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Version

2.0

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Lots 18, 19 and 20  
St Leonards South EQ

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RFI Submission  
20 January 2023

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Koichi  
Takada  
Architects

[koichitakada.com](http://koichitakada.com)





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Project Team

|                     |                          |
|---------------------|--------------------------|
| Developer           | Greaton Development      |
| Architect           | Koichi Takada Architects |
| Project Manager     | Lateral Consulting       |
| Planner             | MG Planning Pty Ltd      |
| Access              | ABE                      |
| Acoustic            | PKA                      |
| Arborist            | Lawrence & Co            |
| BASIX               | JHA Consulting Engineers |
| BCA                 | City Plan                |
| Building Services   | JHA Consulting Engineers |
| Electrical          | JHA Consulting Engineers |
| Environmental       | JK Geotechnic            |
| HAZMAT              | JK Geotechnic            |
| Land Surveyor       | LTS Lockley              |
| Landscape Architect | Aspect Studios           |
| Structural & Civil  | Robert Birds             |
| Survey              | LTS Lockley              |
| Traffic             | SCT Consulting           |
| Waste               | Waste Audit              |

Koichi  
Takada  
Architects





## 1.0 Project Vision

### St Leonards South - East Quarter

The proposed development at St Leonards South by Greateon Development and designed by Koichi Takada Architects is ideally positioned on the southern edge of St Leonards in Sydney's inner north. The site is located within the R4 - High Density Residential Zone and is intended as a transitional zone from the higher density mixed-use developments of St Leonards Station to the R2 Low Density Residential. As part of the St Leonards and Crows Nest 2036 plan, the Department of Planning is anticipating a significant increase in residential population which will require more affordable housing and greater variety to support projected growth in the St Leonards area.

The overall vision is for a high-quality residential development that adds value and density to its site by delivering a development of scale consistent with the masterplan, providing investment and local housing.

Koichi Takada Architects design entails five residential buildings with common amenities that aim to create a community and maximise resident experience on site. The development's scale and massing responds to neighbouring dwellings along River Road and enhances the proposed streetscape for the St Leonards South precinct. The design enhances amenity through use of high-quality materials and careful consideration of form and articulation. All apartments enjoy access to multiple communal open spaces and private balconies and terraces overlook the landscaped 'green spine' connection.



Right: Illustration of St Leonards South Precinct.







# Site Context & Analysis

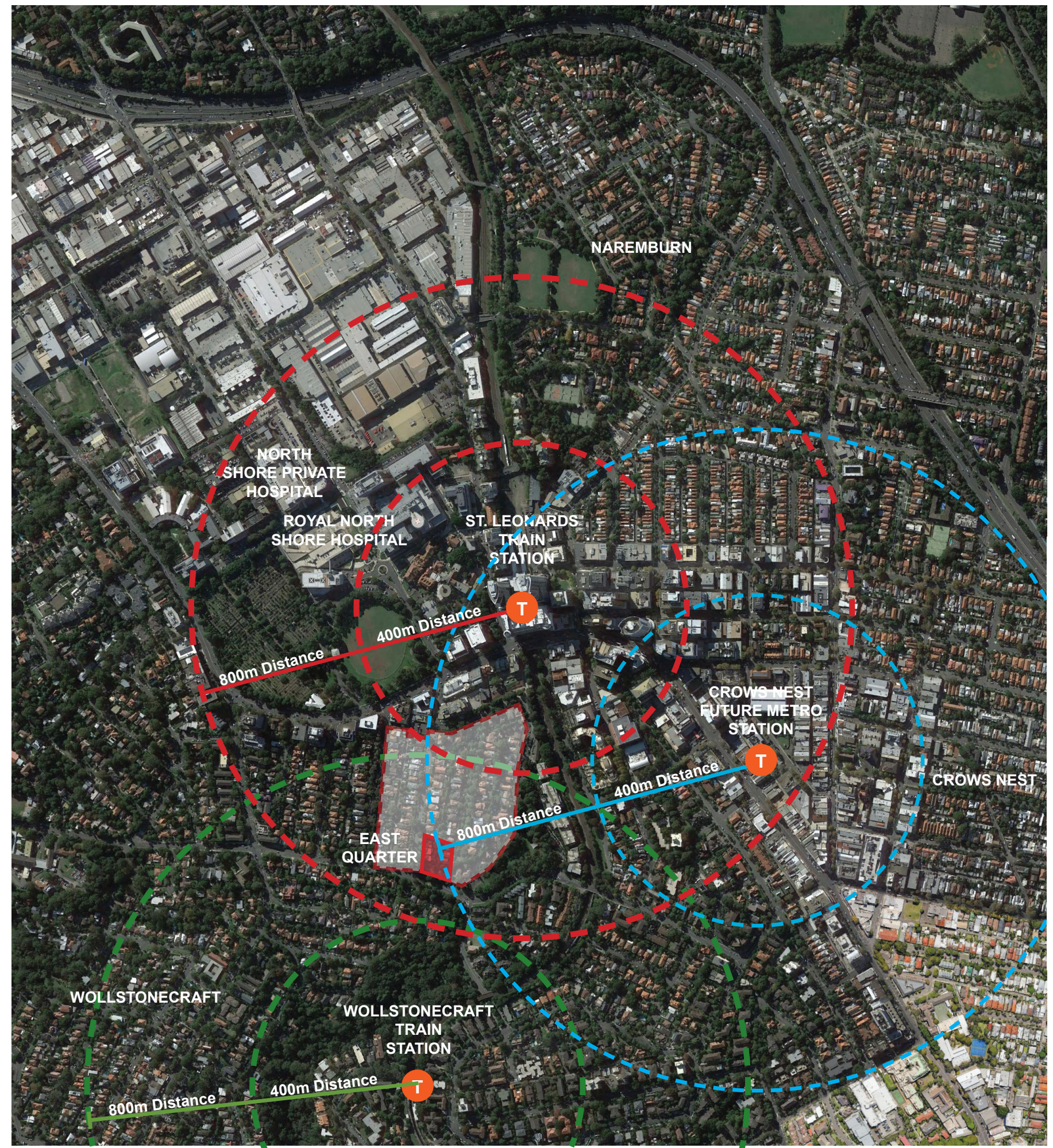
2.0



## 2.1 Location Plan Context

The St Leonards South - East Quarter is ideally positioned on the southern edge of St Leonard's in Sydney's inner north. The site sits within the newly proposed St Leonards South Precinct and is part of the St Leonards South masterplan. The locale is characterised by a provision of new housing and is well connected to Sydney's existing public transit system and a network of public open spaces.

The site is equidistant to Willoughby and St Leonards Station (within an 800m catchment zone) as well as nearby to the proposed Crows Nest Sydney Metro Station. The site lies in close proximity to the proposed transport corridor and a network of new and improved cycleways and walking paths connect the site towards Lane Cove. The Foreshore to Foreshore Link offers sustainable travel alternatives for residents in St Leonards South.





2.1 Location Plan  
St Leonards South - East Quarter

The site is a trapezoidal parcel of land measuring 8757.8m2. The immediate context includes the newly proposed developments of the St Leonards South masterplan and the Crows Nest active precinct.

Nearby green areas include proposed neighbouring pocket parks and the green spine connection to River Road. The local area has a leafy and relatively tranquil character, and the residents of St Leonards South are provided with abundant choice in the open space areas located within walking distance of the site.

Site Area: 8758 m2

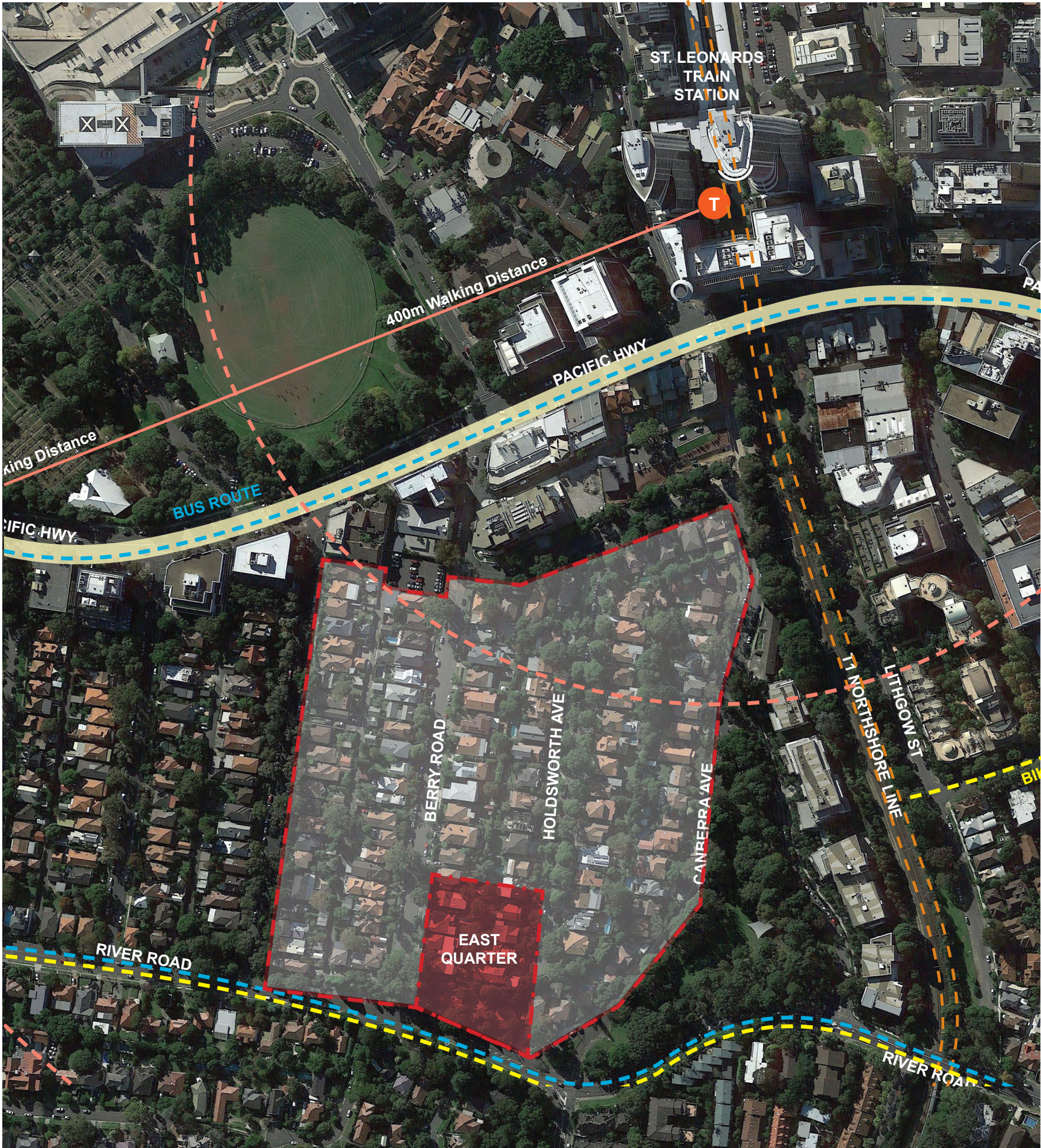
Street Address: St Leonards South,  
Lot 18, 19 & 20 East Quarter

Street Frontage: River Road, Berry  
Road and Holdsworth Avenue

Existing Structures: 2 storey dwellings

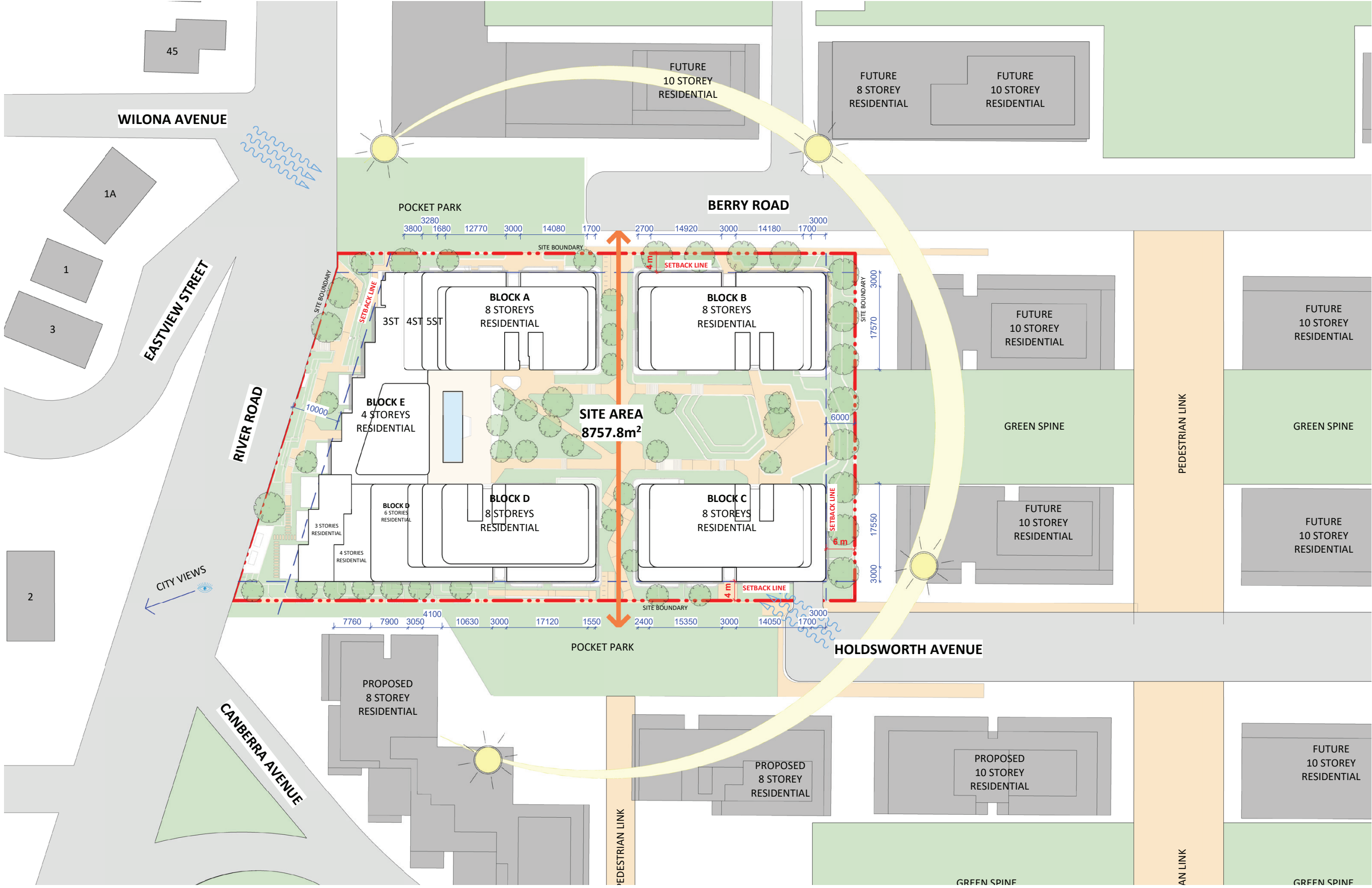
- Main Road
- Train Line
- Walking Distance
- Bus Route
- Bike Lane

Right: Aerial View of site in context.





2.2 Site Analysis  
Environmental Analysis









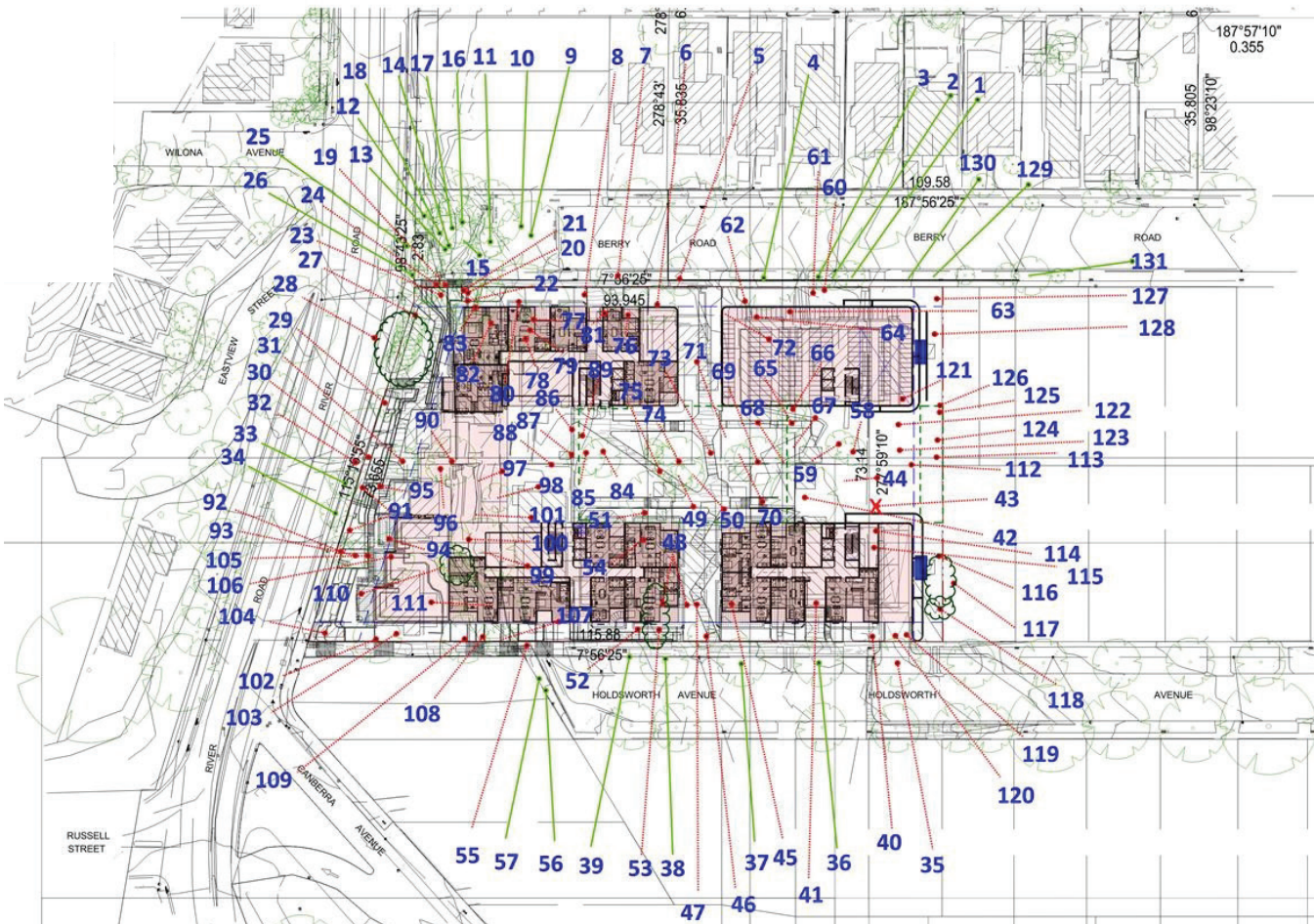
## 2.2 Site Analysis

### St Leonards South - East Quarter



### Council Masterplan

This proposal is for Area 18, 19 and 20 under the St Leonards South Masterplan. The masterplan specifies inclusion of a green spine which runs continuously through the areas between River Road and Mashall Avenue. A cross-site link connects Berry Road to Holdsworth Avenue.



### Existing Trees

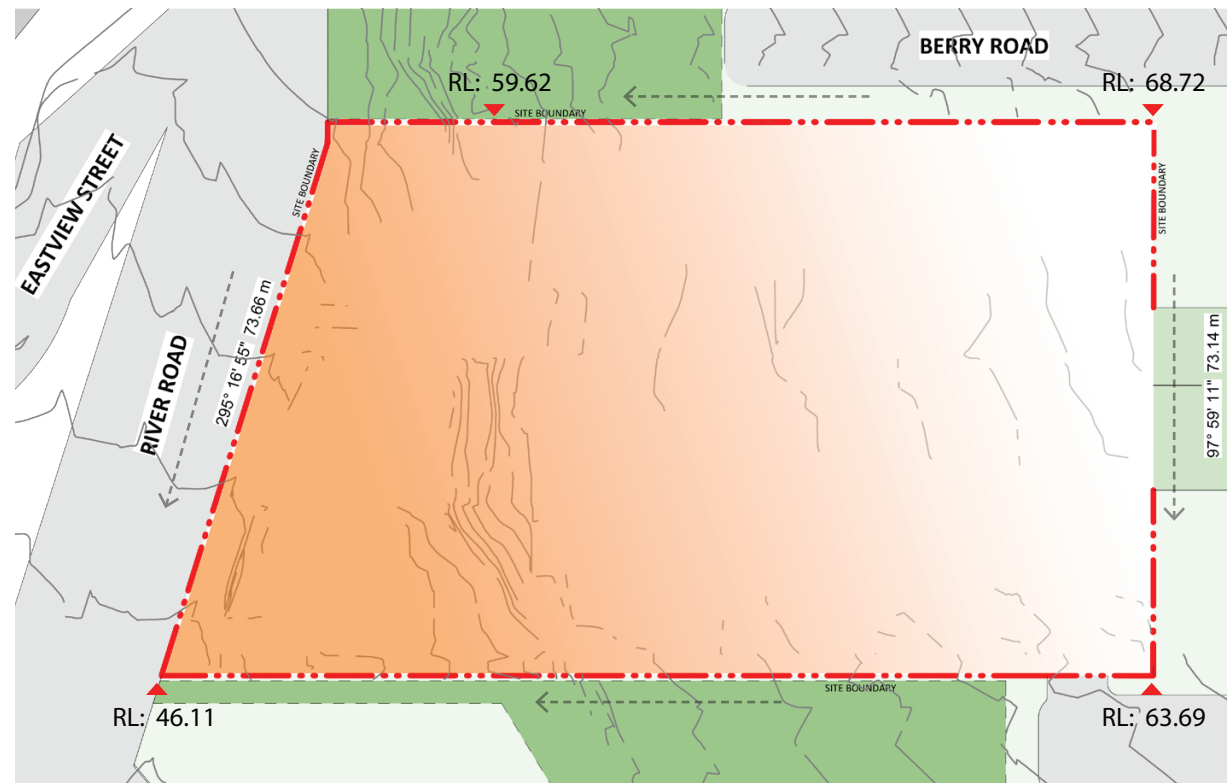
Scale: 1.500

- X Tree already removed
- Tree removal required
- Tree retained



## 2.2 Site Analysis

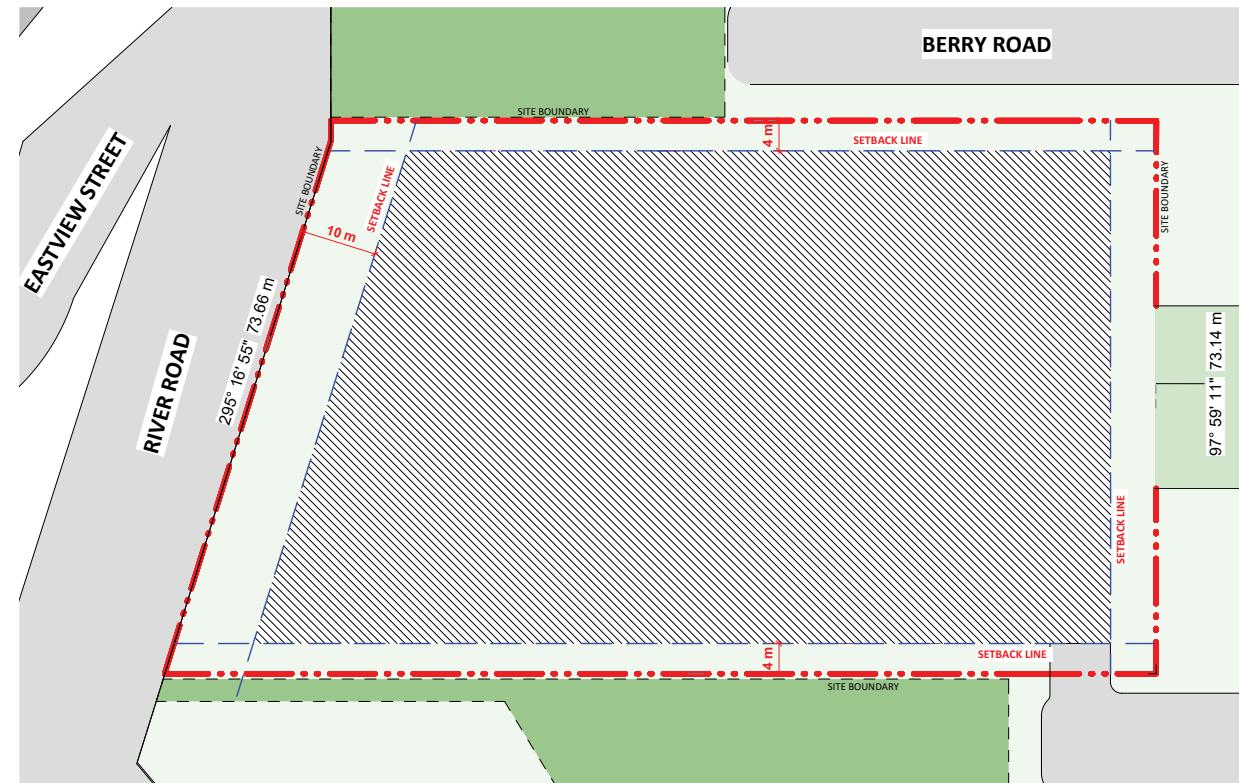
### St Leonards South - East Quarter



### Topography

Scale: 1.500

The site has a considerable level change with a heavily stepped cross-fall of approximately 20m from north to south towards River Road.



