

Design Report - Pockley Ave

State Significant Development Application
2 - 16 Pockley Avenue, Roseville, NSW



Client	Aqualand Prestige
Architect	Woods Bagot
Town Planner	Planning & Co
Landscaping	Ground Ink
Structure	Meinhardt
Facade	Meinhardt
Traffic	Varga
BCA/Access	Jensen Hughes
Building Services	Neuron
Fire	Neuron

Civil	Stantec
ESD	Stantec
Acoustics	Stantec
Waste	Elephants Foot
First Nations	JMP Aboriginal Consultancy
Flood	Kozarovski and Partners
Wind	Windtech

Woods Bagot acknowledges the Traditional Owners of the land, sky and waters. We pay our respects to Elders past, present, and to the future leaders of our community.

We honour the ongoing deep spiritual connection that the Traditional Owners have with this country. With respect, we tread gently to help reconcile and pave the way for a united and harmonious future for all people.

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Introduction

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Our vision for this residential development is to create a thoughtfully designed, sustainable community that not only enhances the local landscape but also contributes meaningfully to Ku-ring-gai's evolving housing needs.

Recognising the challenges outlined in the Ku-ring-gai Affordable Housing Policy (December 2024), our proposal aims to support essential workers and young residents who are increasingly unable to secure housing within the area. With 23% of renters experiencing housing stress and 71.6% of essential workers commuting from outside the region, we see this project as an opportunity to provide high-quality, well-integrated housing solutions.

By incorporating a mix of dwelling types and affordability considerations, our design seeks to retain and attract young people who have fled this area for the past 10 years.

Beyond its architectural and landscape excellence, this project embodies a broader social responsibility—helping shape a more diverse, resilient, and connected community for the future.

Aqualand Prestige

01.01 Project Overview

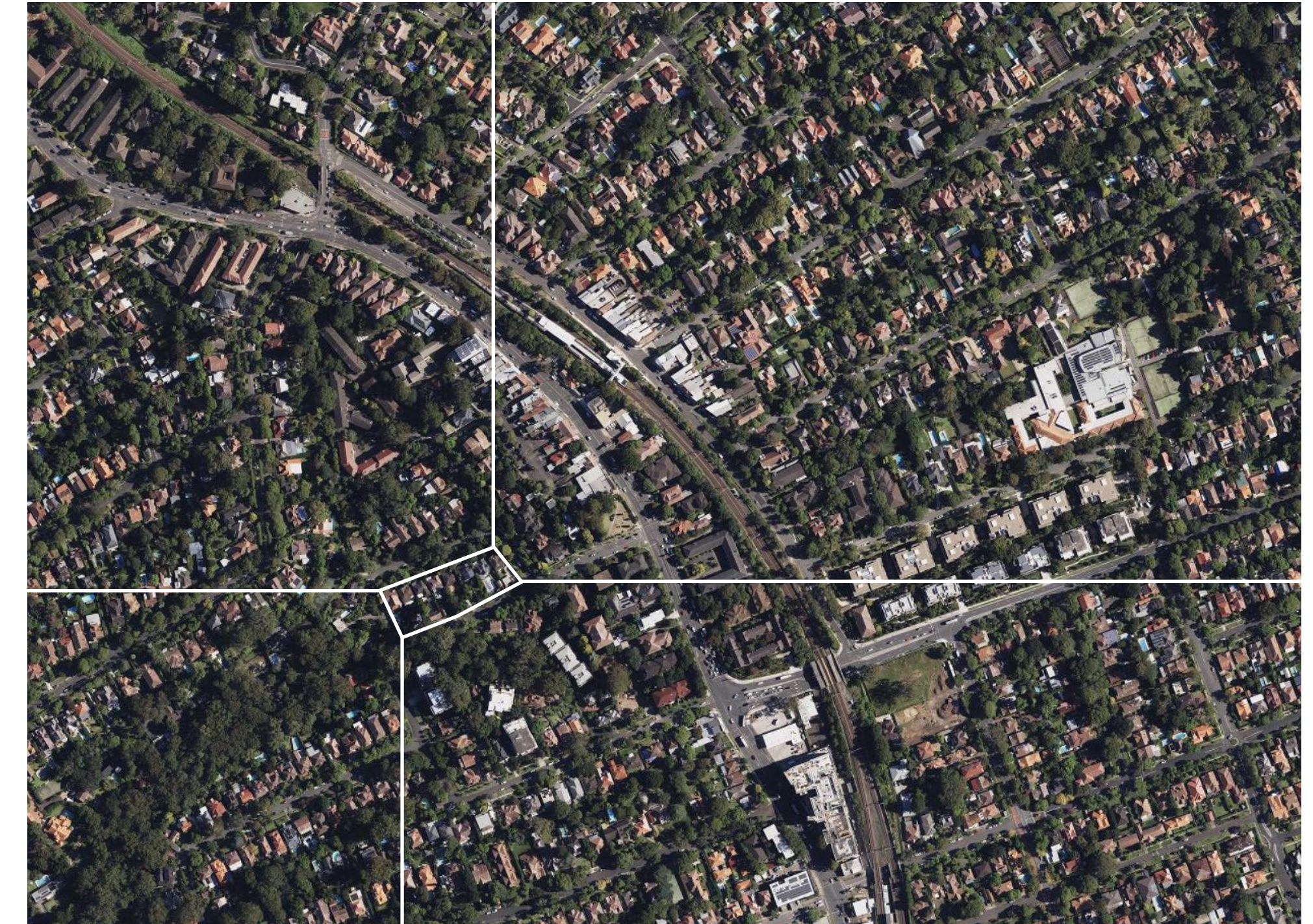
Project Description & Summary

The applicant seeks development consent under Division 4.7 State Significant Development of the Environmental Planning & Assessment Act 1979 (EP&A Act) for a new residential development comprising three residential flat buildings which includes the provision of in-fill affordable housing on the site at 2-16 Pockley Avenue, Roseville.

Specifically, this SSDA seeks approval for:

- Site preparation including demolition, excavation and tree removal of the site;
- Construction of a residential flat building containing 3 building elements of up to 9 storeys including:
 - **Part-3, part-4 and part 5-level combined basement** parking with the provision of 285 car parking spaces,
 - **178 dwellings including 39 affordable housing** dwellings above carpark;
- Ground level and on-building landscaping works including communal open spaces in Pavilion A
- Augmentation of, and connection to, existing utilities as required

Address	2-16 Pockley Avenue, Roseville, NSW
Council	Ku-ring-gai
LEP	Ku-ring-gai LEP
Lot Area	Combined area 6,539m ²
Zone	R2 Low Density
	Residential (TOD SEPP 2024 override)
Height	22m
Height (IAH SEPP Bonus)	27.9m
FSR	2.50: 1
FSR (IAH SEPP Bonus)	3.17: 1
Heritage	No
Available GFA	20,728m ²
Proposed GFA	20,702m ²



“Beyond its architectural and landscape excellence, this project embodies a broader social responsibility—creating a diverse, resilient, and connected community. Aqualand Prestige in Roseville aims to deliver high-quality, well-integrated housing that supports essential workers and young residents while addressing Ku-ring-gai’s housing stress.”

Wayne Xiong, Executive Director, Aqualand Prestige

01.02 Project Introduction

Aqualand & Woods Bagot

Together, Aqualand and Woods Bagot will build on our shared successes in North Sydney and the Upper North Shore creating exemplary and iconic projects into the future.

Knowing Aqualand Brand

Our relationship over the past seven years has given us the opportunity to work with the Aqualand team, Jin and Helkin. This has reinforced for us a shared belief in outcomes that we can be proud of and a passion for excellence.

Knowing Build to Sell

WB being a global practice have experience in the BTS sector from across the globe and locally. This provides us a unique perspective and well established playbook for success.

Knowing Place

WB are experienced in North Sydney and have demonstrated relationships with stakeholders. We are constantly seeking to assist the critical stakeholders in striving for improvements across the city that all contribute to increased vibrancy, activity and shared political, commercial and social success.

Prepared for:

Prepared by:



ARCHITECTURE

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01.02 Project Introduction Relevant SEARs

3. Design Quality

Demonstrate how the development will achieve:

- design excellence in accordance with any applicable EPI provisions.
- good design in accordance with the seven objectives for good design in Better Placed.

Demonstrate that the development:

where required by an EPI or concept approval, or where proposed, has been subject to a competitive design process, carried out in accordance with an endorsed brief and Design Excellence Strategy; or

in all other instances, has been reviewed by the State Design Review Panel (SDRP) consistent with the NSW SDRP: Guidelines for Project Teams.

Recommendations of the jury and Design Integrity Panel (where a competitive design process has been held) or the SDRP are to be addressed prior to lodgement.

4. Built Form and Urban Design

Explain and illustrate the proposed built form, including a detailed site and context analysis to justify the proposed site planning, design approach and application of the height and floor space bonuses under the Housing SEPP.

Demonstrate how the proposed built form (layout, height, bulk, scale, separation, setbacks, interface and articulation) addresses and responds to the context, site characteristics, streetscape and existing and future character of the locality.

Demonstrate how the building design will deliver a high-quality development, including consideration of façade design, articulation, activation, roof design, materials, finishes, colours, any signage and integration of services.

Provide a floorplan outlining the gross floor area and units that are dedicated as affordable housing.

5. Environmental Amenity

Address how good internal and external environmental amenity is achieved, including access to natural daylight and ventilation, pedestrian movement throughout the site, access to landscape and outdoor spaces.

Assess amenity impacts on the surrounding locality, including lighting impacts, reflectivity, solar access, visual privacy, visual amenity, view loss and view sharing, overshadowing and wind impacts. A high level of environmental amenity for any surrounding residential or other sensitive land uses must be demonstrated.

Provide a solar access analysis of the overshadowing impacts of the development within the site, on surrounding properties and public spaces (during summer and winter solstice and spring and autumn equinox) at hourly intervals between 9am and 3pm, comparing the proposed development, existing situation and a development with no bonuses applied.

6. Visual Impact

Provide a visual analysis of the development from key viewpoints, including photomontages or perspectives showing the proposed and likely future development.

7. Public Space

Demonstrate how the development maximises the amount, access to and quality of public spaces (including open space, public facilities and streets/plazas within and surrounding the site), reflecting relevant design guidelines and advice from the local council and the Department.

Demonstrate how the development:

- ensures that public space is welcoming, attractive and accessible for all.
- maximises permeability and connectivity.
- maximises the amenity of public spaces in line with their intended use, such as through adequate facilities, solar access, shade and wind protection.
- maximises street activation.
- minimises potential vehicle, bicycle and pedestrian conflicts.

27. SEARs Industry Specific Cover Letter

Provide a table which demonstrates how each apartment, including affordable apartments, addresses the key Apartment Design Guide design criteria to inform the assessment of the development, against the Design Quality Principles within State Environmental Planning Policy (Housing) 2021 and the Apartment Design Guide.

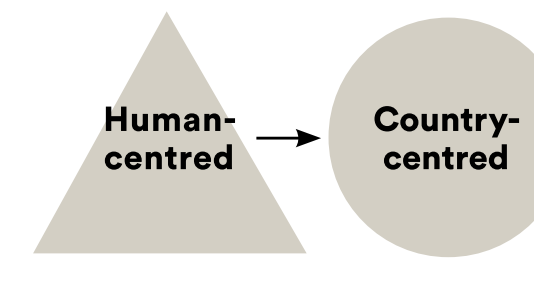
I Jason Fraser, Registered NSW Architect #8431, confirm this Design Report addresses the requirement of SEAR No. SSD-77825469 and relevant State and local legislation, policies, and guidelines including SEARs, Better Places, Apartment Design Guide, Build-to-rent housing and flexible design Fact sheet. I further confirm that none of the information contained in the Design Report is false or misleading.

Signed:



01.03 Project Context - Relevant GANSW Policy Connecting with Country Framework

Guided by Aboriginal community



The Commitment

All NSW built environment projects will be developed with a Country-centred approach guided by Aboriginal people, who know that if we care for Country, Country will care for us.

Practices

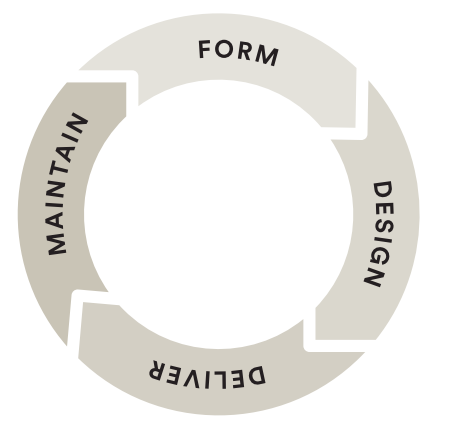
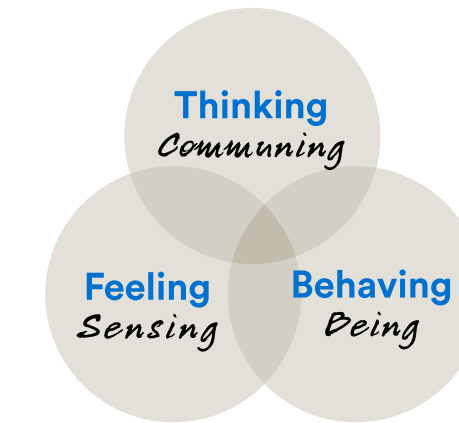
- Reframing our way of working
- Changing our approach and processes to support a Country-centred approach

Actions

- Implementing the framework
- Project life cycle from an Aboriginal perspective

Outcomes for Country

- Healthy Country
- Healthy community
- Protecting Aboriginal cultural heritage
- Cultural competency
- Better places



Alongside *The Better Placed policy*, *The Connecting with Country Framework*, written by the Government Architects is a comprehensive guide underscoring the importance of responding to and preserving Aboriginal cultural heritage in urban planning and design endeavours. The guide is for good practice, helping architects respond to Country when planning, designing and delivering built environment projects. The ambition of the framework is that everyone involved in delivering built environment projects will adopt the following commitment: All NSW built environment project will be developed with a Country-centred approach guided by Aboriginal people, who know that if we care for Country, Country will care for us.



01.03 Project Context - Relevant GANSW Policy

Greener Places Design Guide Principles for NSW



Integration

Combine green infrastructure with urban development and grey infrastructure



Connectivity

Create an interconnected network of open space



Multifunctionality

Deliver multiple ecosystem services simultaneously

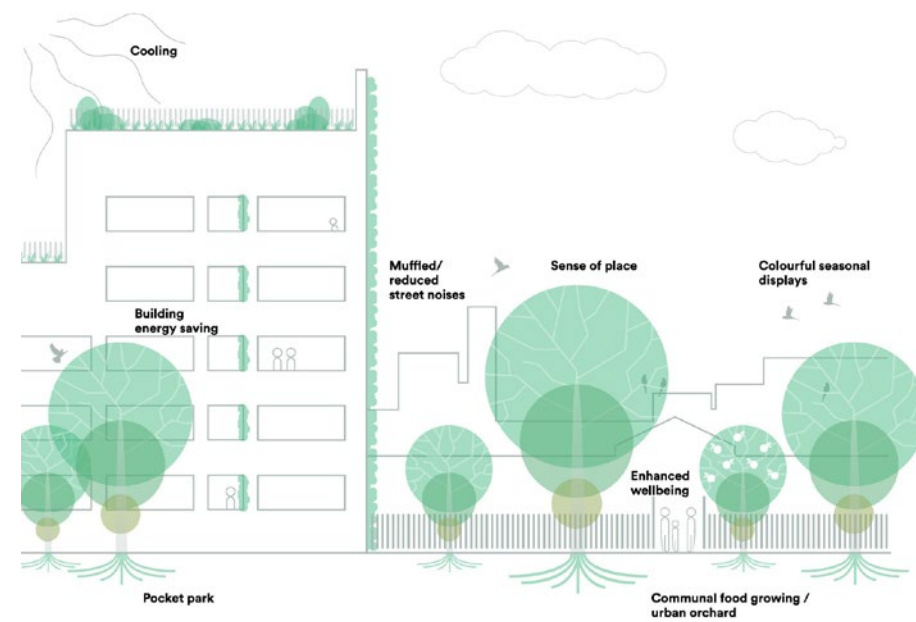


Participation

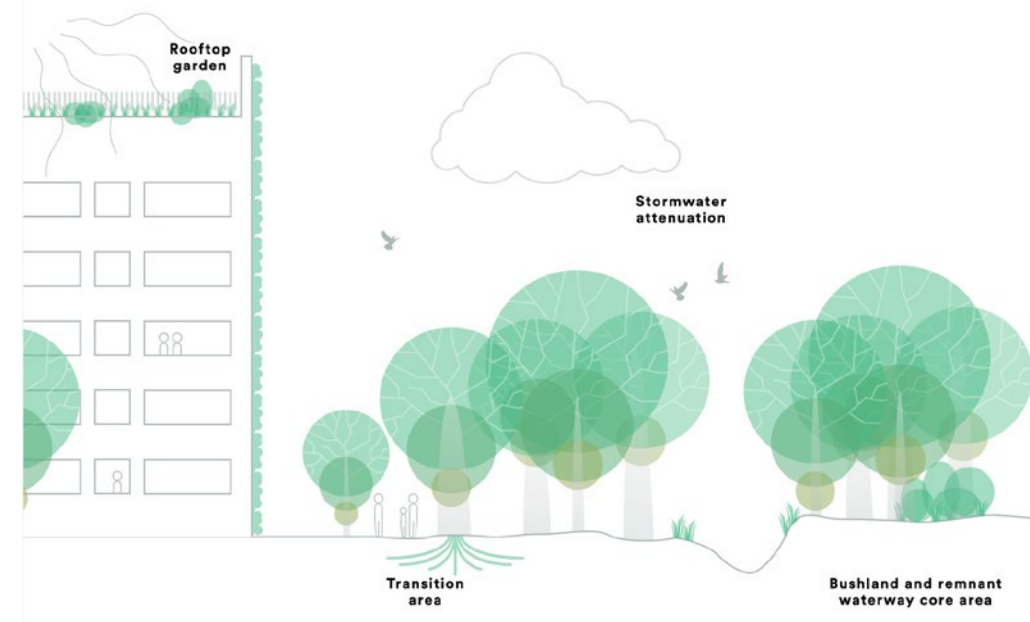
Involve stakeholders in development and implementation

The Draft Greener Places Design Guide, written by Government Architect NSW, provides information on how to design, plan and implement green infrastructure in urban areas throughout NSW. The guide provides a methodology to help local and State government, as well as industry to create a system of green infrastructure. The guide explains green infrastructure and the benefits of implementing it. The major components fall into three categories: open space for recreation - green infrastructure for people; urban tree canopy - green infrastructure for climate adaptation and resilience and bushland and waterways - green infrastructure for habitat and ecological health. The plan envisions improved public open spaces that are accessible, high quality and evolve with the growing population; increased urban canopies and improved connectivity between people and the natural environment. It is intended that the four principles above will help deliver green infrastructure in NSW.

From the Draft Greener Places Design Guide by:



Urban Tree Canopies



Connecting to Parklands

01.03 Project Context - Relevant GANSW Policy

Better Placed

Better Fit

Contextual, local and of its place



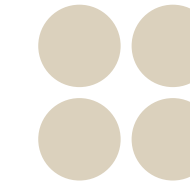
Better Performance

Sustainable, adaptable and durable



Better for Community

Inclusive, connected and diverse



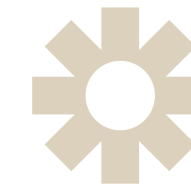
Better for People

Safe, comfortable and liveable



Better Working

Functional, efficient and fit for purpose



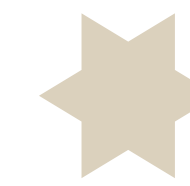
Better Value

Creating and adding value



Better Look & Feel

Engaging, inviting and attractive



"good design makes better places"

Better Placed, Government Architect New South Wales, 2016.

The Better Placed policy, written by Government Architect NSW, collates aspirations, expectations and requirements for the design of the built environment of NSW. The guide sees the potential that new development holds in impacting quality of life, stimulating the economy and improving the environment. It is envisioned that all aspects of our urban environment should be enhanced to create better places, spaces and buildings to achieve better cities, towns and suburbs. The plan states that good design needs to be at the centre of all development processes to achieve this and address the complexity of our rapidly changing social and economic environment. Better Placed asks industry to challenge their design thinking, problem solving and analysis to enhance the design quality of our built environment to ultimately create better environments that will define the future heritage of NSW.

The seven distinct objectives above define the key considerations in the design of the built environment. Better Placed, depicts that achieving these objectives will ensure cities and towns, our public realm, landscapes, buildings and public domain will be responsive, healthy, integrated, resilient and equitable.

From the Draft Greener Places Design Guide by:



Discover - Create - Deliver

01.03 Project Context

Ku Ring Gai Strategies

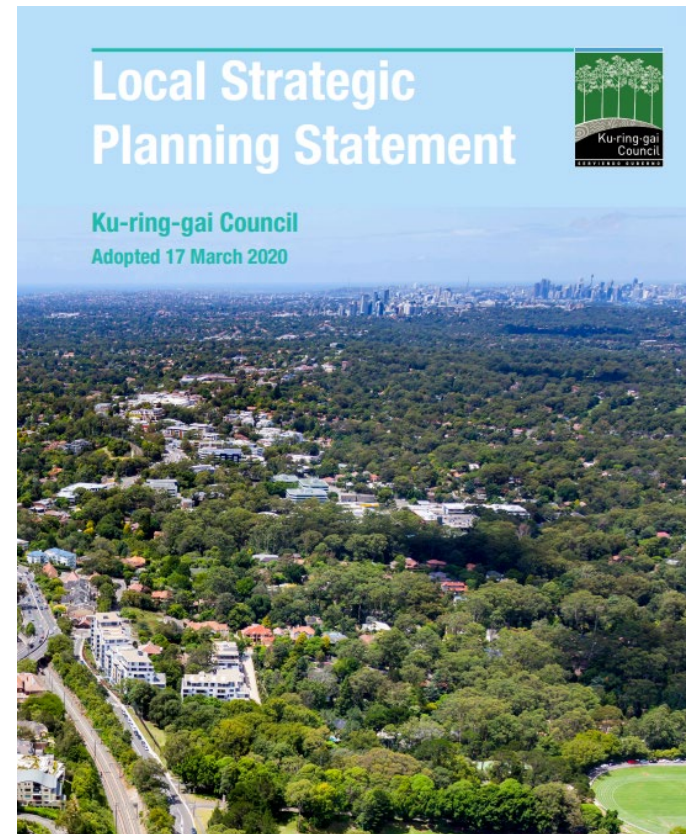


Community Strategic Plan

This long-term plan reflects the community's vision and aspirations, addressing environmental, social, economic, and civic leadership issues to shape Ku-ring-gai's future

Key Themes

1. Community, people, and culture
2. Natural environment
3. People, places, and infrastructure
4. Access, traffic, and transport
5. Local economy
6. Leadership



Local Strategic Planning Statement (LSPS)

The LSPS outlines the economic, social, and environmental land use needs for the next 20 years (2016-2036), guiding future housing locations, center identities, community facilities, transport infrastructure, and environmental management.

Local Planning Priorities

- Infrastructure and Collaboration
- Livability
- Productivity
- Sustainability



Housing Strategy

This strategy addresses current and future housing needs, ensuring a diverse and sustainable housing supply that aligns with community expectations and demographic trends.

Ku-ring-gai's Housing Future: liveable for life

Housing in Ku-ring-gai will support connected communities by providing sustainable, diverse, and well-designed homes to accommodate a changing community, close to key infrastructure and aligned with the local character.

Diversity

Diversity

Provide a variety of housing types and sizes to suit the changing needs of the community.

Affordability

Enable people to live in the area through changing life stages and circumstances.

Accessibility

Enable people of all ages and abilities to continue to live independently, close to networks and age in place.

Liveability

Liveability

Locate housing to create connected communities living in healthy neighbourhoods with amenity, safety and open space.

Mobility

Provide new housing within a 10 minute walk to frequent train and bus services, close to cycle routes, and having regard to traffic flow and parking.

Social & Cultural Infrastructure

Provide key services and facilities to support and engage our community.

Quality

Design

Provide high quality, well designed homes that consider streetscape, context and building scale.

Character

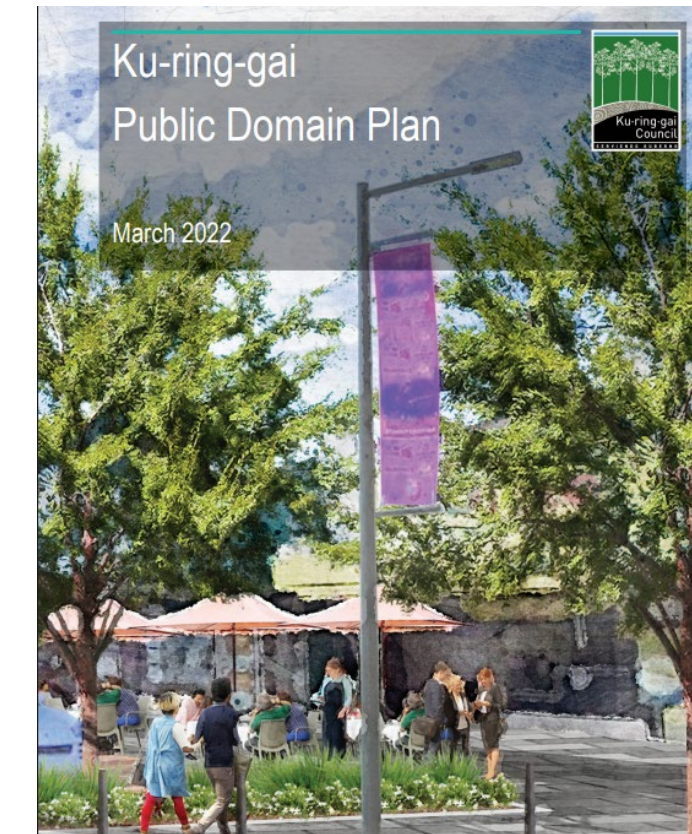
Ensure housing respects local character, and is compatible with heritage and biodiversity values

Sustainability

Deliver environmentally sustainable homes that are resilient to a changing climate.

01.03 Project Context

Ku Ring Gai Strategies



Public Domain Plan

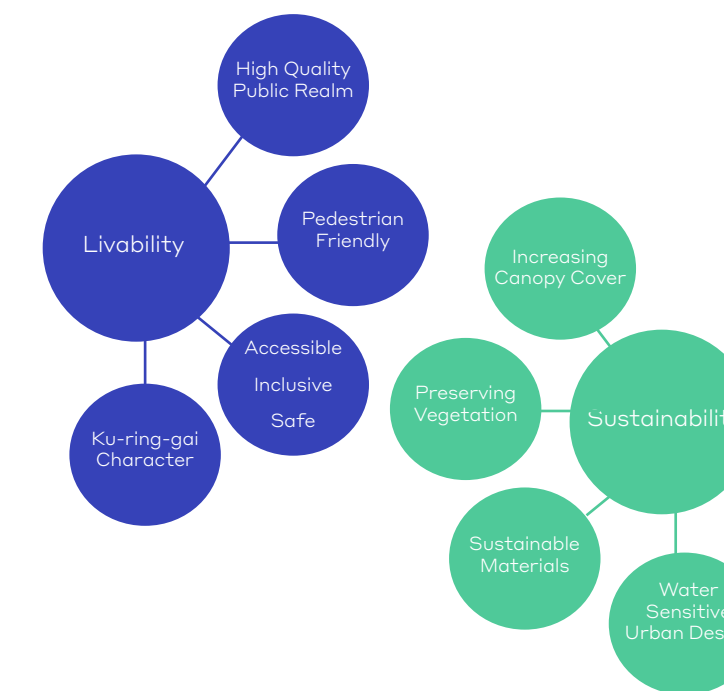
Guiding the design of streets and public spaces within and around town centers, this plan aims to enhance the functionality and aesthetic appeal of public domains.

Key Objectives

The key objectives of the Ku-ring-gai Public Domain Plan reflect the Priorities in the Greater Sydney Commission's North District Plan and the Ku-ring-gai Local Strategic Planning Statement – Liveability and Sustainability. Consequently, the objectives of the Ku-ring-gai Public Domain Plan are to

- deliver a high quality public realm;
- provide a consistent positive image for Ku-ring-gai with acknowledgement and retention of local character for each Local Centre;

- improve legibility and wayfinding;
- develop pedestrian focused places with improved walking experience;
- ensure an accessible, inclusive, and safe public domain;
- create vibrant streetscapes and public areas with enjoyable experiences including outdoor dining, public art installations and flexibility for events;
- promote a consistent materials palette and consistent design elements to unify and identify Ku-ring-gai LGA;
- respond to climate change by providing shelter through planting and structures / built form with canopies to reduce heat, and other cooling methods such as water features;
- preserve and enhance vegetation and landscape character of Ku-ring-gai;
- encourage sustainable design using robust, long lasting materials; and
- encourage sustainable water usage design such as water capture, water re-use and cleansing, and water efficient planting.



01.03 Local Context

Ku Ring Gai Demographics

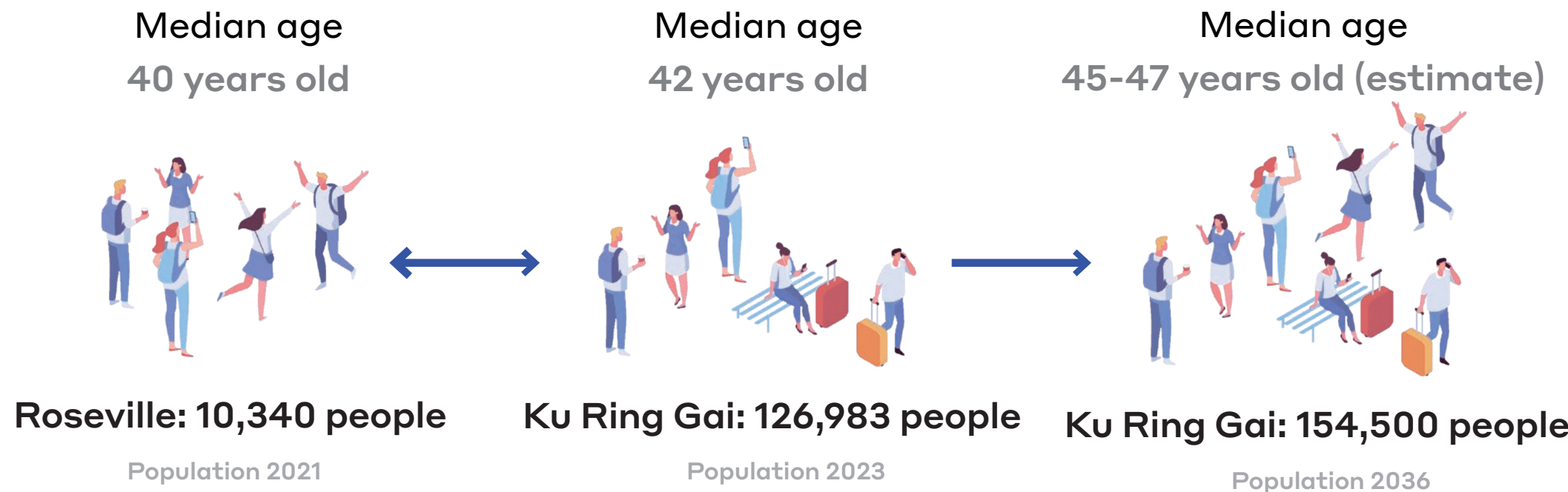
Need for diverse housing for a growing and evolving community

With a median age of 40, Roseville has a relatively mature demographic. Higher-density housing can provide suitable living options for older residents who may want to downsize or seek homes closer to public transport, services, and social hubs. Roseville's housing needs are evolving, with the demographic largely composed of couples without children (32.1%), couples with children (56%), and one-parent families (10.9%). Increasing density through a mix of apartments and townhouses can provide more suitable housing options for a diverse range of households, from young professionals and downsizing empty nesters to growing families seeking well-connected, amenity-rich neighborhoods. Higher-density housing near transit and local services can enhance convenience, reduce commute times, and support a more vibrant, community-oriented lifestyle while ensuring Roseville remains an attractive and accessible place to live for all life stages.

While it's difficult to predict the exact median age of Ku-ring-gai in 2036, we can estimate based on current trends. With a median age of 42 years in 2021 and the area's relatively high proportion of older residents, it's likely that the median age will continue to rise over the next 15 years, reflecting an aging population.

If current trends persist, the median age in 2036 could be around 45 to 47 years. This increase would be influenced by factors such as longer life expectancy, lower birth rates, and the aging of the large Baby Boomer generation in the area.

To address this shift, increasing housing density and offering a mix of housing options would be essential for catering to both older residents and younger, growing families.



01.03 Local Context

Ku Ring Gai Demographics

An underserved transport hub

Located just 12 km from Sydney's CBD, Roseville's train station offers residents convenient access to employment opportunities in the city and nearby hubs like North Sydney. However, the 2021 Census revealed that most residents either drive to work or work from home, resulting in the station being underutilized. Increasing residential density around the station, along with introducing mixed-use developments, would stimulate the local economy, reduce car dependence making the area more sustainable, improving accessibility to key services and employment hubs, and provide much-needed housing with easy access to public transport.

Lack of affordability

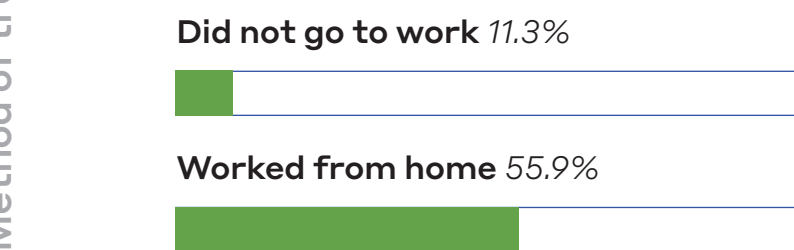
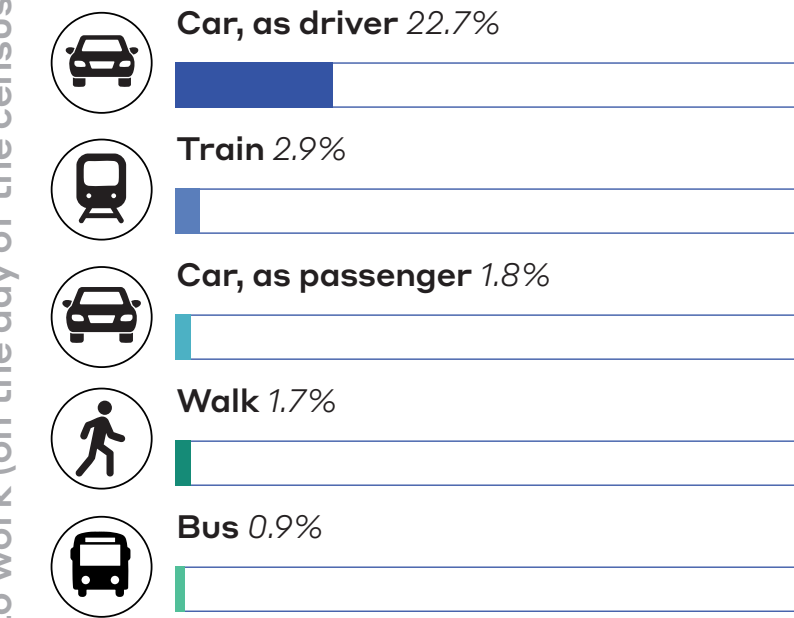
Like many areas in Sydney, housing affordability in Roseville may become a growing concern as demand increases. By increasing density, more affordable housing options can be introduced to the market, ensuring that people from various income levels can continue to live in the area.

Median House Price in Roseville: The median house price in Roseville is approximately \$4,075,000.

Median Household Income in Roseville: According to the 2021 census, the median household income in Roseville is around \$2,000 per week or about \$104,000 per year.

Given these figures, the median house price in Roseville is roughly **39 times** the median household income. This indicates that housing in Roseville is relatively unaffordable for many local residents, particularly for first-time homebuyers or those with lower incomes. This disparity is a common trend in high-demand areas of Sydney, making it more difficult for residents to enter the housing market without significant financial support or equity. Increasing housing density and introducing more affordable housing options could help address this issue, providing opportunities for a broader range of income levels to live in the area.

Method of travel to work (on the day of the census)



Median House Price in Roseville

\$4,075,000

Median House Price in Ku Ring Gai

\$1,610,000



Increasing density for a more connected and sustainable Roseville

Roseville's current housing composition, with 68.8% separate houses, 28.5% apartments, and only 2.8% townhouses, highlights a need for greater housing diversity and increased density, particularly around the center.

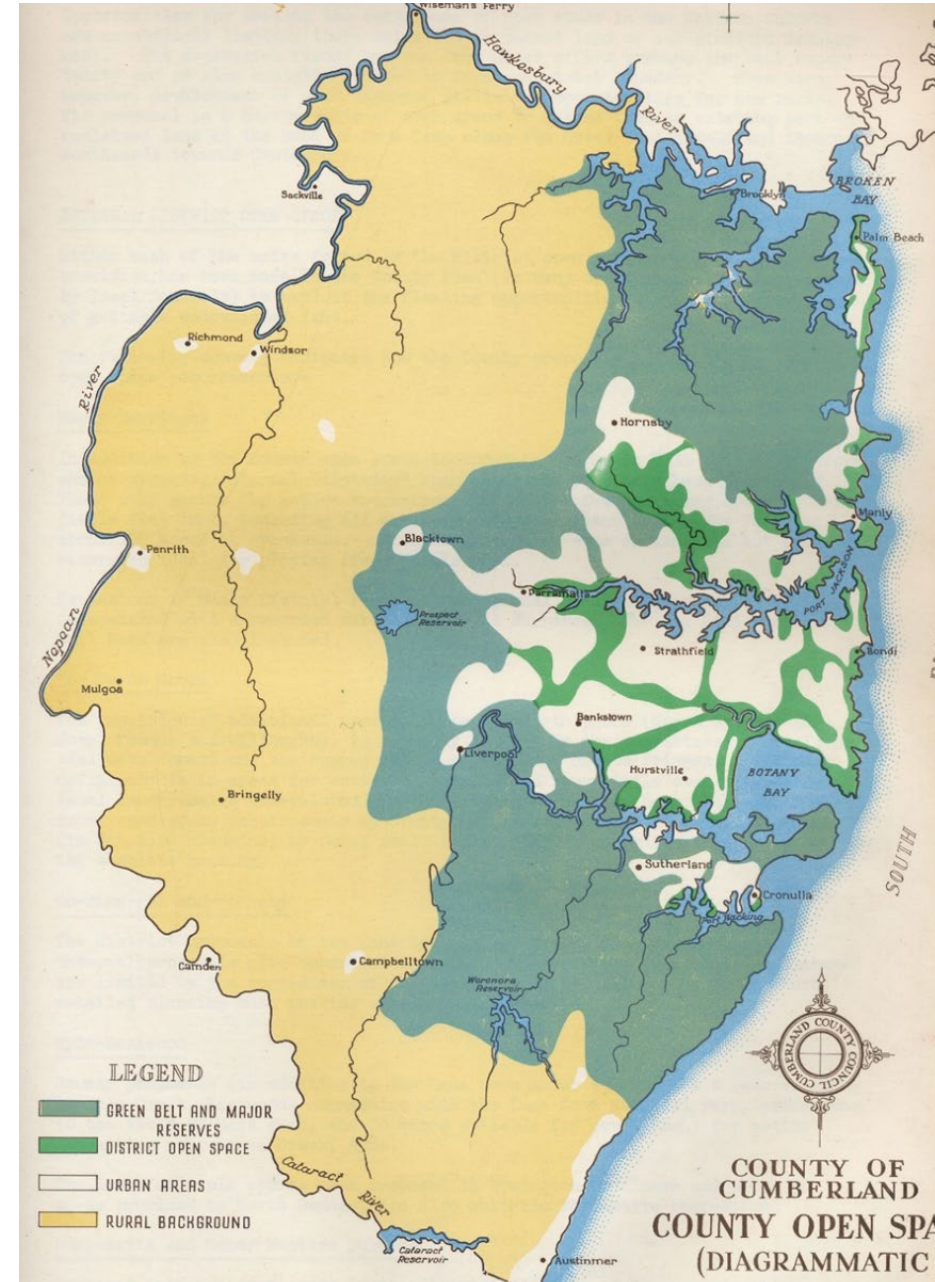
Transit-Oriented Development (TOD) presents a vital opportunity to create a more sustainable and accessible urban environment by focusing growth around key transport nodes. By increasing density near transit hubs, Roseville can improve housing affordability, reduce car dependency, and support local businesses through a more vibrant and walkable community. Encouraging a mix of mid-rise apartments and townhouses will not only cater to changing demographics but also enhance public transport usage, ultimately fostering a more efficient and environmentally friendly urban fabric.

Context and Analysis

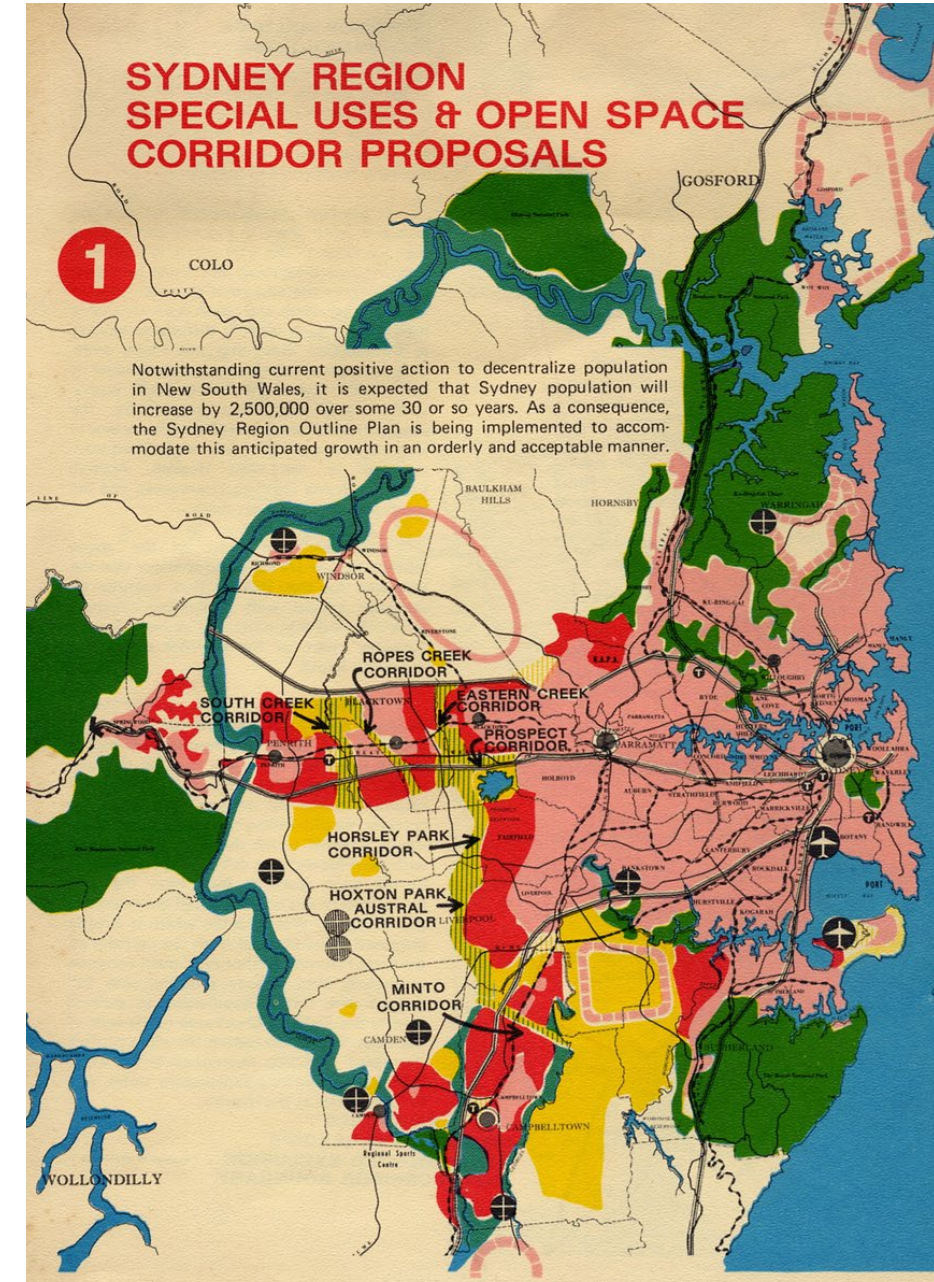
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02.01 Strategic Context

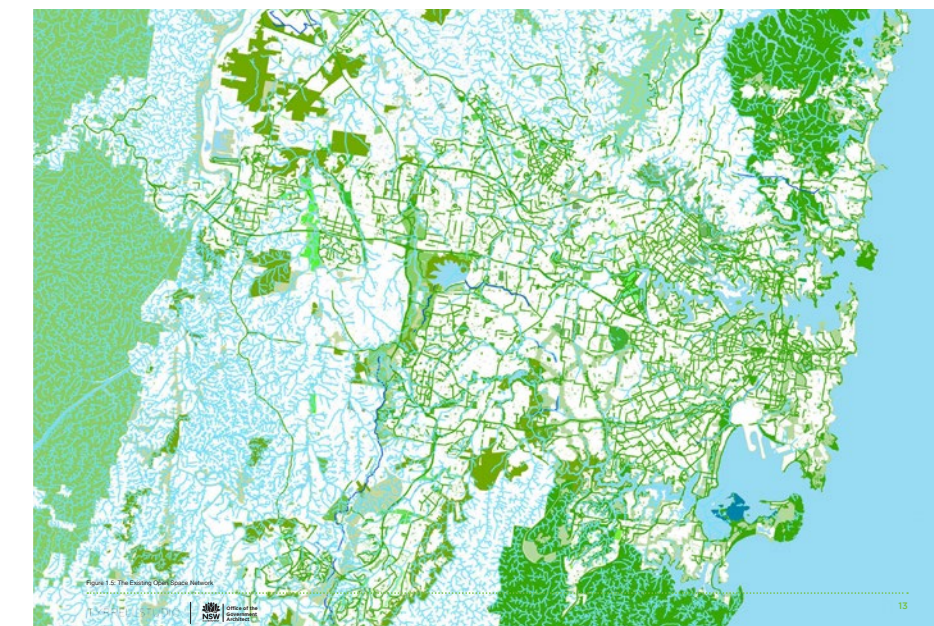
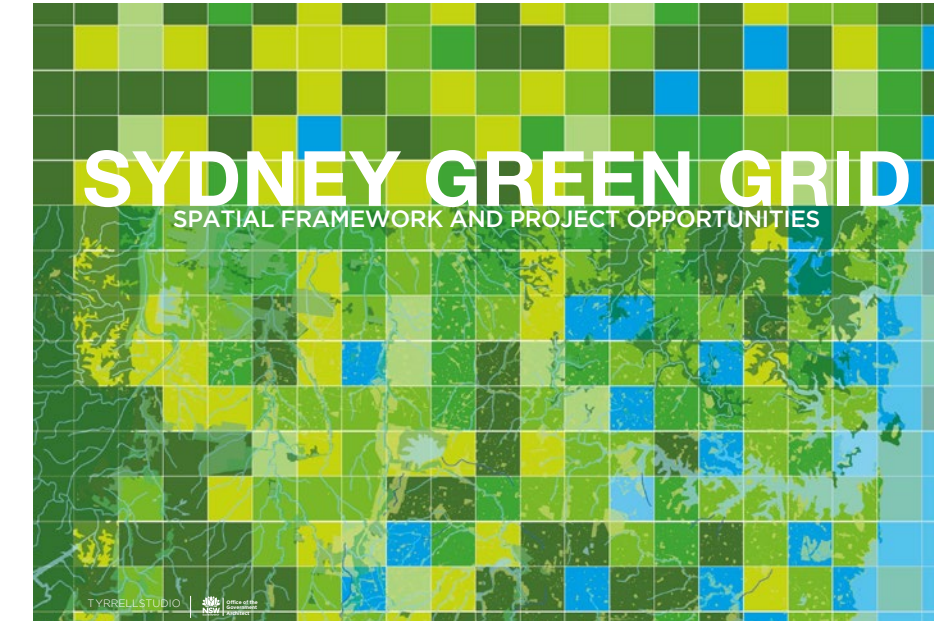
Connectivity to Greater Sydney's Intent for Greening Initiatives



Sydney Green Belt & Green Web (1957)



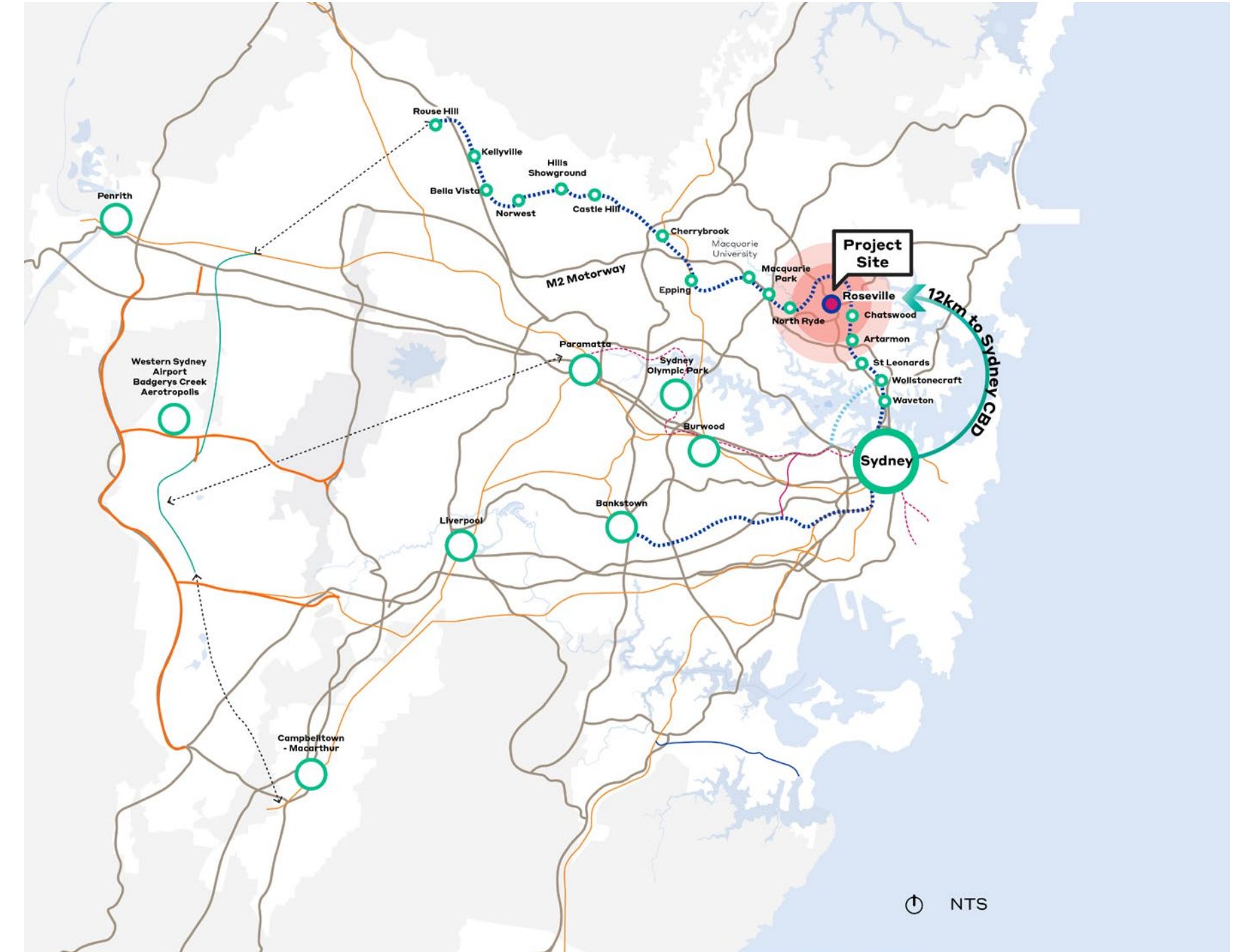
Special Use and Open Space Corridors (1968)



