communal roof gardens, which provide a diversity of programmed areas for exercise, communal activities, gardening and access to the view. These communal gardens provide a desirable environment to encourage activation and interaction between residents.

(Refer to section 05 of the Design Report)

## Principle No.6 - Amenity

Good design positively influences internal and external amenity for residents and neighbours. Achieving good amenity contributes to positive living environments and resident well being. Good amenity combines appropriate room dimensions and shapes, access to sunlight, natural ventilation, outlook, visual and acoustic privacy, storage, indoor and outdoor space, efficient layouts and service areas, and ease of access for all age groups and degrees of mobility.

The location of the site is in close proximity to the Chatswood CBD and local parklands. We have provided enhanced public domain and landscape on the site and in relation to the existing public space network.

The apartments are designed to maximise their environmental amenity. The majority achieve a NE outlook over the surrounding conservation area with one apartment per floor taking advantage of a more urban outlook towards the CBD. 85% of apartments are dual aspect and naturally ventilated. 78% are receiving 2 hours or more of solar access in winter. The façade has been designed to provide good passive environmental design, with optimised solar access and operability, privacy, insulation and controlled ventilation.

The design achieves the spatial requirements of the ADG in terms of area, external space, room sizes and storage. Study spaces have been provided to offer better work from home spaces in each apartment.

(Refer to section 05 and 06 of the Design Report)

## Principle No.7 - Safety

Good design optimises safety and security, within the development and the public domain. It provides for quality public and private spaces that are clearly defined and fit for the intended purpose. Opportunities to maximise passive surveillance of public and communal areas promote safety. A positive relationship between public and private spaces is achieved through clearly defined secure access points and well lit and visible areas that are easily maintained and appropriate to the location and purpose.

The mixed-use proposal for the site including landscaping and a public art strategy, provides public domain activation, promoting safety and passive surveillance. Entries are legible and visible with direct access from the street. Street setbacks have been amended to avoid unsafe steps in the public domain.

(Refer to section 05 of the Design Report and architectural drawings)

## Principle No.8 - Housing Diversity and Social Interaction

Good design achieves a mix of apartment sizes, providing housing choice for different demographics, living needs and household budgets.

Well designed apartment developments respond to social context by providing housing and facilities to suit the existing and future social mix. Good design involves practical and flexible features, including different types of communal spaces for a broad range of people, providing opportunities for social interaction amongst residents.

The apartment mix, communal spaces and individual apartment layouts have been designed to accommodate different demographic groups, ranging from individuals to couples, families and multi-generational households. The proposal includes 32 tenure blind, affordable apartments of high amenity and a range of sizes.

The mix prioritises generously sized 2 and 3 bedroom apartments, which account for 78% of the development. 20% of the apartments are adaptable and can be easily reconfigured to support various living needs.

High amenity communal spaces on Level 02, provide a wide range of opportunities for outdoor and indoor recreation, studying, exercising or working. This shared residential space encourages social interactions and builds a sense of vertical community.

(Refer to section 05 and 07 of the Design Report)

## Principle No.9 - Aesthetics

Good design achieves a built form that has good proportions and a balanced composition of elements, reflecting the internal layout and structure. Good design uses a variety of materials, colours and textures.

The visual appearance of well designed apartment development responds to the existing of future local context, particularly desirable elements and repetitions of the streetscape.

The proposed built form has been carefully considered to respond to its surrounding context and Chatswood’s skyline. Pivoting off the intersection of Help St and Cambridge Lane, the stepped form aligns with key datums and neighbouring buildings - seamlessly transitioning the building from tower to ground.

With a deep, sculpted facade of folding planes, shadows shift throughout the day providing a dynamic play of light and shade. The folding planes, vertical fins and full height glazing creates a richly layered facade.

The combination of painted concrete and metal cladding textures allows reflected light to subtly change across the facade whilst maintaining a singular expression of form.

Responding to the change in apartment mix and adjacent buildings, the facade opens up towards the top of the tower to capture prime views over the north shore.

(Refer to section 05 and 07 of the Design Report)

| 3A: Site Analysis                                                                                                                                                         |     |    |                                                                                                                                                                                                       |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Objective 3A-1                                                                                                                                                            |     |    |                                                                                                                                                                                                       |
| Site analysis illustrates that design decisions have been based on opportunities and constraints of the site conditions and their relationship to the surrounding context |     |    |                                                                                                                                                                                                       |
| Design Guidance                                                                                                                                                           | Yes | No | Notes                                                                                                                                                                                                 |
| Each element in the Site Analysis Checklist should be addressed (see Appendix 1)                                                                                          | ●   |    | Aerial photographs, site context plans, survey plans, streetscape elevations and sections have been analysed and the building responds to key datums, circulation, topography and future development. |

| 3B: Orientation                                                                                                                                                                                                                                           |     |    |                                                                                                                                                                                                                               |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Objective 3B-1                                                                                                                                                                                                                                            |     |    |                                                                                                                                                                                                                               |
| Building types and layouts respond to the streetscape and site while optimising solar access within the development                                                                                                                                       |     |    |                                                                                                                                                                                                                               |
| Design Guidance                                                                                                                                                                                                                                           | Yes | No | Notes                                                                                                                                                                                                                         |
| Buildings along the street frontage define the street, by facing it and incorporating direct access from the street (see figure 3B.1)                                                                                                                     | ●   |    |                                                                                                                                                                                                                               |
| Where the street frontage is to the east or west, rear buildings should be orientated to the north                                                                                                                                                        | ●   |    | The building and apartment layouts optimise solar access to the east, north and west.                                                                                                                                         |
| Where the street frontage is to the north or south, overshadowing to the south should be minimised and buildings behind the street frontage should be orientated to the east and west (see figure 3B.2)                                                   | ●   |    | The building has been sculpted to minimise overshadowing to the apartment buildings to the south of the site.                                                                                                                 |
| Objective 3B-2                                                                                                                                                                                                                                            |     |    |                                                                                                                                                                                                                               |
| Overshadowing of neighbouring properties is minimised during mid winter                                                                                                                                                                                   |     |    |                                                                                                                                                                                                                               |
| Design Guidance                                                                                                                                                                                                                                           | Yes | No | Notes                                                                                                                                                                                                                         |
| Living areas, private open space and communal open space should receive solar access in accordance with sections 3D Communal and public open space and 4A                                                                                                 | ●   |    | Where possible, living areas, private open spaces and communal open space have been oriented/ located maximise solar access and achieve the requirements as outlined in sections 3D and 4A.                                   |
| Solar access to living rooms, balconies and private open spaces of neighbours should be considered                                                                                                                                                        | ●   |    |                                                                                                                                                                                                                               |
| Where an adjoining property does not currently receive the required hours of solar access, the proposed building ensures solar access to neighbouring properties is not reduced by more than 20%                                                          |     |    |                                                                                                                                                                                                                               |
| If the proposal will significantly reduce the solar access of neighbours, building separation should be increased beyond minimums contained in section 3F Visual privacy                                                                                  | ●   |    | The solar amenity to neighbouring apartments complies with the ADG requirements. The building form has been shaped to protect solar access to neighbouring apartment buildings to the south.                                  |
| Overshadowing should be minimised to the south or down hill by increased upper level setbacks                                                                                                                                                             | ●   |    | The built form sits within two solar plane lines which maintain 2hrs of sunlight to neighbouring apartments to the south. The resulting form is a slender tower oriented north south to minimise overshadowing.               |
| It is optimal to orientate buildings at 90 degrees to the boundary with neighbouring properties to minimise overshadowing and privacy impacts, particularly where minimum setbacks are used and where buildings are higher than the adjoining development | NA  |    | The building orientation is dictated by the site specific DCP setbacks and is consistent with the street context. Windows to the boundary are minimised to avoid overlooking and protected by deep reveals and vertical fins. |
| A minimum of 4 hours of solar access should be retained to solar collectors on neighbouring buildings                                                                                                                                                     | NA  |    |                                                                                                                                                                                                                               |



| 3C: Public Domain Interface                                                                                                                                                                                                                                                                                                                  |     |    |                                                                                                                           |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----|---------------------------------------------------------------------------------------------------------------------------|
| Objective 3C-1                                                                                                                                                                                                                                                                                                                               |     |    |                                                                                                                           |
| Transition between private and public domain is achieved without compromising safety and security                                                                                                                                                                                                                                            |     |    |                                                                                                                           |
| Design Guidance                                                                                                                                                                                                                                                                                                                              | Yes | No | Notes                                                                                                                     |
| Terraces, balconies and courtyard apartments should have direct street entry, where appropriate                                                                                                                                                                                                                                              | NA  |    | Apartments are located on Levels 2-33. The residential lobby has direct street entry.                                     |
| Changes in level between private terraces, front gardens and dwelling entries above the street level provide surveillance and improve visual privacy for ground level dwellings (see figure 3C.1)                                                                                                                                            | •   |    | The pocket garden on Level 1 and communal space of Level 2 provides passive surveillance.                                 |
| Upper level balconies and windows should overlook the public domain                                                                                                                                                                                                                                                                          | •   |    |                                                                                                                           |
| Front fences and walls along street frontages should use visually permeable materials and treatments. The height of solid fences or walls should be limited to 1m                                                                                                                                                                            | NA  |    |                                                                                                                           |
| Length of solid walls should be limited along street frontages                                                                                                                                                                                                                                                                               | •   |    |                                                                                                                           |
| Opportunities should be provided for casual interaction between residents and the public domain. Design solutions may include seating at building entries, near letter boxes and in private courtyards adjacent to streets                                                                                                                   | •   |    | Opportunities are provided in the Ground floor public domain, communal garden on Level 2 and dedicated residential lobby. |
| In developments with multiple buildings and/or entries, pedestrian entries and spaces associated with individual buildings/entries should be differentiated to improve legibility for residents, using a number of the following design solutions: architectural detailing, changes in materials, plant species, colours                     | •   |    |                                                                                                                           |
| Opportunities for people to be concealed should be minimised                                                                                                                                                                                                                                                                                 | •   |    |                                                                                                                           |
| Objective 3C-2                                                                                                                                                                                                                                                                                                                               |     |    |                                                                                                                           |
| Amenity of the public domain is retained and enhanced                                                                                                                                                                                                                                                                                        |     |    |                                                                                                                           |
| Design Guidance                                                                                                                                                                                                                                                                                                                              | Yes | No | Notes                                                                                                                     |
| Planting softens the edges of any raised terraces to the street, for example above sub-basement car parking                                                                                                                                                                                                                                  | •   |    | Refer to Landscape drawings and reports.                                                                                  |
| Mail boxes should be located in lobbies, perpendicular to the street alignment or integrated into front fences where individual street entries are provided                                                                                                                                                                                  | •   |    | Mail room is located on entry level adjacent to the residential lift lobby.                                               |
| The visual prominence of underground car park vents should be minimised and located at a low level where possible                                                                                                                                                                                                                            | •   |    | Ventilation achieved through the louvred facade.                                                                          |
| Substations, pump rooms, garbage storage areas and other service requirements should be located in basement car parks or out of view                                                                                                                                                                                                         | •   |    |                                                                                                                           |
| Ramping for accessibility should be minimised by building entry location and setting ground floor levels in relation to footpath levels                                                                                                                                                                                                      | •   |    |                                                                                                                           |
| Durable, graffiti resistant and easily cleanable materials should be used                                                                                                                                                                                                                                                                    | •   |    |                                                                                                                           |
| Where development adjoins public parks, open space or bushland, the design positively addresses this interface and uses a number of the following design solutions:                                                                                                                                                                          | •   |    |                                                                                                                           |
| <ul style="list-style-type: none"> <li>street access, pedestrian paths and building entries which are clearly defined</li> <li>paths, low fences and planting that clearly delineate between communal/private open space and the adjoining public open space</li> <li>minimal use of blank walls, fences and ground level parking</li> </ul> |     |    |                                                                                                                           |
| On sloping sites protrusion of car parking above ground level should be minimised by using split levels to step underground car parking                                                                                                                                                                                                      | •   |    | Carpark is underground on Basement levels 1-5.                                                                            |

| 3D: Communal and Public Open Space                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |     |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Objective 3D-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |     |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| An adequate area of communal open space is provided to enhance residential amenity and to provide opportunities for landscaping                                                                                                                                                                                                                                                                                                                                                                                 |     |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Design Criteria                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Yes | No | Notes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Communal open space has a minimum area equal to 25% of the site (see figure 3D.3)                                                                                                                                                                                                                                                                                                                                                                                                                               | ●   |    | A generous new public domain space with extensive gardens is proposed along Cambridge Lane and Help Street. This 695m <sup>2</sup> space will contribute to the amenity of both the local and residential community. This is supplemented by a dedicated communal area on Level 2 with 431m <sup>2</sup> of open space and 186m <sup>2</sup> of indoor space. Whilst the communal open space provided is 19% of the site, it is well located and provides a high level of amenity being north facing with a variety of spaces to cater to different needs. Including the total indoor and outdoor communal space, this equates to 27% of the site area. The communal spaces in combination with the public space provided at ground level is 49.2% of the total site area. |
| Developments achieve a minimum of 50% direct sunlight to the principal usable part of the communal open space for a minimum of 2 hours between 9 am and 3 pm on 21 June (mid winter)                                                                                                                                                                                                                                                                                                                            | ●   |    | Based on existing conditions the communal open space achieves greater than 50% direct sunlight.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Design Guidance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Yes | No | Notes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Communal open space should be consolidated into a well designed, easily identified and usable area                                                                                                                                                                                                                                                                                                                                                                                                              | ●   |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Communal open space should have a minimum dimension of 3m, and larger developments should consider greater dimensions                                                                                                                                                                                                                                                                                                                                                                                           | ●   |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Communal open space should be co-located with deep soil areas                                                                                                                                                                                                                                                                                                                                                                                                                                                   | ●   |    | Deep soil areas are consolidated in the public domain. Extensive raised garden beds are located in the residential communal open space on the level 2 roof.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Direct, equitable access should be provided to communal open space areas from common circulation areas, entries and lobbies                                                                                                                                                                                                                                                                                                                                                                                     | ●   |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Where communal open space cannot be provided at ground level, it should be provided on a podium or roof                                                                                                                                                                                                                                                                                                                                                                                                         | ●   |    | Located on the Level 2 podium.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Where developments are unable to achieve the design criteria, such as on small lots, sites within business zones, or in a dense urban area, they should: <ul style="list-style-type: none"> <li>provide communal spaces elsewhere such as a landscaped roof top terrace or a common room</li> <li>provide larger balconies or increased private open space for apartments</li> <li>demonstrate good proximity to public open space and facilities and/ or provide contributions to public open space</li> </ul> | ●   |    | This site is located within a dense business zone. The proposed promenade on Cambridge Lane will provide a new public open space. A landscaped rooftop terrace is also provided on Level 2 adjacent the residential common lounge area. Each apartment layout incorporates a large balcony adjacent the primary living space.                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Objective 3D-2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |     |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Communal open space is designed to allow for a range of activities, respond to site conditions and be attractive and inviting                                                                                                                                                                                                                                                                                                                                                                                   |     |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Design Guidance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Yes | No | Notes                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Facilities are provided within communal open spaces and common spaces for a range of age groups (see also 4F Common circulation and spaces), incorporating some of the following elements: <ul style="list-style-type: none"> <li>seating for individuals or groups</li> <li>barbecue areas</li> <li>play equipment or play areas</li> <li>swimming pools, gyms, tennis courts or common rooms</li> </ul>                                                                                                       | ●   |    | Refer to landscape drawings and report prepared by Studio Georgouras.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| The location of facilities responds to micro climate and site conditions with access to sun in winter, shade in summer and shelter from strong winds and down drafts                                                                                                                                                                                                                                                                                                                                            | ●   |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Visual impacts of services should be minimised, including location of ventilation duct outlets from basement car parks, electrical substations and detention tanks                                                                                                                                                                                                                                                                                                                                              | ●   |    | All services are integrated with the building and facade or located in the Basement.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |