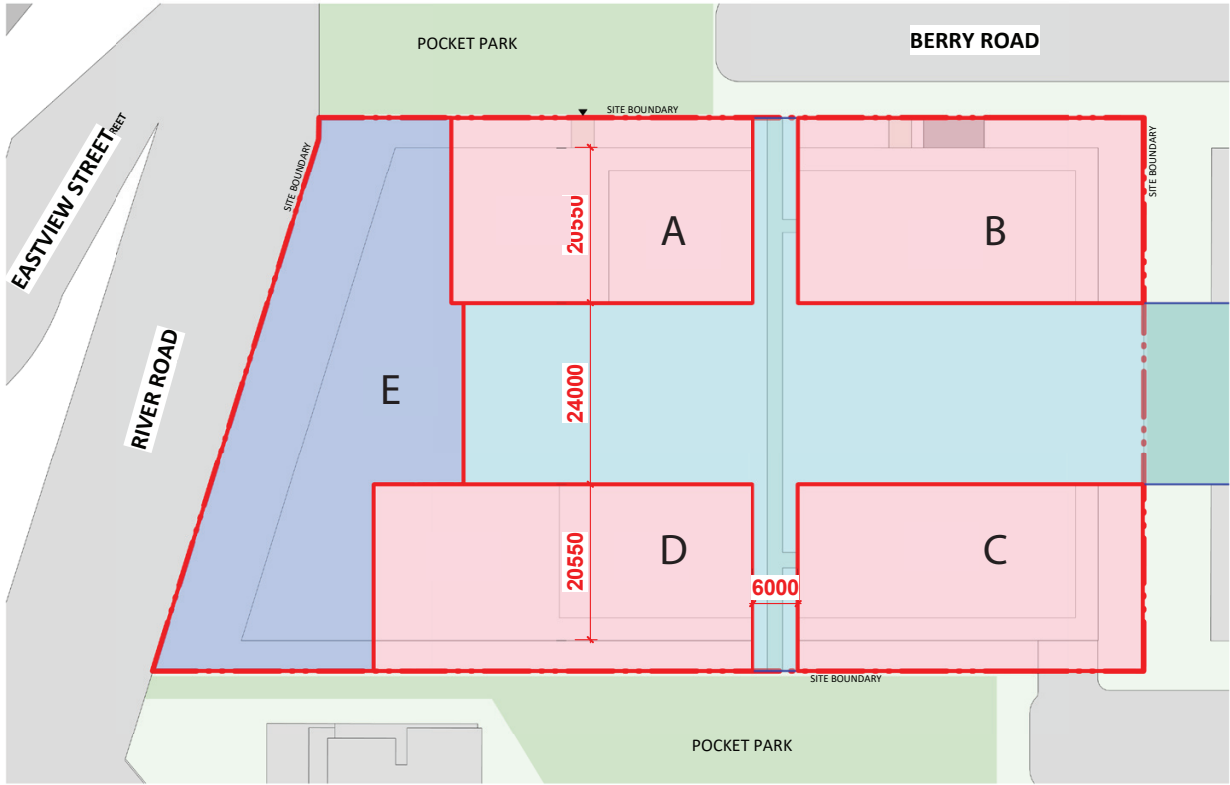
### Required Setbacks

Scale: 1.500

# Masterplan Framework

3.0

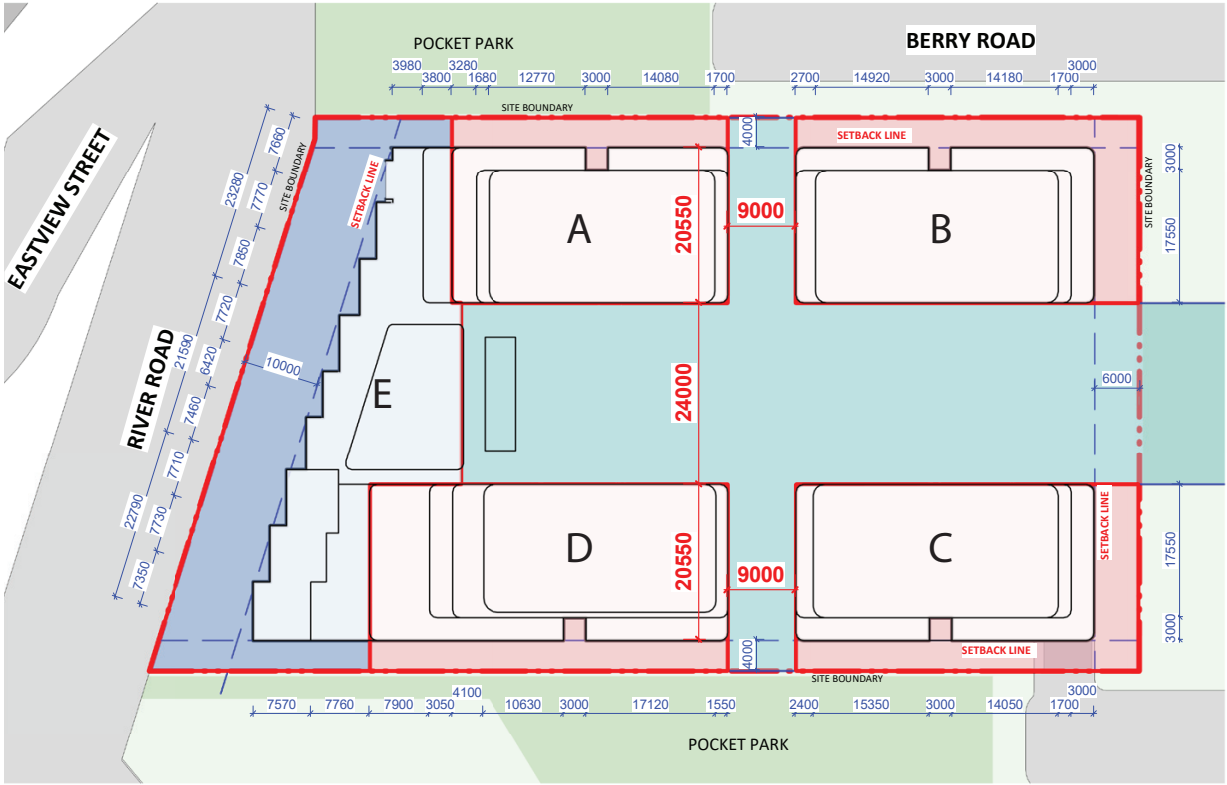
# 3.0 Masterplan Framework LEP Height Control Overlay



Council Masterplan

Scale: 1.500

- LEP 2.5m Zone
- LEP 15m Zone
- LEP 31m Zone

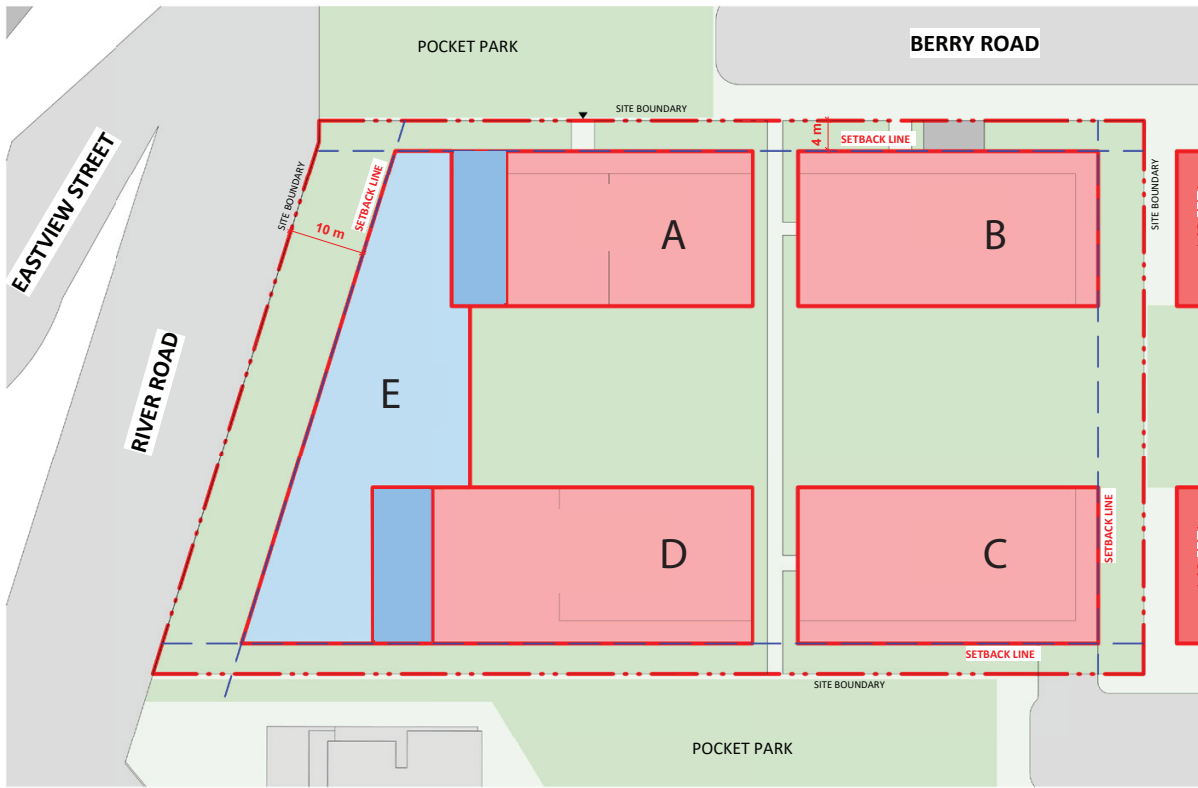


Current Proposal

Scale: 1.500

- LEP 2.5m Zone
- LEP 15m Zone
- LEP 31m Zone

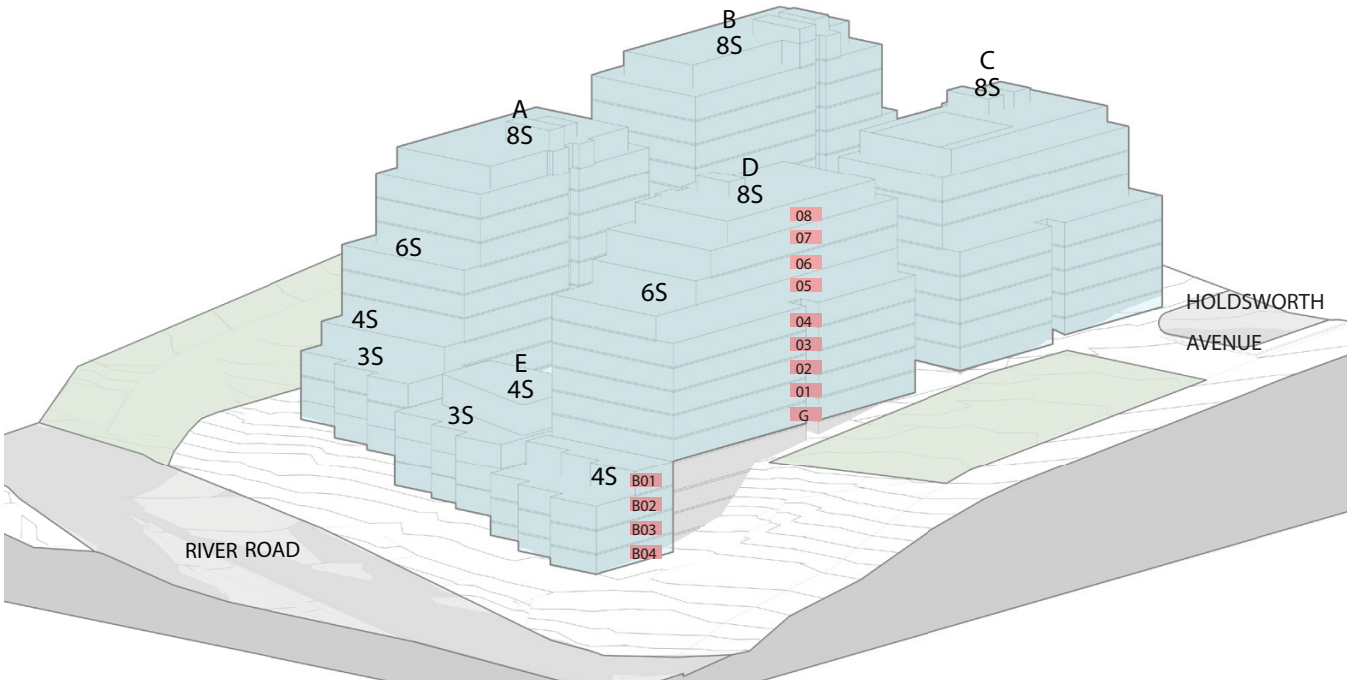
# 3.0 Masterplan Framework DCP Storey Control Overlay



## Council Masterplan

Scale: 1.500

- 4 Storey limit
- 6 Storey limit
- 8 Storey limit
- 10 Storey limit



## Current Proposal

Scale: 1.500

The number of storeys in the proposed development is consistent with the DCP

- Basement storey
- Residential storey

### Lane Cove Development Control Plan

- Dictionary

Effective 22 February 2010

Storey means a space within a building that is situated between one floor level and the floor level next above, or if there is no floor above, the ceiling or roof above, but does not include:  
(a) a space that contains only a lift shaft, stairway or meter room, or  
(b) a mezzanine, or  
(c) an attic.

### Lane Cove Development

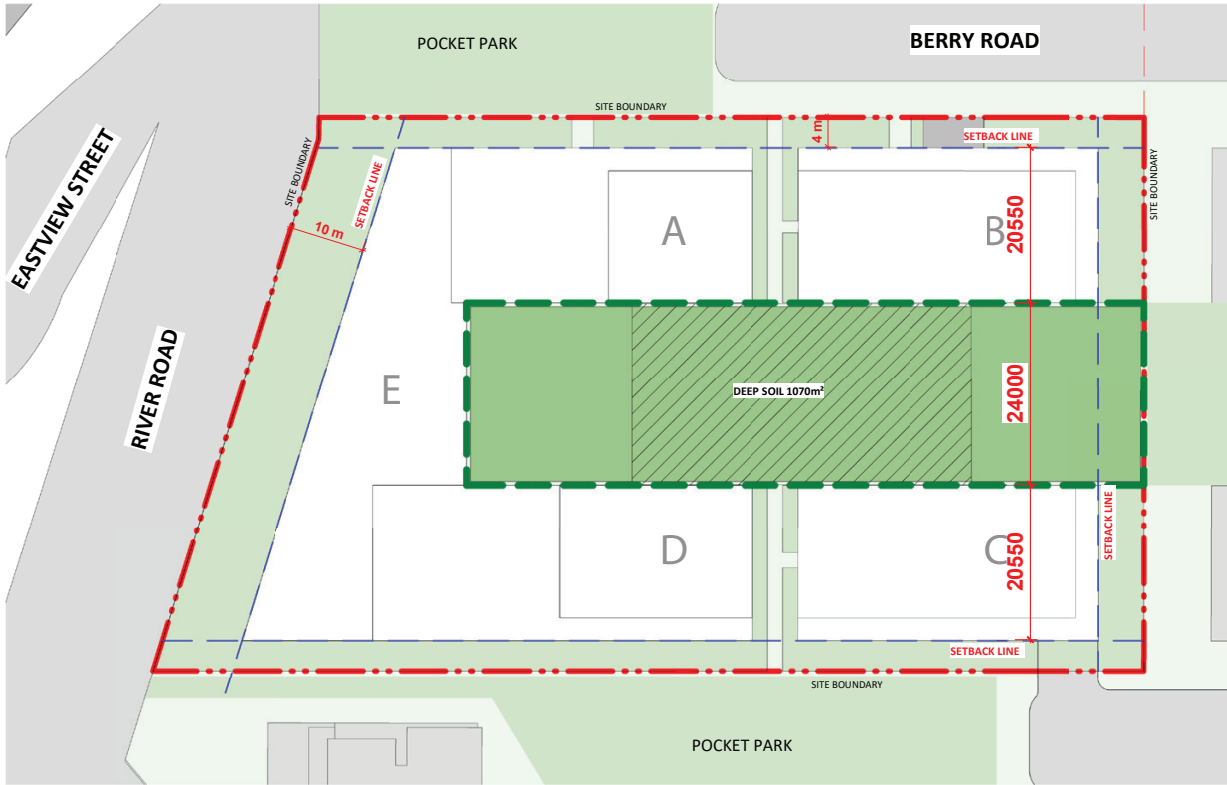
Control Plan - Part C

Residential Localities

Effective 22 February 2010

Part Storeys resulting from excavation of steep slopes or semi basement parking will not count as a storey  
Refer to Caluse 4.6 (8)(cb) and Part 7 of Lane Cove LEP

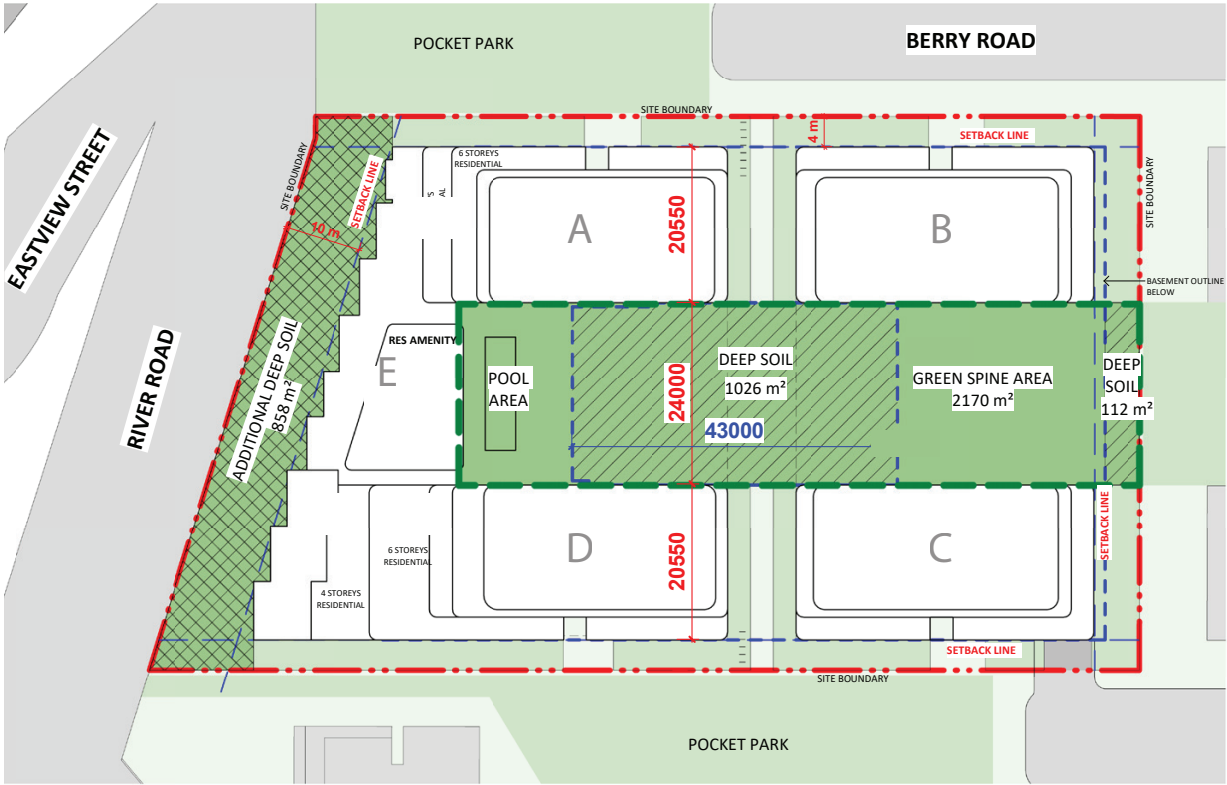
# 3.0 Masterplan Framework Green Spine



Council Masterplan

Scale: 1.500

Required Green Spine Area: 2,140m2



Current Proposal

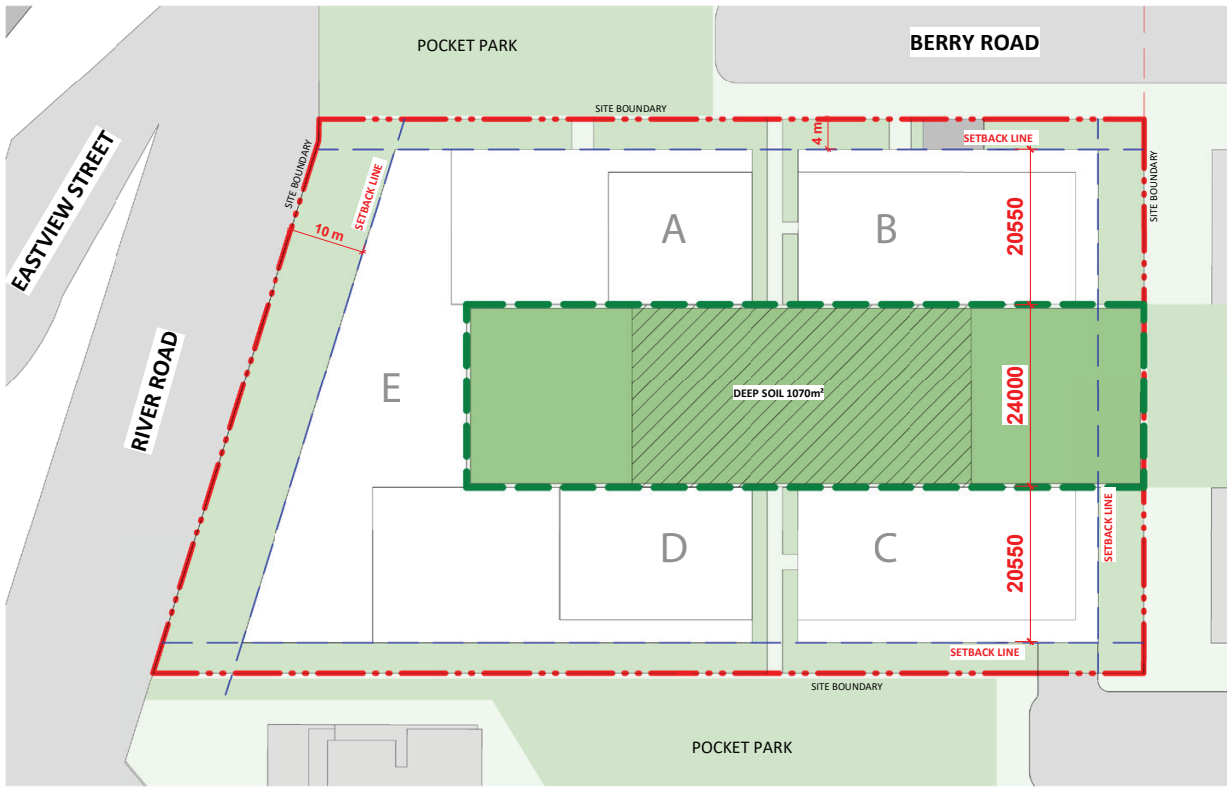
Scale: 1.500

Provided Green Spine Area: 2,170m2

The masterplan includes a large ‘green spine’ which acts as a view corridor and communal area through the development. The prescribed ‘green spine’ is extended to connect to River Road. Circulation through the green spine is designed to maintain accessibility.

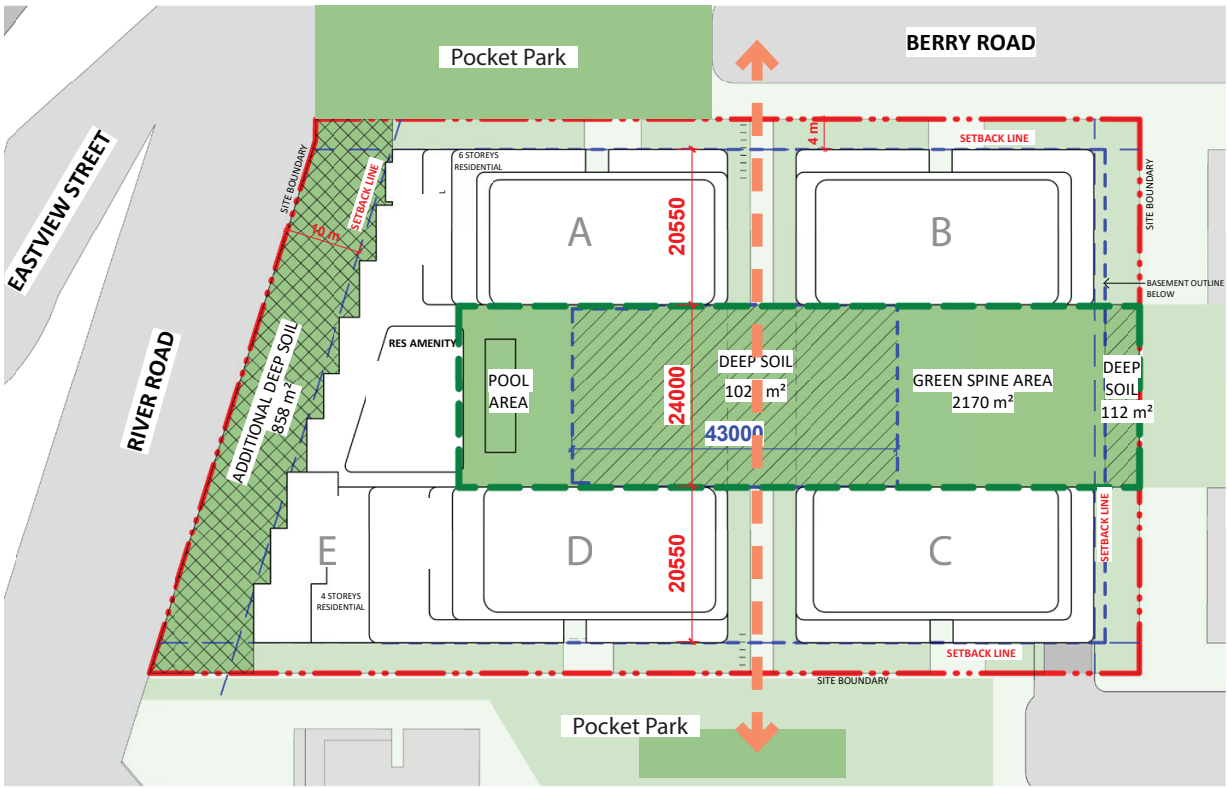
### 3.0 Masterplan Framework

#### Through-Site Link and Pocket Parks



Council Masterplan

Scale: 1.500



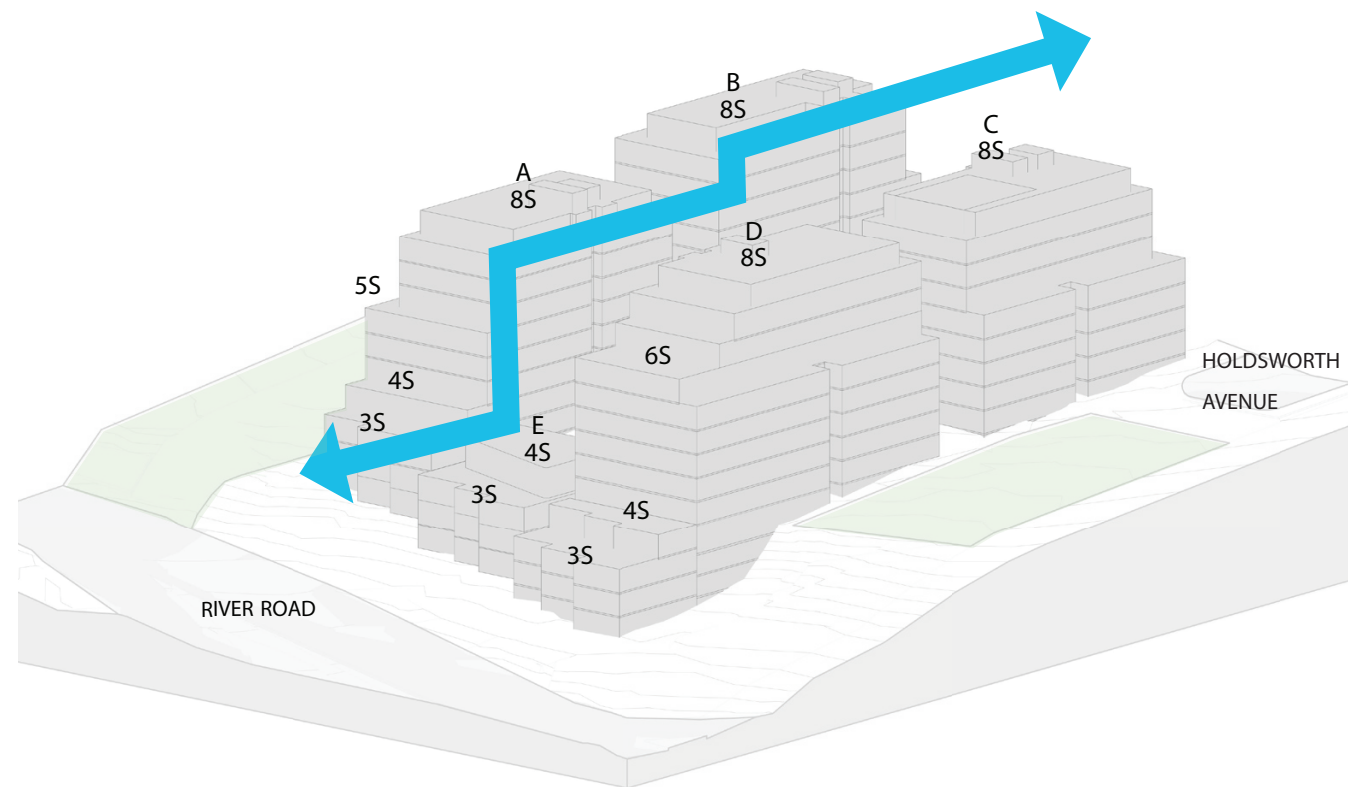
Current Proposal

Scale: 1.500

The through-site link connects the green spine to proposed pocket parks on the east and west site boundaries, providing connection and access to additional green spaces for residents and enhancing the existing public domain.

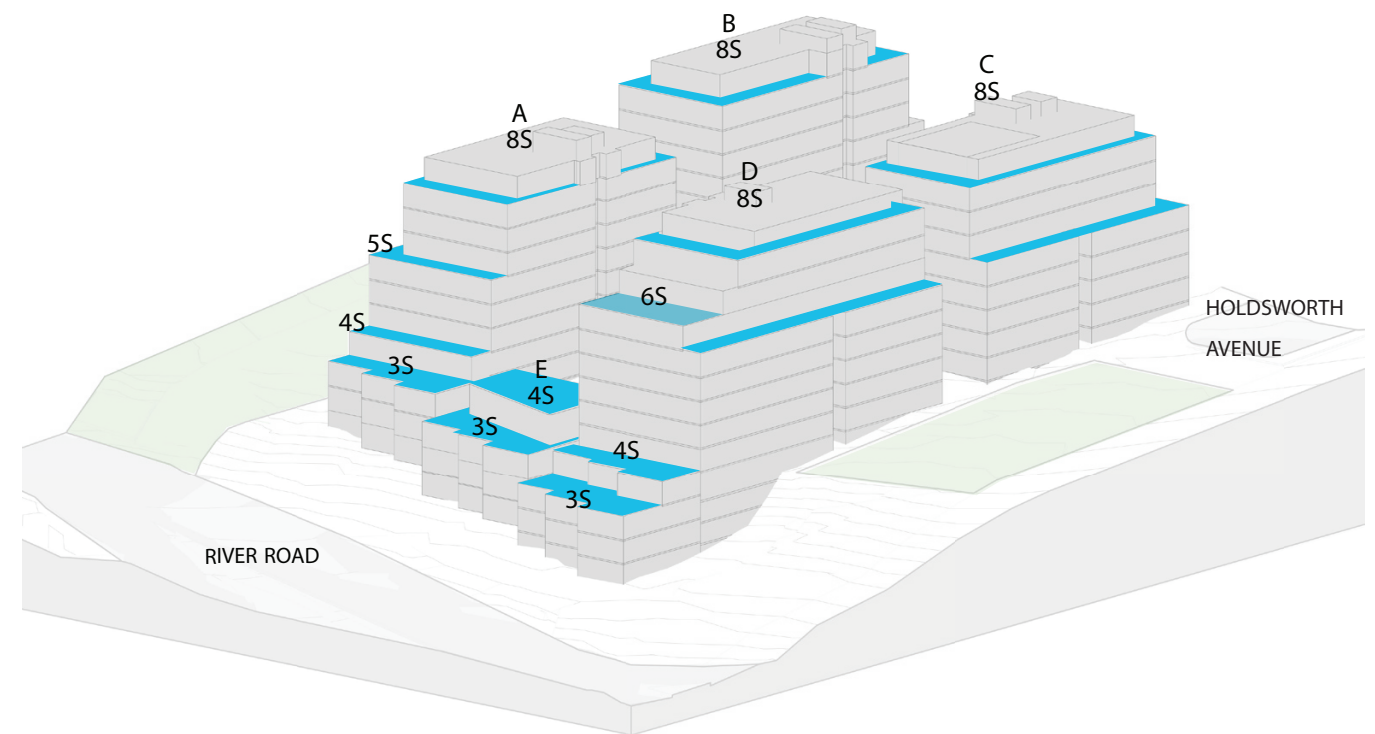


### 3.0 Masterplan Framework Design Principles



#### Stepped Building Form

The stepped building form works with existing topography and grades to minimise earthworks and level transitions and retain existing trees.