Sydney Green Grid (2017)

02.01 Strategic Context

Accelerated TOD Precincts



02.02 Urban Context

Proximity to Sydney CBD

Travel Times



Distance to National Parks

Blue Gum Reserve	2 min walk
Lane Cove NP	6 min drive
Garigal NP	18 min drive
Ku-Ring-Gai NP	26 min drive
Berowa Valley NP	40 min drive



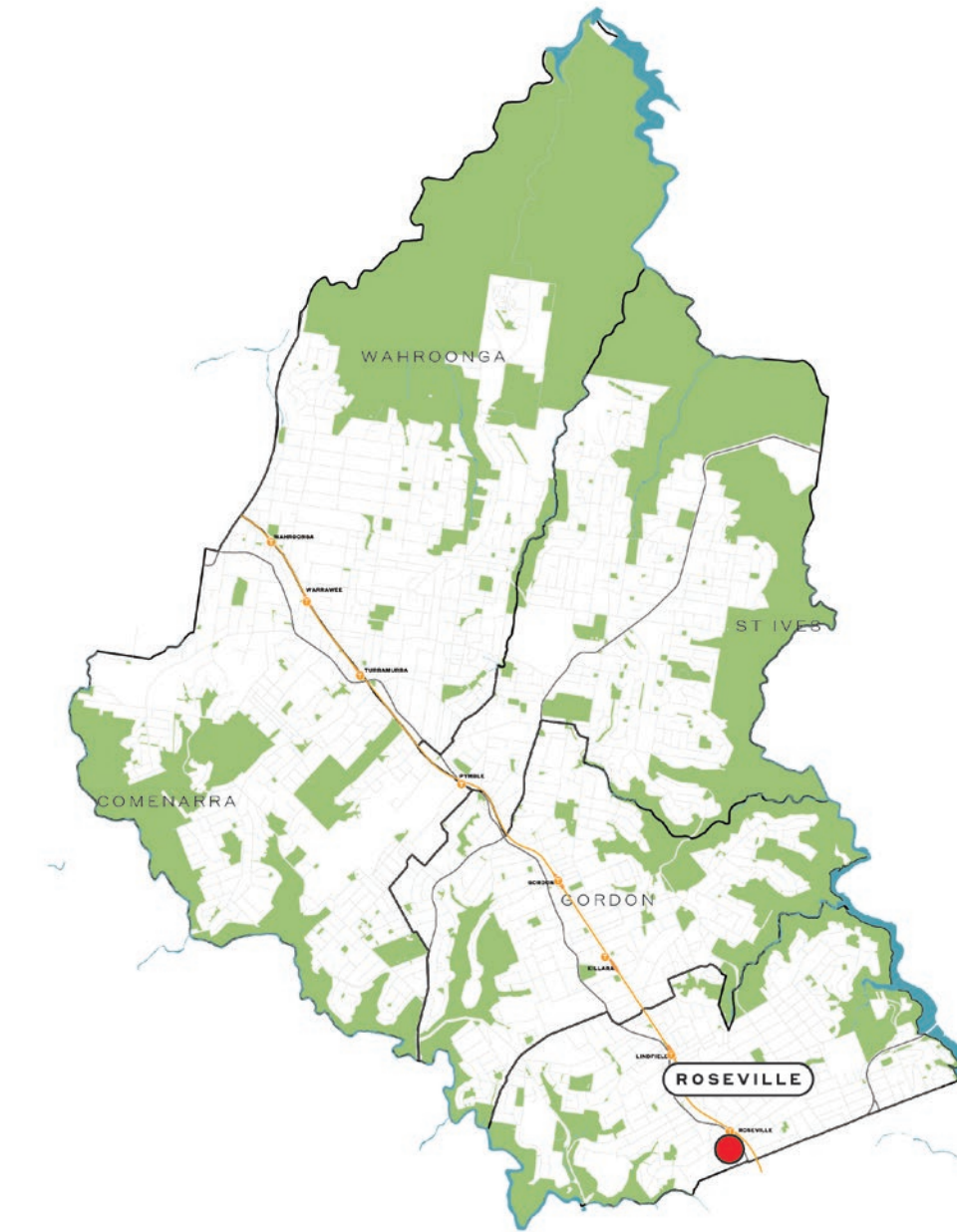
02.02 Urban Context

Roseville in Ku Ring Gai

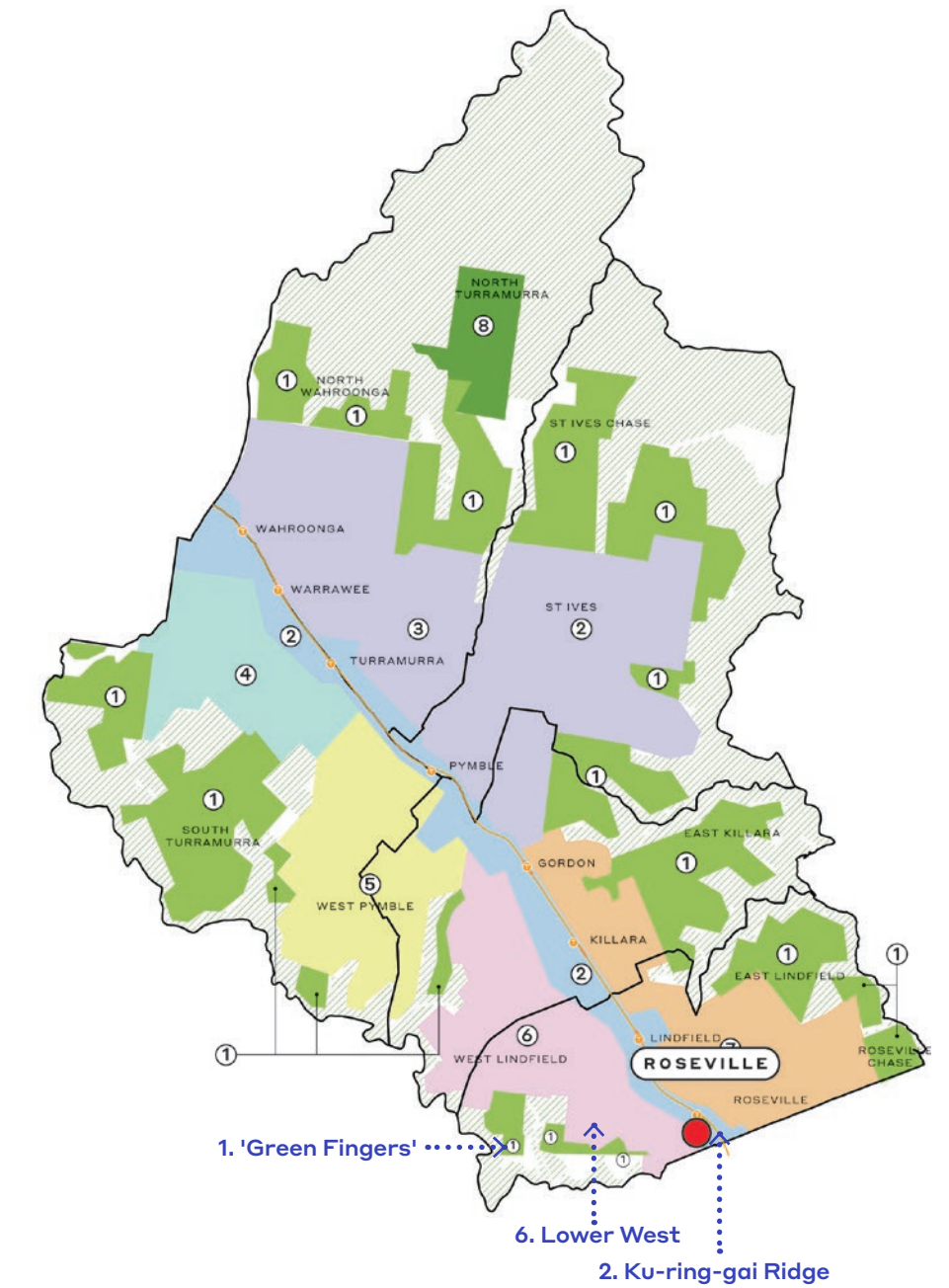
Within the context of broader Ku-ring-gai, Roseville is situated in what is identified as the "Lower West" Character area. Within this specific area, the site is also sandwiched between the "Ku-ring-gai" ridge (Pacific Highway) - a major transport corridor situated towards the East at a higher elevation, and the "Green Fingers" - which is a biodiversity / natural reserve zone towards the West at a lower elevation.

These characteristics are noted as a high and low point with the site located in between elevationally, with the high elevation to the East (Pacific Highway) being a highly active and sub-urban area, and the low elevation (natural landscaping / parks) to the West being a much less active and natural area.

This is also later noted during Designing With Country sessions that have been held and facilitated by JMP Aboriginal Consultancy.



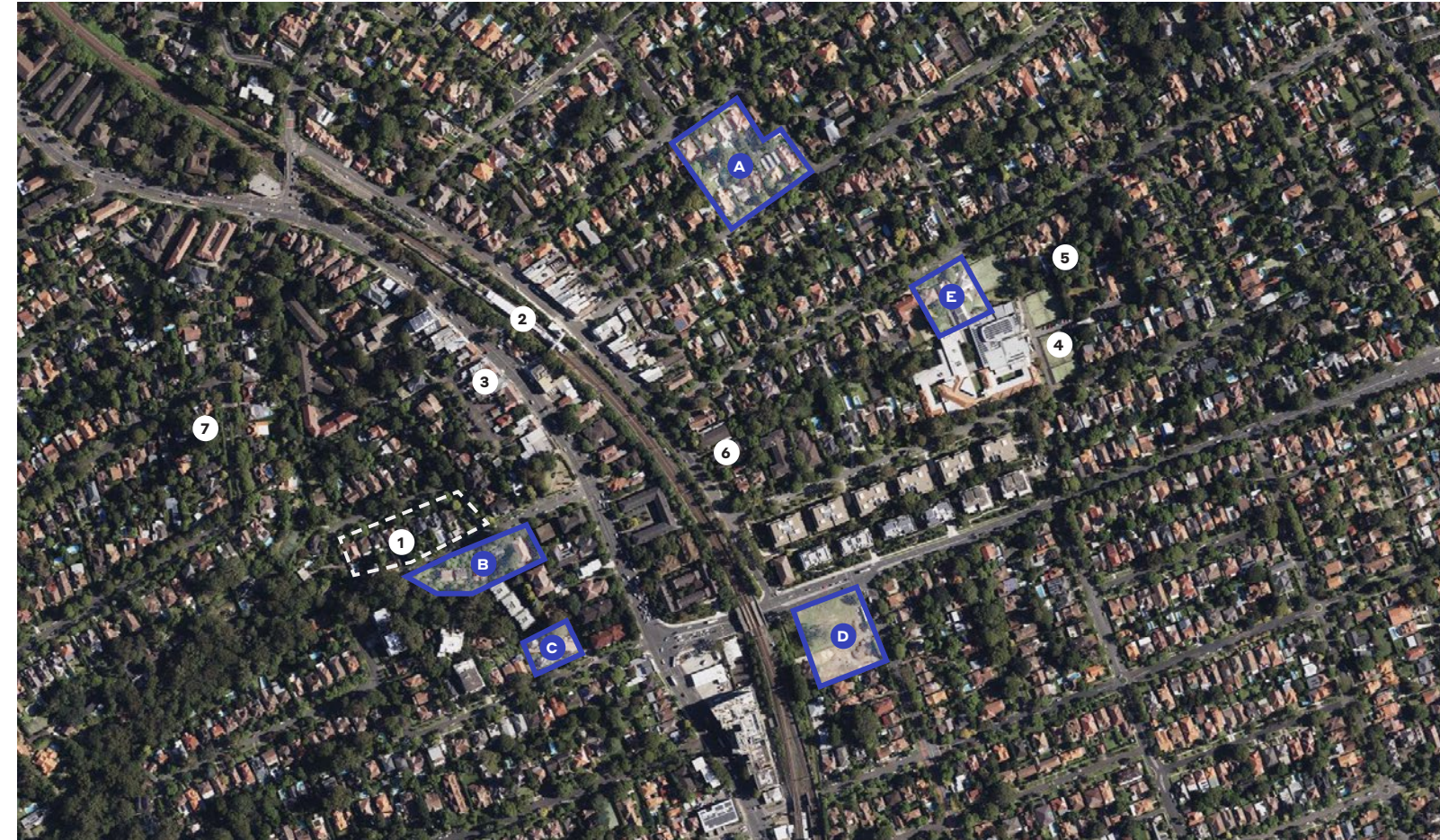
- Ku-ring-gai 5 Council Wards:
 › Roseville is located at the Southern most point of Ku-ring-gai



- Ku-ring-gai Local Character Area Statements (2021)
 › Roseville is located in the 'Lower West' Character Area, sandwiched between the 'Ku-ring-gai Ridge' and the 'Green Fingers' area

02.03 Site Context

Roseville, Ku-ring-gai



- 01 **Subject Site**
- 02 Roseville Train Station
- 03 Roseville Town Centre
- 04 Roseville Lawn Tennis Club
- 05 Ku-ring-gai Art Centre
- 06 St Andrews Anglican Church
- 07 Roseville Preschool Kindergarten

Sites Under Construction & Approved Developments

- | | |
|-------------------------|--------------------------|
| A Lord Street | Multi Storey Residential |
| B 4-10 Maclairin Parade | Multi Storey Residential |
| C 1-3 Corona Avenue | Multi Storey Residential |
| D 130-138 Archer Street | Multi Storey Residential |
| E 27-37 Bancroft Avenue | College Sports |

02.03 Site Context

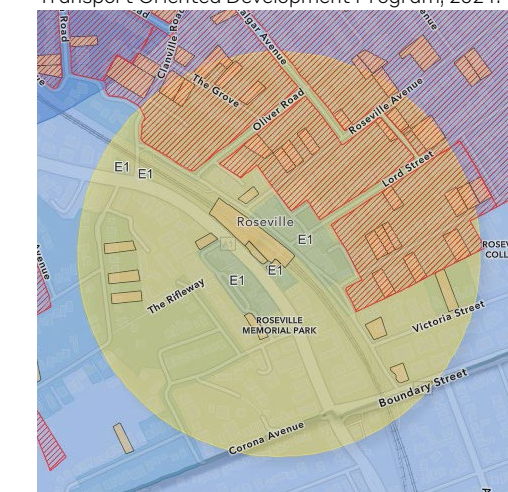
Transition between Nature & Suburbia

The sites sit within the 400m Transport Oriented Development SEPP Zone set out by the NSW Gov.

There is direct access to the Blue Gum Reserve via the Rifleway bridge at the top of Site A, Larkin Street.

Between the station and the sites, along the Pacific Highway, is a variety of community amenities, including Roseville Cinema, convenience stores and restaurants, all within a 5 minute walk.

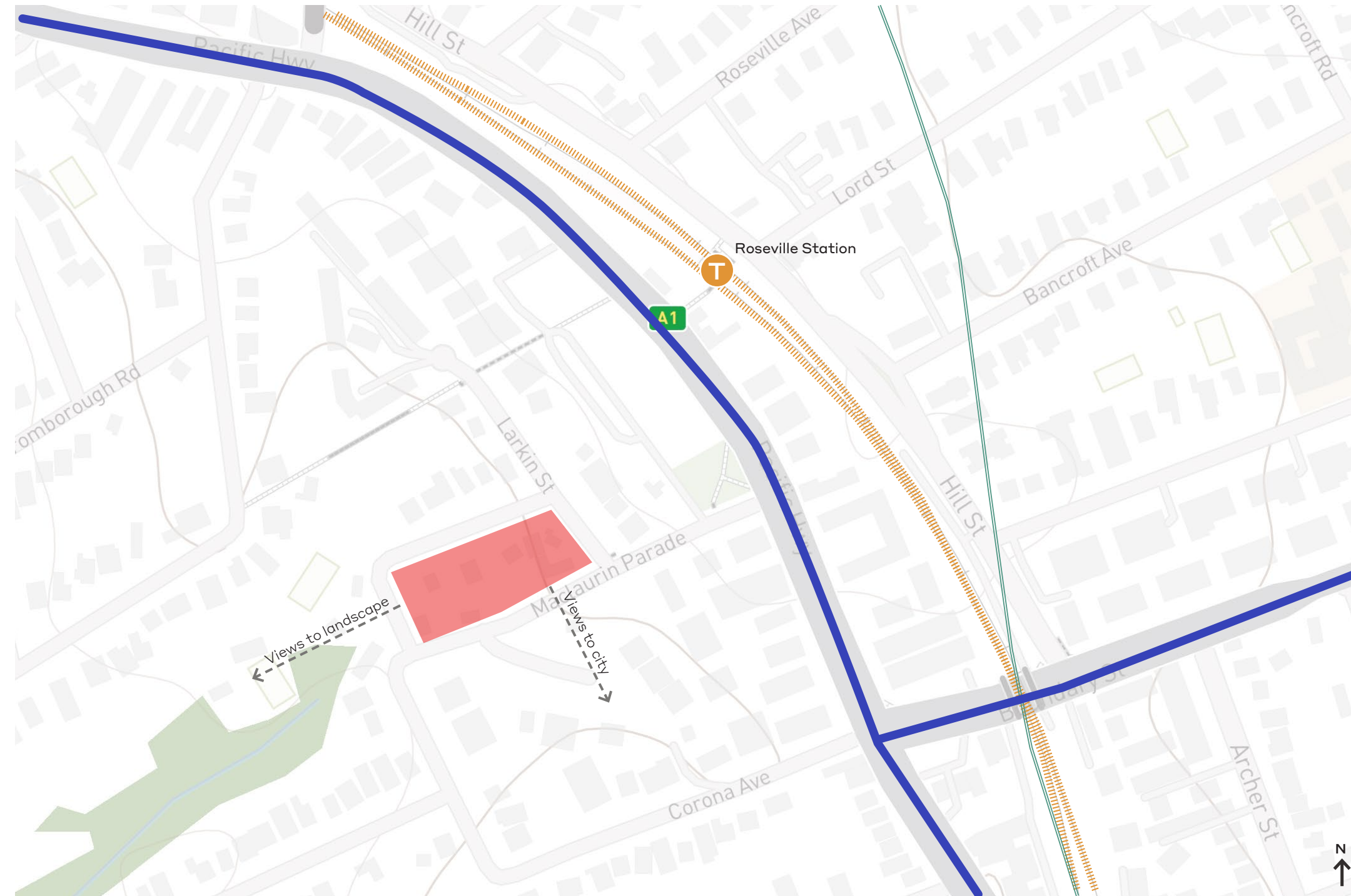
Excerpt from Ku-ring-gai Council Submission on Transport Oriented Development Program, 2024.



A1 PACIFIC HIGHWAY
T1 & T9 TRAINLINE

02.02 Site Context

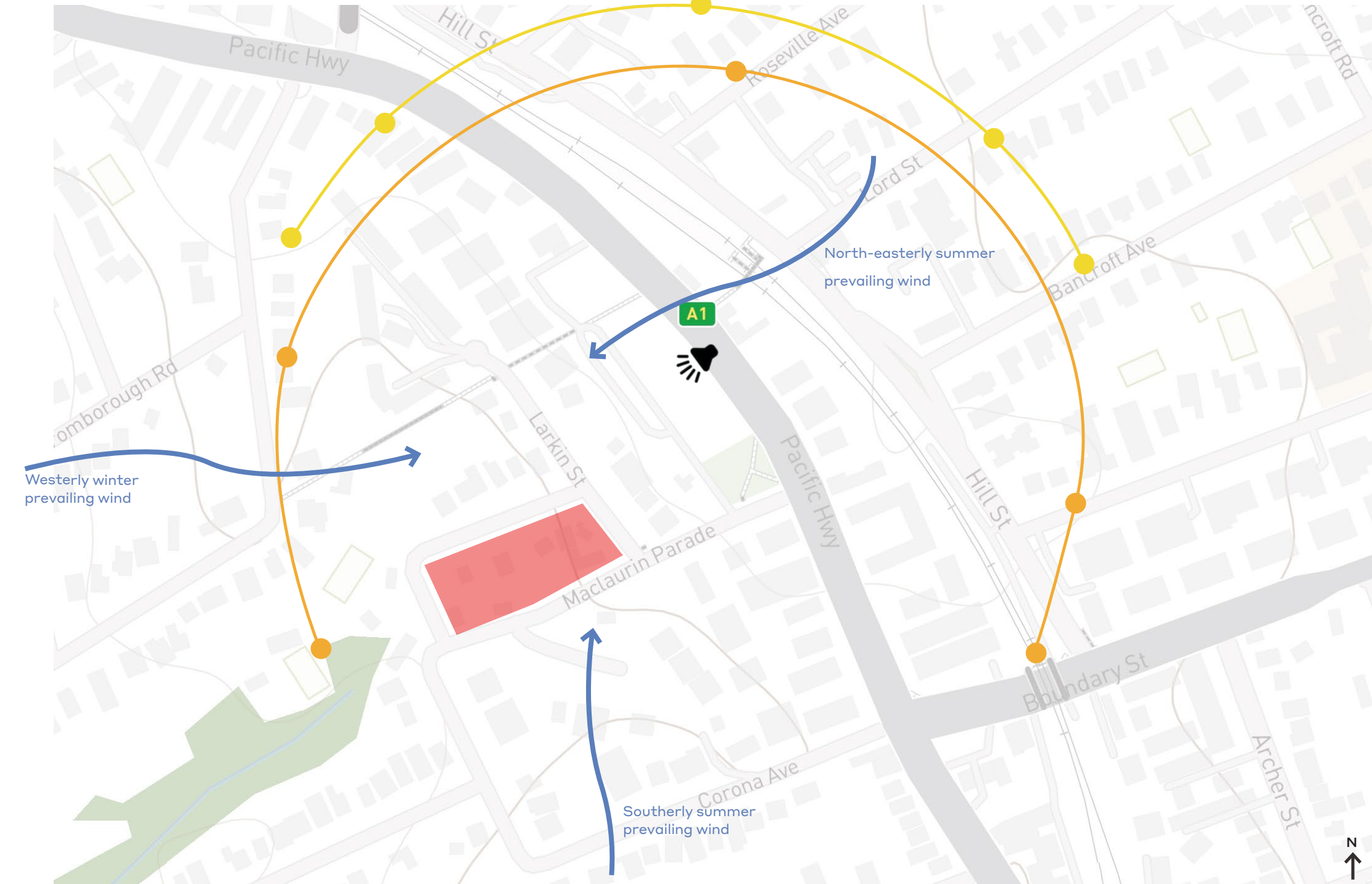
Movement, Access, & Views



- Site
- Train line
- Metro Line (under construction)
- Major Roads

02.02 Site Context

Climate & Orientation



- Site
- Train line
- Metro Line
- Wind **Refer to Wind Report by RWDI
- Summer Sun
- Winter Sun
- Noise Pollution from Freeway

02.04 Planning Controls Summary

Address	2-16 Pockley Avenue, Roseville, NSW
Council	Ku-ring-gai
LEP	Ku-ring-gai LEP
Lot Area	Combined area 6,539m ²
Zone	R2 Low Density
	Residential (TOD SEPP 2024 override)
Height	22m
Height (IAH SEPP Bonus)	27.9m
FSR	2.50: 1
FSR (IAH SEPP Bonus)	3.17: 1
Heritage	No
Available GFA	20,728m ²
Proposed GFA	20,702m ²

Permissibility

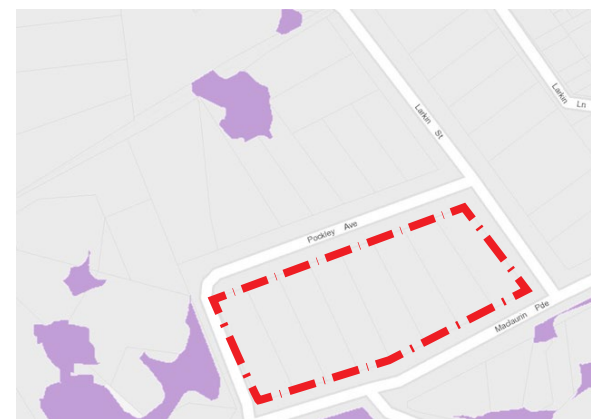
- Development permitted with Consent per Ch2, Part 2, Div 1, s15C:
 - a) development permitted under Ch5, and
 - b) affordable component at least 10% GFA, and
 - c) within Six Cities Region, in an accessible area
 - Within 800m walking distance of the public entrance to Roseville Railway station (sch10).

Affordable Housing Requirements

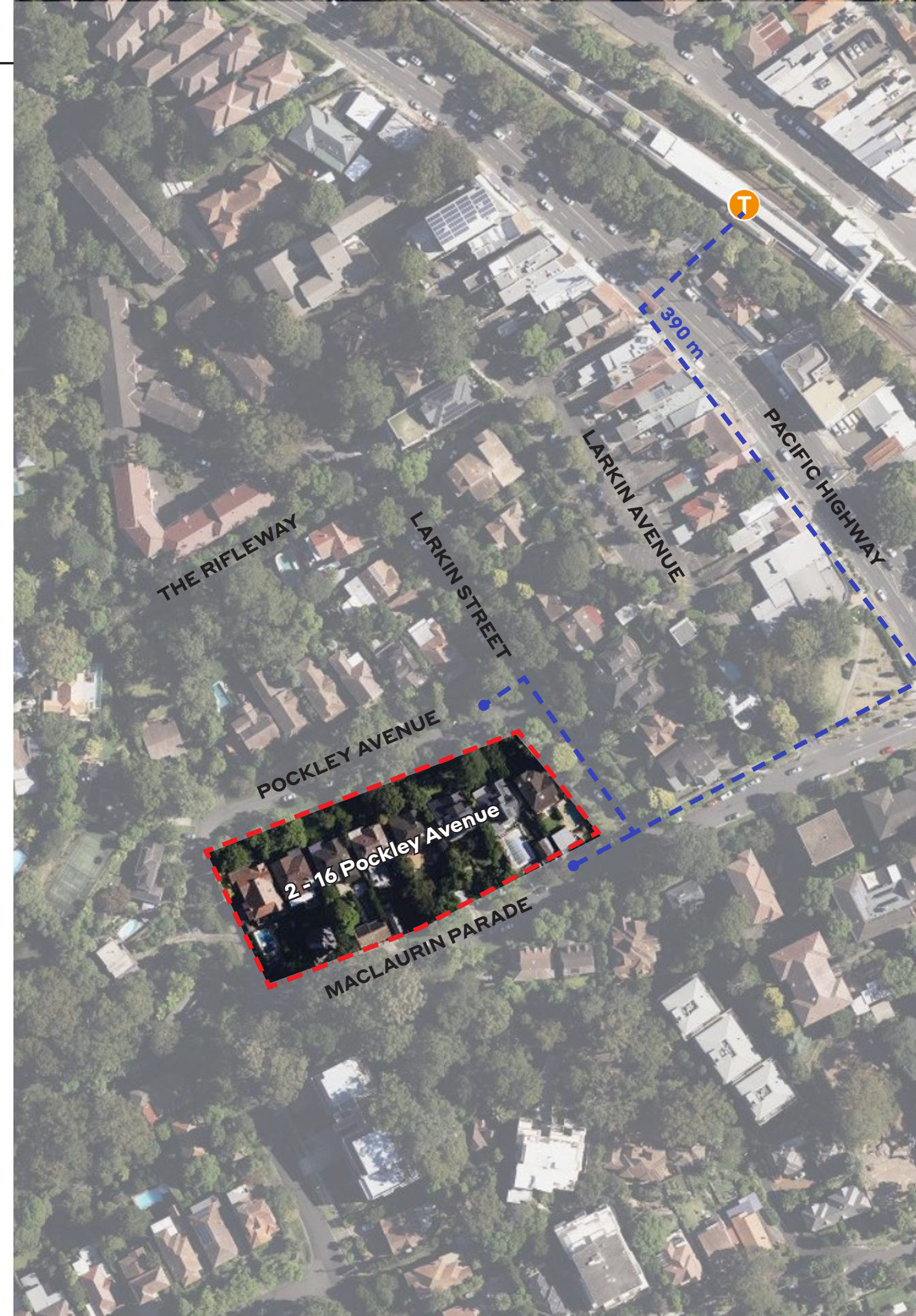
- TOD: Min. 2% affordable housing in perpetuity
- Infill Bonus (to unlock +30% HOB and FSR) : Min. 15% affordable housing for 15 years
- Total: 17% total affordable housing GFA required (2% TOD + 15% infill bonus)

Biodiversity

- Sites have been identified as having biodiversity values. The proposal must show minimal impact on significant existing trees and vegetation



Source: NSW Government Biodiversity Values Map and Threshold Tool



02.04 Planning Controls SEPP (TOD) & LEP



TOD Sites

- Zones hatched are nominated TOD Sites and fall under the Housing SEPP
- Site Boundary

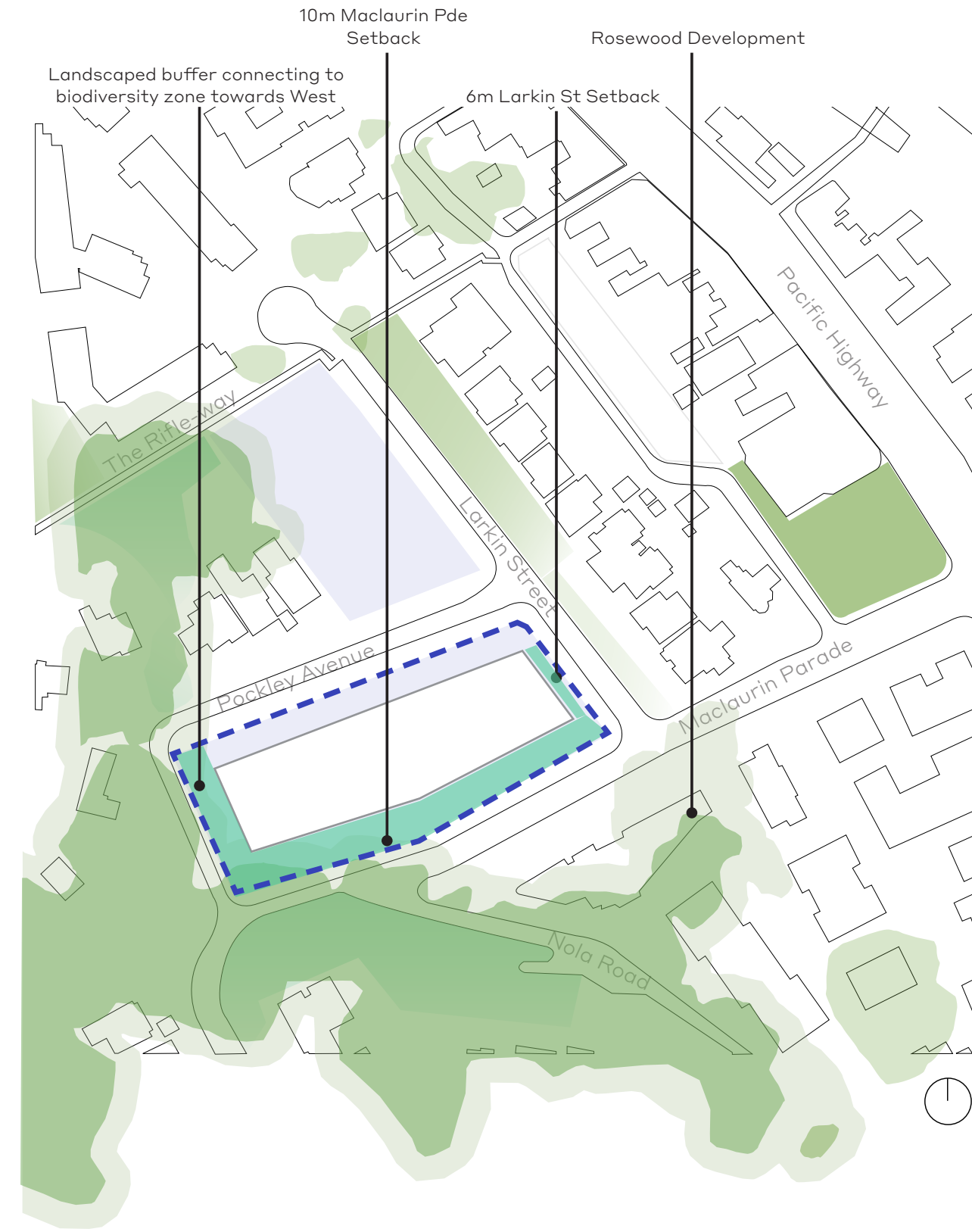


Greenweb Map

- Support for Core Biodiversity Lands
- Landscape Remnant
- Biodiversity Corridors and Buffer Areas
- Canopy Remnant
- Site Boundary

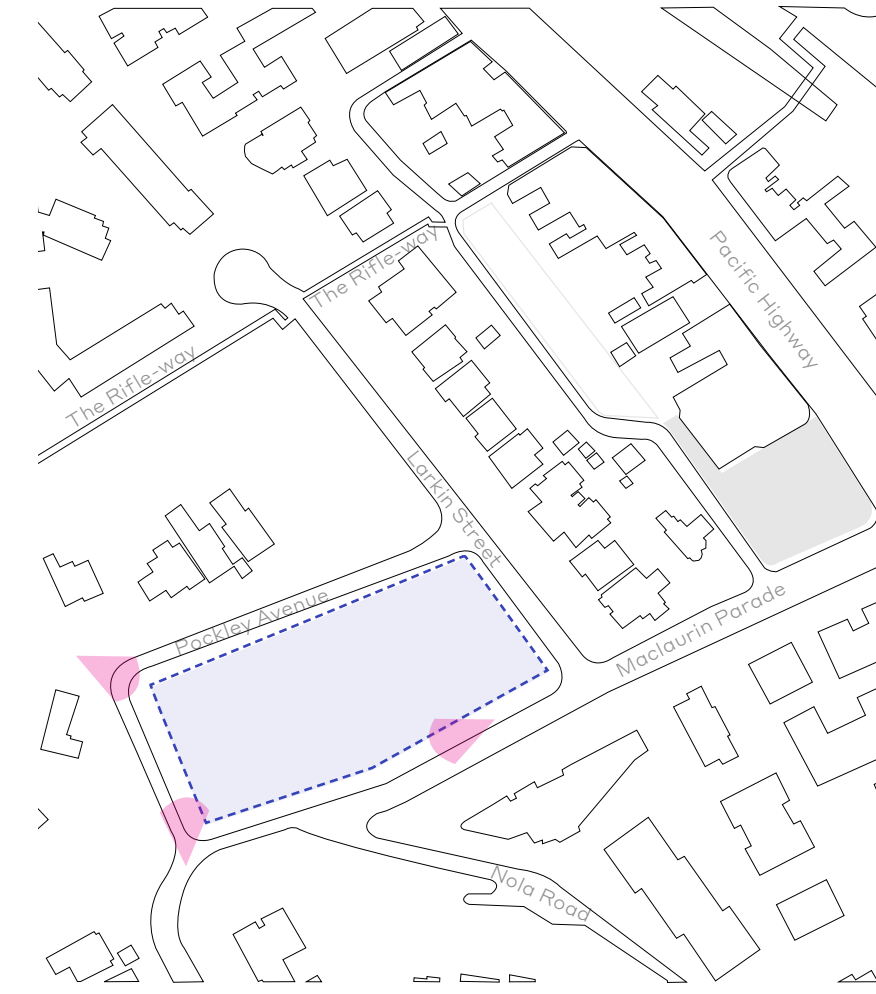
02.05 Site Challenges and Opportunities

Opportunities

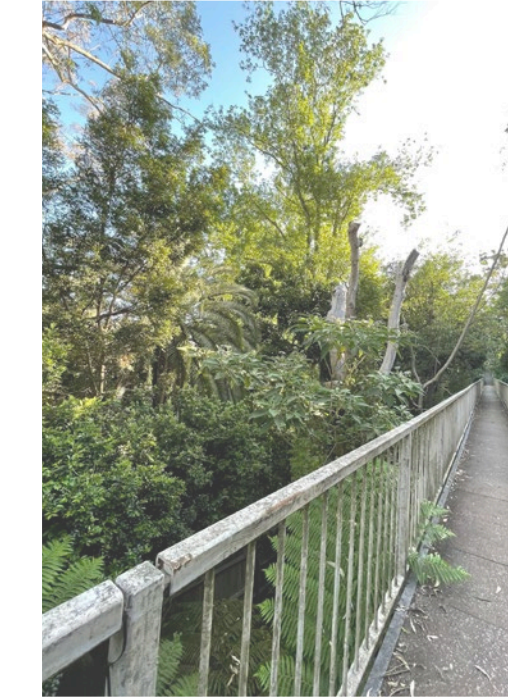


02.06 Site Photos

Existing Conditions



Key Plan



View from the corner bend of Pockley Ave



View from the corner of Pockley Ave and Maclaurin Pde



View down Maclaurin Pde looking South West

02.07 Historical Timeline



Then

First Nations /
Traditional Owners

Agricultural /
Industrial Land Use

1890 North Shore
Railway Line Opens

Increase In
Single Dwelling
Residential Density

Major Transport
Infrastructure
Growth & Upgrades

View of the upgraded station entry
and new lift on Hill Street

Now

Increase In Multi-
Residential Density

02.08 Connecting with Country

Connecting with Country Framework

Through a close collaboration with JMP Aboriginal Consultancy, and Ground Ink Landscape architects, the proposed design outcome integrates a tightly woven Connecting With Country strategy that is embedded through both the landscape and the architecture that sits within and on country.

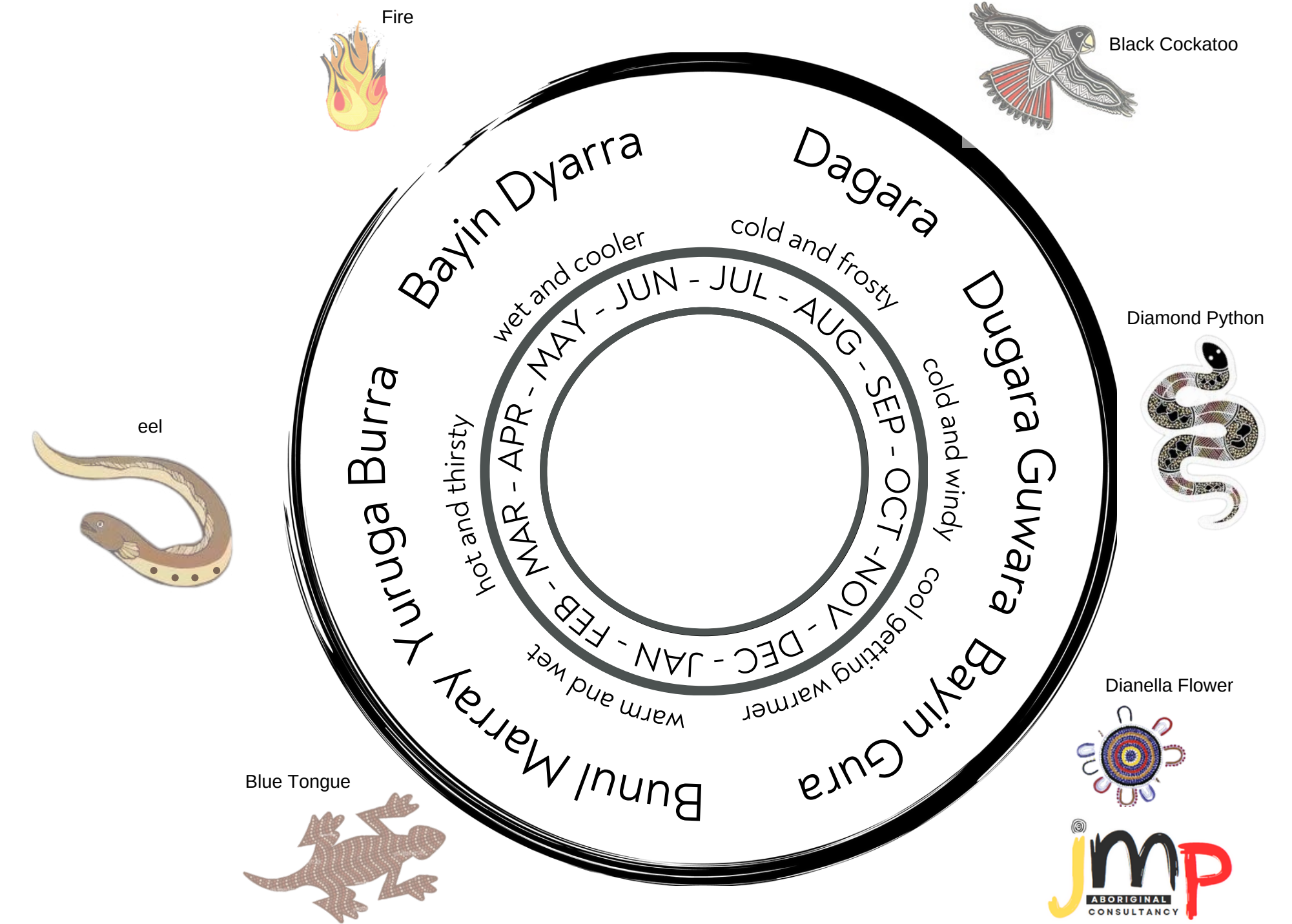


image: Weather cycles Dharug from the 2025 Western Sydney Parklands Trust, part of Greater Sydney Parklandse

02.08 Connecting with Country



Walk on Country
Took place on the 14th of February 2025 For both Pockley + Larkin to create a cultural narrative with Elder Aunty Jean Moran, Paige Moran and Adam Byrne from Bush to Bowl



Design Input Session
Was conducted after the Walk on Country back at Ground Ink Studio which allowed the Elders and Design Team to collaborate and blend Modern Design with the influence of Indigenous Traditional input.



“Places of Reflection and Connection”
Aunty Jean Moran

“Bring the Creek up to the development to gain the sense of Country”
Aunty Jean Moran



“Native indemick species into the landscaping will bring birds and animals back to observation for a sense of greater connection”
Adam Byrne (Bush to Bowl)



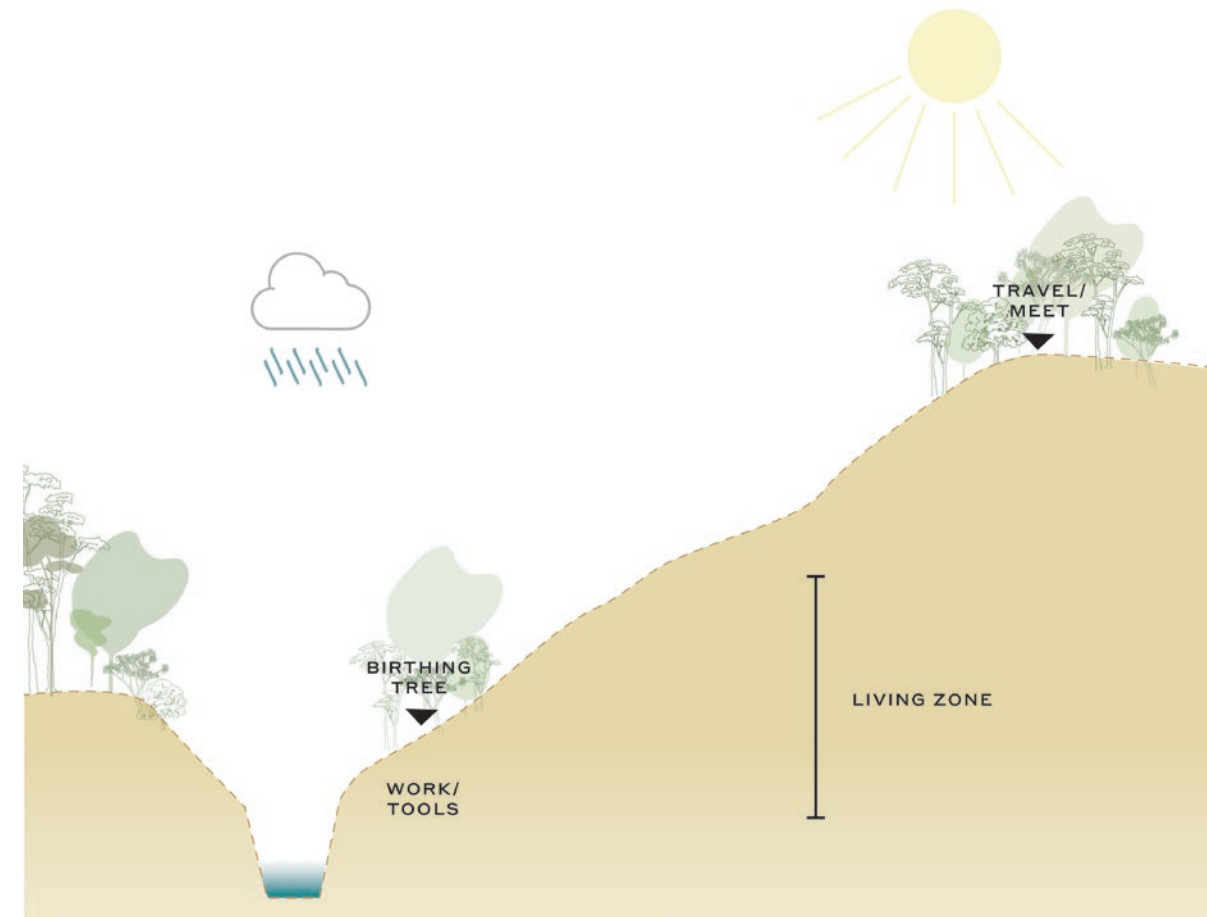
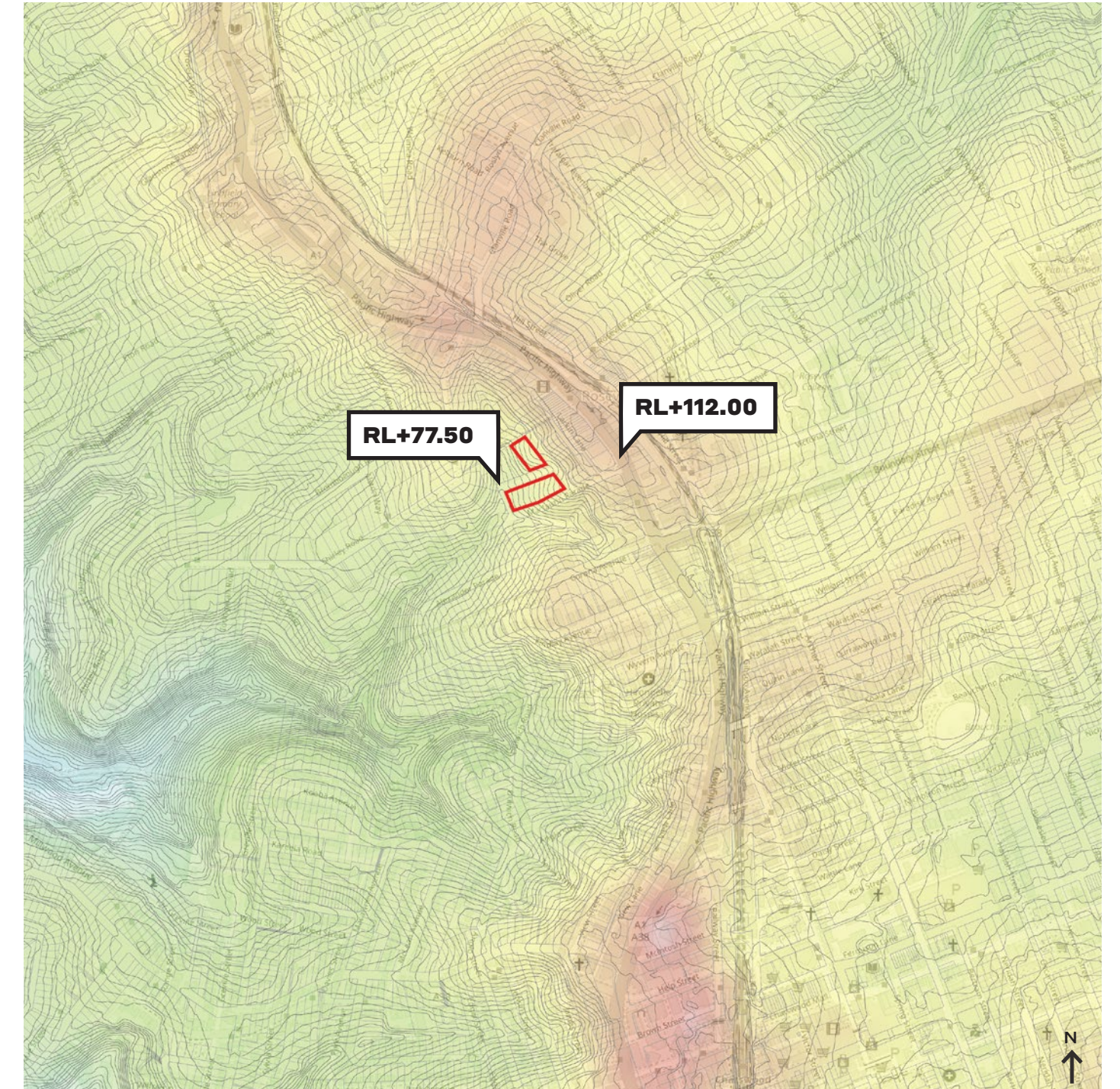
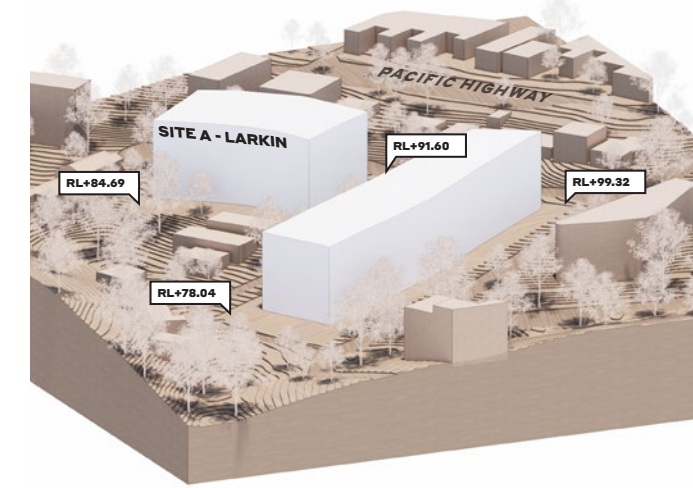
“Layering Culture through the levels of Pockley to bring all elements of Country”
Paige Moran

02.09 Topography and Landscape

Topography

The two sites are located along a midpoint between the high point of Pacific Highway / Kuring-gai Ridge, and the low point towards Blue Gum Reserve.