| 3D: Communal and Public Open Space                                                                                                                                                                                                                                                               |     |    |       |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----|-------|
| Objective 3D-3                                                                                                                                                                                                                                                                                   |     |    |       |
| Communal open space is designed to maximise safety                                                                                                                                                                                                                                               |     |    |       |
| Design Guidance                                                                                                                                                                                                                                                                                  | Yes | No | Notes |
| Communal open space and the public domain should be readily visible from habitable rooms and private open space areas while maintaining visual privacy. Design solutions may include: <ul style="list-style-type: none"><li>• bay windows</li><li>• corner windows</li><li>• balconies</li></ul> | •   |    |       |
| Communal open space should be well lit                                                                                                                                                                                                                                                           | •   |    |       |
| Where communal open space/facilities are provided for children and young people they are safe and contained                                                                                                                                                                                      | •   |    |       |
| Objective 3D-4                                                                                                                                                                                                                                                                                   |     |    |       |
| Public open space, where provided, is responsive to the existing pattern and uses of the neighbourhood                                                                                                                                                                                           |     |    |       |
| Design Guidance                                                                                                                                                                                                                                                                                  | Yes | No | Notes |
| The public open space should be well connected with public streets along at least one edge                                                                                                                                                                                                       | •   |    |       |
| The public open space should be connected with nearby parks and other landscape elements                                                                                                                                                                                                         | •   |    |       |
| Public open space should be linked through view lines, pedestrian desire paths, termination points and the wider street grid                                                                                                                                                                     | •   |    |       |
| Solar access should be provided year round along with protection from strong winds                                                                                                                                                                                                               | •   |    |       |
| Opportunities for a range of recreational activities should be provided for people of all ages                                                                                                                                                                                                   | •   |    |       |
| A positive address and active frontages should be provided adjacent to public open space                                                                                                                                                                                                         | •   |    |       |
| Boundaries should be clearly defined between public open space and private areas                                                                                                                                                                                                                 | •   |    |       |

| 3E: Deep Soil Zones                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                    |                     |                                                                                                                                                                                                                                                     |                             |   |    |                                        |    |                                 |    |  |  |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|---------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|---|----|----------------------------------------|----|---------------------------------|----|--|--|--|
| Objective 3E-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                    |                     |                                                                                                                                                                                                                                                     |                             |   |    |                                        |    |                                 |    |  |  |  |
| Deep soil zones provide areas on the site that allow for and support healthy plant and tree growth. They improve residential amenity and promote management of water and air quality                                                                                                                                                                                                                                                                                                                                                                                                              |                    |                     |                                                                                                                                                                                                                                                     |                             |   |    |                                        |    |                                 |    |  |  |  |
| Design Criteria                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Yes                | No                  | Notes                                                                                                                                                                                                                                               |                             |   |    |                                        |    |                                 |    |  |  |  |
| Deep soil zones are to meet the following minimum requirements:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | ●                  |                     | Refer to landscape drawings and report prepared by Studio Georgouras.                                                                                                                                                                               |                             |   |    |                                        |    |                                 |    |  |  |  |
| <table><tr><th>Site Area</th><th>Minimum Dimensions</th><th>Deep Soil % of Site</th></tr><tr><td>Less than 660m<sup>2</sup></td><td>-</td><td rowspan="3">7%</td></tr><tr><td>660m<sup>2</sup> - 1500m<sup>2</sup></td><td>3m</td></tr><tr><td>greater than 1500m<sup>2</sup></td><td>6m</td></tr></table>                                                                                                                                                                                                                                                                                        | Site Area          | Minimum Dimensions  | Deep Soil % of Site                                                                                                                                                                                                                                 | Less than 660m <sup>2</sup> | - | 7% | 660m <sup>2</sup> - 1500m <sup>2</sup> | 3m | greater than 1500m <sup>2</sup> | 6m |  |  |  |
| Site Area                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Minimum Dimensions | Deep Soil % of Site |                                                                                                                                                                                                                                                     |                             |   |    |                                        |    |                                 |    |  |  |  |
| Less than 660m <sup>2</sup>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | -                  | 7%                  |                                                                                                                                                                                                                                                     |                             |   |    |                                        |    |                                 |    |  |  |  |
| 660m <sup>2</sup> - 1500m <sup>2</sup>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | 3m                 |                     |                                                                                                                                                                                                                                                     |                             |   |    |                                        |    |                                 |    |  |  |  |
| greater than 1500m <sup>2</sup>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 6m                 |                     |                                                                                                                                                                                                                                                     |                             |   |    |                                        |    |                                 |    |  |  |  |
| Design Guidance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Yes                | No                  | Notes                                                                                                                                                                                                                                               |                             |   |    |                                        |    |                                 |    |  |  |  |
| On some sites it may be possible to provide larger deep soil zones, depending on the site area and context: <ul style="list-style-type: none"><li>10% of the site as deep soil on sites with an area of 650m<sup>2</sup> - 1,500m<sup>2</sup></li><li>15% of the site as deep soil on sites greater than 1,500m<sup>2</sup></li></ul>                                                                                                                                                                                                                                                             | NA                 |                     | Site is located in Chatswood CBD.                                                                                                                                                                                                                   |                             |   |    |                                        |    |                                 |    |  |  |  |
| Deep soil zones should be located to retain existing significant trees and to allow for the development of healthy root systems, providing anchorage and stability for mature trees. Design solutions may include: <ul style="list-style-type: none"><li>basement and sub basement car park design that is consolidated beneath building footprints</li><li>use of increased front and side setbacks</li><li>adequate clearance around trees to ensure long term health</li><li>co-location with other deep soil areas on adjacent sites to create larger contiguous areas of deep soil</li></ul> | ●                  |                     | The proposal includes removal and replanting of higher quality native species in accordance with the Willoughby Council Street Tree strategy. Refer landscape drawings and report prepared by Studio Georgouras, and arborist report by Earthscape. |                             |   |    |                                        |    |                                 |    |  |  |  |
| Achieving the design criteria may not be possible on some sites including where: <ul style="list-style-type: none"><li>the location and building typology have limited or no space for deep soil at ground level (e.g. central business district, constrained sites, high density areas, or in centres)</li><li>there is 100% site coverage or non-residential uses at ground floor level</li><li>Where a proposal does not achieve deep soil requirements, acceptable stormwater management should be achieved and alternative forms of planting provided such as on structure</li></ul>         | NA                 |                     | Design criteria is achieved.                                                                                                                                                                                                                        |                             |   |    |                                        |    |                                 |    |  |  |  |



| 3F: Visual Privacy                                                                                                                                                                                                                                                                                                                                                                                                                       |                               |                               |                                                                                                                                                                                                                                                                                                                                                                                          |                     |                       |    |    |                         |    |      |                      |     |    |  |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|-------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|-----------------------|----|----|-------------------------|----|------|----------------------|-----|----|--|--|
| Objective 3F-1                                                                                                                                                                                                                                                                                                                                                                                                                           |                               |                               |                                                                                                                                                                                                                                                                                                                                                                                          |                     |                       |    |    |                         |    |      |                      |     |    |  |  |
| Adequate building separation distances are shared equitably between neighbouring sites, to achieve reasonable levels of external and internal visual privacy                                                                                                                                                                                                                                                                             |                               |                               |                                                                                                                                                                                                                                                                                                                                                                                          |                     |                       |    |    |                         |    |      |                      |     |    |  |  |
| Design Criteria                                                                                                                                                                                                                                                                                                                                                                                                                          | Yes                           | No                            | Notes                                                                                                                                                                                                                                                                                                                                                                                    |                     |                       |    |    |                         |    |      |                      |     |    |  |  |
| Separation between windows and balconies is provided to ensure visual privacy is achieved. Minimum required separation distances from buildings to the side and rear boundaries are as follows:                                                                                                                                                                                                                                          |                               | <div></div>                   | The north, east and south facades comply. On the west, our proposal is set back 12m from the Centre of Cambridge lane. The opposite tower is built to closer to the boundary than what is allowable under the ADG, resulting in a building separation of approx. 16m. This non compliance is managed by minimising habitable rooms on this facade and using privacy and solar screening. |                     |                       |    |    |                         |    |      |                      |     |    |  |  |
| <table><tr><td>Building Height</td><td>Habitable Rooms and Balconies</td><td>Non-Habitable Rooms</td></tr><tr><td>Up to 12m (4 storeys)</td><td>6m</td><td>3m</td></tr><tr><td>Up to 25m (5-8 storeys)</td><td>9m</td><td>4.5m</td></tr><tr><td>Over 25 (9+ storeys)</td><td>12m</td><td>6m</td></tr></table>                                                                                                                            | Building Height               | Habitable Rooms and Balconies |                                                                                                                                                                                                                                                                                                                                                                                          | Non-Habitable Rooms | Up to 12m (4 storeys) | 6m | 3m | Up to 25m (5-8 storeys) | 9m | 4.5m | Over 25 (9+ storeys) | 12m | 6m |  |  |
| Building Height                                                                                                                                                                                                                                                                                                                                                                                                                          | Habitable Rooms and Balconies | Non-Habitable Rooms           |                                                                                                                                                                                                                                                                                                                                                                                          |                     |                       |    |    |                         |    |      |                      |     |    |  |  |
| Up to 12m (4 storeys)                                                                                                                                                                                                                                                                                                                                                                                                                    | 6m                            | 3m                            |                                                                                                                                                                                                                                                                                                                                                                                          |                     |                       |    |    |                         |    |      |                      |     |    |  |  |
| Up to 25m (5-8 storeys)                                                                                                                                                                                                                                                                                                                                                                                                                  | 9m                            | 4.5m                          |                                                                                                                                                                                                                                                                                                                                                                                          |                     |                       |    |    |                         |    |      |                      |     |    |  |  |
| Over 25 (9+ storeys)                                                                                                                                                                                                                                                                                                                                                                                                                     | 12m                           | 6m                            |                                                                                                                                                                                                                                                                                                                                                                                          |                     |                       |    |    |                         |    |      |                      |     |    |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                          |                               |                               |                                                                                                                                                                                                                                                                                                                                                                                          |                     |                       |    |    |                         |    |      |                      |     |    |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                          |                               |                               |                                                                                                                                                                                                                                                                                                                                                                                          |                     |                       |    |    |                         |    |      |                      |     |    |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                          |                               |                               |                                                                                                                                                                                                                                                                                                                                                                                          |                     |                       |    |    |                         |    |      |                      |     |    |  |  |
| Where applying separation to buildings on adjoining sites, apply half the minimum separation distance measured to the boundary.                                                                                                                                                                                                                                                                                                          |                               |                               |                                                                                                                                                                                                                                                                                                                                                                                          |                     |                       |    |    |                         |    |      |                      |     |    |  |  |
| Design Guidance                                                                                                                                                                                                                                                                                                                                                                                                                          | Yes                           | No                            | Notes                                                                                                                                                                                                                                                                                                                                                                                    |                     |                       |    |    |                         |    |      |                      |     |    |  |  |
| Generally one step in the built form as the height increases due to building separations is desirable. Additional steps should be careful not to cause a 'ziggurat' appearance                                                                                                                                                                                                                                                           | <div></div>                   |                               | The building maintains a consistent corner to the south west. The form splays and steps twice to transition from podium to low rise, then tower. The architectural strategy is does not cause a 'ziggurat' appearance and is supported by Willoughby Council.                                                                                                                            |                     |                       |    |    |                         |    |      |                      |     |    |  |  |
| For residential buildings next to commercial buildings, separation distances should be measured as follows: <ul style="list-style-type: none"><li>for retail, office spaces and commercial balconies use the habitable room distances</li><li>for service and plant areas use the non-habitable room distances</li></ul>                                                                                                                 | NA                            |                               |                                                                                                                                                                                                                                                                                                                                                                                          |                     |                       |    |    |                         |    |      |                      |     |    |  |  |
| New development should be located and oriented to maximise visual privacy between buildings on site and for neighbouring buildings. Design solutions include: <ul style="list-style-type: none"><li>site layout and building orientation to minimise privacy impacts (see also section 3B Orientation)</li><li>on sloping sites, apartments on different levels have appropriate visual separation distances (see figure 3F.4)</li></ul> | <div></div>                   |                               | Building is oriented to maximise views to the north and east which are unobstructed. Building core is located to the west to minimise the amount of habitable spaces facing adjacent apartment buildings.                                                                                                                                                                                |                     |                       |    |    |                         |    |      |                      |     |    |  |  |
| Apartment buildings should have an increased separation distance of 3m (in addition to the requirements set out in design criteria 1) when adjacent to a different zone that permits lower density residential development to provide for a transition in scale and increased landscaping (figure 3F.5)                                                                                                                                  | NA                            |                               | Zoning and density is in transition. Based on the Chatswood CBD Strategy all neighbouring lots will also be B4 Mixed Use.                                                                                                                                                                                                                                                                |                     |                       |    |    |                         |    |      |                      |     |    |  |  |
| Direct lines of sight should be avoided for windows and balconies across corners                                                                                                                                                                                                                                                                                                                                                         | <div></div>                   |                               | Facade has been designed with privacy screens and blades to prevent overlooking between apartment building. The building form and apartment layouts have been designed to minimise cross-viewing.                                                                                                                                                                                        |                     |                       |    |    |                         |    |      |                      |     |    |  |  |
| No separation is required between blank walls                                                                                                                                                                                                                                                                                                                                                                                            | <div></div>                   |                               |                                                                                                                                                                                                                                                                                                                                                                                          |                     |                       |    |    |                         |    |      |                      |     |    |  |  |

