PLUS STUDIO®

TELOPEA STAGE 1A

LOT 5-7 TELOPEA 2117

DESIGN REPORT

05.11.2025
REVISION A

In Australia, we acknowledge the Traditional Owners of Country, whose deep relationship with this land is etched into its landscapes and passed through generations. We pay our respects to Elders past and present.

With respect for the past and responsibility for the future, we design with awareness, shaping places that honour these enduring legacies.

INDEX

DESIGN PROCESS

00. DESIGN STATEMENT

01. SITE AND CONTEXT

02. DESIGN DRIVERS

THE PROPOSAL

03. SECTIONS

04. MATERIALS AND CHARACTER

05. ELEVATION

APPENDIX

06. COMPLIANCE DIAGRAM

07. SCHEDULE

08. ADG COMPLIANCE

09. DESIGN AMENDMENT SUMMARY

DESIGN STATEMENT

DESIGN STATEMENT

LOCATION
TELOPEA STAGE 1A
STURT STREET NSW TELOPEA

CLIENT
HOMES NSW

HEIGHT
107.580 M, 14 STOREYS

SCALE
GFA: 32.990 SQM,
SITE: 18.150 SQM,
423 APARTMENTS

Context

Sitting within the Central River City, Telopea supports Greater Parramatta as the central core of the area and geographic centre of Sydney. Greater Parramatta's economy consists of world-class health, education and research institutions as well as finance, business services and administration. The area's population is set to increase 40% from 1.2 million to 1.7 million people over a 20-year period transforming areas of formerly suburban context into more urban environments.

Telopea is located within the Parramatta Local Government Area (LGA). It is approximately 4km north-east of the Parramatta Central Business District (CBD), 6km south-west of Macquarie Park Strategic Centre, and 23km from Sydney CBD. The area also currently accommodates a range of existing community facilities including the Dundas Community Centre, Dundas Branch Library, Community Health Centre, Hope Connect Church, and Telopea Christian Centre. The immediate surrounds comprise predominantly residential properties within an established landscape setting. The broader Precinct contains the Telopea Public School, neighbourhood centre known as the Waratah Shops, and two large Council parks known as Sturt Park and Acacia Park.

Stage 1A

The Site is located south from the proposed light rail stop which will connect Telopea with Parramatta. Stage 1A is located at the northern end of Sturt Street and creates a connection to the light rail stop framing the future Core Precinct of the Concept Plan at the southern end. The site includes the proposed light rail plaza area located between Sturt Street and the light rail which will establish the arrival at Telopea. The overall stage 1A site is 16,128 m2 and will allow for 39,930m2 of developable area. The site has a height control of 28m allowing for approx. 9 storey buildings. The current site consists of 3 storey buildings set within the existing natural landscape defined by trees and steep topography. The future context will allow for up to 22 storey buildings to the north of the site and 7 storey buildings to the south of the site, changing Telopea into a vibrant, high-density built environment while maintaining the natural character.

Through a carefully considered Urban Design response, the proposal consists of 6 individual buildings which, as a collective, establishes a height transition from smaller scale to the south to the much taller scale in the future Core Precinct of Telopea. The proposal challenges the height limit to establish this transition, but, creates a generous public park at the heart of the precinct and proposes to develop below the allowable GFA.

Character, Topography and trees

Telopea has a unique character which is established through the steep topography combined with a landscaped setting defined by the existing Blue Gum Tree Forest and various other existing trees. The lush tree canopies and clusters of trees create a counterpoint to the current buildings which are set freely within this landscape setting. The proposed Stage 1A proposal seeks to maintain this character and ensure the trees and topographic level changes drive the outcome of the new urban proposal.

Scale

Stage 1A is part of the overall Telopea Concept Plan and located immediately south of the future town centre. The design strategy proposes increased density supported by the improved public transport connectivity of the light rail. The proposal ensures that the planning framework is aligned with anticipated growth and meets the needs of the local community. The Stage 1A proposal is consistent with the intent of the overall Concept Plan and public domain strategy which includes providing public amenity and connectivity within the Stage 1A urban design proposal, this approach will enhance the experience of the overall Town Centre.

The Stage 1A development will sit immediately south of the Core Precinct and future town centre. The Core Precinct is the central part of the overall Concept Plan and is defined by public open space and podium and tower configurations up to 22 storeys creating a clear marker for Telopea. The buildings proposed as part of Stage 1A play a role in creating a transition from the Core Precinct's future height to both the existing and future scale of adjacent sites immediately south from Stage 1A. The current built context adjoining the site consists of apartment blocks and residential dwellings which range from 1 to 4 storeys.

The future scale will see 7 storey buildings emerge within a 21 m height limit. The Stage 1A proposal seeks to develop 5 to 15 storey buildings which will transition in scale from north to south. This strategy of placing the scale towards the north of the site mitigates any adverse overshadowing to the southern surrounding context. To ensure sufficient open space is created to allow the existing trees and public open space to be created, an additional 6 storeys over the 28m height limit is proposed for the northern building within the proposal. Other buildings have minor breaches. This flexibility of height will help further transition the scale of the buildings towards the taller tower compositions to the north within the Core Precinct.

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The proposed buildings are varied and have a clearly defined base with the middle and top in varying expression which will assist in establishing a proportional response to both current and future conditions. The 2 to 3 storey expressed base podium responds to the pedestrian movement and human scale. This scale is sympathetic to the existing Telopea context. The strong textural and material character will ground the buildings and will guide the public through the public pedestrian link and the new proposed road through the heart of the proposal.

The varied architectural language that makes up the forms over the shared base will establish the bulk of the building, providing the scale transition between the future southern scale and the future northern towers. The mass of the buildings is, in parts, further reduced with the use of recessed top levels and contrasting materiality. This will assist in eroding the scale of the building and create a variety in the expression of the overall building composition.

Built form

The proposed building form and positioning within the site is based on a range of key design drivers which forms part of the general Concept Plan strategy. The building footprint carefully considers the location of the tree protection zones of the existing trees on the site as well as clusters of significant trees which collectively establish the character both within the site as well as providing character to the edges of the site in relation to the existing context. The proposed building footprints are divided to allow for the retention and expansion of the already existing public pedestrian link which runs through the centre of the site connecting the southern community to the light rail plaza and station at the north.

The proportions of the various building forms establishes a series of zones which clearly frame the public and communal spaces created. The proposed road aligns with the existing surrounding road network and establishes a clear relationship to the future built form to the north of Sturt Street. The length of the built form and articulation create a well-balanced composition which moves through the existing landscape and naturally defines each external open space. The various buildings differ in their scale and form to create a natural variety of building typologies, through core configurations, form and architectural language.

Density

Density refers to a building's floor space (or dwelling numbers) relative to the site. Appropriate densities respond to the context, environmental qualities and the availability of infrastructure, including social/community infrastructure and public transport. The Stage 1A proposal challenges the allowable height to create a considered scale transition to the future scale to the north. The established yield and GFA is below the maximum area which could have been approved on the site. The yield and the GFA is the outcome of a carefully considered urban design analysis to create an urban fit for this site which includes considerations of generous public open space and a new road network. The overall strategy in its height, density and building form carefully considers the role in defining the Telopea Community. The Site's proximity to transport infrastructure, local service and retail offerings provide a compelling opportunity for high-density residential redevelopment at this site.

The proposal can provide well-considered residential accommodation, surrounded by good amenity catering for both individual and families. Transit oriented developments are defined as highly walkable, higher density precincts centred around a transit hub. These precincts are the preferred model for both infill and new development strategies in Australia, due to their ability to achieve wider sustainability and economic benefits when compared to their suburban counterparts. The proposal provides a good balance between landscaped open spaces and built area, ensuring sufficient public open space and amenity is created for the proposed community. Clearly defined communal spaces at both the ground plane as well as at the various communal rooftop areas, create a variety of spaces for the community and have good solar access and amenity. The proposal will complement the dynamic character of this place defined by the town centre just north from Stage 1A which will become a dynamic and vibrant place for Telopea.

Resource, energy and water efficiency

Environmental sustainability is more important than ever as we increase density and potential impact our environment. We put a focus on developing buildings which are sensitive to social, economic and environmental factors. Our approach to ESD aims to create an environment which is healthy, comfortable, social and sustainable. The ESD Strategy has informed the project's design concept and sustainability ambitions. As the global focus aims at the sustainable world and health, our projects need to consider and promote essential aspects of providing a healthy and productive lifestyle, in which a community can be inspired, share and have fun. The building design and urban design infrastructure for the project embed the principles of sustainability. Given the effect of the global, state and local policy relating to amenity, climate change and biodiversity, the design is aligned with the sustainability guide lines and as outlined with the Green Star design rating.

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Key design drivers are:

a. Health & Wellbeing
b. Social environment and inclusion
c. Passive design principles & thermal comfort
d. Energy
e. Water

a. Health & Wellbeing

The proposal integrates the proposed uses with a carefully configured public realm, providing generous public open space and linkages as well as communal open spaces dedicated to the future residential community. These spaces will create activation to promote a healthy and dynamic urban lifestyle. The site is well connected to public transport, both future bus stop and light rail, and enhanced amenity is offered through the site's close and level access to the Telopea town centre. The overall building composition and orientation ensures that the majority of the apartments receive good solar access and visual aspect, engaging with landscaped areas which celebrate the existing trees and landscape character of the site.

b. Social Environment and Inclusion

The proposal promotes the concept of inclusion and social gathering. Human connectivity, communication and shared experience is a key aspect of learning and creating community. On the ground plane, a clear link road provides access to each lobby, and the shared public open space. The site's permeability will encourage natural engagement between people. The visual connectivity between the spaces will create a sense of awareness and natural engagement between both the residents of each building and the wider community. The lobbies which are accessed from the new road running through the heart of the development will allow the overall community to engage with one another on their way to and from the public transport. All building lobbies will have clear street address to allow ease of access for the residents.

The light rail plaza, neighbourhood park and communal gardens collectively create a network of spaces promoting a variety of uses which collectively will contribute to the beating heart of the wider community at Telopea. The communal gardens and rooftop garden provides for a variety of programmed uses which includes seating configurations, BBQ areas, gathering spaces and spaces for exercise, but also spaces to meditate and relax while appreciating good solar access and views.

c. Passive Design & Thermal Comfort

Passive design strategies are fundamental to a sustainable building design. Apartment units and the proposed façade type need to consider both the visual amenity and transparency while ensuring shading and thermal comfort. The proposed building form and proposed core locations ensure that the required solar access and cross ventilation to the apartments is achieved. The proposal includes a broad variety of façade types across the buildings which respond to various orientation, conditions, aspect, privacy requirements, required shading and solar requirements. Insulated walls and exposed thermal mass will together keep the apartments at stable internal temperature, while operable windows will enable cross ventilation passive cooling. The careful consideration of the proposed built form and urban framing of external areas, landscaped areas and balconies ensure that these spaces are usable and comfortable.

The balance between sun, shade, and protection from rain, wind and noise ensure the proposed apartments and balcony areas will be comfortable spaces for the residents living there. Landscape and planting at the ground level apartments will play a key role in further enhancing these principles and ensure the relationship between private and public space is considered.

d. Energy

An energy efficient building should consider ways to reduce the need for energy as a starting point. A key consideration in this is the façade design which controls the further need to deal with cooling, heating, light and air. The façade should be responsive to the uses and the needs of its occupants. The facade is designed to control solar access and provide a comfortable internal environment. Window areas are designed to minimise solar gain while maintaining views to the external environment and daylight. Naturally ventilated rooms, corridors and communal areas using cross ventilation will reduce need for AC. Motion sensors and management software can further reduce wasted energy uses for both air-conditioning and lighting. The development includes the potential to generate, store, and use power by including PV panels on the roof of the buildings occupying over 50% of the roof space. These are to be used in the car park for vehicle charging stations for shared car systems as well as to power the lighting within the public domain and communal and common spaces.

The development will endeavour to achieve a high level of sustainability through the provision of future Electric Vehicle infrastructure with EV charging stations; "GoGet" car sharing facilities; and allowance for end of trip facilities for residents.

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Systems and monitoring play and active role in measuring the performance of buildings. Lower energy consumption offers benefits beyond the obvious reduction in operational cost, and present environmental benefits across several areas. The easiest way to reduce energy consumption is to use less. Intelligent BMS (Building Management Systems) will measure, manage and reduce a building's operational energy use. The building also implements passive design features in order to minimize the energy consumed by heating and cooling systems as well as the dependency on artificial lighting.

e. Water

Water is essential to life and its security is of the essence. Water sensitive design will be a key consideration to the design of the roof areas and public realm landscape, that requires substantial amounts of grey water for irrigation. Careful consideration of how to reuse water across the development will provide efficiencies combined with careful plant selection throughout the development. The project will use water-smart strategies to reduce potable water consumption through efficient fixtures.

The project considers responsible use of water by utilizing the following in their facilities. The development aims to minimise potable water consumption through efficient fixtures and fittings as well as reduction in landscape irrigation. Planting on the rooftop areas and podium levels will be drought resistant and will be coordinated with the landscape architect's specifications of planting.

Fire protection testing water is recycled into the system to avoid wastage.

Management

The effective management of building operations and the communal spaces is a key aspect of sustainable performance. This includes the provision of systems information to the residents, the ongoing monitoring of energy and water use, and the implementation of green cleaning policies and practices. In addition, the opportunity to actively assess the occupant wellbeing and interactions with their environment feedback to ensure buildings are managed successfully and performance is improved where necessary.

Indoor air quality

Indoor environment quality is a key aspect of sustainable building performance. The creation of high-quality indoor environments has been shown to increase productivity, occupant satisfaction and health. To achieve optimal thermal comfort conditions, an ideal balance must be struck between temperature, relative humidity and air speed. Air circulation or ventilation is key to improved indoor air quality. The Project's typical floors provide fresh air at lift lobbies and opportunity for cross ventilation to apartments and corridors. The building configuration with multiple cores ensures at least 60% of the apartments are cross ventilated, reducing the need for air-conditioning. The requirements for heating and air-conditioning has been minimized through passive design including glazing orientation, and natural ventilation, however, active systems will still be required. The apartments are provided with individual condenser units on their balconies.

Lighting

For this project, lighting includes efficient fluorescent and led lighting and, where incandescent lights have been used, low voltage fittings. To minimize the energy consumed by lighting when not required the following control strategies have been implemented. Stairs will be controlled via occupancy sensors as will lobbies and corridors with safety lighting via low energy led sources. External lighting to be controlled by daylight sensors. Lift cores and lobbies have the benefit of using natural light reducing the need for lighting in these areas as well as providing views.