This level change from Pacific Highway to the low point of the site is approximately 34.5m.

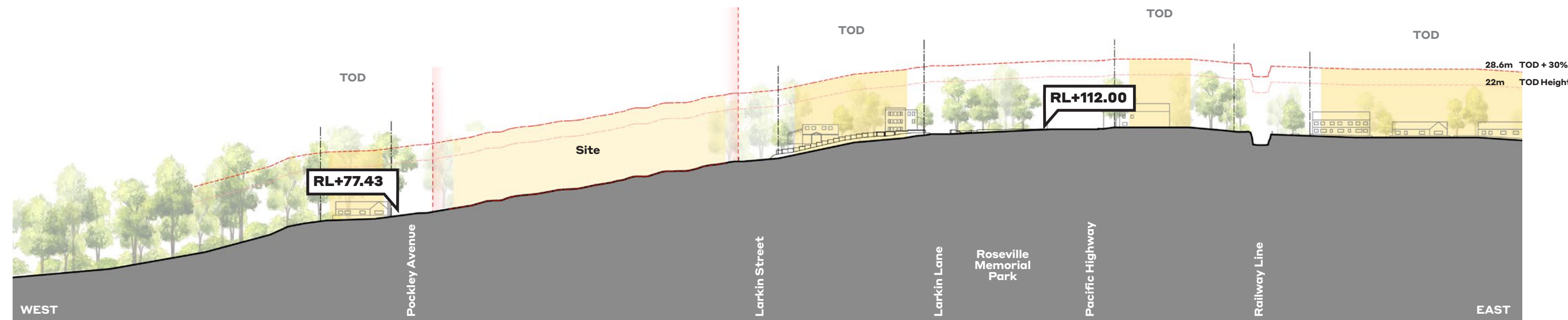


02.09 Topography and Landscape

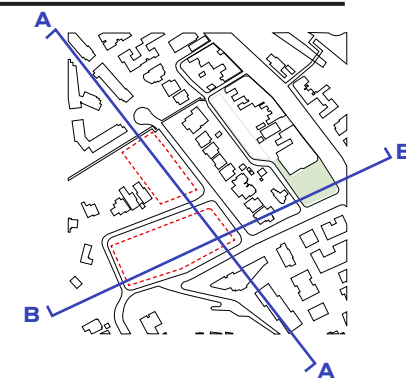
Long Sections Through Broader Context - Highlighting Potential Future TOD



Section A: South-North Through Larkin St



Section B: West-East Through Maclaurin Parade



02.10 Place and Character



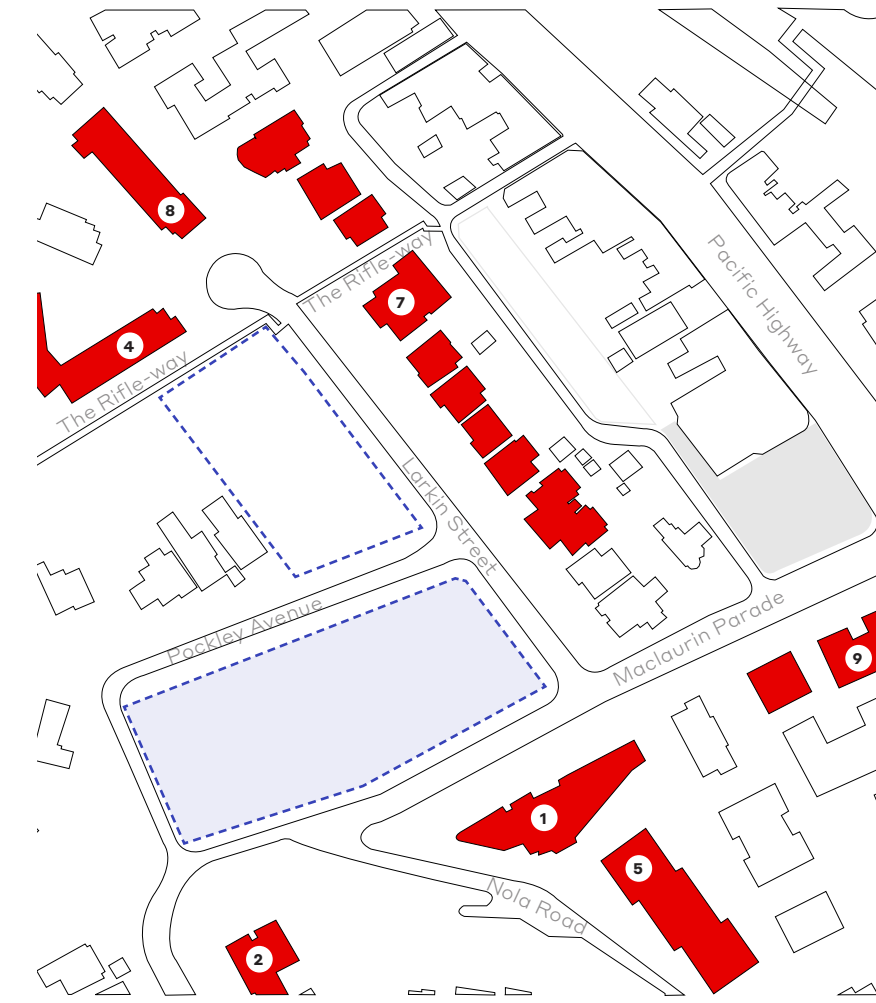
01 Rosewood Residence, 4-10 Maclaurin Pde



02 Kings Apartments, 9-15 Kings Avenue



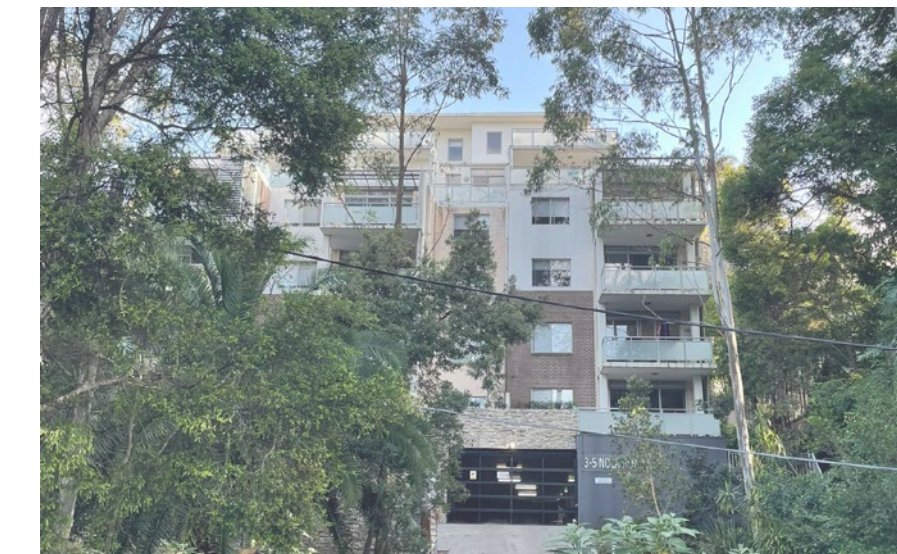
03 Roseville Pavillions, 6-12 Nola Road



Key Plan



04 19-21 Larkin St



05 3-5 Nola Road



06 21 Larkin St



07 6 Larkin St



08 10 Larkin St



09 4 Maclaurin Parade

03

Design Framework

03.01	Key Concept
03.02	Building Mass
03.03	Facade Design

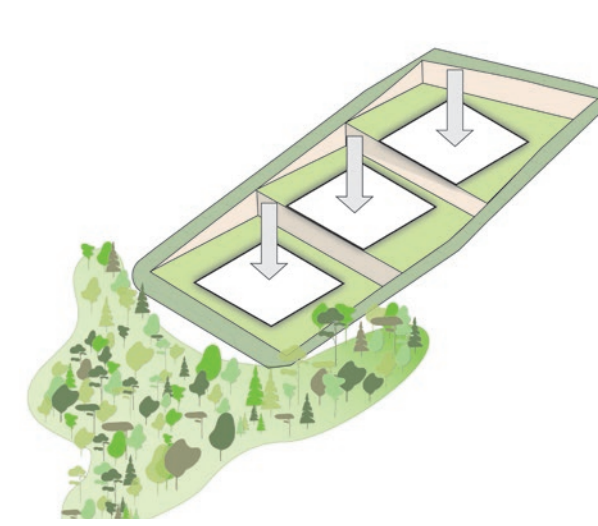
03.01 Key Concept



Grounded Within The Landscape

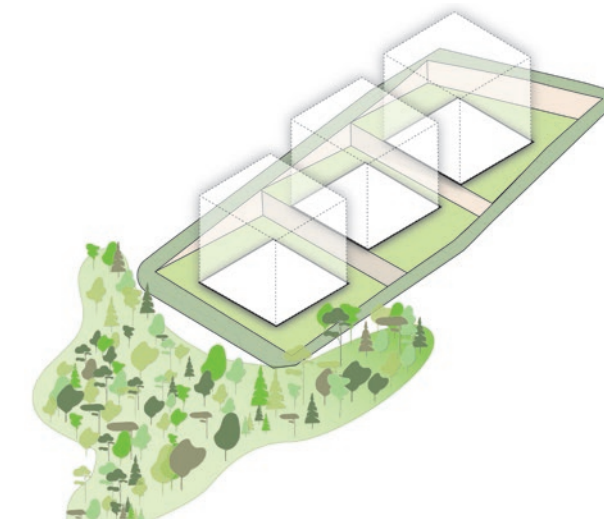


03.02 Building Mass



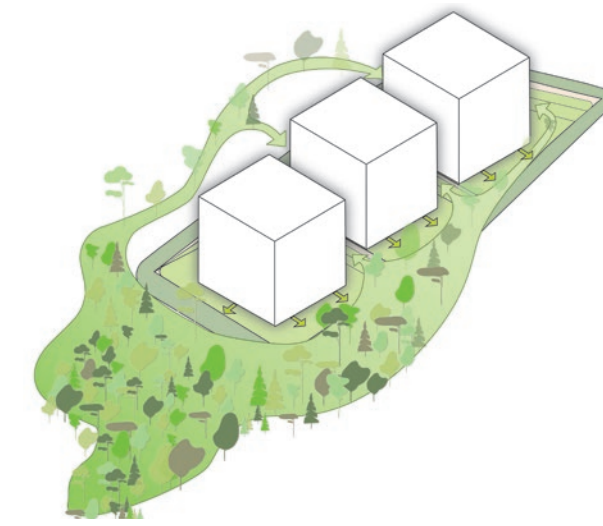
01 - Topographical Response

The site slopes 21m (or 7 storeys) from the South-East corner to the North-West. The diagram above shows the proposed Ground Floor levels and their relationship to natural ground at the perimeter



02 - 3 Pavillions

Having divided the site evenly into 3 individual platforms, setback volumes are placed within the landscape along the sloped topography



03 - Extension of Biodiversity

The proximity of the site to the Biodiversity zone to the lower portion on the South allows for the opportunity to extend the natural landscape up and throughout the site proposal, with trees and planting weaving in between the pavilions and along the ground condition



04 - Roof Relief & Outlook

The uppermost levels are set back to reduce the sense of bulk from the street, and to keep within the height control plane. Setting back on the upper levels also allows for the opportunity for outdoor outlook towards the natural landscape of the nearby biodiversity zone

04

The Proposal

04.01 Overview

04.02 Ground Plane

04.03 Building



04.01 Proposal - Program Overview

Site Area: **6,539 sqm**

Max Height: **31.63m**

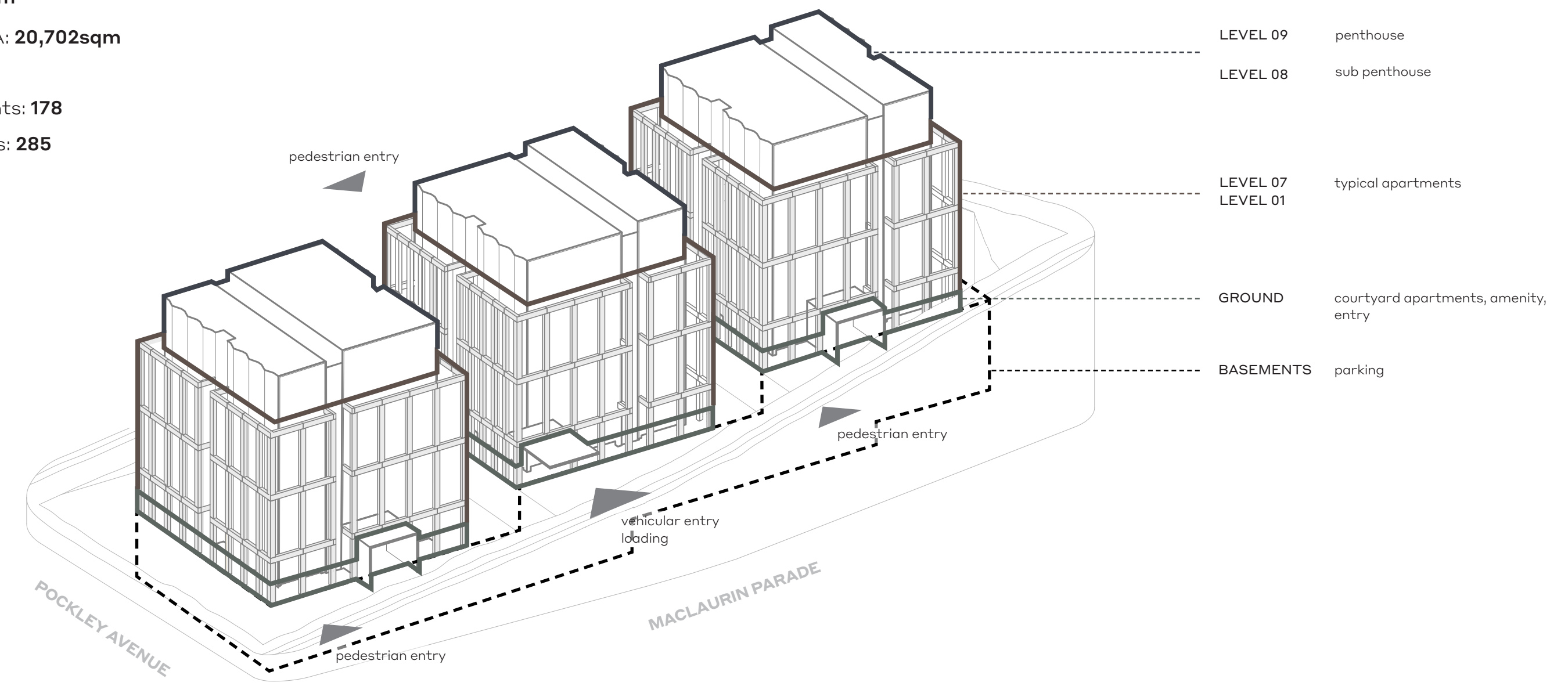
Max RL: **125.7m**

Proposed GFA: **20,702sqm**

FSR: **3.17:1**

No. Apartments: **178**

No. Carspaces: **285**



04.02 Ground Plane Concept



Pavilions within a Landscape



Native Gardens with Meandering Walkways

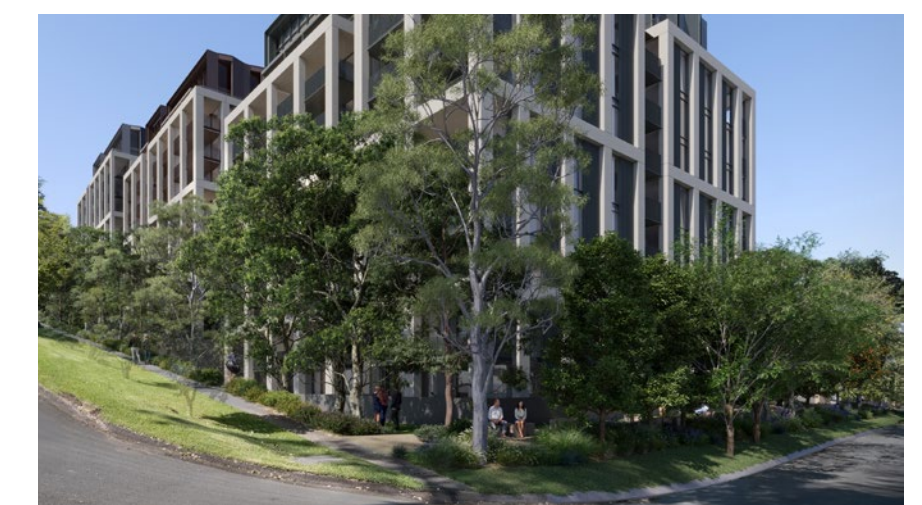
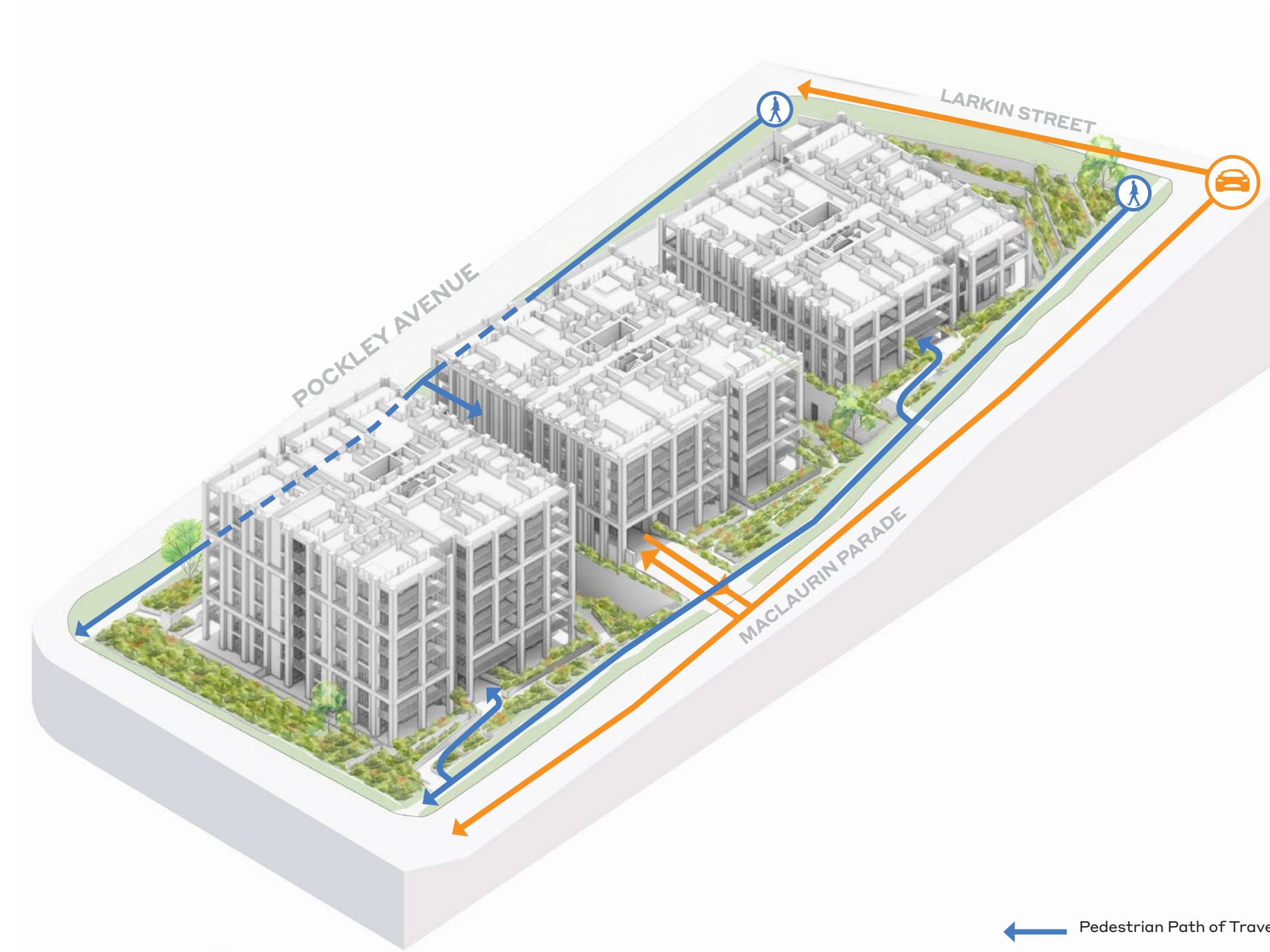


Blue Gum High Forest Ecosystem

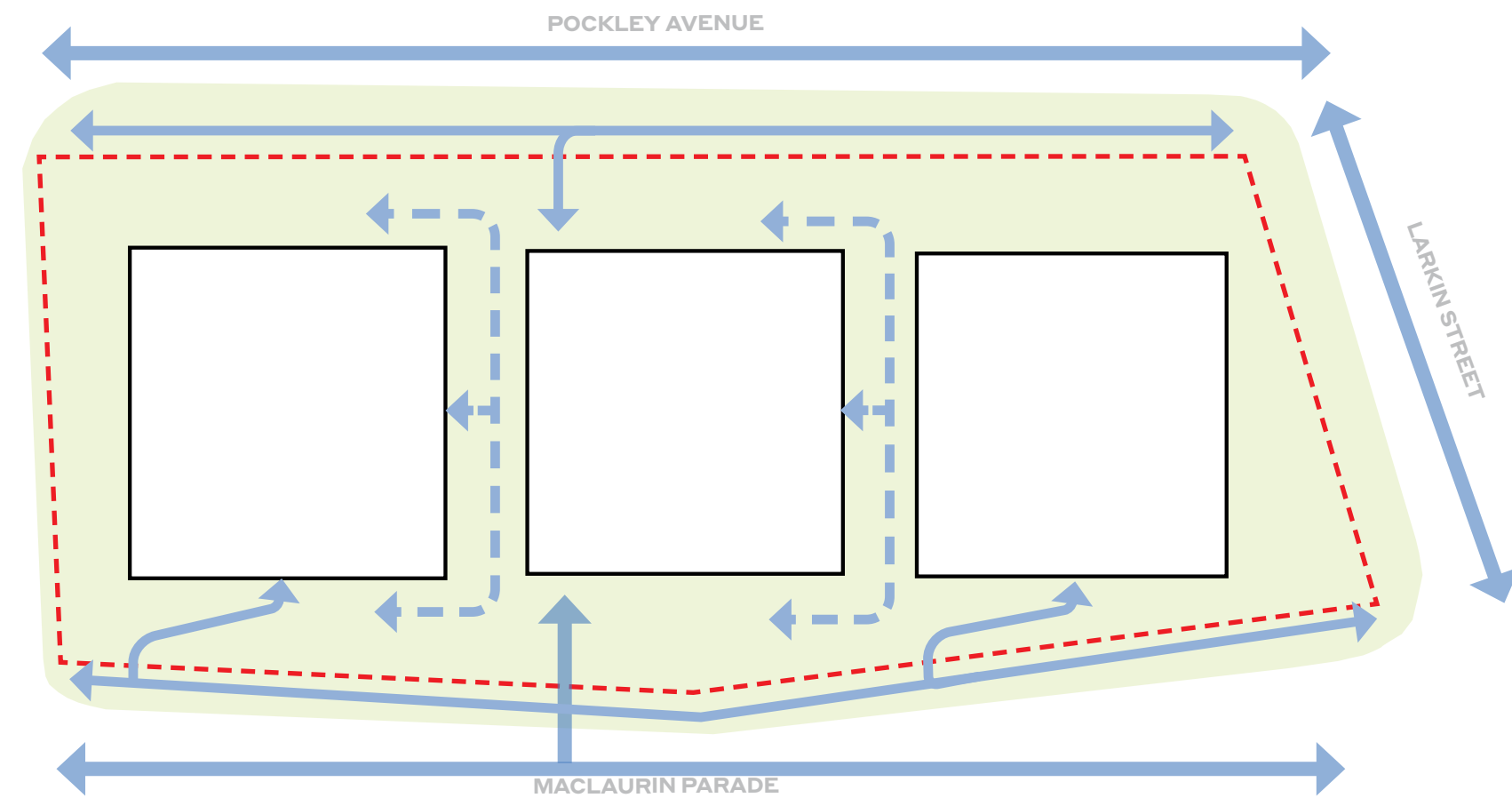


Spaces for Gathering

04.02 Ground Plane Ground Plane Interface



04.02 Ground Plane Access & Circulation



A Breathable Space

The division of the site into three blocks creates the opportunity for an open, connected ground plane. This allows for the possibility of wandering through the site, and a diversity of ground plane uses including the native garden tracks, the blue gum creek walk, and meeting and reflection spaces.



Communal Open Space



Entry Sequence



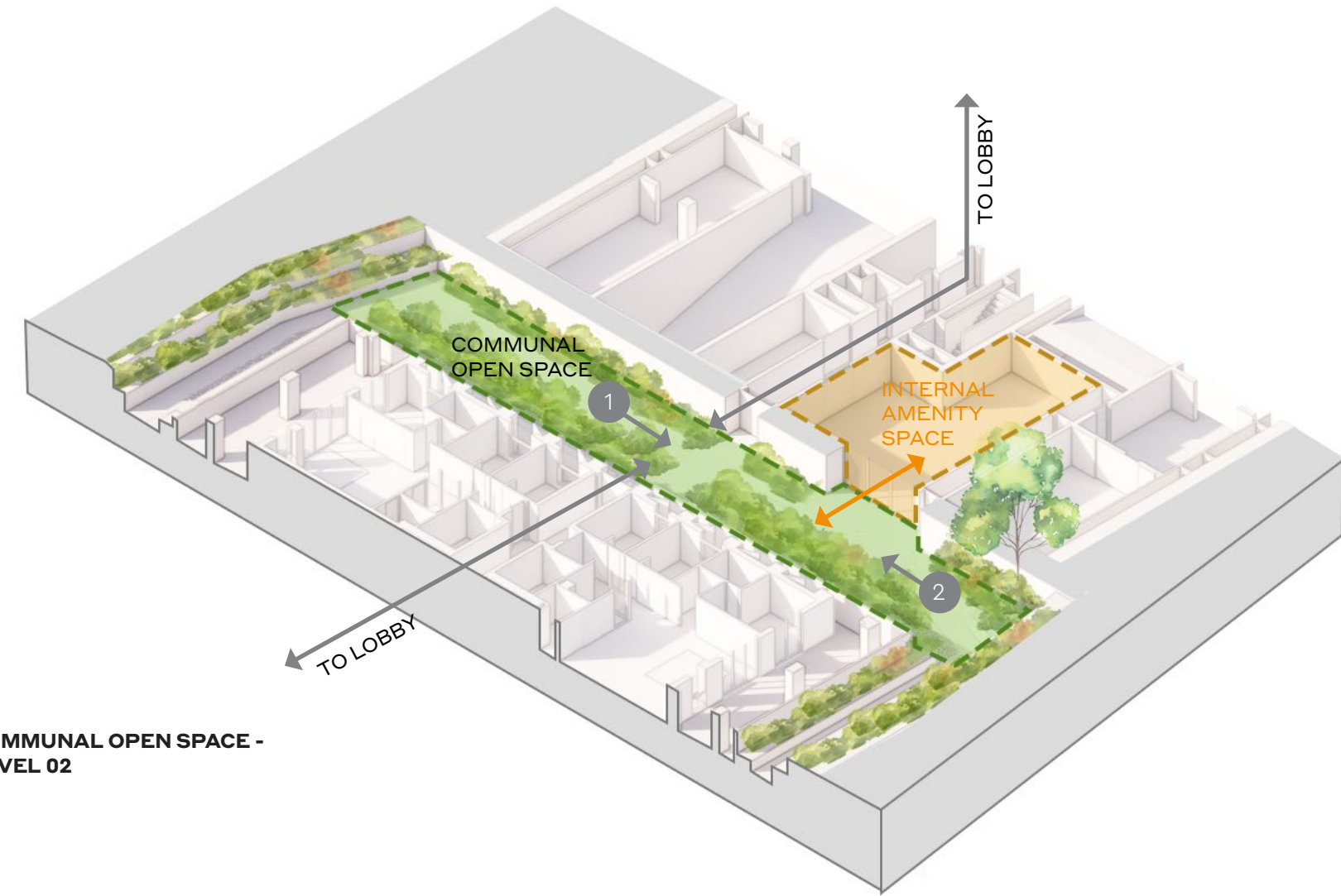
Connective Path

04.02 Ground Plane Communal Open Spaces & Entries



Ground Ink Landscape SSDA Report 16 Apr 2025

04.02 Residential Amenity Outdoor Connectivity



**COMMUNAL OPEN SPACE -
LEVEL 02**

Connected Outdoor Spaces

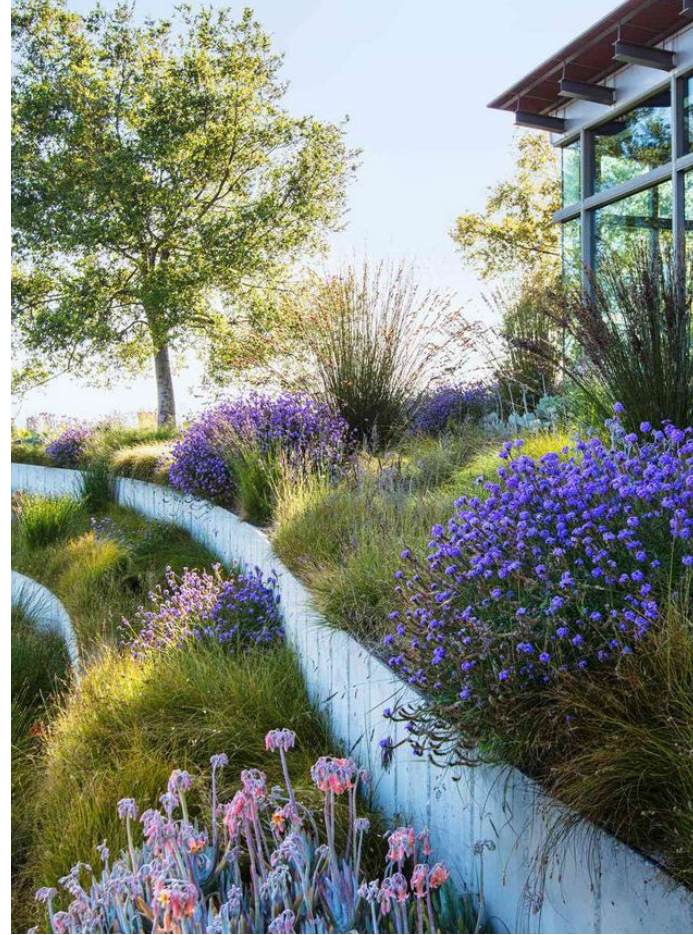
The two communal open spaces between the pavilions have been designed to maximise community engagement with the spaces. Each space can be accessed from a variety of entry points connecting to the lobbies of both adjacent pavilions, with meandering paths linking to Maclaurin Parade and Pockley Avenue. The residential amenity spaces, located within the carpark facade enclosure, open directly onto these spaces, with generous sliding doors creating an indoor-outdoor connection.



04.03 Private Open Spaces Concept



Living Spaces looking into Geological Landscape



Tiered Planting, Maximising Green Outlook



Materials and Landscape Palettes Sensitive to Local Context



Planting of endemic Blue Gum High Forest

04.03 Private Open Spaces Outlook

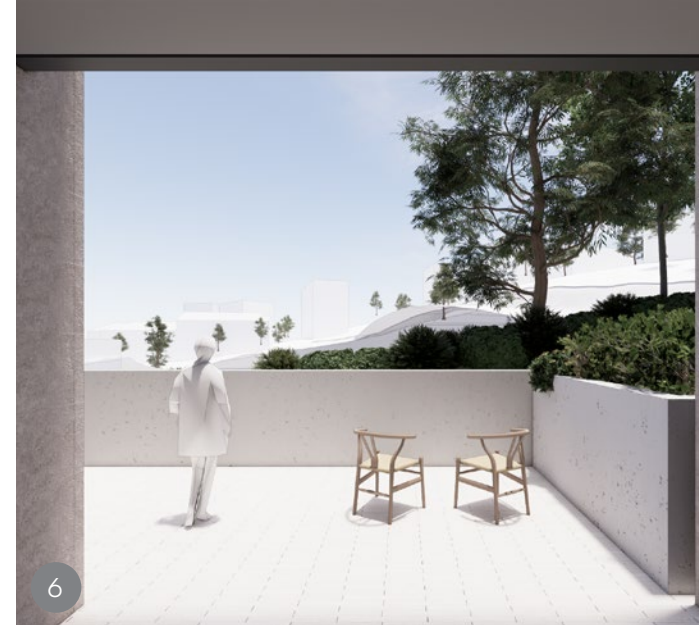


Designing Landscape for Green Outlook

The design of the terraced, cascading landscape has been carefully considered to improve outlooks for ground floor apartments. Where possible, the steps of the terraced planting have been reduced to 1000mm high, with the landscape gently mounded to increase the proportion of greenery that is visible.

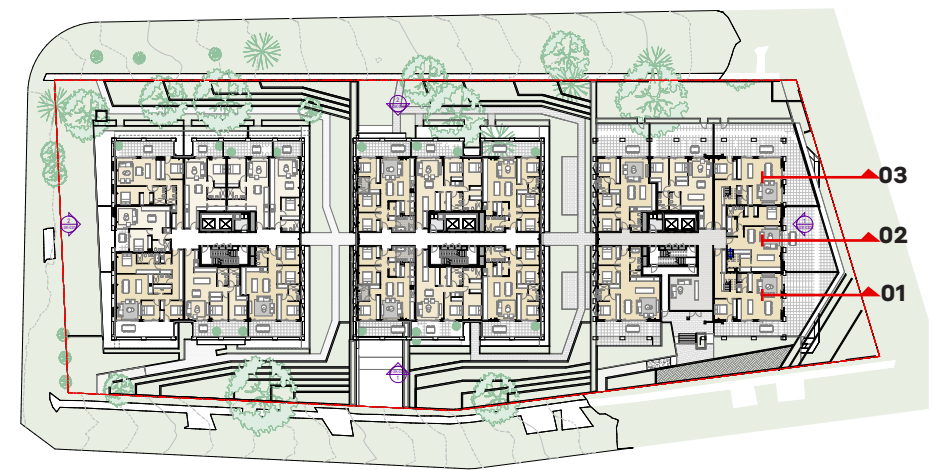
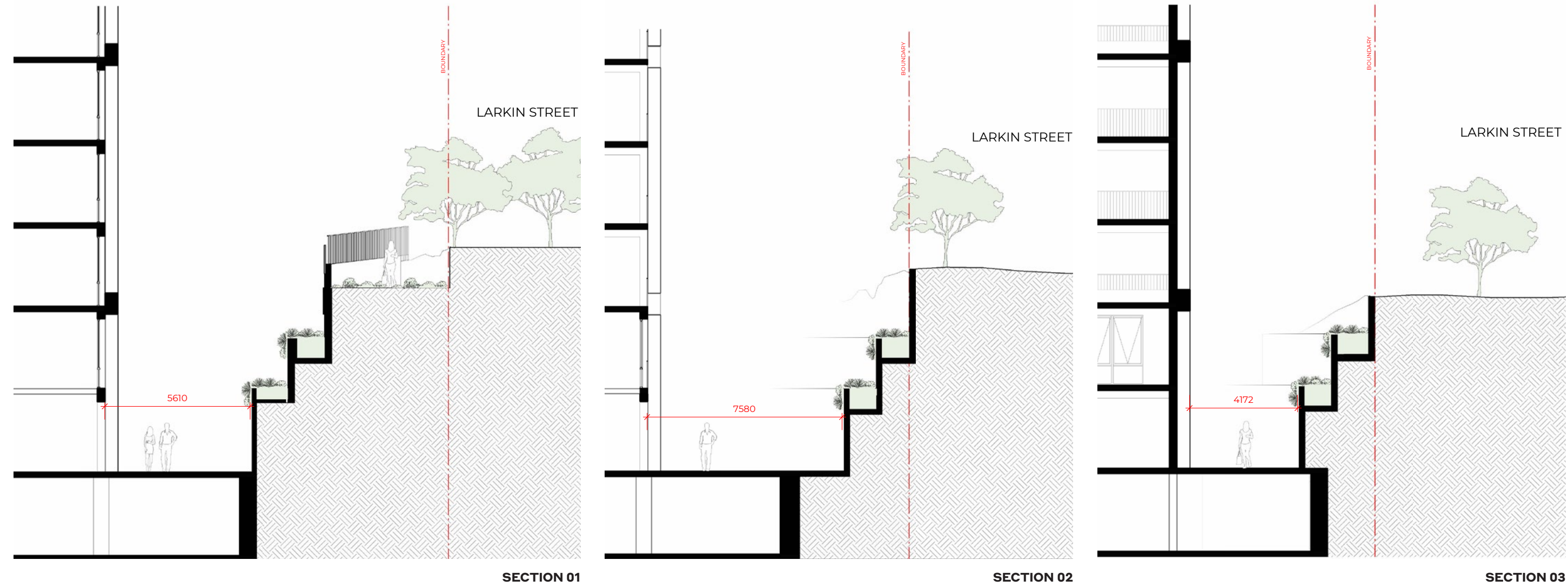
On all site boundaries, fencing has been set back behind planting to reduce visibility from the street and create an inclusive, friendly public domain.

Taller planting has been placed along private courtyard walls to increase visual privacy for residents of ground floor apartments.



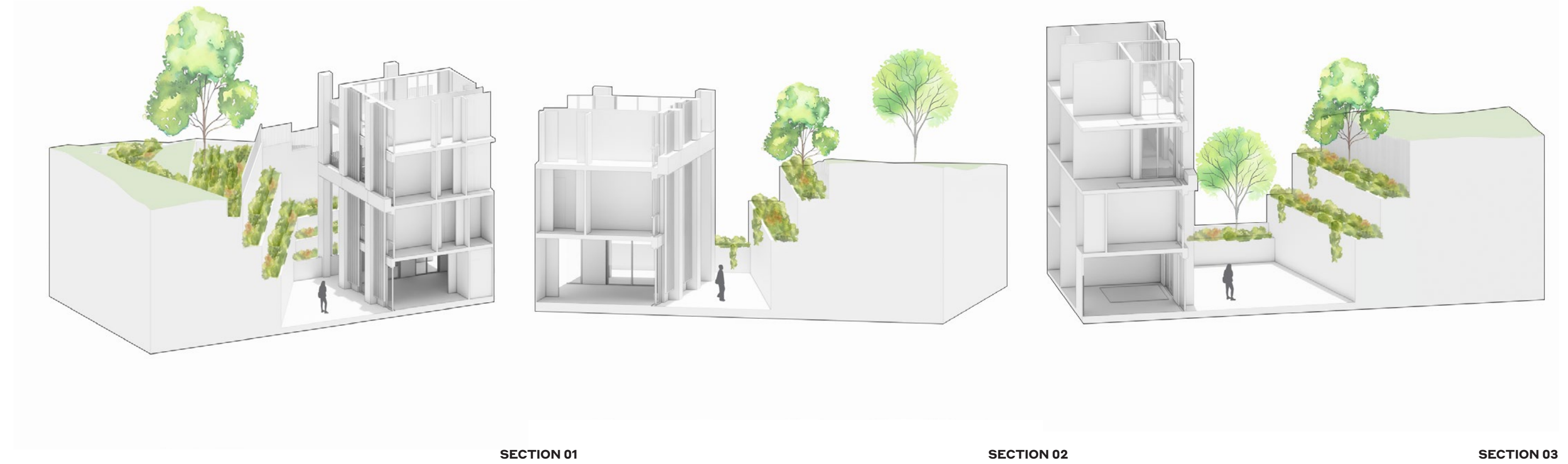
04.03 Building

Private Open Spaces - Pavilion A

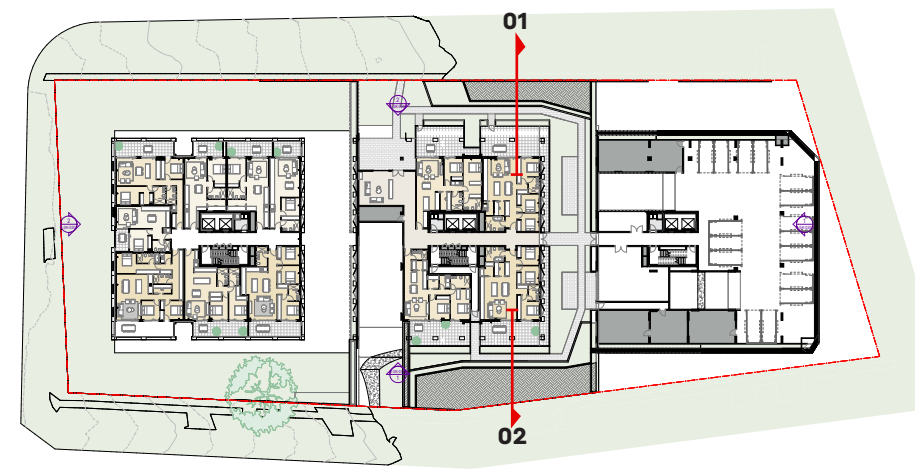
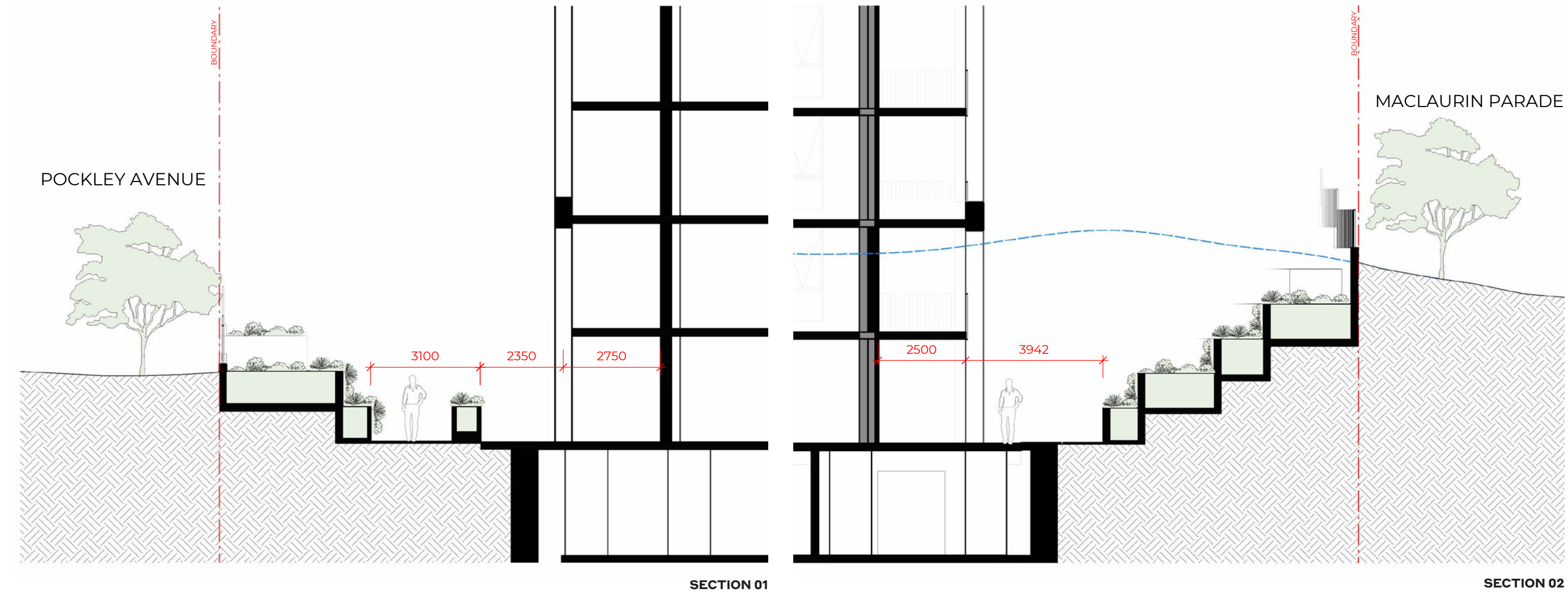


04.03 Building

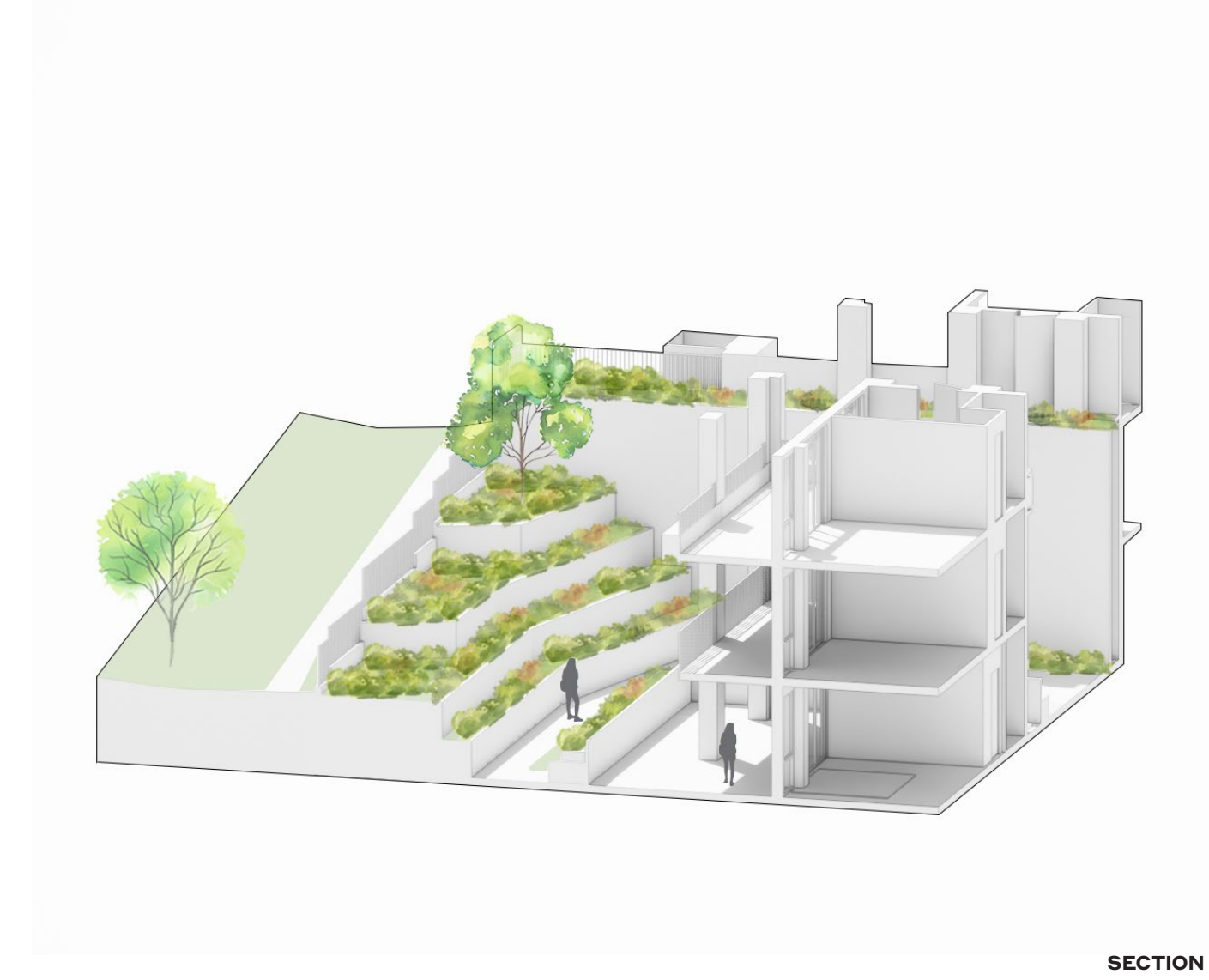
Private Open Spaces - Pavilion A



04.03 Building Private Open Spaces - Pavilion B

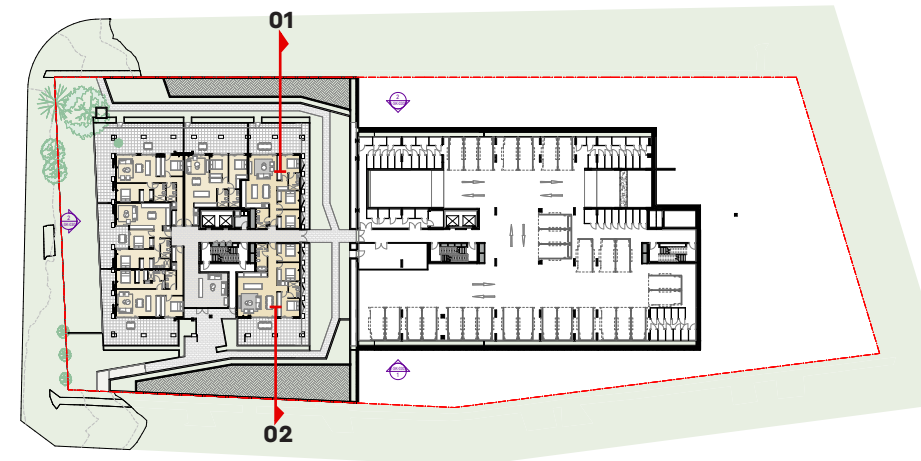
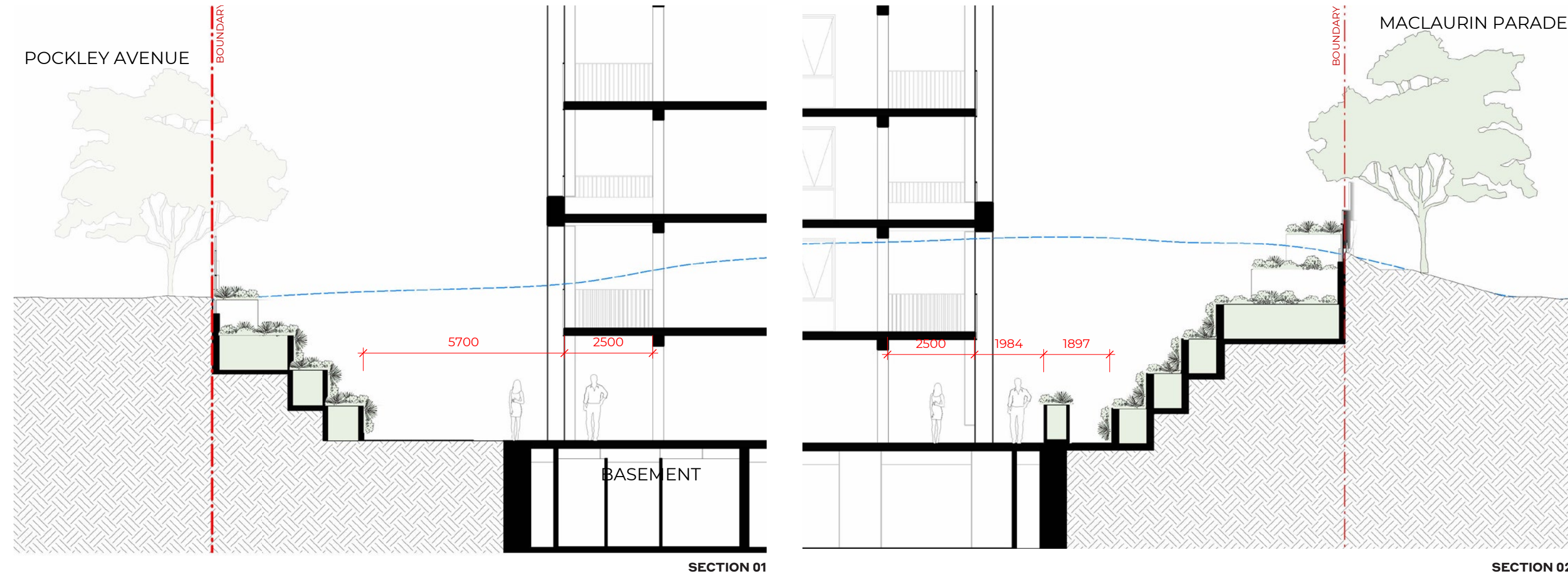