| 3F: Visual Privacy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |     |    |                                                                                                                       |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----|-----------------------------------------------------------------------------------------------------------------------|
| Objective 3F-2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |     |    |                                                                                                                       |
| Site and building design elements increase privacy without compromising access to light and air and balance outlook and views from habitable rooms and private open space                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |     |    |                                                                                                                       |
| Design Guidance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Yes | No | Notes                                                                                                                 |
| Communal open space, common areas and access paths should be separated from private open space and windows to apartments, particularly habitable room windows. Design solutions may include: <ul style="list-style-type: none"><li>• setbacks</li><li>• solid or partially solid balustrades to balconies at lower levels</li><li>• fencing and/or trees and vegetation to separate spaces</li><li>• screening devices</li><li>• bay windows or pop out windows to provide privacy in one direction and outlook in another</li><li>• raising apartments/private open space above the public domain or communal open space</li><li>• planter boxes incorporated into walls and balustrades to increase visual separation</li><li>• pergolas or shading devices to limit overlooking of lower apartments or private open space</li><li>• on constrained sites where it can be demonstrated that building layout opportunities are limited, fixed louvres or screen panels to windows and /or balconies</li></ul> | •   |    | Communal open space and private open space on Level 2 is separated by a screen.                                       |
| Bedrooms, living spaces and other habitable rooms should be separated from gallery access and other open circulation space by the apartment's service areas                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | •   |    |                                                                                                                       |
| Balconies and private terraces should be located in front of living rooms to increase internal privacy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | •   |    |                                                                                                                       |
| Windows should be offset from the windows of adjacent buildings                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | •   |    | Windows have been offset where possible. Privacy screens and facade blades have been designed to prevent overlooking. |
| Recessed balconies and/or vertical fins should be used between adjacent balconies                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | •   |    |                                                                                                                       |



| 3G: Pedestrian Access and Entries                                                                                                                                                              |     |    |       |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----|-------|
| Objective 3G-1                                                                                                                                                                                 |     |    |       |
| Building entries and pedestrian access connects to and addresses the public domain                                                                                                             |     |    |       |
| Design Guidance                                                                                                                                                                                | Yes | No | Notes |
| Multiple entries (including communal building entries and individual ground floor entries) should be provided to activate the street edge                                                      | •   |    |       |
| Entry locations relate to the street and subdivision pattern and the existing pedestrian network                                                                                               | •   |    |       |
| Building entries should be clearly identifiable and communal entries should be clearly distinguishable from private entries                                                                    | •   |    |       |
| Where street frontage is limited and multiple buildings are located on the site, a primary street address should be provided with clear sight lines and pathways to secondary building entries | •   |    |       |
| Objective 3G-2                                                                                                                                                                                 |     |    |       |
| Access, entries and pathways are accessible and easy to identify                                                                                                                               |     |    |       |
| Design Guidance                                                                                                                                                                                | Yes | No | Notes |
| Building access areas including lift lobbies, stairwells and hallways should be clearly visible from the public domain and communal spaces                                                     | •   |    |       |
| The design of ground floors and underground car parks minimise level changes along pathways and entries                                                                                        | •   |    |       |
| Steps and ramps should be integrated into the overall building and landscape design                                                                                                            | •   |    |       |
| For large developments ‘way finding’ maps should be provided to assist visitors and residents (see figure 4T.3)                                                                                | •   |    |       |
| For large developments electronic access and audio/video intercom should be provided to manage access                                                                                          | •   |    |       |
| Objective 3G-3                                                                                                                                                                                 |     |    |       |
| Large sites provide pedestrian links for access to streets and connection to destinations                                                                                                      |     |    |       |
| Design Guidance                                                                                                                                                                                | Yes | No | Notes |
| Pedestrian links through sites facilitate direct connections to open space, main streets, centres and public transport                                                                         | •   |    |       |
| Pedestrian links should be direct, have clear sight lines, be overlooked by habitable rooms or private open spaces of dwellings, be well lit and contain active uses, where appropriate        | •   |    |       |

| 3H: Vehicle Access                                                                                                                                                                                                                                                                                                                                                                                                                                         |     |    |                                                                                                                                                                                                                                                                                                    |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Objective 3H-1                                                                                                                                                                                                                                                                                                                                                                                                                                             |     |    |                                                                                                                                                                                                                                                                                                    |
| Vehicle access points are designed and located to achieve safety, minimise conflicts between pedestrians and vehicles and create high quality streetscapes                                                                                                                                                                                                                                                                                                 |     |    |                                                                                                                                                                                                                                                                                                    |
| Design Guidance                                                                                                                                                                                                                                                                                                                                                                                                                                            | Yes | No | Notes                                                                                                                                                                                                                                                                                              |
| Car park access should be integrated with the building's overall facade. Design solutions may include: <ul style="list-style-type: none"><li>the materials and colour palette to minimise visibility from the street</li><li>security doors or gates at entries that minimise voids in the facade</li><li>where doors are not provided, the visible interior reflects the facade design and the building services, pipes and ducts are concealed</li></ul> | ●   |    |                                                                                                                                                                                                                                                                                                    |
| Car park entries should be located behind the building line                                                                                                                                                                                                                                                                                                                                                                                                | ●   |    |                                                                                                                                                                                                                                                                                                    |
| Vehicle entries should be located at the lowest point of the site minimising ramp lengths, excavation and impacts on the building form and layout                                                                                                                                                                                                                                                                                                          | ●   |    | Vehicle entry is located at the lowest point of the site along Help Street. Cambridge Walk is not suitable as it is the main public space requiring maximum active frontages.                                                                                                                      |
| Car park entry and access should be located on secondary streets or lanes where available                                                                                                                                                                                                                                                                                                                                                                  | ●   |    | Secondary streets and lanes form part of the public domain, and therefore it is not desirable to locate the car park entry on Cambridge Lane or McIntosh St. Car park entry is from Help Street, this is the most viable option considering traffic flow, width of street and pedestrian priority. |
| Vehicle standing areas that increase driveway width and encroach into setbacks should be avoided                                                                                                                                                                                                                                                                                                                                                           | ●   |    | Refer to traffic report prepared by PDC Consultants.                                                                                                                                                                                                                                               |
| Access point locations should avoid headlight glare to habitable rooms                                                                                                                                                                                                                                                                                                                                                                                     | ●   |    |                                                                                                                                                                                                                                                                                                    |
| Adequate separation distances should be provided between vehicle entries and street intersections                                                                                                                                                                                                                                                                                                                                                          | ●   |    |                                                                                                                                                                                                                                                                                                    |
| The width and number of vehicle access points should be limited to the minimum                                                                                                                                                                                                                                                                                                                                                                             | ●   |    | Single vehicle access point.                                                                                                                                                                                                                                                                       |
| Visual impact of long driveways should be minimised through changing alignments and screen planting                                                                                                                                                                                                                                                                                                                                                        | ●   |    |                                                                                                                                                                                                                                                                                                    |
| The need for large vehicles to enter or turn around within the site should be avoided                                                                                                                                                                                                                                                                                                                                                                      | ●   |    | Refer to traffic report prepared by PDC Consultants.                                                                                                                                                                                                                                               |
| Garbage collection, loading and servicing areas are screened                                                                                                                                                                                                                                                                                                                                                                                               | ●   |    | Located internally within the building.                                                                                                                                                                                                                                                            |
| Clear sight lines should be provided at pedestrian and vehicle crossings                                                                                                                                                                                                                                                                                                                                                                                   | ●   |    |                                                                                                                                                                                                                                                                                                    |
| Traffic calming devices such as changes in paving material or textures should be used where appropriate                                                                                                                                                                                                                                                                                                                                                    | ●   |    |                                                                                                                                                                                                                                                                                                    |
| Pedestrian and vehicle access should be separated and distinguishable. Design solutions may include: <ul style="list-style-type: none"><li>changes in surface materials</li><li>level changes</li><li>the use of landscaping for separation</li></ul>                                                                                                                                                                                                      | ●   |    |                                                                                                                                                                                                                                                                                                    |



| 3J: Bicycle and Car Parking                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |     |    |                                                                                                                                    |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----|------------------------------------------------------------------------------------------------------------------------------------|
| Objective 3J-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |     |    |                                                                                                                                    |
| Car parking is provided based on proximity to public transport in metropolitan Sydney and centres in regional areas                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |     |    |                                                                                                                                    |
| Design Criteria                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Yes | No | Notes                                                                                                                              |
| For development in the following locations: <ul style="list-style-type: none"><li>on sites that are within 800 metres of a railway station or light rail stop in the Sydney Metropolitan Area; or</li><li>on land zoned, and sites within 400 metres of land zoned, B3 Commercial Core, B4 Mixed Use or equivalent in a nominated regional centre</li></ul> The minimum car parking requirement for residents and visitors is set out in the Guide to Traffic Generating Developments, or the car parking requirement prescribed by the relevant council, whichever is less, the car parking needs for a development must be provided off street | •   |    | Car parking provided as per the Housing SEPP 2021 In-fill Affordbale housing requirements. Refer to traffic report prepared by PDC |
| Design Guidance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Yes | No |                                                                                                                                    |
| Where a car share scheme operates locally, provide car share parking spaces within the development. Car share spaces, when provided, should be on site                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | NA  |    |                                                                                                                                    |
| Where less car parking is provided in a development, council should not provide on street resident parking permits                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | NA  |    |                                                                                                                                    |
| Objective 3J-2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |     |    |                                                                                                                                    |
| Parking and facilities are provided for other modes of transport                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |     |    |                                                                                                                                    |
| Design Guidance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Yes | No | Notes                                                                                                                              |
| Conveniently located and sufficient numbers of parking spaces should be provided for motorbikes and scooters                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | •   |    |                                                                                                                                    |
| Secure undercover bicycle parking should be provided that is easily accessible from both the public domain and common areas                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | •   |    |                                                                                                                                    |
| Conveniently located charging stations are provided for electric vehicles, where desirable                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | •   |    |                                                                                                                                    |
| Objective 3J-3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |     |    |                                                                                                                                    |
| Car park design and access is safe and secure                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |     |    |                                                                                                                                    |
| Design Guidance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Yes | No | Notes                                                                                                                              |
| Supporting facilities within car parks, including garbage, plant and switch rooms, storage areas and car wash bays can be accessed without crossing car parking spaces                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | •   |    |                                                                                                                                    |
| Direct, clearly visible and well lit access should be provided into common circulation areas                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | •   |    |                                                                                                                                    |
| A clearly defined and visible lobby or waiting area should be provided to lifts and stairs                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | •   |    |                                                                                                                                    |
| For larger car parks, safe pedestrian access should be clearly defined and circulation areas have good lighting, colour, line marking and/or bollards                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | •   |    |                                                                                                                                    |

| 3J: Bicycle and Car Parking                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |     |    |                                                                                                                                                                     |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Objective 3J-4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |     |    |                                                                                                                                                                     |
| Visual and environmental impacts of underground car parking are minimised                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |     |    |                                                                                                                                                                     |
| Design Guidance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Yes | No | Notes                                                                                                                                                               |
| Excavation should be minimised through efficient car park layouts and ramp design                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | ●   |    |                                                                                                                                                                     |
| Car parking layout should be well organised, using a logical, efficient structural grid and double loaded aisles                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | ●   |    |                                                                                                                                                                     |
| Protrusion of car parks should not exceed 1m above ground level. Design solutions may include stepping car park levels or using split levels on sloping sites                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | ●   |    |                                                                                                                                                                     |
| Natural ventilation should be provided to basement and sub basement car parking areas                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | ●   |    |                                                                                                                                                                     |
| Ventilation grills or screening devices for car parking openings should be integrated into the facade and landscape design                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | ●   |    |                                                                                                                                                                     |
| Objective 3J-5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |     |    |                                                                                                                                                                     |
| Visual and environmental impacts of on-grade car parking are minimised                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |     |    |                                                                                                                                                                     |
| Design Guidance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Yes | No | Notes                                                                                                                                                               |
| On-grade car parking should be avoided                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | ●   |    |                                                                                                                                                                     |
| Where on-grade car parking is unavoidable, the following design solutions are used:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | NA  |    |                                                                                                                                                                     |
| <ul style="list-style-type: none"><li>• parking is located on the side or rear of the lot away from the primary street frontage</li><li>• cars are screened from view of streets, buildings, communal and private open space areas</li><li>• safe and direct access to building entry points is provided</li><li>• parking is incorporated into the landscape design of the site, by extending planting and materials into the car park space</li><li>• stormwater run-off is managed appropriately from car parking surfaces</li><li>• bio-swales, rain gardens or on site detention tanks are provided, where appropriate</li><li>• light coloured paving materials or permeable paving systems are used and shade trees are planted between every 4-5 parking spaces to reduce increased surface temperatures from large areas of paving</li></ul> |     |    |                                                                                                                                                                     |
| Objective 3J-6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |     |    |                                                                                                                                                                     |
| Visual and environmental impacts of above ground enclosed car parking are minimised                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |     |    |                                                                                                                                                                     |
| Design Guidance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Yes | No | Notes                                                                                                                                                               |
| Exposed parking should not be located along primary street frontages                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | NA  |    |                                                                                                                                                                     |
| Screening, landscaping and other design elements including public art should be used to integrate the above ground car parking with the facade. Design solutions may include:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | ●   |    | The carpark is on Basement levels 1-5. The vehicle entry roller door is recessed behind the facade line. The loading zone on Lower Ground is wrapped by other uses. |
| <ul style="list-style-type: none"><li>• car parking that is concealed behind the facade, with windows integrated into the overall facade design (approach should be limited to developments where a larger floor plate podium is suitable at lower levels)</li><li>• car parking that is ‘wrapped’ with other uses, such as retail, commercial or two storey Small Office/Home Office (SOHO) units along the street frontage (see figure 3J.9)</li></ul>                                                                                                                                                                                                                                                                                                                                                                                              |     |    |                                                                                                                                                                     |
| Positive street address and active frontages should be provided at ground level                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | ●   |    |                                                                                                                                                                     |



| 4A: Solar and Daylight Access                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |     |    |                                                                                                                                                                                                      |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Objective 4A-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |     |    |                                                                                                                                                                                                      |
| To optimise the number of apartments receiving sunlight to habitable rooms, primary windows and private open space                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |     |    |                                                                                                                                                                                                      |
| Design Criteria                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Yes | No | Notes                                                                                                                                                                                                |
| Living rooms and private open spaces of at least 70% of apartments in a building receive a minimum of 2 hours direct sunlight between 9 am and 3 pm at mid winter in the Sydney Metropolitan Area and in the Newcastle and Wollongong local government areas                                                                                                                                                                                                                                                                                                                              | ●   |    |                                                                                                                                                                                                      |
| In all other areas, living rooms and private open spaces of at least 70% of apartments in a building receive a minimum of 3 hours direct sunlight between 9 am and 3 pm at mid winter                                                                                                                                                                                                                                                                                                                                                                                                     | NA  |    |                                                                                                                                                                                                      |
| A maximum of 15% of apartments in a building receive no direct sunlight between 9 am and 3 pm at mid winter                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | ●   |    | 11.9% of apartments receive no solar in mid winter.                                                                                                                                                  |
| Design Guidance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Yes | No | Notes                                                                                                                                                                                                |
| The design maximises north aspect and the number of single aspect south facing apartments is minimised                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | ●   |    |                                                                                                                                                                                                      |
| Single aspect, single storey apartments should have a northerly or easterly aspect                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |     | ○  | 4 single aspect apartments face south due to the constrained floor plate. Remaining single aspect apartments face east as recommed.                                                                  |
| Living areas are best located to the north and service areas to the south and west of apartments                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | ●   |    | Building core is located to the west.                                                                                                                                                                |
| To optimise the direct sunlight to habitable rooms and balconies a number of the following design features are used: <ul style="list-style-type: none"><li>• dual aspect apartments</li><li>• shallow apartment layouts</li><li>• two storey and mezzanine level apartments</li><li>• bay windows</li></ul>                                                                                                                                                                                                                                                                               | ●   |    | 85% of apartments are dual aspect. Typically all apartments have shallower layouts due to the small floor plate per level.                                                                           |
| To maximise the benefit to residents of direct sunlight within living rooms and private open spaces, a minimum of 1m <sup>2</sup> of direct sunlight, measured at 1m above floor level, is achieved for at least 15 minutes                                                                                                                                                                                                                                                                                                                                                               | ●   |    | Where apartments receive direct sunlight between 9am and 3pm at mid winter for 2 hours, a minimum of 1m <sup>2</sup> of direct sunlight at 1m above floor level is achieved for at least 15 minutes. |
| Achieving the design criteria may not be possible on some sites. This includes: <ul style="list-style-type: none"><li>• where greater residential amenity can be achieved along a busy road or rail line by orientating the living rooms away from the noise source</li><li>• on south facing sloping sites</li><li>• where significant views are oriented away from the desired aspect for direct sunlight</li><li>• Design drawings need to demonstrate how site constraints and orientation preclude meeting the design criteria and how the development meets the objective</li></ul> | ●   |    | Apartment layouts have been designed to maximise solar access where possible, taking into consideration views, privacy, and acoustic constraints. Many apartments are dual aspect.                   |