Transport

This project is anchored by the relationship to the public transport node. The access to public transport will reduce the need for usage of cars. Car parking for residents is provided but the site's location and level access to the light rail stop promotes the use of the surrounding public transport infrastructure as well as sustainable modes of transport including bicycles, motorcycles and car sharing services.

The project team has made a commitment to provide a minimum of 1 bicycle space per apartment. This has been achieved through all basement levels with primary use of large storage cages to accommodate bikes. A proposed Green Travel Plan will outline this and other initiatives further.

Material

Building materials used within the development will be selected to minimise the environmental impact. This includes materials sourced from sustainable sources. Materials to preference local over imported materials. Material life to consider durability and design life and quality. Modular fabrication in factories to reduce wastage. Socially responsible trade labour in all cases. Global partnerships purchase goods through socially responsible partners that have ethical commitments to their workforce, material use and waste management.

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Waste is recycled where possible. Waste is minimized on site during construction with design adopting modularization of componentry, panelling and systems so that cutting is limited.

Landscape

This proposal integrates the architecture and landscaping into a sympathetic balance in which the existing landscape character, topography and trees help to carve and define the built form and architecture. The architecture and building composition define a network of landscaped areas which celebrate the clusters of existing trees. The neighbourhood park, new road, public link and communal open spaces are well defined by the built form and allow for a variety of uses and program. The landscape architects have provided a variety of solutions within each space to balance the existing trees with new proposed planting, seating and gardens. The layered landscaped edges help to further define the separation between the private gardens and the communal or public areas.

Each space is intertwined with landscaped expression, punctuated and extruded to compose an environment that is open and programmed. Pedestrians move through the landscaped ground plane with ease. The most exciting part is the way the neighbourhood park feeds into the public link which connects through the heart of the development and uses some of the key existing trees to guide the public through a variety of spaces. To that extent the building form plays a role in creating a welcoming gesture when arriving from the north and framing the journey through the site.

Amenity

Good design provides amenity through the physical, spatial and environmental quality of a development. It includes considering aspects of accessibility, sunlight, ventilation, visual and acoustic privacy, the size and configuration of apartments, rooms and sequence of spaces. This project is designed with a strong emphasize on creating buildings which sit amongst the existing natural setting of the site. The alignment and orientation of the buildings has been assessed to ensure both the apartments as well as the context will maintain sufficient solar access, comfort and aspect, sharing the landscaped setting for all residents. The building configuration, core positioning and articulation facilitates sufficient natural ventilation and allows for a mix of 1, 2 and 3-bedroom apartments which share equal amenity through sensible space planning and sizing over multiple levels within the buildings. The ground floor apartments have additional amenity with private garden which enhances usable outdoor area and provides a strong connection to living within a park. The core configuration ensures views, natural light and ventilation are achieved when arriving at your level by lift, creating an understanding and relationship to existing landscaped character before entering your apartment.

The communal areas are concentrated within the shared ground plane and create a dynamic visual foreground to the apartments which overlook these areas. The spaces encourage social interaction and visual and sensory engagement with the surrounding urban context and create a strong sense of community for the occupants. The occupants will use these spaces to congregate with friends and family at all hours of the day. The thresholds and the relationship between these different spaces lead to a dynamic interplay of zones that encourage different forms of social and communal activity. The neighbourhood park invites the wider community into the site providing yet another layer of amenity at the ground plane through its shared offering. The public light rail plaza adds to further variety of spaces, becoming a meeting place for the community at the public transport interchange.

Safety and Security

The proposal creates a strong engagement with the public domain and its surroundings and is designed to create a range of open spaces within the site with the aim to allow for activation, community and public use. The buildings are designed to create a strong relationship with each space within the ground plane. Each space is naturally supervised through passive surveillance by the apartments facing each space. The ground floor apartments have generous gardens which engage with the shared ground plane and have private garden gates which will help to activate the edges of the open space. The lobbies of the buildings are clearly defined within the base of the buildings and create a welcoming gesture for its occupants accessed from the new road coming through the site. The lobbies are equally spread and will give each part along the street a sense of shared ownership, naturally supervising the immediate space.

The neighbourhood park, new road and public link are always open to the public and while being clearly framed by buildings will have lighting strategies and CCTV camera surveillance to further ensure the safety of the community. The walkways are legible and clearly defined without hidden pockets reducing risk. The communal spaces are secured, and the links proposed from the public park are secured through a gate after hours. The lobbies are generous, are well-lit and create regular moments of activation within the public domain. The lobbies will have camera security and swipe-card access to ensure the public does not access the lobbies without permission.

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Social Dimensions and housing affordability

The Stage 1A proposal contains 423 apartments, 146 of which are to be social housing (Buildings A, B2 & C), with the balance, 277, to be market apartments (Buildings B1, D & E). This site forms part of the overall Concept Plan which provides a significant amount of social and affordable housing as part of the overall strategy and offering for this precinct. The overall Concept Plan facilitates a connected community created through the variety of public open spaces, links and landscape pockets connecting all people within this multi-cultural community. The urban fabric which is proposed creates a shared place for all layers within the community and ensures a variety of choice within the residential offering. Stage1A fulfils part of this spectrum of living typologies for the future community of Telopea.

Aesthetics

This project is designed around the concept of framing the existing natural setting defined by the elements specific to Telopea which make this area special. The proposal uses the key drivers defined for the Concept Plan as well as this site to establish a vibrant and connected shared natural and built environment which maintain the character of Telopea.

The proposed form of the 6 buildings, combined with the alignments, orientation, articulation and transition of scale play as part in establishing a balanced group of buildings, with variety in expression playing an important role in the overall Concept Plan. The architectural expression established through the palette of materials aims to provide further depth to the notion of maintaining the character of Telopea.

The material palette for the project consists of a range of materials which aim to translate the textures, warmth and depth which respond to the natural setting of Telopea. The textural quality and tonal depth of the warm toned brick is used in a variety of ways to establish the base to the project where the architecture engages with the natural setting. The depth and shadow created in the layered expression in these lower levels aim to unify the various buildings and provide human scale to the project which combined with the landscaped planters, dark metal balustrading, various screens and planting will create a dynamic backdrop for the various landscaped gardens and parks. The podium expression changes in its detail throughout the site while maintaining a common character across the landscaped setting. Towards Sturt Street the base steps down along with the natural topography, framing the street and reflecting the core proposal of the Concept Plan across the road. Towards the south of the project the brick base responds to the topography, rising to ~3 storeys, with the building expression to relating to the current residential scale within the current context.

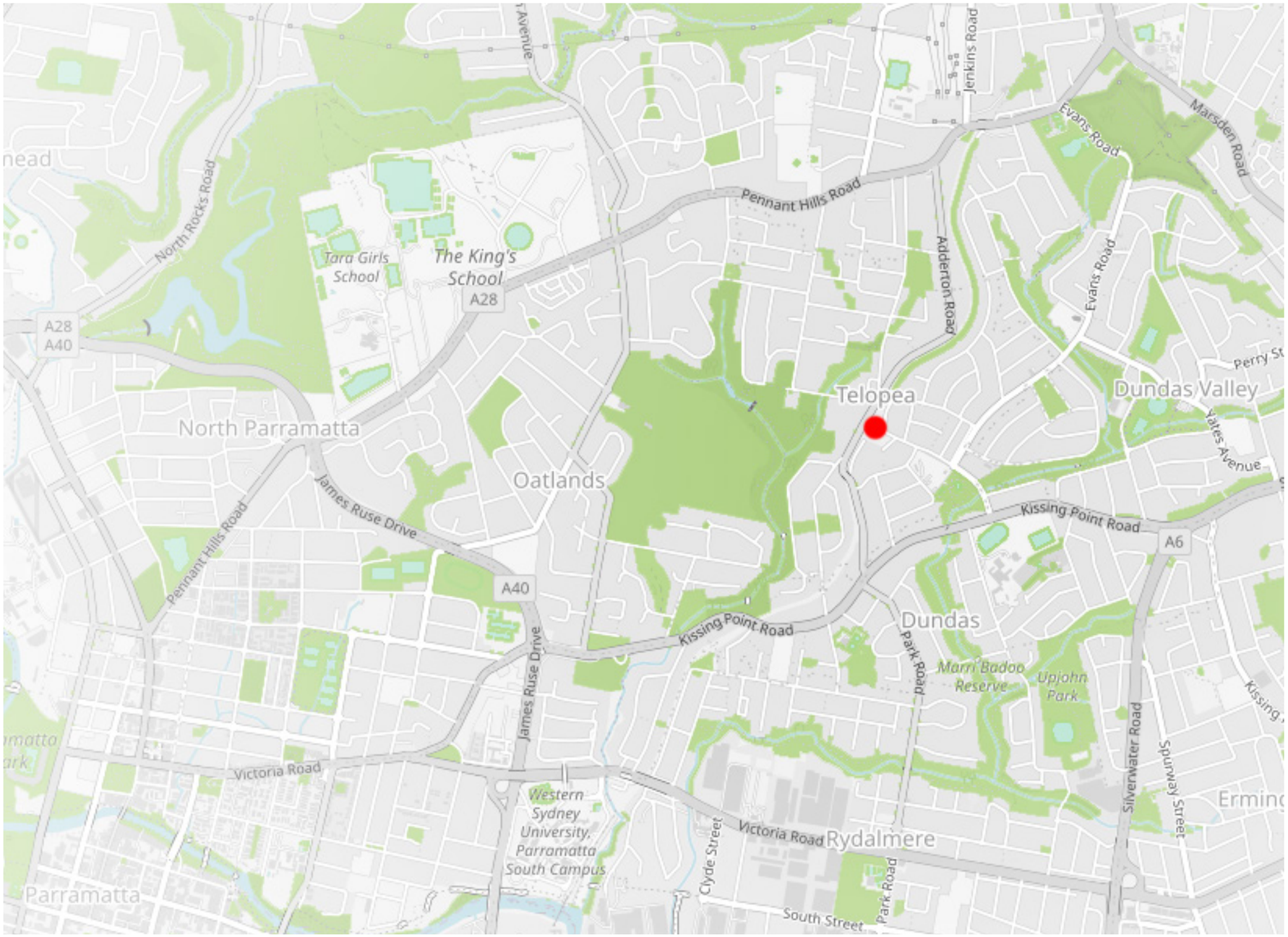
The tallest buildings facing Sturt Street anticipate their future neighbours and represent as a pair of buildings. Surrounding the new proposed public park each building expression is different to create a well-balanced collection of buildings which share a harmony in, base, materiality and rhythm but also provide a point of difference. The façade along the east of the park guides the new road, while the southern building becomes a clear marker when transitioning through the site along the public path. The building facing the park along the west takes on a layered approach as it provides the backdrop beyond the existing trees when arriving from the lightrail station. The solid balcony upstands work to enhance the layering of the façade, providing relief through indentation also, thus it create a dynamic rhythm when moving past the building. The composition of buildings within Stage 1A is seen as a family of buildings, creating architectural variety but also a balanced and unified experience throughout the public domain, communal areas and streets. The nuanced and strongly composed building blocks overlayed with the family of façade types provides variety to establish a sense of identity and character.

The detailed urban design response combined with the architectural expression create a unique family of buildings which celebrate the existing features of the site. The proposal shares its principles with the overall Concept Plan strategy to create a holistic approach with the aim to build a vibrant community for Telopea.

Rido Pin
NSW Reg. 11286
Director Plus Architecture

SITE & CONTEXT

Site & Context
LOCATION



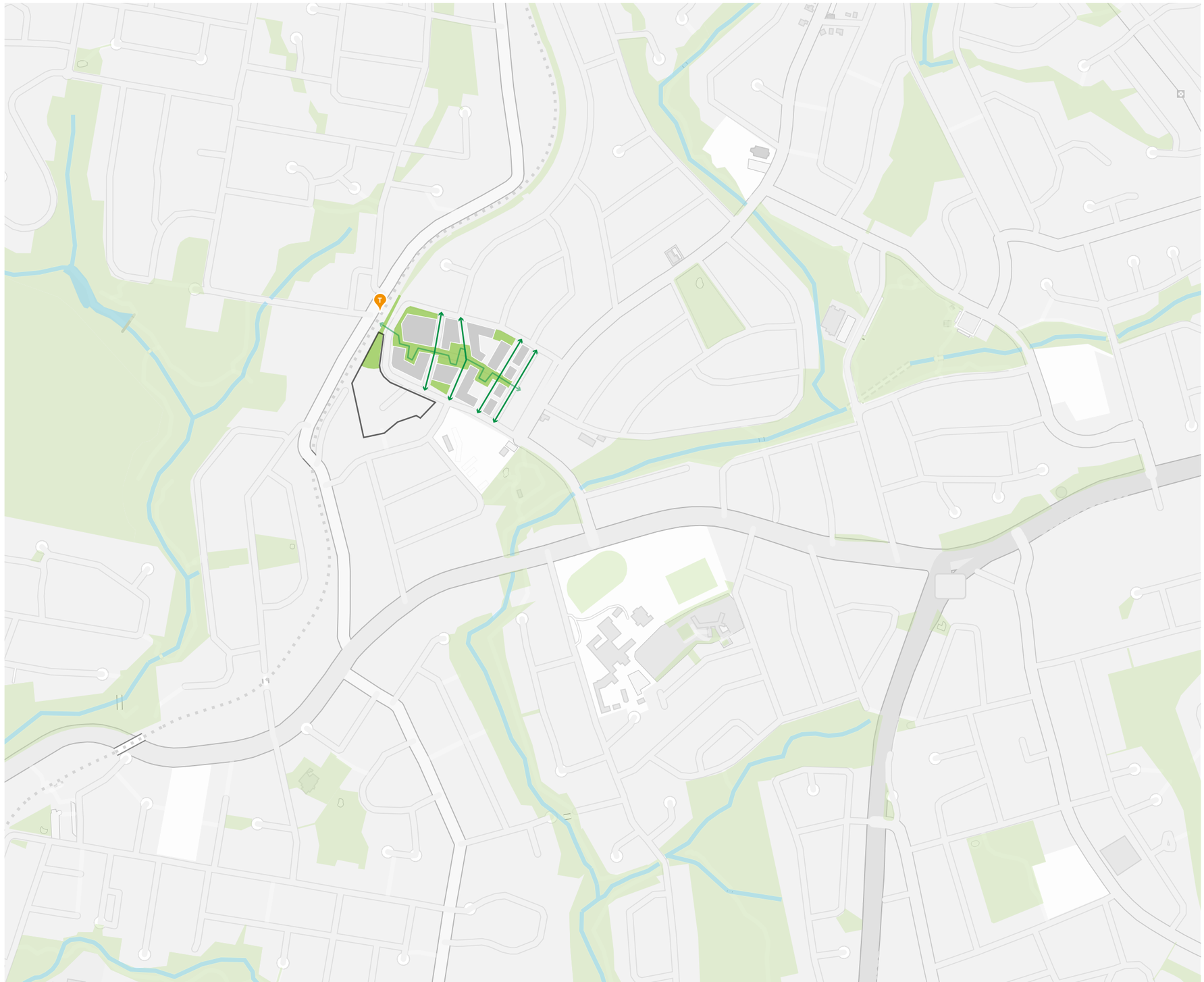
Metropolitan Context

Sitting within the Central River City, Telopea supports Greater Parramatta as the central core of the area and geographic centre of Sydney. Greater Parramatta's economy consists of world-class health, education and research institutions as well as finance, business services and administration. The area's population is set to increase 40% from 1.2 million to 1.7 million people over a 20 year period transforming areas of formerly suburban context into more urban environments.