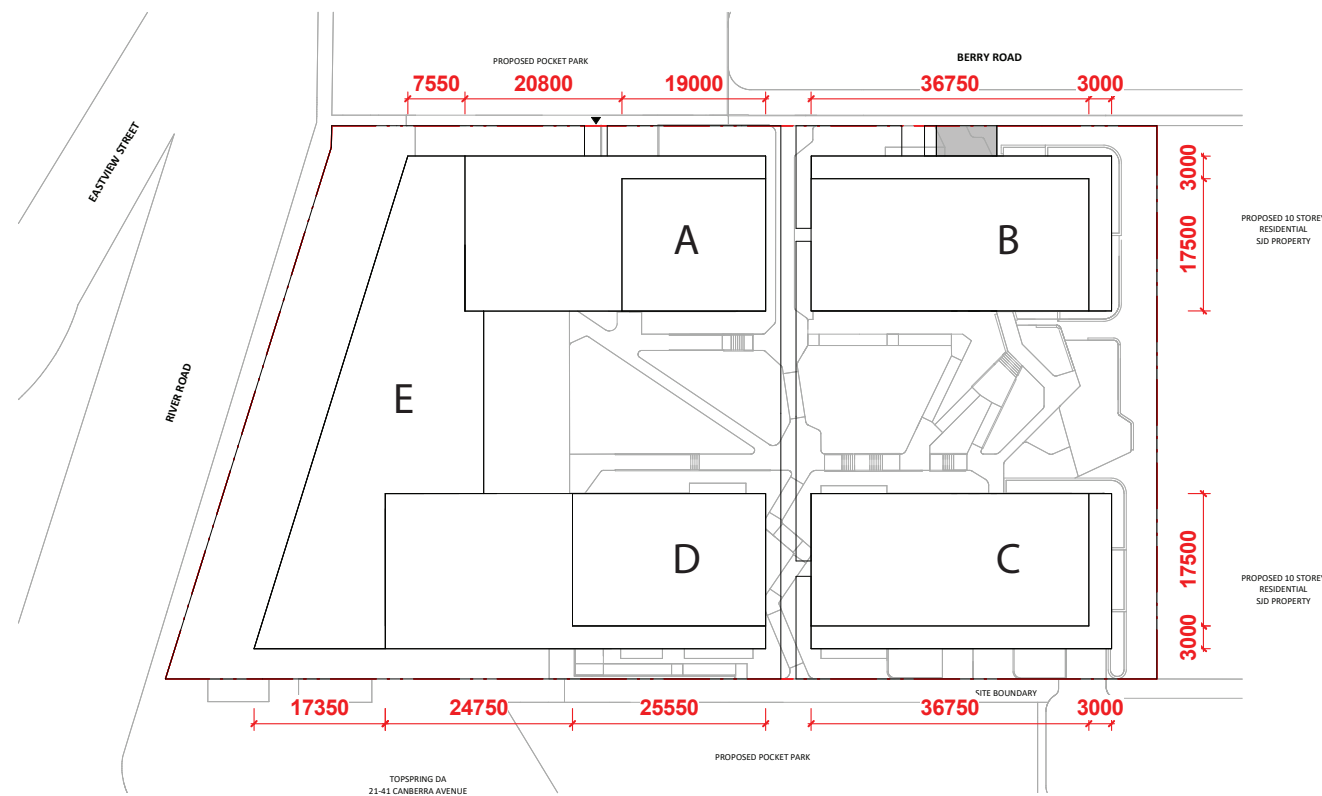


#### Streetwall Setbacks

Massing is terraced to maximise views to the Sydney CBD, adding visual interest and diversity to the form and creating private outdoor spaces for residents. The proposal is sympathetic to the smaller scale of residential properties on River Road by transitioning from a 4 storey street wall and terracing upwards to the 5, 6 & 8 storey component. The gradual stepping reduces perceived bulk and scale from River Road and is more aligned to the natural topography of the site. Streetwall setbacks break up the massing to give a human scale to the buildings at street level.

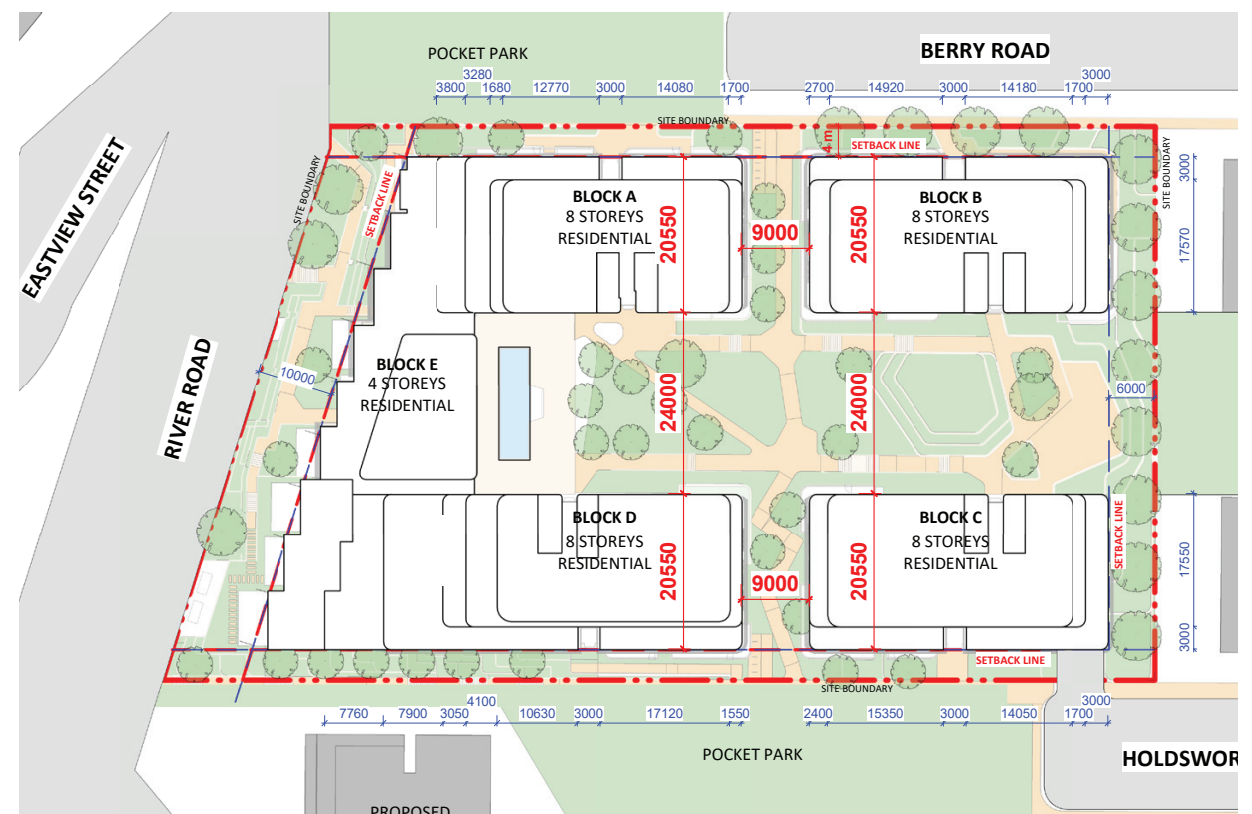
### 3.0 Masterplan Framework

#### Building Length



# Council Masterplan

Scale: 1.500



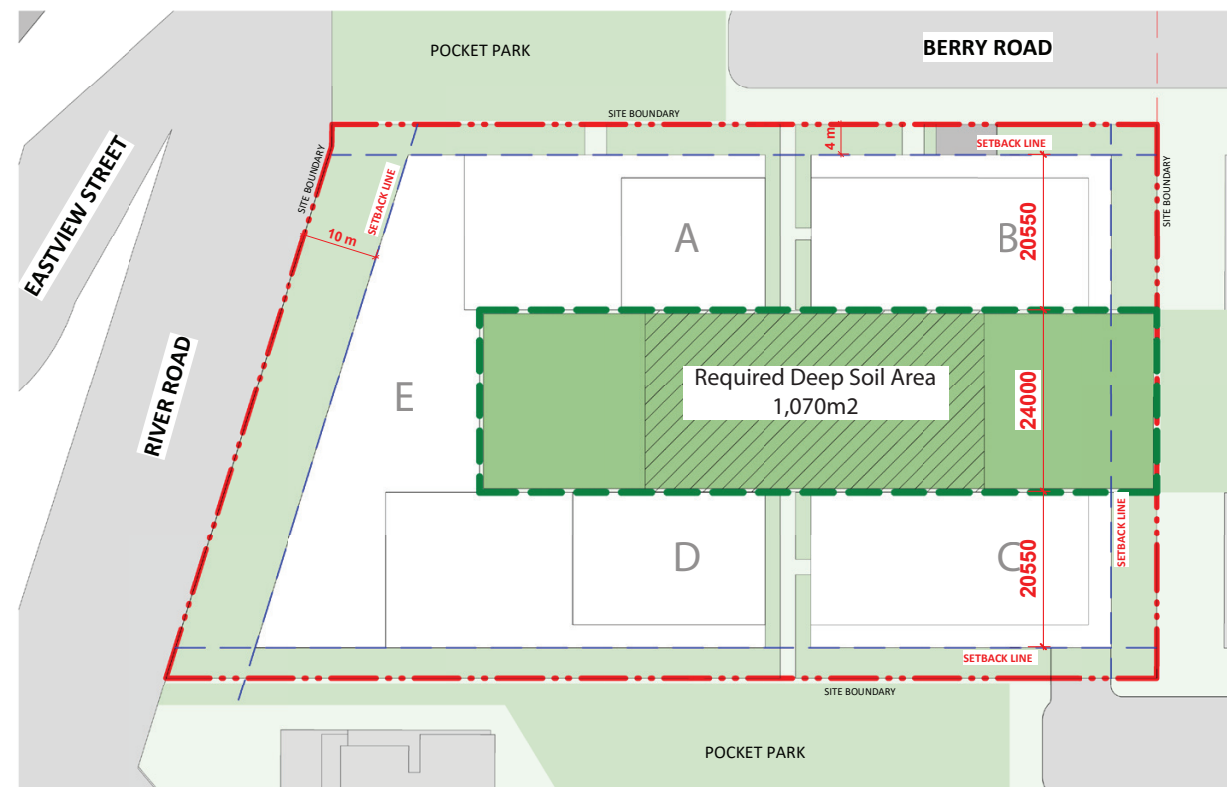
## Current Proposal

Scale: 1.500



### 3.0 Masterplan Framework

#### Deep Soil



# Council Masterplan

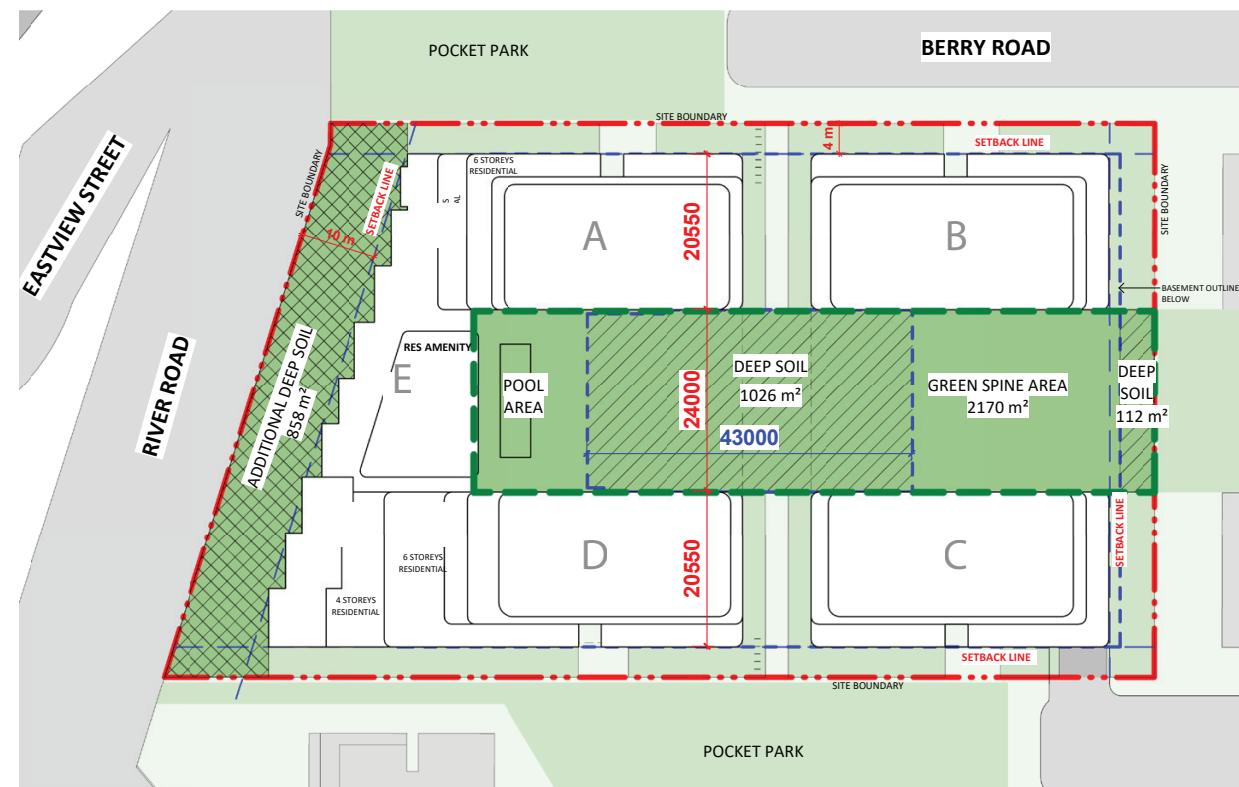
Scale: 1.500

Required Green Spine Area: 2,140m<sup>2</sup>

Required Deep Soil Area at Green Spine: 1,070m<sup>2</sup> (min. 50%)



Deep Soil



## Current Proposal

Scale: 1.500

The green spine will be supported by large deep soil areas that allow mature tree planting.

Provided Green Spine Area: 2,170m<sup>2</sup>

Provided Deep Soil Area at Green Spine: 1,138m<sup>2</sup> (52%)

Additional Deep Soil: 858m<sup>2</sup>

Total Provided Deep Soil: 1,986m2



Deep Soil

### 3.1 Masterplan Summary

#### Site Controls and Compliance

The massing responds to existing site controls. The development has been designed with careful consideration of the objectives in the relevant DCP and LEP. It also considers the design quality principles set out in the Apartment Design Guide (ADG) to ensure a high level of public and residential amenity is provided.

#### Local Environmental Plan (LEP) Controls

- ✓ FSR: 2.60 : 1
- ✓ Height Control: 2.5m zone, 15m zone, 31m zone
- ✓ Green Spine Width: 24m
- ✓ Through site Link Width: 9m (min. 6m)

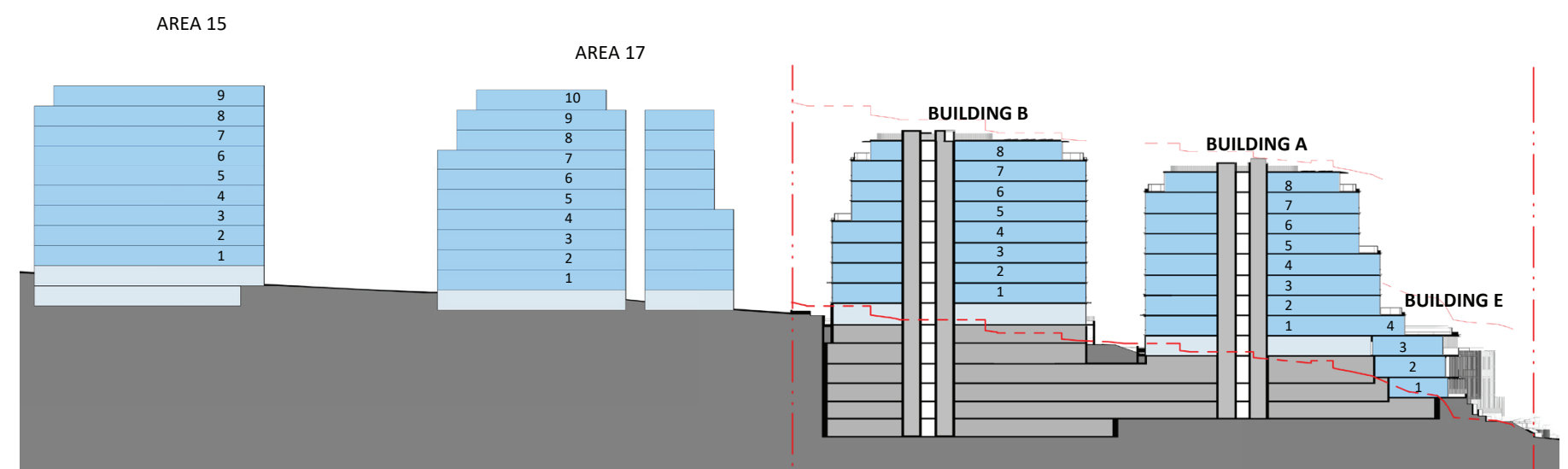
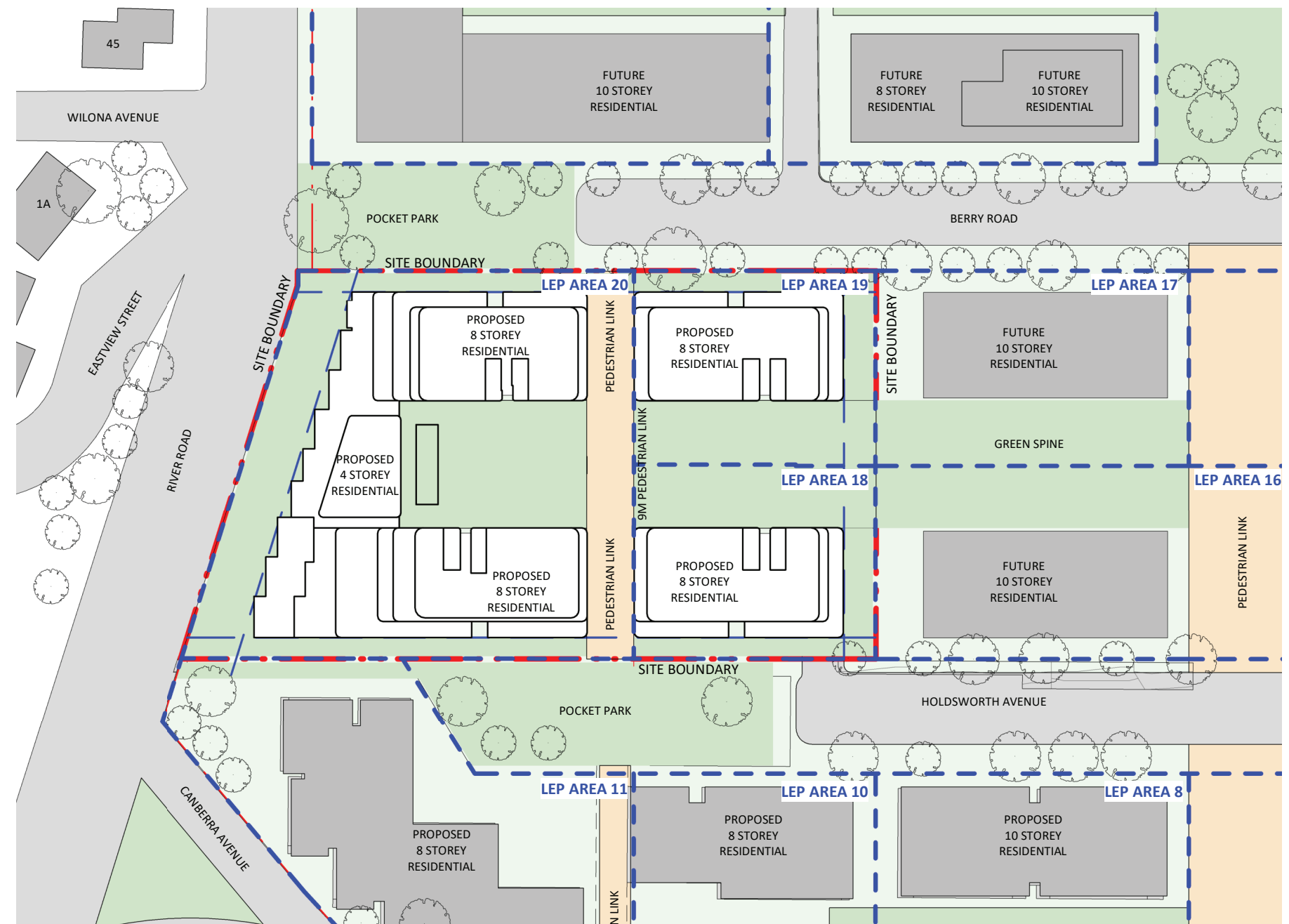
#### Development Control Plan (DCP) Controls

- ✓ DCP Height Control: 8 storeys (max. 8 storeys)
- ✓ DCP Street Setback Control: First 5 storeys continue a 4m setback to align to streetscape setbacks, above which a 7m setback is introduced up to Level 7, and 8m in the upper level.
- ✓ DCP Maximum Building Depth: 20.55m (max. 22m)

#### Apartment Design Guide (ADG) Controls

- ✓ Building Separation: 9m between Block A/B and 9m between block D/C.
- ✓ East-west block separation: 24m building separation in Green Spine.

Right: Location Plan and Site Section at Scale 1:1000



# Design Response

4.0



## 4.1 Design Philosophy

### Koichi Takada Architects

The proposal sets out to meet the requirements of the St Leonard's masterplan and stated project objectives, ensuring buildings of scale have meaning and are appropriate to site and locality. The principal design approach was to create an intrinsic relationship between architecture and nature while maintaining pedestrian connectivity across the steep grade of the site. The buildings incorporate large-scale passive design strategies at a fundamental level well beyond that of a typical commercial development.

The design for St Leonards South East Quarter provides for landscaping, natural ventilation, solar access and harvesting of renewable energies. The integrated landscape provides a physical and visual layering which insulates interiors from the sun, wind and rain. The design intent is to create a cohesive look and feel for the site, responding to the guidelines of the St Leonards South masterplan.

The pedestrian is prioritised on site, with vehicle entrances carefully considered. Remaining open space on site is fully landscaped and dedicated to pedestrian use, inviting community events, socialising and physical activity. The 'green spine' features a series of floating stairs integrated in to the slope of the topography, natural store paving and a layering of mature trees to create a lush and dense landscaped environment. The through-site link connects to proposed pedestrian pathways and pocket parks. The project looks to inspire a 'zero carbon mindset' in it's resident, promoting a healthy, sustainable lifestyle.









4.2 Project Summary  
St Leonards South - East Quarter

Lots 18, 19 and 20 East Quarter, St Leonards South

Site Area: 8758 m2

Land Use: R4 High Density Residential

Gross Floor Area (GFA): 22,770m2

Floor Space Ratio (FSR): 2.60 : 1

Building Height (storeys): 3, 4, 6, 8 storeys

Max. Building Depth: 20.55m

Unit Mix

Total number of units: 230 units

1 bedroom units: 74 units (32%)

2 bedroom units: 110 units (48%)

3 bedroom units: 46 units (20%)

Car Parking

Total basement parking: 411 spaces

Visitor parking: 60 spaces

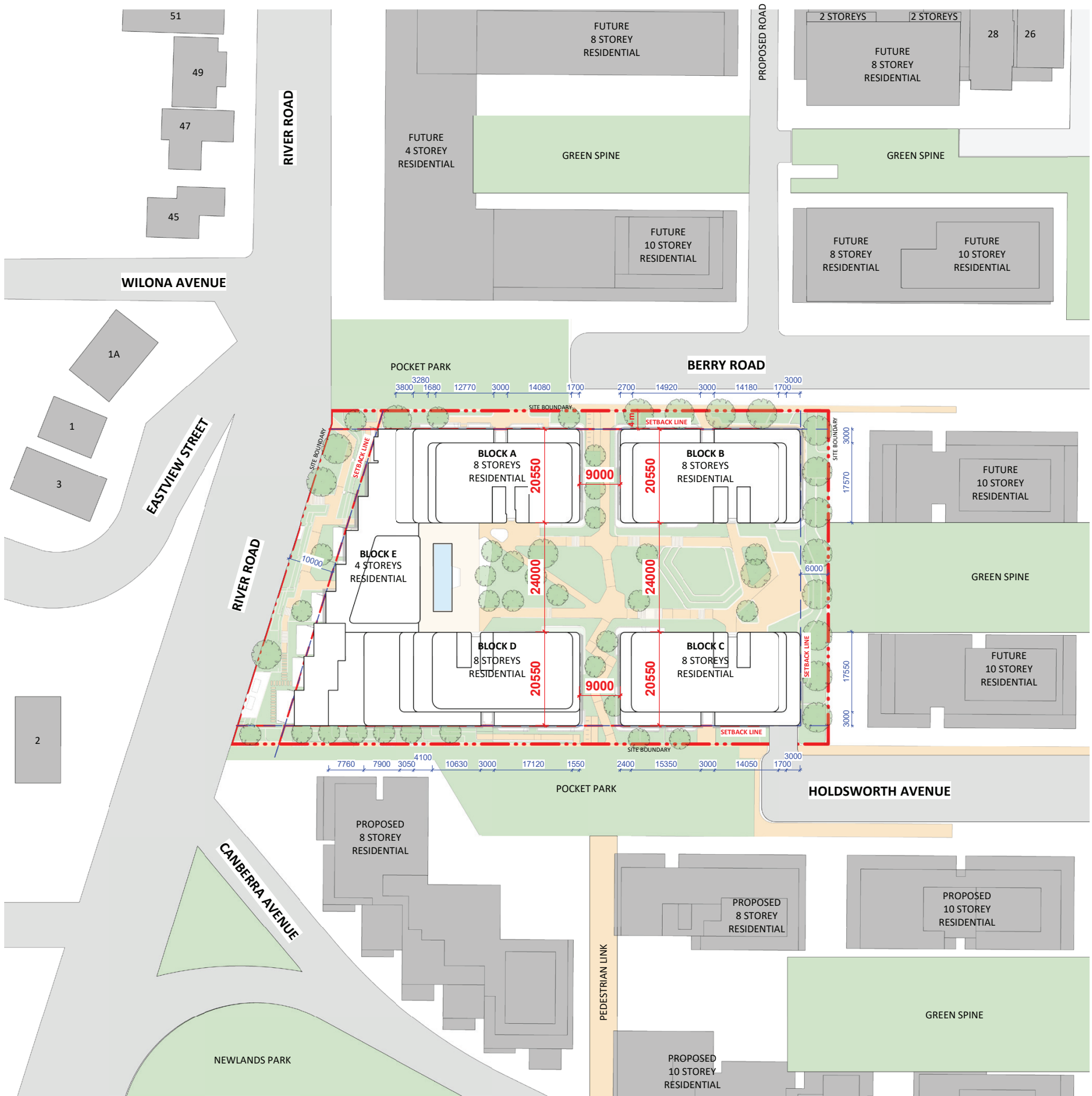
Carwash parking: 5 spaces

Accessible parking (resident): 48 spaces

Accessible parking (visitor): 2 spaces

Motorcycle parking: 28 spaces

Bicycle parking: 92 spaces





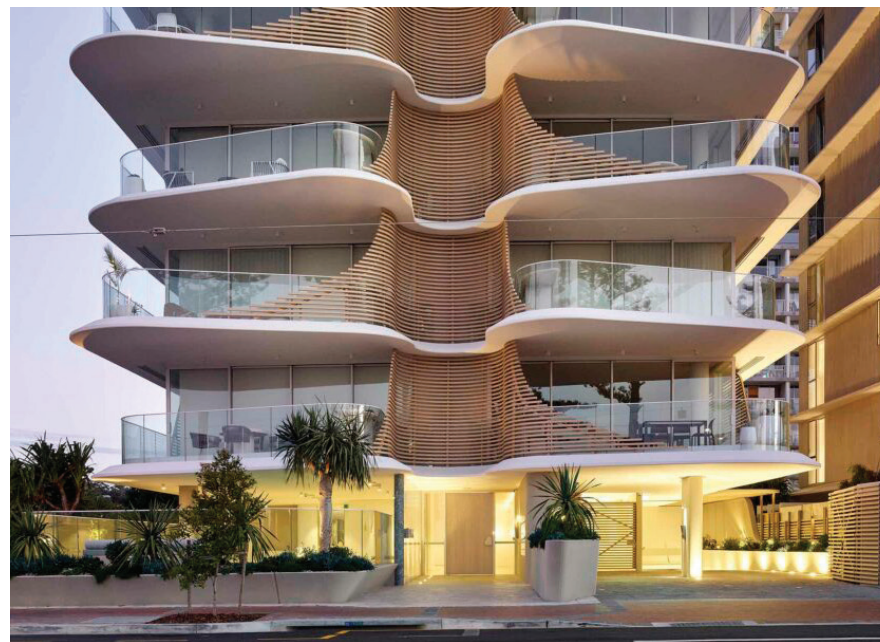




# Identity and Arrival

Swooping, organic timber-look awnings give architectural identity to the development and mark building entrance points, enhancing streetscape legibility for residents.