| 4A: Solar and Daylight Access                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |     |    |                                                                                                                                                                                                                                                           |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Objective 4A-2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |     |    |                                                                                                                                                                                                                                                           |
| Daylight access is maximised where sunlight is limited                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |     |    |                                                                                                                                                                                                                                                           |
| Design Guidance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Yes | No | Notes                                                                                                                                                                                                                                                     |
| Courtyards, skylights and high level windows (with sills of 1,500mm or greater) are used only as a secondary light source in habitable rooms                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | NA  |    | All apartments have generous floor to ceiling glazing.                                                                                                                                                                                                    |
| Where courtyards are used : <ul style="list-style-type: none"><li>• use is restricted to kitchens, bathrooms and service areas</li><li>• building services are concealed with appropriate detailing and materials to visible walls</li><li>• courtyards are fully open to the sky</li><li>• access is provided to the light well from a communal area for cleaning and maintenance</li><li>• acoustic privacy, fire safety and minimum privacy separation distances (see section 3F Visual privacy) are achieved</li></ul>                                                                                                                                                                                                  | NA  |    |                                                                                                                                                                                                                                                           |
| Opportunities for reflected light into apartments are optimised through: <ul style="list-style-type: none"><li>• reflective exterior surfaces on buildings opposite south facing windows</li><li>• positioning windows to face other buildings or surfaces (on neighbouring sites or within the site) that will reflect light</li><li>• integrating light shelves into the design</li><li>• light coloured internal finishes</li></ul>                                                                                                                                                                                                                                                                                      | NA  |    |                                                                                                                                                                                                                                                           |
| Objective 4A-3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |     |    |                                                                                                                                                                                                                                                           |
| Design incorporates shading and glare control, particularly for warmer months                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |     |    |                                                                                                                                                                                                                                                           |
| Design Guidance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Yes | No | Notes                                                                                                                                                                                                                                                     |
| A number of the following design features are used: <ul style="list-style-type: none"><li>• balconies or sun shading that extend far enough to shade summer sun, but allow winter sun to penetrate living areas</li><li>• shading devices such as eaves, awnings, balconies, pergolas, external louvres and planting</li><li>• horizontal shading to north facing windows</li><li>• vertical shading to east and particularly west facing windows</li><li>• operable shading to allow adjustment and choice</li><li>• high performance glass that minimises external glare off windows, with consideration given to reduced tint glass or glass with a reflectance level below 20% (reflective films are avoided)</li></ul> | •   |    | The facade has been designed with a variety of shading devices including screens, deep angled blades and balconies. Window-to-wall ratio has been considered and the western elevation is particularly shaded to minimise the effects of the western sun. |



| 4B: Natural Ventilation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |     |    |       |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----|-------|
| Objective 4B-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |     |    |       |
| All habitable rooms are naturally ventilated                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |     |    |       |
| Design Guidance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Yes | No | Notes |
| The building's orientation maximises capture and use of prevailing breezes for natural ventilation in habitable rooms                                                                                                                                                                                                                                                                                                                                                                                                                                              | ●   |    |       |
| Depths of habitable rooms support natural ventilation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | ●   |    |       |
| The area of unobstructed window openings should be equal to at least 5% of the floor area served                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | ●   |    |       |
| Light wells are not the primary air source for habitable rooms                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     | NA  |    |       |
| Doors and openable windows maximise natural ventilation opportunities by using the following design solutions: <ul style="list-style-type: none"><li>adjustable windows with large effective openable areas</li><li>a variety of window types that provide safety and flexibility such as awnings and louvres</li><li>windows which the occupants can reconfigure to funnel breezes into the apartment such as vertical louvres, casement windows and externally opening doors</li></ul>                                                                           | ●   |    |       |
| Objective 4B-2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |     |    |       |
| The layout and design of single aspect apartments maximises natural ventilation                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |     |    |       |
| Design Guidance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Yes | No | Notes |
| Apartment depths are limited to maximise ventilation and airflow (see also figure 4D.3)                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | ●   |    |       |
| Natural ventilation to single aspect apartments is achieved with the following design solutions: <ul style="list-style-type: none"><li>primary windows are augmented with plenums and light wells (generally not suitable for cross ventilation)</li><li>stack effect ventilation / solar chimneys or similar to naturally ventilate internal building areas or rooms such as bathrooms and laundries</li><li>courtyards or building indentations have a width to depth ratio of 2:1 or 3:1 to ensure effective air circulation and avoid trapped smells</li></ul> | ●   |    |       |
| Objective 4B-3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |     |    |       |
| The number of apartments with natural cross ventilation is maximised to create a comfortable indoor environment for residents                                                                                                                                                                                                                                                                                                                                                                                                                                      |     |    |       |
| Design Criteria                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Yes | No | Notes |
| At least 60% of apartments are naturally cross ventilated in the first nine storeys of the building. Apartments at ten storeys or greater are deemed to be cross ventilated only if any enclosure of the balconies at these levels allows adequate natural ventilation and cannot be fully enclosed                                                                                                                                                                                                                                                                | ●   |    |       |
| Overall depth of a cross-over or cross-through apartment does not exceed 18m, measured glass line to glass line                                                                                                                                                                                                                                                                                                                                                                                                                                                    | ●   |    |       |
| Design Guidance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Yes | No | Notes |
| The building should include dual aspect apartments, cross through apartments and corner apartments and limit apartment depths                                                                                                                                                                                                                                                                                                                                                                                                                                      | ●   |    |       |
| In cross-through apartments external window and door opening sizes/areas on one side of an apartment (inlet side) are approximately equal to the external window and door opening sizes/areas on the other side of the apartment (outlet side) (see figure 4B.4)                                                                                                                                                                                                                                                                                                   | ●   |    |       |
| Apartments are designed to minimise the number of corners, doors and rooms that might obstruct airflow                                                                                                                                                                                                                                                                                                                                                                                                                                                             | ●   |    |       |
| Apartment depths, combined with appropriate ceiling heights, maximise cross ventilation and airflow                                                                                                                                                                                                                                                                                                                                                                                                                                                                | ●   |    |       |

| 4C: Ceiling Heights                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                                                                                                                    |    |                                                            |                                                              |  |                 |      |                     |      |                         |                                                                                                                    |              |                                                             |                               |                                                                      |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|----|------------------------------------------------------------|--------------------------------------------------------------|--|-----------------|------|---------------------|------|-------------------------|--------------------------------------------------------------------------------------------------------------------|--------------|-------------------------------------------------------------|-------------------------------|----------------------------------------------------------------------|
| Objective 4C-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                    |    |                                                            |                                                              |  |                 |      |                     |      |                         |                                                                                                                    |              |                                                             |                               |                                                                      |
| Ceiling height achieves sufficient natural ventilation and daylight access                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                                                                                                                    |    |                                                            |                                                              |  |                 |      |                     |      |                         |                                                                                                                    |              |                                                             |                               |                                                                      |
| Design Criteria                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Yes                                                                                                                | No | Notes                                                      |                                                              |  |                 |      |                     |      |                         |                                                                                                                    |              |                                                             |                               |                                                                      |
| Measured from finished floor level to finished ceiling level, minimum ceiling heights are:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | ●                                                                                                                  |    |                                                            |                                                              |  |                 |      |                     |      |                         |                                                                                                                    |              |                                                             |                               |                                                                      |
| <table><tr><td colspan="2">Minimum ceiling height for apartment and mixed use buildings</td></tr><tr><td>Habitable Rooms</td><td>2.7m</td></tr><tr><td>Non-habitable Rooms</td><td>2.4m</td></tr><tr><td>For 2 storey apartments</td><td>2.7m for main living area floor<br/>2.4m for second floor, where its area does not exceed 50% of the apartment area</td></tr><tr><td>Attic Spaces</td><td>1.8m at edge of room with a 30 degree minimum ceiling slope</td></tr><tr><td>If located in mixed-use areas</td><td>3.3m for ground and first floor to promote future flexibility of use</td></tr></table>                                                  |                                                                                                                    |    |                                                            | Minimum ceiling height for apartment and mixed use buildings |  | Habitable Rooms | 2.7m | Non-habitable Rooms | 2.4m | For 2 storey apartments | 2.7m for main living area floor<br>2.4m for second floor, where its area does not exceed 50% of the apartment area | Attic Spaces | 1.8m at edge of room with a 30 degree minimum ceiling slope | If located in mixed-use areas | 3.3m for ground and first floor to promote future flexibility of use |
| Minimum ceiling height for apartment and mixed use buildings                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                                                                    |    |                                                            |                                                              |  |                 |      |                     |      |                         |                                                                                                                    |              |                                                             |                               |                                                                      |
| Habitable Rooms                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 2.7m                                                                                                               |    |                                                            |                                                              |  |                 |      |                     |      |                         |                                                                                                                    |              |                                                             |                               |                                                                      |
| Non-habitable Rooms                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 2.4m                                                                                                               |    |                                                            |                                                              |  |                 |      |                     |      |                         |                                                                                                                    |              |                                                             |                               |                                                                      |
| For 2 storey apartments                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | 2.7m for main living area floor<br>2.4m for second floor, where its area does not exceed 50% of the apartment area |    |                                                            |                                                              |  |                 |      |                     |      |                         |                                                                                                                    |              |                                                             |                               |                                                                      |
| Attic Spaces                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 1.8m at edge of room with a 30 degree minimum ceiling slope                                                        |    |                                                            |                                                              |  |                 |      |                     |      |                         |                                                                                                                    |              |                                                             |                               |                                                                      |
| If located in mixed-use areas                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 3.3m for ground and first floor to promote future flexibility of use                                               |    |                                                            |                                                              |  |                 |      |                     |      |                         |                                                                                                                    |              |                                                             |                               |                                                                      |
| Design Guidance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Yes                                                                                                                | No | Notes                                                      |                                                              |  |                 |      |                     |      |                         |                                                                                                                    |              |                                                             |                               |                                                                      |
| Ceiling height can accommodate use of ceiling fans for cooling and heat distribution                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | ●                                                                                                                  |    |                                                            |                                                              |  |                 |      |                     |      |                         |                                                                                                                    |              |                                                             |                               |                                                                      |
| Objective 4C-2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                    |    |                                                            |                                                              |  |                 |      |                     |      |                         |                                                                                                                    |              |                                                             |                               |                                                                      |
| Ceiling height increases the sense of space in apartments and provides for well proportioned rooms                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                    |    |                                                            |                                                              |  |                 |      |                     |      |                         |                                                                                                                    |              |                                                             |                               |                                                                      |
| Design Guidance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Yes                                                                                                                | No | Notes                                                      |                                                              |  |                 |      |                     |      |                         |                                                                                                                    |              |                                                             |                               |                                                                      |
| A number of the following design solutions can be used: <ul style="list-style-type: none"><li>the hierarchy of rooms in an apartment is defined using changes in ceiling heights and alternatives such as raked or curved ceilings, or double height spaces</li><li>well proportioned rooms are provided, for example, smaller rooms feel larger and more spacious with higher ceilings</li><li>ceiling heights are maximised in habitable rooms by ensuring that bulkheads do not intrude. The stacking of service rooms from floor to floor and coordination of bulkhead location above non-habitable areas, such as robes or storage, can assist</li></ul> | ●                                                                                                                  |    |                                                            |                                                              |  |                 |      |                     |      |                         |                                                                                                                    |              |                                                             |                               |                                                                      |
| Objective 4C-3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                    |    |                                                            |                                                              |  |                 |      |                     |      |                         |                                                                                                                    |              |                                                             |                               |                                                                      |
| Ceiling heights contribute to the flexibility of building use over the life of the building                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                                                    |    |                                                            |                                                              |  |                 |      |                     |      |                         |                                                                                                                    |              |                                                             |                               |                                                                      |
| Design Guidance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | Yes                                                                                                                | No | Notes                                                      |                                                              |  |                 |      |                     |      |                         |                                                                                                                    |              |                                                             |                               |                                                                      |
| Ceiling heights of lower level apartments in centres should be greater than the minimum required by the design criteria allowing flexibility and conversion to nonresidential uses (see figure 4C.1)                                                                                                                                                                                                                                                                                                                                                                                                                                                          | NA                                                                                                                 |    | Proposal includes a commercial podium to the lower levels. |                                                              |  |                 |      |                     |      |                         |                                                                                                                    |              |                                                             |                               |                                                                      |