Regional Context

Telopea is a suburb of Greater Western Sydney, in the state of New South Wales. Telopea is locaated 23 kilometres north-west of the Sydney central business district, in the local government area of the City of Parramatta. The suburb is bordered by Kissing Point Road to the South and Pennant Hills Road to the north.

LOCAL CONTEXT



Telopea Concept Plan

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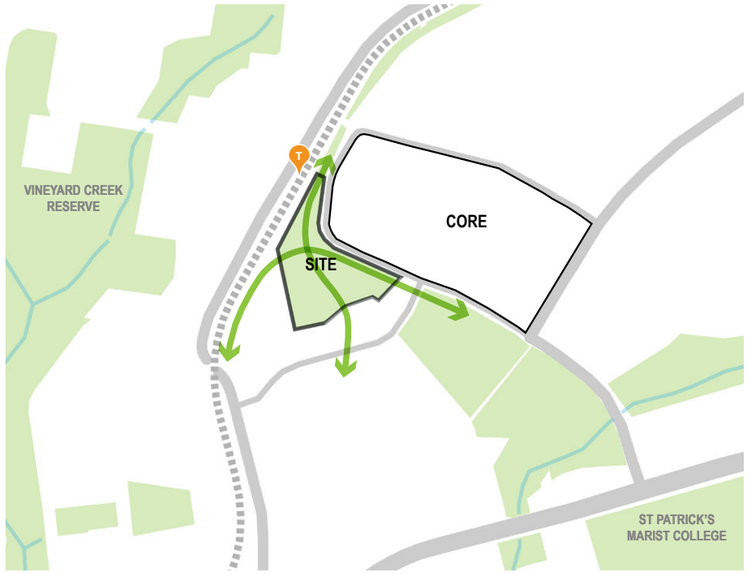
CONCEPT PLAN PRINCIPLES

GREEN SPINE



CONNECTIVITY

TREES AND CHARACTER

INTEGRATED COMMUNITY

Green Spine

The proposed Concept Plan and the Stage 1A site forms part of the larger development sites including school which naturally connects Sturt Park to the future plaza and light rail station. The landscape character is a key drives for the development of this site. Surrounding bushland corridors are a collection of green spaces that support social and ecological systems.

Connectivity

The Stage 1A Site will have the opportunity to create a well connected place creating a range of through site connections which will establish a connected community and will provide a sense of permeability through out the neighbourhood. Regional (light rail) and local (pedestrian/ cycle) connections run across flatter topographies, with local bus services looping the site, providing a well integrated and accessible transport system.

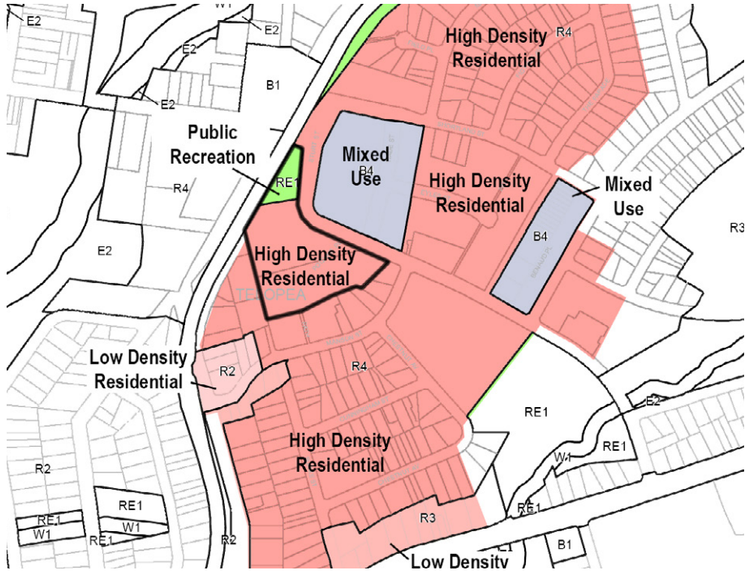
Tree and Character

The natural setting and character established through the existing trees are key to developing the Stage 1A proposal. The trees are a driver for the overall Concept Plan and drive the built form outcome. Open spaces are created around stands of existing trees. A mix of public spaces, communal gardens and generous setbacks each contribute to retaining the bushland hillside character of the Telopea Centre.

Intergrated Community

Telopea's current built form, scale and building typology will evolve as a result of the proposed Concept Plan proposal. The character, natural setting and opportunities to create meaningful connectivity through out the Concept Plan and the Stage 1A site will ensure the project will maintain a sense of place.

CONCEPT PLAN PRINCIPLES



ZONING - HIGH DENSITY RESIDENTIAL (PUBLIC RECREATION TO NORTH)

HERITAGE - NONE

Land Zoning

The site is located in the High Density Residential Zoning providing the opportunity to create high density scale apartment living typology immediately south from the Core Precinct which allows for mixed use and additinal height.

Heritage

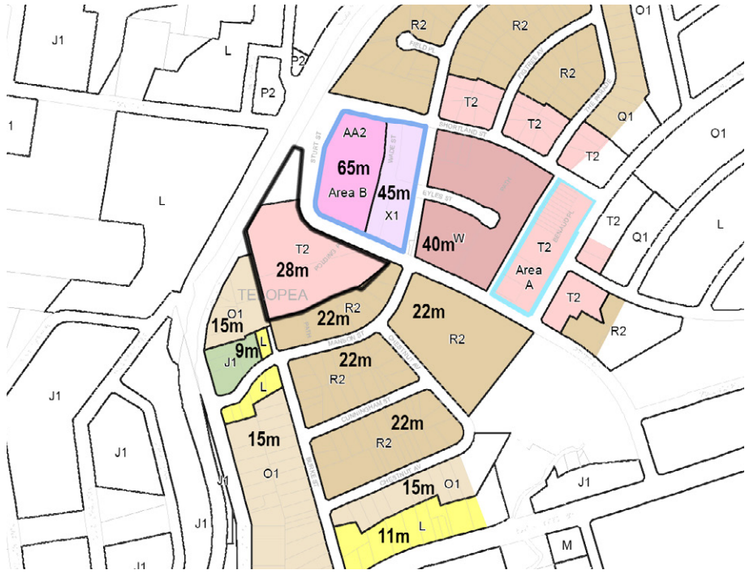
There are no Heritage Items located on the site.

Height of Buidling

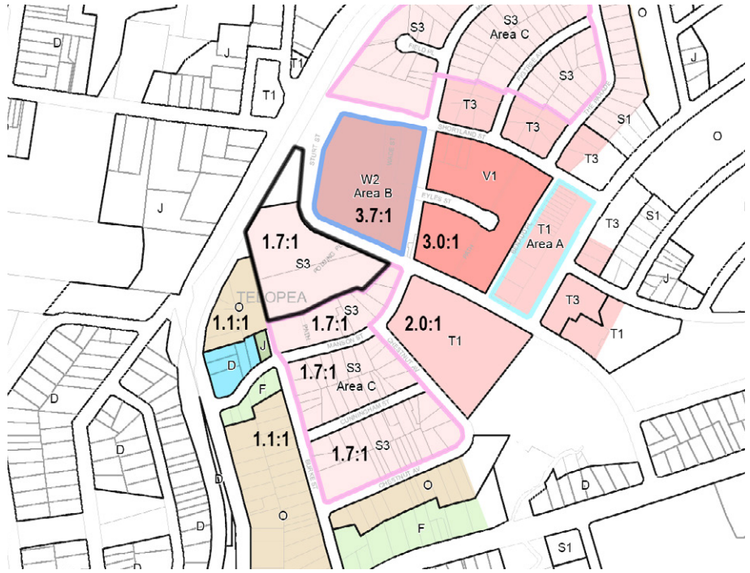
The site allows for 28m height which translates to the equivalent of a 9 storey building. The site has the opportunity to create a transition of scale between the Core Precinct just north of the site allowing for 70m (including available bonuses) height to the southern R2 area which allows for 22m of height allowing for 7 storey buildings.

FSR

The site is subject to a base Floor Space Ratio (FSR) of 1.7:1 (equating to 30,855 m² of floor space). An additional 0.5:1 bonus FSR (equating to 9,075 m² of floor space) is available pursuant to Clause 6 (2) and Clause 13 (2) of the Affordable Rental Housing SEPP as the development is on land owned by LAHC and qualifies as affordable housing. Based on **FSRs of 1.7 + 0.5,** and a site area of 18,150 m² (excluding RE1), the maximum permissible floor space **39,930 m²**.



HEIGHT OF BUILDING - 26M



FSR - 1.7:1

C. Current cluster of trees at northern part of site

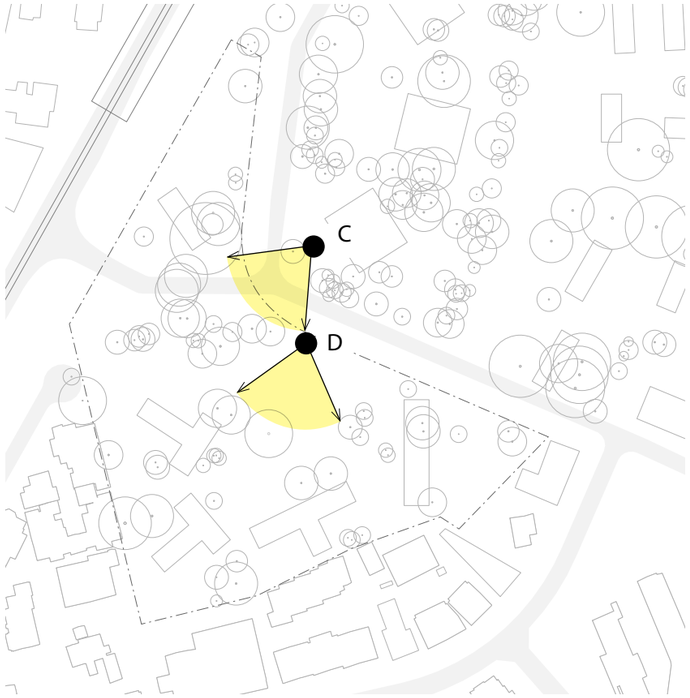
D. Cluster of trees at centre of site

C. Cluster of trees northern part

The site has a range of well established tree clusters which provide a sense of place and character to the area. This cluster consists of a range of Eucalyptus trees which are important in maintaining the character of the area.

D. Cluster at centre of site

The cluster of trees at the heart of the site consist of some well established trees which create a strong focal point within the heart of the site. The cluster provides a natural guide and marker towards the public link within the site.



Site & Context

SITE PHOTOS

E. Sturt street _27 Manson Street

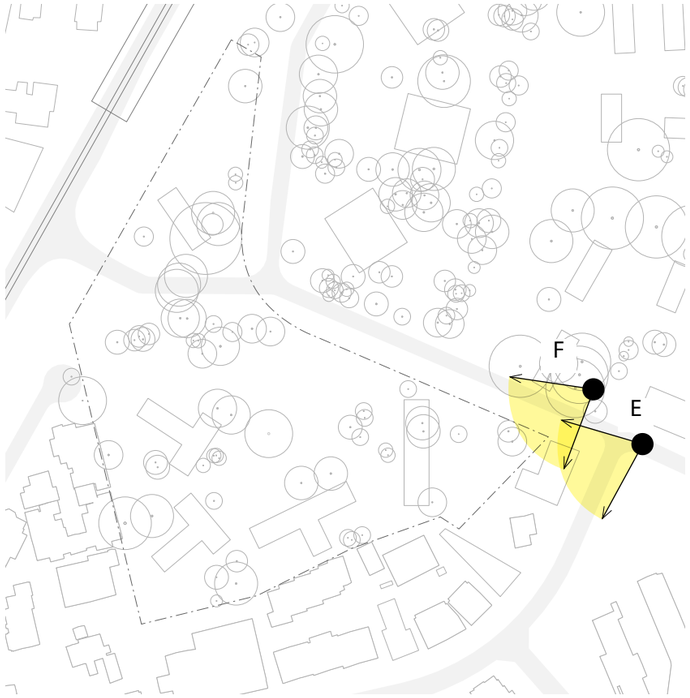
F. Sturt Street- 27 Manson Street

E. Sturt Street 27 Manson Street

Stage 1A has a strong topographical fall along Sturt Street. The property on the corner of Sturt Street and Manson Street will form the immediate context to the site along the southern boundary.

F. Sturt Street 27 Manson Street

The 3-4 storey building located at the southern end of the V 1A site will create the immediate context. The scale and character will be considered as part of the proposal on the Stage 1A site as well as the potential increas of scale in the future.



Site & Context

SITE PHOTOS

G. Manson Street existing street character

H. Manson Street through site link to site

G. Manson Street

Manson Street is characterised by 2 storey buildings using warm tones of brick. Future development on this site will allow for 21m and 7 storey scale.

H. Manson Street public link

The public link which connects Manson Street to Stage 1A will require further upgrading and be considered as part of future proposals on this site. Existing trees on the site provide a marker for the journey through the site.