The main residential entries are located on Berry Road and Holdsworth Avenue to allow a east-west connection. The building form is permeable at these points, breaking down the mass and creating articulation along the street wall. These breaks create a visual and physical connection through the site from east to west, allowing the two adjacent pocket parks to be visually connected.









# Green Spine

A generous 'green spine' of communal open space programmed with residential amenities runs through the core of the masterplan.

The green spine is open to the sky with deep soil area that facilitates the overall masterplan vision of landscaped connections, CBD vistas and a mature tree canopy within a large area of communal amenity. The primary deep soil zone is located in the centre of the site within the green spine, additional deep soil zone has been provided along River Road to create a more sensitive transition to the built form. The area has been maximized, exceeding the ADG requirement for 7%. Layering of the planting from low level to tall mature trees allows for clear sightlines across the site.

The planning of the green spine balances private, semi-private and communal space, deliberately setting out to activate a sense of place and feeling of community. Health and wellbeing benefits are enhanced by a design that increases occupant connectivity to









# Integrated Landscape

Landscape is integral to the facade design and masterplan identity, providing 'green breaks' in the building form.

These perimeter planters reduce overlooking and increase privacy between levels. The horizontal planting reinforces streetscape setbacks, aligning the proposal to the overall masterplan vision. Integrated landscape mitigates heat island effects, promoting wellbeing for occupants and maximizing planted area on site. Landscaping will feature plants from native species, bringing benefits such as improved air quality, natural insulation and shielding from harsh environmental conditions.





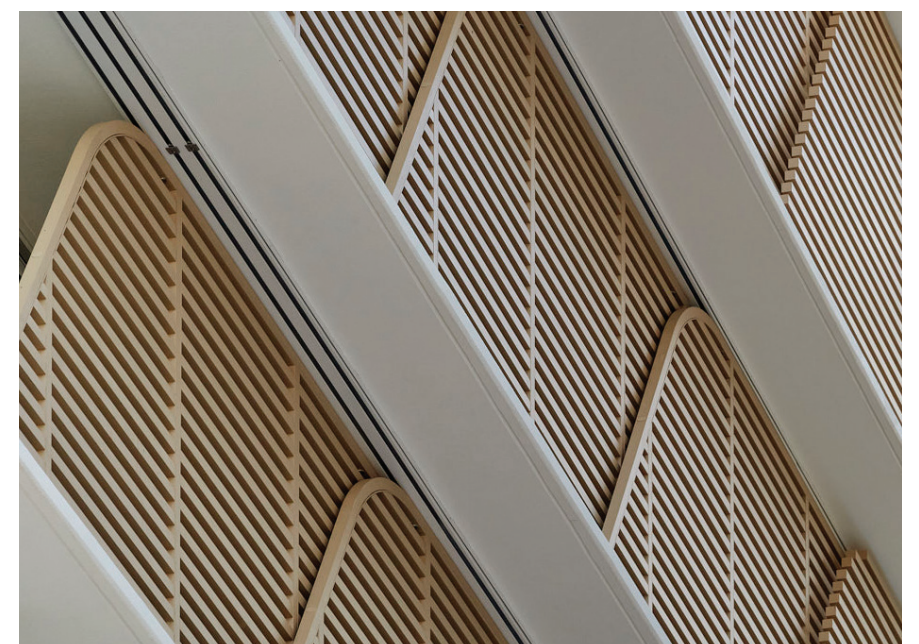
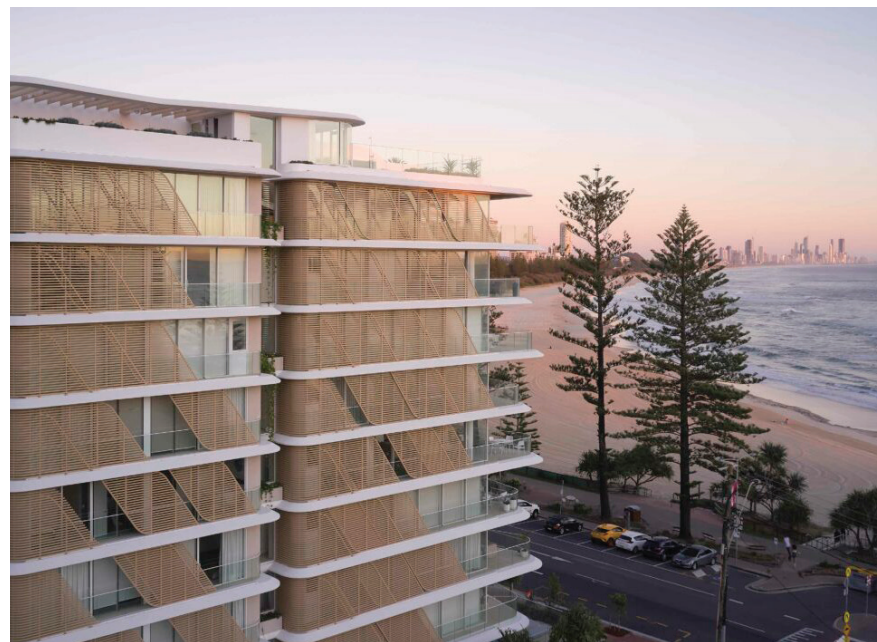




# Sunlight and Privacy

The facade incorporates integrated shading to ensure visual privacy and allow daylight to enter bedrooms and living rooms without excessive heat gain through the building envelope.

The layout of typical residential levels maximises available solar access by locating the living room glazing to the building perimeter. Light weight profiles attached to slab edges and battens have been purposefully positioned to attain a minimum of 2 hour solar access to living rooms and private open spaces. Rooftop solar panels generate energy on site for the building's energy needs.

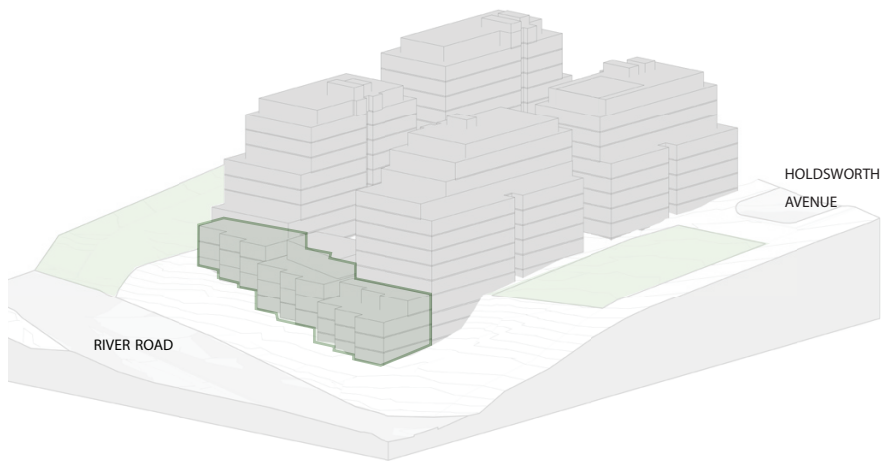






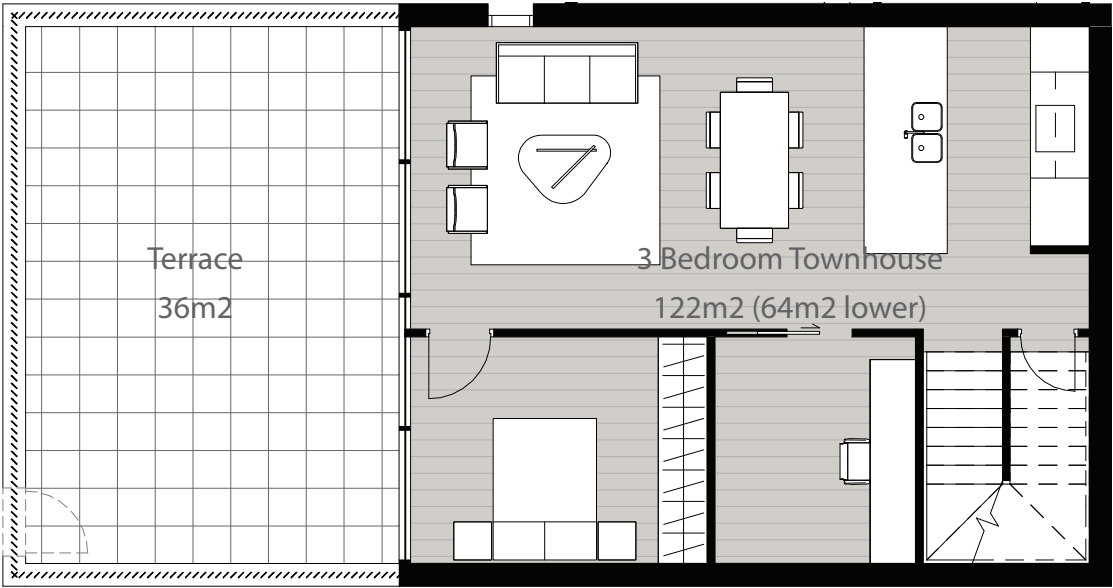


4.7 Lower Ground Level

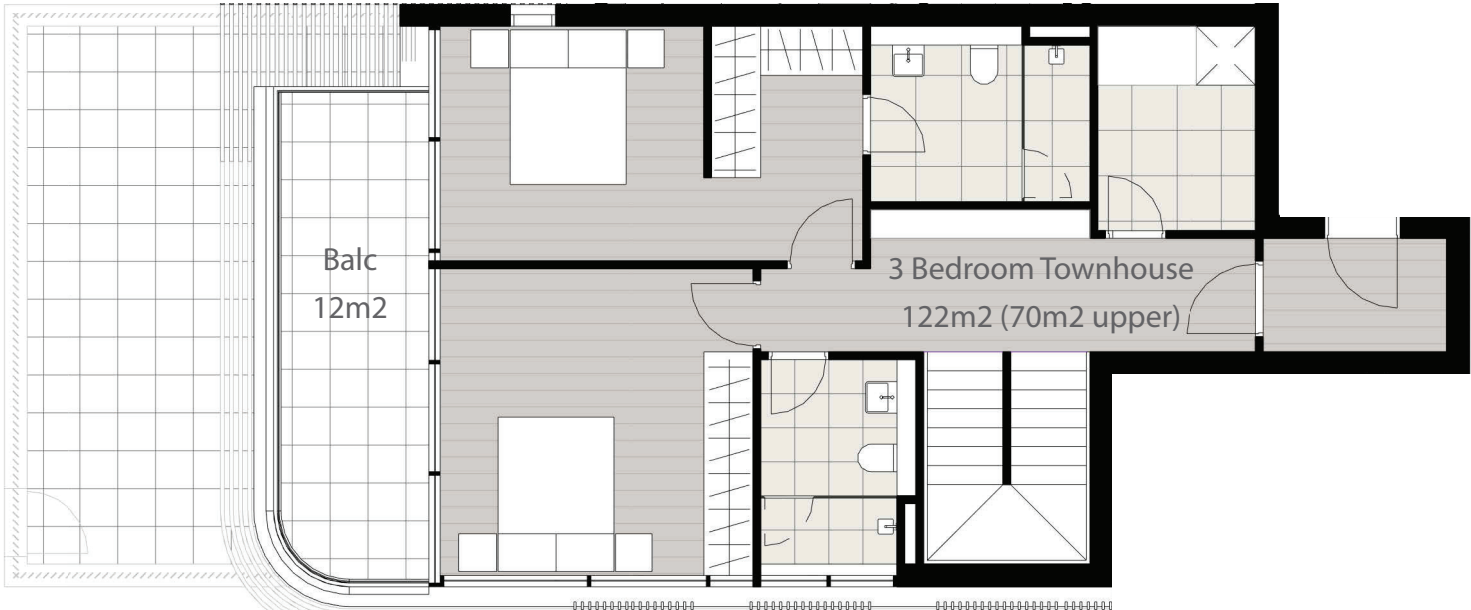


The sandstone base includes terraces on River Road with a unique typology differentiated from the rest of the project in materiality and aesthetic. The sandstone base includes terraces on River Road with a unique typology differentiated from the rest of the project in materiality and aesthetic.

Right: Typical Townhouse floor plan (lower) and floor plan (upper) at 1:200.

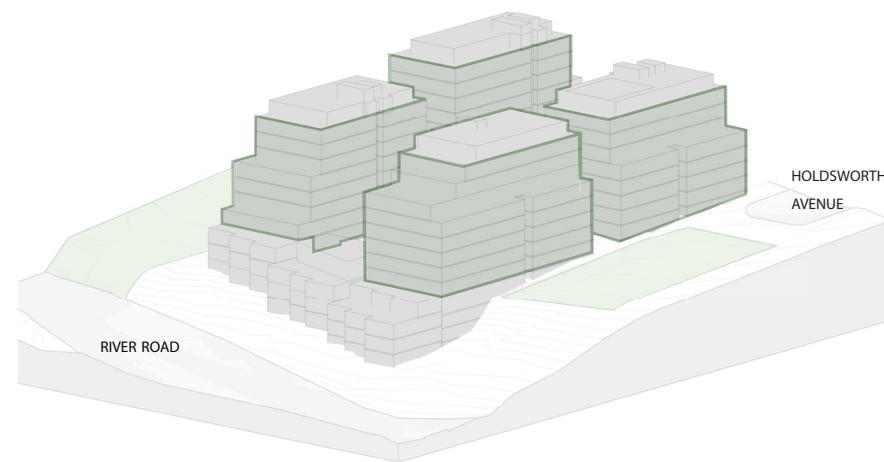


Greaton Development. © Koichi Takada Architects





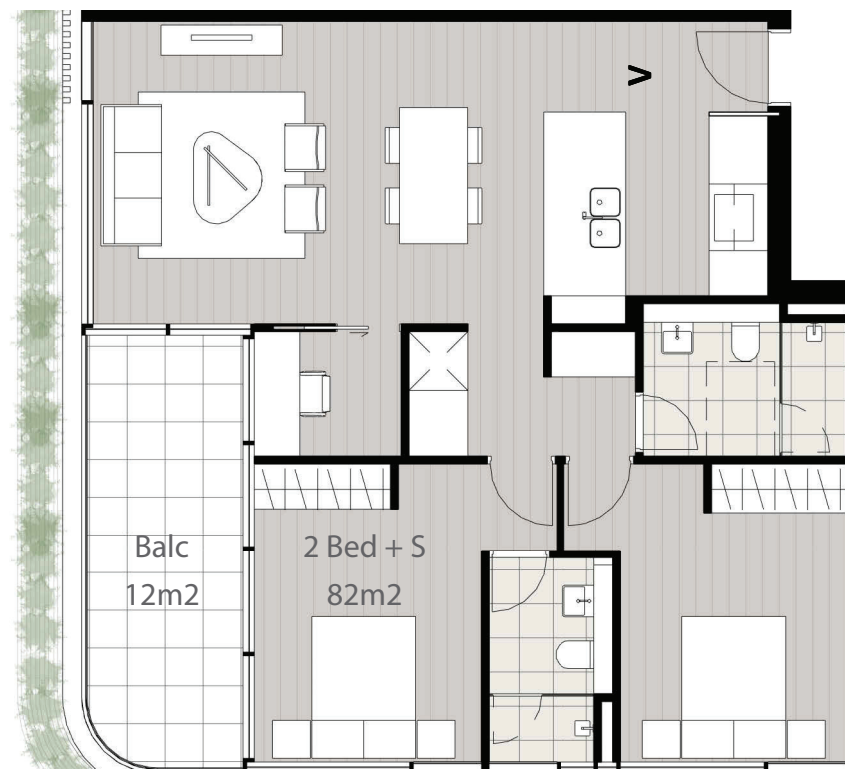
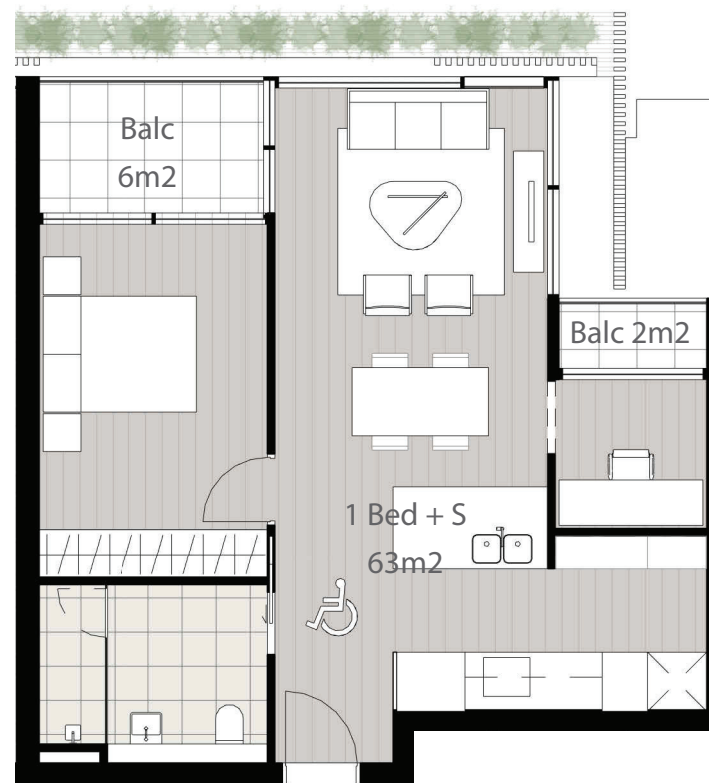
## 4.8 Typical Floor Level



The five buildings contain a mix of accommodation types and sizes appropriate to the location which support a variety of price points accessible to a wide range of socioeconomic groups. Planning optimizes residential amenity and incorporates one to three bedroom apartments in a varied residential mix. Adaptable units will be provided in accordance with the applicable standards as well as the 20% benchmark incorporating the Liveable Housing Guideline's silver level universal design features.

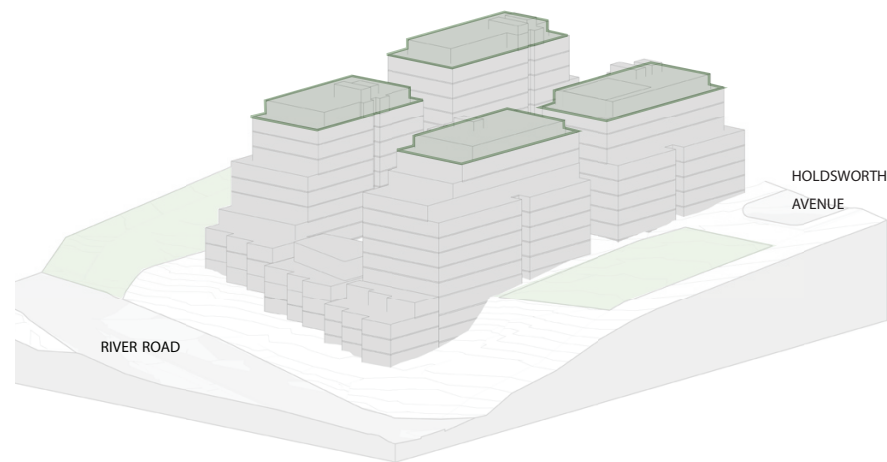
The layout of typical residential levels maximises available solar access by locating the living room glazing to the building perimeter. Natural cross-ventilation has been maximised on the first nine storeys to reduce reliance on mechanical ventilation, with provision of dual aspect units wherever possible. All units achieve a high level of amenity by attaining some direct solar access to the living spaces and there are no south-facing single aspect dwellings.

Right: Typical 1 bedroom apartment and typical 2 bedroom apartment (Block B) at 1:200.





## 4.9 Penthouse Floor Level



A unique architectural language is employed for the penthouse units with deep overhangs that give additional visual privacy and create large, outdoor entertaining spaces with views of the Sydney CBD.

Right: Typical 3 bedroom penthouse floor plan at 1:200.



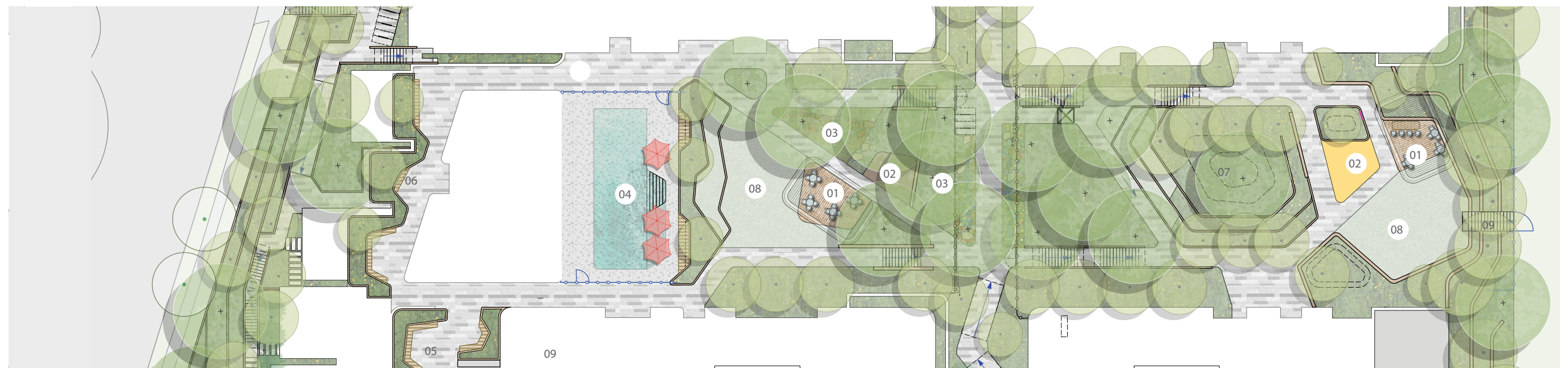


## 4.10 Residential Amenities

Residential amenities include a communal workspace, indoor lounge, swimming pool, gym and extensive landscaped outdoor seating and play areas.

- 01. Community Lounge
- 02. Kids play space
- 03. WSUD Rain Garden
- 04. Swimming Pool
- 05. Outdoor BBQ area and spread out space
- 06. Terraced landscaping and seating
- 07. Terraced landscaping & mature trees
- 08. Lawn space (spread out and kick-about)
- 09. Access to adjoining site

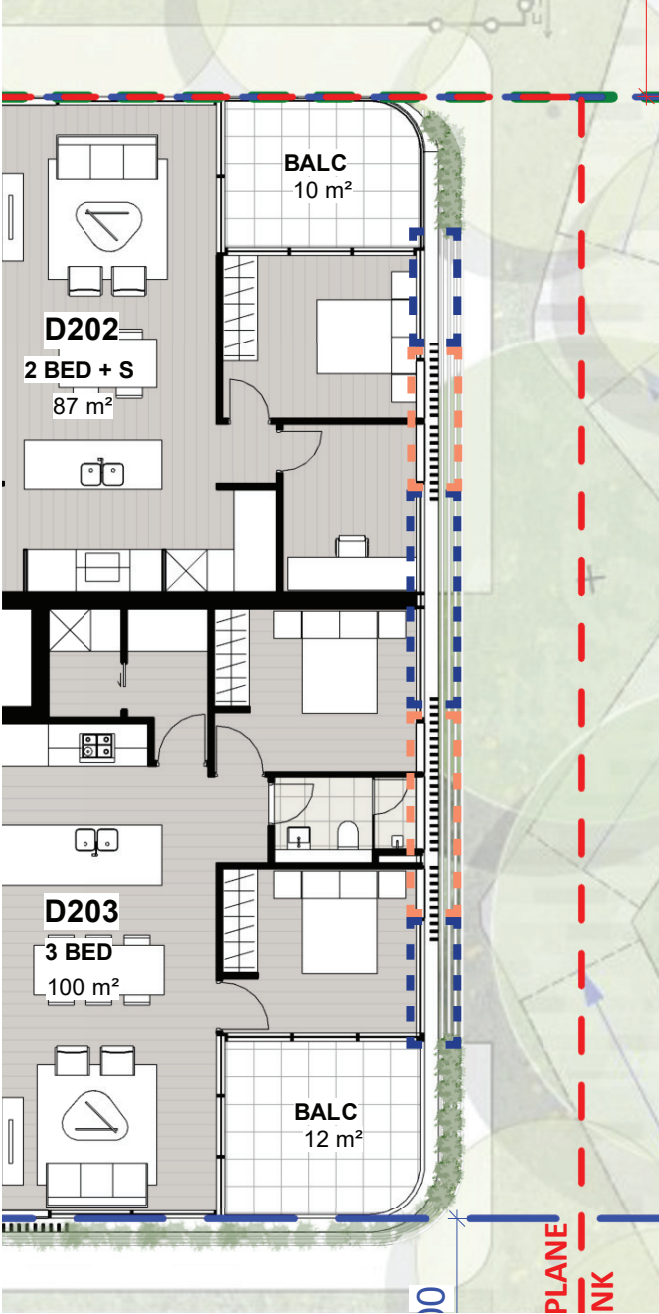
Below: Landscape Masterplan by Aspect Studios.



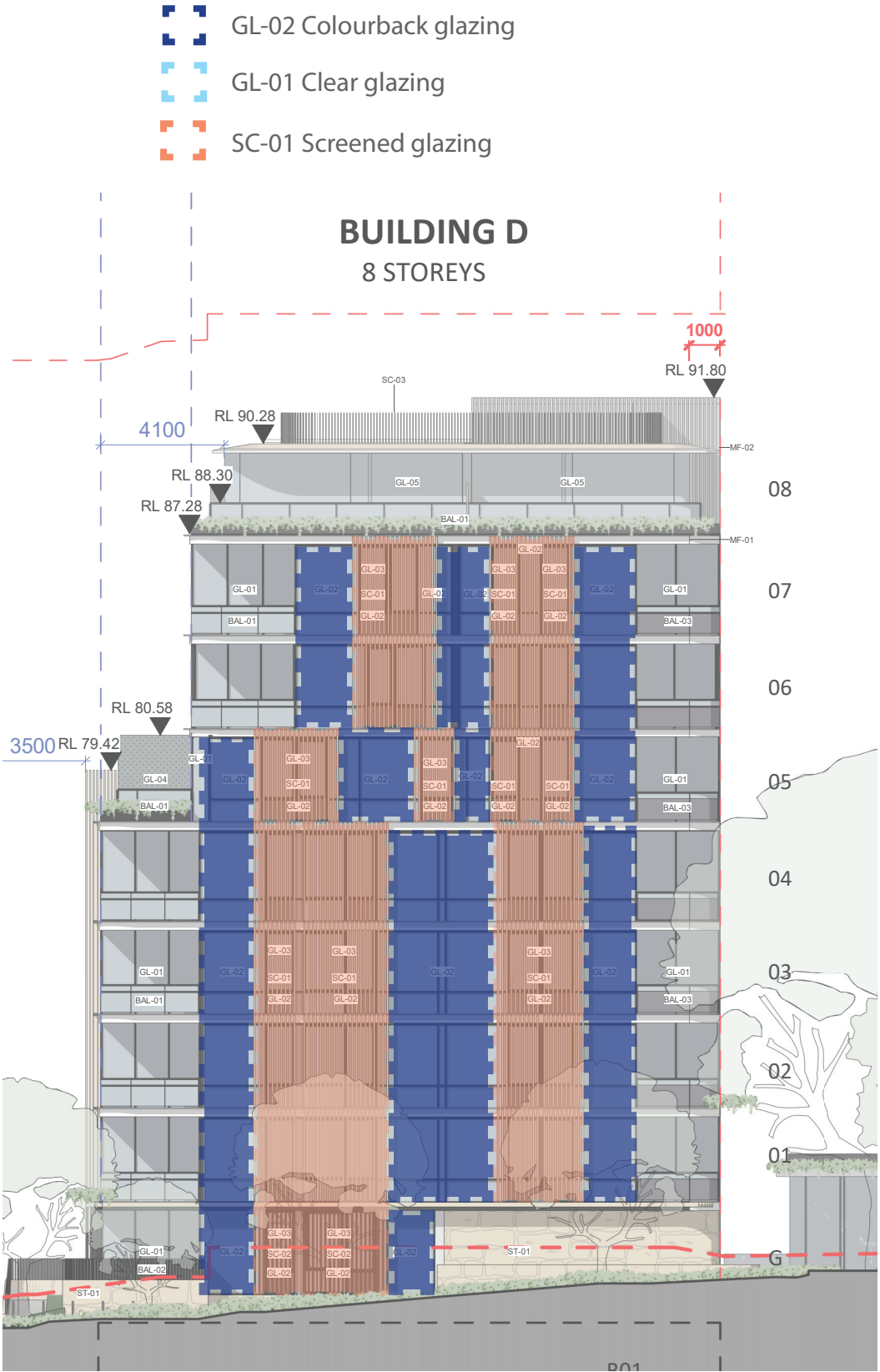


4.11 Privacy

Privacy between buildings is addressed through the use of colourback glazing & screening. Overlooking is avoided between apartments through the use of these elements. Operable glazing is protected by screening across all buildings.