| 4D: Apartment Size and Layout                                                                                                                                                                                                                                                                        |      |    |       |                                                              |  |        |      |           |      |           |      |           |      |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|----|-------|--------------------------------------------------------------|--|--------|------|-----------|------|-----------|------|-----------|------|
| Objective 4D-1                                                                                                                                                                                                                                                                                       |      |    |       |                                                              |  |        |      |           |      |           |      |           |      |
| The layout of rooms within an apartment is functional, well organised and provides a high standard of amenity                                                                                                                                                                                        |      |    |       |                                                              |  |        |      |           |      |           |      |           |      |
| Design Criteria                                                                                                                                                                                                                                                                                      | Yes  | No | Notes |                                                              |  |        |      |           |      |           |      |           |      |
| Apartments are required to have the following minimum internal areas:                                                                                                                                                                                                                                | ●    |    |       |                                                              |  |        |      |           |      |           |      |           |      |
| <table><tr><td colspan="2">Minimum ceiling height for apartment and mixed use buildings</td></tr><tr><td>Studio</td><td>35m²</td></tr><tr><td>1 bedroom</td><td>50m²</td></tr><tr><td>2 bedroom</td><td>70m²</td></tr><tr><td>3 bedroom</td><td>90m²</td></tr></table>                               |      |    |       | Minimum ceiling height for apartment and mixed use buildings |  | Studio | 35m² | 1 bedroom | 50m² | 2 bedroom | 70m² | 3 bedroom | 90m² |
| Minimum ceiling height for apartment and mixed use buildings                                                                                                                                                                                                                                         |      |    |       |                                                              |  |        |      |           |      |           |      |           |      |
| Studio                                                                                                                                                                                                                                                                                               | 35m² |    |       |                                                              |  |        |      |           |      |           |      |           |      |
| 1 bedroom                                                                                                                                                                                                                                                                                            | 50m² |    |       |                                                              |  |        |      |           |      |           |      |           |      |
| 2 bedroom                                                                                                                                                                                                                                                                                            | 70m² |    |       |                                                              |  |        |      |           |      |           |      |           |      |
| 3 bedroom                                                                                                                                                                                                                                                                                            | 90m² |    |       |                                                              |  |        |      |           |      |           |      |           |      |
| The minimum internal areas include only one bathroom. Additional bathrooms increase the minimum internal area by 5m² each                                                                                                                                                                            |      |    |       |                                                              |  |        |      |           |      |           |      |           |      |
| A fourth bedroom and further additional bedrooms increase the minimum internal area by 12m² each                                                                                                                                                                                                     |      |    |       |                                                              |  |        |      |           |      |           |      |           |      |
| Every habitable room must have a window in an external wall with a total minimum glass area of not less than 10% of the floor area of the room. Daylight and air may not be borrowed from other rooms                                                                                                | ●    |    |       |                                                              |  |        |      |           |      |           |      |           |      |
| Design Guidance                                                                                                                                                                                                                                                                                      | Yes  | No | Notes |                                                              |  |        |      |           |      |           |      |           |      |
| Kitchens should not be located as part of the main circulation space in larger apartments (such as hallway or entry space)                                                                                                                                                                           | ●    |    |       |                                                              |  |        |      |           |      |           |      |           |      |
| A window should be visible from any point in a habitable room                                                                                                                                                                                                                                        | ●    |    |       |                                                              |  |        |      |           |      |           |      |           |      |
| Where minimum areas or room dimensions are not met apartments need to demonstrate that they are well designed and demonstrate the usability and functionality of the space with realistically scaled furniture layouts and circulation areas. These circumstances would be assessed on their merits. | N/A  |    |       |                                                              |  |        |      |           |      |           |      |           |      |
| Objective 4D-2                                                                                                                                                                                                                                                                                       |      |    |       |                                                              |  |        |      |           |      |           |      |           |      |
| Environmental performance of the apartment is maximised                                                                                                                                                                                                                                              |      |    |       |                                                              |  |        |      |           |      |           |      |           |      |
| Design Criteria                                                                                                                                                                                                                                                                                      | Yes  | No | Notes |                                                              |  |        |      |           |      |           |      |           |      |
| Habitable room depths are limited to a maximum of 2.5 x the ceiling height                                                                                                                                                                                                                           | ●    |    |       |                                                              |  |        |      |           |      |           |      |           |      |
| In open plan layouts (where the living, dining and kitchen are combined) the maximum habitable room depth is 8m from a window                                                                                                                                                                        | ●    |    |       |                                                              |  |        |      |           |      |           |      |           |      |
| Design Guidance                                                                                                                                                                                                                                                                                      | Yes  | No | Notes |                                                              |  |        |      |           |      |           |      |           |      |
| Greater than minimum ceiling heights can allow for proportional increases in room depth up to the permitted maximum depths                                                                                                                                                                           | N/A  |    |       |                                                              |  |        |      |           |      |           |      |           |      |
| All living areas and bedrooms should be located on the external face of the building                                                                                                                                                                                                                 | ●    |    |       |                                                              |  |        |      |           |      |           |      |           |      |

| 4D: Apartment Size and Layout                                                                                                                                                                                                                                                                                                                                                        |     |    |       |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----|-------|
| Objective 4D-3                                                                                                                                                                                                                                                                                                                                                                       |     |    |       |
| Apartment layouts are designed to accommodate a variety of                                                                                                                                                                                                                                                                                                                           |     |    |       |
| Design Criteria                                                                                                                                                                                                                                                                                                                                                                      | Yes | No | Notes |
| Master bedrooms have a minimum area of 10m2 and other bedrooms 9m2 (excluding wardrobe space)                                                                                                                                                                                                                                                                                        | ●   |    |       |
| Bedrooms have a minimum dimension of 3m (excluding wardrobe space)                                                                                                                                                                                                                                                                                                                   | ●   |    |       |
| Living rooms or combined living/dining rooms have a minimum width of: <ul style="list-style-type: none"><li>• 3.6m for studio and 1 bedroom apartments</li><li>• 4m for 2 and 3 bedroom apartments</li></ul>                                                                                                                                                                         | ●   |    |       |
| The width of cross-over or cross-through apartments are at least 4m internally to avoid deep narrow apartment layouts                                                                                                                                                                                                                                                                | ●   |    |       |
| Design Guidance                                                                                                                                                                                                                                                                                                                                                                      | Yes | No | Notes |
| Access to bedrooms, bathrooms and laundries is separated from living areas minimising direct openings between living and service areas                                                                                                                                                                                                                                               | ●   |    |       |
| All bedrooms allow a minimum length of 1.5m for robes                                                                                                                                                                                                                                                                                                                                | ●   |    |       |
| The main bedroom of an apartment or a studio apartment should be provided with a wardrobe of a minimum 1.8m long, 0.6m deep and 2.1m high                                                                                                                                                                                                                                            | ●   |    |       |
| Apartment layouts allow flexibility over time, design solutions may include: <ul style="list-style-type: none"><li>• dimensions that facilitate a variety of furniture arrangements and removal</li><li>• spaces for a range of activities and privacy levels between different spaces within the apartment</li><li>• dual master apartments</li><li>• dual key apartments</li></ul> | ●   |    |       |
| Note: dual key apartments which are separate but on the same title are regarded as two sole occupancy units for the purposes of the Building Code of Australia and for calculating the mix of apartments                                                                                                                                                                             |     |    |       |
| <ul style="list-style-type: none"><li>• room sizes and proportions or open plans (rectangular spaces (2:3) are more easily furnished than square spaces (1:1))</li><li>• efficient planning of circulation by stairs, corridors and through rooms to maximise the amount of usable floor space in rooms</li></ul>                                                                    |     |    |       |



| 4E: Private Open Space and Balconies                                                                                                                                                                                                                                                                          |               |               |                                                      |        |     |   |           |     |    |           |      |    |           |      |      |  |  |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|---------------|------------------------------------------------------|--------|-----|---|-----------|-----|----|-----------|------|----|-----------|------|------|--|--|--|
| Objective 4E-1                                                                                                                                                                                                                                                                                                |               |               |                                                      |        |     |   |           |     |    |           |      |    |           |      |      |  |  |  |
| Apartments provide appropriately sized private open space and balconies to enhance residential amenity                                                                                                                                                                                                        |               |               |                                                      |        |     |   |           |     |    |           |      |    |           |      |      |  |  |  |
| Design Criteria                                                                                                                                                                                                                                                                                               | Yes           | No            | Notes                                                |        |     |   |           |     |    |           |      |    |           |      |      |  |  |  |
| All apartments are required to have primary balconies as follows:                                                                                                                                                                                                                                             | <div></div>   |               |                                                      |        |     |   |           |     |    |           |      |    |           |      |      |  |  |  |
| <table><tr><td>Dwelling Type</td><td>Minimum Area</td><td>Minimum Depth</td></tr><tr><td>Studio</td><td>4m²</td><td>-</td></tr><tr><td>1 bedroom</td><td>8m²</td><td>2m</td></tr><tr><td>2 bedroom</td><td>10m²</td><td>2m</td></tr><tr><td>3 bedroom</td><td>12m²</td><td>2.4m</td></tr></table>             | Dwelling Type | Minimum Area  | Minimum Depth                                        | Studio | 4m² | - | 1 bedroom | 8m² | 2m | 2 bedroom | 10m² | 2m | 3 bedroom | 12m² | 2.4m |  |  |  |
| Dwelling Type                                                                                                                                                                                                                                                                                                 | Minimum Area  | Minimum Depth |                                                      |        |     |   |           |     |    |           |      |    |           |      |      |  |  |  |
| Studio                                                                                                                                                                                                                                                                                                        | 4m²           | -             |                                                      |        |     |   |           |     |    |           |      |    |           |      |      |  |  |  |
| 1 bedroom                                                                                                                                                                                                                                                                                                     | 8m²           | 2m            |                                                      |        |     |   |           |     |    |           |      |    |           |      |      |  |  |  |
| 2 bedroom                                                                                                                                                                                                                                                                                                     | 10m²          | 2m            |                                                      |        |     |   |           |     |    |           |      |    |           |      |      |  |  |  |
| 3 bedroom                                                                                                                                                                                                                                                                                                     | 12m²          | 2.4m          |                                                      |        |     |   |           |     |    |           |      |    |           |      |      |  |  |  |
| The minimum balcony depth to be counted as contributing to the balcony area is 1m                                                                                                                                                                                                                             |               |               |                                                      |        |     |   |           |     |    |           |      |    |           |      |      |  |  |  |
| For apartments at ground level or on a podium or similar structure, a private open space is provided instead of a balcony. It must have a minimum area of 15m² and a minimum depth of 3m                                                                                                                      | N/A           |               |                                                      |        |     |   |           |     |    |           |      |    |           |      |      |  |  |  |
| Design Guidance                                                                                                                                                                                                                                                                                               | Yes           | No            | Notes                                                |        |     |   |           |     |    |           |      |    |           |      |      |  |  |  |
| Increased communal open space should be provided where the number or size of balconies are reduced                                                                                                                                                                                                            | N/A           |               |                                                      |        |     |   |           |     |    |           |      |    |           |      |      |  |  |  |
| Storage areas on balconies is additional to the minimum balcony size                                                                                                                                                                                                                                          | N/A           |               |                                                      |        |     |   |           |     |    |           |      |    |           |      |      |  |  |  |
| Balcony use may be limited in some proposals by:                                                                                                                                                                                                                                                              | N/A           |               |                                                      |        |     |   |           |     |    |           |      |    |           |      |      |  |  |  |
| <div><div></div><div>consistently high wind speeds at 10 storeys and above</div><div></div><div>close proximity to road, rail or other noise sources</div><div></div><div>exposure to significant levels of aircraft noise</div><div></div><div>heritage and adaptive reuse of existing buildings</div></div> |               |               |                                                      |        |     |   |           |     |    |           |      |    |           |      |      |  |  |  |
| In these situations, Juliet balconies, operable walls, enclosed winter-gardens or bay windows may be appropriate, and other amenity benefits for occupants should also be provided in the apartments or in the development or both. Natural ventilation also needs to be demonstrated                         |               |               |                                                      |        |     |   |           |     |    |           |      |    |           |      |      |  |  |  |
| Objective 4E-2                                                                                                                                                                                                                                                                                                |               |               |                                                      |        |     |   |           |     |    |           |      |    |           |      |      |  |  |  |
| Primary private open space and balconies are appropriately located to enhance livability for residents                                                                                                                                                                                                        |               |               |                                                      |        |     |   |           |     |    |           |      |    |           |      |      |  |  |  |
| Design Guidance                                                                                                                                                                                                                                                                                               | Yes           | No            | Notes                                                |        |     |   |           |     |    |           |      |    |           |      |      |  |  |  |
| Primary open space and balconies should be located adjacent to the living room, dining room or kitchen to extend the living space                                                                                                                                                                             | <div></div>   |               |                                                      |        |     |   |           |     |    |           |      |    |           |      |      |  |  |  |
| Private open spaces and balconies predominantly face north, east or west                                                                                                                                                                                                                                      | <div></div>   |               | 97% of apartment balconies face north, east or west. |        |     |   |           |     |    |           |      |    |           |      |      |  |  |  |
| Primary open space and balconies should be orientated with the longer side facing outwards or be open to the sky to optimise daylight access into adjacent rooms                                                                                                                                              | <div></div>   |               |                                                      |        |     |   |           |     |    |           |      |    |           |      |      |  |  |  |

| 4E: Private Open Space and Balconies                                                                                                                                                                                                                                                                                |     |    |                                                                                                             |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----|-------------------------------------------------------------------------------------------------------------|
| Objective 4E-3                                                                                                                                                                                                                                                                                                      |     |    |                                                                                                             |
| Private open space and balcony design is integrated into and contributes to the overall architectural form and detail of the building                                                                                                                                                                               |     |    |                                                                                                             |
| Design Guidance                                                                                                                                                                                                                                                                                                     | Yes | No | Notes                                                                                                       |
| Solid, partially solid or transparent fences and balustrades are selected to respond to the location. They are designed to allow views and passive surveillance of the street while maintaining visual privacy and allowing for a range of uses on the balcony. Solid and partially solid balustrades are preferred |     | •  | Glazed balcony balustrades are preferred to maximise outlook to the surrounding hinterland and city beyond. |
| Full width full height glass balustrades alone are generally not desirable                                                                                                                                                                                                                                          | •   |    |                                                                                                             |
| Projecting balconies should be integrated into the building design and the design of soffits considered                                                                                                                                                                                                             | •   |    |                                                                                                             |
| Operable screens, shutters, hoods and pergolas are used to control sunlight and wind                                                                                                                                                                                                                                | NA  |    |                                                                                                             |
| Balustrades are set back from the building or balcony edge where overlooking or safety is an issue                                                                                                                                                                                                                  | NA  |    |                                                                                                             |
| Downpipes and balcony drainage are integrated with the overall facade and building design                                                                                                                                                                                                                           | •   |    |                                                                                                             |
| Air-conditioning units should be located on roofs, in basements, or fully integrated into the building design                                                                                                                                                                                                       | •   |    |                                                                                                             |
| Where clothes drying, storage or air conditioning units are located on balconies, they should be screened and integrated in the building design                                                                                                                                                                     | NA  |    |                                                                                                             |
| Ceilings of apartments below terraces should be insulated to avoid heat loss                                                                                                                                                                                                                                        | •   |    |                                                                                                             |
| Water and gas outlets should be provided for primary balconies and private open space                                                                                                                                                                                                                               | •   |    |                                                                                                             |
| Objective 4E-4                                                                                                                                                                                                                                                                                                      |     |    |                                                                                                             |
| Private open space and balcony design maximises safety                                                                                                                                                                                                                                                              |     |    |                                                                                                             |
| Design Guidance                                                                                                                                                                                                                                                                                                     | Yes | No | Notes                                                                                                       |
| Changes in ground levels or landscaping are minimised                                                                                                                                                                                                                                                               | •   |    |                                                                                                             |
| Design and detailing of balconies avoids opportunities for climbing and falls                                                                                                                                                                                                                                       | •   |    |                                                                                                             |