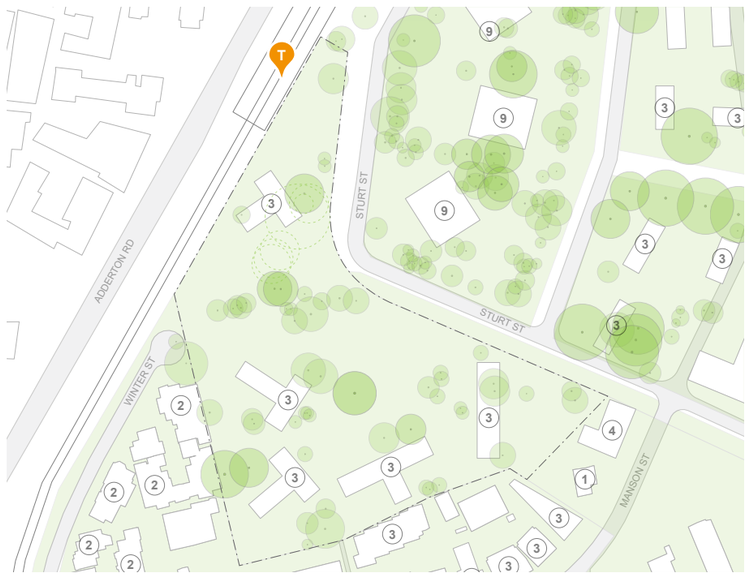
Site & Context

SITE PHOTOS

SITE ANALYSIS

VEGETATION AND TOPOGRAPHY

ACCESS AND CONNECTIONS



BUILT ENVIRONMENT SCALE

SOLAR AND ASPECTS

Vegetation and topography

The Site has a range of important tree clusters which provide a strong sense of character to the site. The centre of the site is relatively flat whilst the eastern and western edges show significant level changes which will have to be taken into consideration in the proposed design solution.

Access and connections

The Site provides an opportunity to establish a through-site connection from the southern end from Manson Street to the light rail station. This north-south connection will provide a strong desire line which is naturally reinforced by the existing tree clusters which act as markers along this journey.

Built environment scale

The site forms part of the Concept which establishes high density mixed-use developments to the north in the Core Precinct. The future southern context will be developed to the 22m height limit and will change the future context for the Site.

Solar and aspects

The Site is well proportioned and has good solar access and aspect taking advantage of the northern aspect, light rail corridor and Sturt Street corridor. The immediate current and future context along the southern and western boundaries of the site will have to be considered as part of the proposed building configuration to ensure the solar access for these buildings are provided.

Future context
1 Number of storeys
Pedestrian / walking link
Transport / vehicle route
Solar access

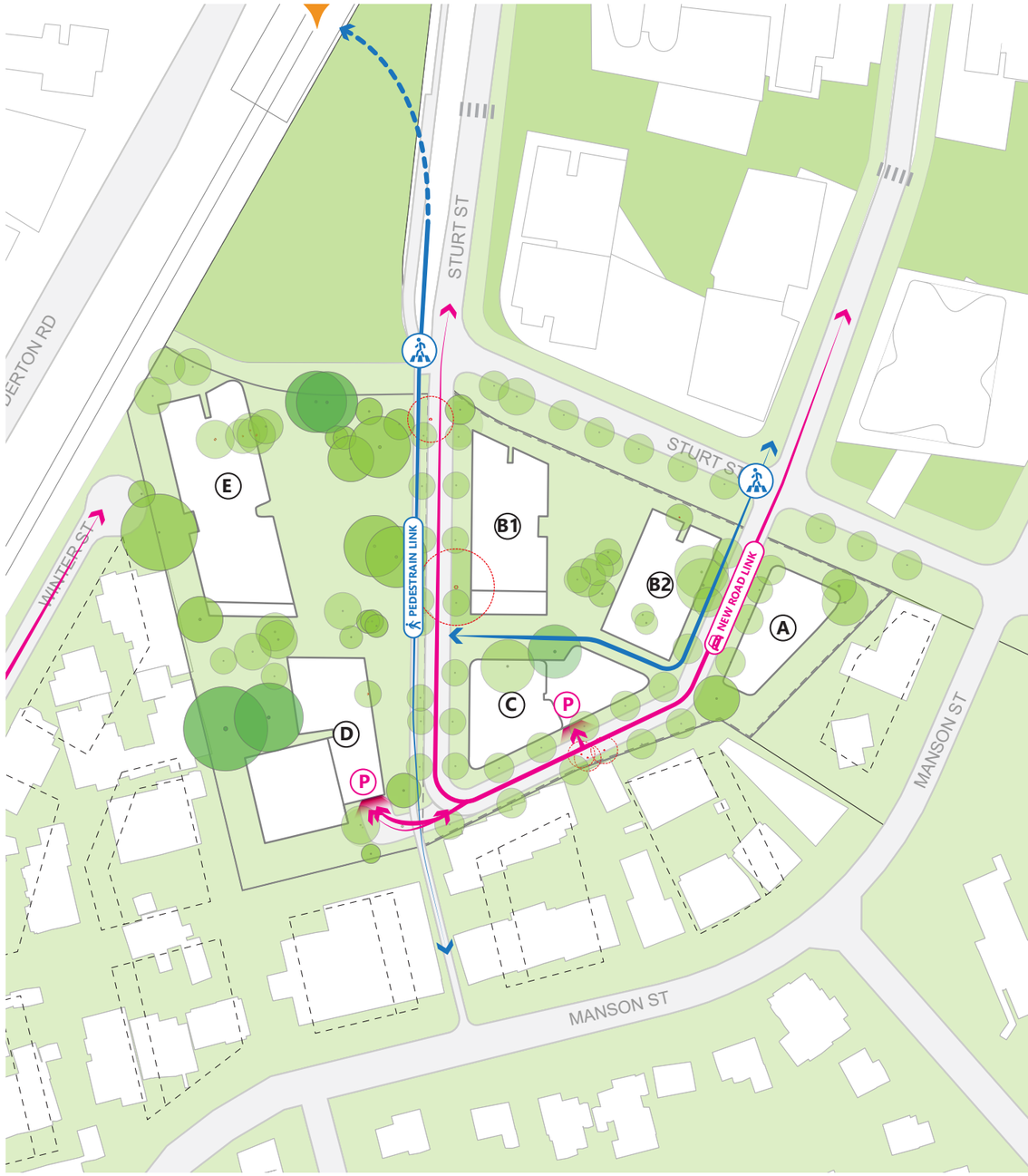
DESIGN DRIVERS

INITIAL DESIGN PROCESS

LANDSCAPE FRAMING

The proposal seeks to maintain the character of the site by reinforcing key tree clusters as part of the allocation of spaces and built form across the site. The existing tree formation is used to establish the through site link and to create a natural buffer to the existing context along the southern and western perimeter of the site. Landscape pockets are being shaped to provide natural relief to the context while creating amenity for the proposed development.

BUILT FORM AND CONNECTIVITY



The proposed built form is naturally established through both the framing of the existing tree clusters and establishing the through-site link. This separates the project in two which creates a relationship to both the existing street profile along Sturt Street and southern and western boundaries, complying with ADG requirements. The built form at ground plane provides undercroft connections to link the public open space with communal areas.

INITIAL DESIGN PROCESS

ARTICULATION AND SOLAR AMENITY

The proposed built form is established based on careful analysis of the solar access to both the proposed building forms as well as the immediate context for both existing and future development. The building form is articulated to create legible composition of form which frame the open space.

BUILDING HEIGHT AND ARTICULATION

The proposal ranges in height to create a transition of scale which helps to transition both the current and future southern context to the Core Precinct. The buildings establish clear delineation between public and commmunal areas.

Design Drivers

TREE RETENTION

Existing site conditions

The site has a vibrant character established by the natural landscaped setting and trees. A detailed analysis of the existing trees by the arborist has categorised the trees based on significance.

Proposed built form and trees

The built form is established based on the principles of maintaining the trees with the most importance and quantity. The built form reinforces the clusters of trees and the connectivity through the site while ensuring the proposed built form alignment ensures SEPP 65 and ADG requirement of seperation and solar access.

Trees grade AA1 targeted to be retained = 1

Trees grade A1 targeted to be retained = 8

Trees cluster targeted to be retained

Trees removed = 43

Future context

BUILT FORM

BUILT FORM AND CONTEXTURAL ALIGNMENT

- Alignment of the built form with core tower postions
- Variety of built form / building scale and lenght
- Consideration of footprint and built form connections
- Consideration of orientation and solar access

BUILDING SEPARATIONS

The proposal seeks to maintain building separation for both privacy and acoustic treatment. As a result it creates generous public and communal spaces emerging between to create gathering spaces for the community. The proposed built form is generally compliant with the boundary setback in accordance with the ADG. In addition to the setback, the building is articulated to create a sense of scale by breaking down the overall form with combination of contrasting material and texture.

BUILT FORM

CORE POSITIONS AND FLOORPLATE CONFIGURATIONS

- Core positioning and efficiencies
- Consideration of building form and units per core
- View from corridors and daylight access

LOBBIES AND STREET PRESENCE

- Clear street address to each building
- Street Pickup and Drop Off from each building
- Reinforcement of the public domain strategy

COMMUNAL AND PUBLIC SPACE

PROPOSED BUILT FORM AND TREES

The proposed open space is 5,810 m² (35.6% of total site area 18,150 m²).

OPEN SPACE AREA

2.763 m² (15.2% of total site area 18,150 m²) of public open space has been generated through the generous domain which fronts four Stage1A buildings. The proposed communal open space is 3,047 m² (16.8%). Great residential amenity is achieved by direct access and general frontage towards the public open space which accounts to 2,763 m² (15.2%).

COMMUNAL AND PUBLIC SPACE

DEEP SOIL AREA

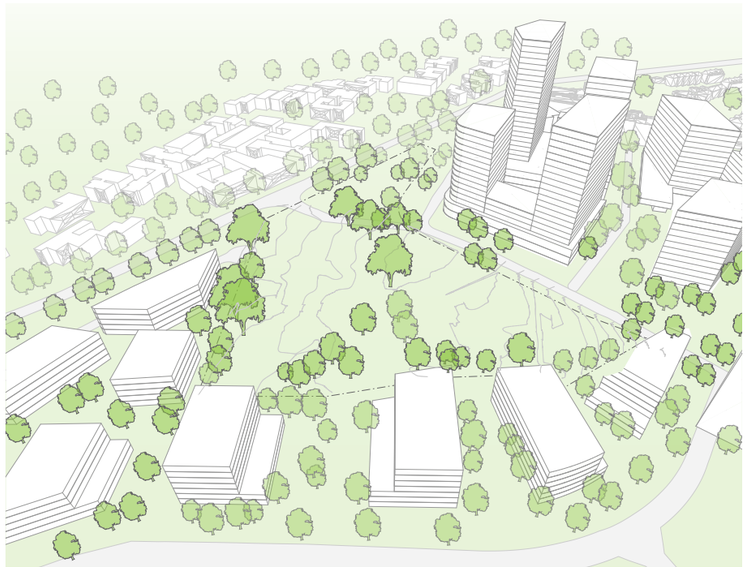
The proposed basement is largely contained below the proposed built from and maintains 3,434m² (18.9% of total site area 18,150 m²) of deep soil area for existing and proposed planting.

SOLAR ACCESS OPEN SPACE AREA

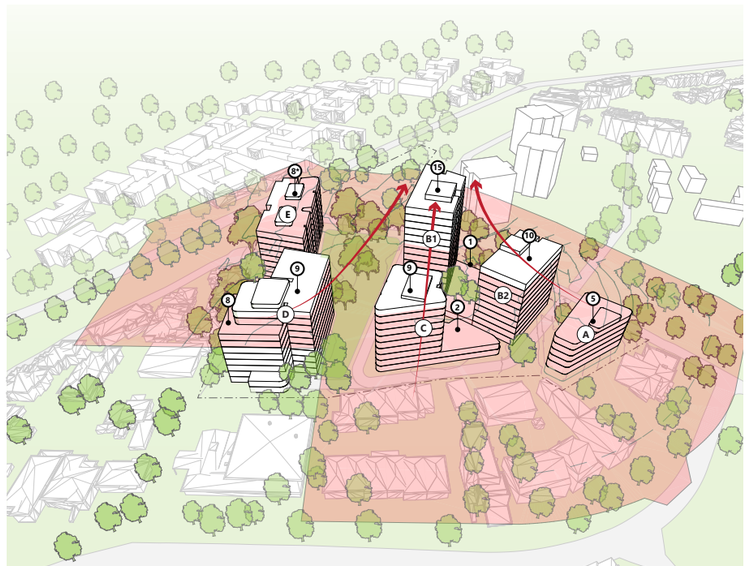
The built form carefully considers the solar access to the public open space within the site. The space is positioned along the northern part of the site of the open space area receives solar access for 2 hours between 9am and 3pm in Mid Winter.

SCALE AND HEIGHT

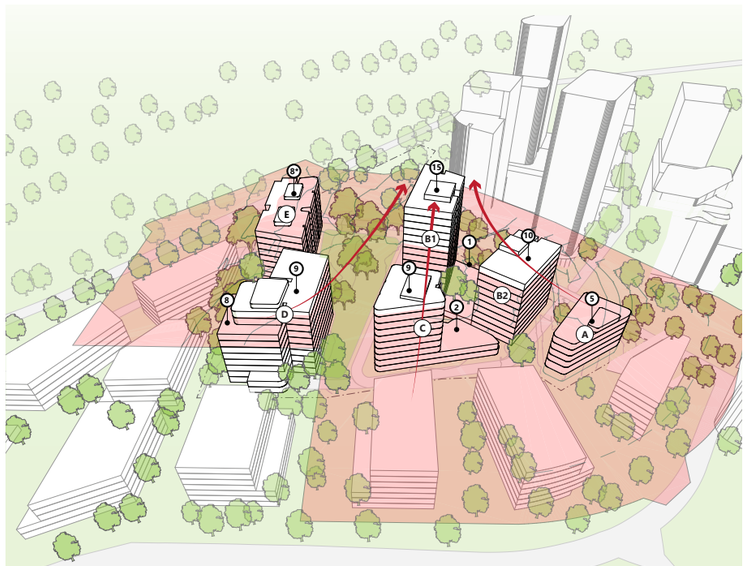
SITE AND EXISTING CONTEXT



SITE AND FUTURE CONTEXT



BUILT FORM IN EXISTING CONTEXT



BUILT FORM IN FUTURE CONTEXT

Site and Context

Telopea will undergo a transformation of scale and density evolving into a precinct which maintains the character of place by maintaining key parts of the natural setting and trees as part of the overall design strategy.