04.03 Building Private Open Spaces - Pavilion B



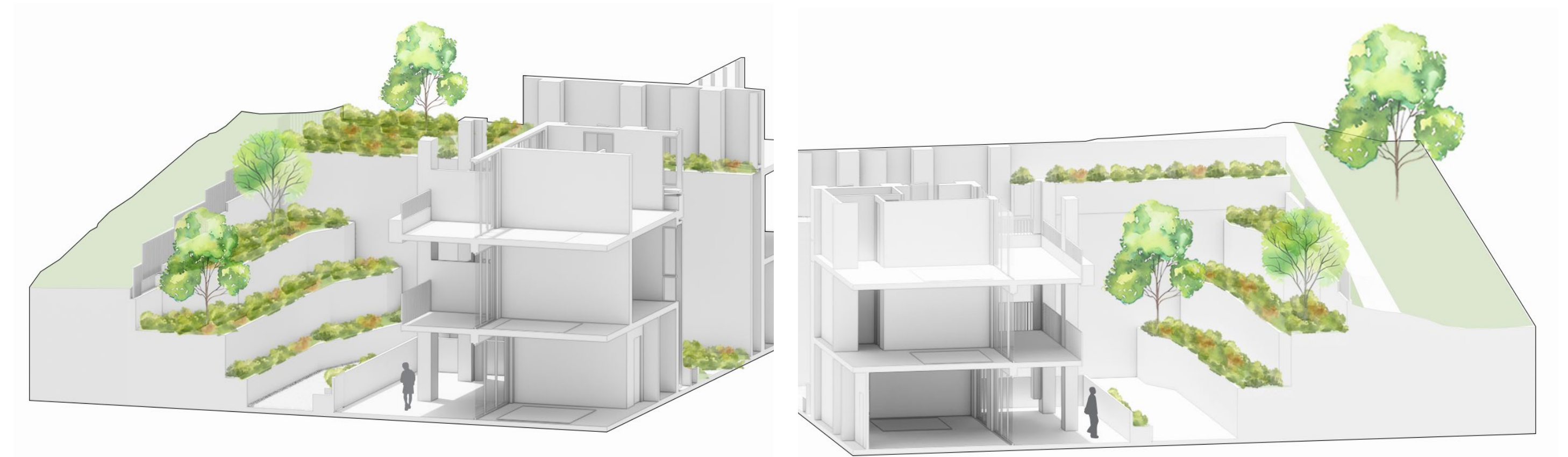
04.03 Building

Private Open Spaces - Pavilion C



04.03 Building

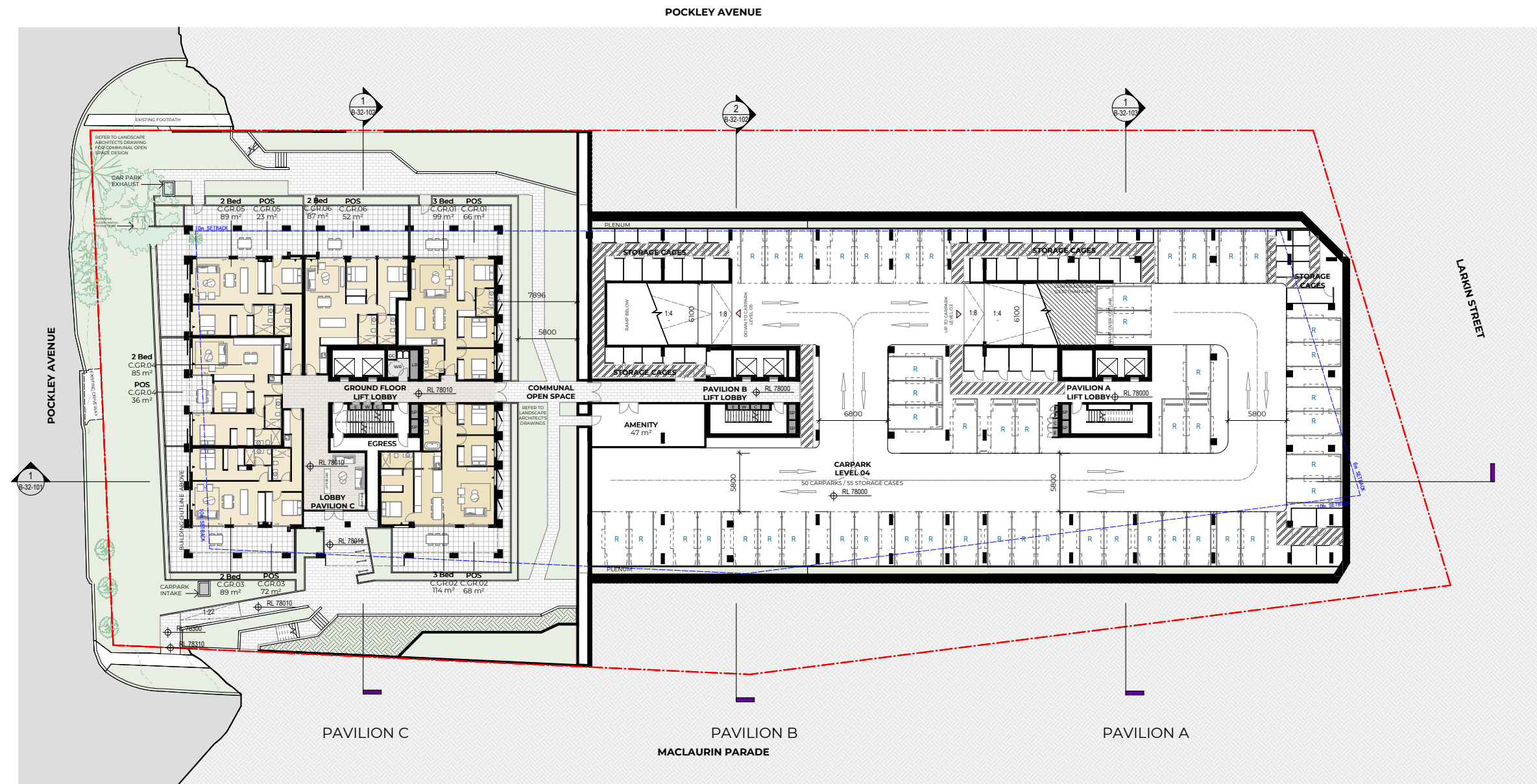
Private Open Spaces - Pavilion C



SECTION 01

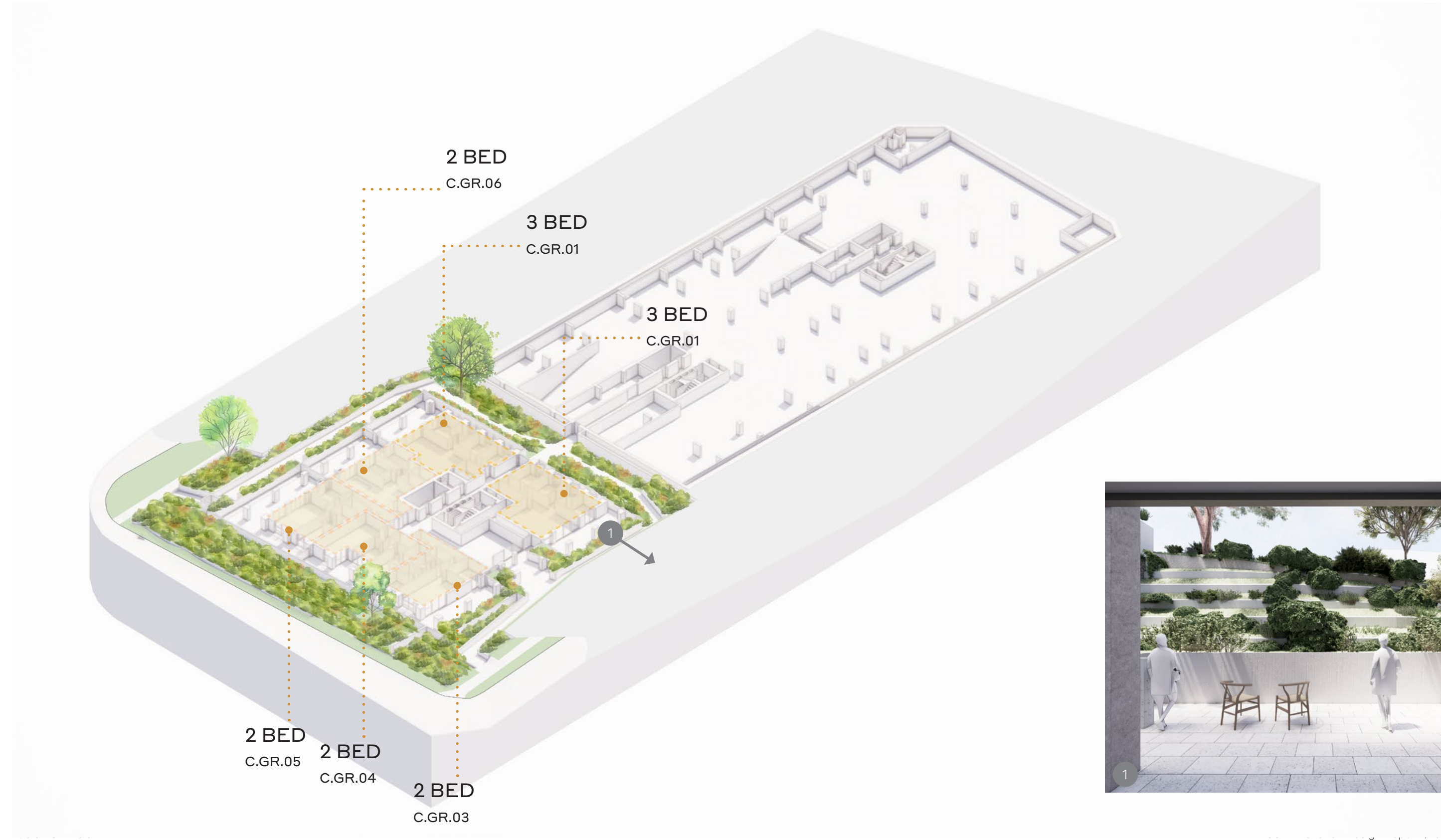
SECTION 02

04.03 Building Basement 04 Floor Plan - Pavilion C Entry On Maclaurin Pde

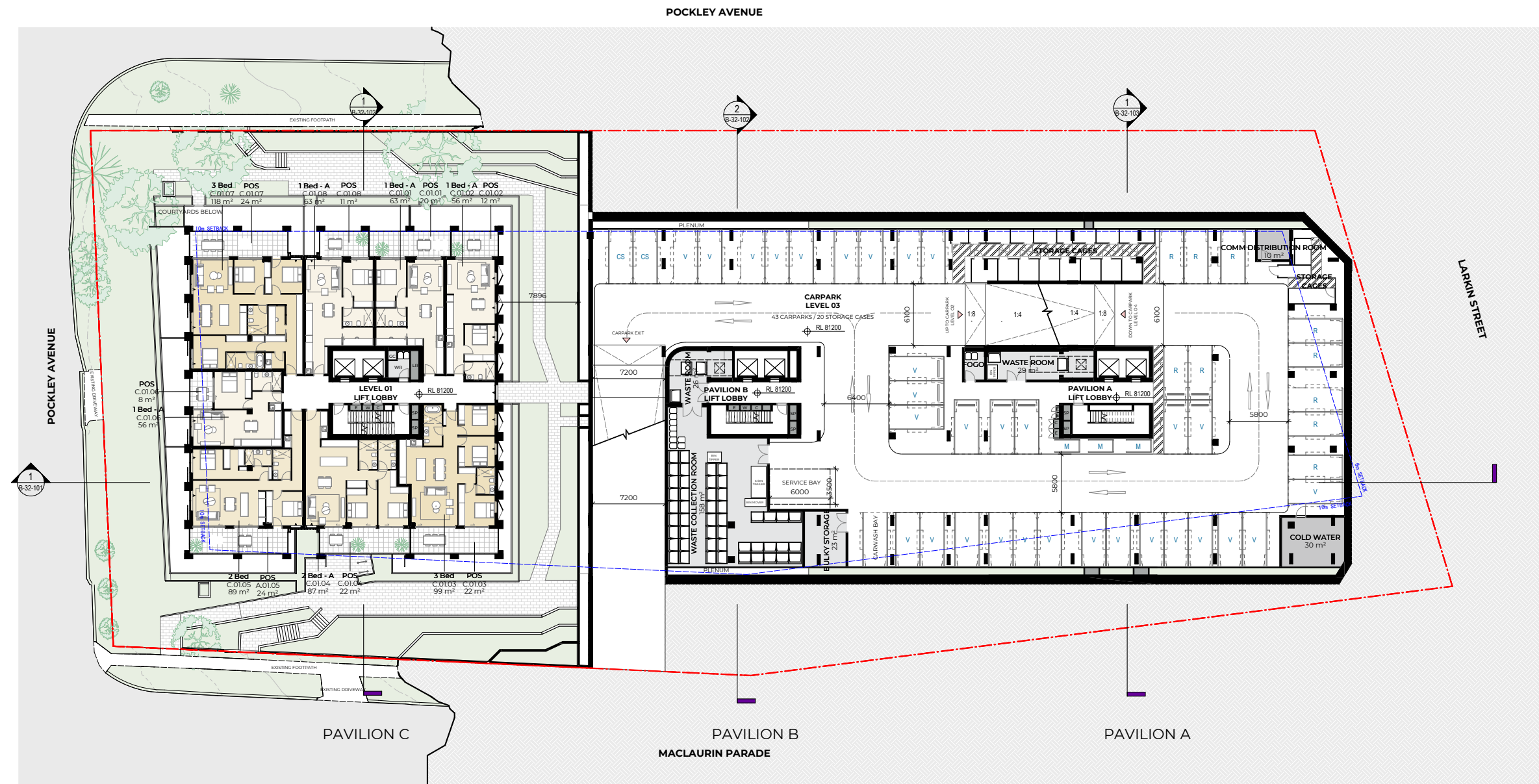


1:400@A3

04.03 Building Basement 04 Floor Plan

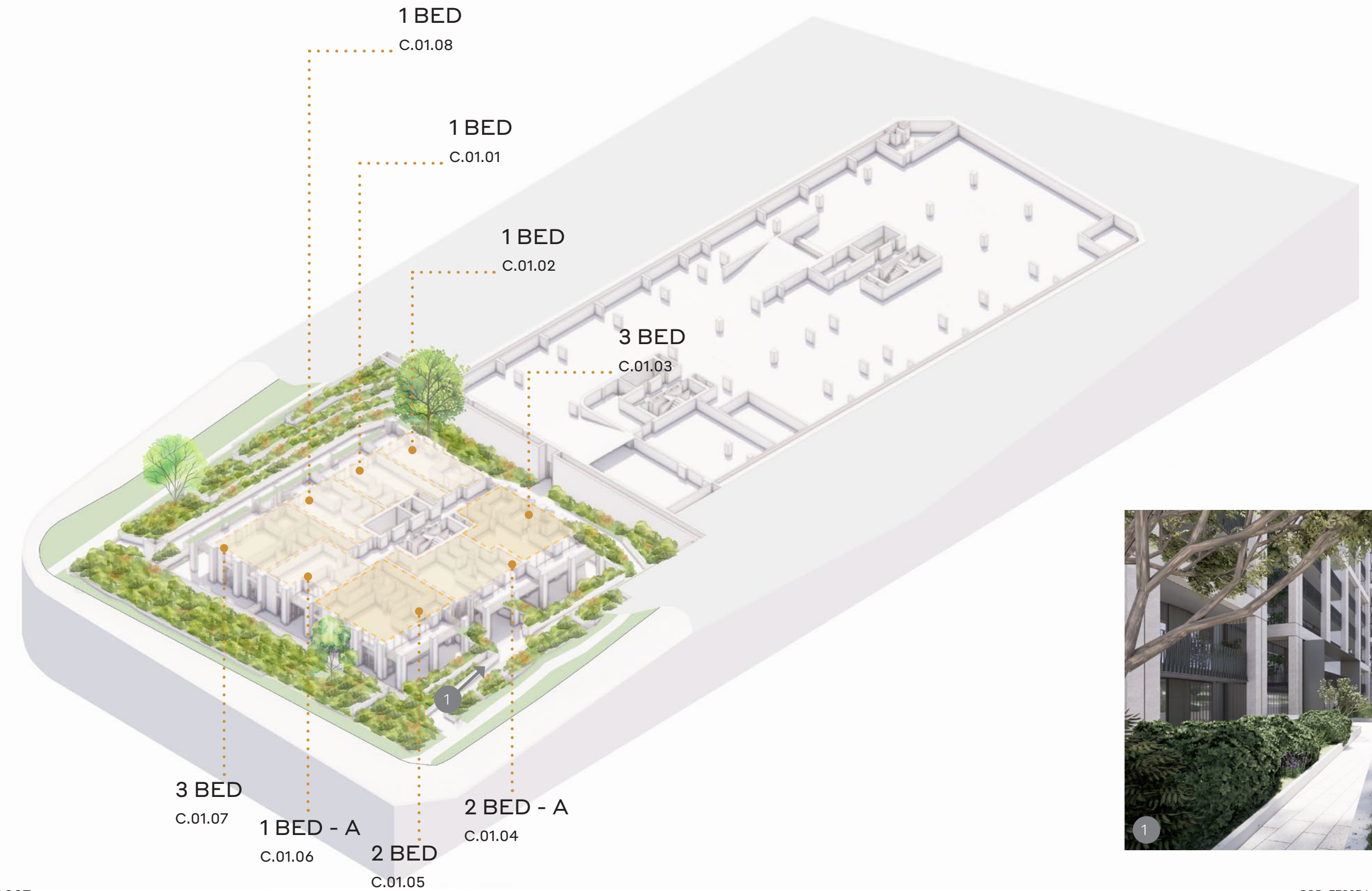


04.03 Building Basement 03 Floor Plan

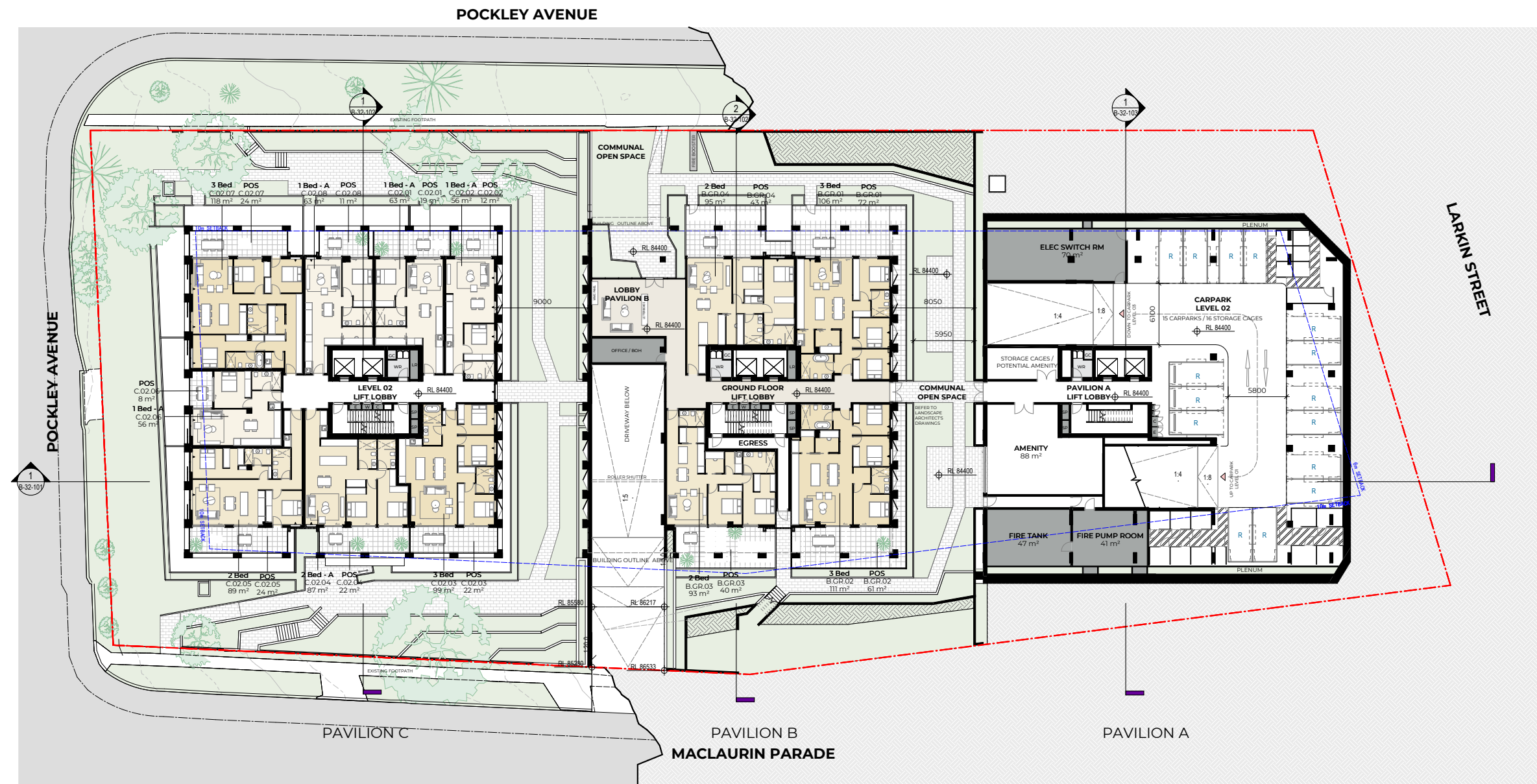


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04.03 Building Basement 03 Floor Plan

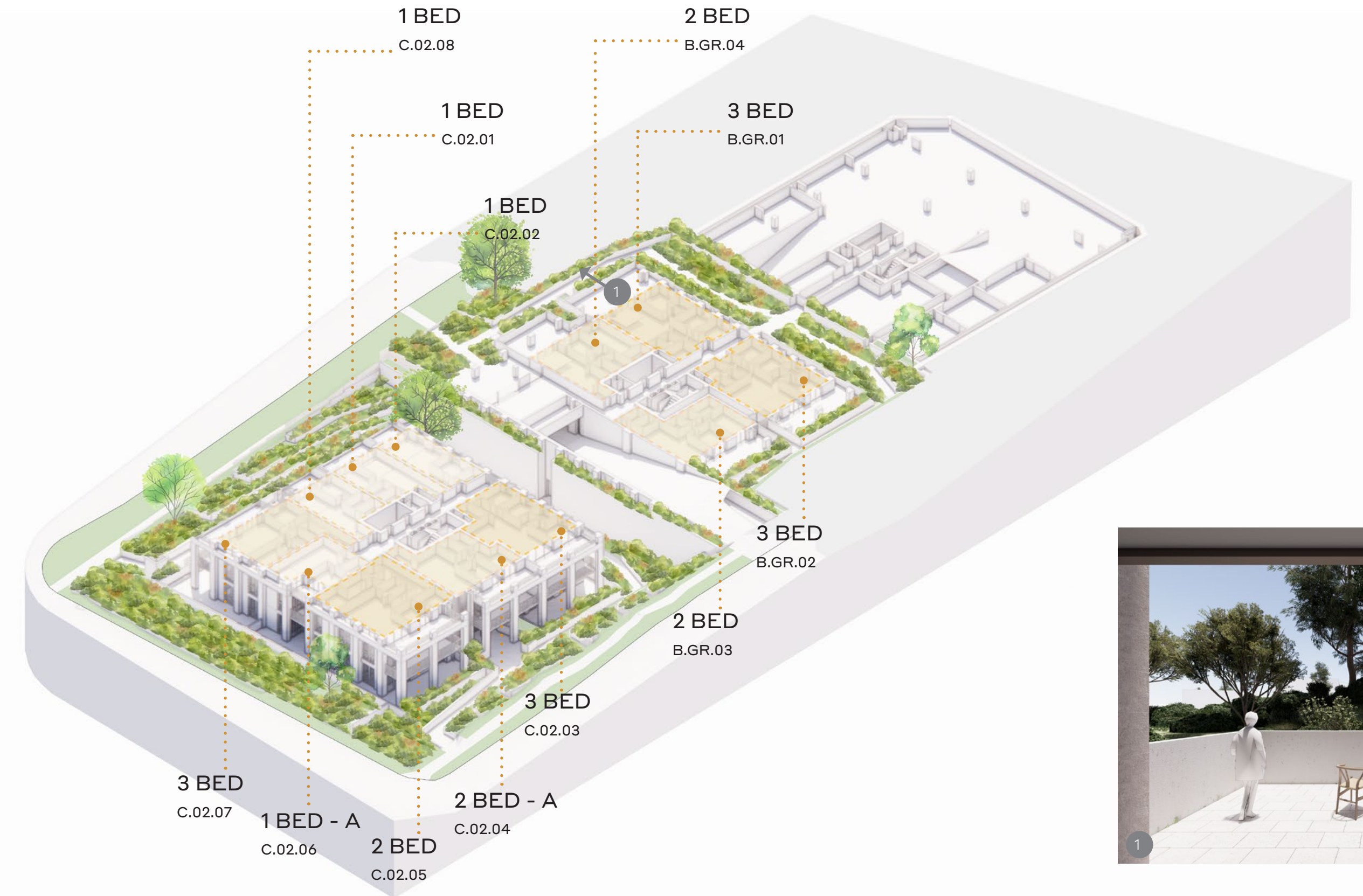


04.03 Building Basement 02 Floor Plan - Pavilion B Entry On Pockley Avenue

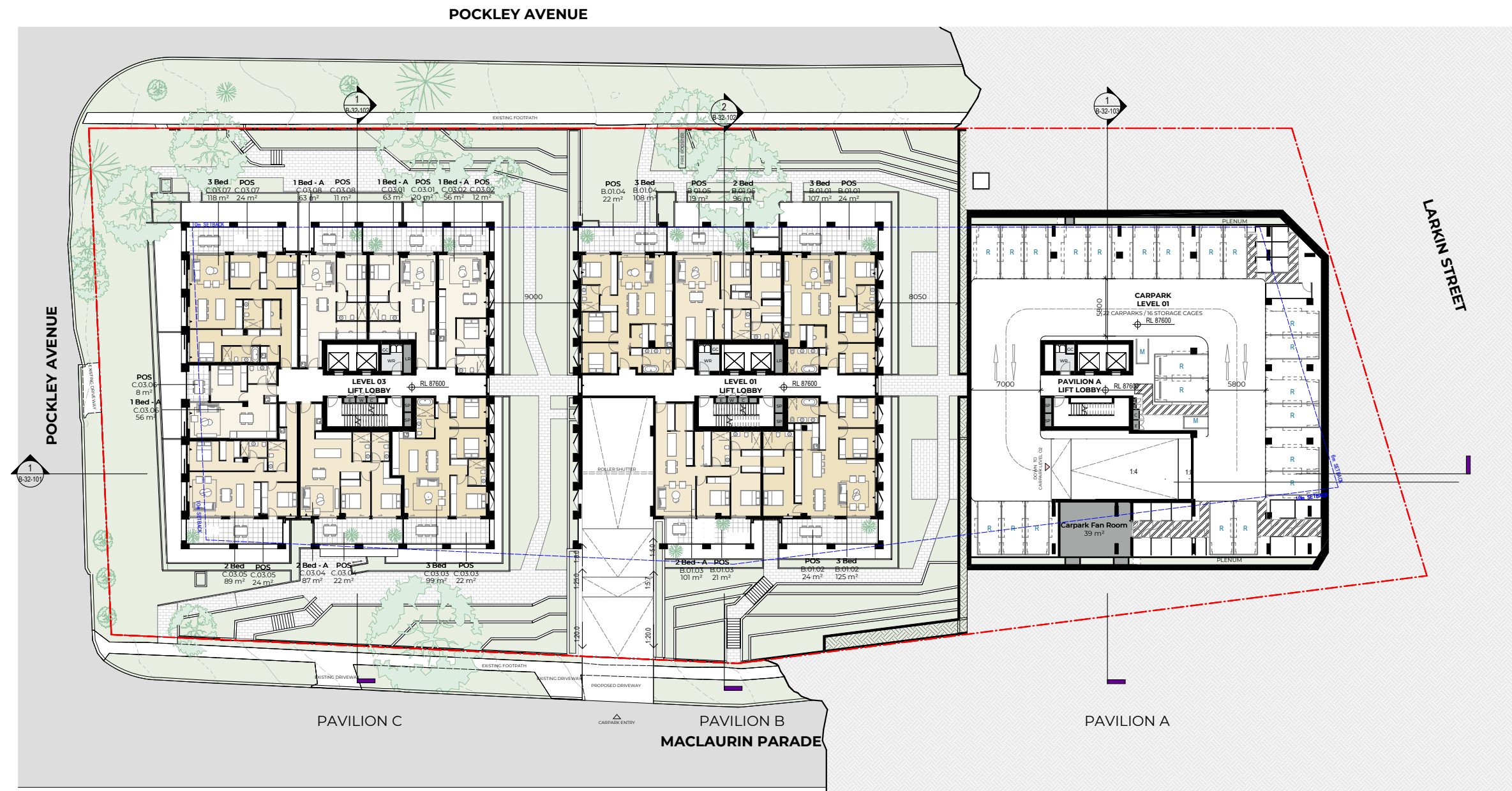


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04.03 Building Basement 02 Floor Plan