| 4F: Common Circulation and Spaces                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |     |    |       |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----|-------|
| Objective 4F-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |     |    |       |
| Common circulation spaces achieve good amenity and properly service the number of apartments                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |     |    |       |
| Design Criteria                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Yes | No | Notes |
| The maximum number of apartments off a circulation core on a single level is eight                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | ●   |    |       |
| For buildings of 10 storeys and over, the maximum number of apartments sharing a single lift is 40                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | ●   |    |       |
| Design Guidance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Yes | No | Notes |
| Greater than minimum requirements for corridor widths and/ or ceiling heights allow comfortable movement and access particularly in entry lobbies, outside lifts and at apartment entry doors                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | ●   |    |       |
| Daylight and natural ventilation should be provided to all common circulation spaces that are above ground                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | ●   |    |       |
| Windows should be provided in common circulation spaces and should be adjacent to the stair or lift core or at the ends of corridors                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | ●   |    |       |
| Longer corridors greater than 12m in length from the lift core should be articulated. Design solutions may include: <ul style="list-style-type: none"> <li>a series of foyer areas with windows and spaces for seating</li> <li>wider areas at apartment entry doors and varied ceiling heights</li> </ul>                                                                                                                                                                                                                                                                                                                                                                      | ●   |    |       |
| Design common circulation spaces to maximise opportunities for dual aspect apartments, including multiple core apartment buildings and cross over apartments                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | ●   |    |       |
| Achieving the design criteria for the number of apartments off a circulation core may not be possible. Where a development is unable to achieve the design criteria, a high level of amenity for common lobbies, corridors and apartments should be demonstrated, including: <ul style="list-style-type: none"> <li>sunlight and natural cross ventilation in apartments</li> <li>access to ample daylight and natural ventilation in common circulation spaces</li> <li>common areas for seating and gathering</li> <li>generous corridors with greater than minimum ceiling heights</li> <li>other innovative design solutions that provide high levels of amenity</li> </ul> | N/A |    |       |
| Where design criteria 1 is not achieved, no more than 12 apartments should be provided off a circulation core on a single level                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | N/A |    |       |
| Primary living room or bedroom windows should not open directly onto common circulation spaces, whether open or enclosed. Visual and acoustic privacy from common circulation spaces to any other rooms should be carefully controlled                                                                                                                                                                                                                                                                                                                                                                                                                                          | ●   |    |       |
| Objective 4F-2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |     |    |       |
| Common circulation spaces promote safety and provide for social interaction between residents                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |     |    |       |
| Design Guidance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Yes | No | Notes |
| Direct and legible access should be provided between vertical circulation points and apartment entries by minimising corridor or gallery length to give short, straight, clear sight lines                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | ●   |    |       |
| Tight corners and spaces are avoided                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | ●   |    |       |
| Circulation spaces should be well lit at night                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | ●   |    |       |
| Legible signage should be provided for apartment numbers, common areas and general wayfinding                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | ●   |    |       |
| Incidental spaces, for example space for seating in a corridor, at a stair landing, or near a window are provided                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | ●   |    |       |
| In larger developments, community rooms for activities such as owners corporation meetings or resident use should be provided and are ideally co-located with communal open space                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | ●   |    |       |
| Where external galleries are provided, they are more open than closed above the balustrade along their length                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | N/A |    |       |

| 4G: Storage                                                                                                                                                                                                                                                         |      |    |       |                                                              |  |        |     |           |     |           |     |           |      |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|----|-------|--------------------------------------------------------------|--|--------|-----|-----------|-----|-----------|-----|-----------|------|
| Objective 4G-1                                                                                                                                                                                                                                                      |      |    |       |                                                              |  |        |     |           |     |           |     |           |      |
| Adequate, well designed storage is provided in each apartment                                                                                                                                                                                                       |      |    |       |                                                              |  |        |     |           |     |           |     |           |      |
| Design Criteria                                                                                                                                                                                                                                                     | Yes  | No | Notes |                                                              |  |        |     |           |     |           |     |           |      |
| In addition to storage in kitchens, bathrooms and bedrooms, the following storage is provided                                                                                                                                                                       | ●    |    |       |                                                              |  |        |     |           |     |           |     |           |      |
| <table><tr><td colspan="2">Minimum ceiling height for apartment and mixed use buildings</td></tr><tr><td>Studio</td><td>4m³</td></tr><tr><td>1 bedroom</td><td>6m³</td></tr><tr><td>2 bedroom</td><td>8m³</td></tr><tr><td>3 bedroom</td><td>10m³</td></tr></table> |      |    |       | Minimum ceiling height for apartment and mixed use buildings |  | Studio | 4m³ | 1 bedroom | 6m³ | 2 bedroom | 8m³ | 3 bedroom | 10m³ |
| Minimum ceiling height for apartment and mixed use buildings                                                                                                                                                                                                        |      |    |       |                                                              |  |        |     |           |     |           |     |           |      |
| Studio                                                                                                                                                                                                                                                              | 4m³  |    |       |                                                              |  |        |     |           |     |           |     |           |      |
| 1 bedroom                                                                                                                                                                                                                                                           | 6m³  |    |       |                                                              |  |        |     |           |     |           |     |           |      |
| 2 bedroom                                                                                                                                                                                                                                                           | 8m³  |    |       |                                                              |  |        |     |           |     |           |     |           |      |
| 3 bedroom                                                                                                                                                                                                                                                           | 10m³ |    |       |                                                              |  |        |     |           |     |           |     |           |      |
| At least 50% of the required storage is to be located within the apartment                                                                                                                                                                                          |      |    |       |                                                              |  |        |     |           |     |           |     |           |      |
| Design Guidance                                                                                                                                                                                                                                                     | Yes  | No | Notes |                                                              |  |        |     |           |     |           |     |           |      |
| Storage is accessible from either circulation or living areas                                                                                                                                                                                                       | ●    |    |       |                                                              |  |        |     |           |     |           |     |           |      |
| Storage provided on balconies (in addition to the minimum balcony size) is integrated into the balcony design, weather proof and screened from view from the street                                                                                                 | NA   |    |       |                                                              |  |        |     |           |     |           |     |           |      |
| Left over space such as under stairs is used for storage                                                                                                                                                                                                            | NA   |    |       |                                                              |  |        |     |           |     |           |     |           |      |
| Objective 4G-2                                                                                                                                                                                                                                                      |      |    |       |                                                              |  |        |     |           |     |           |     |           |      |
| Additional storage is conveniently located, accessible and nominated for individual apartments                                                                                                                                                                      |      |    |       |                                                              |  |        |     |           |     |           |     |           |      |
| Design Guidance                                                                                                                                                                                                                                                     | Yes  | No | Notes |                                                              |  |        |     |           |     |           |     |           |      |
| Storage not located in apartments is secure and clearly allocated to specific apartments                                                                                                                                                                            | ●    |    |       |                                                              |  |        |     |           |     |           |     |           |      |
| Storage is provided for larger and less frequently accessed items                                                                                                                                                                                                   | ●    |    |       |                                                              |  |        |     |           |     |           |     |           |      |
| Storage space in internal or basement car parks is provided at the rear or side of car spaces or in cages so that allocated car parking remains accessible                                                                                                          | ●    |    |       |                                                              |  |        |     |           |     |           |     |           |      |
| If communal storage rooms are provided they should be accessible from common circulation areas of the building                                                                                                                                                      | ●    |    |       |                                                              |  |        |     |           |     |           |     |           |      |
| Storage not located in an apartment is integrated into the overall building design and is not visible from the public domain                                                                                                                                        | ●    |    |       |                                                              |  |        |     |           |     |           |     |           |      |



| 4H: Acoustic Privacy                                                                                                                                                                                                                                                                                                                                                                                                       |     |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Objective 4H-1                                                                                                                                                                                                                                                                                                                                                                                                             |     |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Noise transfer is minimised through the siting of buildings and building layout                                                                                                                                                                                                                                                                                                                                            |     |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Design Guidance                                                                                                                                                                                                                                                                                                                                                                                                            | Yes | No | Notes                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <p>Adequate building separation is provided within the development and from neighbouring buildings/ adjacent uses (see also section 2F Building separation and section 3F Visual privacy)</p> <p>Where applying separation to buildings on adjoining sites, apply half the minimum separation distance measured to the boundary.</p>                                                                                       |     | ○  | <p>The building complies on the north and south.</p> <p>The existing buildings to the west and east, 1 Cambridge Lane and 28 Anderson Street respectively, do not comply with the separation setback. The proposed west facade is setback 12m from the centre of Cambridge Lane. The proposed eastern facade is setback 8.25m from the boundary on Levels 02-05 to provide separation at lower levels. This strategy is supported by Council.</p> |
| Window and door openings are generally orientated away from noise sources                                                                                                                                                                                                                                                                                                                                                  | ●   |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Noisy areas within buildings including building entries and corridors should be located next to or above each other and quieter areas next to or above quieter areas                                                                                                                                                                                                                                                       | ●   |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Storage, circulation areas and non-habitable rooms should be located to buffer noise from external sources                                                                                                                                                                                                                                                                                                                 | NA  |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| The number of party walls (walls shared with other apartments) are limited and are appropriately insulated                                                                                                                                                                                                                                                                                                                 | ●   |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Noise sources such as garage doors, driveways, service areas, plant rooms, building services, mechanical equipment, active communal open spaces and circulation areas should be located at least 3m away from bedrooms                                                                                                                                                                                                     | ●   |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Objective 4H-2                                                                                                                                                                                                                                                                                                                                                                                                             |     |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Noise impacts are mitigated within apartments through layout and acoustic treatments                                                                                                                                                                                                                                                                                                                                       |     |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Design Guidance                                                                                                                                                                                                                                                                                                                                                                                                            | Yes | No | Notes                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <p>Internal apartment layout separates noisy spaces from quiet spaces, using a number of the following design solutions:</p> <ul style="list-style-type: none"> <li>rooms with similar noise requirements are grouped together</li> <li>doors separate different use zones</li> <li>wardrobes in bedrooms are co-located to act as sound buffers</li> </ul>                                                                | ●   |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <p>Where physical separation cannot be achieved noise conflicts are resolved using the following design solutions:</p> <ul style="list-style-type: none"> <li>double or acoustic glazing</li> <li>acoustic seals</li> <li>use of materials with low noise penetration properties</li> <li>continuous walls to ground level courtyards where they do not conflict with streetscape or other amenity requirements</li> </ul> | ●   |    |                                                                                                                                                                                                                                                                                                                                                                                                                                                   |

| 4J: Acoustic Privacy                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |     |    |       |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----|-------|
| Objective 4J-1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |     |    |       |
| In noisy or hostile environments the impacts of external noise and pollution are minimised through the careful siting and layout of buildings                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |     |    |       |
| Design Guidance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Yes | No | Notes |
| To minimise impacts the following design solutions may be used:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | NA  |    |       |
| <ul style="list-style-type: none"><li>physical separation between buildings and the noise or pollution source</li><li>residential uses are located perpendicular to the noise source and where possible buffered by other uses</li><li>non-residential buildings are sited to be parallel with the noise source to provide a continuous building that shields residential uses and communal open spaces</li><li>non-residential uses are located at lower levels vertically separating the residential component from the noise or pollution source. Setbacks to the underside of</li><li>residential floor levels should increase relative to traffic volumes and other noise sources</li><li>buildings should respond to both solar access and noise. Where solar access is away from the noise source, nonhabitable rooms can provide a buffer</li><li>where solar access is in the same direction as the noise source, dual aspect apartments with shallow building depths are preferable (see figure 4J.4)</li><li>landscape design reduces the perception of noise and acts as a filter for air pollution generated by traffic and industry</li></ul> |     |    |       |
| Achieving the design criteria in this Apartment Design Guide may not be possible in some situations due to noise and pollution. Where developments are unable to achieve the design criteria, alternatives may be considered in the following areas:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | NA  |    |       |
| <ul style="list-style-type: none"><li>solar and daylight access</li><li>private open space and balconies</li><li>natural cross ventilation</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |     |    |       |
| Objective 4J-2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |     |    |       |
| Appropriate noise shielding or attenuation techniques for the building design, construction and choice of materials are used to mitigate noise transmission                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |     |    |       |
| Design Guidance                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Yes | No | Notes |
| Design solutions to mitigate noise include:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | NA  |    |       |
| <ul style="list-style-type: none"><li>limiting the number and size of openings facing noise sources</li><li>providing seals to prevent noise transfer through gaps</li><li>using double or acoustic glazing, acoustic louvres or enclosed balconies (wintergardens)</li><li>using materials with mass and/or sound insulation or absorption properties e.g. solid balcony balustrades, external screens and soffits</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |     |    |       |



| 4K: Office Mix                                                                                                                                                                                                                                                                                              |     |    |       |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----|-------|
| Objective 4K-1                                                                                                                                                                                                                                                                                              |     |    |       |
| A range of apartment types and sizes is provided to cater for different household types now and into the future                                                                                                                                                                                             |     |    |       |
| Design Guidance                                                                                                                                                                                                                                                                                             | Yes | No | Notes |
| A variety of apartment types is provided                                                                                                                                                                                                                                                                    | •   |    |       |
| The apartment mix is appropriate, taking into consideration:                                                                                                                                                                                                                                                | •   |    |       |
| <ul style="list-style-type: none"> <li>the distance to public transport, employment and education centres</li> <li>the current market demands and projected future demographic trends</li> <li>the demand for social and affordable housing</li> <li>different cultural and socioeconomic groups</li> </ul> |     |    |       |
| Flexible apartment configurations are provided to support diverse household types and stages of life including single person households, families, multi-generational families and group households                                                                                                         | •   |    |       |
| Objective 4K-2                                                                                                                                                                                                                                                                                              |     |    |       |
| The apartment mix is distributed to suitable locations within the building                                                                                                                                                                                                                                  |     |    |       |
| Design Guidance                                                                                                                                                                                                                                                                                             | Yes | No | Notes |
| Different apartment types are located to achieve successful facade composition and to optimise solar access (see figure 4K.3)                                                                                                                                                                               | •   |    |       |
| Larger apartment types are located on the ground or roof level where there is potential for more open space and on corners where more building frontage is available                                                                                                                                        | •   |    |       |

| 4L: Ground Floor Apartments                                                                                                                                                                                                                                      |     |    |       |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----|-------|
| Objective 4L-1                                                                                                                                                                                                                                                   |     |    |       |
| Street frontage activity is maximised where ground floor apartments are located                                                                                                                                                                                  |     |    |       |
| Design Guidance                                                                                                                                                                                                                                                  | Yes | No | Notes |
| Direct street access should be provided to ground floor apartments                                                                                                                                                                                               | NA  |    |       |
| Activity is achieved through front gardens, terraces and the facade of the building. Design solutions may include:                                                                                                                                               | NA  |    |       |
| Retail or home office spaces should be located along street frontages                                                                                                                                                                                            | NA  |    |       |
| Ground floor apartment layouts support small office home office (SOHO) use to provide future opportunities for conversion into commercial or retail areas. In these cases provide higher floor to ceiling heights and ground floor amenities for easy conversion | NA  |    |       |
| Objective 4L-2                                                                                                                                                                                                                                                   |     |    |       |
| Design of ground floor apartments delivers amenity and safety for residents                                                                                                                                                                                      |     |    |       |
| Design Guidance                                                                                                                                                                                                                                                  | Yes | No | Notes |
| Privacy and safety should be provided without obstructing casual surveillance. Design solutions may include:                                                                                                                                                     | NA  |    |       |
| <ul style="list-style-type: none"> <li>elevation of private gardens and terraces above the street level by 1-1.5m (see figure 4L.4)</li> <li>landscaping and private courtyards</li> </ul>                                                                       |     |    |       |
| Solar access should be maximised                                                                                                                                                                                                                                 | NA  |    |       |