The proposed built form at Stage 1A considers both the current and proposed context and aims to create a transition of scale and character between the southern existing and future context and the core area to the north which will be significantly taller.

The proposal provides an outcome in which the northern tower building B, closest to the station extends up to 15 stories. The height non-compliance in this location creates a scale transition to the buildings in the Core Precinct. Other height non-compliances are minimal to allow for a further variance in height and built form witin the site while giving back sufficient site are to the proposed public park and road system.

The overall strategy ensures a strong urban design outcome within the future built environment of Telopea.

Maximum Height Breach (Approx.)

Building A - Compliant

Building B Tower 1 - 20.48m

Building B Tower 2 - 6.68m

Building C - 5.07m

Building D - 5.35m

Building E - 2.78m

ARCHITECTURAL EXPRESSION

PODIUM EXPRESSION AND ARTICULATION

ARCHITECTURAL EXPRESSION AND ARTICULATION

Podium expression and articulation

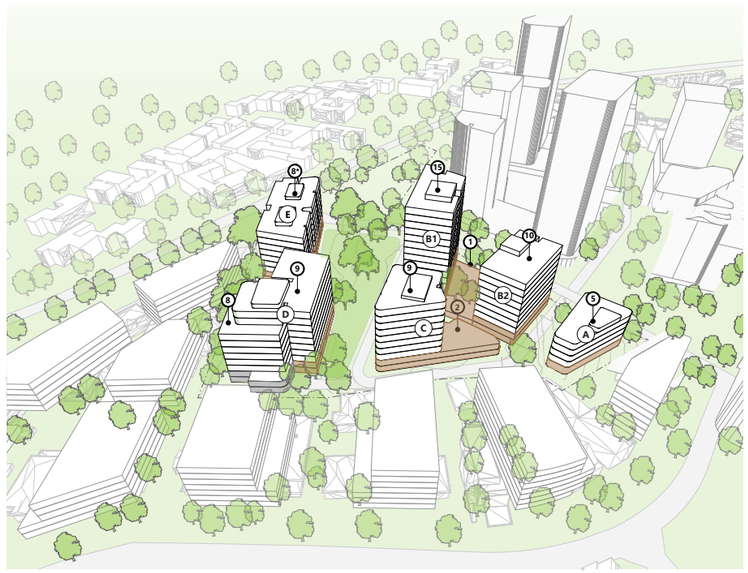
- Strategy to create material consistenty while variety of expression
- Reinforce the character of the area
- Variety of scale and architectural outcome

Express the pedestrian scale

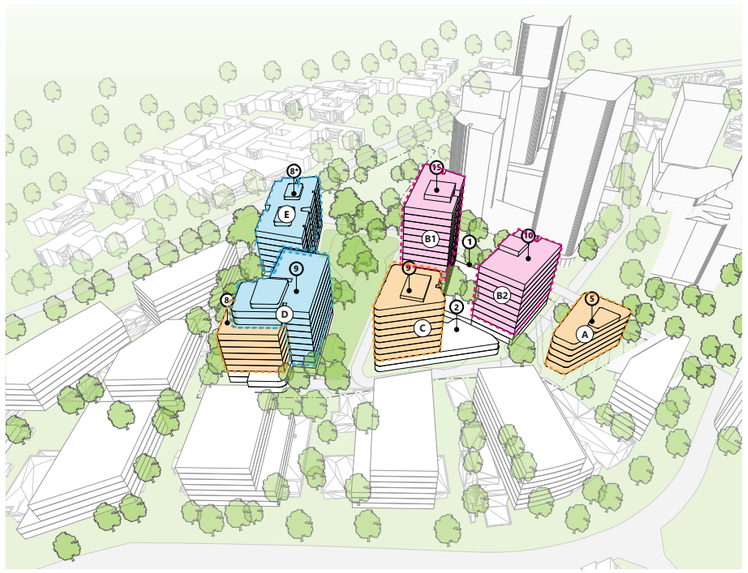
- Warmth and textural approach to respond to landscape context
- Reinform lobby postion
- Consider the topography change through the ground plane

Architectural expression and articulation

- Variety of architectural expression for built form over podium
- Consider the orientation and relationships
- Unique building expression reinforcing the variety of form and scale across the 5 buildings proposed



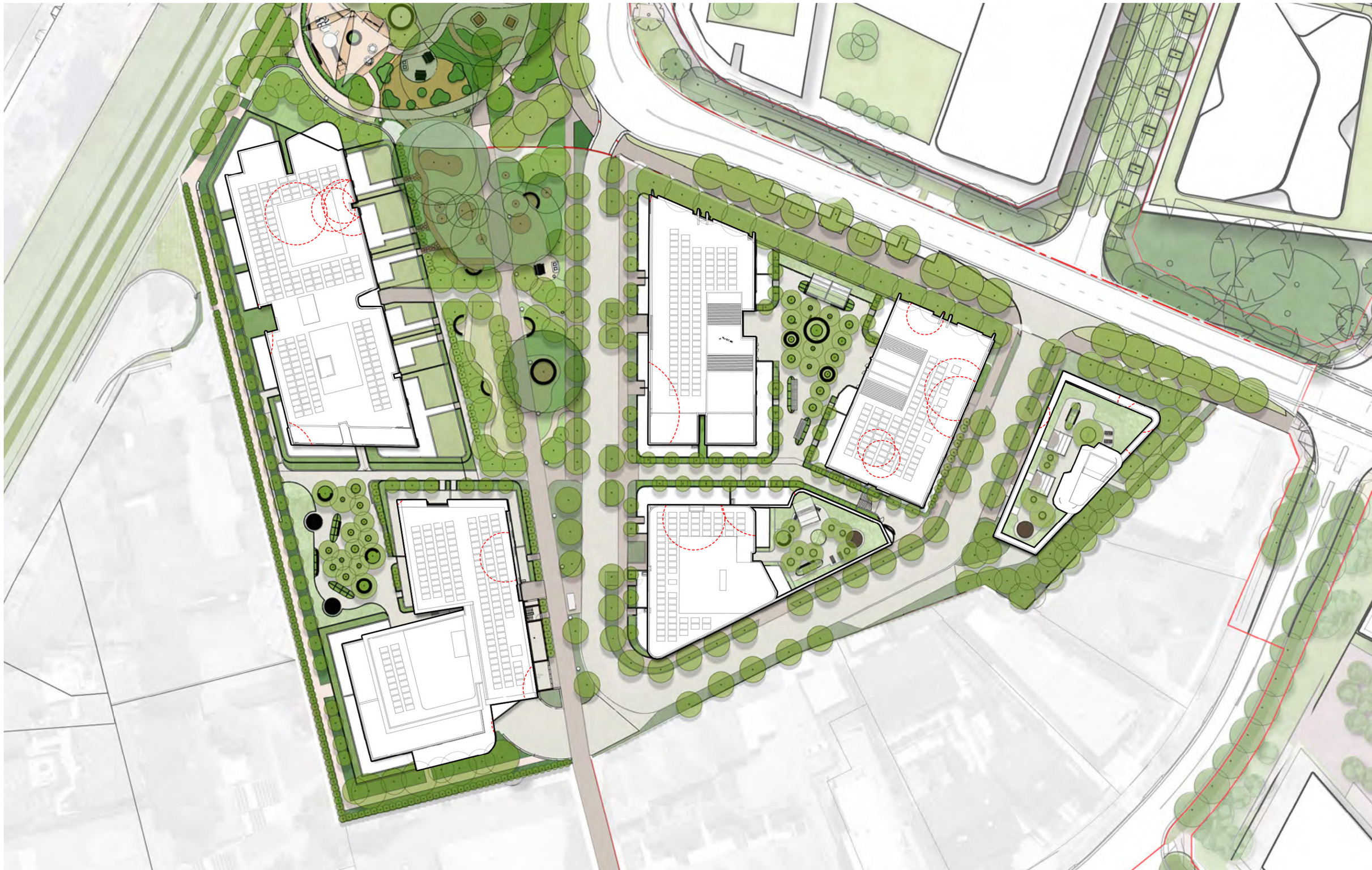
PODIUM EXPRESSION AND ARTICULATION



ARCHITECTURAL EXPRESSION AND ARTICULATION

Design Drivers

OVERALL DESIGN RESPONSE



LOWER GROUND FLOOR PLAN

Design Drivers

UPPER GROUND FLOOR PLAN

Design Drivers

LEVEL 01 - PODIUM LEVEL

Design Drivers

TYPICAL UPPER FLOOR PLAN

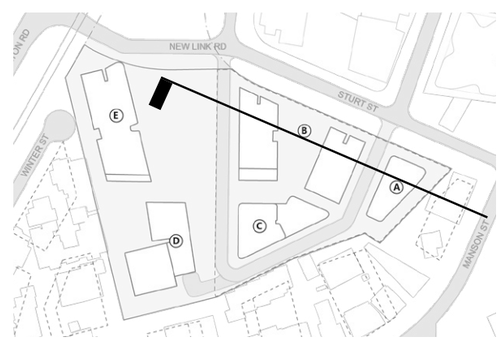
SECTIONS

SECTION A

Section across buildings looking south.

The proposed 15-storey building establishes the scale transition from the south towards the taller towers as part of the town centre.

The variation in height is limited to specific locations within the Concept Plan, where impacts on adjacent properties can be minimised and provides a greater transition in scale to adjacent sites.



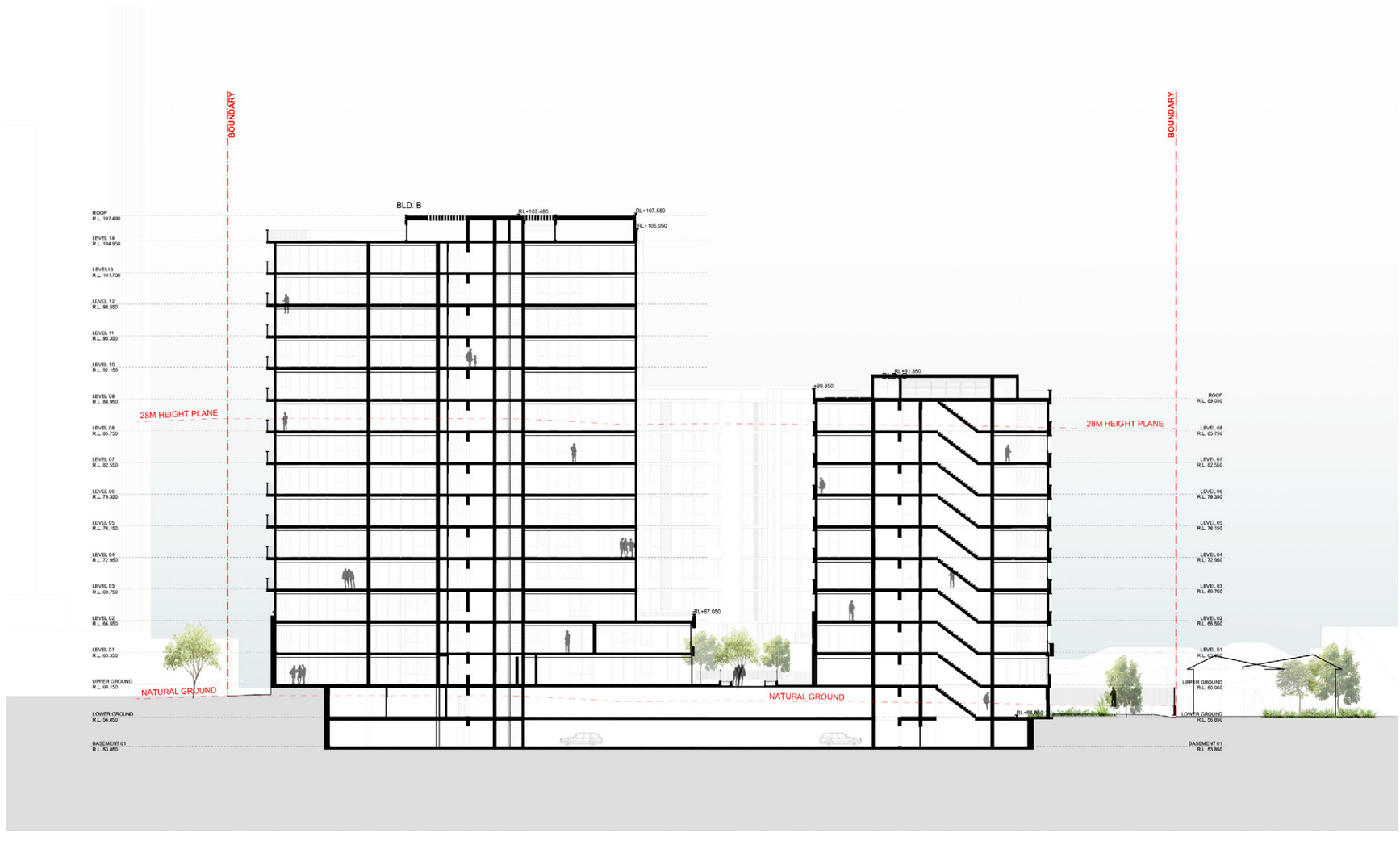
Sections

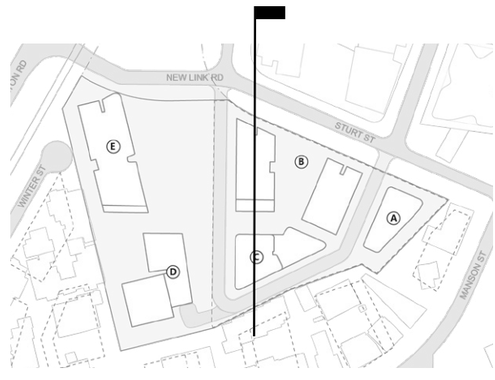
SECTION B

Section along buildings facing neighbourhood park looking east.

The proposed 15-storey building establishes the scale transition from the south towards the taller towers as part of the town centre.

The variation in height is limited to specific locations within the Concept Plan, where impacts on adjacent properties can be minimised and provides a greater transition in scale to adjacent sites.