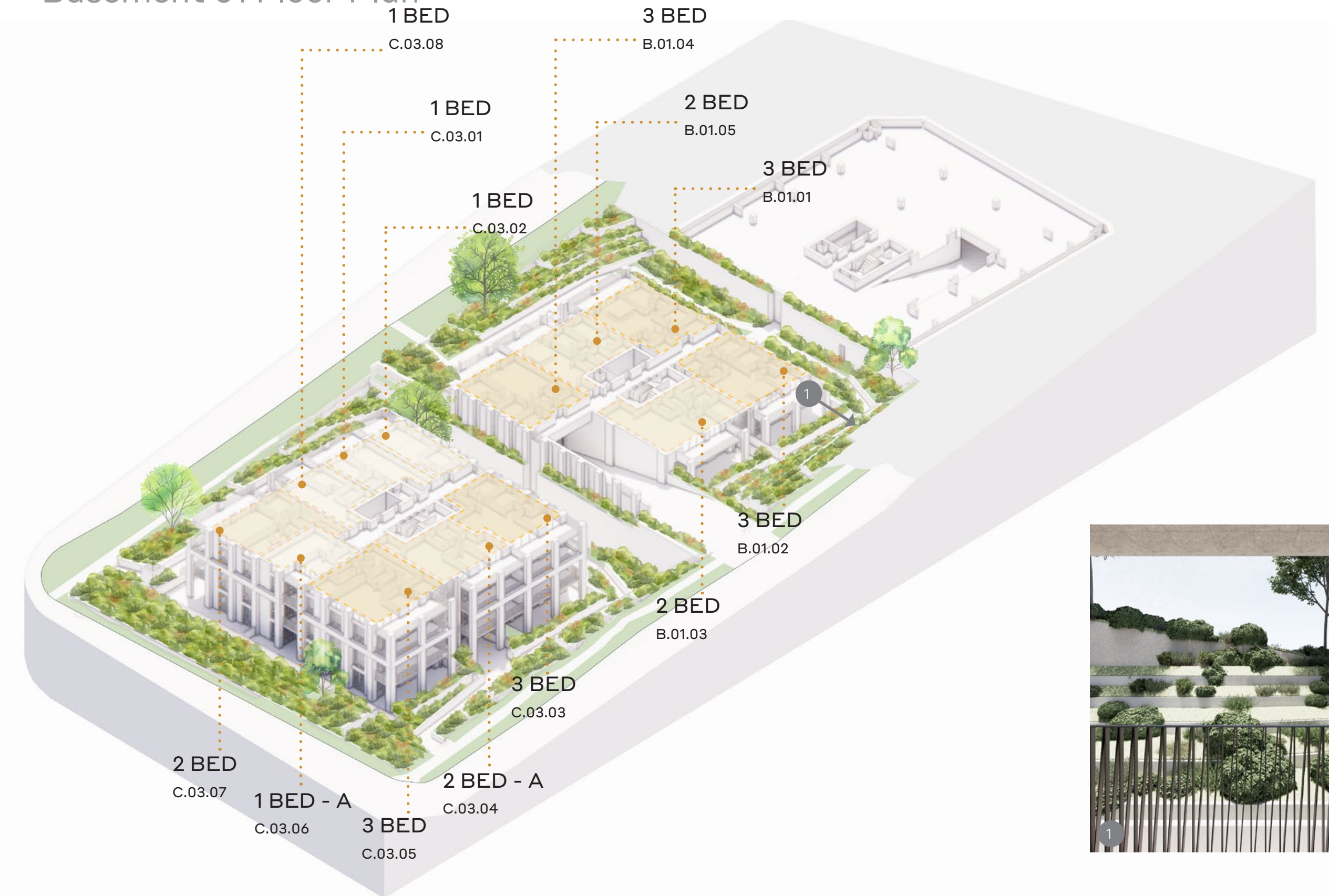


04.03 Building Basement 01 Floor Plan - Vehicle Entry On Maclaurin Parade

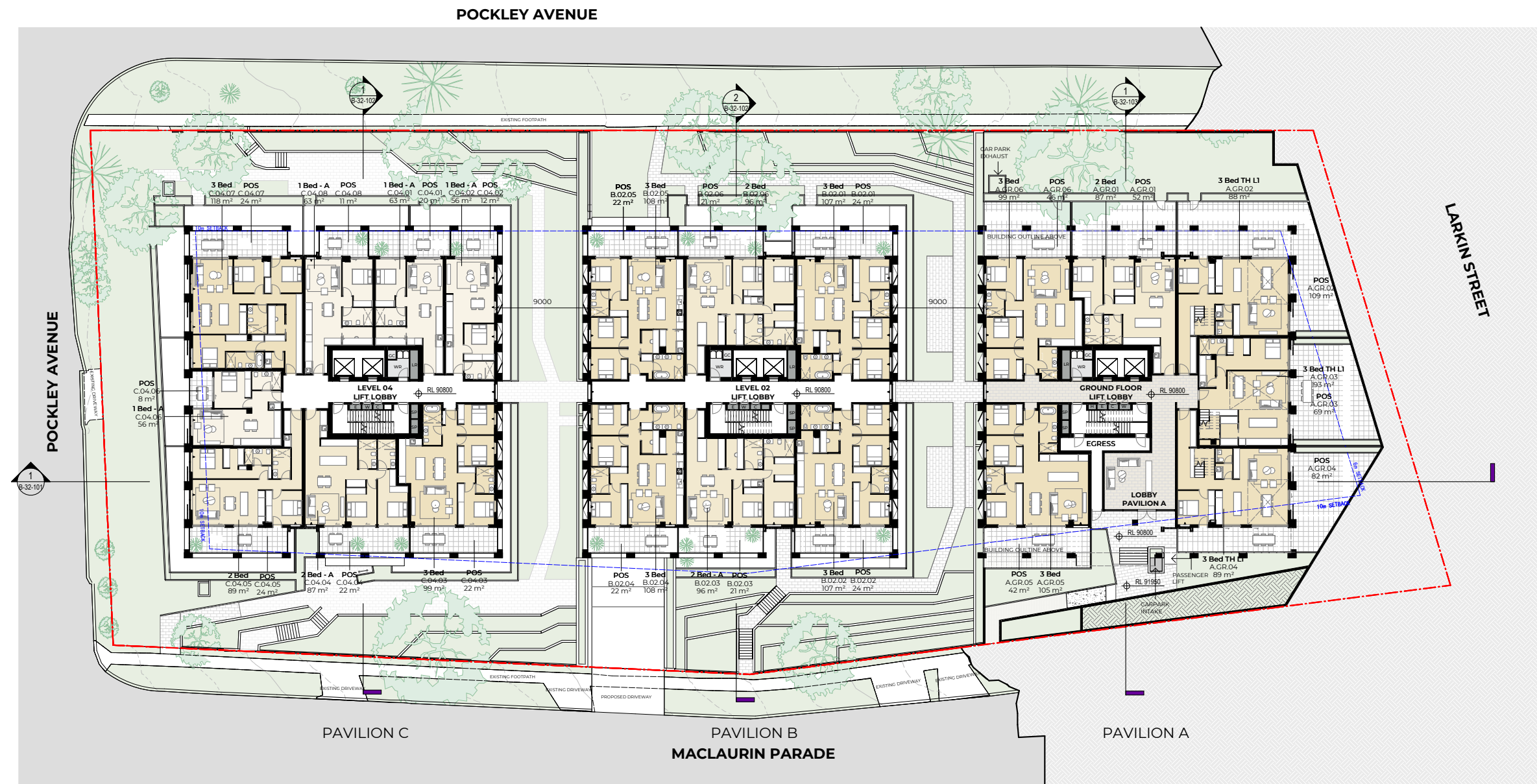


1:400@A3

04.03 Building Basement 01 Floor Plan



04.03 Building Ground Floor Plan



1:400@A3

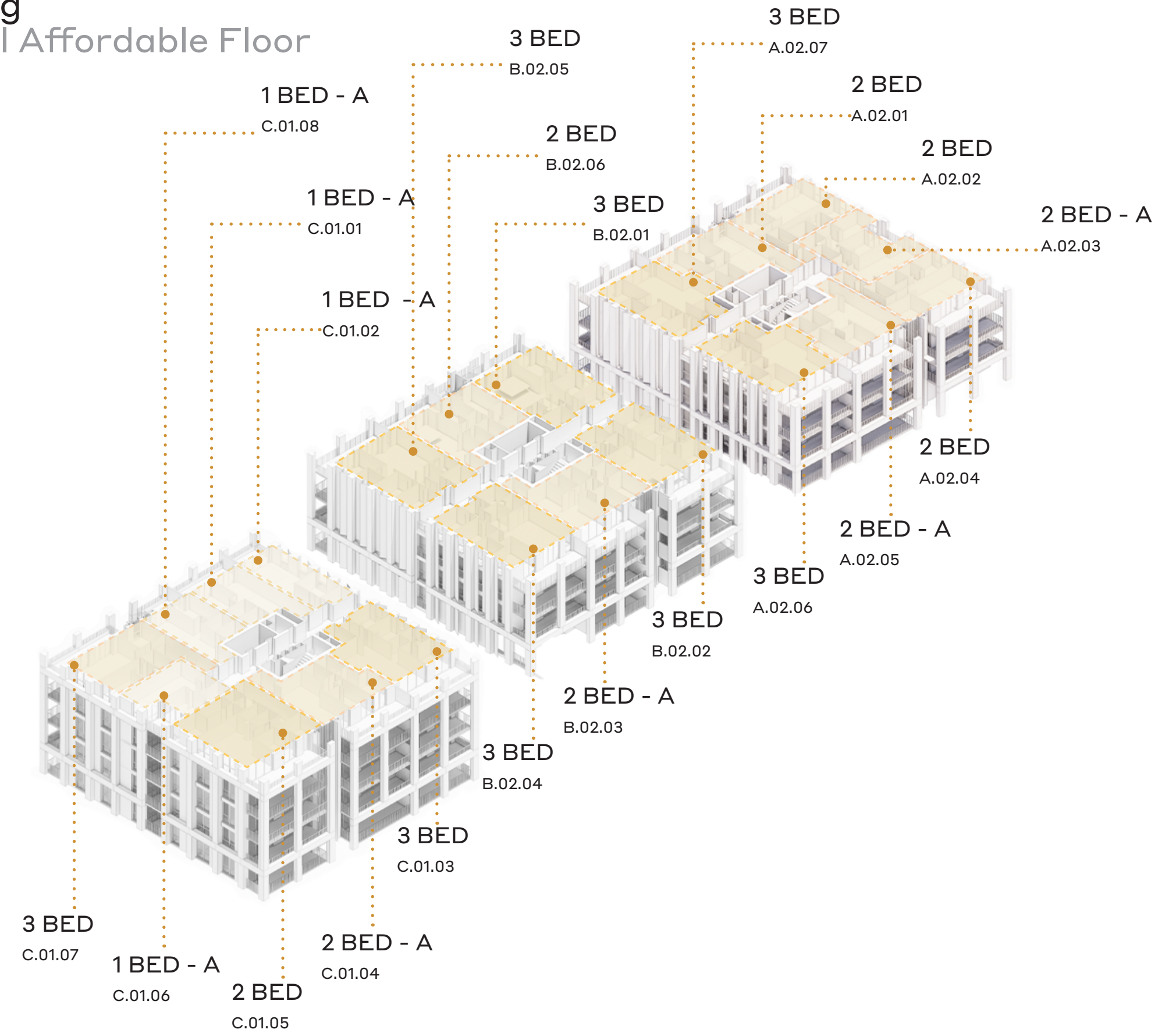
04.03 Building Ground Floor Plan



04.03 Building Typical Affordable Floor Plan



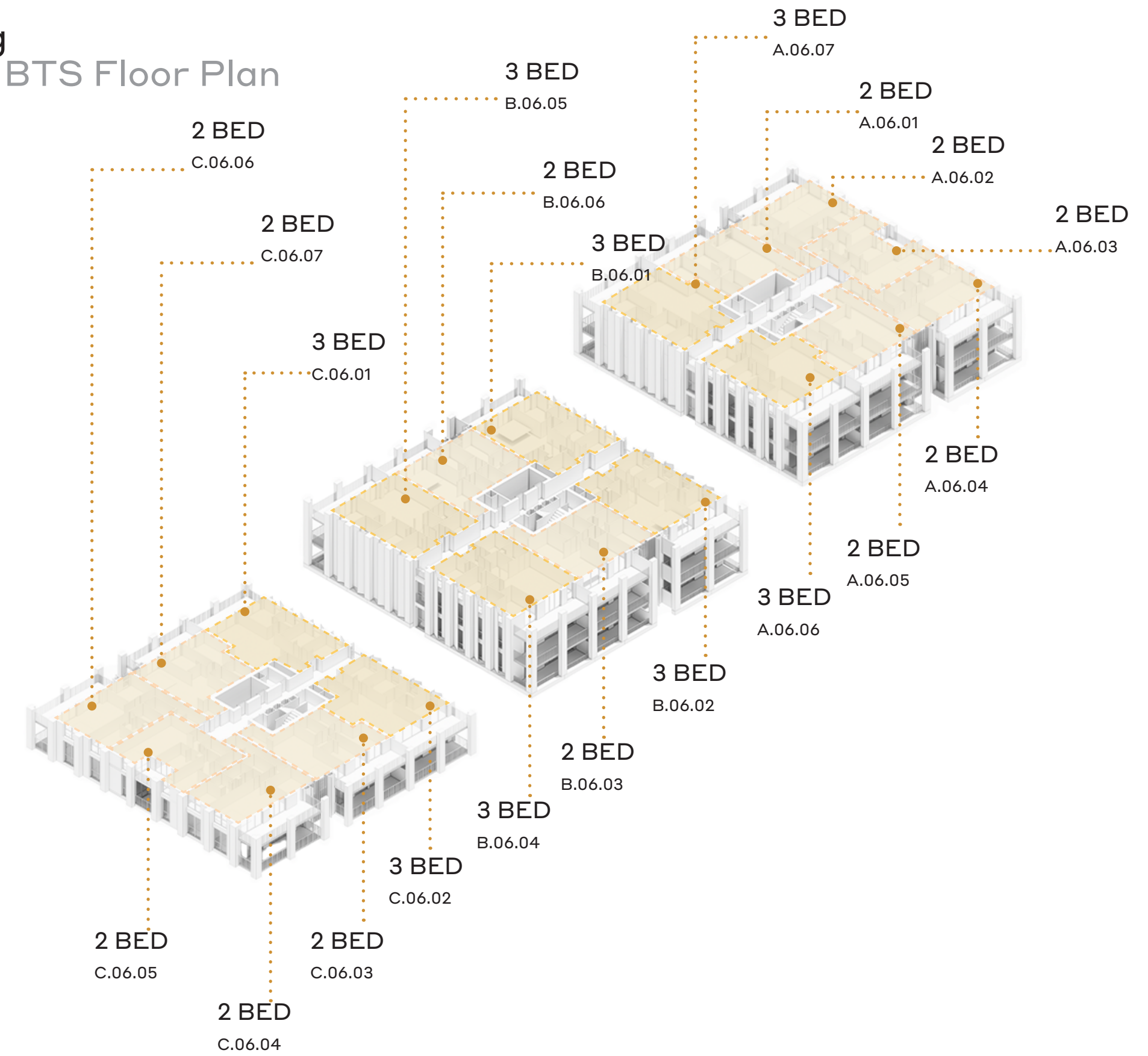
04.03 Building Typical Affordable Floor



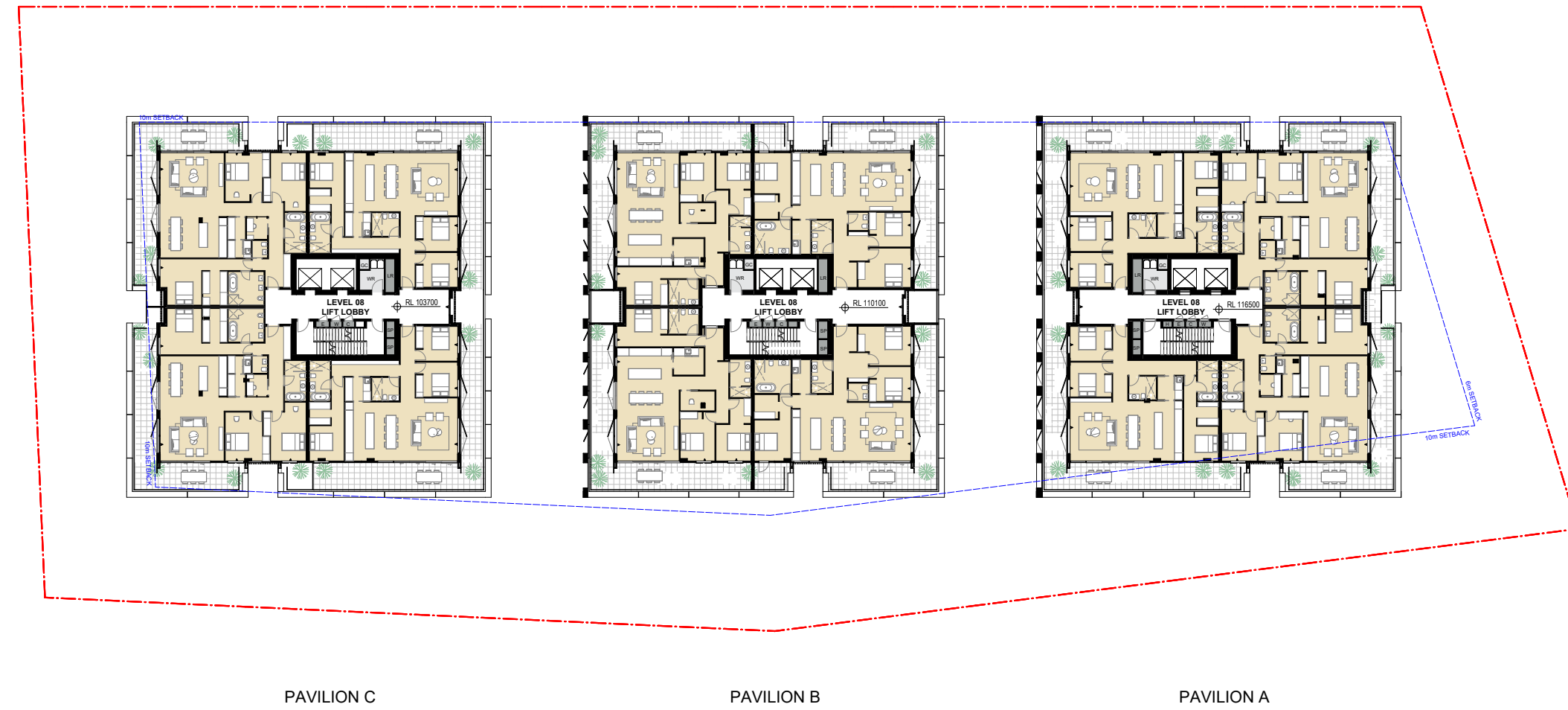
04.03 Building Typical BTS Floor Plan



04.03 Building Typical BTS Floor Plan

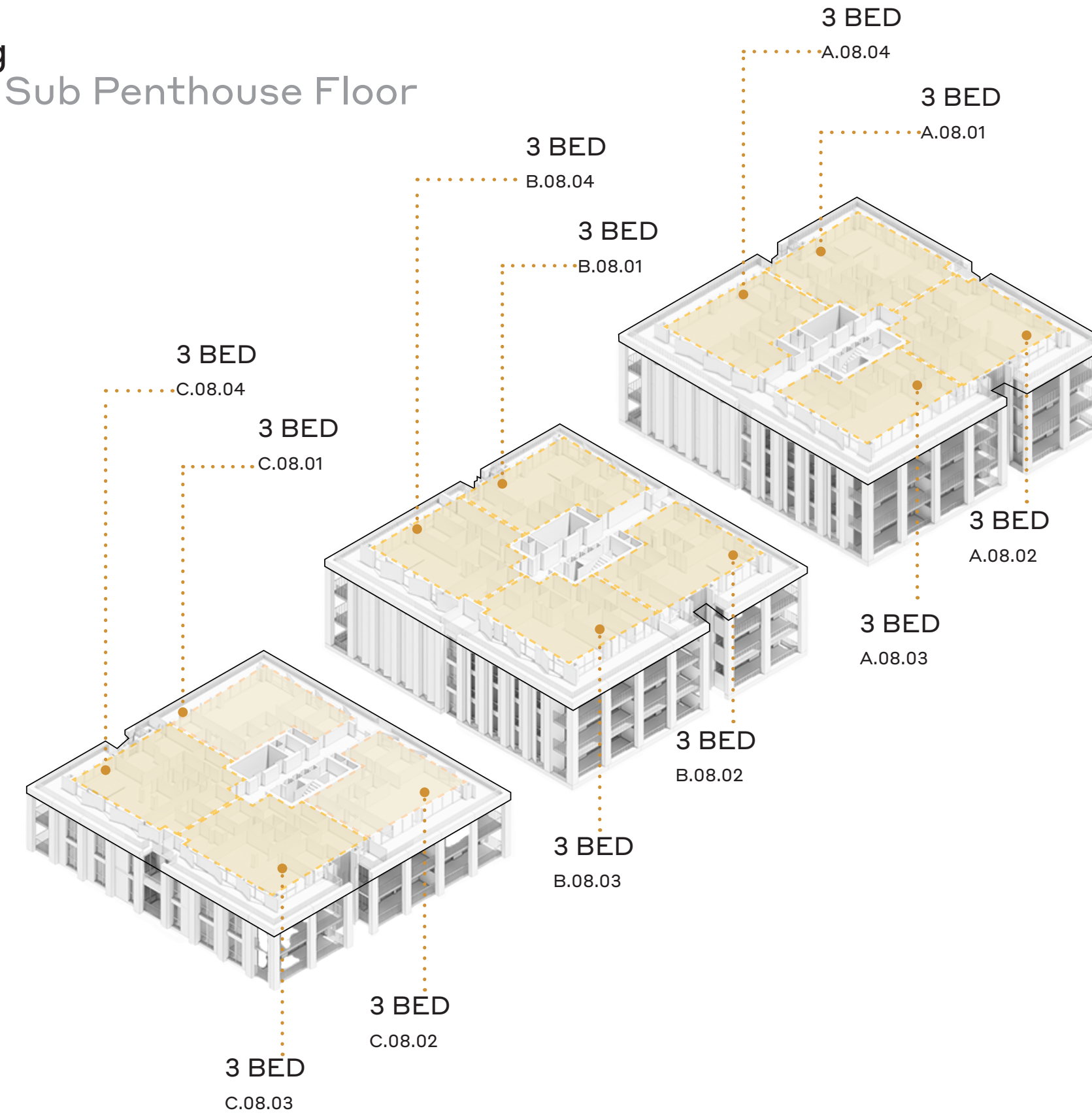


04.03 Building Typical Sub Penthouse Floor Plan



1:400@A3

04.03 Building Typical Sub Penthouse Floor

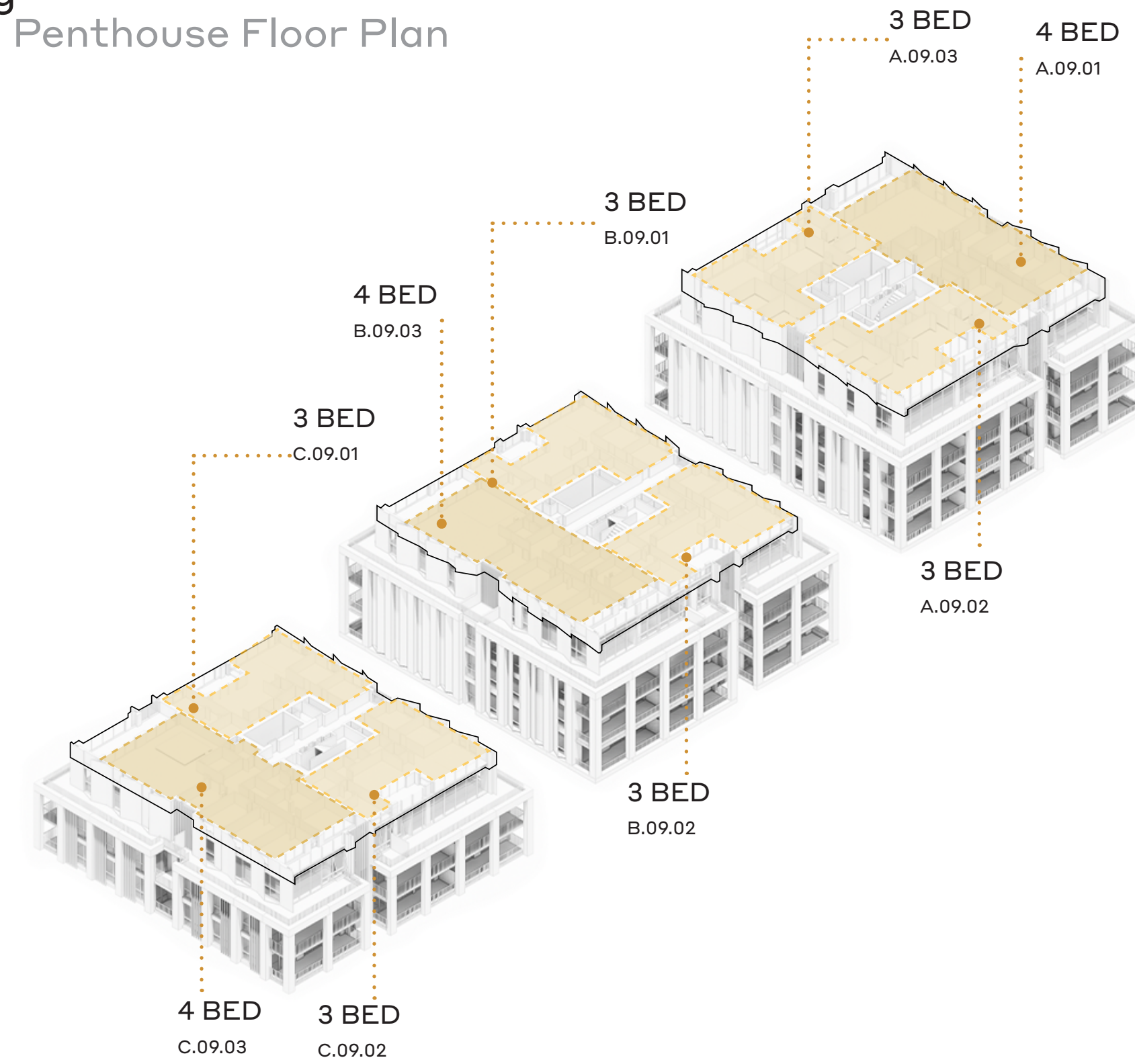


04.03 Building Typical Penthouse Floor Plan

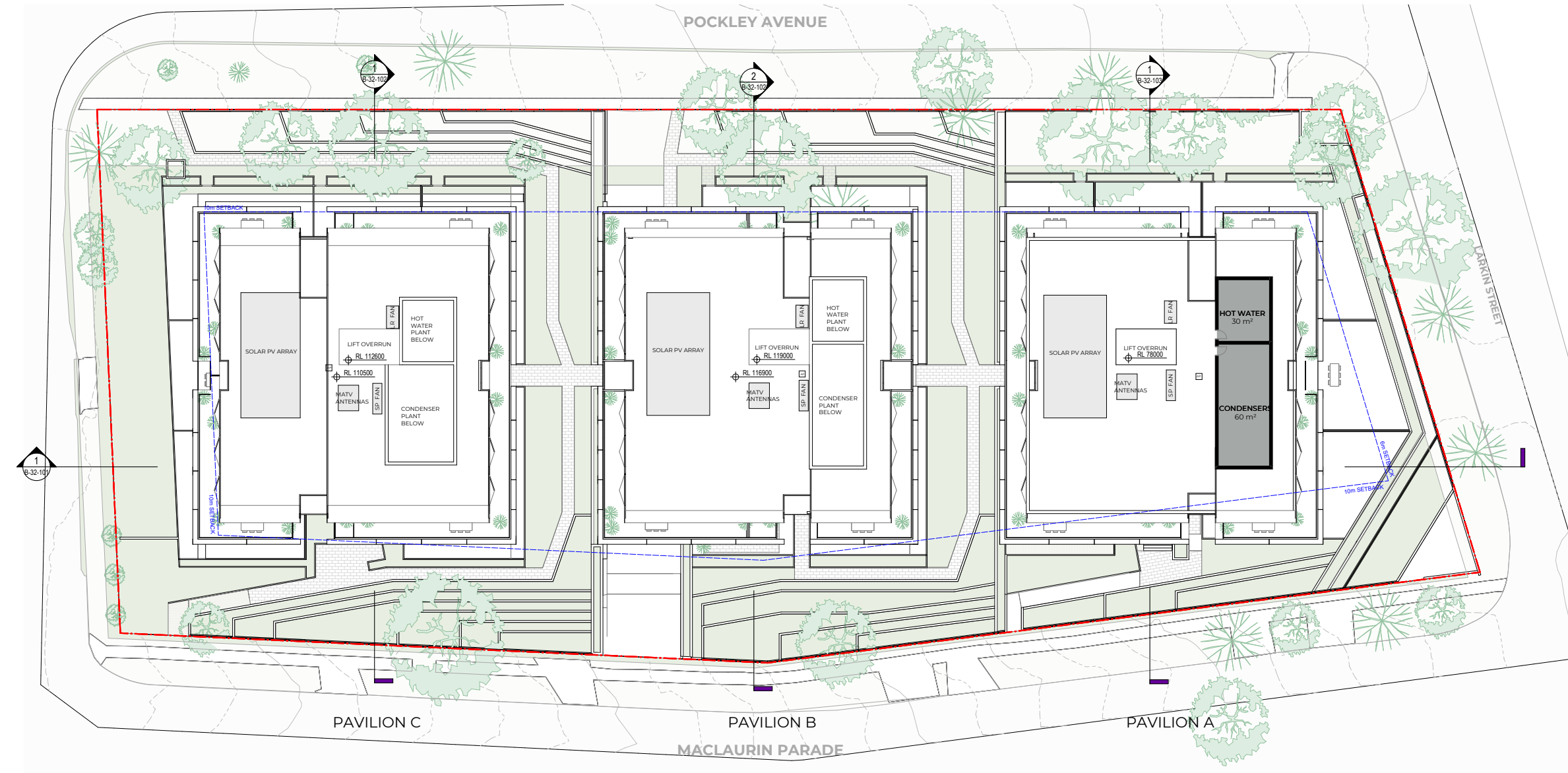


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04.03 Building Typical Penthouse Floor Plan

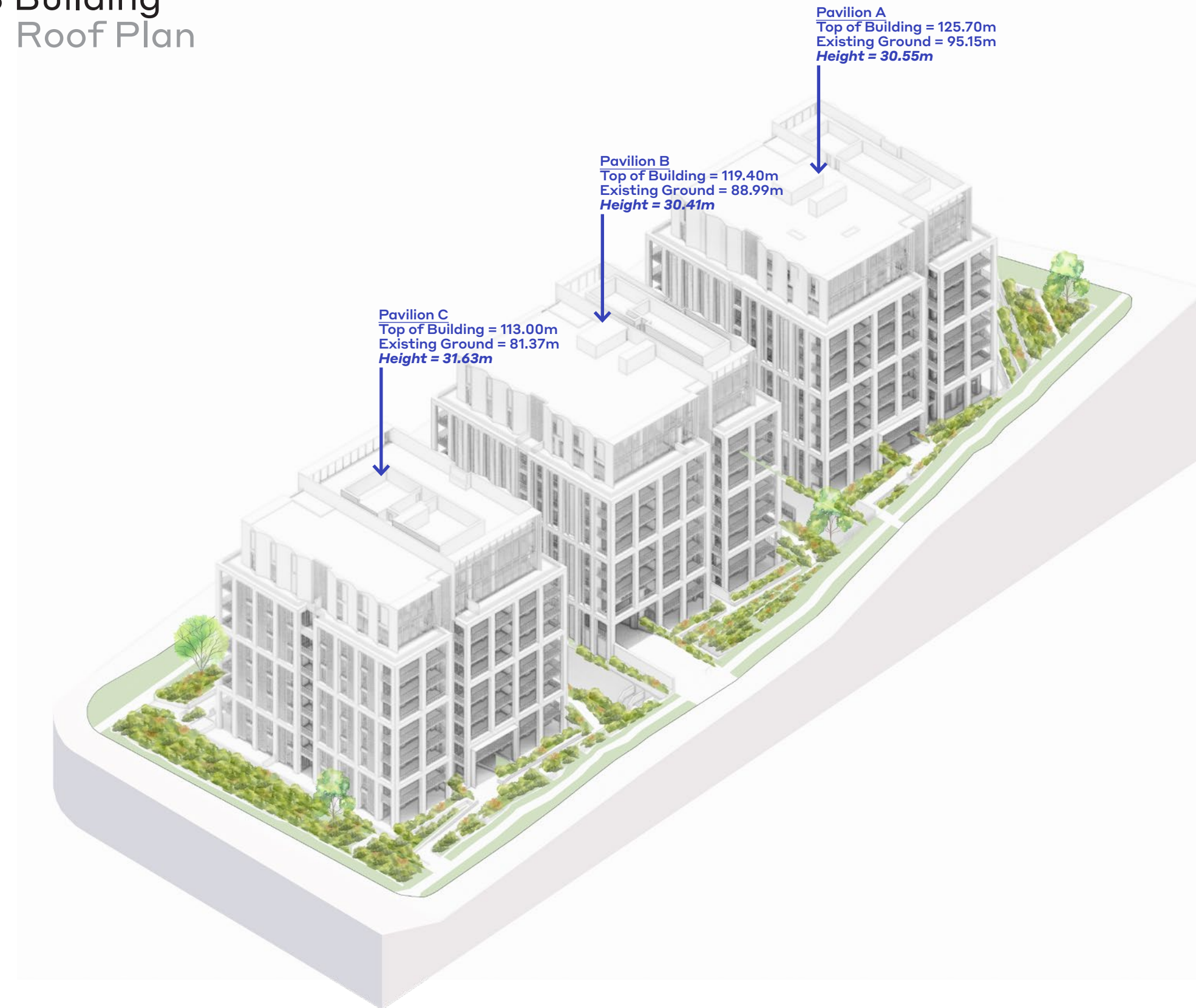


04.03 Building Roof Plan



1:400@A3

04.03 Building Roof Plan

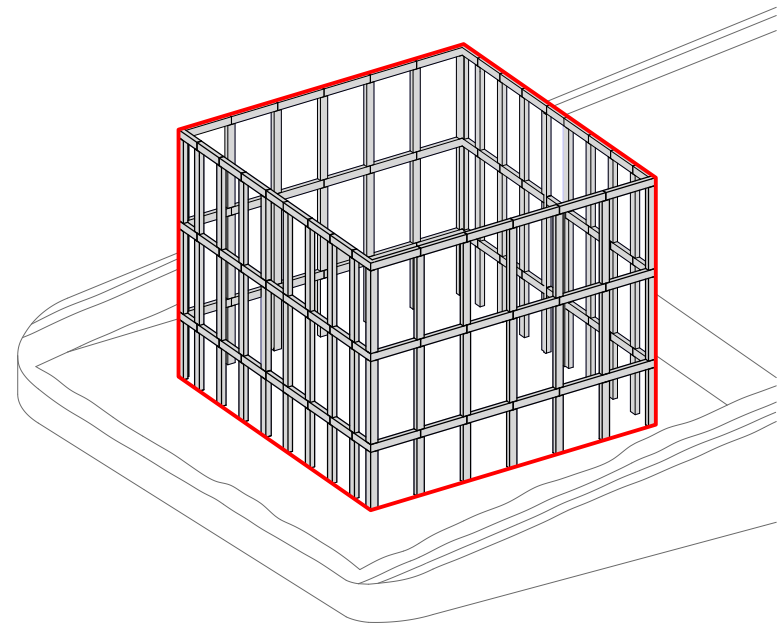


05

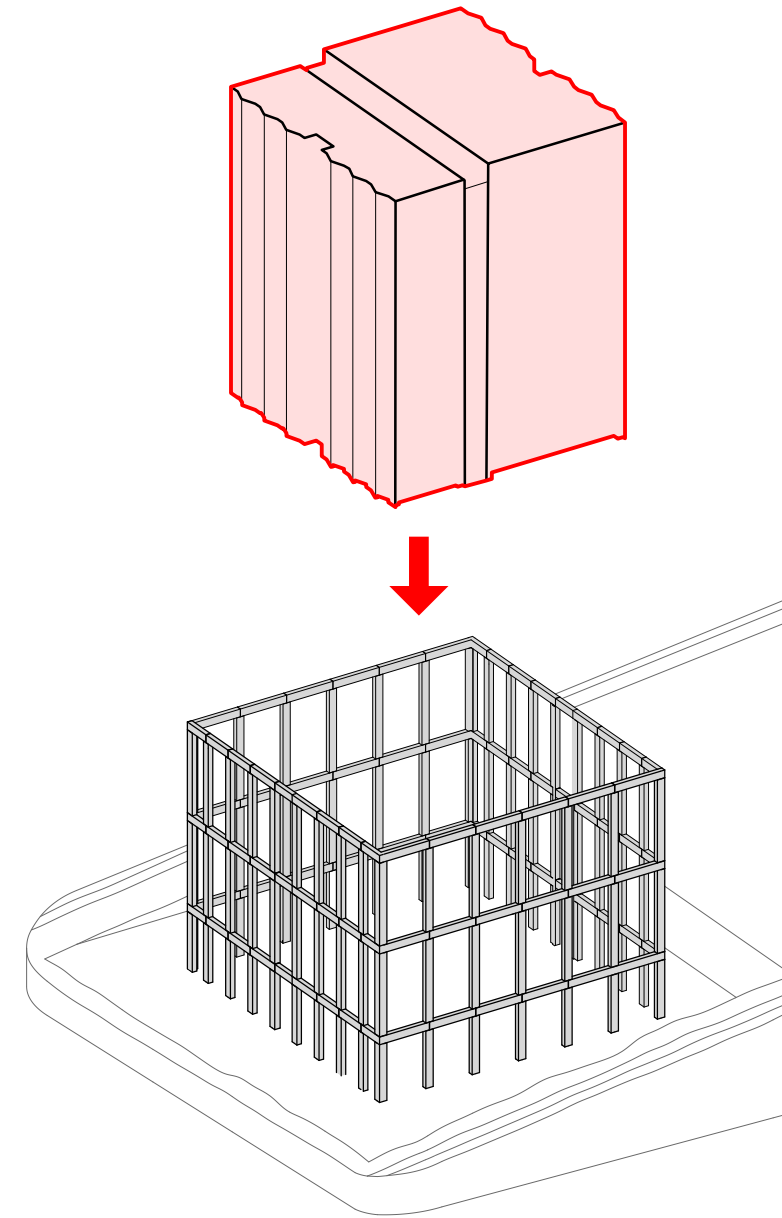
Facade and Materiality

05.01	Facade Concept
05.02	Materiality
05.03	Typical Conditions
05.04	ConnectingWith Country
05.05	Sustainability
05.06	Overall Elevations

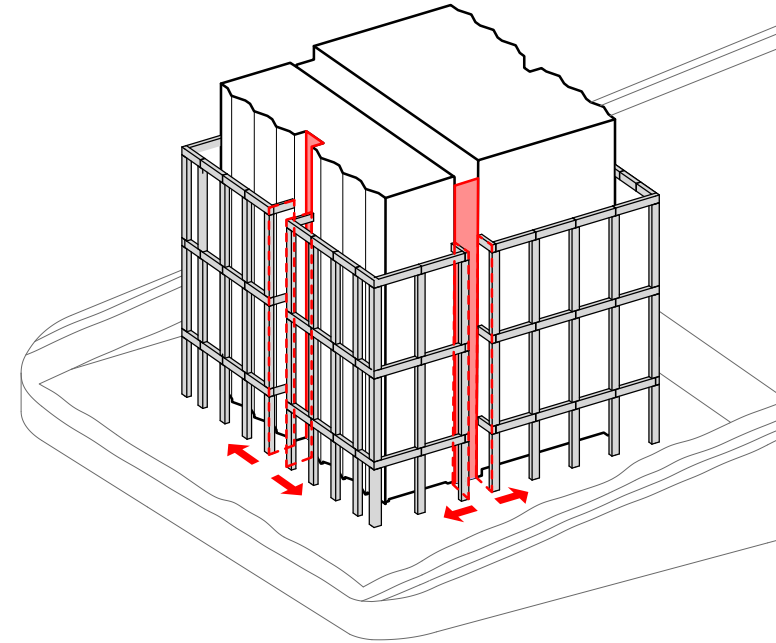
05.01 Facade Concept



Classical Grid Frame

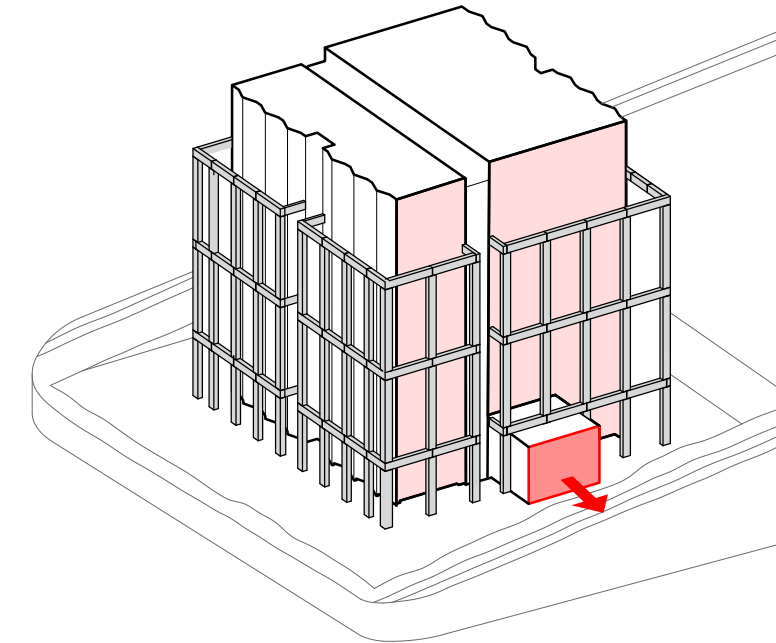


Sculpted Secondary Form Inserted

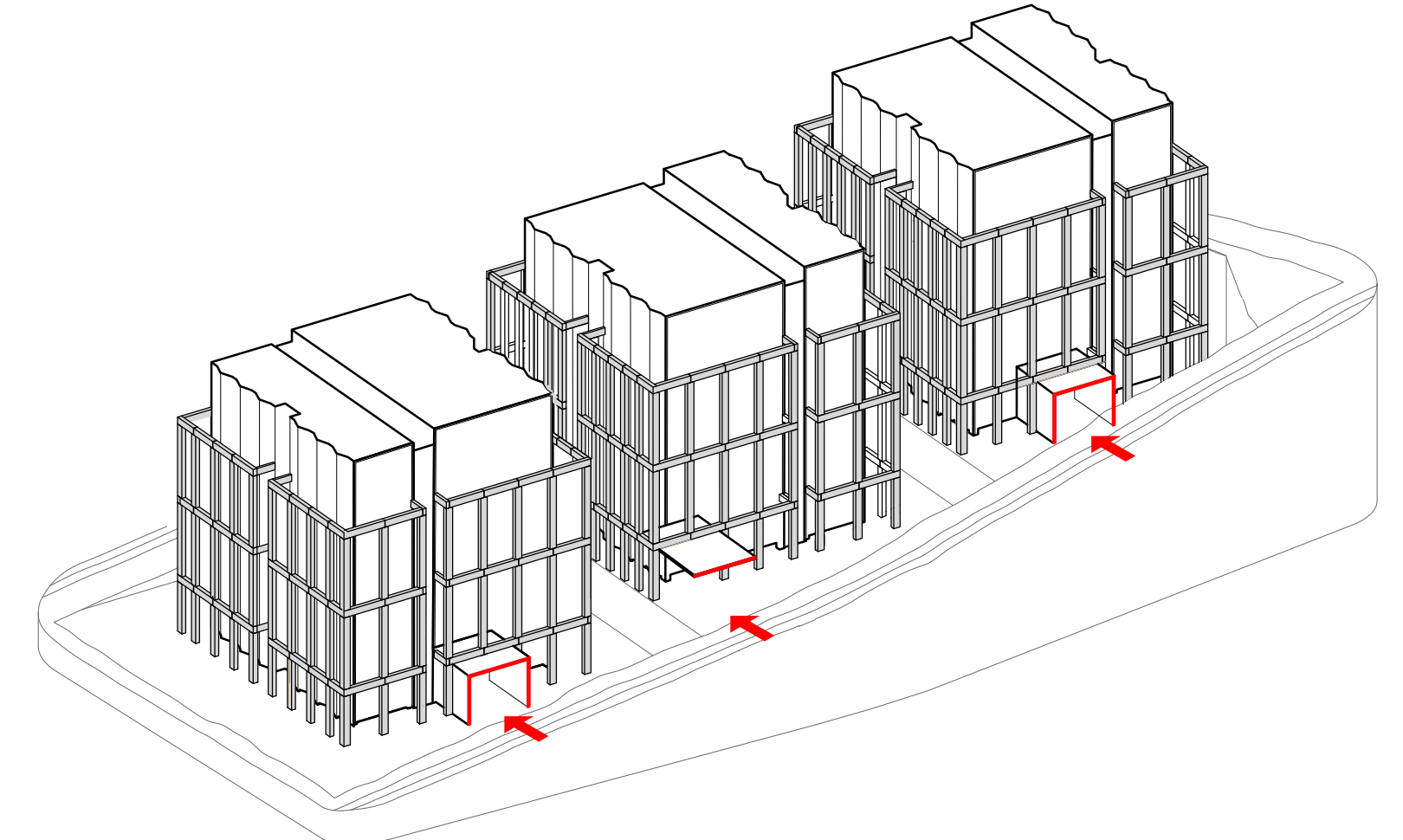


Building Slots Express Materiality Coming to Ground, Adding Articulation to Frame

05.01 Facade Concept



Punctured Openings to Mark Entries, Growing from Internal Mass



Punctured Openings Repeated Along the Street

05.01 Facade Concept

Classic and Timeless with a Contemporary Twist



Classical Proportions and Materiality



Sleek Penthouse

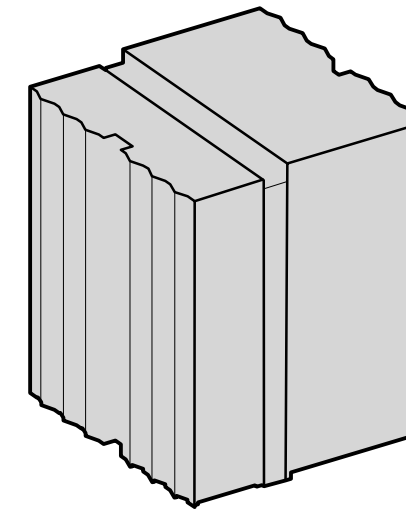


Intricate Detailing



A Confident Form Nestled Within Landscape

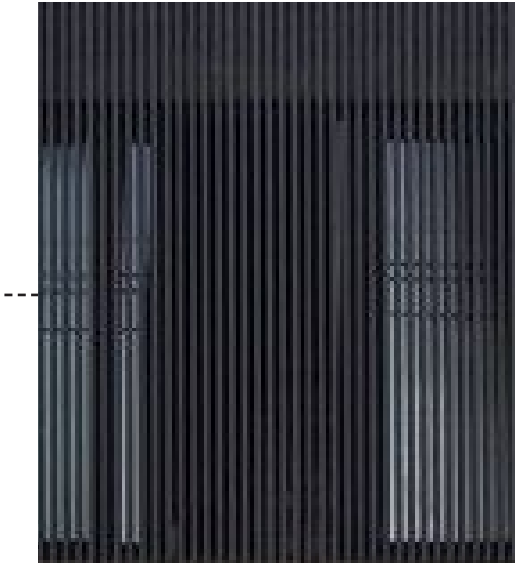
05.02 Materiality



Metal Insert



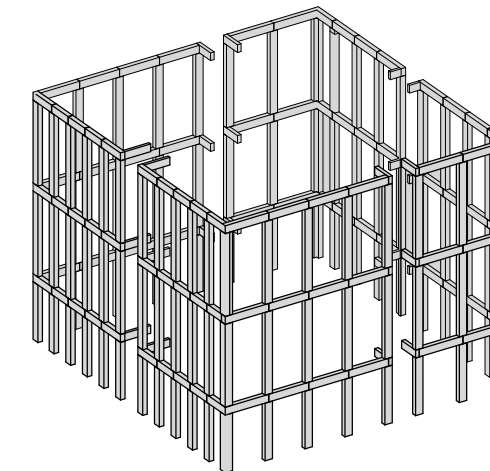
Expressed Frame



Fine Screens



Portal Entries



Grid Frame



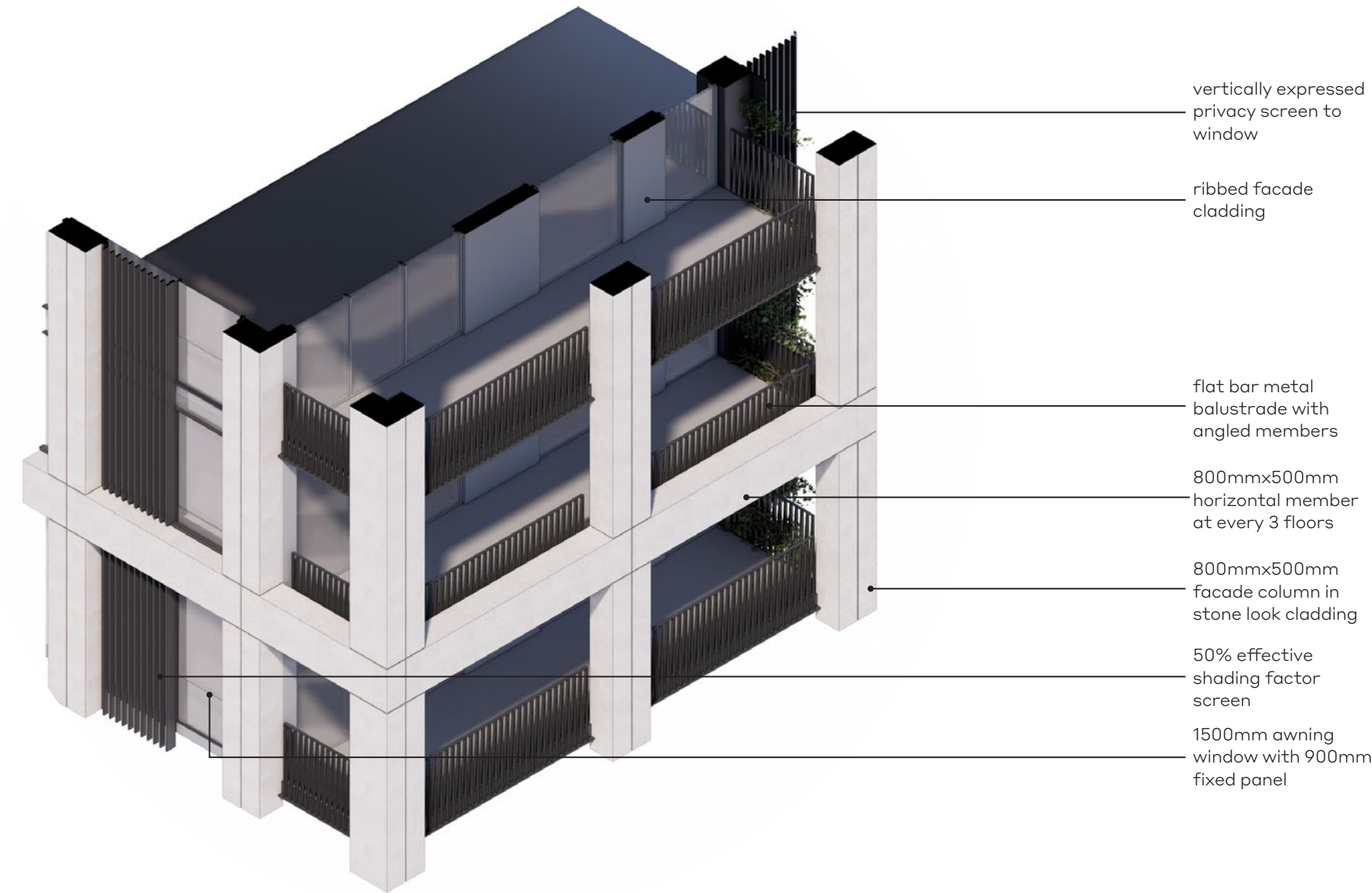
Stone-look panels



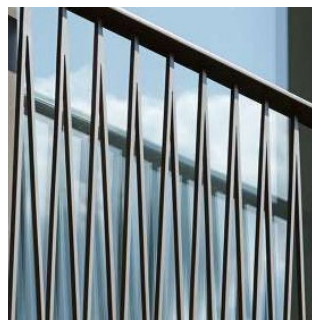
Considered joints



05.03 Facade Detail Axonometric Views



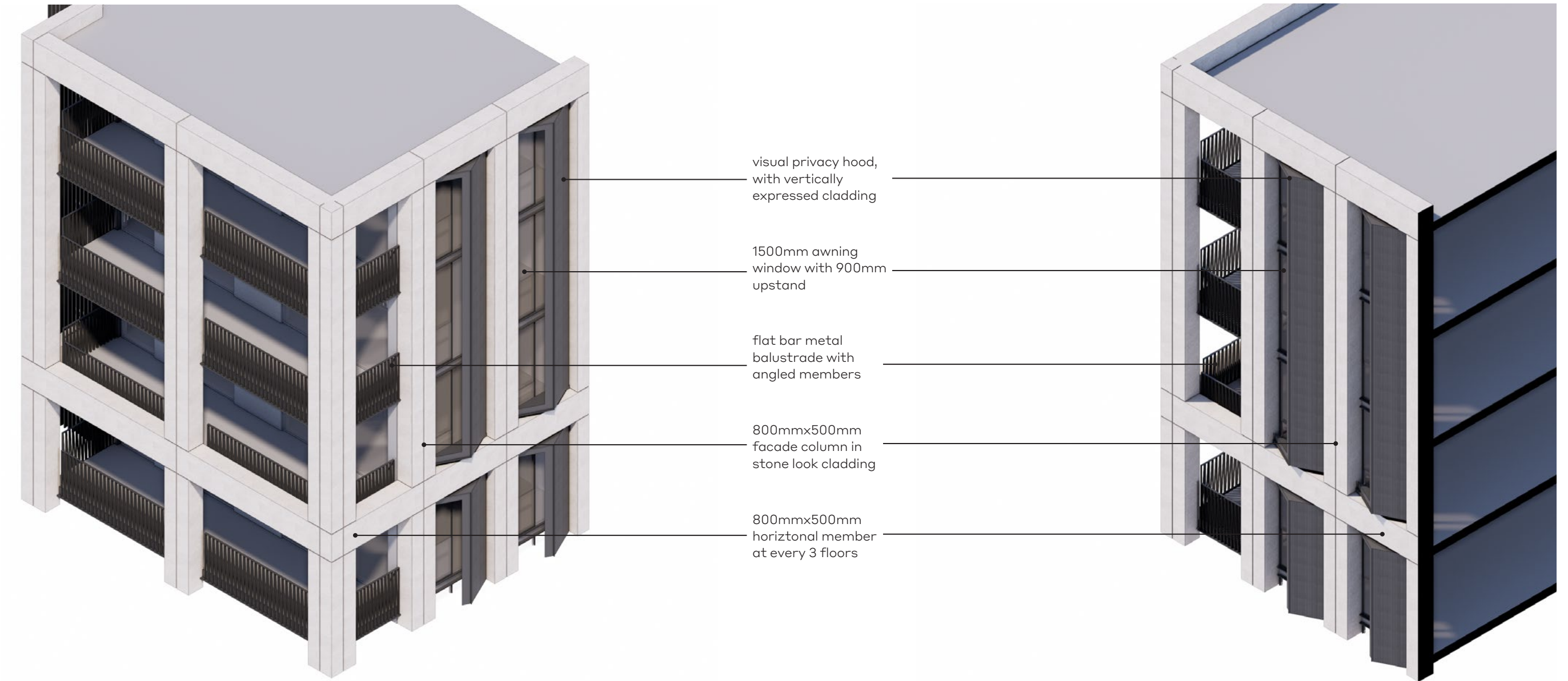
50% shading factor screens



Angled flat bar balustrade

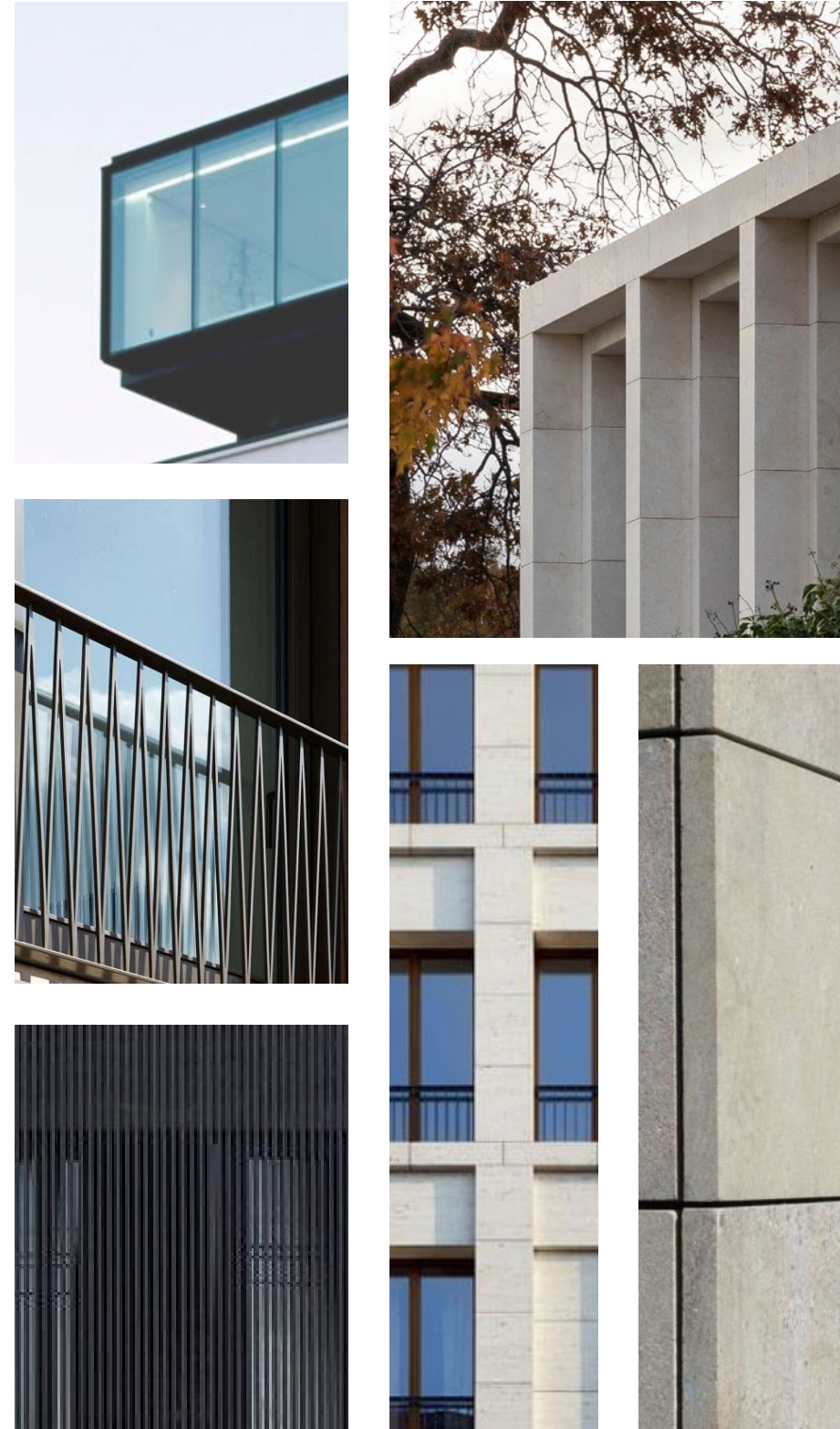
3D Axonometric Diagram

05.03 Facade Detail Axonometric Views



05.03 Facade Detail

Street Elevations - Street Facing Facade / Main Entry

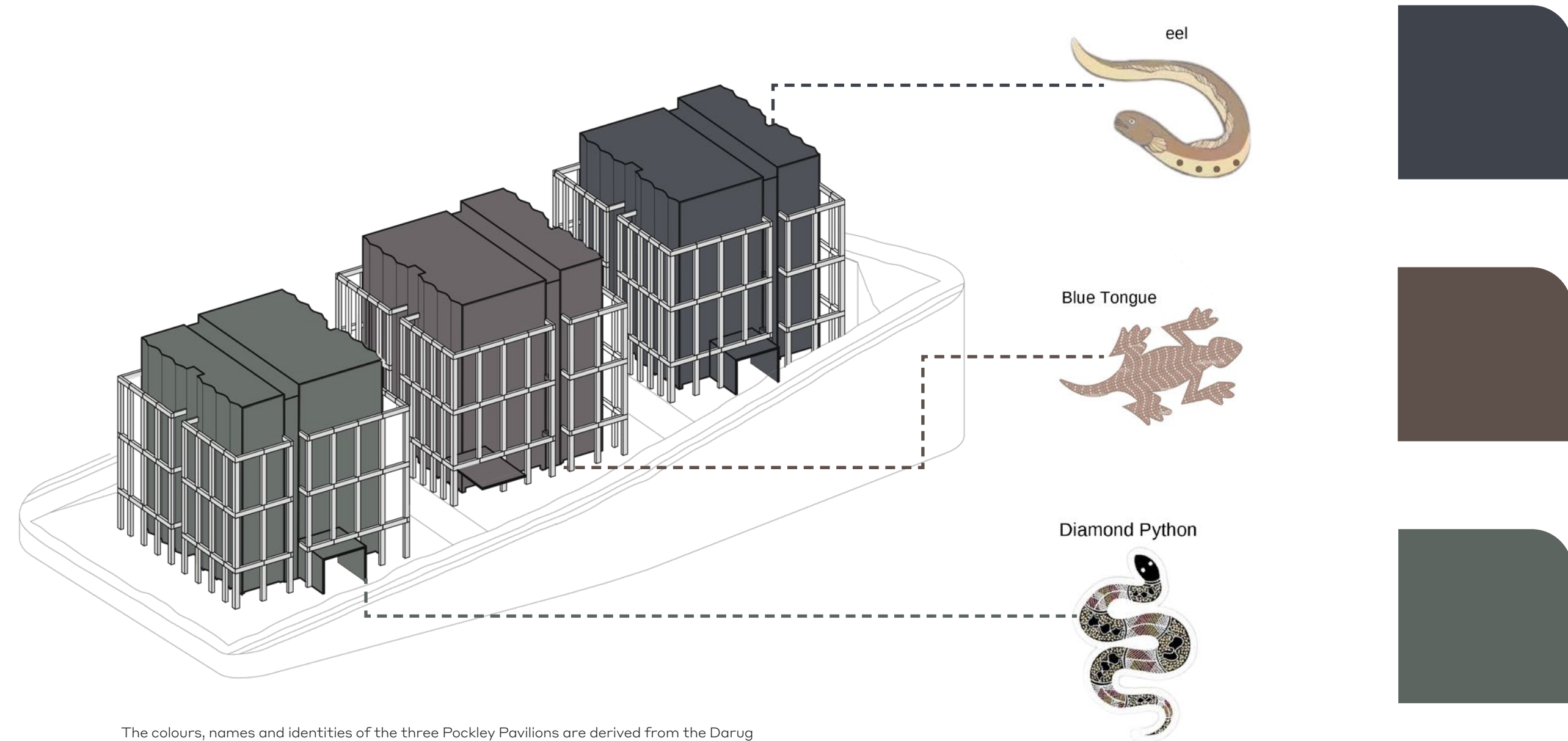


05.03 Facade Detail



05.04 Facade - Connecting with Country

Exploring Country Themes to Create Identity



The colours, names and identities of the three Pockley Pavilions are derived from the Darug understanding of the seasonal calendar. The three native, locally endemic animals each associated with one of the pavilions has a specific relationship with one of the Darug seasons; the eel to the *Yauruga Burra* (hot and thirsty), the blue tongue to *Bunul Marray* (warm and wet) and the diamond python to *Dugara Guwara* (cold and windy).

05.05 Sustainability



Sustainable Materials Strategy

Materials selection considering embodied carbon, health, environmental and social responsibility, durability, life cycle.

Design for Disassembly (DfD)

Consider elements to be DfD in envelope and interiors, according to expected life cycle.

Materials Reuse

Excavation materials, sandstone to be reused in Gabion Walls



Access to daylight

Maximised daylight access to amenities, communal spaces

Occupant Comfort and Air Quality

Maximise visual, thermal and acoustic comfort as well as Indoor Air Quality in the units through evidence-based design and materials selection

Biophilic Design

Communal areas to include green spaces, natural daylight, natural patterns and materials to incorporate a sense of place and history.



Connectivity

Close connection to Sydney's green grid, access to nature

Transit Oriented Development

Developed within close proximity to Roseville transport hub, encouraging use of public transport networks



Biodiversity

Maximise opportunities for vegetation at ground plane, siting the development within the landscape. Landscaping sensitive to local Blue Gum High Forest context, creating habitats for local species.



Energy Generation

On site PV array located on building roofs

Towards Net Zero

All electric, 100% energy from renewables, 100% fossil fuel free

Building Management Systems

Smart controls inbuilt within the BMS for HVAC and lighting, and monitor energy and water usage.

Natural Ventilation

Corridors, lobbies and carparks naturally ventilated where possible

Electric Vehicle Charging

Electric charging for personal automobiles



Facade Optimisation

Facade isolation has been reduced through a combination of depth and shape or facade's articulation design, as well as additional shading elements to east and west primarily.

East - Vertical facade elements, including stone blades and shading screens, reduce heat gain to facade.

North - Deep balconies across the whole of the Northern facade, blocking summer sun while allowing winter sun to hit the fenestration.