| 4M: Facades                                                                                                                                                                                                                                                                                                                                                                              |     |    |       |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----|-------|
| Objective 4M-1                                                                                                                                                                                                                                                                                                                                                                           |     |    |       |
| Building facades provide visual interest along the street while respecting the character of the local area                                                                                                                                                                                                                                                                               |     |    |       |
| Design Guidance                                                                                                                                                                                                                                                                                                                                                                          | Yes | No | Notes |
| Design solutions for front building facades may include:                                                                                                                                                                                                                                                                                                                                 | •   |    |       |
| <ul style="list-style-type: none"> <li>a composition of varied building elements</li> <li>a defined base, middle and top of buildings</li> <li>revealing and concealing certain elements</li> <li>changes in texture, material, detail and colour to modify the prominence of elements</li> </ul>                                                                                        |     |    |       |
| Building services should be integrated within the overall facade                                                                                                                                                                                                                                                                                                                         | •   |    |       |
| Building facades should be well resolved with an appropriate scale and proportion to the streetscape and human scale. Design solutions may include:                                                                                                                                                                                                                                      | •   |    |       |
| <ul style="list-style-type: none"> <li>well composed horizontal and vertical elements</li> <li>variation in floor heights to enhance the human scale</li> <li>elements that are proportional and arranged in patterns</li> <li>public artwork or treatments to exterior blank walls</li> <li>grouping of floors or elements such as balconies and windows on taller buildings</li> </ul> |     |    |       |
| Building facades relate to key datum lines of adjacent buildings through upper level setbacks, parapets, cornices, awnings or colonnade heights.                                                                                                                                                                                                                                         | •   |    |       |
| Shadow is created on the facade throughout the day with building articulation, balconies and deeper window reveals                                                                                                                                                                                                                                                                       | •   |    |       |
| Objective 4M-2                                                                                                                                                                                                                                                                                                                                                                           |     |    |       |
| Building functions are expressed by the façade                                                                                                                                                                                                                                                                                                                                           |     |    |       |
| Design Guidance                                                                                                                                                                                                                                                                                                                                                                          | Yes | No | Notes |
| Building entries should be clearly defined                                                                                                                                                                                                                                                                                                                                               | •   |    |       |
| Important corners are given visual prominence through a change in articulation, materials or colour, roof expression or changes in height                                                                                                                                                                                                                                                | •   |    |       |
| The apartment layout should be expressed externally through facade features such as party walls and floor slabs                                                                                                                                                                                                                                                                          | •   |    |       |



| 4N: Roof Design                                                                                                                                                                                                                                                                                                                                                                      |     |    |                                                                                                          |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----|----------------------------------------------------------------------------------------------------------|
| Objective 4N-1                                                                                                                                                                                                                                                                                                                                                                       |     |    |                                                                                                          |
| Roof treatments are integrated into the building design and positively respond to the street                                                                                                                                                                                                                                                                                         |     |    |                                                                                                          |
| Design Guidance                                                                                                                                                                                                                                                                                                                                                                      | Yes | No | Notes                                                                                                    |
| Roof design relates to the street. Design solutions may include: <ul style="list-style-type: none"><li>special roof features and strong corners</li><li>use of skillion or very low pitch hipped roofs</li><li>breaking down the massing of the roof by using smaller elements to avoid bulk</li><li>using materials or a pitched form complementary to adjacent buildings</li></ul> | ●   |    |                                                                                                          |
| Roof treatments should be integrated with the building design. Design solutions may include: <ul style="list-style-type: none"><li>roof design proportionate to the overall building size, scale and form</li><li>roof materials compliment the building</li><li>service elements are integrated</li></ul>                                                                           | ●   |    | Integrated roof parapet to conceal plant and equipment from the street and adjacent buildings.           |
| Objective 4N-2                                                                                                                                                                                                                                                                                                                                                                       |     |    |                                                                                                          |
| Opportunities to use roof space for residential accommodation and open space are maximised                                                                                                                                                                                                                                                                                           |     |    |                                                                                                          |
| Design Guidance                                                                                                                                                                                                                                                                                                                                                                      | Yes | No | Notes                                                                                                    |
| Habitable roof space should be provided with good levels of amenity. Design solutions may include: <ul style="list-style-type: none"><li>penthouse apartments</li><li>dormer or clerestory windows</li><li>openable skylights</li></ul>                                                                                                                                              | NA  |    |                                                                                                          |
| Open space is provided on roof tops subject to acceptable visual and acoustic privacy, comfort levels, safety and security considerations                                                                                                                                                                                                                                            | ●   |    | Open space provided on podium and low rise tower roofs. Main tower roof is used for plant and equipment. |
| Objective 4N-3                                                                                                                                                                                                                                                                                                                                                                       |     |    |                                                                                                          |
| Roof design incorporates sustainability features                                                                                                                                                                                                                                                                                                                                     |     |    |                                                                                                          |
| Design Guidance                                                                                                                                                                                                                                                                                                                                                                      | Yes | No | Notes                                                                                                    |
| Roof design maximises solar access to apartments during winter and provides shade during summer. Design solutions may include: <ul style="list-style-type: none"><li>the roof lifts to the north</li><li>eaves and overhangs shade walls and windows from summer sun</li></ul>                                                                                                       | ●   |    | The expressed slab edge and deep facade provides shading.                                                |
| Skylights and ventilation systems should be integrated into the roof design                                                                                                                                                                                                                                                                                                          | NA  |    |                                                                                                          |

| 4O: Landscape Design                                                                                                                                                                                                                                                                                                                                                                     |     |    |       |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----|-------|
| Objective 4O-1                                                                                                                                                                                                                                                                                                                                                                           |     |    |       |
| Landscape design is viable and sustainable                                                                                                                                                                                                                                                                                                                                               |     |    |       |
| Design Guidance                                                                                                                                                                                                                                                                                                                                                                          | Yes | No | Notes |
| Landscape design should be environmentally sustainable and can enhance environmental performance by incorporating: <ul style="list-style-type: none"><li>diverse and appropriate planting</li><li>bio-filtration gardens</li><li>appropriately planted shading trees</li><li>areas for residents to plant vegetables and herbs</li><li>composting</li><li>green roofs or walls</li></ul> | ●   |    |       |
| Ongoing maintenance plans should be prepared                                                                                                                                                                                                                                                                                                                                             | ●   |    |       |
| Micro-climate is enhanced by:                                                                                                                                                                                                                                                                                                                                                            | ●   |    |       |
| Tree and shrub selection considers size at maturity and the potential for roots to compete (see Table 4)                                                                                                                                                                                                                                                                                 |     |    |       |
| Objective 4O-2                                                                                                                                                                                                                                                                                                                                                                           |     |    |       |
| Landscape design contributes to the streetscape and amenity                                                                                                                                                                                                                                                                                                                              |     |    |       |
| Design Guidance                                                                                                                                                                                                                                                                                                                                                                          | Yes | No | Notes |
| Landscape design responds to the existing site conditions including: <ul style="list-style-type: none"><li>changes of levels</li><li>views</li><li>significant landscape features including trees and rock outcrops</li></ul>                                                                                                                                                            | ●   |    |       |
| Significant landscape features should be protected by: <ul style="list-style-type: none"><li>tree protection zones (see figure 4O.5)</li><li>appropriate signage and fencing during construction</li></ul>                                                                                                                                                                               | ●   |    |       |
| Plants selected should be endemic to the region and reflect the local ecology                                                                                                                                                                                                                                                                                                            | ●   |    |       |



| 4P: Planting on Structures                                                                                                                                                                                                                                                                                                                                              |     |    |                                                                    |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----|--------------------------------------------------------------------|
| Objective 4P-1                                                                                                                                                                                                                                                                                                                                                          |     |    |                                                                    |
| Appropriate soil profiles are provided                                                                                                                                                                                                                                                                                                                                  |     |    |                                                                    |
| Design Guidance                                                                                                                                                                                                                                                                                                                                                         | Yes | No | Notes                                                              |
| Structures are reinforced for additional saturated soil weight                                                                                                                                                                                                                                                                                                          | ●   |    |                                                                    |
| Soil volume is appropriate for plant growth, considerations include: <ul style="list-style-type: none"><li>modifying depths and widths according to the planting</li><li>mix and irrigation frequency</li><li>free draining and long soil life span</li><li>tree anchorage</li></ul>                                                                                    | ●   |    | Refer landscape drawings and report prepared by Studio Georgouras. |
| Minimum soil standards for plant sizes should be provided in accordance with Table 5                                                                                                                                                                                                                                                                                    | ●   |    |                                                                    |
| Objective 4P-2                                                                                                                                                                                                                                                                                                                                                          |     |    |                                                                    |
| Plant growth is optimised with appropriate selection and maintenance                                                                                                                                                                                                                                                                                                    |     |    |                                                                    |
| Design Guidance                                                                                                                                                                                                                                                                                                                                                         | Yes | No | Notes                                                              |
| Plants are suited to site conditions, considerations include: <ul style="list-style-type: none"><li>drought and wind tolerance</li><li>seasonal changes in solar access</li><li>modified substrate depths for a diverse range of plants</li><li>plant longevity</li></ul>                                                                                               | ●   |    |                                                                    |
| A landscape maintenance plan is prepared                                                                                                                                                                                                                                                                                                                                | ●   |    |                                                                    |
| Irrigation and drainage systems respond to: <ul style="list-style-type: none"><li>changing site conditions</li><li>soil profile and the planting regime</li><li>whether rainwater, stormwater or recycled grey water is used</li></ul>                                                                                                                                  | ●   |    |                                                                    |
| Objective 4P-3                                                                                                                                                                                                                                                                                                                                                          |     |    |                                                                    |
| Planting on structures contributes to the quality and amenity of communal and public open spaces                                                                                                                                                                                                                                                                        |     |    |                                                                    |
| Design Guidance                                                                                                                                                                                                                                                                                                                                                         | Yes | No | Notes                                                              |
| Building design incorporates opportunities for planting on structures. Design solutions may include: <ul style="list-style-type: none"><li>green walls with specialised lighting for indoor green walls</li><li>wall design that incorporates planting</li><li>green roofs, particularly where roofs are visible from the public domain</li><li>planter boxes</li></ul> | ●   |    |                                                                    |

| 4Q: Universal Design                                                                                                                                                                                                                                                                                                                                         |     |    |                                                                         |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----|-------------------------------------------------------------------------|
| Objective 4Q-1                                                                                                                                                                                                                                                                                                                                               |     |    |                                                                         |
| Universal design features are included in apartment design to promote flexible housing for all community members                                                                                                                                                                                                                                             |     |    |                                                                         |
| Design Guidance                                                                                                                                                                                                                                                                                                                                              | Yes | No | Notes                                                                   |
| Developments achieve a benchmark of 20% of the total apartments incorporating the Livable Housing Guideline's silver level universal design features                                                                                                                                                                                                         | ●   |    | Refer to adaptable apartment plans and access report prepared by Codex. |
| Objective 4Q-2                                                                                                                                                                                                                                                                                                                                               |     |    |                                                                         |
| A variety of apartments with adaptable designs are provided                                                                                                                                                                                                                                                                                                  |     |    |                                                                         |
| Design Guidance                                                                                                                                                                                                                                                                                                                                              | Yes | No | Notes                                                                   |
| Adaptable housing should be provided in accordance with the relevant council policy                                                                                                                                                                                                                                                                          | ●   |    |                                                                         |
| Design solutions for adaptable apartments include:                                                                                                                                                                                                                                                                                                           | ●   |    | Refer to adaptable apartment plans and access report prepared by Codex. |
| <ul style="list-style-type: none"> <li>convenient access to communal and public areas</li> <li>high level of solar access</li> <li>minimal structural change and residential amenity loss when adapted</li> <li>larger car parking spaces for accessibility</li> <li>parking titled separately from apartments or shared car parking arrangements</li> </ul> |     |    |                                                                         |
| Objective 4Q-3                                                                                                                                                                                                                                                                                                                                               |     |    |                                                                         |
| Apartment layouts are flexible and accommodate a range of lifestyle needs                                                                                                                                                                                                                                                                                    |     |    |                                                                         |
| Design Guidance                                                                                                                                                                                                                                                                                                                                              | Yes | No | Notes                                                                   |
| Apartment design incorporates flexible design solutions which may include:                                                                                                                                                                                                                                                                                   | ●   |    |                                                                         |
| <ul style="list-style-type: none"> <li>rooms with multiple functions</li> <li>dual master bedroom apartments with separate bathrooms</li> <li>larger apartments with various living space options</li> </ul>                                                                                                                                                 |     |    |                                                                         |



| 4R: Adaptive Reuse                                                                                                                                                                                                                                                                                                                                                                                                   |     |    |                                                                                                            |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----|------------------------------------------------------------------------------------------------------------|
| Objective 4R-1                                                                                                                                                                                                                                                                                                                                                                                                       |     |    |                                                                                                            |
| New additions to existing buildings are contemporary and complementary and enhance an area's identity and sense of place                                                                                                                                                                                                                                                                                             |     |    |                                                                                                            |
| Design Guidance                                                                                                                                                                                                                                                                                                                                                                                                      | Yes | No | Notes                                                                                                      |
| Design solutions may include: <ul style="list-style-type: none"><li>new elements to align with the existing building</li><li>additions that complement the existing character, siting, scale, proportion, pattern, form and detailing</li><li>use of contemporary and complementary materials, finishes, textures and colours</li></ul>                                                                              | NA  |    | Existing buildings on site are of poor quality and not suitable for adaptive reuse for an apartment tower. |
| Additions to heritage items should be clearly identifiable from the original building                                                                                                                                                                                                                                                                                                                                | NA  |    |                                                                                                            |
| New additions allow for the interpretation and future evolution of the building                                                                                                                                                                                                                                                                                                                                      | NA  |    |                                                                                                            |
| Objective 4R-2                                                                                                                                                                                                                                                                                                                                                                                                       |     |    |                                                                                                            |
| Adapted buildings provide residential amenity while not precluding future adaptive reuse                                                                                                                                                                                                                                                                                                                             |     |    |                                                                                                            |
| Design Guidance                                                                                                                                                                                                                                                                                                                                                                                                      | Yes | No | Notes                                                                                                      |
| Design features should be incorporated sensitively into adapted buildings to make up for any physical limitations, to ensure residential amenity is achieved. Design solutions may include: <ul style="list-style-type: none"><li>generously sized voids in deeper buildings</li><li>alternative apartment types when orientation is poor</li><li>using additions to expand the existing building envelope</li></ul> | NA  |    |                                                                                                            |
| Some proposals that adapt existing buildings may not be able to achieve all of the design criteria in this Apartment                                                                                                                                                                                                                                                                                                 | NA  |    |                                                                                                            |