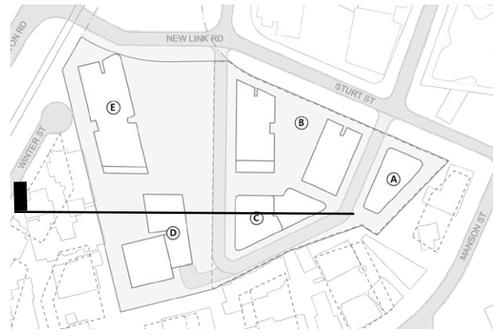


SECTION C

Section across southern Buildings C and D looking north.

The variation in height is limited to specific locations within the Concept Plan, where impacts on adjacent properties can be minimised and provides a greater transition in scale to adjacent sites.

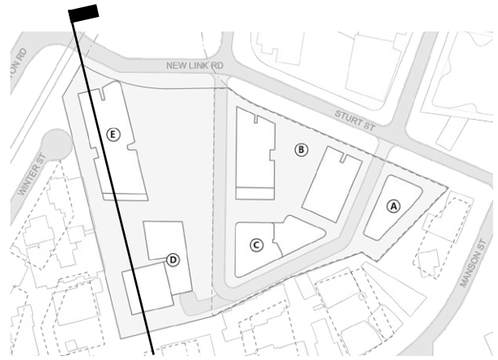
Basement link between buildings have been designed to accomodate appropriate depths for tree planting across the public domain.



SECTION D

Section along buildings facing Winter St looking east cutting through Building D and E.

The variation in height is limited to specific locations within the Concept Plan where impacts on adjacent properties can be minimised and provides a greater transition in scale to adjacent sites.



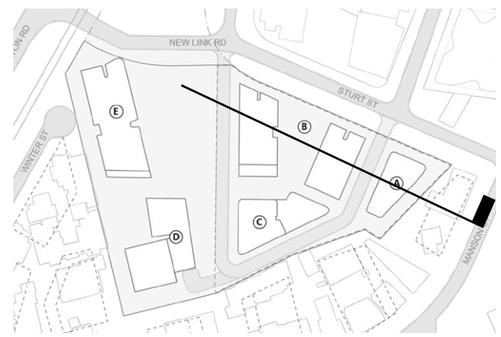
Sections

SECTION E

Section along buildings facing Sturt St looking north.

The proposed 15-storey building establishes the scale transition from the south towards the taller towers as part of the town centre.

The variation in height is limited to specific locations within the Concept Plan, where impacts on adjacent properties can be minimised and provides a greater transition in scale to adjacent sites.

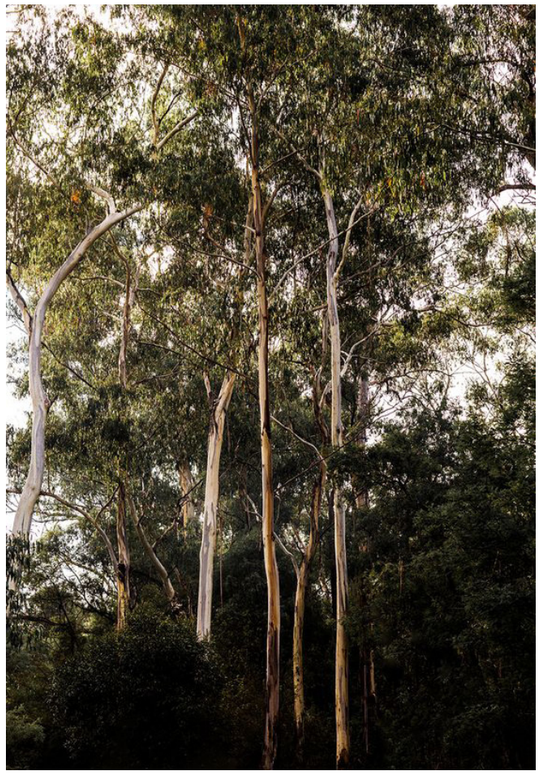


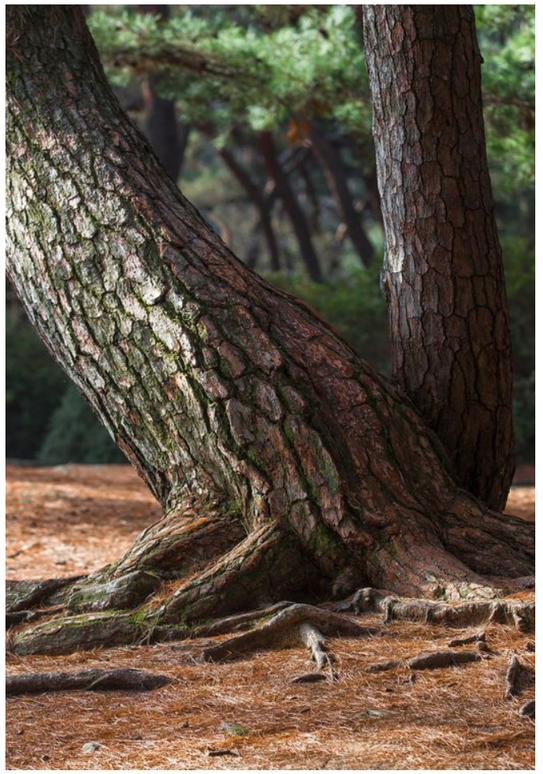
MATERIALS & CHARACTER

Material & Character

EXISTING SITE CHARACTER

The concept of the project aims to build on the warmth, texture and character which defines Telopea and the Site. The Sydney Blue Gum forest and textures of the Eucalyptus trees is brought into the proposed built form to establish harmony between nature and built environment.





Material & Character

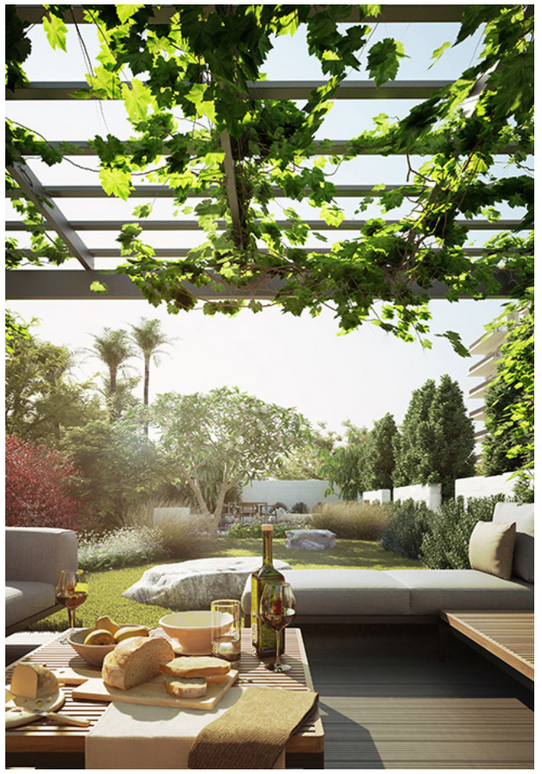
GROUND PLANE SETTING

The proposal is set within a lush landscape setting. The lower levels of the development create the opportunity to add to the dynamic and natural environment using textures, warmth and landscape planters to conceptually extend the natural environment into the built form.

Architect: David Chipperfield
Project: Georg-Knorr-Park

Architect: Faulkner Architects
Project: Miner Road House Lionized

Architect: DKO Architects
Project: Balwyn Park



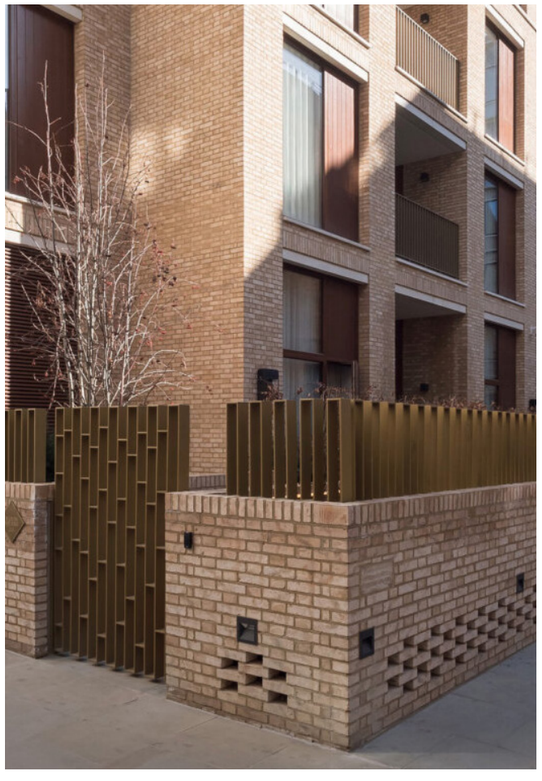
Architect: Urban Den
Project: Estelle

Material & Character

BRICK BASE EXPRESSION

The proposal proposes a brick base which changes in its expression across the site to support the variety of buildings proposed. The rhythym, detailing and expression changes to create sufficient variety as part of the public experience while passing through the site.

Sculptural Brickwork



Variety in Brick

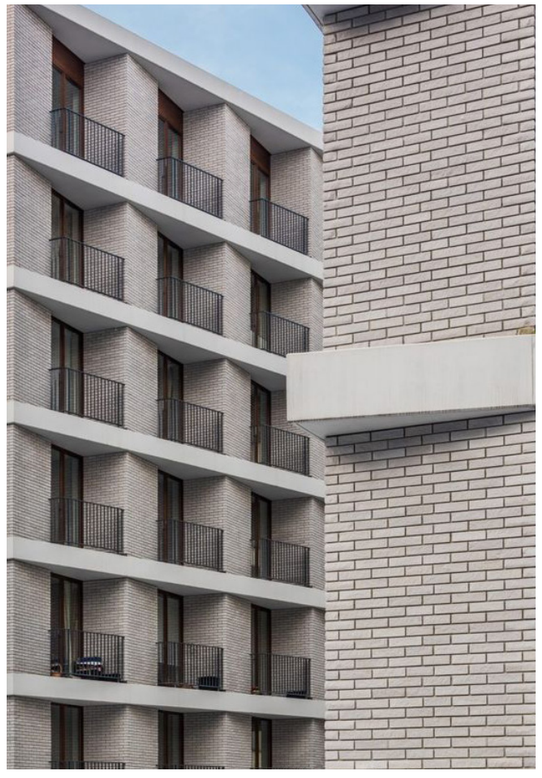
Brick rhythym

Texture and variance

Material & Character

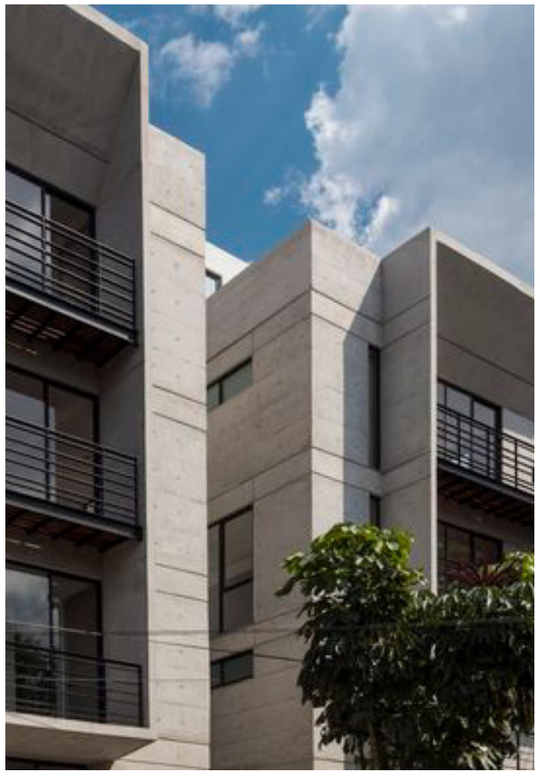
FACADE EXPRESSION

The proposal creates a variety of architectural expression across the 5 proposed buildings. While the buildings share some of the materials, the are all unique and different while being part of a family with a shared base and ground plane. The variety of and articulation of the architecture will help establish a sense of orientation and creates interest as a backdrop to the public domain.