Greaton Development. © Koichi Takada Architects



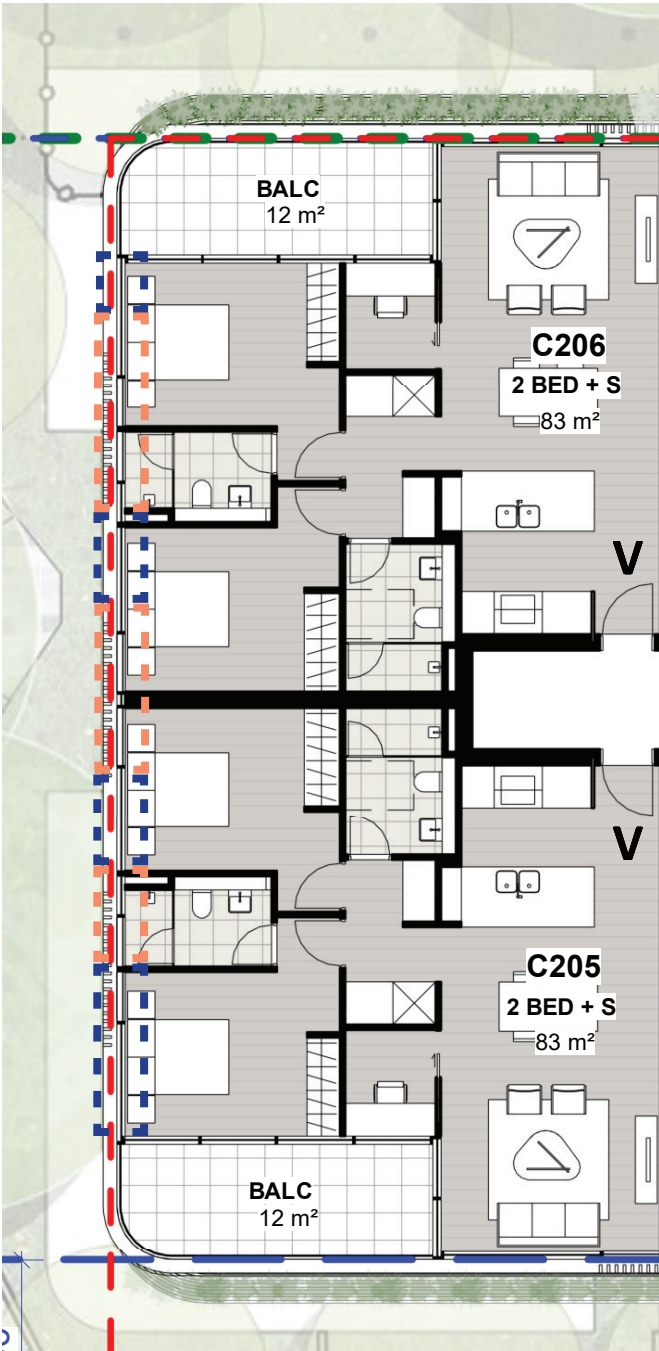
Block D - Cross Site Link  
North Facade  
Typical Lower Level



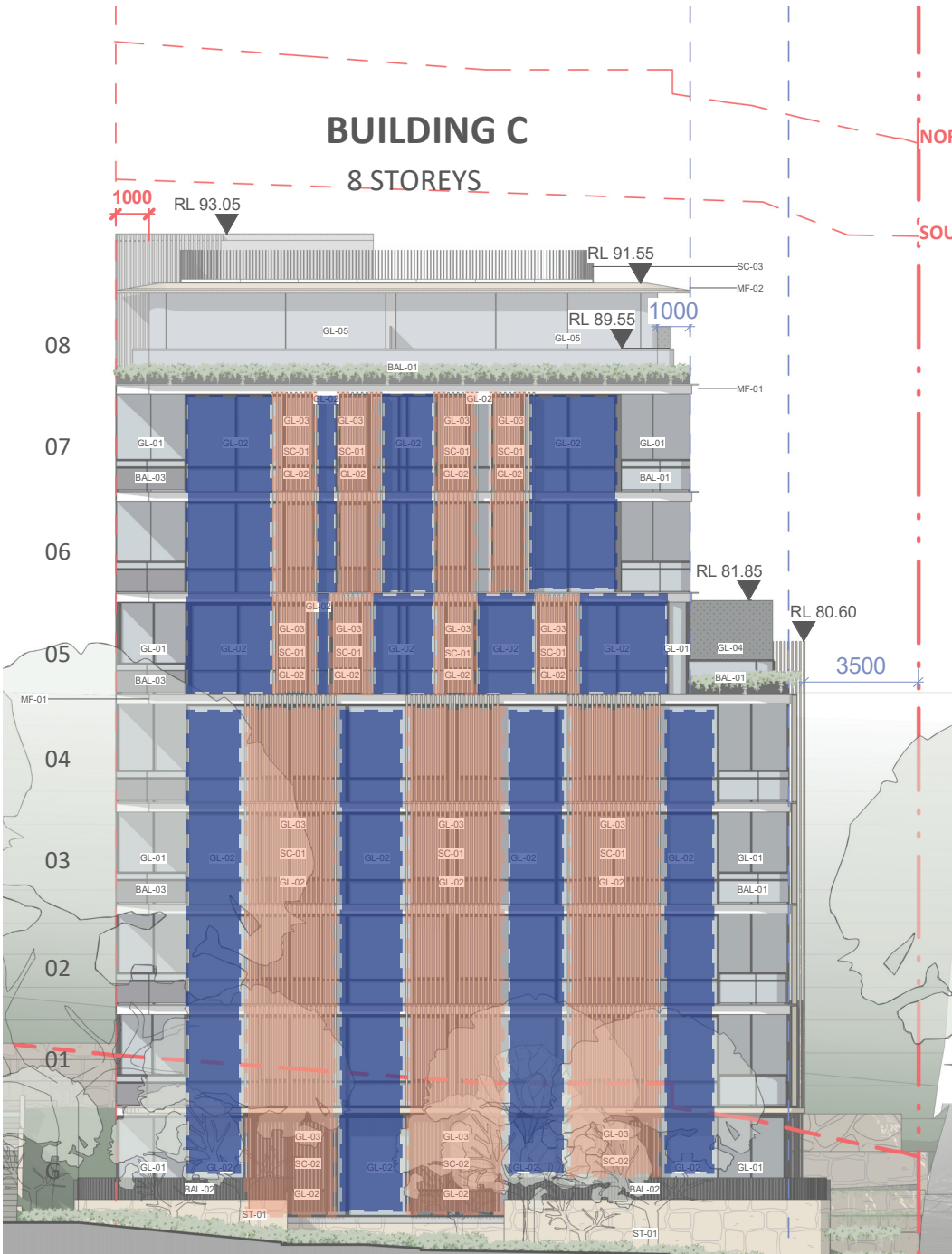


4.11 Privacy

- GL-02 Colourback glazing
- GL-01 Clear glazing
- SC-01 Screened glazing



Greaton Development. © Koichi Takada Architects



Block C - Cross Site Link  
South Facade  
Typical Lower Level





# Sustainability

# 5.0



## 5.1 Sustainability Principles

### St Leonards South - East Quarter

Buildings are responsible for nearly 40% of annual global greenhouse gas emissions. In order to achieve sustainable futures, we must cease current practices associated with these negative impacts and depletion of resources. We must also look at ways of reversing existing damage, which could be achieved through regenerative architecture. Buildings can have a 'carbon positive' effect by reusing materials and utilising new technologies.

Our strategy for positive impact will address the three key aspects of any sustainable development: Planet – People – Profit

**Planet:** Reduce the environmental impact and greenhouse gas emissions associated with 'making' and 'using' a building. The emissions associated with 'making' a building is the embodied carbon in construction materials. The emissions associated with 'using' a building is energy consumed during operations.

**People:** Our ultimate measure of success is creating healthy spaces where communities can thrive in work, life and play. The health and wellbeing of end users is now more of a priority than ever. Interiors and building envelope design are particularly key with people spending an average of more than 90% of their time indoors. This project is designed to bring a wide range of health benefits, from influencing levels of physical activity to increasing natural light and air quality in indoor spaces.

**Profit:** Healthy, sustainable buildings are profitable for the owner, developer and end user. This can be achieved by utilising renewable energy sources, robust materials and reducing reliance on mechanical means.



Passive Design

PLANET



Biophilic Design

PEOPLE



Resource Efficiency

PROFIT





## 5.1 Sustainability Principles

### Planet - People - Profit

**Environmental Sustainability** - Maximising efficiency and experience in a landmark project. The proposal situates buildings to provide ample natural light and open views while managing heat gain. The building mass and recessive glazing lines reduce direct solar gain. Slab edge projections across floors grow deeper on upper levels to shade interiors and encourage use of outdoor spaces.

**Social Sustainability** - On average, people spend more than 90% of their time indoors. The project is designed to bring a wide range of health benefits, from influencing levels of physical activity to increasing natural light and improving air quality in indoor spaces. Shared amenities such as communal gardens, the precinct pool, lounges and gym provide opportunities for community building.

**Economic Sustainability** - The economic value of sustainable development includes lower construction costs and higher property values for developers. Occupancy rates increase and operating costs are reduced. There are also cost savings on utility bills for tenants through increased resource efficiency. Some local councils offer a 50% rebate on infrastructure charges for green buildings and future buyers can benefit from discounted interest rates on home financing through green home loans.



#### PLANET

- Form
- Responsible Material Use
- Adaptable
- Energy
- Water
- Technology
- Passive design ensuring minimum 6 star NatHERS rating



#### PEOPLE

- Health and Wellbeing
- Community gardens
- Shared amenities - pool and gym
- Green transport and additional bike parking
- Activated public and communal open space with inclusive, passive, active and growing zones



#### PROFIT

- Robust materials
- Low running costs through strategies such as energy efficient LED lighting and performance control systems
- Green building
- Incentives
- Resilience



## 5.2 Sustainability Application St Leonards South - East Quarter



Rooftop solar  
photovoltaic system



Integrated shading  
reduces solar heat  
gain in Summer while  
maintaining daylighting in  
units



Natural ventilation to  
public corridors



Maximised views and  
daylight to all living areas  
and bedrooms



Integrated Facade  
Greening



Modular and unified unit  
types to reduce material  
waste during construction



Low carbon materials for  
interior finishes



Energy efficient LED  
lighting



Control systems to  
maximise building  
performance



WELS star rated fixtures



Provision/capability for  
electric vehicles and  
supplemental bike parking





# Parking, Access and Services

6.0








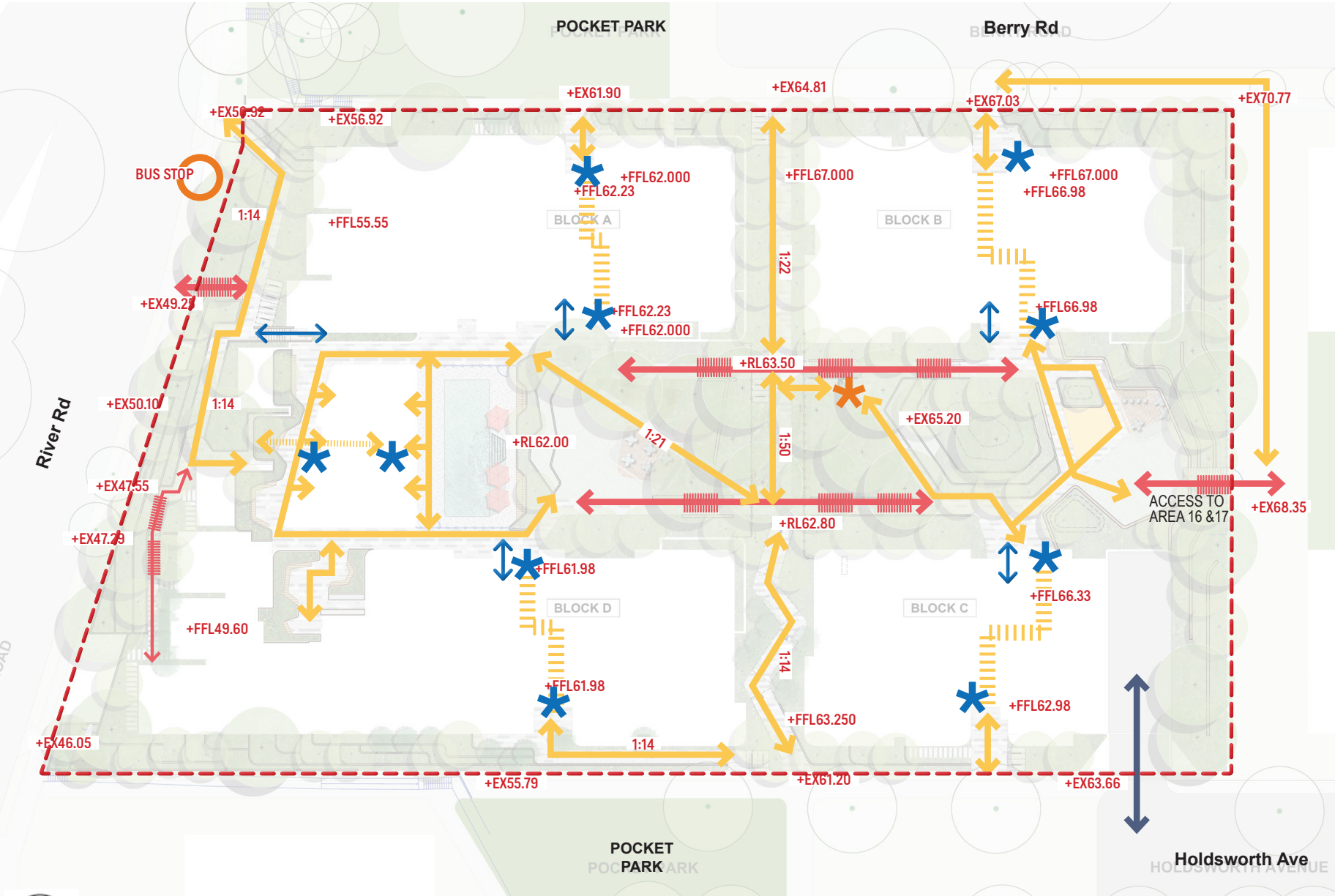
6.0 Parking, Access and Services

6.1 Ground Floor Levels and Access

Despite the steep grade of the site, the green spine has been designed to be fully accessible. Ramps maintain an accessible path of travel throughout the development.

Right: Ground Floor Level Diagram by Aspect Studios.

-  Vehicular entry
-  Pathway with stairs
-  Accessible path of travel
-  Egress access
-  Lift access





6.0 Parking, Access and Services

6.2 Parking Access Strategy

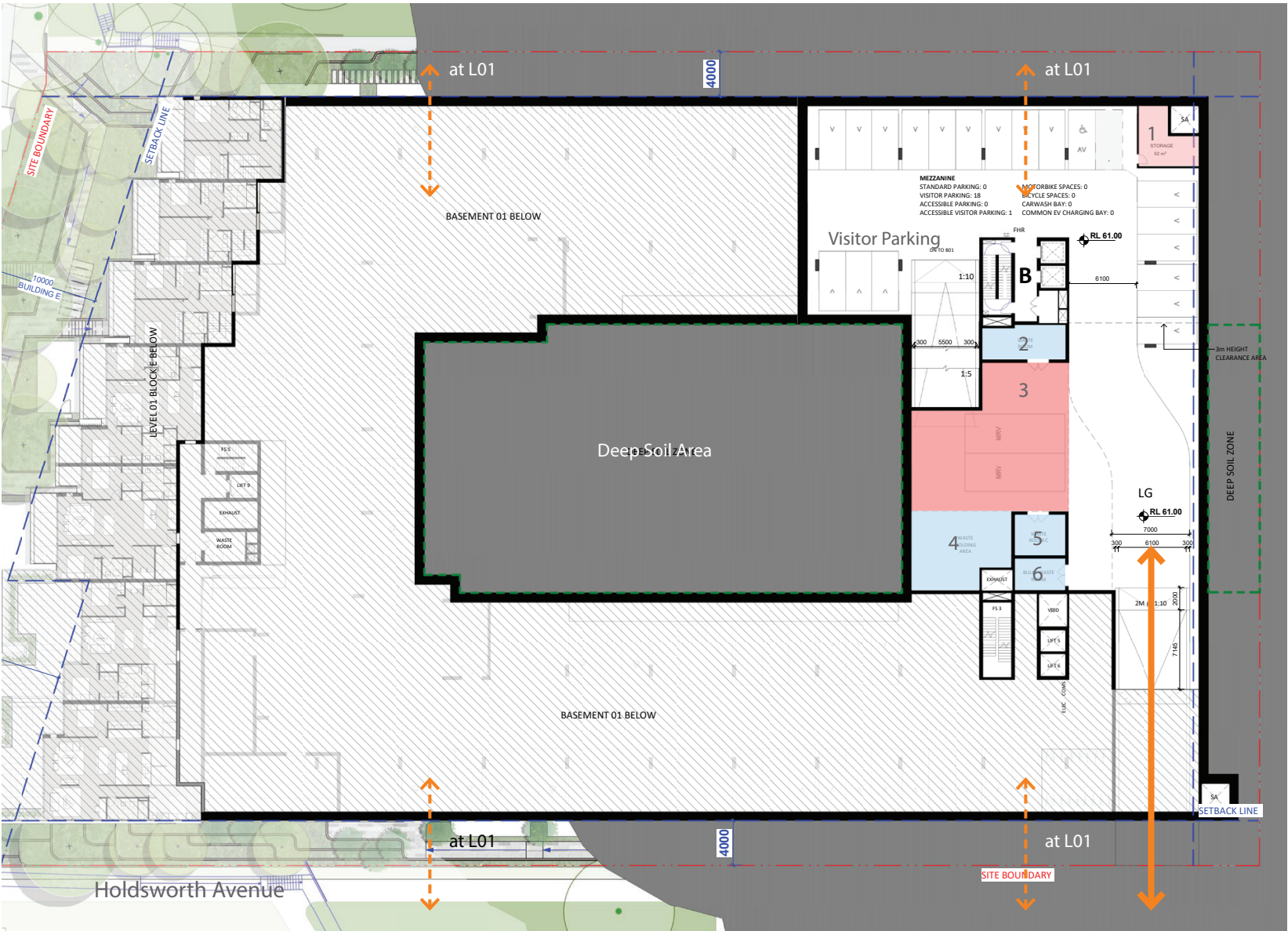
Vehicular access to the site has been designed to minimise impacts on the existing road network and public domain. All vehicles access underground basement levels from a single entry point on Holdsworth Avenue. The proposal aligns with best practice for transit-oriented development by providing a single, consolidated access driveway, prioritising the movement of pedestrians and cyclists at street level.

Providing access from the northeast corner off Holdsworth Avenue is considered preferable from a traffic perspective and will minimise impacts on existing street parking and trees. The cul-de-sac of Holdsworth Avenue generates little through-traffic, ensuring good access efficiency for development traffic. This access point also has nil impact on the proposed pocket park off Holdsworth Avenue, promoting a pedestrian friendly environment.






6.3 Waste Collection Strategy

Each resident is responsible for transferring their household waste to a central room at the core on each level where rubbish chutes and 240L bins for recycling are located. Recyclables will be transported to the waste storage areas in the basement by Building Management on an as needed basis. The waste holding areas and chute rooms are located on the basement mezzanine (Buildings B and C) and basement 01 levels (Buildings A and D). These areas will be designed to prevent unauthorised access and to contain any spilt materials and will have signage to remind residents of the correct separation of waste and recyclables.

In keeping with the best practices for sustainable design, all waste areas and waste/recycling bins will be clearly differentiated through appropriate signage and colour coding to Australian Standards. Each stream will be located in a designated area. Waste and recycling



Basement Mezzanine Plan

- |                       |  |
|-----------------------|--|
| 1. Storage room       |  Waste Chute/Collection Rooms |
| 2. Waste room         |  Storage                      |
| 3. Loading dock       |  Loading Bay                  |
| 4. Waste holding area |  Bicycle Access               |
| 5. Waste room C       |  Vehicle Access               |
| 6. Bulky waste room   |  |



6.0 Parking, Access and Services

In keeping with the best practices for sustainable design, all waste areas and waste/recycling bins will be clearly differentiated through appropriate signage and colour coding to Australian Standards. Each stream will be located in a designated area. Waste and recycling collection services will be provided by Lane Cove Council.

6.4 Basement Parking Layout

A single carpark entry/exit point provides internal access to three full and two partial basement levels cut in to the topography of the site and located under building footprints. A centrally located internal ramp provides vehicular access between levels.

Accessible carparks are located adjacent to the relevant lift cores and visitor parking is located at the arrival point to the basement. Residential storage cages are located in a half-level (lower ground) underneath Building B.

6.5 Bicycle Parking

Bicycle parking has been given equal consideration to pedestrian and vehicle access consistent with best practice transport-oriented development. Secure underground bicycle parking is consolidated on Basement Level 1 in an enclosed room accessible via residential lift lobbies. This allows cyclists to safely park their bikes without compromising other transport modes. Above ground outdoor bike parking is located on site in the through-site link.



Basement Level 01 Plan

1. Short-term loading bay

- Waste Chute/Collection Rooms
- Bicycle Storage
- Services
- Storage Room
- ↔ Vehicular Ramp

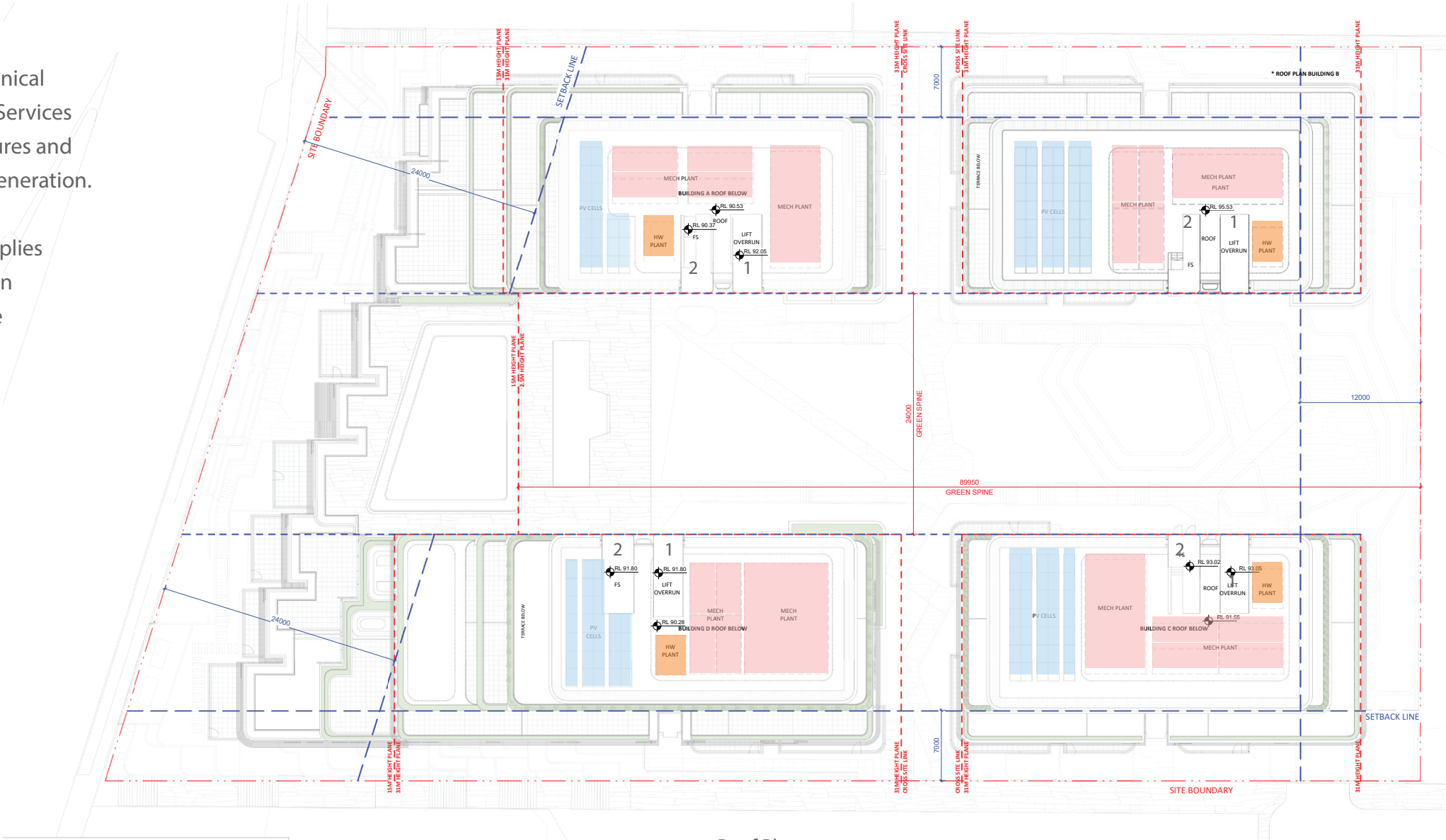


6.0 Parking, Access and Services

6.6 Building Services Strategy

Each building has a separate but centralised mechanical and hot water system located at the rooftop level. Services are located in open-air half height louvered enclosures and photovoltaic cells are utilised for common power generation.

A kiosk substation is located on River Road and supplies power to the Main Switch and Distribution rooms on the ground floor. The fire pump room (with storage tanks below) and fire control centre are located on Berry Road for ease of access by Fire Services.



Roof Plan

- 1. Lift Overrun
- 2. Stair Access

PV Cells

Mechanical Plant

Hot Water Plant



# Density and Yield

7.0



# 7.0 Density and Yield

## 7.1 Density

The overall density of the development is consistent with the relevant planning controls. The development has a GFA of 22,770m2 resulting in an FSR of 2.60 : 1.

## 7.2 Dwelling Size and Mix

The development comprises a total of 230 units with the following mix of types:

| Unit Type | No. | Mix |
|-----------|-----|-----|
| 1-bed     | 74  | 32% |
| 2-bed     | 110 | 48% |
| 3-bed     | 46  | 20% |

This meets the DCP requirement to provide a minimum of 20% 1-bedroom dwellings, 20% of 2-bedroom dwellings and a minimum of 20% 3-bedroom dwellings. The units range in size from 50m2 1 bedrooms to 170m2, 3 bedroom penthouses.

## 7.3 Accessibility and Adaptable Housing

Accessibility has been well considered despite the steep topography of the site. All buildings have level access lobbies to the street and green spine. All residential amenity areas in the green spine are fully accessible.

The scheme proposes 171 visitable dwellings which includes 123 visitable dwellings, 38 adaptable dwellings and 10 silver living dwellings under the Liveable Housing Guidelines. Of the 38 adaptable units, 28 are 1 bedroom and 10 are two bedroom (all silver level). This complies with a minimum of 20% adaptable dwellings. The scheme provides 74% visitable housing.

## 7.4 Parking

The scheme proposes 411 parking spaces including 60 visitor spaces. Accessible spaces have been provided for all adaptable units and for visitors.

## 7.5 Apartment Mix and Affordability

The buildings contain a range of apartment types and sizes to support development of a socially diverse neighbourhood. The apartment mix includes 1, 2 and 3 bedroom units which cater to single occupiers, couples, sharers and families.

The development contributes to housing affordability by providing a range of different apartment sizes and configurations, including 36 adaptable and 12 silver level units. Different apartment types have been evenly distributed throughout the building and across floor plates.