| 4S: Mixed Use                                                                                                                                                                                                                                                                                                                                                                               |     |    |                                                                                                                                                                                                                          |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Objective 4S-1                                                                                                                                                                                                                                                                                                                                                                              |     |    |                                                                                                                                                                                                                          |
| Mixed use developments are provided in appropriate locations and provide active street frontages that encourage pedestrian movement                                                                                                                                                                                                                                                         |     |    |                                                                                                                                                                                                                          |
| Design Guidance                                                                                                                                                                                                                                                                                                                                                                             | Yes | No | Notes                                                                                                                                                                                                                    |
| Mixed use development should be concentrated around public transport and centres                                                                                                                                                                                                                                                                                                            | ●   |    |                                                                                                                                                                                                                          |
| Mixed use developments positively contribute to the public domain. Design solutions may include: <ul style="list-style-type: none"><li>development addresses the street</li><li>active frontages are provided</li><li>diverse activities and uses</li><li>avoiding blank walls at the ground level</li><li>live/work apartments on the ground floor level, rather than commercial</li></ul> | ●   |    | The creation of Cambridge Lane will be a positive contribution to the public domain and will integrate well with Willoughby Council's urban strategy. Retail activation is present along Cambridge Lane and McIntosh St. |
| Objective 4S-2                                                                                                                                                                                                                                                                                                                                                                              |     |    |                                                                                                                                                                                                                          |
| Residential levels of the building are integrated within the development, and safety and amenity is maximised for residents                                                                                                                                                                                                                                                                 |     |    |                                                                                                                                                                                                                          |
| Design Guidance                                                                                                                                                                                                                                                                                                                                                                             | Yes | No | Notes                                                                                                                                                                                                                    |
| Residential circulation areas should be clearly defined                                                                                                                                                                                                                                                                                                                                     | ●   |    |                                                                                                                                                                                                                          |
| Landscaped communal open space should be provided at podium or roof levels                                                                                                                                                                                                                                                                                                                  | ●   |    |                                                                                                                                                                                                                          |

| 4T: Awnings and Signage                                                                                                                                                                                                                                                                                                                                                                                                           |     |    |                                                                                |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----|--------------------------------------------------------------------------------|
| Objective 4T-1                                                                                                                                                                                                                                                                                                                                                                                                                    |     |    |                                                                                |
| Awnings are well located and complement and integrate with the building design                                                                                                                                                                                                                                                                                                                                                    |     |    |                                                                                |
| Design Guidance                                                                                                                                                                                                                                                                                                                                                                                                                   | Yes | No | Notes                                                                          |
| Awnings should be located along streets with high pedestrian activity and active frontages                                                                                                                                                                                                                                                                                                                                        | ●   |    |                                                                                |
| A number of the following design solutions are used:                                                                                                                                                                                                                                                                                                                                                                              | ●   |    | A fixed metal and glass awning is proposed along the length of Cambridge Lane. |
| <ul style="list-style-type: none"> <li>continuous awnings are maintained and provided in areas with an existing pattern</li> <li>height, depth, material and form complements the existing street character</li> <li>protection from the sun and rain is provided</li> <li>awnings are wrapped around the secondary frontages of corner sites</li> <li>awnings are retractable in areas without an established pattern</li> </ul> |     |    |                                                                                |
| Awnings should be located over building entries for building address and public domain amenity                                                                                                                                                                                                                                                                                                                                    | ●   |    |                                                                                |
| Awnings relate to residential windows, balconies, street tree planting, power poles and street infrastructure                                                                                                                                                                                                                                                                                                                     | ●   |    |                                                                                |
| Gutters and down pipes should be integrated and concealed                                                                                                                                                                                                                                                                                                                                                                         | ●   |    |                                                                                |
| Lighting under awnings should be provided for pedestrian safety                                                                                                                                                                                                                                                                                                                                                                   | ●   |    |                                                                                |
| Objective 4T-2                                                                                                                                                                                                                                                                                                                                                                                                                    |     |    |                                                                                |
| Signage responds to the context and desired streetscape character                                                                                                                                                                                                                                                                                                                                                                 |     |    |                                                                                |
| Design Guidance                                                                                                                                                                                                                                                                                                                                                                                                                   | Yes | No | Notes                                                                          |
| Signage should be integrated into the building design and respond to the scale, proportion and detailing of the development                                                                                                                                                                                                                                                                                                       | ●   |    |                                                                                |
| Legible and discrete way finding should be provided for larger developments                                                                                                                                                                                                                                                                                                                                                       | ●   |    |                                                                                |
| Signage is limited to being on and below awnings and a single facade sign on the primary street frontage                                                                                                                                                                                                                                                                                                                          | ●   |    |                                                                                |



| 4U: Energy Efficiency                                                                                                                                                                                                                                                                                                                                                                                                                          |     |    |                                                                                                                                                                                                                                                                |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Objective 4U-1                                                                                                                                                                                                                                                                                                                                                                                                                                 |     |    |                                                                                                                                                                                                                                                                |
| Development incorporates passive environmental design                                                                                                                                                                                                                                                                                                                                                                                          |     |    |                                                                                                                                                                                                                                                                |
| Design Guidance                                                                                                                                                                                                                                                                                                                                                                                                                                | Yes | No | Notes                                                                                                                                                                                                                                                          |
| Adequate natural light is provided to habitable rooms (see 4A Solar and daylight access)                                                                                                                                                                                                                                                                                                                                                       | ●   |    |                                                                                                                                                                                                                                                                |
| Well located, screened outdoor areas should be provided for clothes drying                                                                                                                                                                                                                                                                                                                                                                     |     | ○  | The site is in an urban environment.                                                                                                                                                                                                                           |
| Objective 4U-2                                                                                                                                                                                                                                                                                                                                                                                                                                 |     |    |                                                                                                                                                                                                                                                                |
| Development incorporates passive solar design to optimise heat storage in winter and reduce heat transfer in summer                                                                                                                                                                                                                                                                                                                            |     |    |                                                                                                                                                                                                                                                                |
| Design Guidance                                                                                                                                                                                                                                                                                                                                                                                                                                | Yes | No | Notes                                                                                                                                                                                                                                                          |
| A number of the following design solutions are used:                                                                                                                                                                                                                                                                                                                                                                                           | ●   |    | Refer to BASIX certificate prepared by Aspire Sustainability Consulting.                                                                                                                                                                                       |
| <ul style="list-style-type: none"> <li>the use of smart glass or other technologies on north and west elevations</li> <li>thermal mass in the floors and walls of north facing rooms is maximised</li> <li>polished concrete floors, tiles or timber rather than carpet</li> <li>insulated roofs, walls and floors and seals on window and door openings</li> <li>overhangs and shading devices such as awnings, blinds and screens</li> </ul> |     |    |                                                                                                                                                                                                                                                                |
| Provision of consolidated heating and cooling infrastructure should be located in a centralised location (e.g. the basement)                                                                                                                                                                                                                                                                                                                   | ●   |    | Residential AC condensers are located in a plant room behind the lift core on each apartment level. These rooms are vertically stacked throughout the building for efficiency of servicing. The commercial AC condensers are located above the LG waste rooms. |
| Objective 4U-3                                                                                                                                                                                                                                                                                                                                                                                                                                 |     |    |                                                                                                                                                                                                                                                                |
| Adequate natural ventilation minimises the need for mechanical ventilation                                                                                                                                                                                                                                                                                                                                                                     |     |    |                                                                                                                                                                                                                                                                |
| Design Guidance                                                                                                                                                                                                                                                                                                                                                                                                                                | Yes | No | Notes                                                                                                                                                                                                                                                          |
| A number of the following design solutions are used:                                                                                                                                                                                                                                                                                                                                                                                           | ●   |    |                                                                                                                                                                                                                                                                |
| <ul style="list-style-type: none"> <li>rooms with similar usage are grouped together</li> <li>natural cross ventilation for apartments is optimised</li> <li>natural ventilation is provided to all habitable rooms and as many non-habitable rooms, common areas and circulation spaces as possible</li> </ul>                                                                                                                                |     |    |                                                                                                                                                                                                                                                                |

| 4V: Water Management and Conservation                                                                                                                                                                                                                                                                                                    |     |    |                                                                         |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----|-------------------------------------------------------------------------|
| Objective 4V-1                                                                                                                                                                                                                                                                                                                           |     |    |                                                                         |
| Potable water use is minimised                                                                                                                                                                                                                                                                                                           |     |    |                                                                         |
| Design Guidance                                                                                                                                                                                                                                                                                                                          | Yes | No | Notes                                                                   |
| Water efficient fittings, appliances and wastewater reuse should be incorporated                                                                                                                                                                                                                                                         | ●   |    | Refer to BASIX certificate prepared by Aspire Sustainability Consulting |
| Apartments should be individually metered                                                                                                                                                                                                                                                                                                | ●   |    |                                                                         |
| Rainwater should be collected, stored and reused on site                                                                                                                                                                                                                                                                                 | ●   |    |                                                                         |
| Drought tolerant, low water use plants should be used within landscaped areas                                                                                                                                                                                                                                                            | ●   |    |                                                                         |
| Objective 4V-2                                                                                                                                                                                                                                                                                                                           |     |    |                                                                         |
| Urban stormwater is treated on site before being discharged to receiving waters                                                                                                                                                                                                                                                          |     |    |                                                                         |
| Design Guidance                                                                                                                                                                                                                                                                                                                          | Yes | No | Notes                                                                   |
| Water sensitive urban design systems are designed by a suitably qualified professional                                                                                                                                                                                                                                                   | ●   |    |                                                                         |
| A number of the following design solutions are used:                                                                                                                                                                                                                                                                                     | ●   |    |                                                                         |
| <ul style="list-style-type: none"><li>runoff is collected from roofs and balconies in water tanks and plumbed into toilets, laundry and irrigation</li><li>porous and open paving materials is maximised</li><li>on site stormwater and infiltration, including bio-retention systems such as rain gardens or street tree pits</li></ul> |     |    |                                                                         |
| Objective 4V-3                                                                                                                                                                                                                                                                                                                           |     |    |                                                                         |
| Flood management systems are integrated into site design                                                                                                                                                                                                                                                                                 |     |    |                                                                         |
| Design Guidance                                                                                                                                                                                                                                                                                                                          | Yes | No | Notes                                                                   |
| Detention tanks should be located under paved areas, driveways or in basement car parks                                                                                                                                                                                                                                                  | ●   |    |                                                                         |
| On large sites parks or open spaces are designed to provide temporary on site detention basins                                                                                                                                                                                                                                           | NA  |    |                                                                         |



| 4W: Waste Management                                                                                                                                |     |    |                                                             |
|-----------------------------------------------------------------------------------------------------------------------------------------------------|-----|----|-------------------------------------------------------------|
| Objective 4W-1                                                                                                                                      |     |    |                                                             |
| Waste storage facilities are designed to minimise impacts on the streetscape, building entry and amenity of residents                               |     |    |                                                             |
| Design Guidance                                                                                                                                     | Yes | No | Notes                                                       |
| Adequately sized storage areas for rubbish bins should be located discreetly away from the front of the development or in the basement car park     | ●   |    |                                                             |
| Waste and recycling storage areas should be well ventilated                                                                                         | ●   |    |                                                             |
| Circulation design allows bins to be easily maneuvered between storage and collection points                                                        | ●   |    |                                                             |
| Temporary storage should be provided for large bulk items such as mattresses                                                                        | ●   |    |                                                             |
| A waste management plan should be prepared                                                                                                          | ●   |    | Refer to Waste Management Plan prepared by Elephant's Foot. |
| Objective 4W-2                                                                                                                                      |     |    |                                                             |
| Domestic waste is minimised by providing safe and convenient source separation and recycling                                                        |     |    |                                                             |
| Design Guidance                                                                                                                                     | Yes | No | Notes                                                       |
| All dwellings should have a waste and recycling cupboard or temporary storage area of sufficient size to hold two days worth of waste and recycling | ●   |    |                                                             |
| Communal waste and recycling rooms are in convenient and accessible locations related to each vertical core                                         | ●   |    |                                                             |
| For mixed use developments, residential waste and recycling storage areas and access should be separate and secure from other uses                  | ●   |    |                                                             |
| Alternative waste disposal methods such as composting should be provided                                                                            |     | ○  | Refer to Waste Management Plan prepared by Elephant's Foot. |

| 4X: Building Maintenance                                                                                                                                                                                                                                                                                                                                                                                                                            |     |    |       |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----|----|-------|
| Objective 4X-1                                                                                                                                                                                                                                                                                                                                                                                                                                      |     |    |       |
| Building design detail provides protection from weathering                                                                                                                                                                                                                                                                                                                                                                                          |     |    |       |
| Design Guidance                                                                                                                                                                                                                                                                                                                                                                                                                                     | Yes | No | Notes |
| A number of the following design solutions are used:                                                                                                                                                                                                                                                                                                                                                                                                | •   |    |       |
| <ul style="list-style-type: none"><li>• roof overhangs to protect walls</li><li>• hoods over windows and doors to protect openings</li><li>• detailing horizontal edges with drip lines to avoid staining of surfaces</li><li>• methods to eliminate or reduce planter box leaching</li><li>• appropriate design and material selection for hostile locations</li></ul>                                                                             |     |    |       |
| Objective 4X-2                                                                                                                                                                                                                                                                                                                                                                                                                                      |     |    |       |
| Systems and access enable ease of maintenance                                                                                                                                                                                                                                                                                                                                                                                                       |     |    |       |
| Design Guidance                                                                                                                                                                                                                                                                                                                                                                                                                                     | Yes | No | Notes |
| Window design enables cleaning from the inside of the building                                                                                                                                                                                                                                                                                                                                                                                      | •   |    |       |
| Building maintenance systems should be incorporated and integrated into the design of the building form, roof and facade                                                                                                                                                                                                                                                                                                                            | •   |    |       |
| Design solutions do not require external scaffolding for maintenance access                                                                                                                                                                                                                                                                                                                                                                         | •   |    |       |
| Manually operated systems such as blinds, sunshades and curtains are used in preference to mechanical systems                                                                                                                                                                                                                                                                                                                                       | •   |    |       |
| Centralised maintenance, services and storage should be provided for communal open space areas within the building                                                                                                                                                                                                                                                                                                                                  | •   |    |       |
| Objective 4X-2                                                                                                                                                                                                                                                                                                                                                                                                                                      |     |    |       |
| Systems and access enable ease of maintenance                                                                                                                                                                                                                                                                                                                                                                                                       |     |    |       |
| Design Guidance                                                                                                                                                                                                                                                                                                                                                                                                                                     | Yes | No | Notes |
| A number of the following design solutions are used:                                                                                                                                                                                                                                                                                                                                                                                                | •   |    |       |
| <ul style="list-style-type: none"><li>• sensors to control artificial lighting in common circulation and spaces</li><li>• natural materials that weather well and improve with time such as face brickwork</li><li>• easily cleaned surfaces that are graffiti resistant</li><li>• robust and durable materials and finishes are used in locations which receive heavy wear and tear, such as common circulation areas and lift interiors</li></ul> |     |    |       |