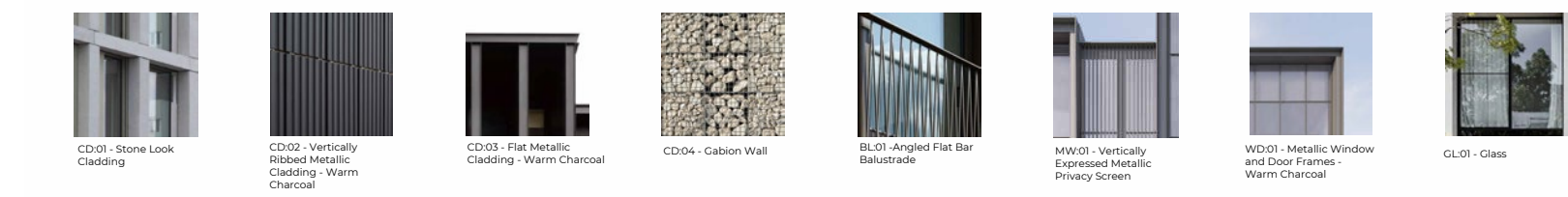
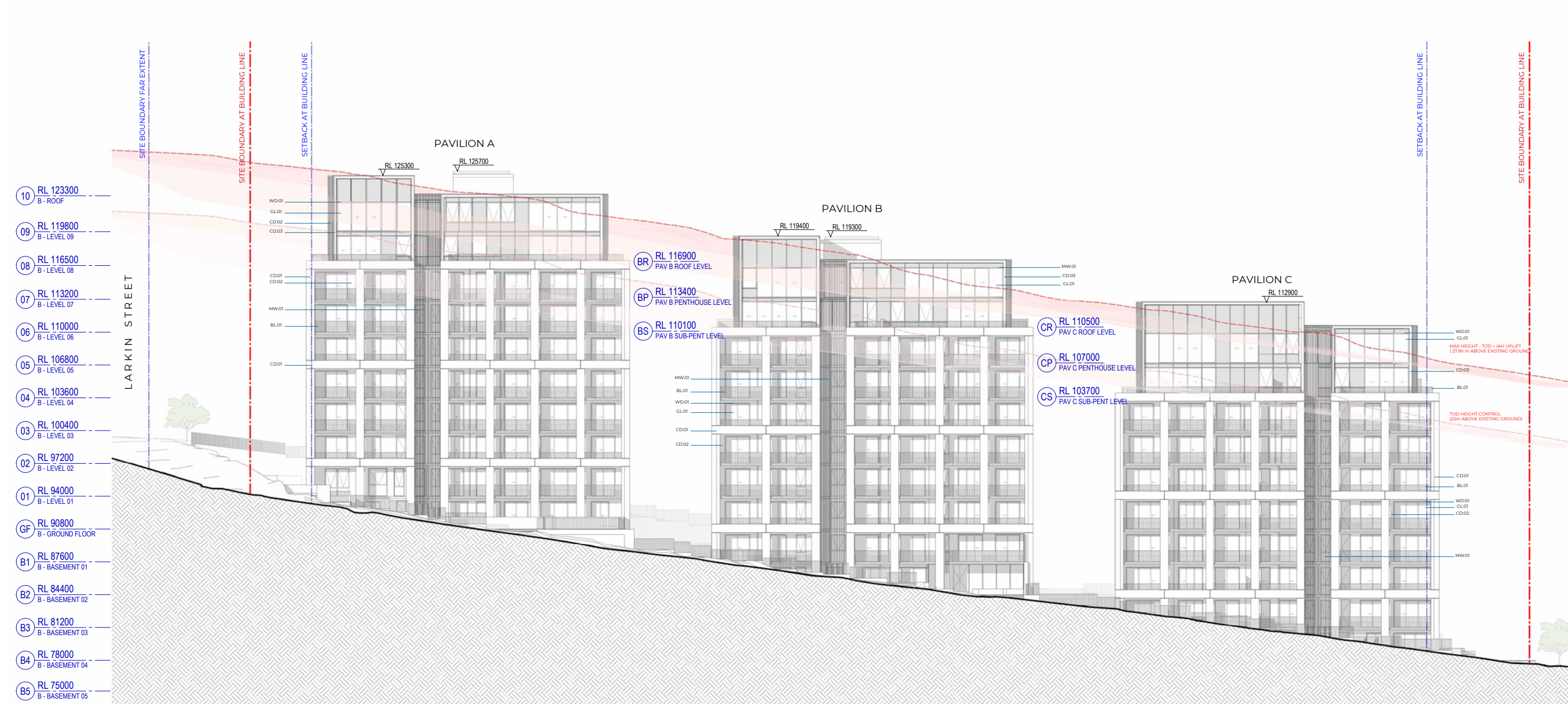
West - Vertical facade elements, including stone blades and shading screens, reduce heat gain to facade.



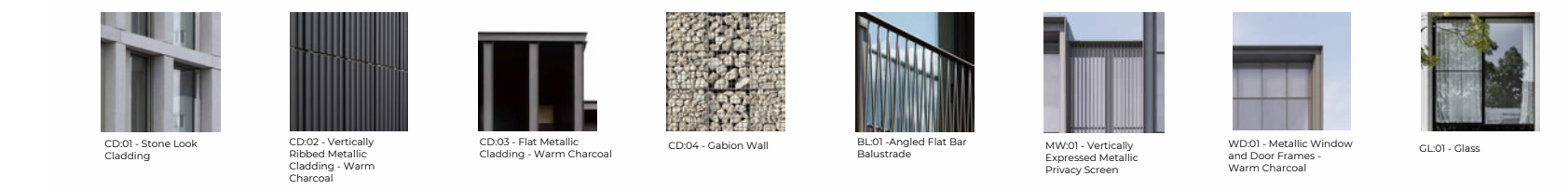
Water Management

Reduce water consumption in process water and water fixtures. Rainwater collection and reuse

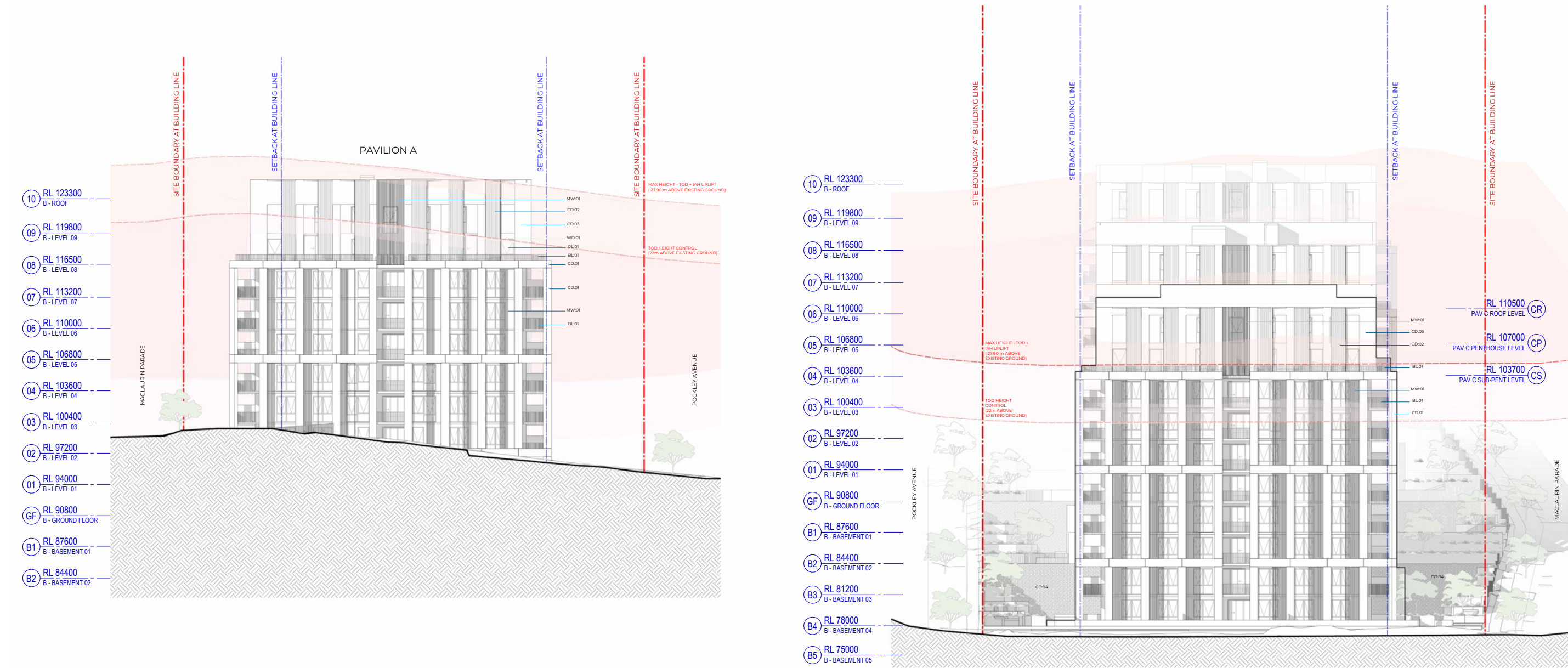
05.06 Facade Materiality North Elevation





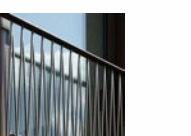

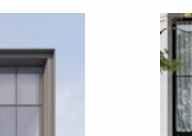



05.06 Facade Materiality South Elevation



05.06 Facade Materiality East & West Elevation



- 
CD01 - Stone Look Cladding
- 
CD02 - Vertically Ribbed Metallic Cladding - Warm Charcoal
- 
CD03 - Flat Metallic Cladding - Warm Charcoal
- 
CD04 - Cobble Wall
- 
BL01 - Angled Flat Bar Balustrade
- 
MW01 - Vertically Exposed Metallic Privacy Screen
- 
WD01 - Metallic Window and Door Frames - Warm Charcoal
- 
CL01 - Glass

06

Schedules

06.01 GFA Schedule

06.02 Unit Compliance Breakdown

06.01 Area Schedule GFA Breakdown

Site Area 6,532 sqm				PAVILION C			PAVILION B			PAVILION A			
				Ground RL	78.0m		Ground RL	84.4m		Ground RL	90.8m		
				Roof RL	110.0m		Roof RL	116.5m		Roof RL	123.3m		
				Height	32m		Height	32m		Height	33m		
Base Level	FI To FI	RL	Use	GFA AFH	GFA BTS	Total GFA	GFA AFH	GFA BTS	Total GFA	GFA AFH	GFA BTS	Total GFA	
Roof	2	123.3	Plant	144									
Level 9	3.5	119.8	Residential	733						619		619	
Level 8	3.3	116.5	Residential	1129						619		619	
Level 7	3.3	113.2	Residential	1708						724		724	
Level 6	3.2	110.0	Residential	2103						724		724	
Level 5	3.2	106.6	Residential	2674	620	620				724		724	
Level 4	3.2	103.6	Residential	2939	620	620				189	535	724	
Level 3	3.2	100.4	Residential	2944	724	724	107	619	726	189	535	724	
Level 2	3.2	97.2	Residential	2944	161	563	724	107	619	189	535	724	
Level 1	3.2	94.0	Residential	2944	354	369	723	107	619	100	555	655	
Ground Floor	3.2	90.8	Residential	3130	354	369	723	107	619	17	679	696	
Level B01	3.2	87.6	Parking Services Residential	3121	354	369	723	117	516				
Level B02	3.2	84.4	Parking Residential	3374	354	369	723	19	540				
Level B03	3.2	81.2	Parking Residential	3614	354	369	723						
Level B04	3.2	78.0	Parking Residential	3012	16	672	688						
Level B05	3	75.0	Parking	2018									
Level B06	3	72.0	Parking	1544									
Level B07	3	69.0	Parking	1544									
Totals				36,513	1,948	5,043	6,991	565	6,263	6,828	684	6,377	7,061

Development Summary:	
Proposed Total GFA:	20,702 sqm
Proposed Total AFH GFA	3,188 sqm
Proposed FSR:	3.17 -1
TOD AFH GFA (2%)	414 sqm
SEPP IAH GFA	2,774 sqm
SEPP IAH % For Uplift	13.40% *
Bonus FSR Uplift Achieved	0.67
Max Permissible FSR	3.17
Max Permissible Building Height	27.90 m

Area Type [Resi]	Percent	Amount	FSR
GFA AFH	15.40%	3,188	
GFA BTS	85%	17,514	
GFA	100%	20,702	3.17

*Includes 15.4% of common area (corridors + Internal community room)

06.02 Apartment Compliance Schedule Summary Of Key Criteria Compliance

BASEMENT 04	UNIT NO.	UNIT TYPE	4A Solar: Design Criteria 1	4A Solar: Design Criteria 2	4B Natural Ventilation	4D-1 Apartment sizes	4D-2 Maximum habitable room depth	4D-3 Living room sizes & dimensions	4E-1 Balcony / Private Open Space min size & dimensions	4G-1 Storage min volume	4G-1 Storage cages (less than 50% of total)	Storage volume proposed within the Unit (m ³)
	C.GR.01	3 BED Courtyard	Yes	Yes	Yes	Yes	No	Yes	Yes	No	Yes	8.32
	C.GR.02	3 BED Courtyard	No	No	Yes	Yes	Yes	Yes	Yes	No	Yes	9.13
	C.GR.03	2 BED Courtyard	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	11.01
	C.GR.04	2 BED Courtyard	No	Yes	No	Yes	No	No	Yes	Yes	Yes	14.08
	C.GR.05	2 BED Courtyard	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	9.43
	C.GR.06	2 BED Courtyard	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	10.13
TOTAL	6											
BASEMENT 03	UNIT NO.	UNIT TYPE	4A Solar: Design Criteria 1	4A Solar: Design Criteria 2	4B Natural Ventilation	4D-1 Apartment sizes	4D-2 Maximum habitable room depth	4D-3 Living room sizes & dimensions	4E-1 Balcony / Private Open Space min size & dimensions	4G-1 Storage min volume	4G-1 Storage cages (less than 50% of total)	Storage volume proposed within the Unit (m ³)
	C.01.01	1 BED - A	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	12.8
	C.01.02	1 BED - A	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	6.86
	C.01.03	3 BED	No	No	Yes	Yes	Yes	Yes	Yes	No	Yes	8.32
	C.01.04	2 BED - A	No	No	No	Yes	No	Yes	Yes	Yes	Yes	10.13
	C.01.05	2 BED	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	11.01
	C.01.06	1 BED - A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	6.99
	C.01.07	3 BED	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	22.52
	C.01.08	1 BED - A	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	12.8
TOTAL	8											
BASEMENT 02	UNIT NO.	UNIT TYPE	4A Solar: Design Criteria 1	4A Solar: Design Criteria 2	4B Natural Ventilation	4D-1 Apartment sizes	4D-2 Maximum habitable room depth	4D-3 Living room sizes & dimensions	4E-1 Balcony / Private Open Space min size & dimensions	4G-1 Storage min volume	4G-1 Storage cages (less than 50% of total)	Storage volume proposed within the Unit (m ³)
	B.GR.01	3 BED Courtyard	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	17.15
	B.GR.02	3 BED Courtyard	No	No	Yes	Yes	Yes	Yes	Yes	No	Yes	17.15
	B.GR.03	2 BED Courtyard	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	11.56
	B.GR.04	2 BED Courtyard	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes	15.33
	C.02.01	1 BED - A	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	12.8
	C.02.02	1 BED - A	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	6.86
	C.02.03	3 BED	No	No	Yes	Yes	Yes	Yes	Yes	No	Yes	8.32
	C.02.04	2 BED - A	No	No	No	Yes	No	Yes	Yes	Yes	Yes	10.13
	C.02.05	2 BED	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	11.01
	C.02.06	1 BED - A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	6.99
	C.02.07	3 BED	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	22.52
	C.02.08	1 BED - A	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	12.8
TOTAL	12											
BASEMENT 01	UNIT NO.	UNIT TYPE	4A Solar: Design Criteria 1	4A Solar: Design Criteria 2	4B Natural Ventilation	4D-1 Apartment sizes	4D-2 Maximum habitable room depth	4D-3 Living room sizes & dimensions	4E-1 Balcony / Private Open Space min size & dimensions	4G-1 Storage min volume	4G-1 Storage cages (less than 50% of total)	Storage volume proposed within the Unit (m ³)
	B.01.01	3 BED	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	17.15
	B.01.02	3 BED	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	12.59
	B.01.03	2 BED - A	No	No	No	Yes	No	Yes	Yes	Yes	Yes	19.47
	B.01.04	3 BED	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	17.15
	B.01.05	2 BED	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes	15.33
	C.03.01	1 BED - A	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	12.8
	C.03.02	1 BED - A	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	6.86
	C.03.03	3 BED	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	8.32
	C.03.04	2 BED - A	No	No	No	Yes	No	Yes	Yes	Yes	Yes	10.13
	C.03.05	2 BED	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	11.01
	C.03.06	1 BED - A	No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	6.99
	C.03.07	3 BED	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	22.52
	C.03.08	1 BED - A	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	12.8
TOTAL	13											

06.02 Apartment Compliance Schedule

Summary Of Key Criteria Compliance

GROUND FLOOR	UNIT NO.	UNIT TYPE	4A Solar: Design Criteria 1	4A Solar: Design Criteria 2	4B Natural Ventilation	4D-1 Apartment sizes	4D-2 Maximum habitable room depth	4D-3 Living room sizes & dimensions	4E-1 Balcony / Private Open Space min size & dimensions	4G-1 Storage min volume	4G-1 Storage cages (less than 50% of total)	Storage volume proposed within the Unit (m ³)
A.GR.01	2 BED	Courtyard	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes	10.13
A.GR.02	3 BED TH	Townhouse Duplex	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	21.32
A.GR.03	3 BED TH	Townhouse Duplex	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	24.79
A.GR.04	3 BED TH	Townhouse Duplex	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	21.32
A.GR.05	3 BED	Courtyard	No	No	Yes	Yes	Yes	Yes	Yes	No	Yes	8.32
A.GR.06	3 BED	Courtyard	Yes	Yes	Yes	Yes	No	Yes	Yes	No	Yes	8.32
B.02.01	3 BED		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	17.15
B.02.02	3 BED		No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	17.15
B.02.03	2 BED - A		No	No	No	Yes	No	Yes	Yes	Yes	Yes	15.37
B.02.04	3 BED		No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	17.15
B.02.05	3 BED		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	17.15
B.02.06	2 BED		Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes	15.33
C.04.01	1 BED - A		Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	12.8
C.04.02	1 BED - A		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	6.86
C.04.03	3 BED		No	No	Yes	Yes	Yes	Yes	No	Yes	Yes	8.32
C.04.04	2 BED - A		No	No	No	Yes	No	Yes	Yes	Yes	Yes	10.13
C.04.05	2 BED		No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	11.01
C.04.06	1 BED - A		No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	6.99
C.04.07	3 BED		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	22.52
C.04.08	1 BED - A		Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	12.8
TOTAL	20											
LEVEL 01	UNIT NO.	UNIT TYPE	4A Solar: Design Criteria 1	4A Solar: Design Criteria 2	4B Natural Ventilation	4D-1 Apartment sizes	4D-2 Maximum habitable room depth	4D-3 Living room sizes & dimensions	4E-1 Balcony / Private Open Space min size & dimensions	4G-1 Storage min volume	4G-1 Storage cages (less than 50% of total)	Storage volume proposed within the Unit (m ³)
A.01.01	2 BED		Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes	10.13
A.01.02	2 BED - A		No	No	Yes	Yes	No	Yes	Yes	Yes	Yes	10.13
A.01.03	3 BED		No	No	Yes	Yes	Yes	Yes	No	Yes	Yes	14.08
A.01.04	3 BED		Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	Yes	8.32
A.01.05	3 BED TH	Townhouse Duplex	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	21.32
A.01.06	3 BED TH	Townhouse Duplex	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	24.79
B.03.01	3 BED		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	17.15
B.03.02	3 BED		No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	17.15
B.03.03	2 BED - A		No	No	No	Yes	No	Yes	Yes	Yes	Yes	15.37
B.03.04	3 BED		No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	17.15
B.03.05	3 BED		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	17.15
B.03.06	2 BED		Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes	15.33
C.05.01	1 BED - A		Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	12.8
C.05.02	1 BED - A		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	6.86
C.05.03	3 BED		No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	8.32
C.05.04	2 BED - A		No	No	No	Yes	No	Yes	Yes	Yes	Yes	10.13
C.05.05	3 BED		No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	11.01
C.05.06	1 BED - A		No	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	6.99
C.05.07	2 BED		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	22.52
C.05.08	2 BED - A		Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	12.8
TOTAL	18											

06.02 Apartment Compliance Schedule

Summary Of Key Criteria Compliance

LEVEL 02	UNIT NO.	UNIT TYPE	4A Solar: Design Criteria 1	4A Solar: Design Criteria 2	4B Natural Ventilation	4D-1 Apartment sizes	4D-2 Maximum habitable room depth	4D-3 Living room sizes & dimensions	4E-1 Balcony / Private Open Space min size & dimensions	4G-1 Storage min volume	4G-1 Storage cages (less than 50% of total)	Storage volume proposed within the Unit (m ³)
A.02.01	2 BED		Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes	10.13
A.02.02	2 BED		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	11.01
A.02.03	2 BED - A		Yes	Yes	No	Yes	Yes	No	No	Yes	Yes	14.08
A.02.04	2 BED		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	11.01
A.02.05	2 BED - A		No	No	No	Yes	No	Yes	Yes	Yes	Yes	16.1
A.02.06	3 BED		No	No	Yes	Yes	Yes	Yes	Yes	No	Yes	8.32
A.02.07	3 BED		Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	8.32
B.04.01	3 BED		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	17.15
B.04.02	3 BED		No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	17.15
B.04.03	2 BED - A		No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	15.33
B.04.04	3 BED		No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	15.33
B.04.05	3 BED		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	15.33
B.04.06	2 BED		Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes	15.33
C.06.01	3 BED		Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	8.32
C.06.02	3 BED		No	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	8.32
C.06.03	2 BED - A		No	No	No	Yes	No	Yes	Yes	Yes	Yes	10.13
C.06.04	2 BED		No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	11.01
C.06.05	2 BED - A		No	Yes	No	Yes	No	No	No	Yes	Yes	14.08
C.06.06	2 BED		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	9.83
C.06.07	2 BED		Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes	10.13
TOTAL	20											
LEVEL 03	UNIT NO.	UNIT TYPE	4A Solar: Design Criteria 1	4A Solar: Design Criteria 2	4B Natural Ventilation	4D-1 Apartment sizes	4D-2 Maximum habitable room depth	4D-3 Living room sizes & dimensions	4E-1 Balcony / Private Open Space min size & dimensions	4G-1 Storage min volume	4G-1 Storage cages (less than 50% of total)	Storage volume proposed within the Unit (m ³)
A.03.01	2 BED		Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes	10.13
A.03.02	2 BED		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	11.01
A.03.03	2 BED - A		Yes	Yes	No	Yes	Yes	No	No	Yes	Yes	14.08
A.03.04	2 BED		Yes	Yes	No	Yes	Yes	Yes	Yes	Yes	Yes	11.01
A.03.05	2 BED - A		No	No	Yes	Yes	No	Yes	Yes	Yes	Yes	16.1
A.03.06	3 BED		No	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	8.32
A.03.07	3 BED		Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	8.32
B.05.01	3 BED		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	17.15
B.05.02	3 BED		No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	17.15
B.05.03	2 BED - A		No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	15.33
B.05.04	3 BED		No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	15.33
B.05.05	3 BED		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	15.33
B.05.06	2 BED		Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes	15.33
C.07.01	3 BED		Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	8.32
C.07.02	3 BED		No	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	8.32
C.07.03	2 BED		No	No	No	Yes	Yes	No	Yes	Yes	Yes	10.13
C.07.04	2 BED		No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	11.01
C.07.05	2 BED		No	Yes	No	Yes	No	No	No	Yes	Yes	14.08
C.07.06	2 BED		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	9.83
C.07.07	2 BED		Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes	10.13
TOTAL	20											
LEVEL 04	UNIT NO.	UNIT TYPE	4A Solar: Design Criteria 1	4A Solar: Design Criteria 2	4B Natural Ventilation	4D-1 Apartment sizes	4D-2 Maximum habitable room depth	4D-3 Living room sizes & dimensions	4E-1 Balcony / Private Open Space min size & dimensions	4G-1 Storage min volume	4G-1 Storage cages (less than 50% of total)	Storage volume proposed within the Unit (m ³)
A.04.01	2 BED		Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes	10.13
A.04.02	2 BED		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	11.01
A.04.03	2 BED - A		Yes	Yes	No	Yes	No	Yes	No	Yes	Yes	14.08
A.04.04	2 BED		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	11.01
A.04.05	2 BED - A		No	No	No	Yes	No	Yes	Yes	Yes	Yes	16.1
A.04.06	3 BED		No	No	Yes	Yes	Yes	Yes	Yes	No	Yes	8.32
A.04.07	3 BED		Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	8.32
B.06.01	3 BED		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	17.15
B.06.02	3 BED		No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	17.15
B.06.03	2 BED		No	No	No	Yes	No	Yes	Yes	Yes	Yes	15.33
B.06.04	3 BED		No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	15.33
B.06.05	3 BED		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	15.33
B.06.06	2 BED		Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes	15.33
C.08.01	3 BED		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	14.28
C.08.02	3 BED		No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	14.28
C.08.03	3 BED		No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	25.29
C.08.04	3 BED		Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	25.29
TOTAL	17											

06.02 Apartment Compliance Schedule

Summary Of Key Criteria Compliance

LEVEL 05	UNIT NO.	UNIT TYPE	4A Solar: Design Criteria 1	4A Solar: Design Criteria 2	4B Natural Ventilation	4D-1 Apartment sizes	4D-2 Maximum habitable room depth	4D-3 Living room sizes & dimensions	4E-1 Balcony / Private Open Space min size & dimensions	4G-1 Storage min volume	4G-1 Storage cages (less than 50% of total)	Storage volume proposed within the Unit (m ³)
	A.05.01	2 BED	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes	10.13
	A.05.02	2 BED	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	11.01
	A.05.03	2 BED	Yes	Yes	No	Yes	No	No	No	Yes	Yes	14.08
	A.05.04	2 BED	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	11.01
	A.05.05	2 BED	No	No	No	Yes	No	Yes	Yes	Yes	Yes	16.1
	A.05.06	3 BED	No	No	Yes	Yes	Yes	Yes	Yes	No	Yes	8.32
	A.05.07	3 BED	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	8.32
	B.07.01	3 BED	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	17.15
	B.07.02	3 BED	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	17.15
	B.07.03	2 BED	No	No	No	Yes	No	Yes	Yes	Yes	Yes	15.33
	B.07.04	3 BED	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	15.33
	B.07.05	3 BED	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	15.33
	B.07.06	2 BED	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes	15.33
	C.09.01	3 BED	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	13.62
	C.09.02	3 BED	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	13.62
	C.09.03	4 BED	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	33.34
TOTAL												16

LEVEL 06	UNIT NO.	UNIT TYPE	4A Solar: Design Criteria 1	4A Solar: Design Criteria 2	4B Natural Ventilation	4D-1 Apartment sizes	4D-2 Maximum habitable room depth	4D-3 Living room sizes & dimensions	4E-1 Balcony / Private Open Space min size & dimensions	4G-1 Storage min volume	4G-1 Storage cages (less than 50% of total)	Storage volume proposed within the Unit (m ³)
	A.06.01	2 BED	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes	10.13
	A.06.02	2 BED	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	11.01
	A.06.03	2 BED	Yes	Yes	No	Yes	No	No	No	Yes	Yes	14.08
	A.06.04	2 BED	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	11.01
	A.06.05	2 BED	No	No	No	Yes	No	Yes	Yes	Yes	Yes	16.1
	A.06.06	3 BED	No	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	8.32
	A.06.07	3 BED	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	8.32
	B.08.01	3 BED	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	12.46
	B.08.02	3 BED	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	12.46
	B.08.03	3 BED	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	14.84
	B.08.04	3 BED	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	14.84
TOTAL												11

LEVEL 07	UNIT NO.	UNIT TYPE	4A Solar: Design Criteria 1	4A Solar: Design Criteria 2	4B Natural Ventilation	4D-1 Apartment sizes	4D-2 Maximum habitable room depth	4D-3 Living room sizes & dimensions	4E-1 Balcony / Private Open Space min size & dimensions	4G-1 Storage min volume	4G-1 Storage cages (less than 50% of total)	Storage volume proposed within the Unit (m ³)
	A.07.01	2 BED	Yes	Yes	No	Yes	No	Yes	Yes	Yes	Yes	10.13
	A.07.02	2 BED	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	11.01
	A.07.03	2 BED	Yes	Yes	No	Yes	No	No	No	Yes	Yes	14.08
	A.07.04	2 BED	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	11.01
	A.07.05	2 BED	No	No	No	Yes	No	Yes	Yes	Yes	Yes	16.1
	A.07.06	3 BED	No	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	8.32
	A.07.07	3 BED	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes	8.32
	B.09.01	3 BED	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	18.26
	B.09.02	3 BED	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	18.26
	B.09.03	4 BED	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	36.89
TOTAL												10

LEVEL 08	UNIT NO.	UNIT TYPE	4A Solar: Design Criteria 1	4A Solar: Design Criteria 2	4B Natural Ventilation	4D-1 Apartment sizes	4D-2 Maximum habitable room depth	4D-3 Living room sizes & dimensions	4E-1 Balcony / Private Open Space min size & dimensions	4G-1 Storage min volume	4G-1 Storage cages (less than 50% of total)	Storage volume proposed within the Unit (m ³)
	A.08.01	3 BED	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	25.29
	A.08.02	3 BED	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	25.29
	A.08.03	3 BED	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	14.28
	A.08.04	3 BED	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	14.28
TOTAL												4

LEVEL 09	UNIT NO.	UNIT TYPE	4A Solar: Design Criteria 1	4A Solar: Design Criteria 2	4B Natural Ventilation	4D-1 Apartment sizes	4D-2 Maximum habitable room depth	4D-3 Living room sizes & dimensions	4E-1 Balcony / Private Open Space min size & dimensions	4G-1 Storage min volume	4G-1 Storage cages (less than 50% of total)	Storage volume proposed within the Unit (m ³)
	A.09.01	4 BED	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	13.62
	A.09.02	3 BED	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	13.62
	A.09.03	3 BED	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	33.34
TOTAL												3

TOTALS	UNITS
	178

Compliance

07.01	Building Height
07.02	Neighbouring Development
07.03	Solar Access
07.04	Cross Ventilation
07.05	Shadow Diagrams
07.06	Livable Housing Units

07.01 Building Height Height Control

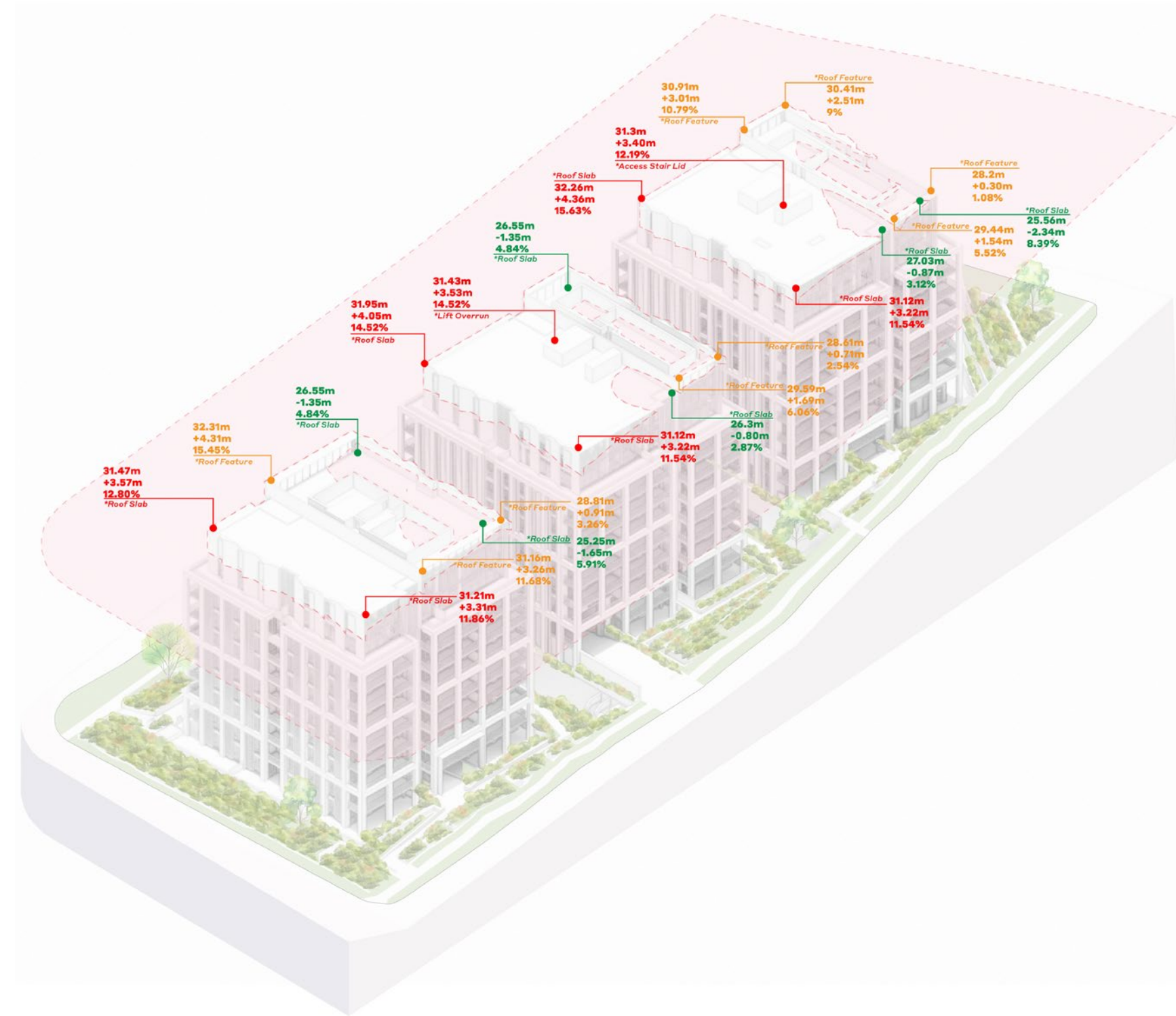
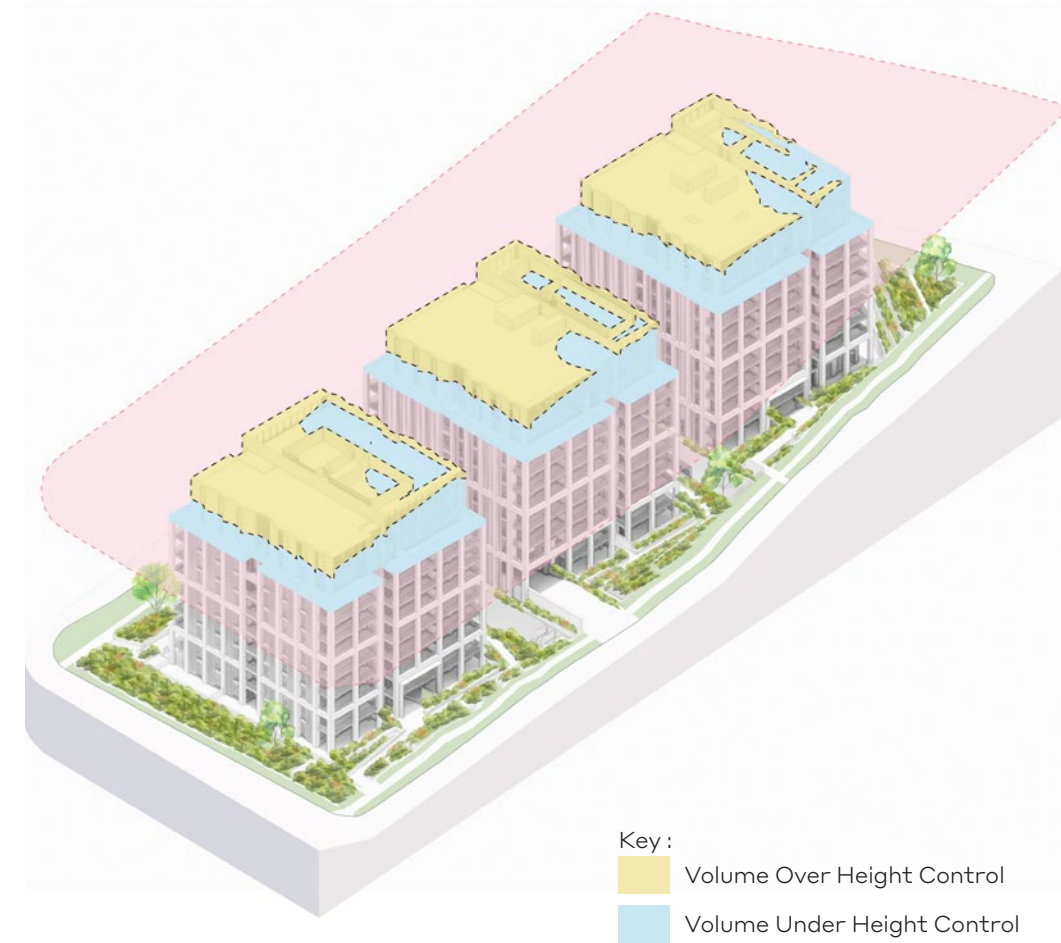
Height Control

Total Upper Storeys Volume : 20,664m³

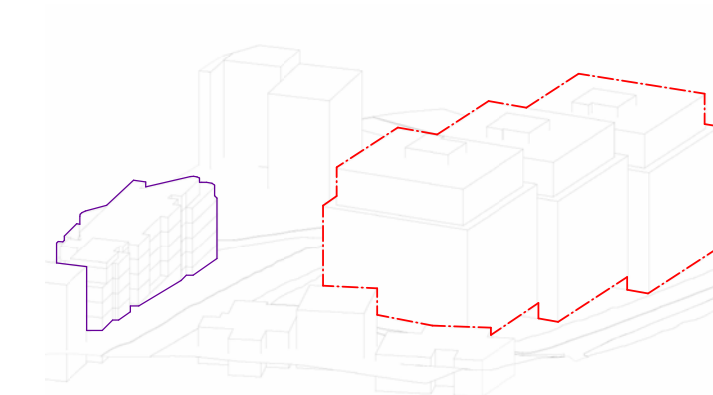
Total Volume Over Height Control : 3,354m³ (16% over)

Due to the complex nature of the site topography, the proposed pavilions step with the site slope in an effort to minimise any significant height complications. Additionally, all effort has been made to locate any roof elements such as lift overruns and all required plant equipment for the pavilions towards the East where the height control has more relief.

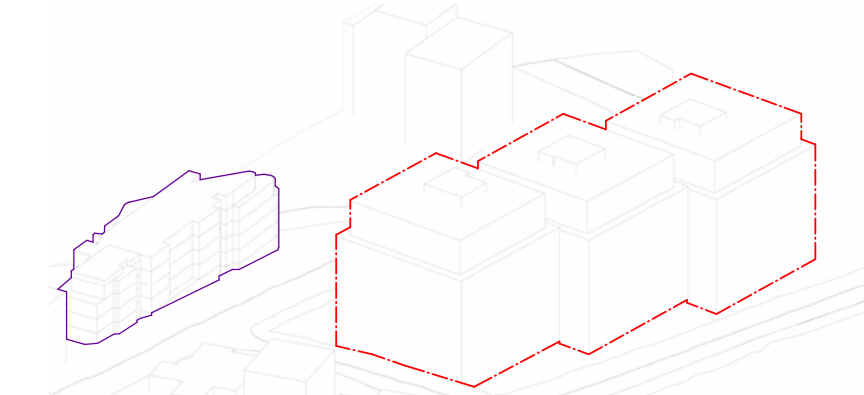
Accordingly, due to the plant being adjacent to residences in the next pavilion over, architectural roof features have been extended in order to provide visual and acoustic protection. These elements do breach the height control, however are not completely solid, and accompanying shadow studies have shown these do not prejudicially overshadow any neighbouring property.



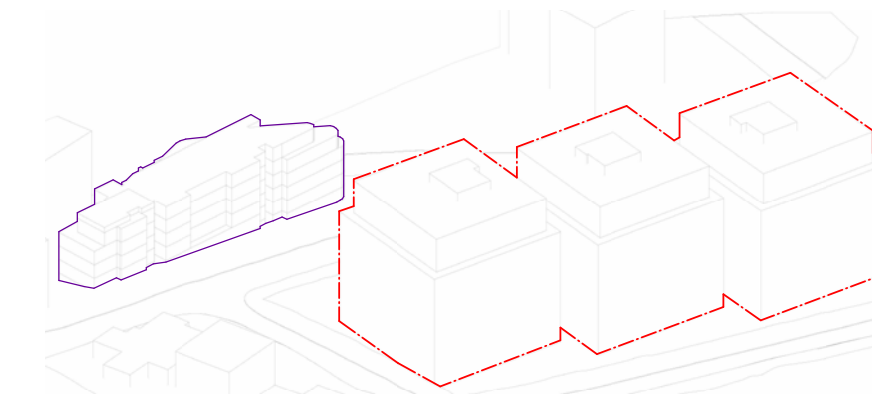
07.02 Neighbouring Development 4-10 Maclaurin Parade (Rosewood)



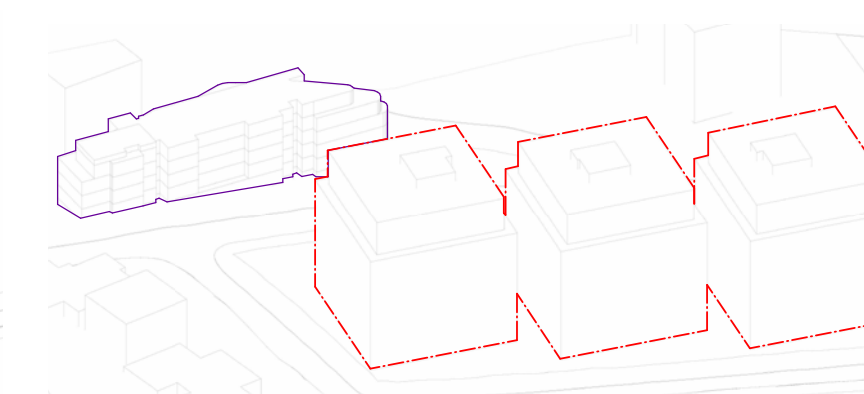
June 21 - 9am



June 21 - 10am

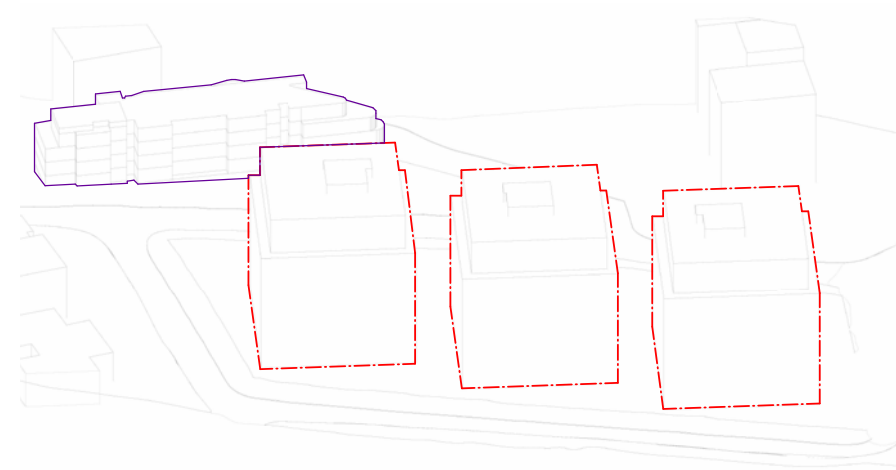


June 21 - 11am

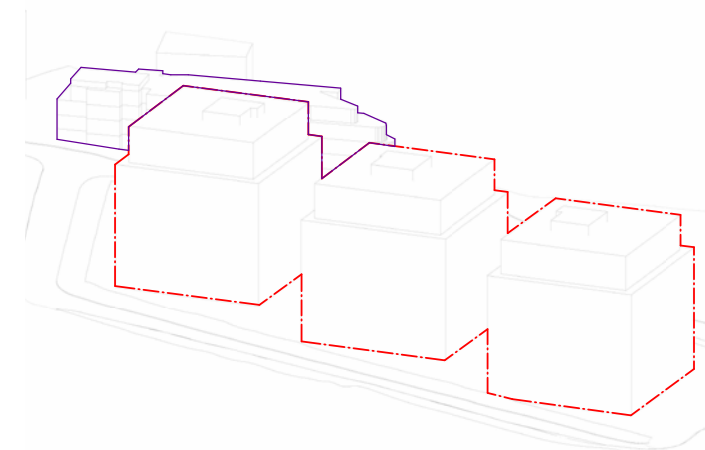


June 21 - 12pm

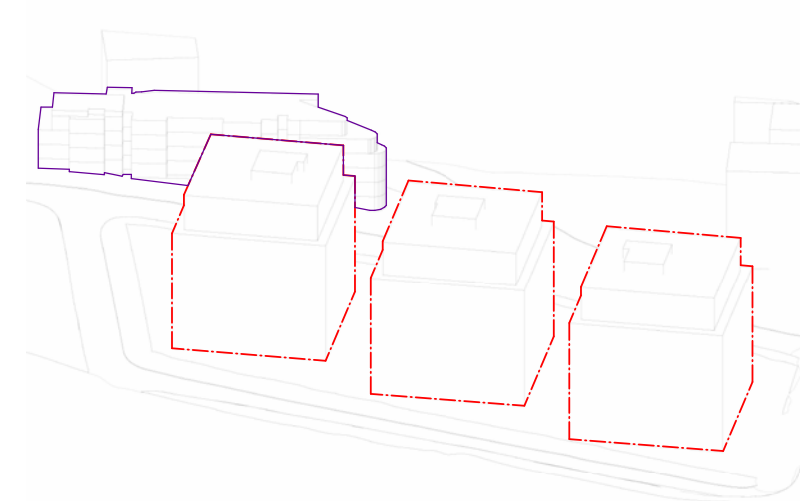
07.02 Rosewood - Neighbouring Development 8 Maclaurin Parade



June 21 - 1pm

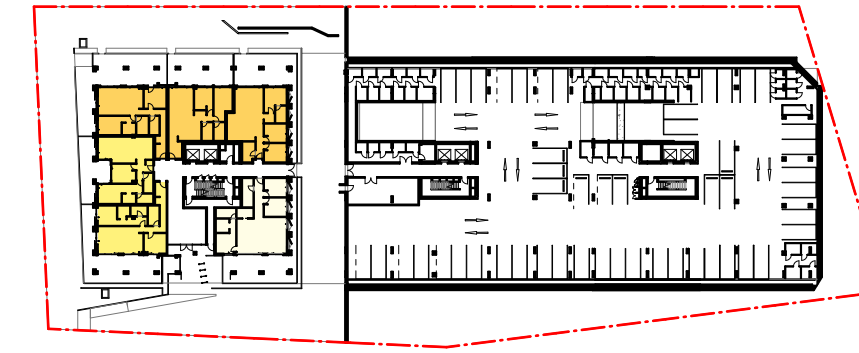


June 21 - 3pm

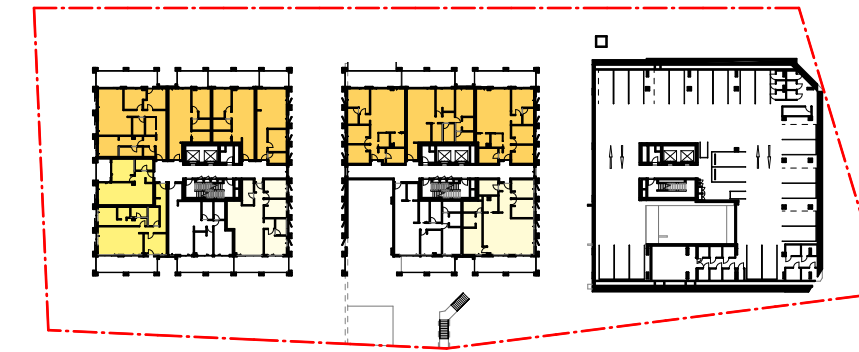


June 21 - 2pm

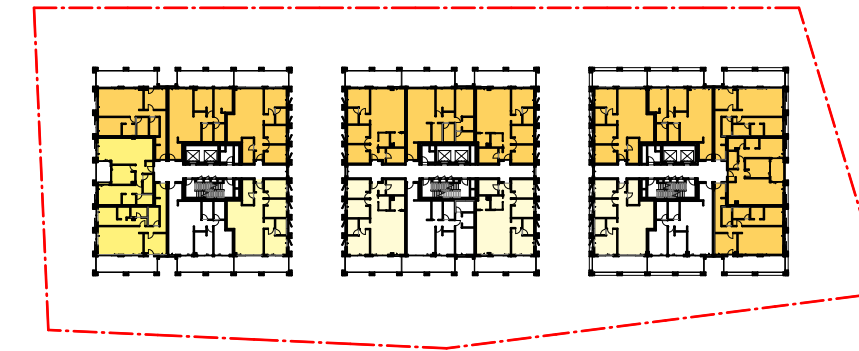
07.03 Solar Access



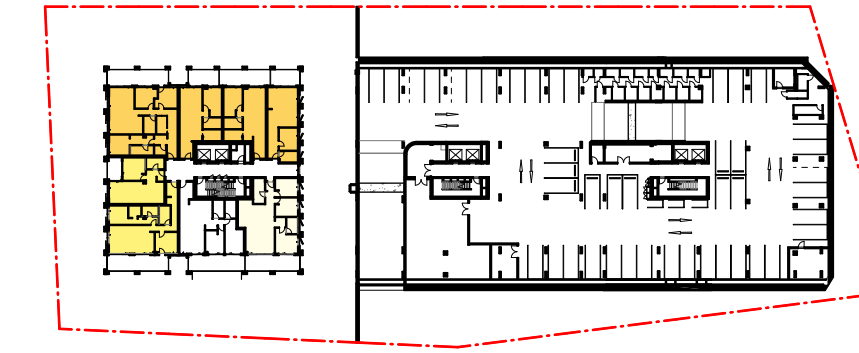
1 B - BASEMENT 04_Solar



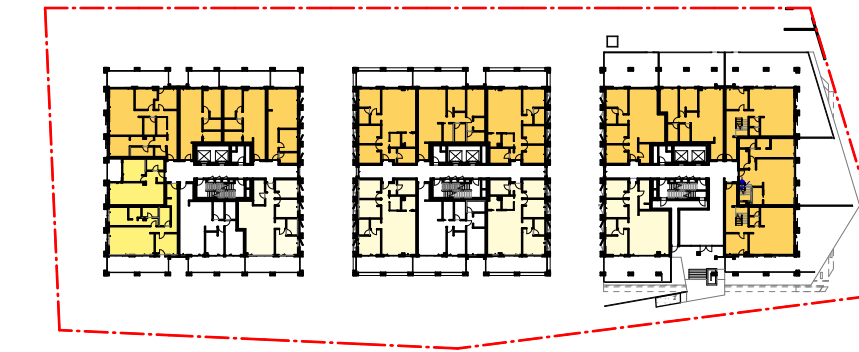
4 B - BASEMENT 01_Solar



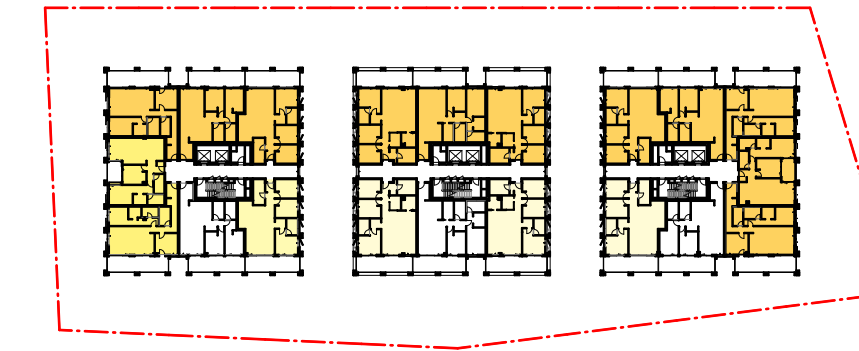
7 B - LEVEL 02_Solar



2 B - BASEMENT 03_Solar



5 B - GROUND FLOOR_Solar

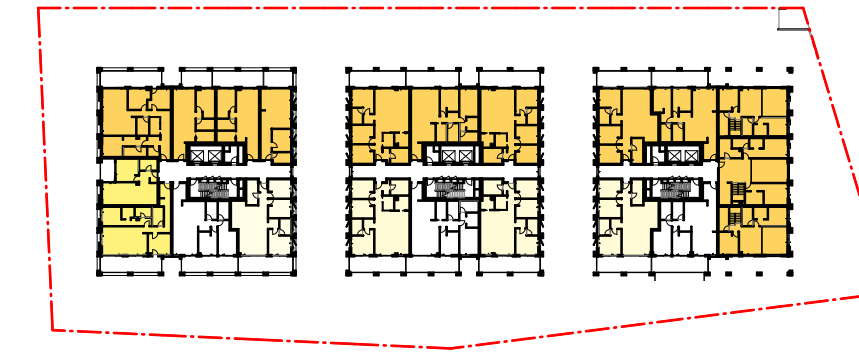


8 B - LEVEL 03_Solar

- Receives at least 2 hours sun between 9am-3pm on June 21.
- Receives at least 2 hours sun between 9am-4:30 pm on June 21.
- Receives sunlight.
- No direct sunlight. Receives increased daylight access due to dual aspect.