7.0 Density and Yield

| Building | Level    | Apt # | Type  | Internal Area (m <sup>2</sup> ) | POS (m <sup>2</sup> ) | Solar Compliance | Cross Vent Compliance | Accessibility |
|----------|----------|-------|-------|---------------------------------|-----------------------|------------------|-----------------------|---------------|
| Block A  | Ground   | A001  | 3B    | 134m <sup>2</sup>               | 18m <sup>2</sup>      | <2hrs            | NO                    | N/A           |
|          | Ground   | A002  | 1B+S  | 54m <sup>2</sup>                | 19m <sup>2</sup>      | >2hrs            | NO                    | N/A           |
|          | Level 01 | A101  | 1B+S  | 53m <sup>2</sup>                | 8m <sup>2</sup>       | <2hrs            | NO                    | N/A           |
|          | Level 01 | A102  | 3B    | 130m <sup>2</sup>               | 42m <sup>2</sup>      | <2hrs            | YES                   | Visitable     |
|          | Level 01 | A103  | 3B    | 130m <sup>2</sup>               | 22m <sup>2</sup>      | >2hrs            | YES                   | Visitable     |
|          | Level 01 | A104  | 1B+S  | 54m <sup>2</sup>                | 8m <sup>2</sup>       | >2hrs            | NO                    | N/A           |
|          | Level 01 | A105  | 1B+S  | 55m <sup>2</sup>                | 8m <sup>2</sup>       | >2hrs            | NO                    | N/A           |
|          | Level 01 | A106  | 1B+S  | 50m <sup>2</sup>                | 8m <sup>2</sup>       | >2hrs            | YES                   | Visitable     |
|          | Level 01 | A107  | 2B+S  | 93m <sup>2</sup>                | 12m <sup>2</sup>      | <2hrs            | YES                   | N/A           |
|          | Level 02 | A201  | 1B+S  | 54m <sup>2</sup>                | 8m <sup>2</sup>       | <2hrs            | NO                    | N/A           |
|          | Level 02 | A202  | 2B+S  | 81m <sup>2</sup>                | 43m <sup>2</sup>      | <2hrs            | YES                   | Visitable     |
|          | Level 02 | A203  | 2B+S  | 83m <sup>2</sup>                | 43m <sup>2</sup>      | >2hrs            | YES                   | Visitable     |
|          | Level 02 | A204  | 1B+S  | 63m <sup>2</sup>                | 8m <sup>2</sup>       | >2hrs            | NO                    | Adaptable     |
|          | Level 02 | A205  | 1B+S  | 63m <sup>2</sup>                | 8m <sup>2</sup>       | >2hrs            | NO                    | Adaptable     |
|          | Level 02 | A206  | 2B    | 78m <sup>2</sup>                | 10m <sup>2</sup>      | >2hrs            | YES                   | Visitable     |
|          | Level 02 | A207  | 2B+S  | 88m <sup>2</sup>                | 11m <sup>2</sup>      | <2hrs            | YES                   | Visitable     |
|          | Level 03 | A301  | 1B+S  | 54m <sup>2</sup>                | 8m <sup>2</sup>       | <2hrs            | NO                    | N/A           |
|          | Level 03 | A302  | 2B+S  | 81m <sup>2</sup>                | 12m <sup>2</sup>      | <2hrs            | YES                   | Visitable     |
|          | Level 03 | A303  | 2B+S  | 83m <sup>2</sup>                | 12m <sup>2</sup>      | >2hrs            | YES                   | Visitable     |
|          | Level 03 | A304  | 1B+S  | 63m <sup>2</sup>                | 8m <sup>2</sup>       | >2hrs            | NO                    | Adaptable     |
|          | Level 03 | A305  | 1B+S  | 63m <sup>2</sup>                | 8m <sup>2</sup>       | >2hrs            | NO                    | Adaptable     |
|          | Level 03 | A306  | 2B    | 78m <sup>2</sup>                | 10m <sup>2</sup>      | >2hrs            | YES                   | Visitable     |
|          | Level 03 | A307  | 2B+S  | 88m <sup>2</sup>                | 11m <sup>2</sup>      | <2hrs            | YES                   | Visitable     |
|          | Level 04 | A401  | 1B+S  | 54m <sup>2</sup>                | 8m <sup>2</sup>       | <2hrs            | NO                    | N/A           |
|          | Level 04 | A402  | 2B+S  | 83m <sup>2</sup>                | 12m <sup>2</sup>      | >2hrs            | YES                   | Visitable     |
|          | Level 04 | A403  | 2B+S  | 83m <sup>2</sup>                | 12m <sup>2</sup>      | >2hrs            | YES                   | Visitable     |
|          | Level 04 | A404  | 1B+S  | 63m <sup>2</sup>                | 8m <sup>2</sup>       | >2hrs            | NO                    | Adaptable     |
|          | Level 04 | A405  | 1B+S  | 63m <sup>2</sup>                | 8m <sup>2</sup>       | >2hrs            | NO                    | Adaptable     |
|          | Level 04 | A406  | 2B    | 78m <sup>2</sup>                | 10m <sup>2</sup>      | >2hrs            | YES                   | Visitable     |
|          | Level 04 | A407  | 2B+S  | 88m <sup>2</sup>                | 11m <sup>2</sup>      | <2hrs            | YES                   | Visitable     |
|          | Level 05 | A501  | 3B    | 98m <sup>2</sup>                | 34m <sup>2</sup>      | >2hrs            | NO                    | Visitable     |
|          | Level 05 | A502  | 3B    | 103m <sup>2</sup>               | 68m <sup>2</sup>      | >2hrs            | YES                   | N/A           |
|          | Level 05 | A503  | 1B+S  | 59m <sup>2</sup>                | 11m <sup>2</sup>      | >2hrs            | YES                   | N/A           |
|          | Level 05 | A504  | 2B+S  | 90m <sup>2</sup>                | 27m <sup>2</sup>      | >2hrs            | NO                    | N/A           |
|          | Level 05 | A505  | 2B    | 80m <sup>2</sup>                | 10m <sup>2</sup>      | >2hrs            | YES                   | Visitable     |
|          | Level 06 | A601  | 3B    | 98m <sup>2</sup>                | 11m <sup>2</sup>      | >2hrs            | NO                    | Visitable     |
|          | Level 06 | A602  | 2B    | 93m <sup>2</sup>                | 10m <sup>2</sup>      | >2hrs            | YES                   | N/A           |
|          | Level 06 | A603  | 1B    | 50m <sup>2</sup>                | 9m <sup>2</sup>       | >2hrs            | YES                   | N/A           |
|          | Level 06 | A604  | 2B    | 80m <sup>2</sup>                | 10m <sup>2</sup>      | >2hrs            | NO                    | Visitable     |
|          | Level 06 | A605  | 2B    | 80m <sup>2</sup>                | 10m <sup>2</sup>      | >2hrs            | YES                   | Visitable     |
|          | Level 07 | A701  | 3B    | 98m <sup>2</sup>                | 11m <sup>2</sup>      | >2hrs            | NO                    | Visitable     |
|          | Level 07 | A702  | 2B+S  | 92m <sup>2</sup>                | 10m <sup>2</sup>      | >2hrs            | YES                   | N/A           |
|          | Level 07 | A703  | 1B    | 50m <sup>2</sup>                | 9m <sup>2</sup>       | >2hrs            | YES                   | N/A           |
|          | Level 07 | A704  | 2B    | 80m <sup>2</sup>                | 10m <sup>2</sup>      | >2hrs            | NO                    | Visitable     |
|          | Level 07 | A705  | 2B    | 80m <sup>2</sup>                | 10m <sup>2</sup>      | >2hrs            | YES                   | Visitable     |
|          | Level 08 | A801  | 3B PH | 170m <sup>2</sup>               | 54m <sup>2</sup>      | >2hrs            | YES                   | Visitable     |
|          | Level 08 | A802  | 3B PH | 159m <sup>2</sup>               | 53m <sup>2</sup>      | >2hrs            | YES                   | Visitable     |



7.0 Density and Yield

| Building | Level    | Apt # | Type | Internal Area (m²) | POS (m²) | Solar Compliance | Cross Vent Compliance | Accessibility |
|----------|----------|-------|------|--------------------|----------|------------------|-----------------------|---------------|
| Block B  | Ground   | B001  | 1B   | 52m²               | 15m²     | <2hrs            | NO                    | Visitable     |
|          | Ground   | B002  | 2B+S | 83m²               | 29m²     | >2hrs            | YES                   | Visitable     |
|          | Ground   | B003  | 2B+S | 83m²               | 29m²     | <2hrs            | YES                   | Visitable     |
|          | Ground   | B004  | 1B   | 51m²               | 15m²     | <2hrs            | NO                    | Visitable     |
|          |          |       |      |                    |          |                  |                       |               |
|          | Level 01 | B101  | 2B   | 82m²               | 10m²     | <2hrs            | NO                    | Adaptable     |
|          | Level 01 | B102  | 2B+S | 83m²               | 12m²     | <2hrs            | YES                   | Visitable     |
|          | Level 01 | B103  | 2B+S | 83m²               | 12m²     | >2hrs            | YES                   | Visitable     |
|          | Level 01 | B104  | 1B   | 50m²               | 9m²      | >2hrs            | NO                    | Visitable     |
|          | Level 01 | B105  | 1B   | 51m²               | 9m²      | <2hrs            | NO                    | Visitable     |
|          | Level 01 | B106  | 3B   | 101m²              | 12m²     | <2hrs            | YES                   | N/A           |
|          | Level 01 | B107  | 2B+S | 88m²               | 10m²     | <2hrs            | YES                   | Silver Living |
|          |          |       |      |                    |          |                  |                       |               |
|          | Level 02 | B201  | 2B   | 82m²               | 10m²     | <2hrs            | NO                    | Adaptable     |
|          | Level 02 | B202  | 2B+S | 83m²               | 12m²     | >2hrs            | YES                   | Visitable     |
|          | Level 02 | B203  | 2B+S | 83m²               | 12m²     | >2hrs            | YES                   | Visitable     |
|          | Level 02 | B204  | 1B+S | 63m²               | 8m²      | >2hrs            | NO                    | Adaptable     |
|          | Level 02 | B205  | 1B+S | 63m²               | 8m²      | >2hrs            | NO                    | Adaptable     |
|          | Level 02 | B206  | 3B   | 101m²              | 13m²     | >2hrs            | YES                   | N/A           |
|          | Level 02 | B207  | 2B+S | 88m²               | 10m²     | <2hrs            | YES                   | Silver Living |
|          |          |       |      |                    |          |                  |                       |               |
|          | Level 03 | B301  | 2B   | 82m²               | 10m²     | >2hrs            | NO                    | Adaptable     |
|          | Level 03 | B302  | 2B+S | 83m²               | 12m²     | >2hrs            | YES                   | Visitable     |
|          | Level 03 | B303  | 2B+S | 83m²               | 12m²     | >2hrs            | YES                   | Visitable     |
|          | Level 03 | B304  | 1B+S | 63m²               | 8m²      | >2hrs            | NO                    | Adaptable     |
|          | Level 03 | B305  | 1B+S | 63m²               | 8m²      | >2hrs            | NO                    | Adaptable     |
|          | Level 03 | B306  | 3B   | 101m²              | 13m²     | >2hrs            | YES                   | N/A           |
|          | Level 03 | B307  | 2B+S | 88m²               | 10m²     | <2hrs            | YES                   | Silver Living |
|          |          |       |      |                    |          |                  |                       |               |
|          | Level 04 | B401  | 2B   | 82m²               | 10m²     | >2hrs            | NO                    | Adaptable     |
|          | Level 04 | B402  | 2B+S | 83m²               | 12m²     | >2hrs            | YES                   | Visitable     |
|          | Level 04 | B403  | 2B+S | 83m²               | 12m²     | >2hrs            | YES                   | Visitable     |
|          | Level 04 | B404  | 1B+S | 63m²               | 8m²      | >2hrs            | NO                    | Adaptable     |
|          | Level 04 | B405  | 1B+S | 63m²               | 8m²      | >2hrs            | NO                    | Adaptable     |
|          | Level 04 | B406  | 3B   | 101m²              | 13m²     | >2hrs            | YES                   | N/A           |
|          | Level 04 | B407  | 2B+S | 88m²               | 10m²     | >2hrs            | YES                   | Silver Living |
|          |          |       |      |                    |          |                  |                       |               |
|          | Level 05 | B501  | 1B   | 50m²               | 8m²      | >2hrs            | NO                    | Visitable     |
|          | Level 05 | B502  | 2B+S | 88m²               | 11m²     | >2hrs            | YES                   | Visitable     |
|          | Level 05 | B503  | 2B+S | 99m²               | 32m²     | >2hrs            | YES                   | Visitable     |
|          | Level 05 | B504  | 2B+S | 83m²               | 24m²     | >2hrs            | NO                    | Visitable     |
|          | Level 05 | B505  | 2B+S | 91m²               | 62m²     | >2hrs            | YES                   | Visitable     |
|          | Level 05 | B506  | 1B   | 62m²               | 22m²     | >2hrs            | YES                   | Visitable     |
|          |          |       |      |                    |          |                  |                       |               |
|          | Level 06 | B601  | 1B   | 50m²               | 8m²      | >2hrs            | NO                    | Visitable     |
|          | Level 06 | B602  | 2B+S | 90m²               | 11m²     | >2hrs            | YES                   | Visitable     |
|          | Level 06 | B603  | 2B+S | 90m²               | 10m²     | >2hrs            | YES                   | Visitable     |
|          | Level 06 | B604  | 2B   | 75m²               | 10m²     | >2hrs            | NO                    | Visitable     |
|          | Level 06 | B605  | 2B   | 82m²               | 10m²     | >2hrs            | YES                   | Visitable     |
|          | Level 06 | B606  | 1B+S | 63m²               | 8m²      | >2hrs            | YES                   | Visitable     |
|          |          |       |      |                    |          |                  |                       |               |
|          | Level 07 | B701  | 1B   | 50m²               | 8m²      | >2hrs            | NO                    | Visitable     |
|          | Level 07 | B702  | 2B+S | 90m²               | 11m²     | >2hrs            | YES                   | Visitable     |
|          | Level 07 | B703  | 2B+S | 90m²               | 11m²     | >2hrs            | YES                   | Visitable     |
|          | Level 07 | B704  | 2B   | 75m²               | 10m²     | >2hrs            | NO                    | Visitable     |



7.0 Density and Yield

| Building | Level    | Apt # | Type | Internal Area (m²) | POS (m²) | Solar Compliance | Cross Vent Compliance | Accessibility |
|----------|----------|-------|------|--------------------|----------|------------------|-----------------------|---------------|
| Block C  | Ground   | C001  | 2B   | 91m²               | 19m²     | <2hrs            | NO                    | N/A           |
|          | Ground   | C002  | 1B   | 50m²               | 15m²     | <2hrs            | NO                    | Visitable     |
|          | Ground   | C003  | 2B+S | 83m²               | 31m²     | <2hrs            | YES                   | Visitable     |
|          | Ground   | C004  | 2B+S | 83m²               | 27m²     | <2hrs            | YES                   | Visitable     |
|          | Level 01 | C101  | 2B   | 92m²               | 10m²     | <2hrs            | NO                    | N/A           |
|          | Level 01 | C102  | 1B   | 50m²               | 9m²      | <2hrs            | NO                    | Visitable     |
|          | Level 01 | C103  | 2B+S | 83m²               | 13m²     | <2hrs            | YES                   | Visitable     |
|          | Level 01 | C104  | 2B+S | 83m²               | 13m²     | <2hrs            | YES                   | Visitable     |
|          | Level 01 | C105  | 1B   | 52m²               | 9m²      | <2hrs            | NO                    | Visitable     |
|          | Level 02 | C201  | 2B+S | 88m²               | 10m²     | <2hrs            | YES                   | Silver Living |
|          | Level 02 | C202  | 3B   | 100m²              | 12m²     | >2hrs            | YES                   | N/A           |
|          | Level 02 | C203  | 1B+S | 63m²               | 8m²      | <2hrs            | NO                    | Adaptable     |
|          | Level 02 | C204  | 1B+S | 63m²               | 8m²      | <2hrs            | NO                    | Adaptable     |
|          | Level 02 | C205  | 2B+S | 83m²               | 12m²     | <2hrs            | YES                   | Visitable     |
|          | Level 02 | C206  | 2B+S | 83m²               | 12m²     | >2hrs            | YES                   | Visitable     |
|          | Level 02 | C207  | 2B   | 82m²               | 10m²     | <2hrs            | NO                    | Adaptable     |
|          | Level 03 | C301  | 2B+S | 88m²               | 10m²     | <2hrs            | YES                   | Silver Living |
|          | Level 03 | C302  | 3B   | 100m²              | 12m²     | >2hrs            | YES                   | N/A           |
|          | Level 03 | C303  | 1B+S | 63m²               | 8m²      | <2hrs            | NO                    | Adaptable     |
|          | Level 03 | C304  | 1B+S | 63m²               | 8m²      | <2hrs            | NO                    | Adaptable     |
|          | Level 03 | C305  | 2B+S | 83m²               | 12m²     | <2hrs            | YES                   | Visitable     |
|          | Level 03 | C306  | 2B+S | 83m²               | 12m²     | >2hrs            | YES                   | Visitable     |
|          | Level 03 | C307  | 2B   | 82m²               | 10m²     | >2hrs            | NO                    | Adaptable     |
|          | Level 04 | C401  | 2B+S | 88m²               | 10m²     |                  | YES                   | Silver Living |
|          | Level 04 | C402  | 3B   | 101m²              | 12m²     | >2hrs            | YES                   | N/A           |
|          | Level 04 | C403  | 1B+S | 63m²               | 8m²      | >2hrs            | NO                    | Adaptable     |
|          | Level 04 | C404  | 1B+S | 63m²               | 8m²      | >2hrs            | NO                    | Adaptable     |
|          | Level 04 | C405  | 2B+S | 83m²               | 12m²     | >2hrs            | YES                   | Visitable     |
|          | Level 04 | C406  | 2B+S | 83m²               | 12m²     | >2hrs            | YES                   | Visitable     |
|          | Level 04 | C407  | 2B   | 82m²               | 10m²     | >2hrs            | NO                    | Adaptable     |
|          | Level 05 | C501  | 1B   | 62m²               | 21m²     | >2hrs            | YES                   | Visitable     |
|          | Level 05 | C502  | 2B+S | 92m²               | 58m²     | >2hrs            | YES                   | Visitable     |
|          | Level 05 | C503  | 2B   | 83m²               | 24m²     | >2hrs            | NO                    | Visitable     |
|          | Level 05 | C504  | 2B+S | 101m²              | 30m²     | >2hrs            | YES                   | Visitable     |
|          | Level 05 | C505  | 2B+S | 90m²               | 10m²     | >2hrs            | YES                   | Visitable     |
|          | Level 05 | C506  | 1B   | 50m²               | 8m²      | >2hrs            | NO                    | Visitable     |
|          | Level 06 | C601  | 1B   | 51m²               | 8m²      | >2hrs            | YES                   | Visitable     |
|          | Level 06 | C602  | 2B   | 85m²               | 10m²     | >2hrs            | YES                   | Visitable     |
|          | Level 06 | C603  | 2B   | 73m²               | 10m²     | >2hrs            | NO                    | Visitable     |
|          | Level 06 | C604  | 2B+S | 91m²               | 10m²     | >2hrs            | YES                   | Visitable     |
|          | Level 06 | C605  | 2B+S | 91m²               | 10m²     | >2hrs            | YES                   | Visitable     |
|          | Level 06 | C606  | 1B   | 50m²               | 8m²      | >2hrs            | NO                    | N/A           |
|          | Level 07 | C701  | 1B   | 51m²               | 8m²      | >2hrs            | YES                   | Visitable     |
|          | Level 07 | C702  | 2B   | 85m²               | 10m²     | >2hrs            | YES                   | Visitable     |
|          | Level 07 | C703  | 2B   | 73m²               | 10m²     | >2hrs            | NO                    | Visitable     |
|          | Level 07 | C704  | 2B+S | 91m²               | 10m²     | >2hrs            | YES                   | Visitable     |



## 7.0 Density and Yield

| Building | Level    | Apt # | Type  | Internal Area (m <sup>2</sup> ) | POS (m <sup>2</sup> ) | Solar Compliance | Cross Vent Compliance | Accessibility |
|----------|----------|-------|-------|---------------------------------|-----------------------|------------------|-----------------------|---------------|
| Block D  | Ground   | D001  | 1B+S  | 61m <sup>2</sup>                | 17m <sup>2</sup>      | <2hrs            | NO                    | Visitable     |
|          | Ground   | D002  | 3B    | 96m <sup>2</sup>                | 26m <sup>2</sup>      | <2hrs            | NO                    | Silver Living |
|          | Ground   | D003  | 3B    | 100m <sup>2</sup>               | 26m <sup>2</sup>      | <2hrs            | YES                   | N/A           |
|          | Ground   | D004  | 1B    | 50m <sup>2</sup>                | 15m <sup>2</sup>      | <2hrs            | YES                   | Visitable     |
|          |          |       |       |                                 |                       |                  |                       |               |
|          | Level 01 | D101  | 1B+S  | 61m <sup>2</sup>                | 9m <sup>2</sup>       | <2hrs            | NO                    | Visitable     |
|          | Level 01 | D102  | 2B+S  | 87m <sup>2</sup>                | 10m <sup>2</sup>      | <2hrs            | YES                   | Silver Living |
|          | Level 01 | D103  | 3B    | 100m <sup>2</sup>               | 12m <sup>2</sup>      | >2hrs            | YES                   | N/A           |
|          | Level 01 | D104  | 1B+S  | 63m <sup>2</sup>                | 8m <sup>2</sup>       | >2hrs            | NO                    | Adaptable     |
|          | Level 01 | D105  | 1B+S  | 63m <sup>2</sup>                | 8m <sup>2</sup>       | >2hrs            | NO                    | Adaptable     |
|          | Level 01 | D106  | 1B+S  | 60m <sup>2</sup>                | 9m <sup>2</sup>       | >2hrs            | NO                    | Visitable     |
|          | Level 01 | D107  | 2B+S  | 83m <sup>2</sup>                | 12m <sup>2</sup>      | >2hrs            | YES                   | Visitable     |
|          | Level 01 | D108  | 2B+S  | 83m <sup>2</sup>                | 12m <sup>2</sup>      | <2hrs            | YES                   | Visitable     |
|          | Level 01 | D109  | 2B    | 81m <sup>2</sup>                | 10m <sup>2</sup>      | <2hrs            | NO                    | Adaptable     |
|          |          |       |       |                                 |                       |                  |                       |               |
|          | Level 02 | D201  | 1B+S  | 61m <sup>2</sup>                | 9m <sup>2</sup>       | <2hrs            | NO                    | Visitable     |
|          | Level 02 | D202  | 2B+S  | 87m <sup>2</sup>                | 10m <sup>2</sup>      | <2hrs            | YES                   | Silver Living |
|          | Level 02 | D203  | 3B    | 100m <sup>2</sup>               | 12m <sup>2</sup>      | >2hrs            | YES                   | N/A           |
|          | Level 02 | D204  | 1B+S  | 63m <sup>2</sup>                | 8m <sup>2</sup>       | >2hrs            | NO                    | Adaptable     |
|          | Level 02 | D205  | 1B+S  | 63m <sup>2</sup>                | 8m <sup>2</sup>       | >2hrs            | NO                    | Adaptable     |
|          | Level 02 | D206  | 1B+S  | 60m <sup>2</sup>                | 9m <sup>2</sup>       | >2hrs            | NO                    | Visitable     |
|          | Level 02 | D207  | 2B+S  | 83m <sup>2</sup>                | 12m <sup>2</sup>      | >2hrs            | YES                   | Visitable     |
|          | Level 02 | D208  | 2B+S  | 83m <sup>2</sup>                | 12m <sup>2</sup>      | >2hrs            | YES                   | Visitable     |
|          | Level 02 | D209  | 2B    | 81m <sup>2</sup>                | 10m <sup>2</sup>      | >2hrs            | NO                    | Adaptable     |
|          |          |       |       |                                 |                       |                  |                       |               |
|          | Level 03 | D301  | 1B+S  | 61m <sup>2</sup>                | 9m <sup>2</sup>       |                  | NO                    | Visitable     |
|          | Level 03 | D302  | 2B+S  | 87m <sup>2</sup>                | 10m <sup>2</sup>      | >2hrs            | YES                   | Silver Living |
|          | Level 03 | D303  | 3B    | 100m <sup>2</sup>               | 12m <sup>2</sup>      | >2hrs            | YES                   | N/A           |
|          | Level 03 | D304  | 1B+S  | 63m <sup>2</sup>                | 8m <sup>2</sup>       | >2hrs            | NO                    | Adaptable     |
|          | Level 03 | D305  | 1B+S  | 63m <sup>2</sup>                | 8m <sup>2</sup>       | >2hrs            | NO                    | Adaptable     |
|          | Level 03 | D306  | 1B+S  | 60m <sup>2</sup>                | 9m <sup>2</sup>       | >2hrs            | NO                    | Visitable     |
|          | Level 03 | D307  | 2B+S  | 83m <sup>2</sup>                | 12m <sup>2</sup>      | >2hrs            | YES                   | Visitable     |
|          | Level 03 | D308  | 2B+S  | 83m <sup>2</sup>                | 12m <sup>2</sup>      | >2hrs            | YES                   | Visitable     |
|          | Level 03 | D309  | 2B    | 81m <sup>2</sup>                | 10m <sup>2</sup>      | >2hrs            | NO                    | Adaptable     |
|          |          |       |       |                                 |                       |                  |                       |               |
|          | Level 04 | D401  | 1B+S  | 61m <sup>2</sup>                | 9m <sup>2</sup>       | >2hrs            | NO                    | Visitable     |
|          | Level 04 | D402  | 2B+S  | 87m <sup>2</sup>                | 10m <sup>2</sup>      | >2hrs            | YES                   | Silver Living |
|          | Level 04 | D403  | 3B    | 100m <sup>2</sup>               | 12m <sup>2</sup>      | >2hrs            | YES                   | N/A           |
|          | Level 04 | D404  | 1B+S  | 63m <sup>2</sup>                | 8m <sup>2</sup>       | >2hrs            | NO                    | Adaptable     |
|          | Level 04 | D405  | 1B+S  | 63m <sup>2</sup>                | 8m <sup>2</sup>       | >2hrs            | NO                    | Adaptable     |
|          | Level 04 | D406  | 1B+S  | 60m <sup>2</sup>                | 9m <sup>2</sup>       | >2hrs            | NO                    | Visitable     |
|          | Level 04 | D407  | 2B+S  | 83m <sup>2</sup>                | 12m <sup>2</sup>      | >2hrs            | YES                   | Visitable     |
|          | Level 04 | D408  | 2B+S  | 83m <sup>2</sup>                | 12m <sup>2</sup>      | >2hrs            | YES                   | Visitable     |
|          | Level 04 | D409  | 2B    | 81m <sup>2</sup>                | 10m <sup>2</sup>      | >2hrs            | NO                    | Adaptable     |
|          |          |       |       |                                 |                       |                  |                       |               |
|          | Level 05 | D501  | 1B    | 50m <sup>2</sup>                | 8m <sup>2</sup>       | >2hrs            | NO                    | Visitable     |
|          | Level 05 | D502  | 2B    | 79m <sup>2</sup>                | 10m <sup>2</sup>      | >2hrs            | YES                   | Visitable     |
|          | Level 05 | D503  | 3B    | 112m <sup>2</sup>               | 34m <sup>2</sup>      | >2hrs            | YES                   | N/A           |
|          | Level 05 | D504  | 1B    | 56m <sup>2</sup>                | 9m <sup>2</sup>       | >2hrs            | NO                    | N/A           |
|          | Level 05 | D505  | 2B+S  | 89m <sup>2</sup>                | 31m <sup>2</sup>      | >2hrs            | NO                    | Visitable     |
|          | Level 05 | D506  | 2B+S  | 99m <sup>2</sup>                | 29m <sup>2</sup>      | >2hrs            | YES                   | Visitable     |
|          | Level 05 | D507  | 2B+S  | 88m <sup>2</sup>                | 10m <sup>2</sup>      | >2hrs            | YES                   | Visitable     |
|          | Level 05 | D508  | 1B    | 50m <sup>2</sup>                | 8m <sup>2</sup>       | >2hrs            | NO                    | Visitable     |
|          |          |       |       |                                 |                       |                  |                       |               |
|          | Level 06 | D601  | 1B    | 50m <sup>2</sup>                | 8m <sup>2</sup>       | >2hrs            | NO                    | Visitable     |
|          | Level 06 | D602  | 2B    | 80m <sup>2</sup>                | 10m <sup>2</sup>      | >2hrs            | YES                   | Visitable     |
|          | Level 06 | D603  | 3B    | 99m <sup>2</sup>                | 12m <sup>2</sup>      | >2hrs            | YES                   | Visitable     |
|          | Level 06 | D604  | 1B+S  | 61m <sup>2</sup>                | 9m <sup>2</sup>       | >2hrs            | NO                    | Visitable     |
|          | Level 06 | D605  | 3B    | 110m <sup>2</sup>               | 20m <sup>2</sup>      | >2hrs            | YES                   | Visitable     |
|          | Level 06 | D606  | 2B+S  | 92m <sup>2</sup>                | 18m <sup>2</sup>      | >2hrs            | YES                   | Visitable     |
|          |          |       |       |                                 |                       |                  |                       |               |
|          | Level 07 | D701  | 1B    | 50m <sup>2</sup>                | 8m <sup>2</sup>       | >2hrs            | YES                   | Visitable     |
|          | Level 07 | D702  | 2B    | 80m <sup>2</sup>                | 10m <sup>2</sup>      | >2hrs            | YES                   | Visitable     |
|          | Level 07 | D703  | 3B    | 99m <sup>2</sup>                | 12m <sup>2</sup>      | >2hrs            | NO                    | Visitable     |
|          | Level 07 | D704  | 1B+S  | 61m <sup>2</sup>                | 8m <sup>2</sup>       | >2hrs            | YES                   | Visitable     |
|          | Level 07 | D705  | 2B+S  | 96m <sup>2</sup>                | 20m <sup>2</sup>      | >2hrs            | YES                   | Visitable     |
|          | Level 07 | D706  | 1B+S  | 75m <sup>2</sup>                | 20m <sup>2</sup>      | >2hrs            | NO                    | N/A           |
|          |          |       |       |                                 |                       |                  |                       |               |
|          | Level 08 | D801  | 3B PH | 107m <sup>2</sup>               | 23m <sup>2</sup>      | >2hrs            | YES                   | Visitable     |
|          | Level 08 | D802  | 3B PH | 117m <sup>2</sup>               | 26m <sup>2</sup>      | >2hrs            | YES                   | Visitable     |
|          | Level 08 | D803  | 3B PH | 124m <sup>2</sup>               | 67m <sup>2</sup>      | >2hrs            | YES                   | N/A           |



7.0 Density and Yield

| Building | Level       | Apt # | Type | Internal Area (m²) | POS (m²) | Solar Compliance | Cross Vent Compliance | Accessibility |
|----------|-------------|-------|------|--------------------|----------|------------------|-----------------------|---------------|
| Block E  | Ground      | E301  | 3B   | 98m²               | 14m²     | N/A              | YES                   | N/A           |
|          | Ground      | E302  | 3B   | 104m²              | 16m²     | N/A              | YES                   | N/A           |
|          | Basement 01 | E101  | 3B   | 55m²               | 11m²     | N/A              | YES                   | N/A           |
|          | Basement 02 |       |      | 64m²               | 25m²     |                  |                       |               |
|          | Basement 01 | E102  | 3B   | 65m²               | 12m²     | N/A              | YES                   | N/A           |
|          | Basement 02 |       |      | 64m²               | 16m²     |                  |                       |               |
|          | Basement 01 | E103  | 3B   | 65m²               | 12m²     | N/A              | YES                   | N/A           |
|          | Basement 02 |       |      | 68m²               | 16m²     |                  |                       |               |
|          | Basement 01 | E201  | 2B+S | 90m²               | 19m²     | N/A              | YES                   | N/A           |
|          | Basement 01 | E202  | 2B+S | 103m²              | 15m²     | N/A              | YES                   | N/A           |
|          | Basement 01 | E204  | 2B+S | 95m²               | 56m²     | N/A              | NO                    | N/A           |
|          | Basement 01 | E205  | 2B+S | 125m²              | 51m²     | >2hrs            | YES                   | N/A           |
|          | Basement 02 | E002  | 3B   | 65m²               | 9m²      | N/A              | YES                   | N/A           |
|          | Basement 03 |       |      | 67m²               | 32m²     |                  |                       |               |
|          | Basement 02 | E105  | 2B+S | 104m²              | 20m²     | N/A              | YES                   | N/A           |
|          | Basement 02 | E106  | 3B   | 149m²              | 22m²     | N/A              | YES                   | N/A           |
|          | Basement 02 | E001  | 3B   | 74m²               | 11m²     | N/A              | YES                   | N/A           |
|          | Basement 03 |       |      | 82m²               | 33m²     |                  |                       |               |
|          | Basement 03 | E003  | 3B   | 68m²               | 11m²     | N/A              | YES                   | N/A           |
|          | Basement 04 |       |      | 64m²               | 32m²     |                  |                       |               |
|          | Basement 03 | E004  | 3B   | 68m²               | 10m²     | N/A              | YES                   | N/A           |
|          | Basement 04 |       |      | 64m²               | 23m²     |                  |                       |               |
|          | Basement 03 | E005  | 3B   | 70m²               | 12m²     | N/A              | YES                   | N/A           |
|          | Basement 04 |       |      | 64m²               | 36m²     |                  |                       |               |



# ADG Compliance

8.0



## 8.1 Design Quality Principles

### SEPP 65 ADG Compliance

#### Principle 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.’

Located with the new St Leonards precinct, the site is characterized by the future/masterplan vision for a new residential precinct that integrates landscape and built form. The site is well positioned between Willoughby and St Leonards Station, as well as the planned nearby Crows Nest Metro, with new cycleways and walkways offering green travel alternatives. The design works with the masterplan objectives, building on the proposed pocket parks and landscaping enhanced by a 24m Green Spine landscaping.