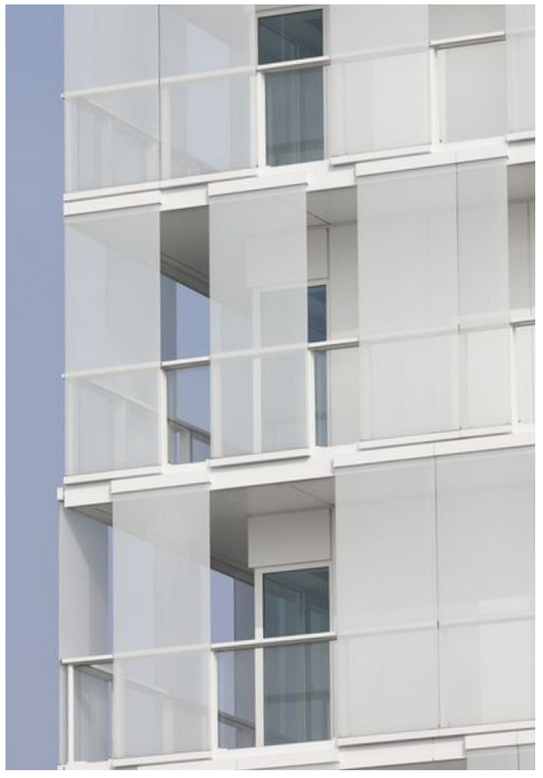


Sculptural Brickwork

Variation of rhythym and depth

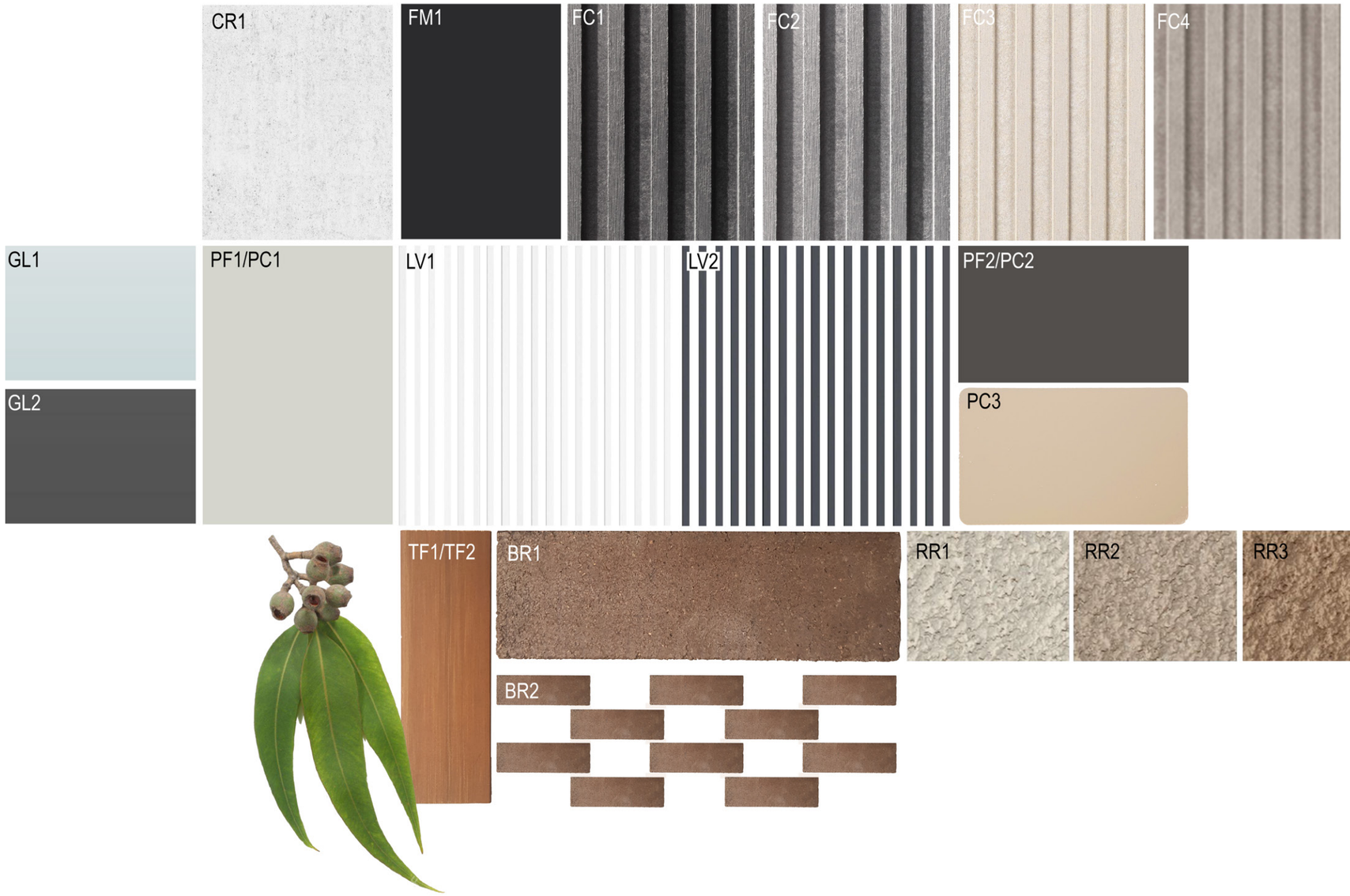


Concrete Expressions



Light-weight Cladding

MATERIAL BOARD



The material palette uses a range of materials which are textural, warm and provide depth to the overall composition of buildings. The warm brick tones ground the building within the natural setting which is enhanced by the contrasting metal balustrades.

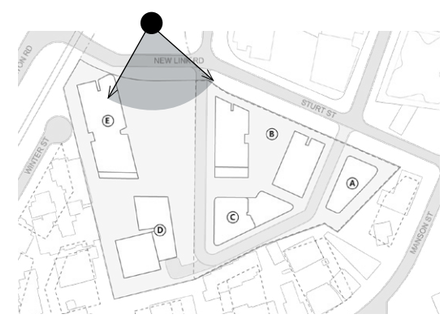
The variety of buldings expression use a combination of coloured concrete expression, lightweigth profiled cladding and screening options. The overall palette for the buildings sitting over the base is lighter, but with the aim to create a clear and legible architectural language for each building. The facades use articlation and depth to create play of shadows and contrast to create intesest to the buildings amongst the rich landscaped public domain.

FINISHES LEGEND:

PF1	OFF-WHITE PAINT FINISH
PF2	DARK COLOUR 'MONUMENT' PAINT FINISH
BR1	DARK RED/BROWN TONE BRICK
RR1	BUILDING A LIGHT RENDER
RR2	BUILDING C MEDIUM RENDER
RR3	BUILDING D WARM RENDER
CR1	PRECAST CONCRETE WITH NAWKAW OFF-WHITE PENETRATING PAINT
FC1	PRE-FINISHED FC LINES DARK GREY
FC2	PRE-FINISHED FC LINES LIGHT GREY
FC3	PRE-FINISHED FC LINES LIGHT OFF-WHITE
FC4	PRE-FINISHED FC LINES LIGHT NATURAL BEIGE GREY
FM1	FLAT MATT BLACK METAL FENCE / BALLUSTRADE
GL1	CLEAR GLASS
GL2	DARK GREY COLOURBACK GLASS
LV1	OFF-WHITE POWDERCOATED ALUMINIUM LOUVRES
LV2	DARK GREY POWDERCOATED ALUMINIUM LOUVRES
PC1	OFF-WHITE POWDRECOATED ALUMINIUM
PC2	FLAT MATT BLACK POWDERCOATED ALUMINIUM
PC3	BRONZE COLOUR POWDERCOATED ALUMINIUM
TF1	TIMBERLOOK FINISH BATTEN SCREEN (INTERIORS LOBBY)
TF2	TIMBERLOOK FINISH PANEL (ENTRY LOBBY)

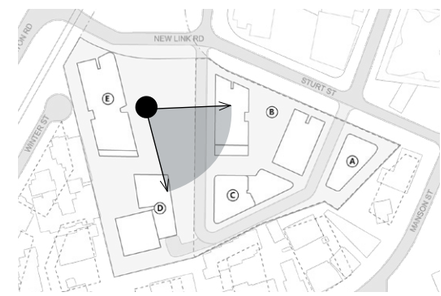
Material & Character

COMMUNAL AREA VIEW



Material & Character

PUBLIC PARK VIEW



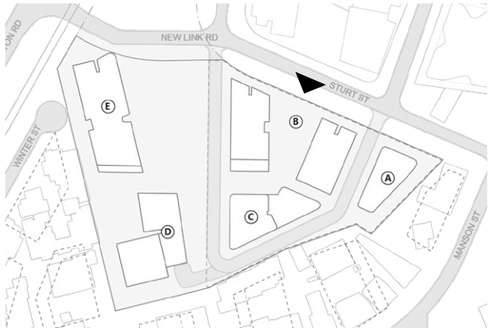
Material & Character

COMMUNAL AREA VIEW

ELEVATIONS

Elevations

NORTH ELEVATION



FINISHES LEGEND:

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BR1	DARK RED/BROWN TONE BRICK
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FC4	PRE-FINISHED FC LINES LIGHT NATURAL BEIGE GREY
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GL2	DARK GREY COLOURBACK GLASS
LV1	OFF-WHITE POWDERCOATED ALUMINIUM LOUVRES
LV2	DARK GREY POWDERCOATED ALUMINIUM LOUVRES
PC1	OFF-WHITE POWDRECOATED ALUMINIUM
PC2	FLAT MATT BLACK POWDERCOATED ALUMINIUM
PC3	BRONZE COLOUR POWDERCOATED ALUMINIUM
TF1	TIMBERLOOK FINISH BATTEN SCREEN (INTERIORS LOBBY)
TF2	TIMBERLOOK FINISH PANEL (ENTRY LOBBY)

The building façades of Building B and C frame the eastern edge of the public link and new road which express the transition from north to south. The northern building façade frames the public park and faces west. The brick base carries the built form over using a variety of form and expression to create a dynamic response to the natural settings defined by the trees. The perforated screens to the building help to filter the views and ensure privacy whilst dealing with the western sun.

Along the south the proportions of the building and material expression change to respond to the change of scale and character as well as the closer proximity to adjacent building form. The brick base of the building changes in its expression to relate to the immediate context and respond to the reduced scale of the space. The buildings over are sculptural brick with a patterning of windows and balcony zones with hit and miss brick screens to control the residents in relation to privacy and sun control.

Elevations

WEST - EAST ELEVATION

WEST ELEVATION

EAST ELEVATION

The building façade which frames the western edge of the public park has a very different expression through its horizontals alternate layering of balustrading. The building form creates a dynamic change in orientation along this edge following the position of existing trees and the natural desire line of the public link through the site. The northern building façade frames the public park and faces north. The two storey brick base carries the built form over which creates a dynamic response to the natural settings defined by the trees.

Along the south the proportions of the building and material expression change to respond to the the public link passing through as well as the closer proximity to adjacent building form. The southern building D stands conceptually within the park and becomes a key focal point when passing through the site. The strongly expressed vertical blades reflect the layering of the trees and float over the landscape layers.

FINISHES LEGEND:

PF1	OFF-WHITE PAINT FINISH
PF2	DARK COLOUR 'MONUMENT' PAINT FINISH
BR1	DARK RED/BROWN TONE BRICK
RR1	BUILDING A LIGHT RENDER
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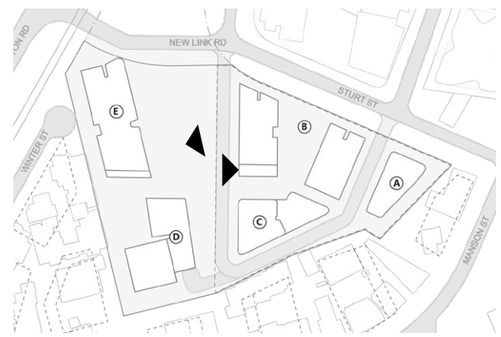
FC3	PRE-FINISHED FC LINES LIGHT OFF-WHITE
FC4	PRE-FINISHED FC LINES LIGHT NATURAL BEIGE GREY
FM1	FLAT MATT BLACK METAL FENCE / BALLUSTRADE
GL1	CLEAR GLASS
GL2	DARK GREY COLOURBACK GLASS
LV1	OFF-WHITE POWDERCOATED ALUMINIUM LOUVRES
LV2	DARK GREY POWDERCOATED ALUMINIUM LOUVRES
PC1	OFF-WHITE POWDRECOATED ALUMINIUM
PC2	FLAT MATT BLACK POWDERCOATED ALUMINIUM
PC3	BRONZE COLOUR POWDERCOATED ALUMINIUM
TF1	TIMBERLOOK FINISH BATTEN SCREEN (INTERIORS LOBBY)
TF2	TIMBERLOOK FINISH PANEL (ENTRY LOBBY)



Elevations

WEST - SOUTH ELEVATION

WEST ELEVATION

SOUTH ELEVATION

The building façade which frames the western edge of the public park has a very different expression through its horizontals alternate layering of balustrading. The building form creates a dynamic change in orientation along this edge following the position of existing trees and the natural desire line of the public link through the site. The northern building façade frames the public park and faces north. The two storey brick base carries the built form over which creates a dynamic response to the natural settings defined by the trees.

Along the south the proportions of the building and material expression change to respond to the the public link passing through as well as the closer proximity to adjacent building form. The southern building D stands conceptually within the park and becomes a key focal point when passing through the site. The strongly expressed vertical blades reflect the layering of the trees and float over the landscape layers.

FINISHES LEGEND:

PF1	OFF-WHITE PAINT FINISH
PF2	DARK COLOUR 'MONUMENT' PAINT FINISH
BR1	DARK RED/BROWN TONE BRICK
RR1	BUILDING A LIGHT RENDER
RR2	BUILDING C MEDIUM RENDER
RR3	BUILDING D WARM RENDER
CR1	PRECAST CONCRETE WITH NAWKAW OFF-WHITE PENETRATING PAINT
FC1	PRE-FINISHED FC LINES DARK GREY
FC2	PRE-FINISHED FC LINES LIGHT GREY
FC3	PRE-FINISHED FC LINES LIGHT OFF-WHITE
FC4	PRE-FINISHED FC LINES LIGHT NATURAL BEIGE GREY
FM1	FLAT MATT BLACK METAL FENCE / BALLUSTRADE
GL1	CLEAR GLASS
GL2	DARK GREY COLOURBACK GLASS
LV1	OFF-WHITE POWDERCOATED ALUMINIUM LOUVRES
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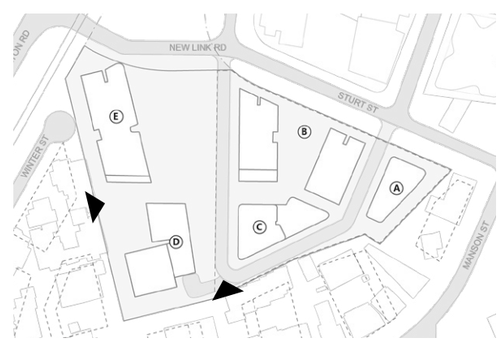
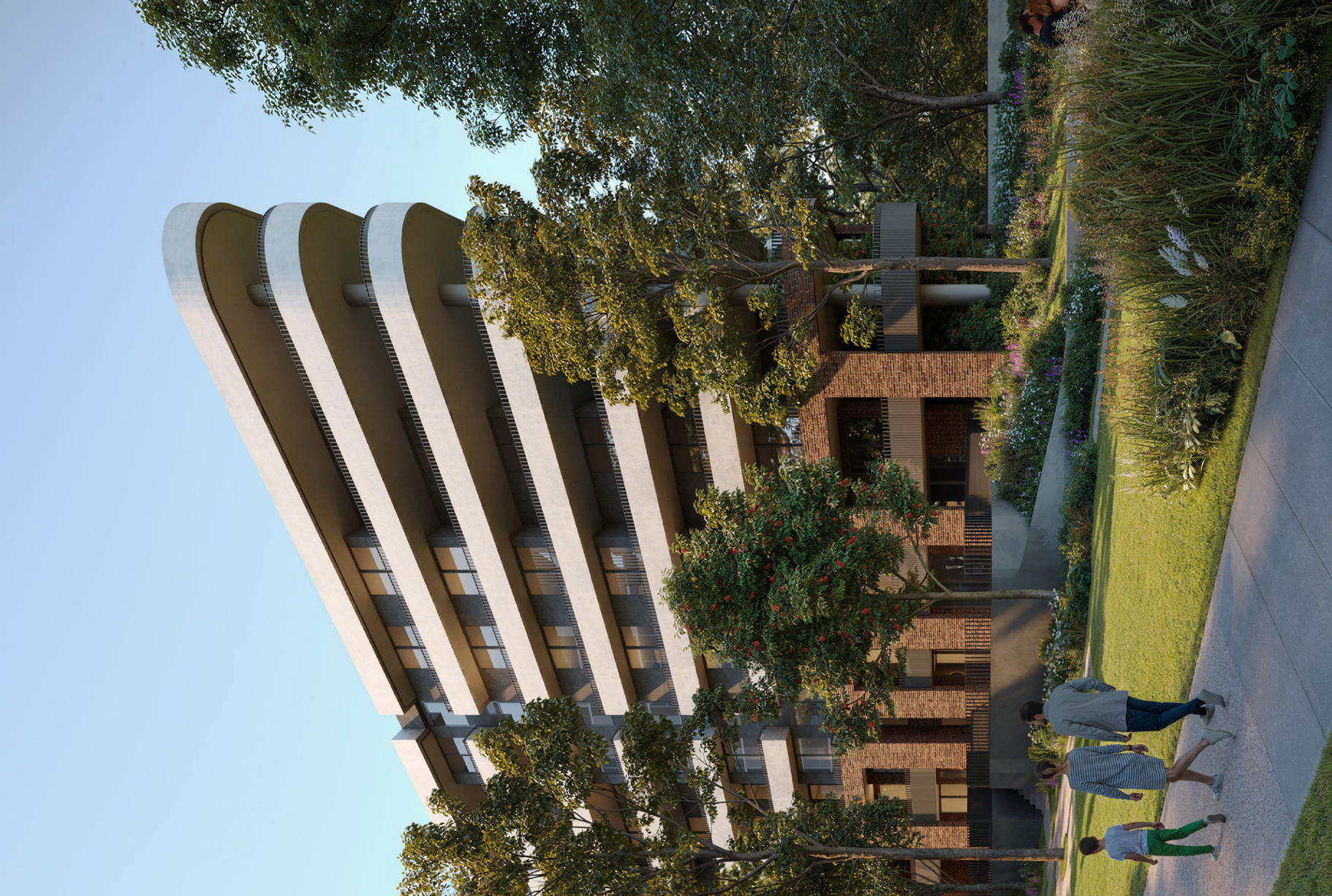