3 B - BASEMENT 02_Solar

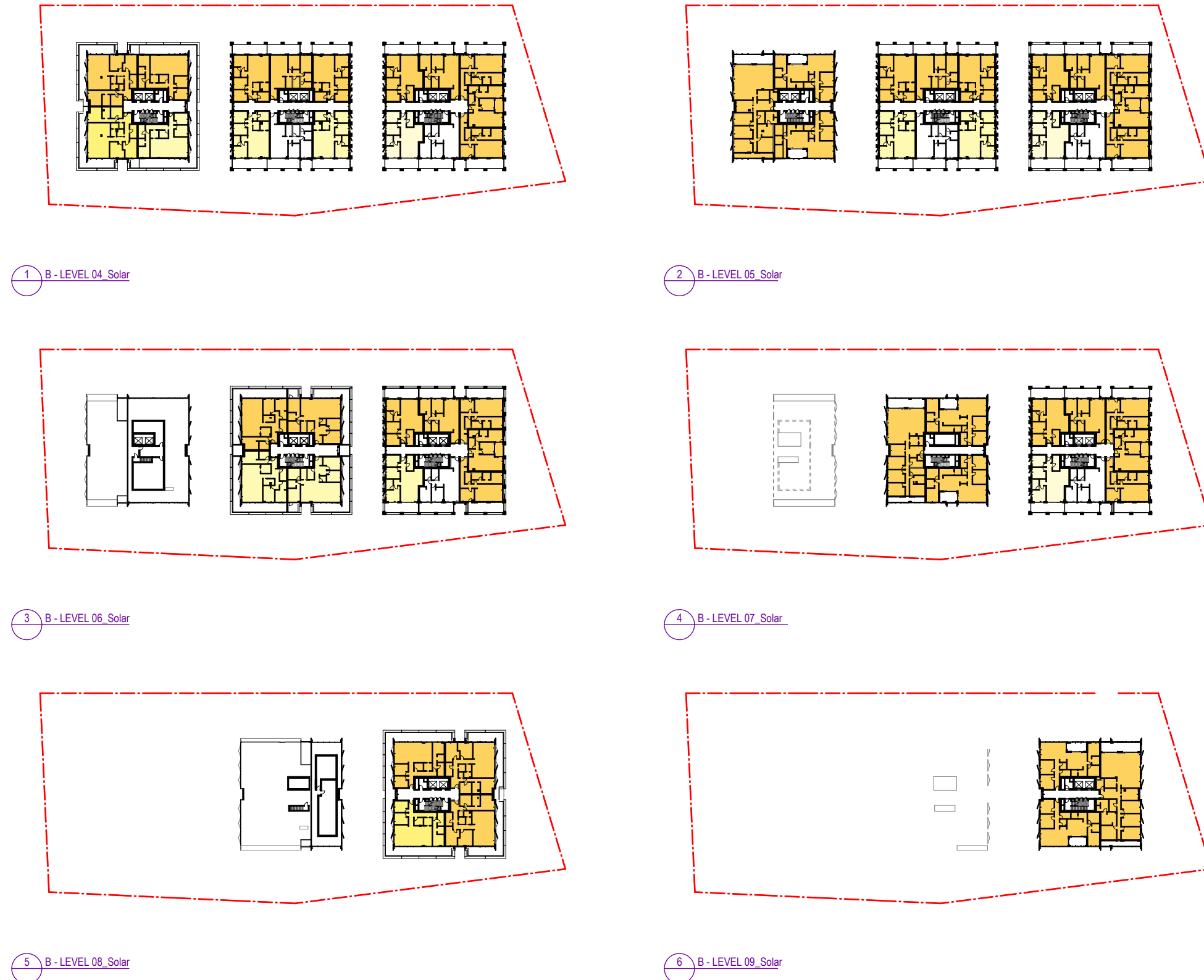


6 B - LEVEL 01_Solar

	SOLAR (HR F%) OVERALL 9am-3pm		SOLAR (HR F%) OVERALL 9am-4:30pm			
	Days	Total Adj	Days	Total Adj		
Roof						
Level 6	3	3	3	3	100%	
Level 5	3	4	75%	3	4	75%
Level 4	8	10	80%	8	10	80%
Level 3	7	11	64%	7	11	64%
Level 2	11	16	69%	11	16	69%
Level 1	10	17	59%	11	17	65%
Level 0	11	20	55%	13	20	65%
Level B01	11	20	55%	13	20	65%
Level B02	9	18	50%	11	18	61%
Ground Floor	12	20	60%	14	20	70%
Level B03	7	13	54%	9	13	69%
Level B04	6	12	50%	8	12	67%
Level B05	4	8	50%	6	8	75%
Level B06	3	6	50%	5	6	83%
Level B07						
Level B08						
Level B09						
Level B10						
Total	105	178	69%	122	178	69%

07.03 Solar Access

- Receives at least 2 hours sun between 9am-3pm on June 21.
- Receives at least 2 hours sun between 9am-4:30 pm on June 21.
- Receives sunlight.
- No direct sunlight. Receives increased daylight access due to dual aspect.



07.03 Solar Access

ADG Objective 4A-1

- Design Criteria 1 refers to living rooms and private open spaces of at least 70% of apartments to receive a minimum of 2 hours direct sunlight between 9am - 3pm at mid-winter (21 June)
- However, relevant to the last design guidance it is important to note that this specific proposed site at 2-16 Pockley Avenue, Roseville is heavily constrained
- The following detailed analysis of the impact of site orientation on direct sun access, aims to remediate the constraints and emphasise other high value characteristics of the design proposal such as maximising dual orientation apartments, and enabling good daylight access during the prescribed hours of 9am - 3pm at mid-winter (21 June)

Objective 4A-1

To optimise the number of apartments receiving sunlight to habitable rooms, primary windows and private open space

Design criteria

1. 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
2. In all other areas, living rooms and private open spaces of at least 70% of apartments in a building receive a minimum of 3 hours direct sunlight between 9 am and 3 pm at mid winter
3. A maximum of 15% of apartments in a building receive no direct sunlight between 9 am and 3 pm at mid winter

Design guidance

The design maximises north aspect and the number of single aspect south facing apartments is minimised

Single aspect, single storey apartments should have a northerly or easterly aspect

Living areas are best located to the north and service areas to the south and west of apartments

To optimise the direct sunlight to habitable rooms and balconies a number of the following design features are used:

- dual aspect apartments
- shallow apartment layouts
- two storey and mezzanine level apartments
- bay windows

To maximise the benefit to residents of direct sunlight within living rooms and private open spaces, a minimum of 1m² of direct sunlight, measured at 1m above floor level, is achieved for at least 15 minutes

Achieving the design criteria may not be possible on some sites. This includes:

- where greater residential amenity can be achieved along a busy road or rail line by orientating the living rooms away from the noise source
- on south facing sloping sites
- where significant views are oriented away from the desired aspect for direct sunlight

Design drawings need to demonstrate how site constraints and orientation preclude meeting the design criteria and how the development meets the objective



Apartment Design Guide

Tools for improving the design of residential apartment development

07.03 Solar Access

Project Overview

- Site is a South facing sloping site
- Significant views to the city and biodiversity zone are oriented South, away from the desired aspect for direct sunlight
- 59% of all units can receive 2 hours of direct sun on 21 June between 9am-3pm
- 69% of all units can receive 2 hours of direct sun on 21 June between 9am-4:30pm
- Due to site constraints, the building massing was divided a reasonably maximum amount of times to maximise number of dual aspect apartments
- 60% dual aspect apartments (106 of 178)

To optimise the direct sunlight to habitable rooms and balconies a number of the following design features are used:

- dual aspect apartments

Achieving the design criteria may not be possible on some sites. This includes:

- where greater residential amenity can be achieved along a busy road or rail line by orientating the living rooms away from the noise source
- on south facing sloping sites
- where significant views are oriented away from the desired aspect for direct sunlight

Design drawings need to demonstrate how site constraints and orientation preclude meeting the design criteria and how the development meets the objective

*Extract From ADG Design Guidance For Objective 4A-1



07.03 Solar Access

Access To Daylight - GBCA Green Star Pathway

- In addition to direct sunlight under the ADG which ensures that apartments have access to sunlight, GBCA's Green Star Pathway for Apartment Buildings outlines daylighting levels for apartments that support visual comfort for occupants
- This is particularly beneficial for high levels of direct sun that can cause glare and visual discomfort to occupants, especially those who face North and will have to intervene to reduce the glare and harsh bright light entering their apartments
- Typical minimum daylight levels to be achieved in habitable rooms (living and bedroom) is **160 Lux**
- Kitchen areas are not included
- The recommended measurement to calculate "daylight" is Daylight Autonomy - the total percentage of the tested floor area that achieves the minimum level (160 Lux) during nominated hours (in this case 9am - 3pm on 21 June)
- The following page outlines a 'typical' baseline floor plate (a 'shoebox') to analyse daylighting conditions of a typical apartment floor plate. The central pavilion was chosen as an appropriate base case analysis. More studies can be undertaken

Daylight levels

80% of apartment units meet 160Lux for 60% of the combined living and bedroom areas with each room achieving daylight for 20% of its area

The remaining 20% of apartment units must meet 160 lux for at least 40% of living and bedroom areas, with each room achieving daylight for 20% of its area

Kitchens are not included in the calculations.

Daylight must be calculated using Daylight Autonomy.

High levels of daylight

High levels of daylight are deemed to have at least 160 lux due to daylight during 80% of the nominated hours.

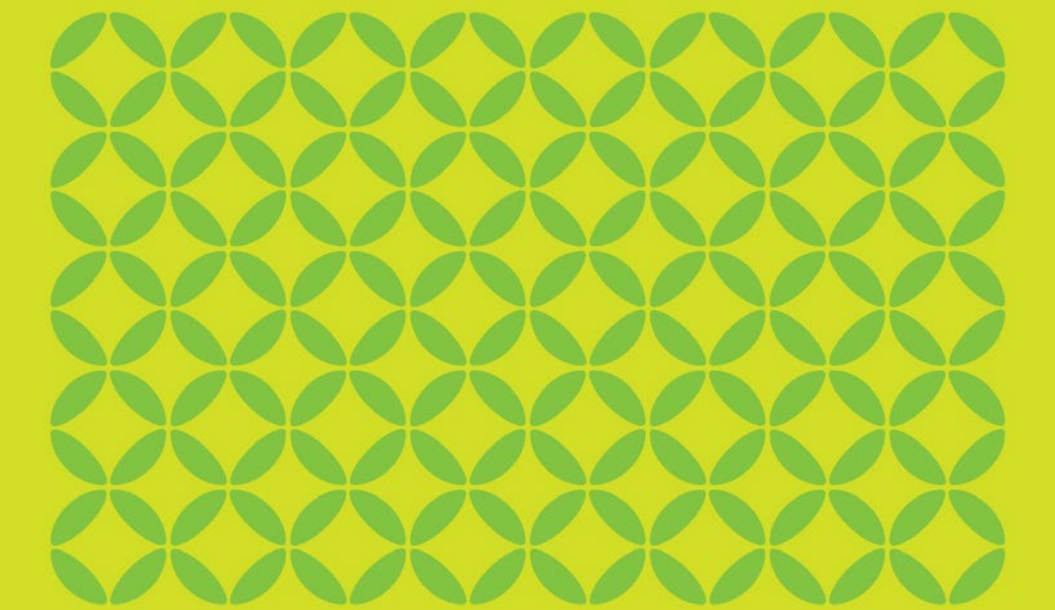
Nominated hours

Nominated hours shall be defined by the project team. The project team shall provide a summary of space types, uses, and nominated hours. Projects that are operational outside of daylight hours only need to demonstrate compliance for operational daylight hours.

Excerpt from GBCA Green Star Buildings - Apartments Pathway v1 revision A 24 February 2025



Green Star Buildings – Apartments Pathway Green Star Buildings v1 revision A

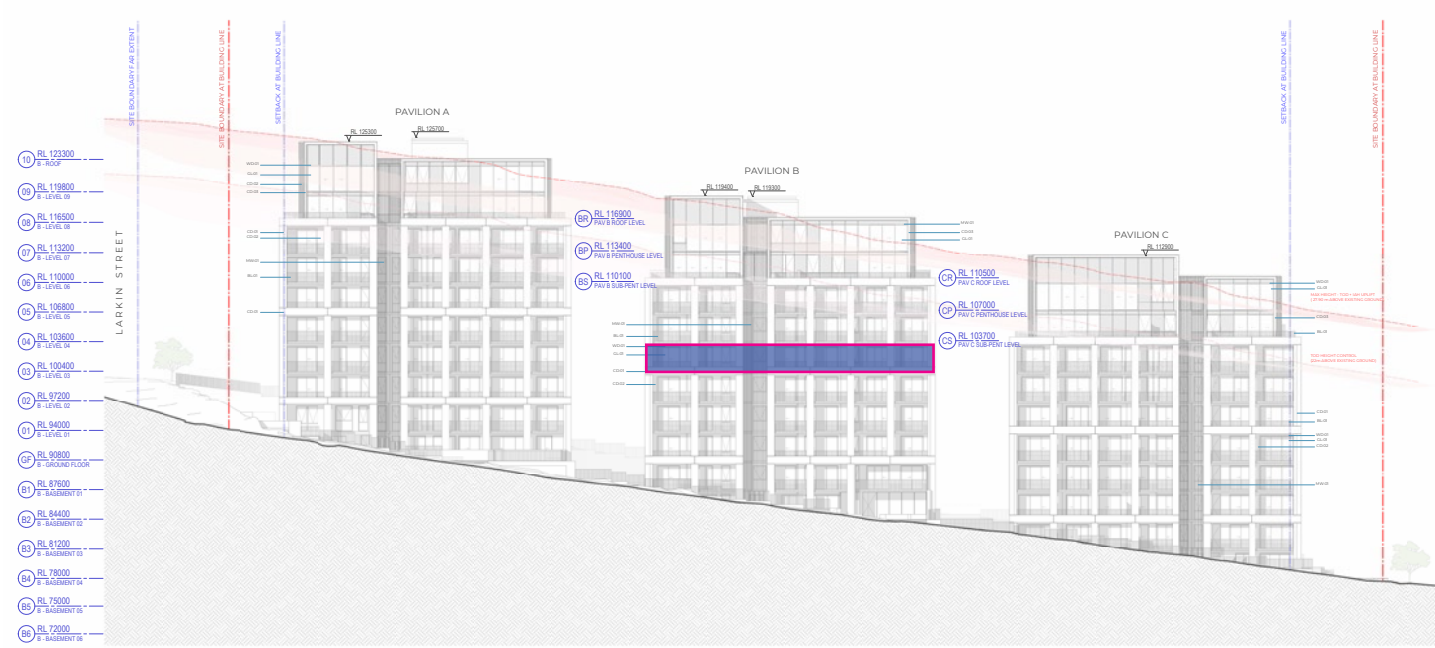


Version 1 Revision A
24 February 2025

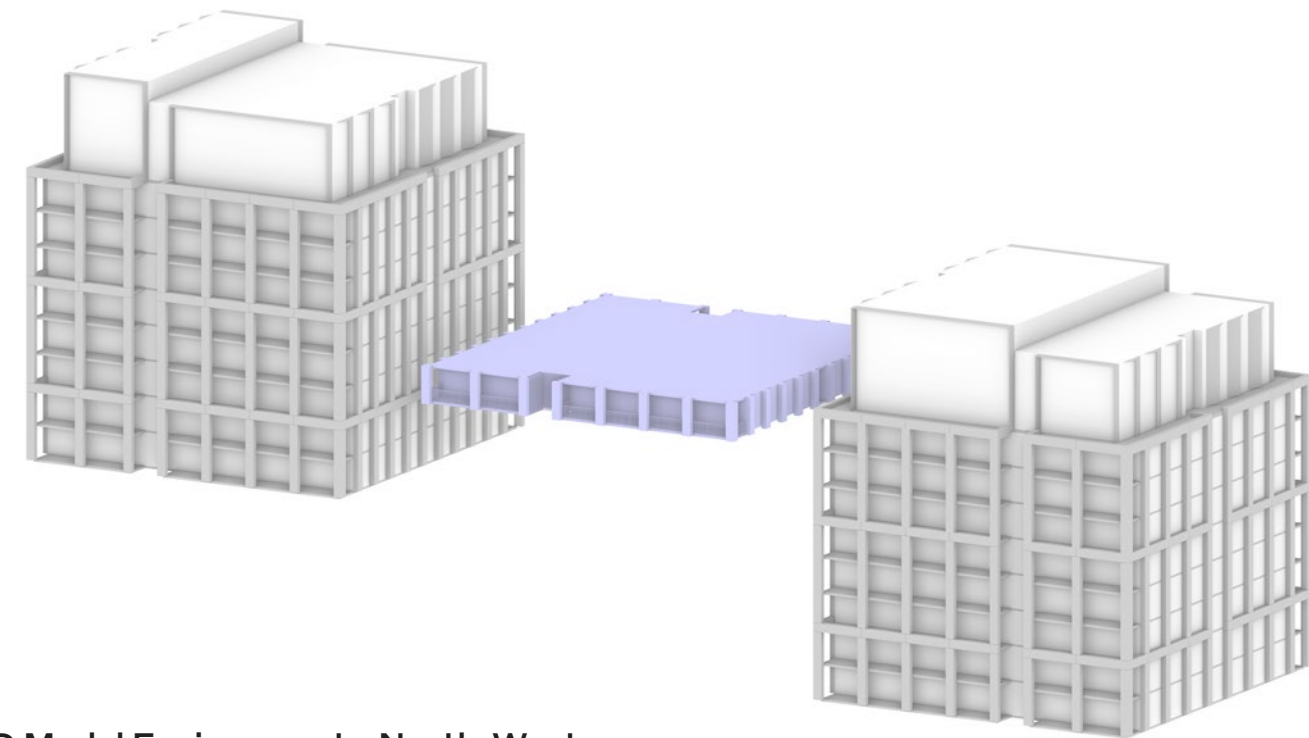


07.03 Solar Access

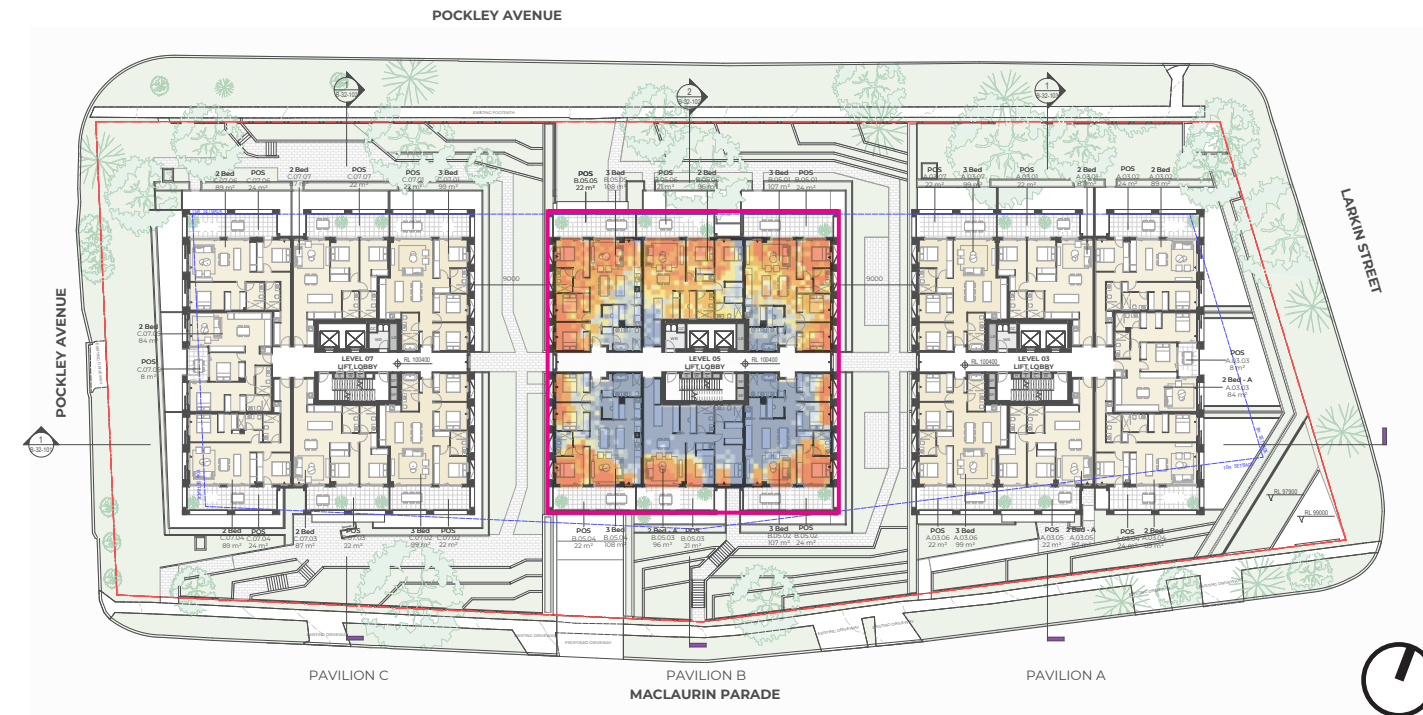
Selected 3D Analysis Environment - Level 03 (Pavilion B Level 05)



North Elevation



3D Model Environment - North-West



Selected Floor Level Plan (Level 03)

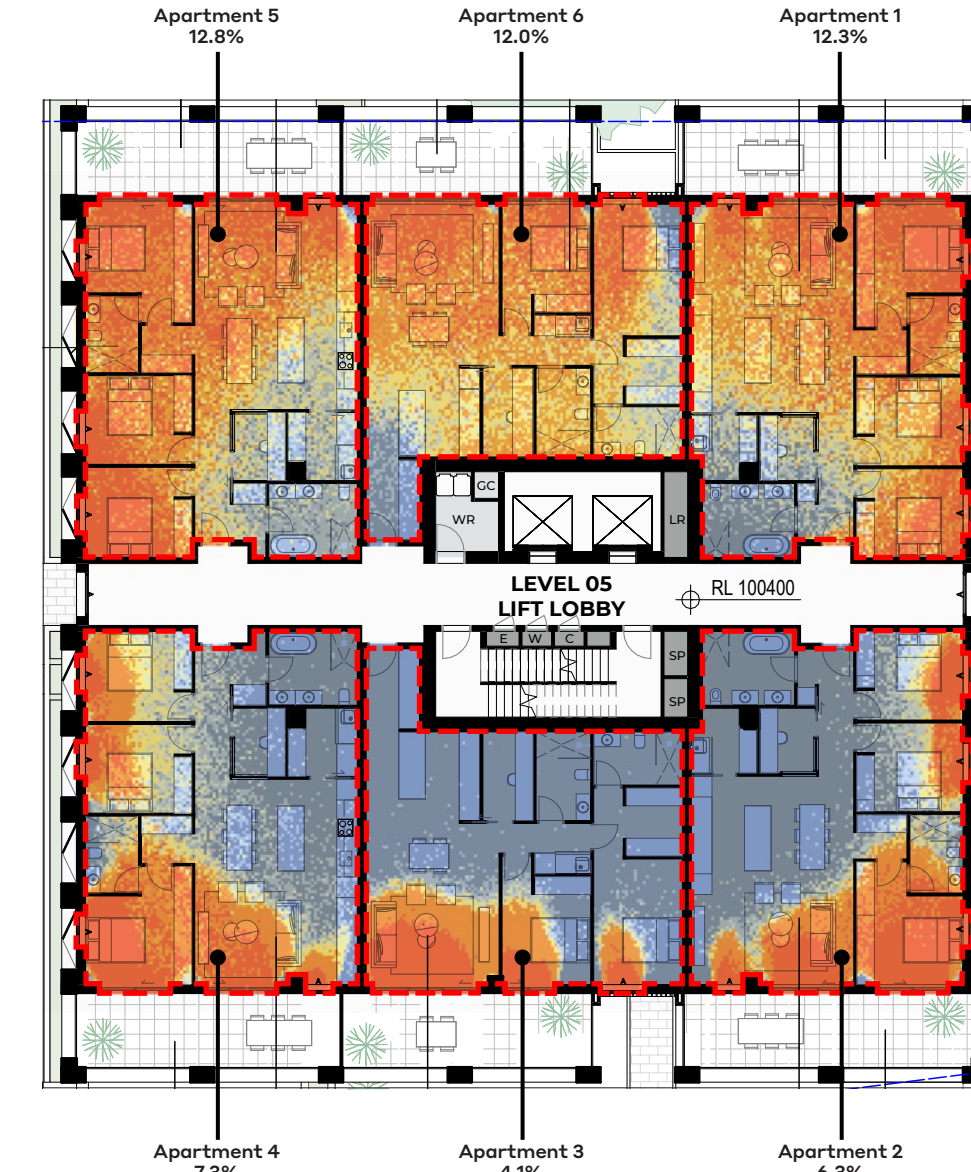


3D Model Environment - South-West

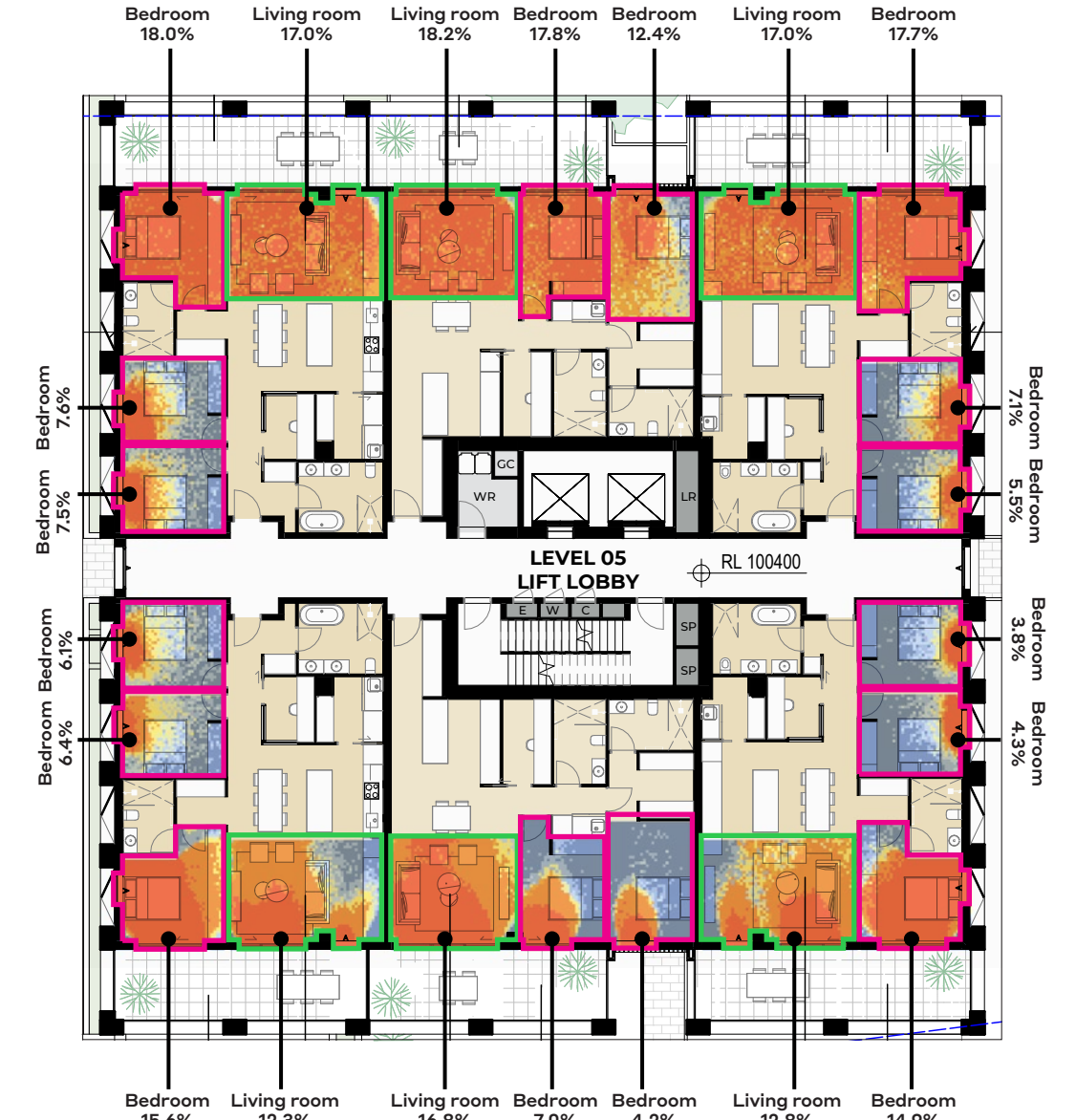
07.03 Solar Access

Defining Spaces To Assess Daylight Autonomy

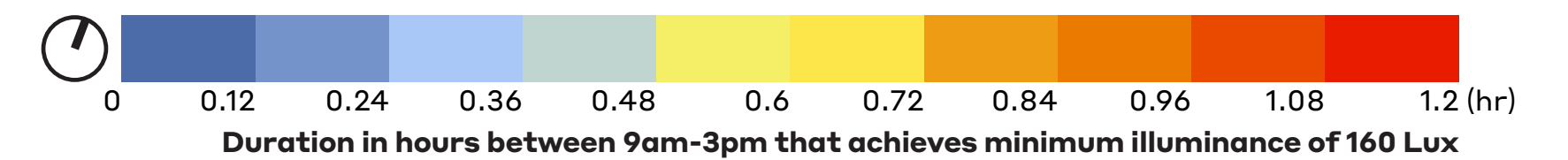
- Daylight illuminance is measured using Lux, which is a calculation of the amount of light that falls onto a particular surface - in this case, the floor. This illuminance helps to define the 'brightness' of a space
- The diagrams to the right outline the amount of time, in percentage, that each respective apartment or room, achieves the minimum 160 Lux between 9am - 3pm on 21 June
- When calculating Daylight availability, Greenstar requirements define spaces to assess are living and bedroom areas, excluding kitchens
- As the overall apartment includes areas that are not necessary for this analysis, such as toilets, kitchens, pantries, etc., a more detailed analysis per bedroom and living rooms is undertaken
- Typical living room depth is measured at 4m from the facade line



Daylight Autonomy (min. 160 Lux)
Average duration in % achieved per apartment
Between 9am-3pm @ 21 June



Daylight Autonomy (min. 160 Lux)
Average duration in % achieved per room
Between 9am-3pm @ 21 June



07.03 Solar Access

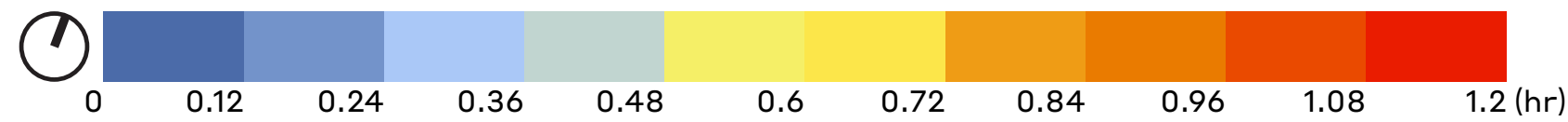
Useful Daylight Illuminance (160 - 2,000 Lux)

- While Daylight Autonomy calculates any illuminance level above the minimum 160 Lux, this method is not a comprehensive measure as it does not limit a "maximum" illuminance which would determine when a space is too bright for comfort
- Generally accepted upper limit for illuminance to enable a space to be visually comfortable is typically a maximum of 2,000 Lux
- This range of a lower and upper limit is referred to as Useful Daylight Illuminance (UDI)
- In this case, the UDI range is determined to be between 160 - 2,000 Lux
- When defining these constraints and looking at the UDI of each room individually, it is clear that the **South facing apartments have equal to, or greater than, visually comfortable daylight levels as opposed to North facing apartments**



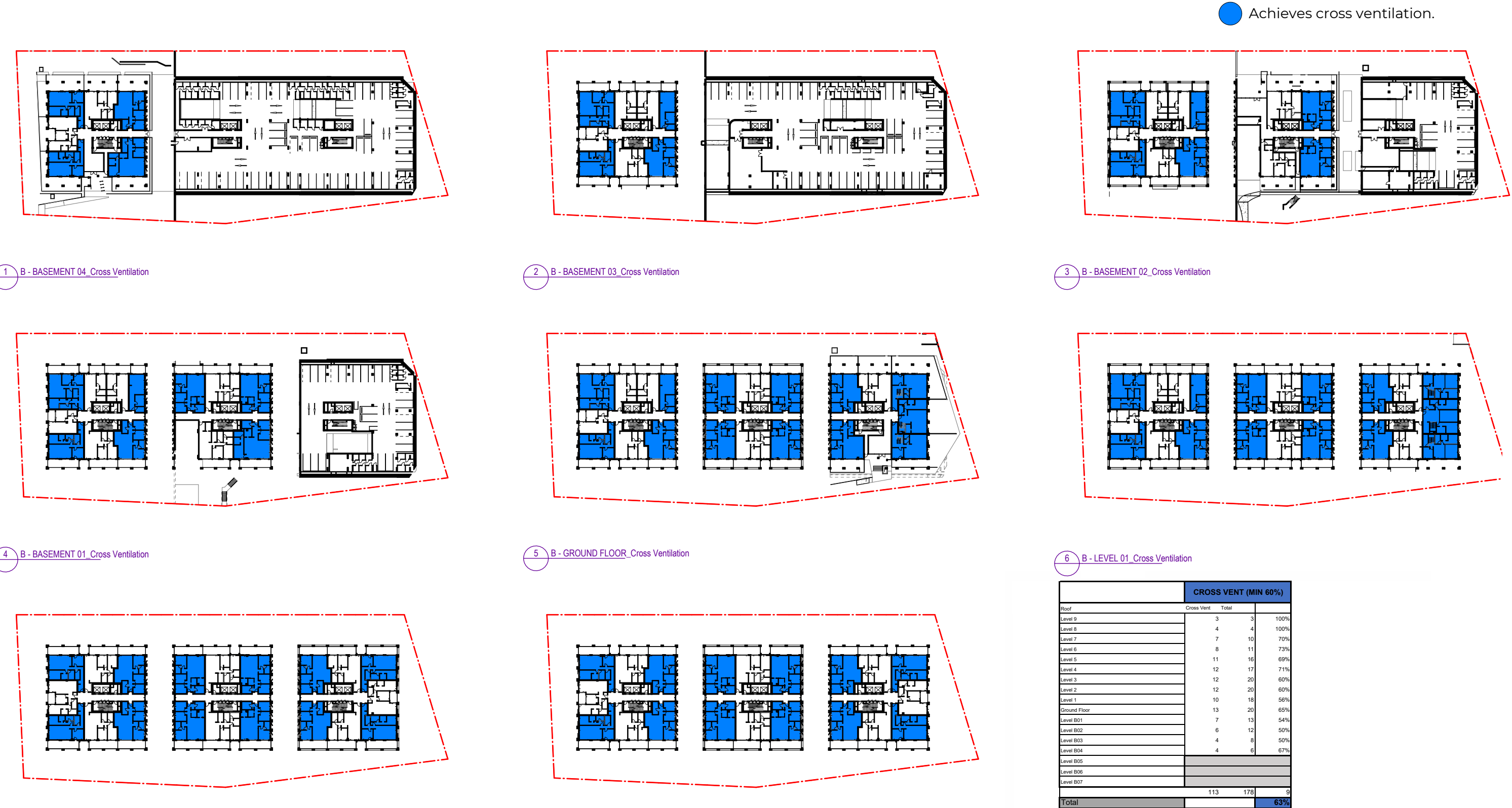
Useful Daylight Illuminance (160 - 2,000 Lux)
Average duration in % achieved per room
Between 9am-3pm @ 21 June

Bedroom
Livingroom



Duration in hours between 9am-3pm that achieves Useful Daylight Illuminance of 160-2,000 Lux

07.04 Cross Ventilation



1 B - BASEMENT 04_Cross Ventilation

2 B - BASEMENT 03_Cross Ventilation

3 B - BASEMENT 02_Cross Ventilation

4 B - BASEMENT 01_Cross Ventilation

5 B - GROUND FLOOR_Cross Ventilation

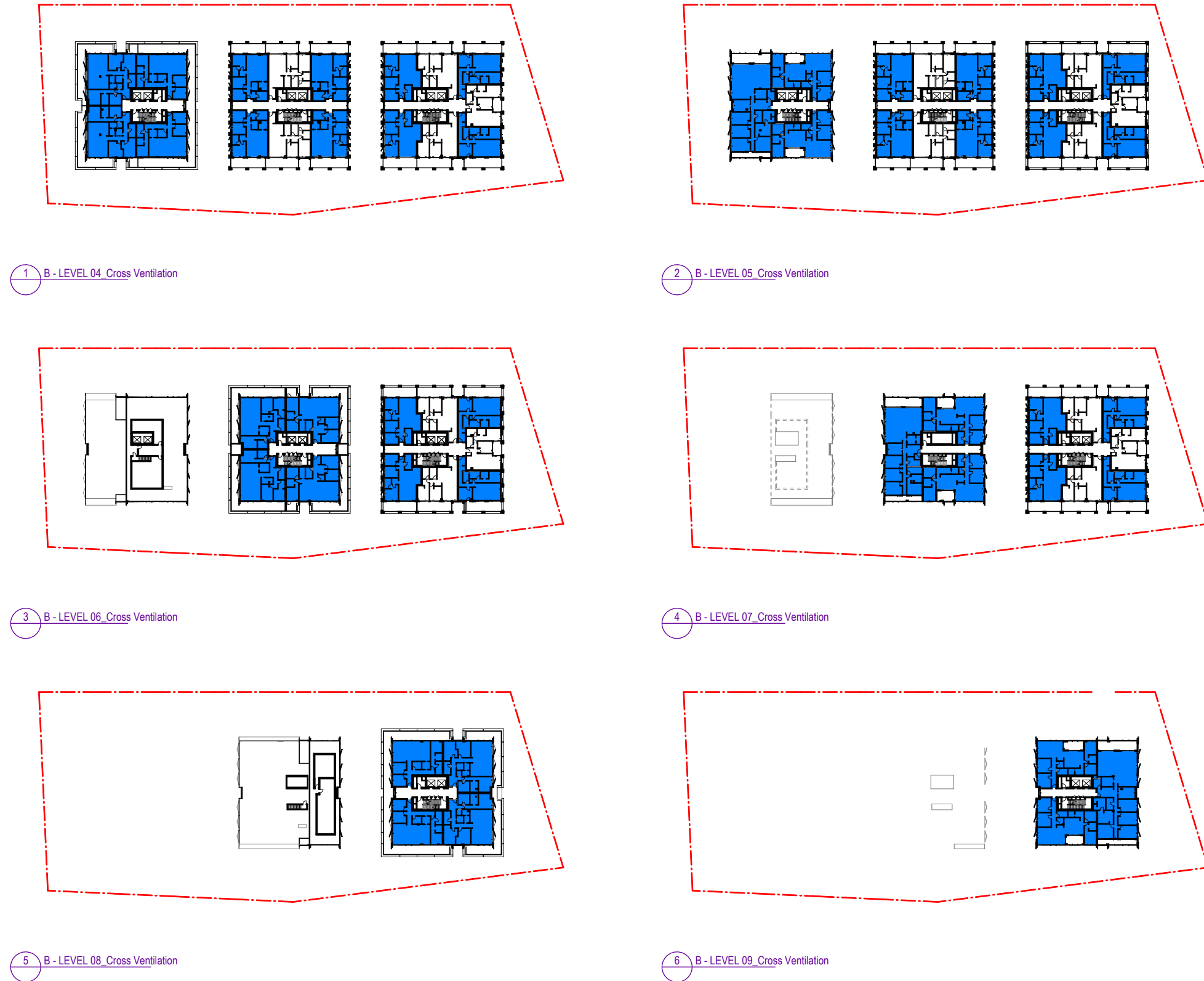
6 B - LEVEL 01_Cross Ventilation

7 B - LEVEL 02_Cross Ventilation

8 B - LEVEL 03_Cross Ventilation

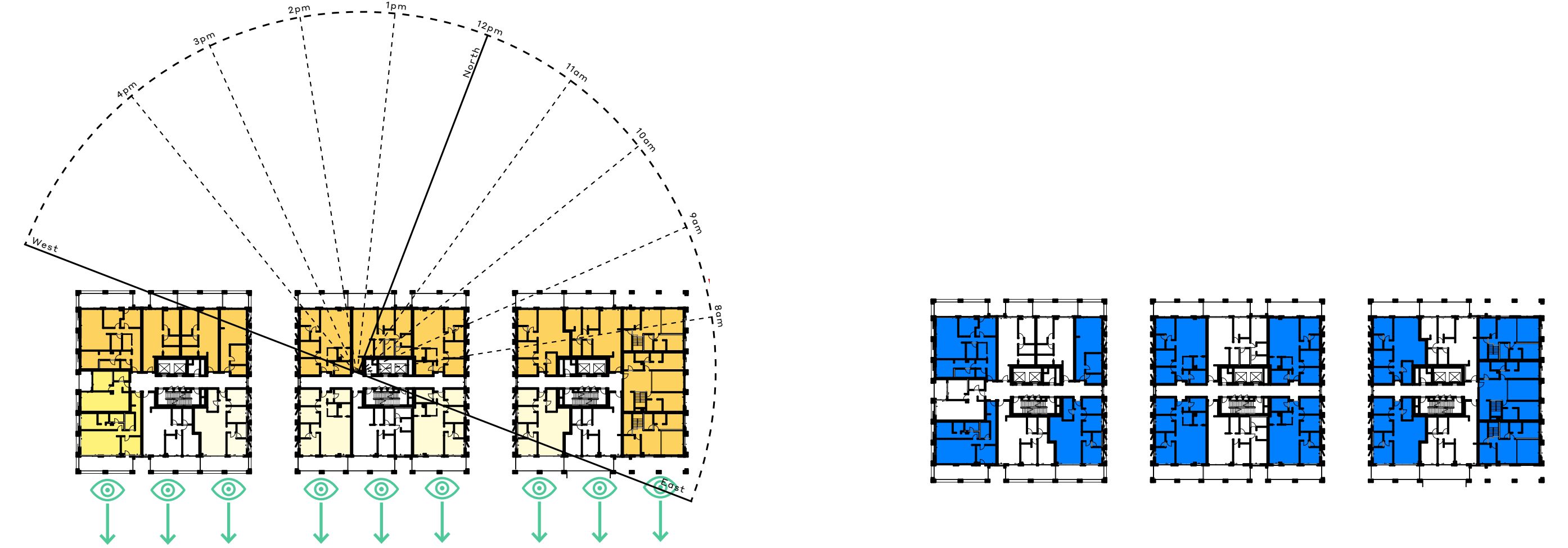
Level	CROSS VENT (MIN 60%)		Total	%
	Cross Vent	Total		
Level 8	3	3	100%	
Level 8	4	4	100%	
Level 7	7	10	70%	
Level 6	8	11	73%	
Level 5	11	16	69%	
Level 4	12	17	71%	
Level 3	12	20	60%	
Level 2	12	20	60%	
Level 1	10	19	56%	
Ground Floor	13	20	65%	
Level B01	7	13	54%	
Level B02	6	12	50%	
Level B03	4	8	50%	
Level B04	4	6	67%	
Level B05				
Level B06				
Level B07				
Total	113	178	63%	

07.04 Cross Ventilation



● Achieves cross ventilation.

07.04 Solar Access & Cross Ventilation Summary



Solar Compliance

- 59% of apartments meet this criteria, of these 68% of apartments provide dual frontages.
- If the criteria is extended to be between 9am – 4:30pm the solar increases to 69%.
- Due to the axis of the site and its depth it is challenging to achieve the 70%. As prime City skyline views are towards the south the proposal balances capitalising on the views and solar.
- Both AFH and BTS have been given proportionally shared split between north and south oriented apartments. An increase of 1 bed apartments face north to maximise solar compliance.

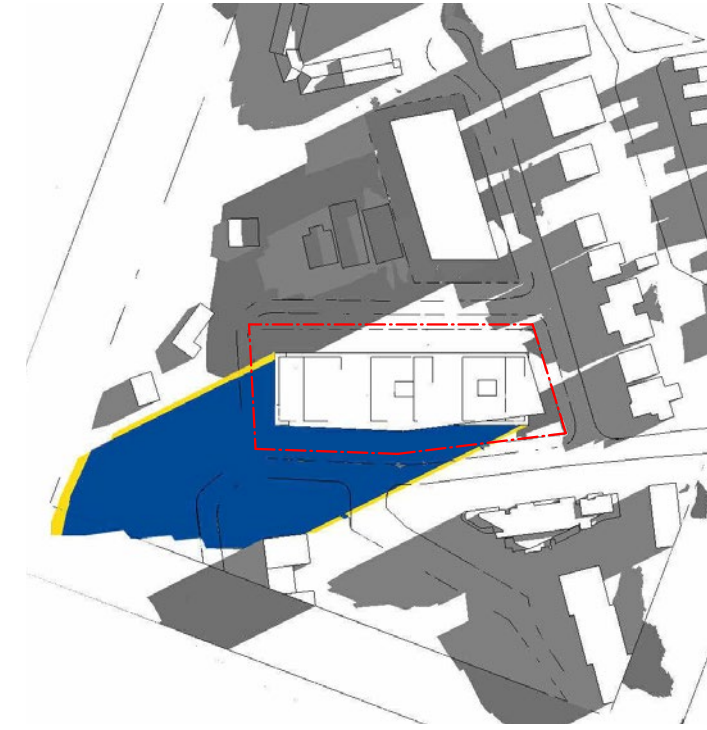
- Receives at least 2 hours sun between 9am-3pm on June 21.
- Receives direct sunlight between 9 am - 3 pm on June 21.
- No direct sunlight. Receives increased daylight access due to dual aspect.
- ↓ Outlook to Sydney CBD

Natural Ventilation Compliance

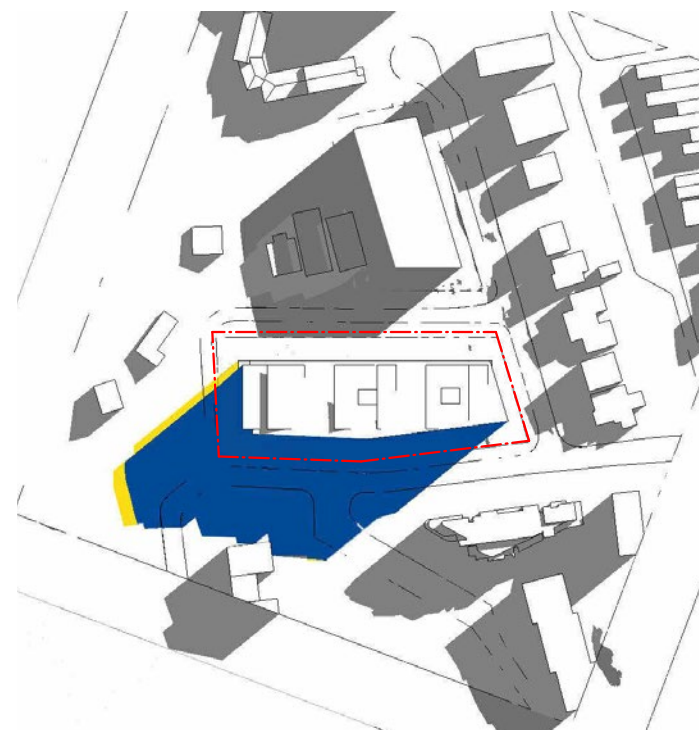
- 63% cross vent
- The proposal's massing and planning maximise dual fronted apartments, increasing the cross ventilation.

● Achieves cross ventilation.