#### Principle 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 height, bulk and scale is generally consistent with the precincts’ masterplan for the area as well as the wider

context. The proposal respects the lower scale nature of the residential properties to River Road through a transition from a 3-storey street wall and terracing upwards to the 8 storey component. The gradual stepping reduces the perceived bulk and scale from River Road and is more aligned with the natural topography of the site.

The building form has been broken into distinct forms to break down the mass and create articulation along the building mass. A 3m x 3m slot in each building is utilised to divide the form into two, and provide a better amenity to the units. The slot facing the street allows natural light to the study layouts, while the internal slot provides natural light and ventilation to the common lift lobby. The 9m wide Through-Site Link creates a visual and physical connection east/west through the site, allowing the two adjacent pocket parks to be visually connected.

#### Principle 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 is located within the R4 - High Density Residential zone, and is a transitional zone from the higher density mixed-use developments of St Leonards Station to the R2 Low density residential. The Department of Planning projects an increase of residential population and a desire to see more affordable housing and a greater variety in the area.

As such, the proposed development plays an integral role as part of the precinct and responds accordingly to the availability of infrastructure, transport, demand and environmental quality. The sustainability of the proposed development is further





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supported by the proposal of new active transport links, cycle ways and the neighbouring Crows Nest Metro station. New green spaces and community facilities will service the new local community including the nearby Council park and pocket parks proposed to the ends of Berry and Holdsworth Roads. The St Leonards residents will enjoy the new local open spaces as well as the nearby local community facilities.

#### Principle 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 liveability 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 proposed building is designed to satisfy energy and efficiency performance standards designed to achieve verification for water conservation, thermal comfort and energy efficiency. Natural light and cross ventilation are provided to all common corridors on all levels via passive systems.

The proposed mixed use development aims to revitalise the heart of Lane Cove and create a community that is healthy, safe and resilient.

The core tenets of environmental, social and economic sustainability are placed front and centre as a design response to this vision.

The project incorporates ESD initiatives that go above and beyond regulatory requirements to produce a site that will consist comfort living condition, energy efficient, water efficient and pleasant living environment.

The unit layouts encourage less reliance on mechanical  
Greaton Development. © Koichi Takada Architects

systems with good cross flow ventilation and shading, as well as integrating power generation by way of PV's. A solar photovoltaic (PV) system is proposed to be installed on the rooftop of each high-rise building. The current area achieve a system size of 30kW or greater.

Embedded in the design are the following sustainable initiatives:

- Passive design ensuring minimum 6 Star NatHERS rating
- Energy efficient LED lighting
- Control systems tuned to maximise building performance
- Solar photovoltaic system
- WELS star rated fixtures
- Supplemental bicycle parking spaces
- Outdoor motion activated misters and water features to provide relief on hot days
- Activated public and communal open space with inclusive, passive, active and growing zones

#### Principle 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, microclimate, tree canopy, habitat values and preserving green networks. ‘Good landscape design optimises useability, privacy and opportunities for social interaction, equitable





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### SEPP 65 ADG Compliance

access, respect for neighbours' amenity and provides for practical establishment and long term management.'

The principle design approach was to create an intrinsic relationship between architecture and nature while maintaining pedestrian connectivity across the steep topography. The green spine combines communal areas with private terraces, negotiating a steep level change. There is appropriate screening to ensure visual privacy, while creating a lush and green environment. A fully accessible path in the green spine ensures equi-table access and enjoyment of the key landscape spaces in the Green Spine.

Landscaping on the façade reinforces the architectural language, strengthening the setbacks levels, terraces and slots. The architectural design incorporates façade planters and planted green roofs on the lower levels to facilitate a strong connection to landscape. The biophilic design increases user comfort, wellbeing and amenity.

Deep soil area on site has been maximized, exceeding the Apartment Design Guide's (ADG) requirement for 7%. This allows mature trees to be planted on-site and raised planters will be used where there is basement underneath.

#### Principle 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 new building optimises residential amenity and incorporates a range of 1 Bed, 2-Bed and 3-Bedroom

apartments providing a varied residential mix. Corner units are maximised in order to provide the opportunity for maximising views and cross ventilation. Living rooms are pushed to the building extents where possible in order to maximise on solar access into both the internal living room and private open space.

Façade screens, a feature awning and landscaping are used to address visual privacy between the units and the green spine open space. Canopy trees aid in providing privacy from the communal uses in the green spine. Visual and acoustic privacy is further achieved for the residential apartments by adhering to the ADG building separation guidelines.

#### Principle 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.'

Main pedestrian entries to the development are accessed from both Berry Rd and Holdsworth Ave, and from the Through-Site link, to allow a continuous visual and physical link through the development. The alignment of the wider through-site link allows clear sight lines in order to create casual surveillance throughout.

The ground level has been designed to make visible and attractive entries to the building. The entries are well lit, naturally during the day, and will have security surveillance and intercoms to identify visitors to the building complex. Access to the basement car parking will be secured by means of a roller shutter at all times.





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The typical apartments above have balconies along the perimeter that allow a level of casual surveillance of the surrounding public walkways. Direct access to the lift and stair from the car-park allows residents to drive and enter through a completely secured means.

#### Principle 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 and providing opportunities for social interaction among residents.’

The proposed building is designed to respond to future vision of the St Leonards South precinct and to achieve a range of housing choice to suit a diverse demographic and needs of its future residents. The new residential proposal will contribute positively to the surrounding area, allowing an injection of new life into this transitional area, to align with the desired future character of the locality and the social needs were considered carefully.

The proposal consists of one, two and three-bedroom apartment types of varying sizes to support a range of socioeconomic groups. The typical apartments aim to attract a variety of owner/occupiers and tenants.

The design promotes social interaction between residents through its variety of communal outdoor spaces including the rooftop terraces and public green spine connections. These dynamic spaces are visually appealing but also encourage a place of social interaction through a range of activities and uses including outdoor kitchens, outdoor dining, sheltered areas and seating.

#### Principle 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 a well designed apartment development responds to the existing or future local context, particularly desirable elements and repetitions of the streetscape.’

The three main design features of the building include the horizontal slab edges detailed with a thin edge with timber look screens, combined with soft edges and curves that provide an organic and complimentary residential building. A continuous and contrasting coloured banding emphasises the curves and the horizontality along the façade. The culmination of the curved balcony corners, timber screens and feature awning all create a warm and inviting residential architectural expression that helps to reduce the perceived bulk and scale, and enhance the land-scape character that is prevalent in the master-plan.

The natural material palette is comprised of sandstone utilised to define the interface with the site and ground the design into the steeply sloping terrain. The timber look screening in an oak texture and colouring creating a subtle correlation to the landscaped surrounds. The horizontal planters are integrated at the Level 1 awning, providing increased privacy to the units, and defining the ground level lobby entries. The feature timber awning, turning 90degrees, strengthens the vertical breaks in the form, creating a slot that effectively divides the towers in two parts. The building steps back above the fifth storey enhanced with a perimeter planter.

The top level of the towers is recessed from the floors below and takes on a lighter façade expression. With a thin roof overhang, and large expanses of glass, the top level units enjoy district views and large wrap around terraces. The setback and lighter materials mean this top floor is barely visible from the street and public domain.





8.2 Compliance Schedule  
SEPP 65 ADG Compliance

Summary of Compliance with the NSW Apartment Design Guide

| Objectives and Design Criteria  |                               |                                 | Consistent   |
|---|-------------------------------|---------------------------------|--|
| Part 2 Developing the controls  |                               |                                 |  |
| 2E Building Depth   |                               |                                 | Maximum 20.55m building depth  |
| 2F Building Separation  |                               |                                 | <div>✓</div> <div>24m building separation in Green Spine</div> <div>The setback to the northern boundary assumes the future development will follow a similar form as contemplated in the DCP. The first 5-Storeys continues a 6m setback to align to the streetscape setbacks, above which a 9.2m setback is introduced up to Level 8, and 12.6m in the upper levels.</div> |
| Part 3 Siting the Development   |                               |                                 |  |
| 3D Communal and Public Open Space   |                               |                                 |  |
| Objective   |                               |                                 | <div>✓</div>   |
| An adequate area of communal open space is provided to enhance residential amenity and to provide opportunities for landscaping.  |                               |                                 |  |
| Design Criteria   |                               |                                 | <div>✓</div>   |
| Communal open space has a minimum area equal to 25% of the site.  |                               |                                 | 2,507.5m <sup>2</sup> is provided as communal open space, which equates to 29% of the site   |
| 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).           |                               |                                 | <div>✓</div> <div>As demonstrated by the sun view diagrams, the communal spaces can achieve a minimum of 2 hours of direct sunlight.</div>   |
| 3E Deep Soil Zones  |                               |                                 |  |
| Objective   |                               |                                 | <div>✓</div>   |
| 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   |                               |                                 | <div>✓</div>   |
| Deep soil zones are to meet the following minimum requirements:   |                               |                                 | Approximately 1,986m <sup>2</sup> or 22.7% of the site area is provided as deep soil.  |
| Site Area   | Minimum Dimensions            | Deep Soil Zone (% of site area) |  |
| Less than 650m <sup>2</sup>   | -                             | 7%                              |  |
| 650m <sup>2</sup> – 1,500m <sup>2</sup>   | 3m                            |                                 |  |
| Greater than 1,500m <sup>2</sup>  | 6m                            |                                 |  |
| Greater than 1,500m <sup>2</sup> with significant existing tree cover   | 6m                            |                                 |  |
|   |                               |                                 |  |
| 3F Visual Privacy   |                               |                                 |  |
| Objective   |                               |                                 | <div>✓</div>   |
| Adequate building separation distances are shared equitably between neighbouring sites, to achieve reasonable levels of external and internal visual privacy.                                   |                               |                                 |  |
| Design Criteria   |                               |                                 |  |
| 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: |                               |                                 | The scheme is generally consistent with ADG minimum separation distances for visual privacy. A setback at Level 5 and Level 6 (depending on the slope of the site) maintains the required DCP wall height, which introduces a minor non-compliance to the northern boundary at Level 5. Privacy screens and staggered  |
| 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 25m (9+ storeys)   | 12m                           | 6m                              |  |

|  |  |
|--|--|
|  | windows deal with ensuring adequate privacy.<br><br>The through-site link is 9m width and is adequate for the first 8storeys. The upper levels introduce a further setback of more than 3m to achieve 12m above level 8. |
| 3J Bicycle and Car Parking   |  |
| Objective<br>Car Parking is provided based on proximity to public transport in metropolitan Sydney and centres in regional areas.  | ✓  |
| Design Criteria<br>For development in the following locations: <ul style="list-style-type: none"><li>on sites that are within 800m of a railway station or light rail stop in the Sydney Metropolitan Area; or</li><li>on land zoned, and sites within 400m of land zoned, B3 Commercial Core, B4 Mixed Use or equivalent in a nominated regional centre</li></ul> | ✓<br><br>Car parking spaces are provided in accordance with the DCP rates.   |
| 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.<br>The car parking needs for a development must be provided off street.   |  |
| Part 4 Designing the Buildings   |  |
| 4A Solar and Daylight access   |  |
| Objective<br>To optimise the number of apartments receiving sunlight to habitable rooms, primary windows and private open space.   | ✓  |
| Design Criteria<br>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.   | ✓<br><br>A total of 166 units / 230 (being 72% of total units) receive direct sunlight for a minimum of 2 hours.   |
| A maximum of 15% of apartments in a building receive no direct sunlight between 9 am and 3 pm at mid winter.   | ✓<br><br>A total of 15 units / 230 (being 6% of total units) receive NO direct sunlight in mid-winter (only)   |
| 4B Natural Ventilation   |  |
| Objective<br>The number of apartments with natural cross ventilation is maximised to create a comfortable indoor environment for residents.  | ✓  |
| Design Criteria<br>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.  | ✓<br><br>61%, which is 142 of 230 units are cross-ventilated.  |
| Overall depth of a cross-over or cross-through apartment does not exceed 18m, measured glass line to glass line.   | N/A<br><br>No cross-over apartments proposed   |
| 4C Ceiling Height  |  |
| Objective<br>Ceiling height achieves sufficient natural ventilation and daylight access.   | ✓  |
| Design Criteria<br>Measured from finished floor level to finished ceiling level, minimum ceiling heights are:  | ✓  |
| Minimum ceiling height   |  |
| Habitable rooms  | 2.7m   |
| Non-habitable  | 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   |
| These minimums do not preclude higher ceilings if desired  |  |
| Ceiling heights for residential units on all levels achieve 2.7m minimum for habitable rooms.<br><br>Floor to Floor heights are generally 3.1m with an increased on terrace levels.  |  |



## 8.2 Compliance Schedule

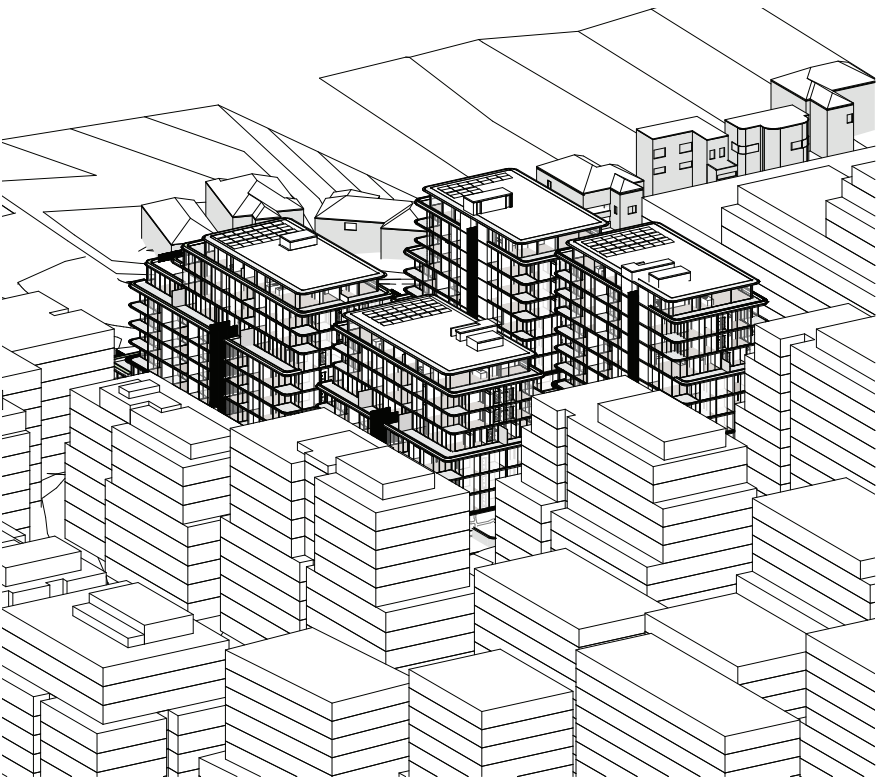
### SEPP 65 ADG Compliance

|  |                       |               |  |
|--|-----------------------|---------------|--|
| <b>4D Apartment Size and Layout</b>  |                       |               |  |
| Objective  |                       |               | ✓  |
| The layout of rooms within an apartment is functional, well organised and provides a high standard of amenity  |                       |               |  |
| Design Criteria  |                       |               | ✓  |
| Apartments are required to have the following minimum internal areas:  |                       |               | The proposal provides a mix of one, two and three bed units. Each unit type is designed to comply with the minimum internal area requirements under this part.   |
| Apartment Type   | Minimum internal area |               |  |
| Studio   | 35m <sup>2</sup>      |               |  |
| 1 bedroom  | 50m <sup>2</sup>      |               |  |
| 2 bedroom  | 70m <sup>2</sup>      |               |  |
| 3 bedroom  | 90m <sup>2</sup>      |               |  |
| The minimum internal areas include only one bathroom. Additional bathrooms increase the minimum internal area by 5m <sup>2</sup> each.   |                       |               |  |
| A fourth bedroom and further additional bedrooms increase the minimum internal area by 12m <sup>2</sup> 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. |                       |               | ✓  |
|  |                       |               | All habitable rooms are provided with a window opening for natural daylight and air.   |
| Objective  |                       |               |  |
| Environmental performance of the apartment is maximised.   |                       |               |  |
| Design Criteria  |                       |               | Room depths are generally up to 8m.  |
| 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.   |                       |               | Habitable room depths are generally up to 8m to the centre of the kitchen  |
| Objective  |                       |               | ✓  |
| Apartment layouts are designed to accommodate a variety of household activities and needs.   |                       |               |  |
| Design Criteria  |                       |               | ✓  |
| Master bedrooms have a minimum area of 10m <sup>2</sup> and other bedrooms 9m <sup>2</sup> (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.   |                       |               | N/A<br>No cross through units are proposed   |
| <b>4E Private Open Space and Balconies</b>   |                       |               |  |
| Objectives   |                       |               | ✓  |
| Apartments provide appropriately sized private open space and balconies to enhance residential amenity.  |                       |               |  |
| Design Criteria  |                       |               | ✓  |
| All apartments are required to have primary balconies as follows:  |                       |               | Balconies are designed in accordance with this requirement.  |
| Dwelling Type  | Minimum Area          | Minimum depth |  |
| Studio apartment   | 4m <sup>2</sup>       | -             |  |
| 1 bedroom apartment  | 8m <sup>2</sup>       | 2m            |  |
| 2 bedroom apartment  | 10m <sup>2</sup>      | 2m            |  |
| 3+ bedroom apartment   | 12m <sup>2</sup>      | 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 15m <sup>2</sup> and a minimum depth of 3m.  |                       |               | Apartments at ground level are provided with terraces and achieve a minimum 3m depth.<br><br>A covered balcony zone is consistent with the levels above, with an increase terraced and landscape buffer to the street and the green spine communal open space. |
| <b>4F Common Circulation and Spaces</b>  |                       |               |  |
| Objective  |                       |               | ✓  |
| Common circulation spaces achieve good amenity and properly service the number of apartments.  |                       |               |  |

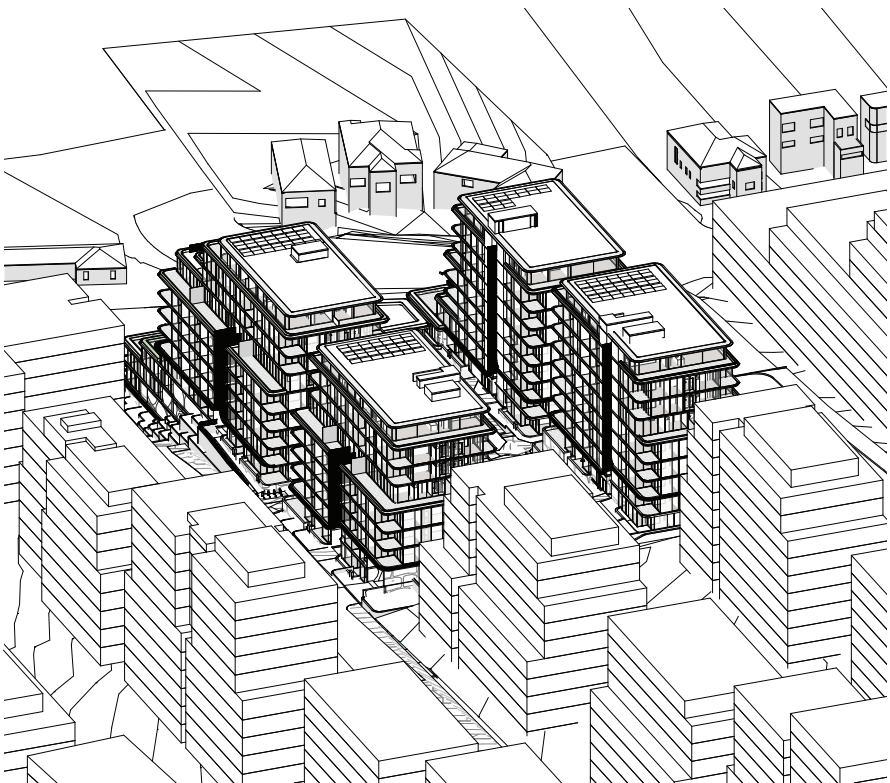
| <p>Design Criteria</p> <p>The maximum number of apartments off a circulation core on a single level is eight.</p>   | <p>Breaks/Slots in the building form have been designed to allow natural daylight into the lift lobbies.</p> <p>Building A – 7 Apts or less per core</p> <p>Building B – 7 Apts or less per core</p> <p>Building C – 7 Apts or less per core</p> <p>Building D – 9 Apts , Levels 1-4</p> <p>8 Apts or less for all other levels</p> <p>Building E – Max 5 Apts per level</p> |                |                  |                 |                     |                 |                     |                 |                      |                  |  |
|---|--|----------------|------------------|-----------------|---------------------|-----------------|---------------------|-----------------|----------------------|------------------|--|
| <p>For buildings of 10 storeys and over, the maximum number of apartments sharing a single lift is 40.</p>  | <p>N/A</p> <p>Buildings are 4-8 Storeys</p>  |                |                  |                 |                     |                 |                     |                 |                      |                  |  |
| <p><b>4G Storage</b></p>  |  |                |                  |                 |                     |                 |                     |                 |                      |                  |  |
| <p>Objective</p> <p>Adequate, well designed storage is provided in each apartment.</p>  | <p>✓</p>   |                |                  |                 |                     |                 |                     |                 |                      |                  |  |
| <p>Design Criteria</p> <p>In addition to storage in kitchens, bathrooms and bedrooms, the following storage is provided:</p> <table><tr><th>Dwelling Type</th><th>Minimum Volume</th></tr><tr><td>Studio apartment</td><td>4m<sup>3</sup></td></tr><tr><td>1 bedroom apartment</td><td>6m<sup>3</sup></td></tr><tr><td>2 bedroom apartment</td><td>8m<sup>3</sup></td></tr><tr><td>3+ bedroom apartment</td><td>10m<sup>3</sup></td></tr></table> | Dwelling Type  | Minimum Volume | Studio apartment | 4m <sup>3</sup> | 1 bedroom apartment | 6m <sup>3</sup> | 2 bedroom apartment | 8m <sup>3</sup> | 3+ bedroom apartment | 10m <sup>3</sup> | <p>✓</p> <p>Units are provided with adequate storage in accordance with the design criteria requirements.</p> <p>Additional storage is also provided at basement levels to a maximum of 50%.</p> |
| Dwelling Type   | Minimum Volume   |                |                  |                 |                     |                 |                     |                 |                      |                  |  |
| Studio apartment  | 4m <sup>3</sup>  |                |                  |                 |                     |                 |                     |                 |                      |                  |  |
| 1 bedroom apartment   | 6m <sup>3</sup>  |                |                  |                 |                     |                 |                     |                 |                      |                  |  |
| 2 bedroom apartment   | 8m <sup>3</sup>  |                |                  |                 |                     |                 |                     |                 |                      |                  |  |
| 3+ bedroom apartment  | 10m <sup>3</sup>   |                |                  |                 |                     |                 |                     |                 |                      |                  |  |
| <p>At least 50% of the required storage is to be located within the apartment.</p>  |  |                |                  |                 |                     |                 |                     |                 |                      |                  |  |



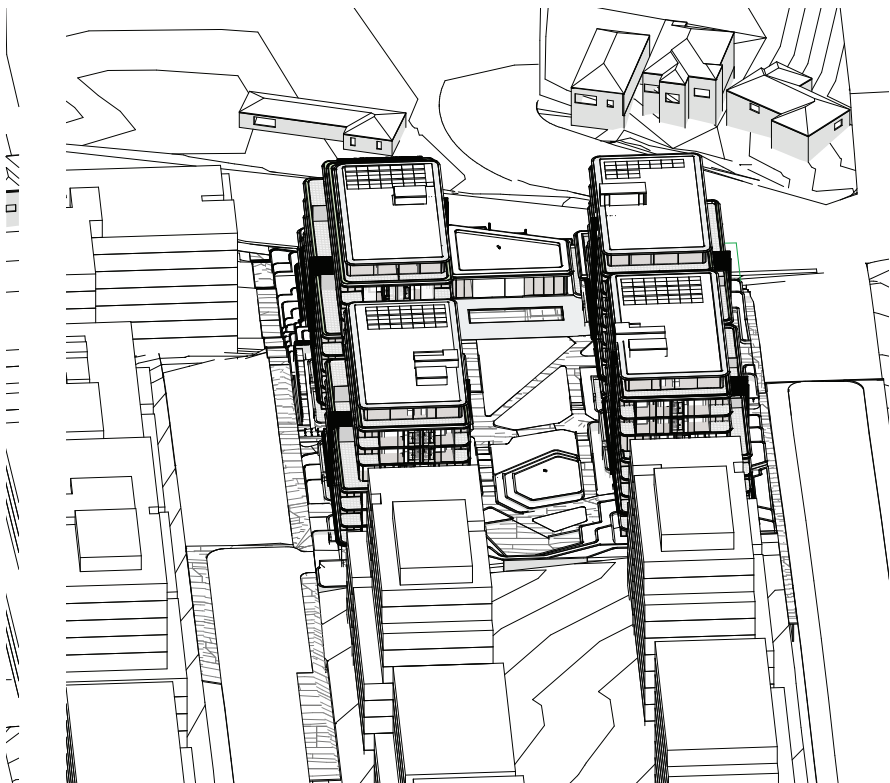
8.3 Solar Access  
Sun Eye Views - 2 Hour Visibility



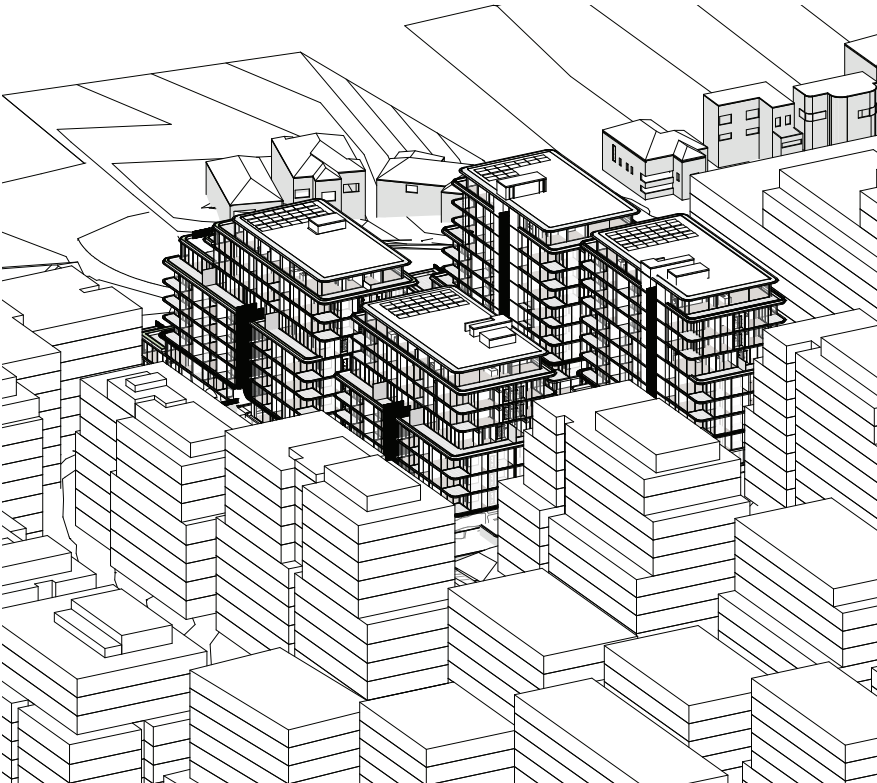
9.10AM - June 21



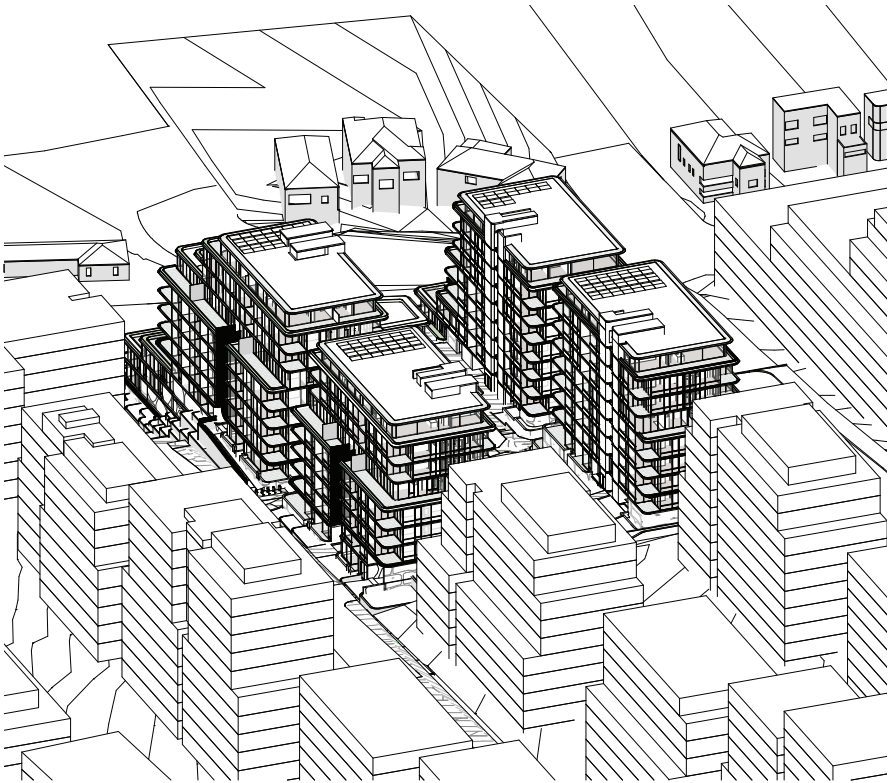
10AM - June 21



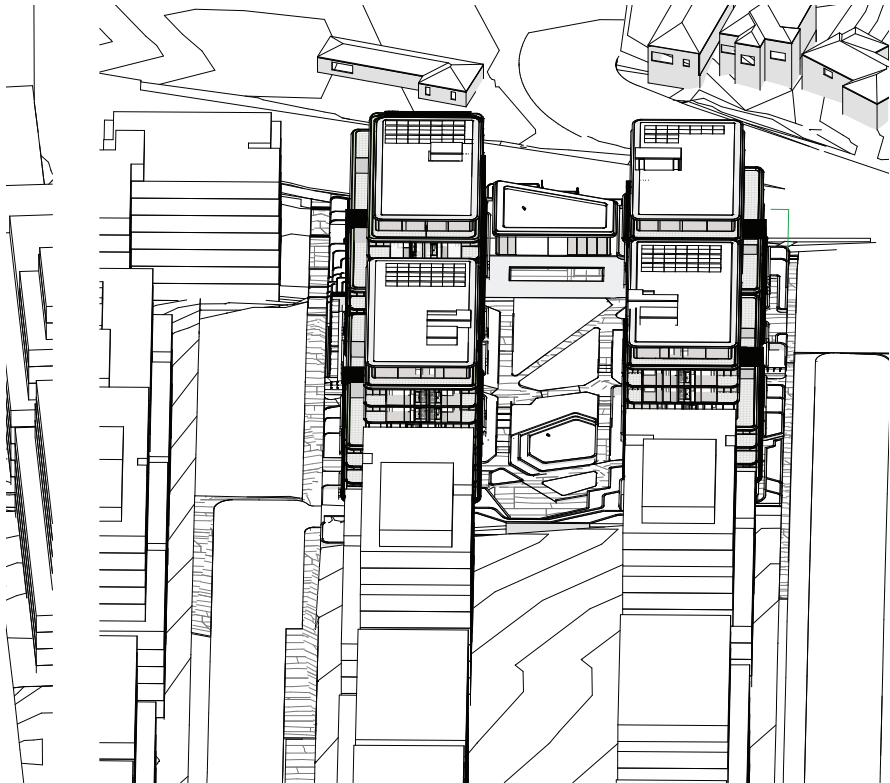
11.10AM - June 21



9.30AM - June 21

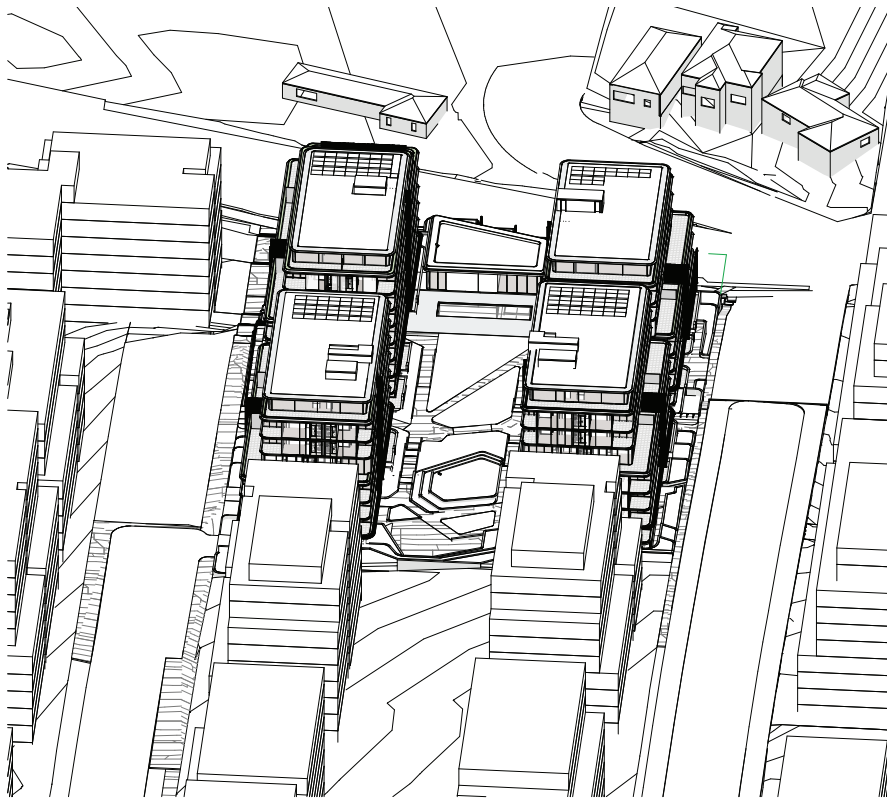


10AM - June 21



11.30AM - June 21

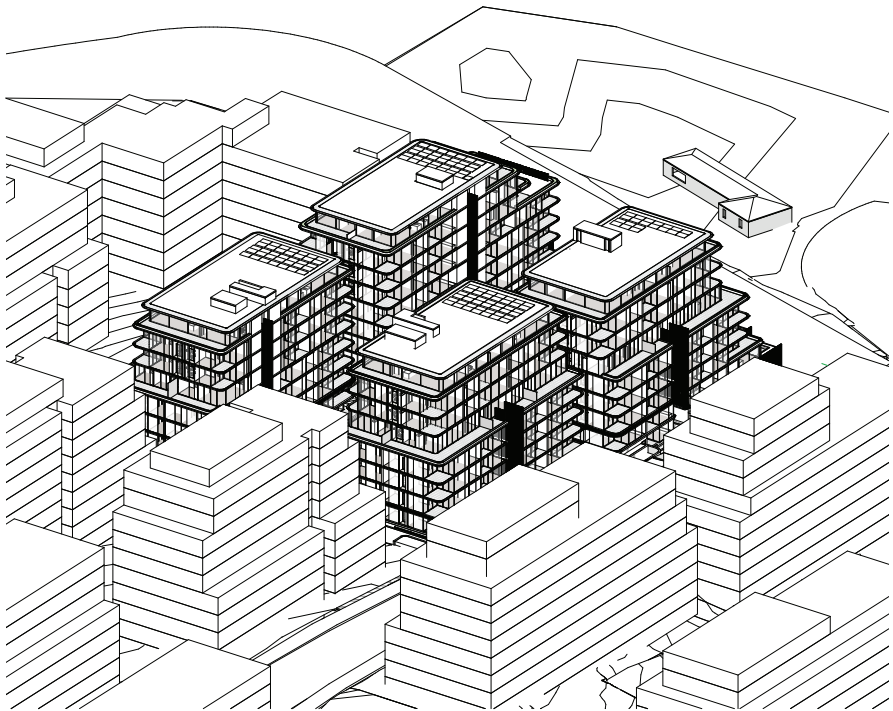




11.45AM - June 21



12.45PM - June 21



1.45PM - June 21

|              |         |         |         |         |             |
|--------------|---------|---------|---------|---------|-------------|
| Level U8     | 2 / 2   | 3 / 3   | 3 / 3   | 3 / 3   |             |
| Level 07     | 5 / 5   | 6 / 6   | 6 / 6   | 6 / 6   |             |
| Level 06     | 5 / 5   | 6 / 6   | 6 / 6   | 6 / 6   |             |
| Level 05     | 5 / 5   | 6 / 6   | 6 / 6   | 8 / 8   |             |
| Level 04     | 7 / 7   | 7 / 7   | 6 / 7   | 9 / 9   |             |
| Level 03     | 6 / 7   | 6 / 7   | 2 / 7   | 9 / 9   |             |
| Level 02     | 4 / 7   | 6 / 7   | 1 / 7   | 7 / 9   |             |
| Level 01     | 4 / 7   | 3 / 7   | 1 / 5   | 5 / 9   |             |
| Ground Floor | 2 / 5   | / 5     | 1 / 5   | 1 / 7   | / 2         |
| Basement 01  |         |         |         |         | 1 / 4       |
| Basement 02  |         |         |         |         | / 5         |
| Basement 03  |         |         |         |         | / 2         |
| Basement 04  |         |         |         |         | / 3         |
| Total        | 40 / 50 | 43 / 54 | 32 / 52 | 54 / 66 | 1 / 16      |
|              | 80%     | 80%     | 62%     | 82%     | 6%          |
|              |         |         |         |         | Grand Total |
|              |         |         |         |         | 170 / 238   |
|              |         |         |         |         | 71%         |

|       |    |     |            |                |
|-------|----|-----|------------|----------------|
| DISC# | BY | CHK | DATE       | REVISION NOTES |
| 1     | JD | AC  | 08/11/2021 |                |
| 2     | JD | AC  | 12/11/2021 |                |
| 3     | JD | AC  | 16/11/2021 |                |

KEY PLAN

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OTHERS

CLIENT  
GREATON

ARCHITECT  
SUITE 41 & 42, LEVEL 4  
61 MARI ROYCE HIGH ST

**Koichi**

QA STAMP



PROJECT  
ST LEONARDS STH, EQ  
1 OCT 18 TO 8 20



### 8.3 Solar Access Shadow Analysis



9AM - June 21

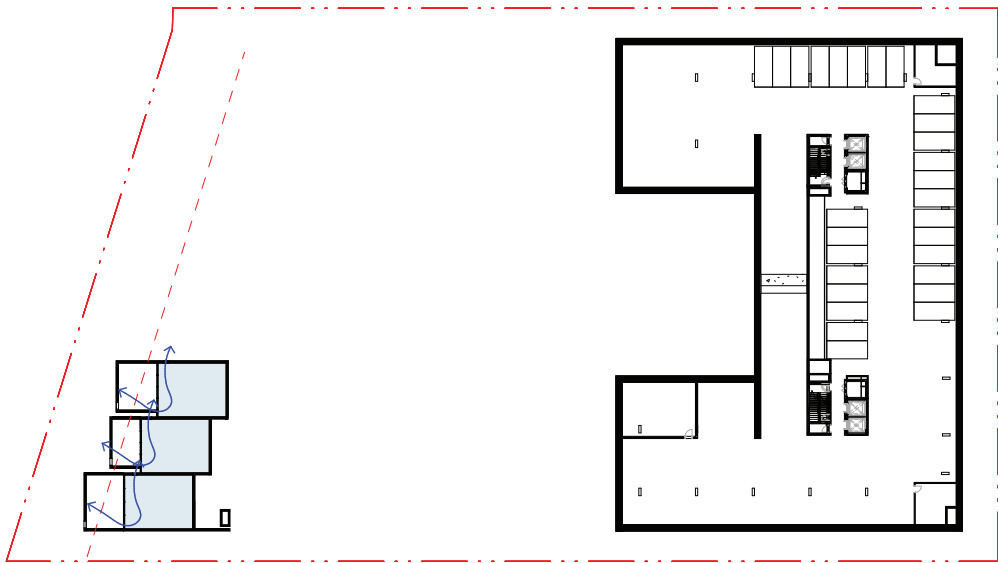


12PM - June 21

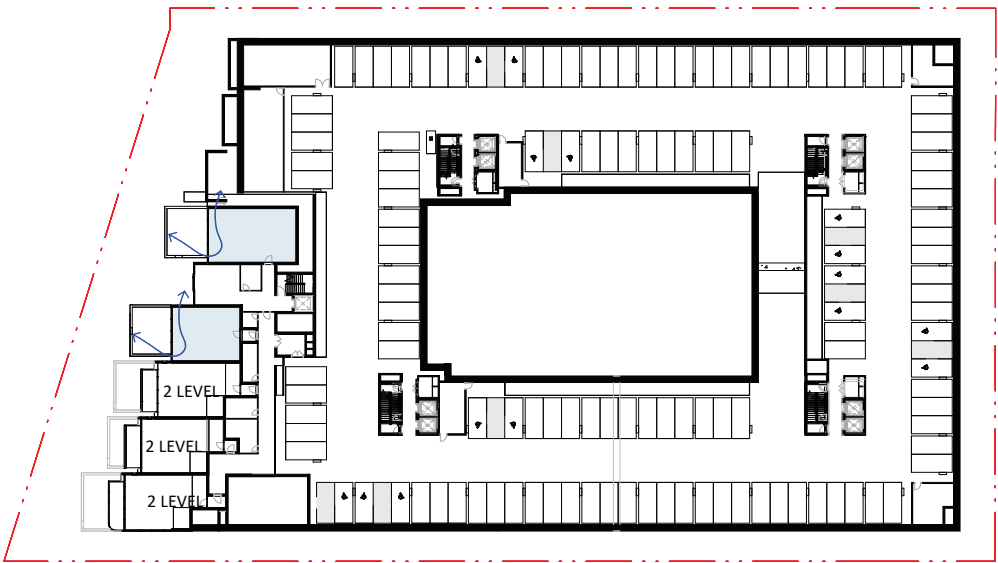


3PM - June 21

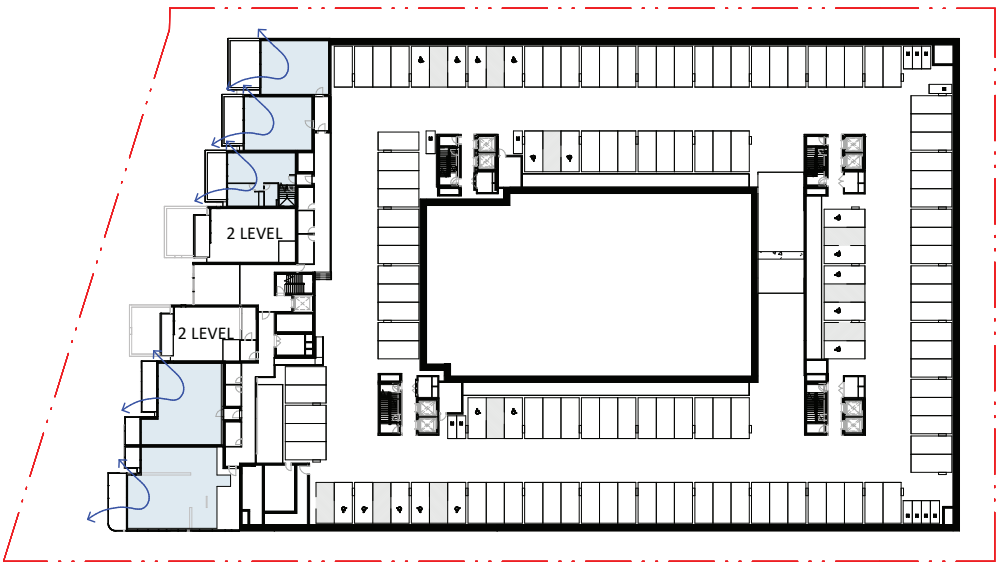




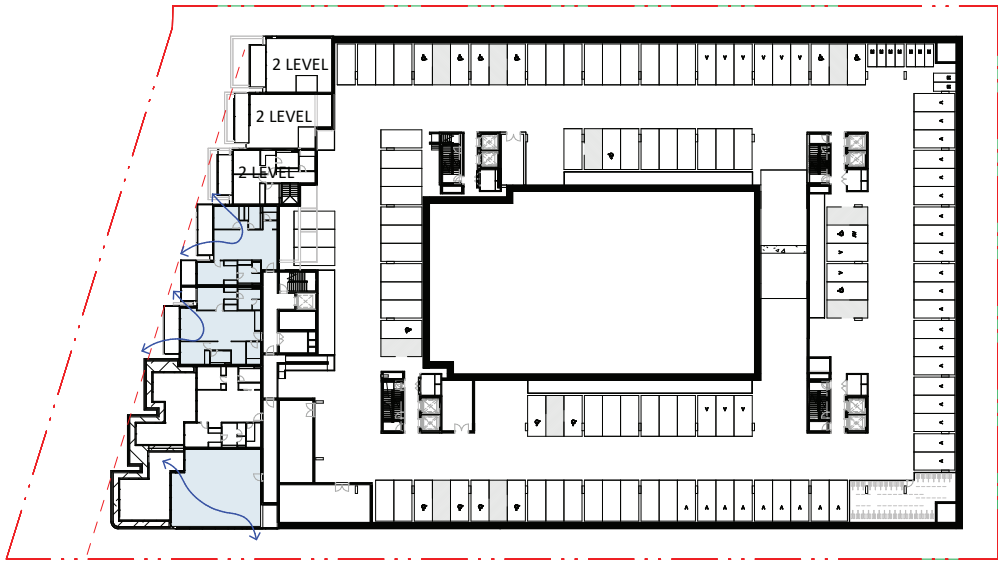
B4



B3



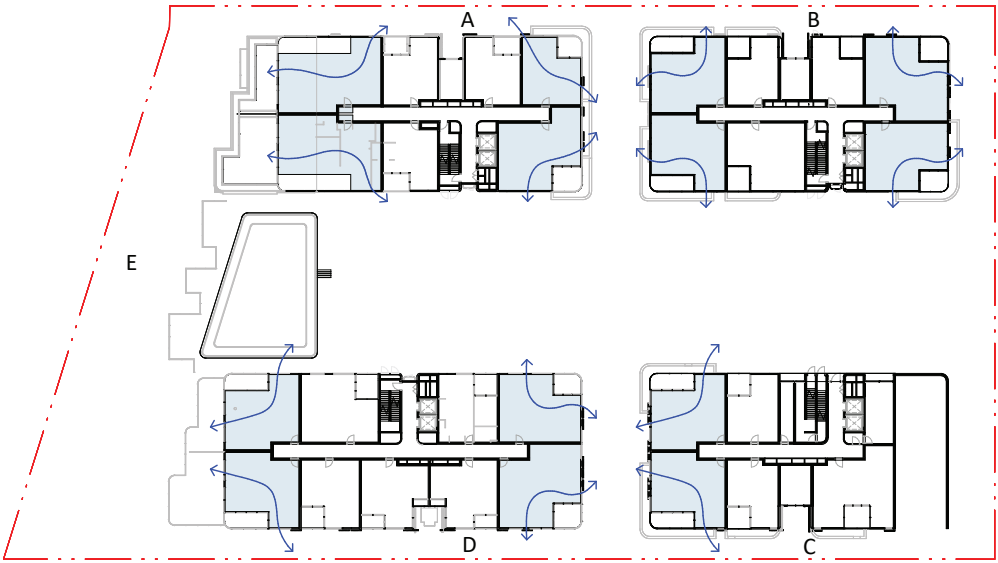
B2



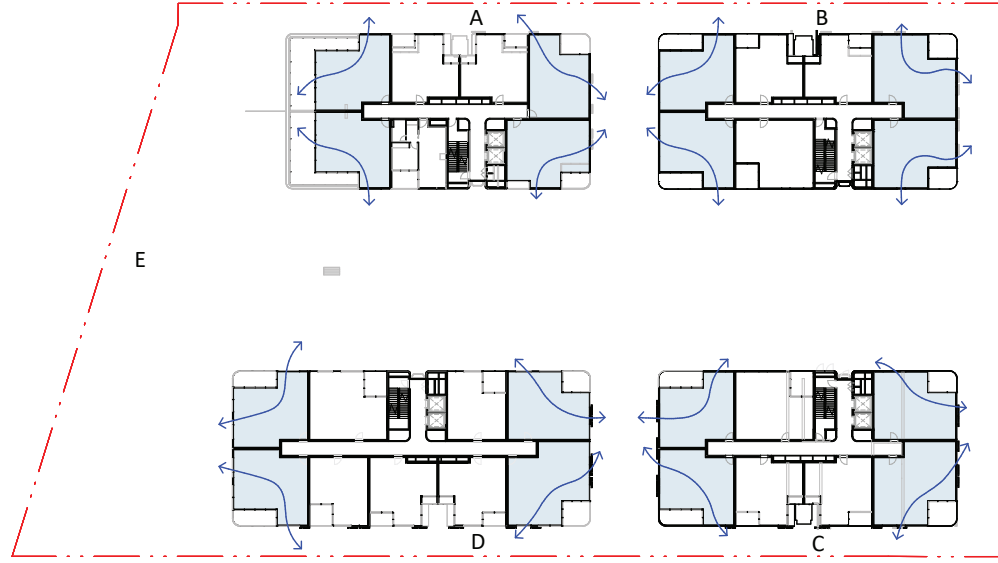
B1



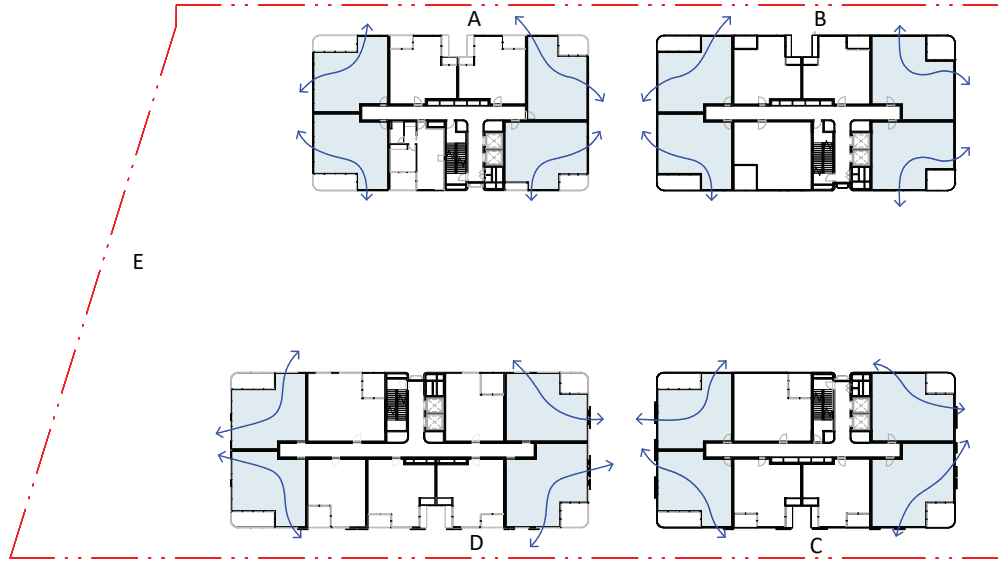
GND



L01



L02



L03



L04





|              | Block A | Block B | Block C | Block D | Block E |           |
|--------------|---------|---------|---------|---------|---------|-----------|
| Level 09     |         |         |         |         |         |           |
| Level 08     | 2 / 2   | 3 / 3   | 3 / 3   | 3 / 3   |         |           |
| Level 07     | 4 / 5   | 4 / 6   | 4 / 6   | 4 / 6   |         |           |
| Level 06     | 4 / 5   | 4 / 6   | 4 / 6   | 4 / 6   |         |           |
| Level 05     | 4 / 5   | 4 / 6   | 4 / 6   | 4 / 8   |         |           |
| Level 04     | 4 / 7   | 4 / 7   | 4 / 7   | 4 / 9   |         |           |
| Level 03     | 4 / 7   | 4 / 7   | 4 / 7   | 4 / 9   |         |           |
| Level 02     | 4 / 7   | 4 / 7   | 4 / 7   | 4 / 9   |         |           |
| Level 01     | 4 / 7   | 4 / 7   | 2 / 5   | 4 / 9   |         |           |
| Ground Floor | 0 / 2   | 2 / 4   | 2 / 4   | 2 / 4   | 2 / 2   |           |
| Basement 01  |         |         |         |         | 3 / 4   |           |
| Basement 02  |         |         |         |         | 5 / 5   |           |
| Basement 03  |         |         |         |         | 2 / 2   |           |
| Basement 04  |         |         |         |         | 3 / 3   |           |
| Total        | 30 / 47 | 33 / 53 | 31 / 51 | 33 / 63 | 15 / 16 | 142 / 230 |
| Percentage   | 64%     | 62%     | 61%     | 52%     | 94%     | 61.7%     |

### Apartments with cross ventilation

|                   |   |                      |
|-------------------|---|----------------------|
| CROSS VENTILATION | = | 142 / 230 APARTMENTS |
|                   | = | 61 %                 |

|     |  |  |  |  |                |  |  |  |  |          |  |  |  |  |                                      |  |  |  |  |        |  |  |  |  |                             |  |  |  |  |           |  |  |  |  |                       |  |  |  |  |         |  |  |  |  |                        |  |  |  |  |   |  |  |  |  |                        |  |  |  |  |   |  |  |  |  |               |  |  |  |  |   |  |  |  |  |              |  |  |  |  |   |  |  |  |  |                  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  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| 1   |  |  |  |  | For Discussion |  |  |  |  | A        |  |  |  |  | WIP ARCH PLAN - ISSUE FOR DISCUSSION |  |  |  |  | B      |  |  |  |  | WIP - ISSUE FOR INFORMATION |  |  |  |  | C         |  |  |  |  | Issue for DEP Meeting |  |  |  |  | D       |  |  |  |  | ISSUED FOR INFORMATION |  |  |  |  | E |  |  |  |  | ISSUED FOR INFORMATION |  |  |  |  | F |  |  |  |  | DA LODGE/MENT |  |  |  |  | G |  |  |  |  | RFT RESPONSE |  |  |  |  | H |  |  |  |  | RFT RESPONSE 2.0 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  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