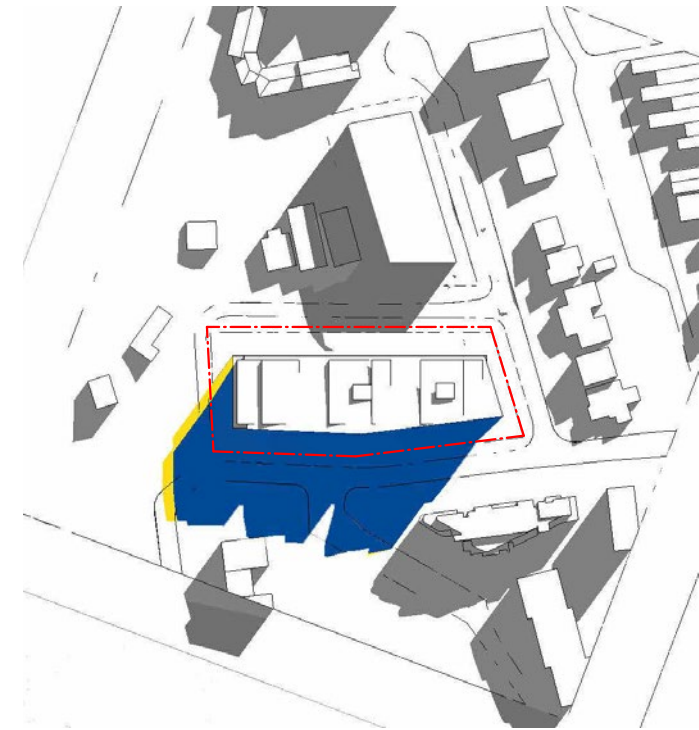
07.05 Shadow Diagrams



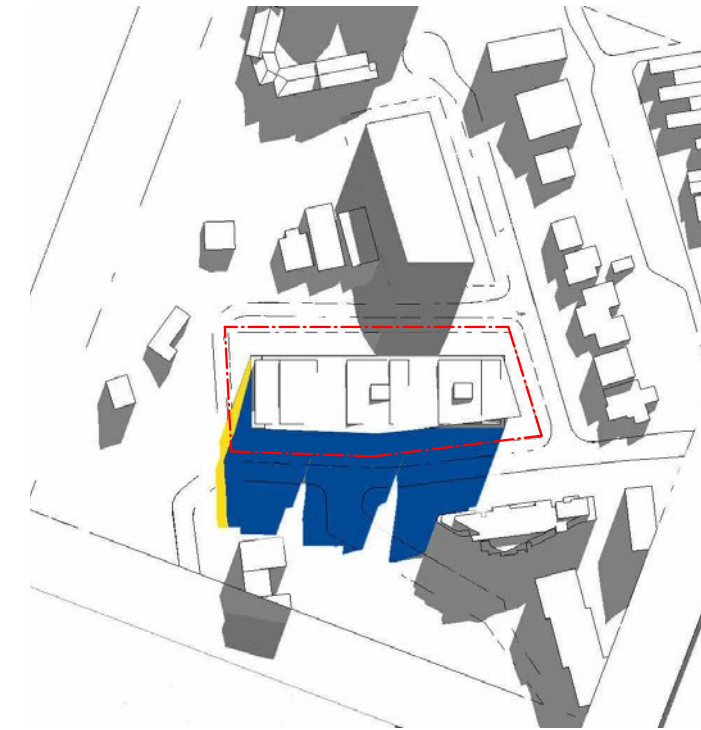
June 21 - 9am



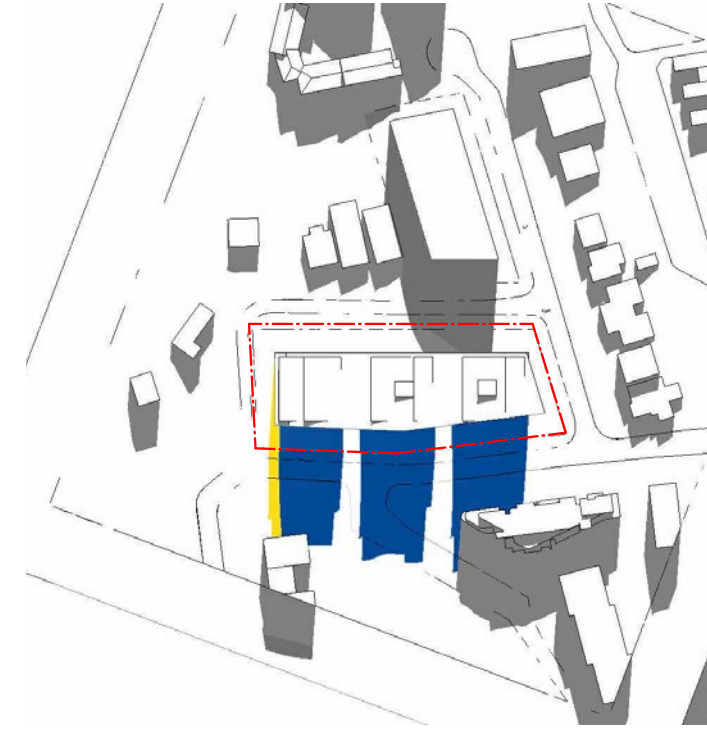
June 21 - 10am



June 21 - 11am



June 21 - 12pm



June 21 - 1pm

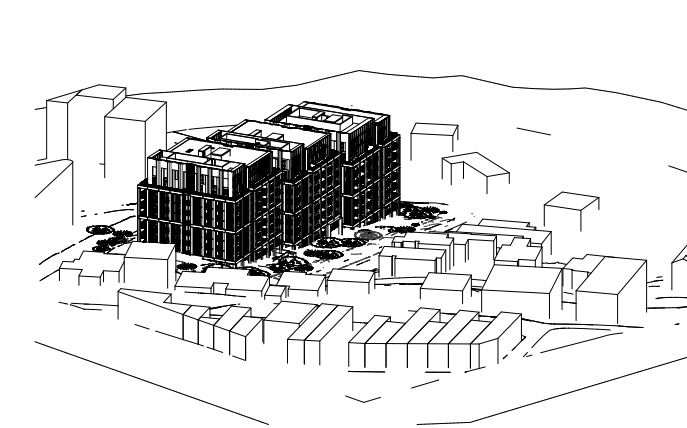


June 21 - 2pm

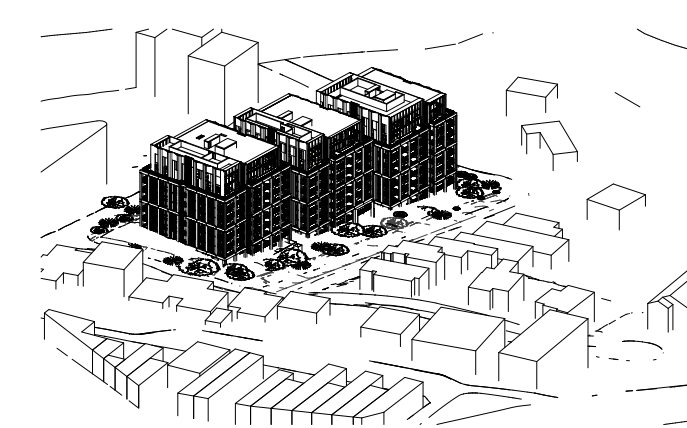


June 21 - 3pm

07.05 Sun Eye Views



09:00am @ 21 June



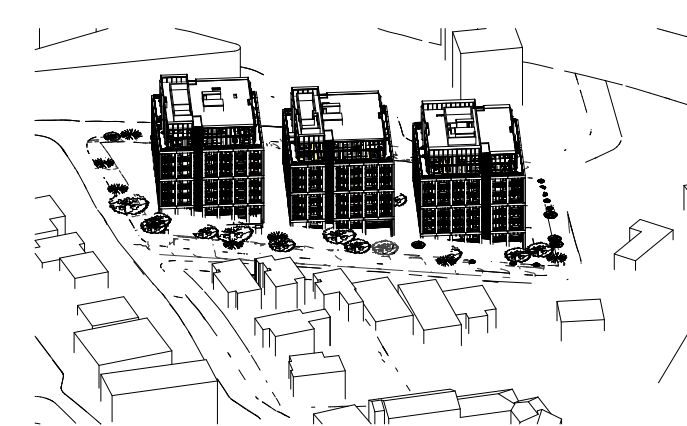
10:00am @ 21 June



11:00am @ 21 June



12:00pm @ 21 June



01:00pm @ 21 June

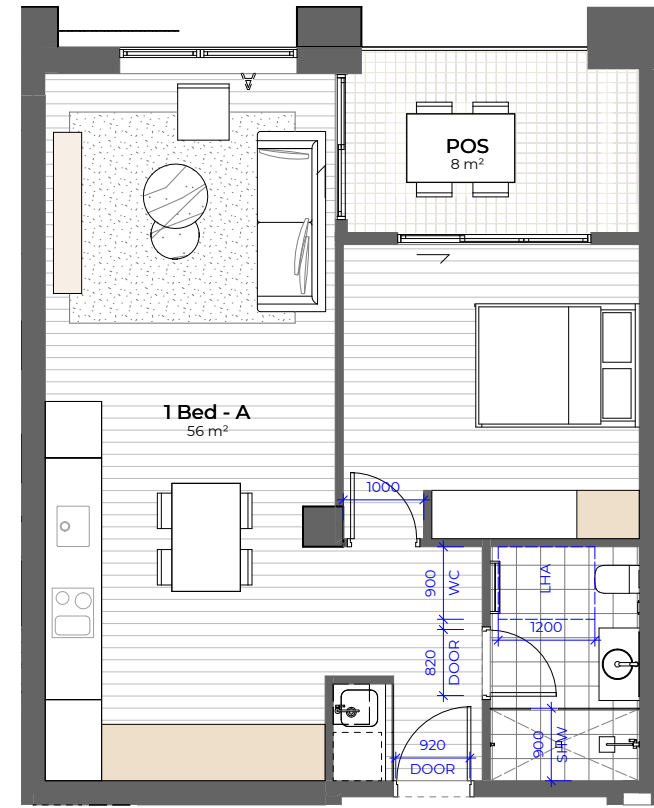


02:00pm @ 21 June



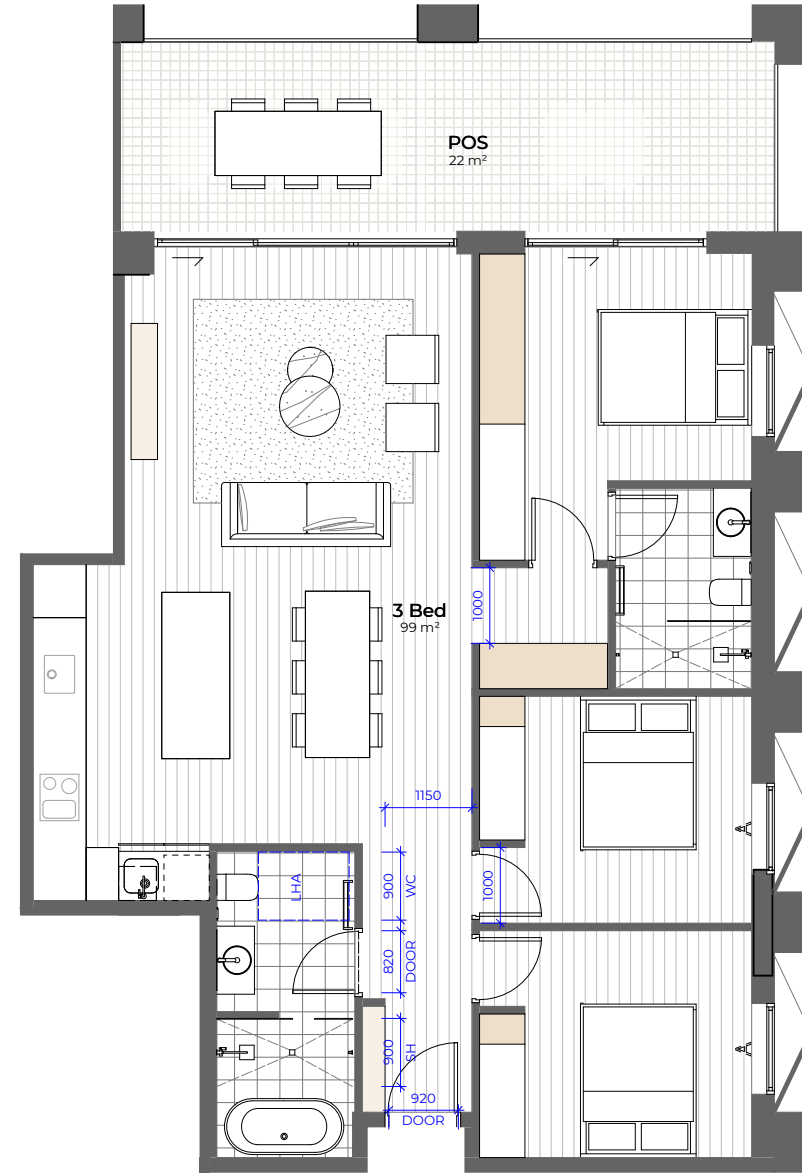
03:00pm @ 21 June

07.06 Livable Housing Universal Design



2 1B_02

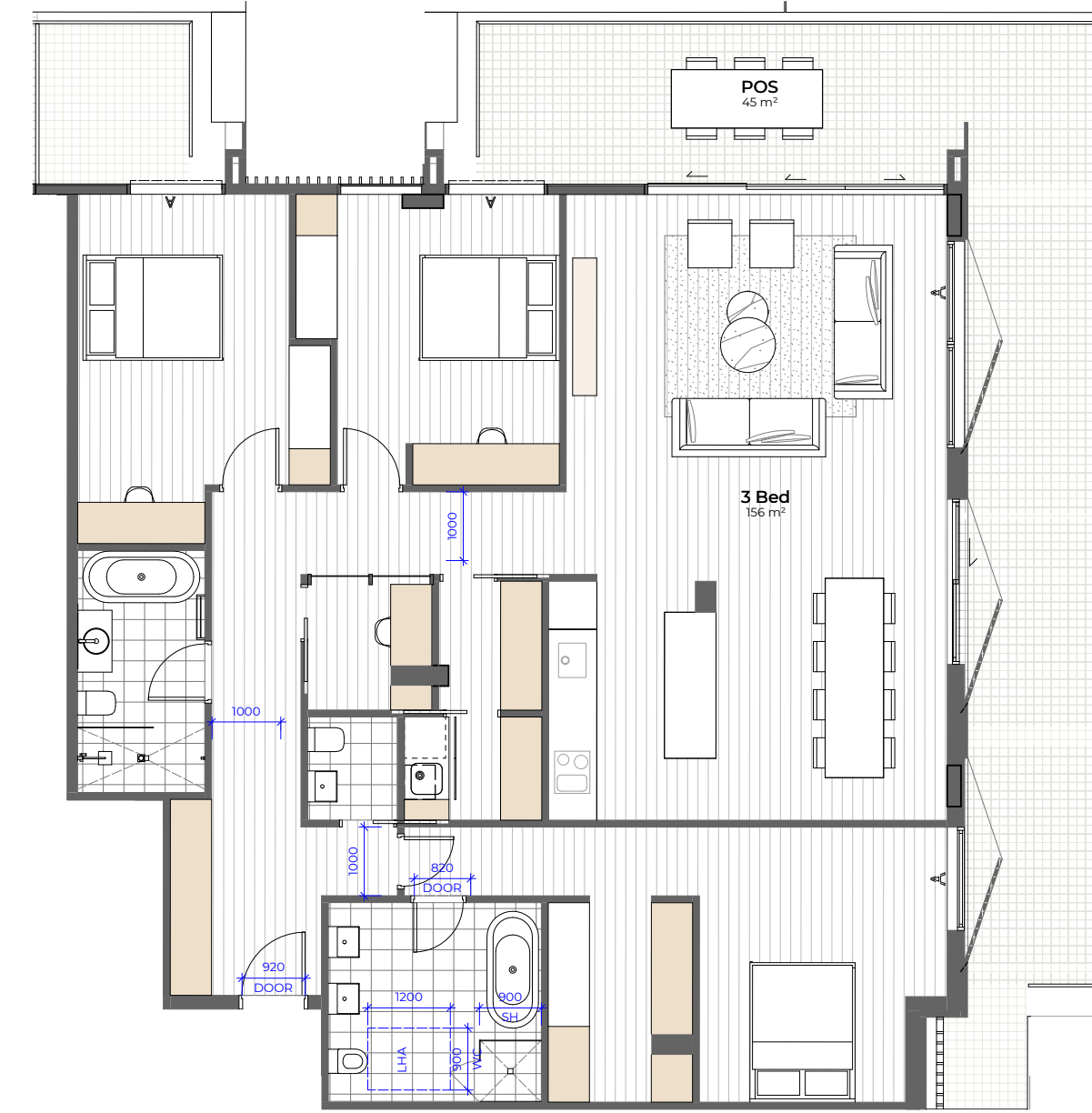
1B_02			
Name	Area	Storage Volume	Silver LHA
1 Bed - A	56 m ²	6.99 m ³	Yes
POS	8 m ²		



1 3B_03

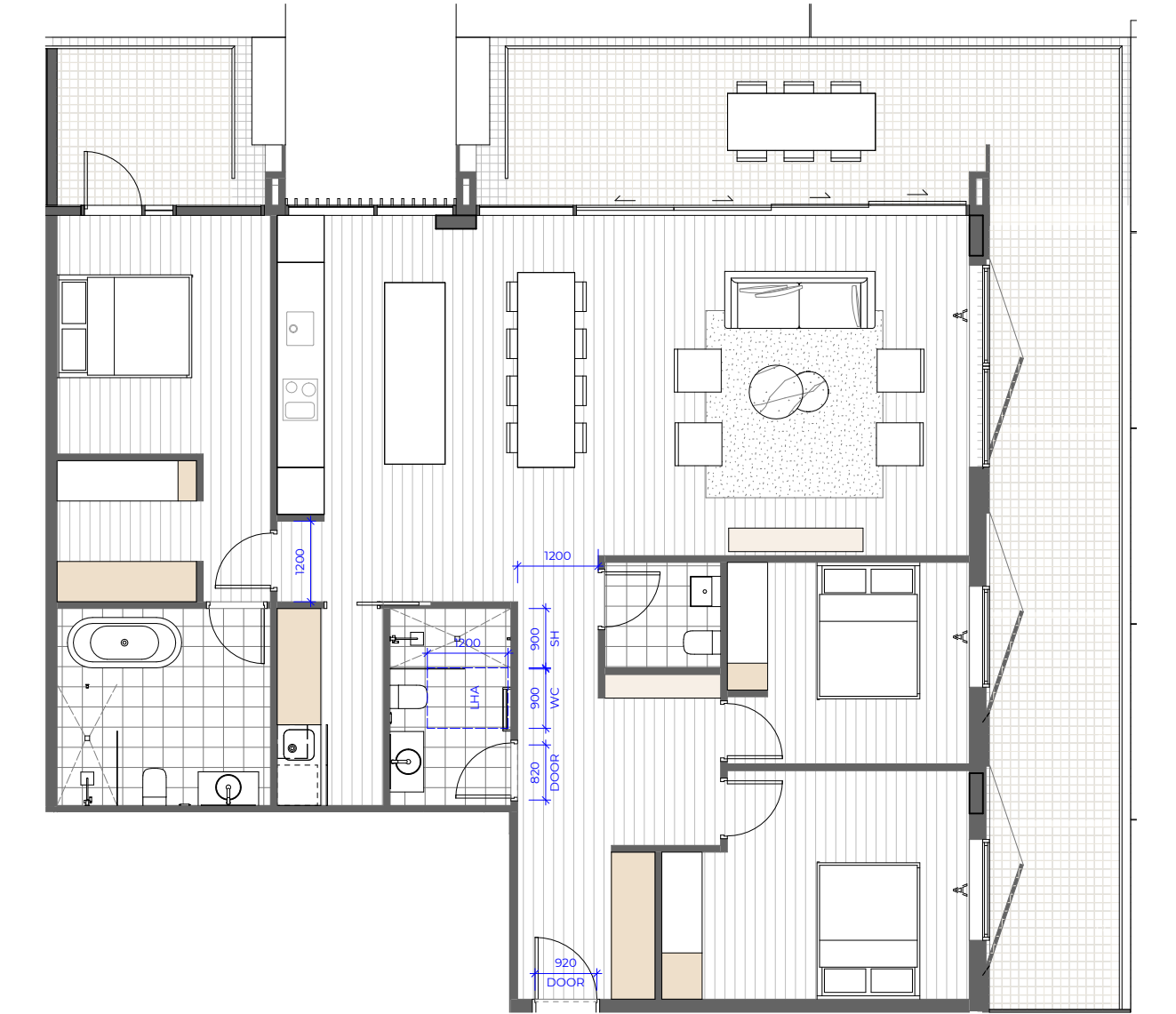
3B_03			
Name	Area	Storage Volume	Silver LHA
3 Bed	99 m ²	8.32 m ³	Yes
POS	22 m ²		

07.06 Livable Housing Universal Design



2 3B_07

3B_07			
Name	Area	Storage Volume	Silver LHA
3 Bed	156 m ²	25.29 m ³	Yes
POS	45 m ²		



2 3B_09

3B_09			
Name	Area	Storage Volume	Silver LHA
3 Bed	139 m ²	12.46 m ³	Yes
POS	50 m ²		

07.06 Livable Housing Universal Design



1 3B_10

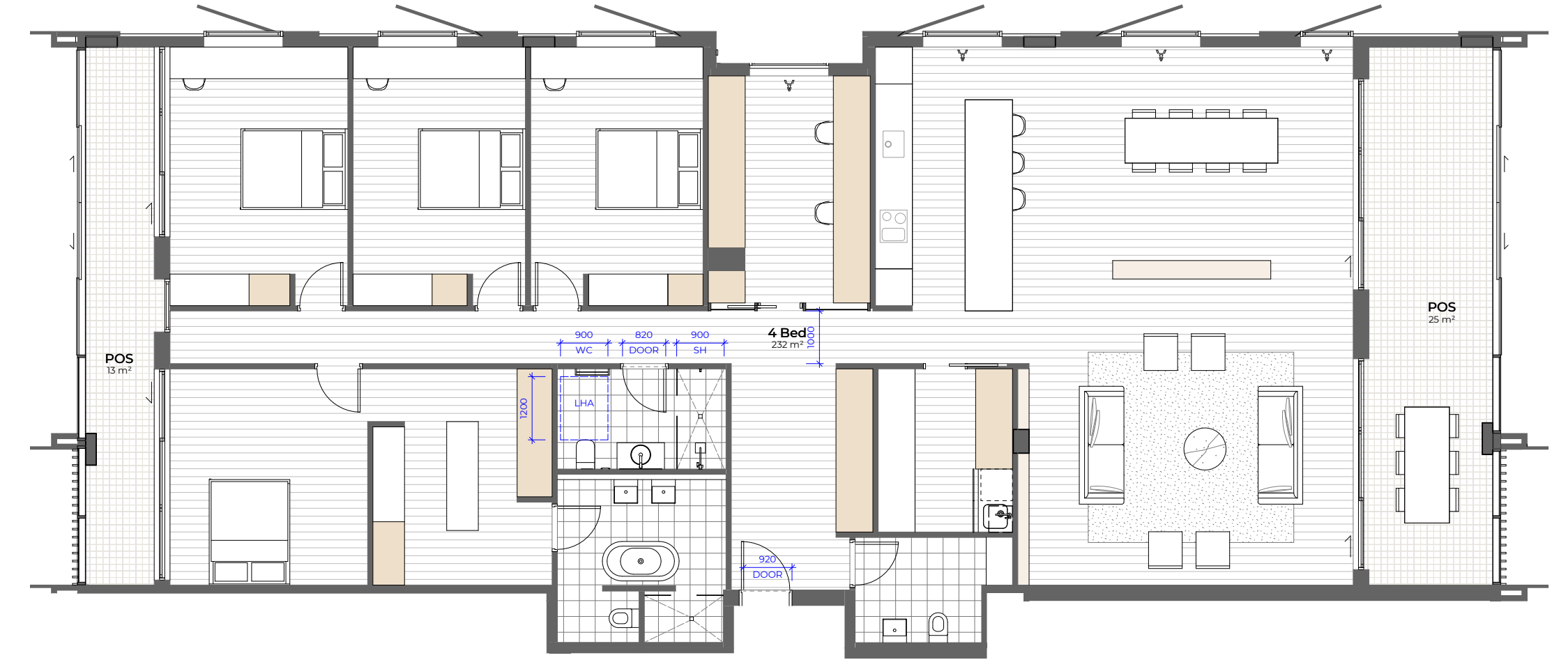
3B_10			
Name	Area	Storage Volume	Silver LHA
3 Bed	136 m ²	13.62 m ³	Yes
POS	12 m ²		



2 3B_11

3B_11			
Name	Area	Storage Volume	Silver LHA
3 Bed	142 m ²	18.26 m ³	Yes
POS	12 m ²		

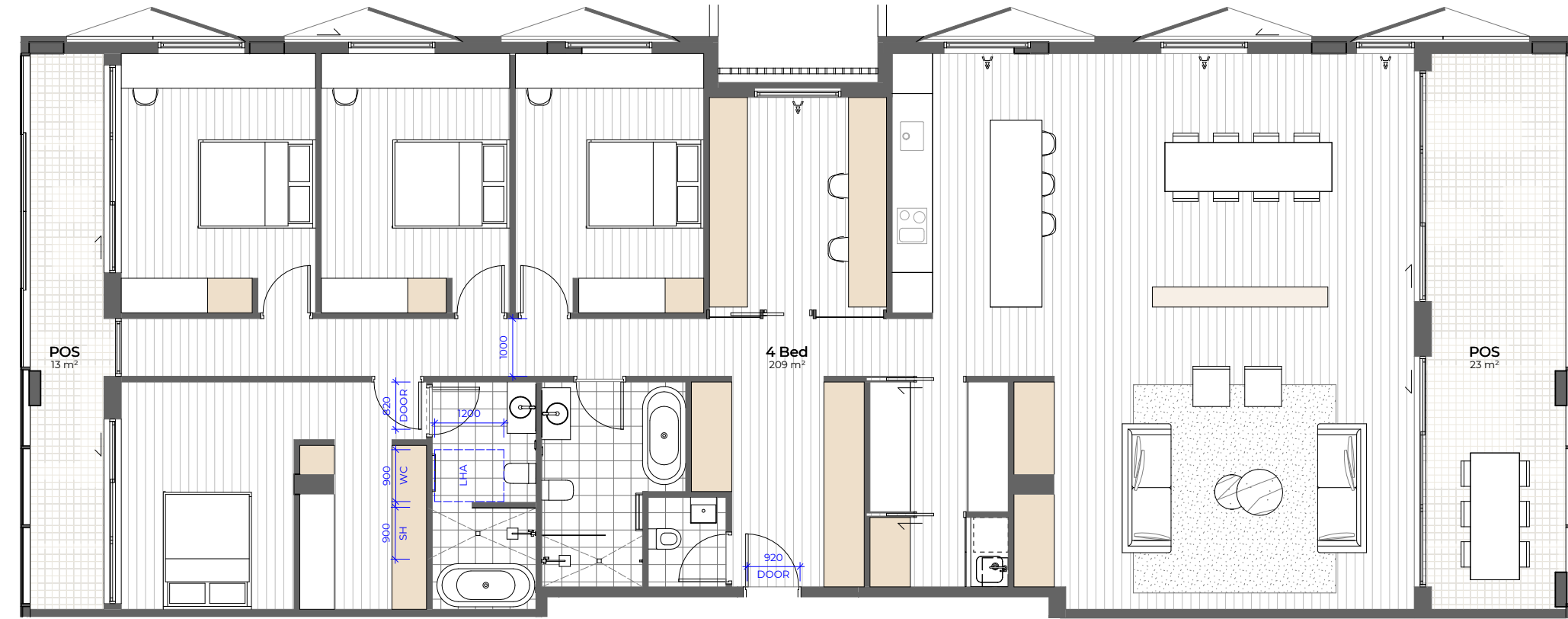
07.06 Livable Housing Universal Design



1 4B_01

4B_01			
Name	Area	Storage Volume	Silver LHA
4 Bed	232 m ²	33.34 m ³	Yes
POS	25 m ²		
POS	13 m ²		

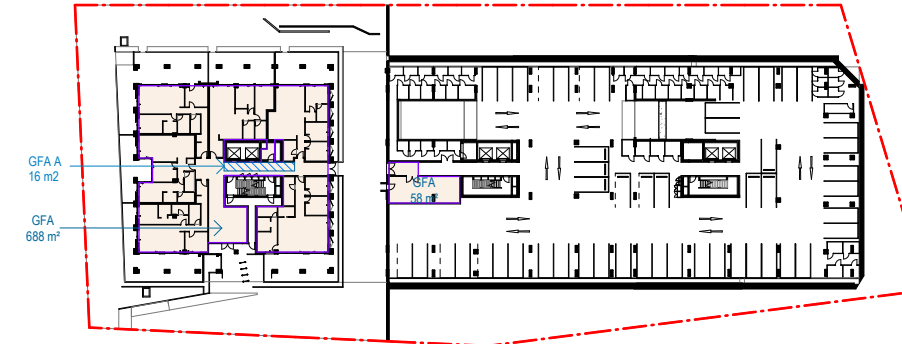
07.06 Livable Housing Universal Design



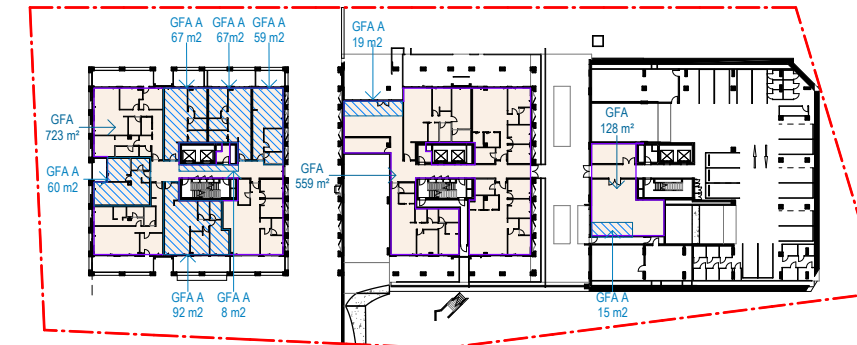
1 4B_02

4B_02			
Name	Area	Storage Volume	Silver LHA
4 Bed	209 m ²	36.89 m ³	Yes
POS	23 m ²		
POS	13 m ²		

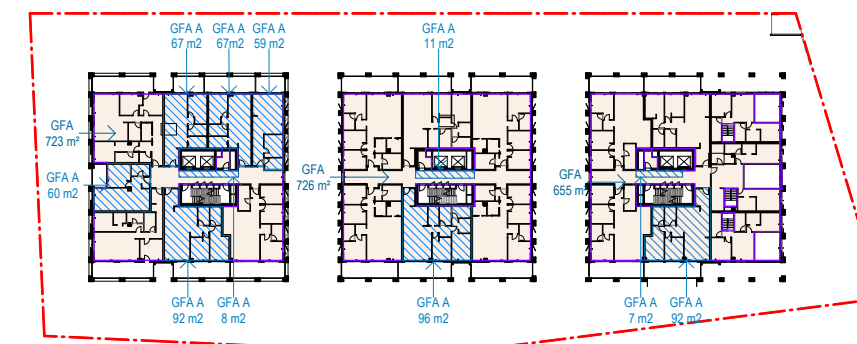
07.05 GFA Diagrams



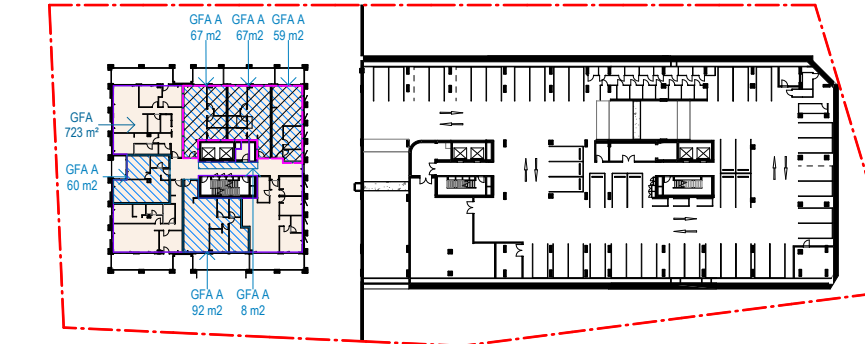
GFA DIAGRAM - BASEMENT 04



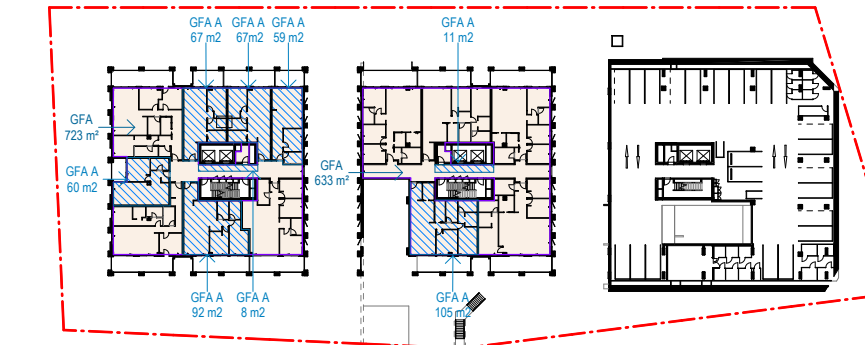
GFA DIAGRAM - BASEMENT 02



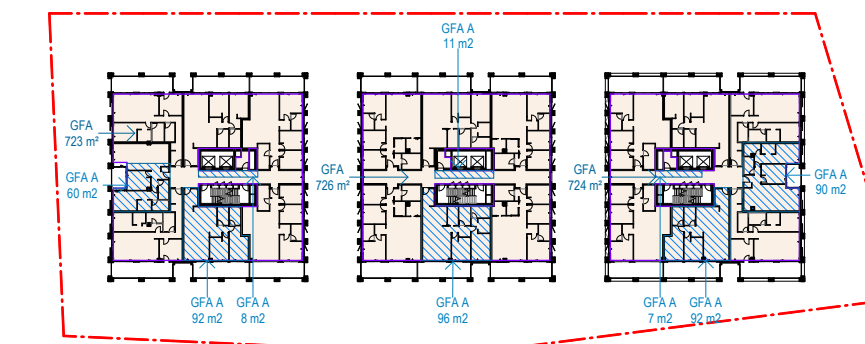
GFA DIAGRAM - LEVEL 01



GFA DIAGRAM - BASEMENT 03



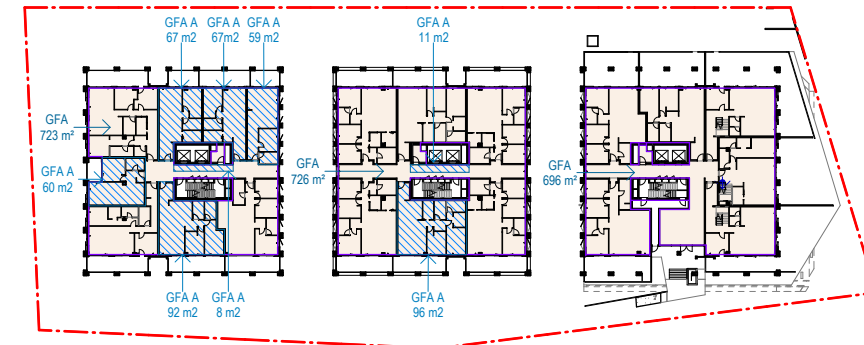
GFA DIAGRAM - BASEMENT 01



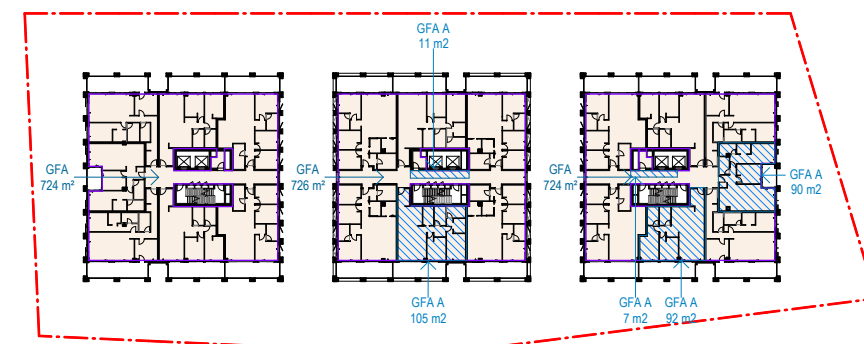
GFA DIAGRAM - LEVEL 02

GFA	
Level	Area
B - BASEMENT 04	746 m ²
B - BASEMENT 03	723 m ²
B - BASEMENT 02	1410 m ²
B - BASEMENT 01	1356 m ²
B - GROUND FLOOR	2145 m ²
B - LEVEL 01	2173 m ²
B - LEVEL 02	2173 m ²
B - LEVEL 03	2070 m ²
B - LEVEL 04	2070 m ²
B - LEVEL 05	2070 m ²
B - LEVEL 06	1335 m ²
B - LEVEL 07	1335 m ²
B - LEVEL 08	619 m ²
B - LEVEL 09	619 m ²
	20702m²

SITE AREA: 6,539 M2
ORIGINAL SCHEME: FSR: 2,501
COMPLIANT GFA: 16,348 M2
PROPOSED 'UPLIFT' CALCULATIONS:
AFH BONUS FSR: 3,251
AFH BONUS GFA: 3,188 M2
TOTAL MAX GFA: 21,252 M2
PROPOSED GFA: 20,702 M
PROPOSED AFH SEPP GFA: 3,188M2*
PROPOSED FSR: 3.171
Note:
* Includes 15.40% of common area (corridors + Internal community room)
** Proposed total GFA inclusive of 1m2 deduction per residential unit (178 units) for services.

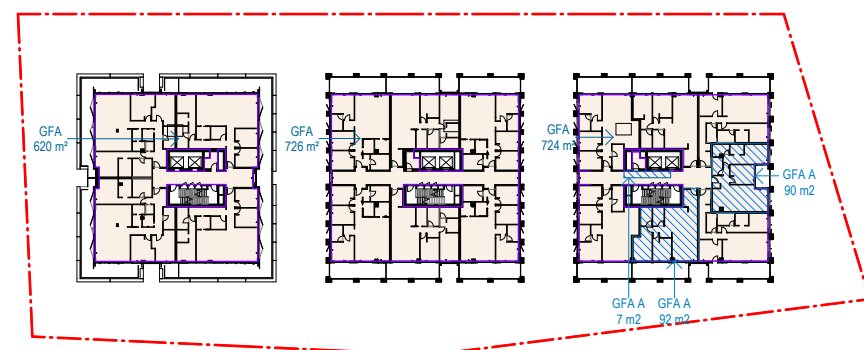


GFA DIAGRAM - GROUND FLOOR

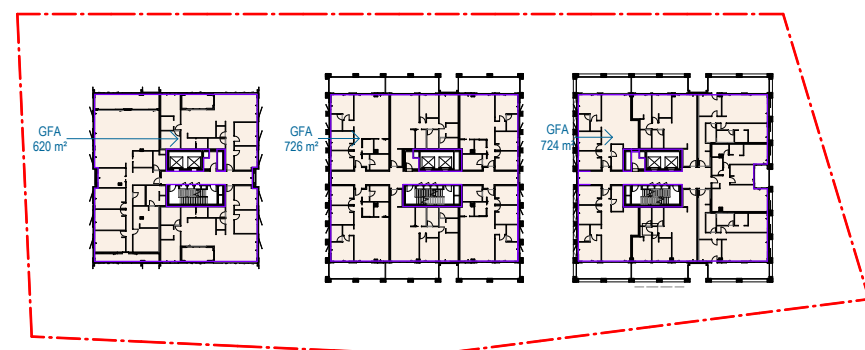


GFA DIAGRAM - LEVEL 03

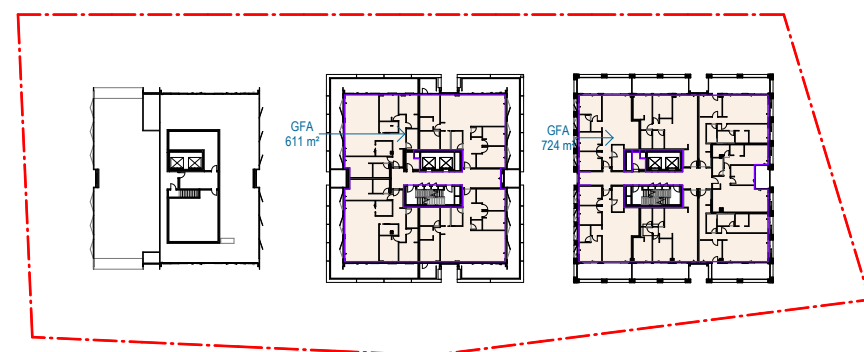
07.05 GFA Diagrams



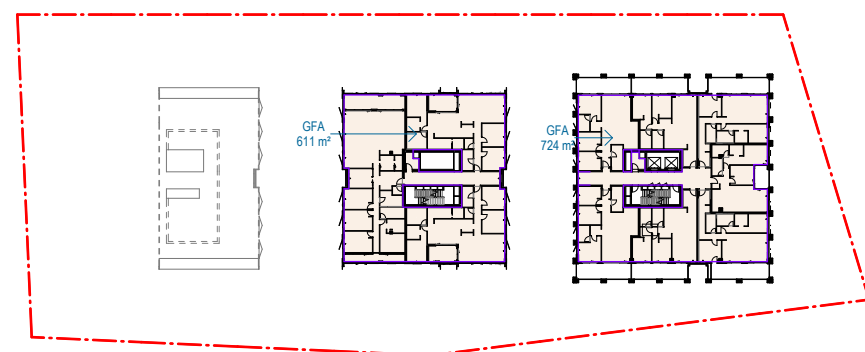
GFA DIAGRAM - LEVEL 04



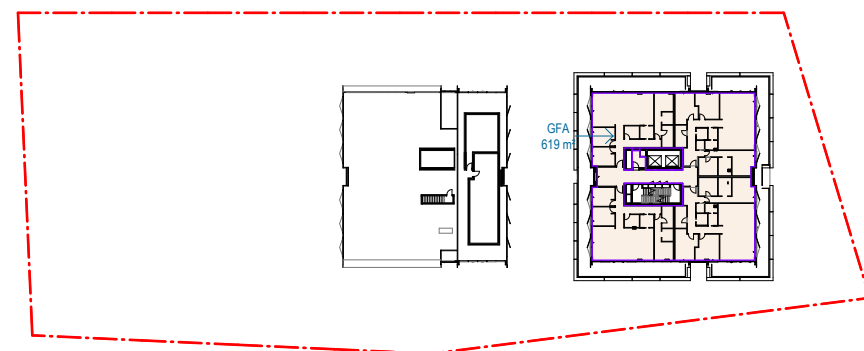
GFA DIAGRAM - LEVEL 05



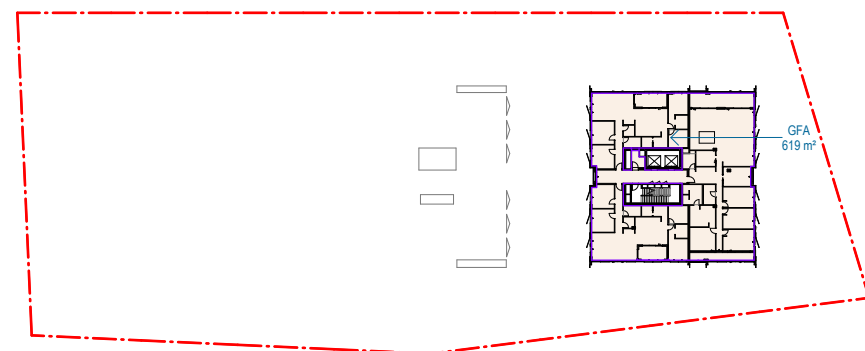
GFA DIAGRAM - LEVEL 06



GFA DIAGRAM - LEVEL 07



GFA DIAGRAM - LEVEL 08



GFA DIAGRAM - LEVEL 09

08

View Study

0801 View Analysis

08.02 View Impact Assessment

08.01 View Analysis



08.01 View Analysis



08.01 View Analysis



08.01 View Analysis



08.02 View Impact Assessment Viewpoint Overview Map



08.02 View Impact Assessment Viewpoint 01 - 21 Shirley Road, Roseville



Key:
 Height Control Limit

08.02 View Impact Assessment

Viewpoint 02 - 5-7 Larkin Street (North), Roseville



Height control limit
 Proposed buildings

Key:
 Height Control Limit
 Proposed Building

View Impact Assessment Prepared By Virtual Ideas - 15 April 2025

08.02 View Impact Assessment

Viewpoint 03 - 4 Maclaurin Parade, Roseville



50mm lens crop

Key:
 Height Control Limit
 Proposed Building

View Impact Assessment Prepared By Virtual Ideas - 15 April 2025

08.02 View Impact Assessment

Viewpoint 04 - 2 Alexander Parade, Roseville



Key:
[Dashed White Box] Height Control Limit
[Yellow Box] Proposed Building

SDRP Comments

09.01 SDRP Comments Table & Response

09.01 SDRP Comments Response Table

SDRP COMMENT	RESPONSE
Connecting With Country	
01 Continue to engage with local Aboriginal knowledge-holders and ensure that the response to Country is guided by them.	W-B continue to work closely with JMP Aboriginal Consultancy and Ground Ink Landscape Architects to ensure a closely integrated Connecting With Country strategy is achieved
04 Ensure that the landscape and architectural design respond to the site's topography and natural systems.	Architecture and landscape design is deeply embedded into the site's topography and ecosystems. Entry experiences, communal spaces, and courtyard apartments are all sited within a densely landscaped environment.
06 Explore opportunities for Country themes to inform subtle differences in each of the three pavilions to assist with building identification and wayfinding.	Facade materiality has been designed to reflect connecting with country themes to inform identities for each of the three pavilions. This continues to be a work in progress collaboration with JMP Aboriginal Consultancy
Site Strategy and Landscape	
08 Ensure the proposed boundary setbacks can accommodate adequate deep soil to support mature tree growth and a generous landscape buffer around the perimeter of the site.	Minimum deep soil requirement of 7% of site has been achieved and proposed beyond 10% as a minimum target. Refer to landscape architect report for further information
10 Design the landscaped edges of the site so that they belong to the broader community, and the site does not appear as a gated community.	Stepping of landscape into site creates a sense of the continuation of the street landscaping into the site. Refer to landscape architect report for further information
11 Provide detail on the proposed fencing strategy/boundary condition and illustrate how fall prevention will be mitigated where retaining walls are required.	Fences concealed behind planting to minimise visual imposition. Refer to landscape architect report for further information
12 Ensure that any fencing and/or vehicle barriers are integrated in the landscape design and softened by planting.	Fences concealed behind planting to minimise visual imposition. Refer to landscape architect report for further information
14 Incorporate intimate courtyard spaces near the main building entries, which could add a functional element for residents.	Entries to each pavilion has been designed to provide a "stoop" out the front of the lobby. These spaces on ground are within a planted and landscaped courtyard area. Refer to landscape architect report for further information
15 Provide stairs from the footpath to give residents and visitors the option of a more direct route and provide legibility of the main entry.	Both stairs and ramps provided to entry to Pavilion C. Entry to Pavilion B from Pockley Avenue has a direct entry to the lobby, while the topography of Pavilion A makes both a stair and a ramp entry unfeasible.
17 Continue to develop the preferred option and ensure that the carpark entry does not adversely affect the apartments adjacent to or above it.	Carpark entry has been relocated to the Southern boundary of the site on Maclaurin Parade. Design & integration of entry awning mitigates acoustic and visual privacy concerns to apartments directly above the ramp. Generous landscape buffer created to protect apartments adjacent and from below
18(d) Connect the links to the footpath along Pockley Street to the north and Maclaurin Parade to the south.	Connections provided between all three pavilions.
21 Ensure that the quality of the carpark façade is not eroded during future phases of the project as technical components are incorporated, such as mechanical ventilation and exhaust. Provide more information on the carpark façade as the design develops.	Using existing rock on site was an early consideration and discussed with SDRP. However with further developed site investigation the site conditions have revealed this to be difficult to achieve. Maintaining the intent of a natural wall, the carpark façade is proposed as a gabion wall, utilising sandstone rubble from site excavation where possible.

09.01 SDRP Comments Response Table

SDRP COMMENT	RESPONSE
22 Provide a visual and physical connection along the east-west axis	East-West connectivity between pavilions improved by the creation of additional connections to communal open spaces through to lift lobbies. Topography of the steeply sloping site makes the creation of additional visual and physical connections between pavilions along the East-West axis unfeasible and impractical, with at least 2 storeys worth of staircases required to connect between pavilions.
23 Extend the communal corridors of the central pavilion to the façades in both directions to provide natural light and outlook to the lift lobbies and a visual connection to the eastern and western pavilions.	Corridors of central pavilion extended to the facades.
24 Continue to develop the east-west connections and illustrate the experience for residents walking from the lift lobby of one building, through the central garden, to the lobby of the adjacent building.	East-West connectivity between pavilions improved by the creation of additional connections to communal open spaces through to lift lobbies.
26 Explore the opportunity for internal communal space for residents within the carpark of the eastern and central buildings to support the goal of social sustainability.	Amenity space introduced in the carpark space of the eastern and central pavilion, and located adjacent to the outdoor communal open spaces between the pavilions, enabling and enhancing the usability and activity of these spaces.
26(a) Locate this space on the pavilion's western façade and adjacent to the east-west link to enable a connection to the central garden and improve the experience of walking to and from the lift lobby at the carpark level	Spaces located within the carpark facades, adjacent to the North-South link between each of the pavilions.
26(b) Ensure this space does not infringe upon the privacy of the apartments opposite.	Landscape buffer provided. Refer to landscape architect report for further information
26(c) Design any openings in the carpark façade as deep slots to reinforce the solidity of the sandstone wall.	Openings in carpark façade read as deep metal framed reveals within the gabion wall.
27 Illustrate how each façade responds to sun, wind, views, privacy, outlook, streetscape character, etc.	East - Vertical facade elements, including stone blades and shading screens, reduce heat gain to facade. North - Deep balconies across the whole of the Northern facade, blocking summer sun while allowing winter sun to hit the fenestration. West - Vertical facade elements, including stone blades and shading screens, reduce heat gain to facade.
28 Break down the mass of the built form by introducing a finer grain of articulation in the facades to better reflect the residential character of the local area.	Additional massing articulation added to each of the three pavilions in the form of slots in all four sides of each pavilions, reducing the perceived scale of the buildings. Further height variation has been added to the massing of the penthouse levels, creating a varied roofline that steps with the falling topography of the street. A finer level of detail has been added, including: finer grain detailing to the grid expression, angled balustrade details, fine vertical metal privacy and shading screens, ribbed textures to metal panels.
30 Convert more of the subterranean units into 2-storey apartments to improve their amenity where issues regarding solar access, ventilation and outlook cannot be resolved by adjusting the building siting.	Ground floor courtyard apartments to the east of Pavilion A have been converted to 2-storey apartments which include double height spaces, two storey windows and living spaces across both ground and first storeys to improve amenity and daylighting.

09.01 SDRP Comments Response Table

SDRP COMMENT

- 33** Undertake overshadowing studies to demonstrate that there are no adverse impacts on neighbouring residents as a result of the lift and stair cores extending above the height plane
- 34** Provide an analysis of privacy and overlooking for apartments in the development and neighbouring residences. Illustrate strategies to mitigate overlooking.
- 35** Include options that test communal space on the rooftop of one, two, and all three of the pavilions.

Sustainability and Climate Change

- 37** Target a minimum of 70% solar access to apartments to provide better amenity to the residents

RESPONSE

- Overshadowing studies have been undertaken, and diagrams provided to demonstrate that no adverse impacts to existing neighbouring residents or onto future developments
- Privacy hoods provided to all internally facing windows within the site.
- Communal spaces on rooftops were investigated but deemed difficult to achieve with existing site and building constraints. In lieu of this internal communal spaces have been designed & integrated into the outdoor communal open spaces between the pavilions, enabling and enhancing the usability and activity of these spaces.

- Apartment layouts have been designed to maximise Northern / Eastern sunlight access to allow as much solar access as possible. Due to the nature of the site and its orientation however, this has constrained the site significantly - every effort has been done to attempt to maximise solar access to as many apartments as possible.

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