CE

COMPLIANCE DIAGRAMS

Compliance Diagrams

SOLAR ACCESS 9AM - 3PM

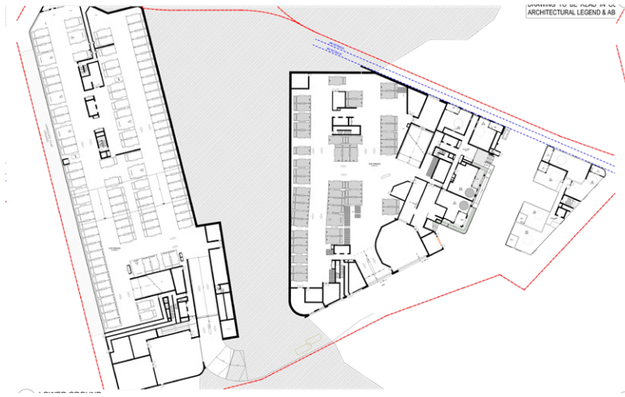
≥ 2H Solar Access:
TOTAL: 78%

No Solar Access:
TOTAL: 5.9%

0 < x < 2h SOLAR ACCESS (9AM - 3PM)

≥ 2h SOLAR ACCESS (9AM - 3PM)

NO SOLAR



LOWER GROUND

UPPER GROUND

LEVEL 1

LEVEL 2

LEVEL 3

LEVEL 4

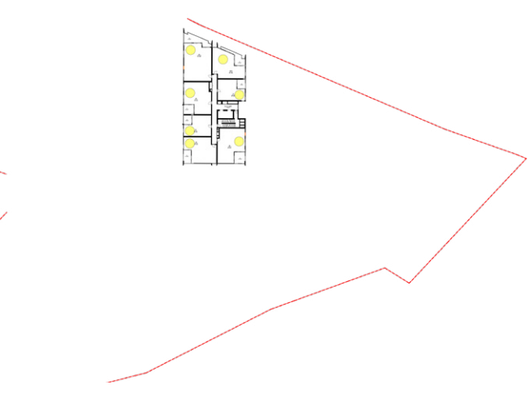
LEVEL 5

LEVEL 6

LEVEL 7

LEVEL 8

LEVEL 9-12



LEVEL 13

Compliance Diagrams

SOLAR ACCESS 8AM - 4PM

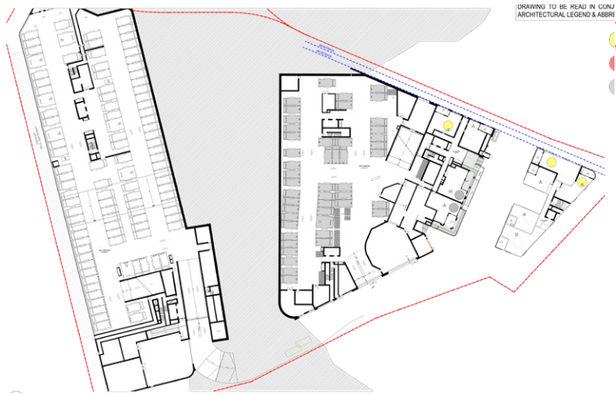
≥ 2H Solar Access:
TOTAL: 71%

No Solar Access:
TOTAL: 5.9%

0 < x < 2h SOLAR ACCESS (8AM - 4PM)

≥ 2h SOLAR ACCESS (8AM - 4PM)

NO SOLAR



LOWER GROUND

UPPER GROUND

LEVEL 1

LEVEL 2

LEVEL 3

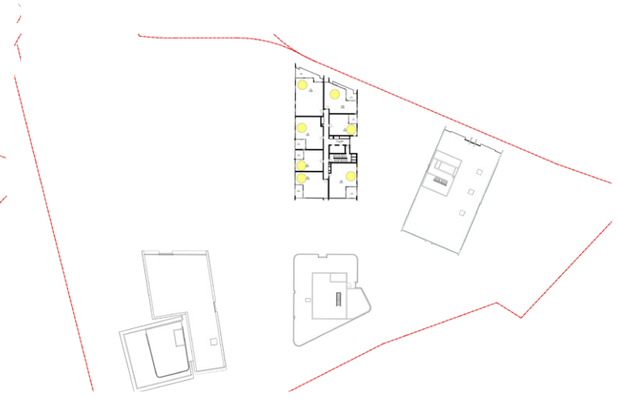
LEVEL 4

LEVEL 5

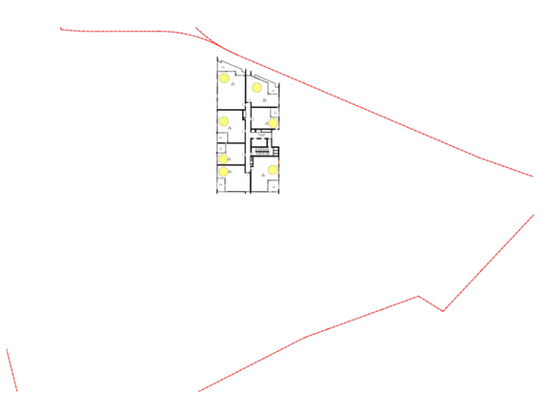
LEVEL 6

LEVEL 7

LEVEL 8



LEVEL 9-12



LEVEL 13

Compliance Diagrams

CROSS VENTILATION

TOTAL: 63%

LOWER GROUND

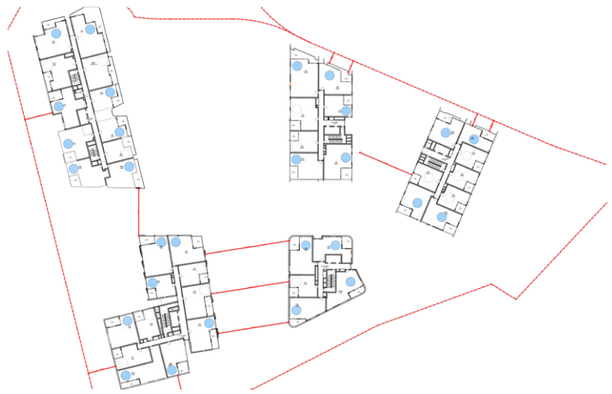
UPPER GROUND

LEVEL 1

LEVEL 2

LEVEL 3

LEVEL 4



LEVEL 5

LEVEL 6

LEVEL 7

LEVEL 8

Compliance Diagrams

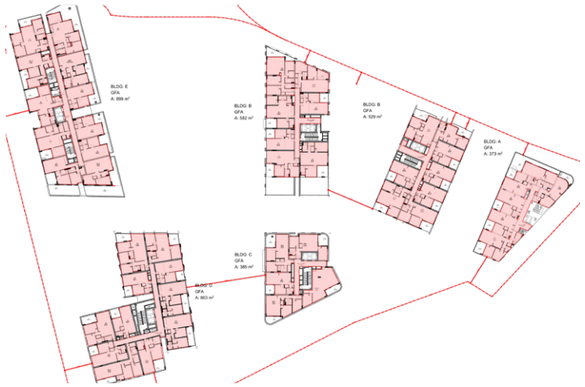
GROSS FLOOR AREA

≥ 2H Solar Access:
TOTAL: 70%

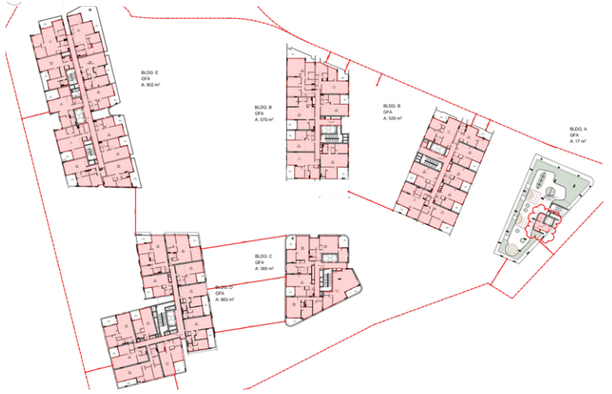
LOWER GROUND

UPPER GROUND

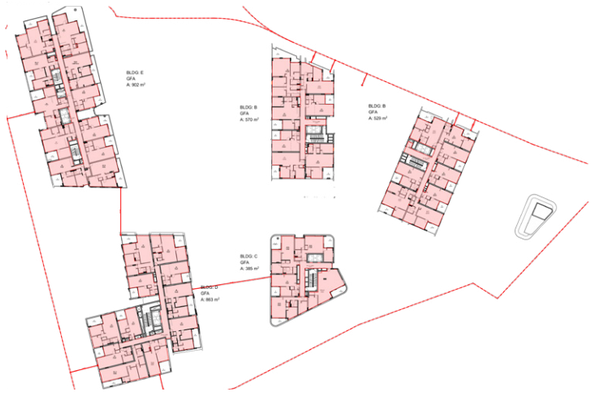
LEVEL 1



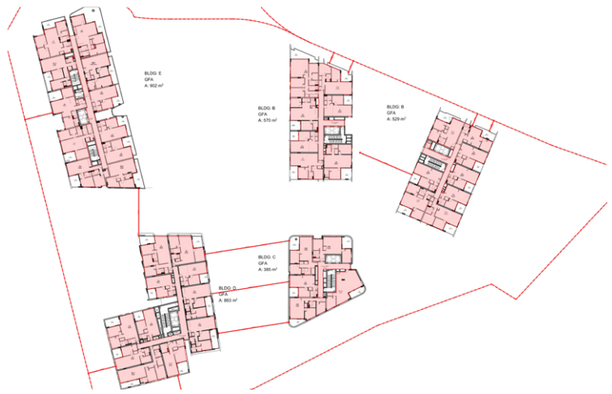
LEVEL 2



LEVEL 3

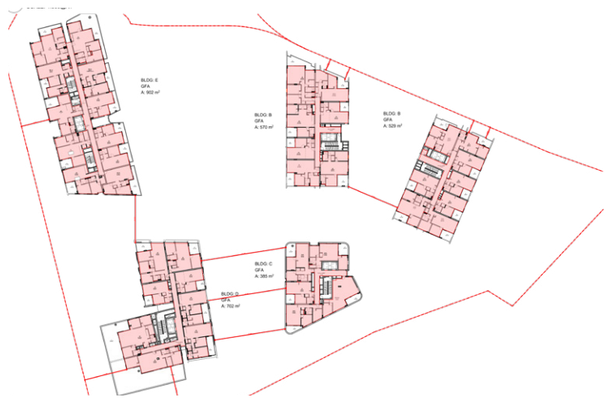


LEVEL 4



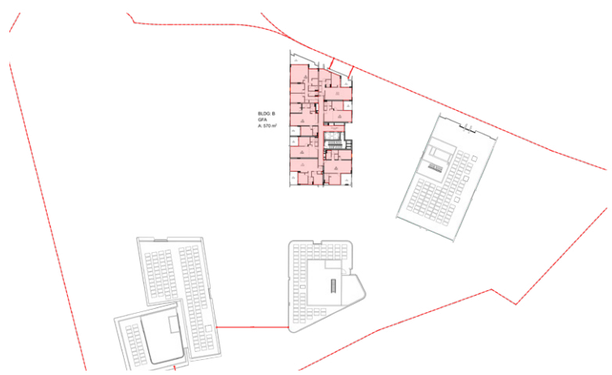
LEVEL 5

LEVEL 6

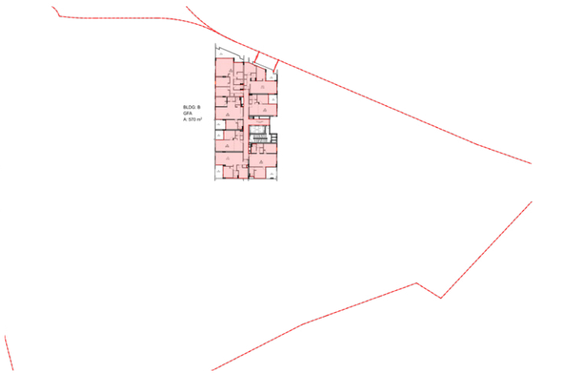


LEVEL 7

LEVEL 8



LEVEL 9-12



LEVEL 13

Compliance Diagrams

SHADOW ANALYSIS - JUN 21

SHADOW OF CONTEXT BUILDINGS

COMPLIANT HEIGHT SHADOW

BUILDING ABOVE HEIGHT PLANE SHADOW

9AM

10AM

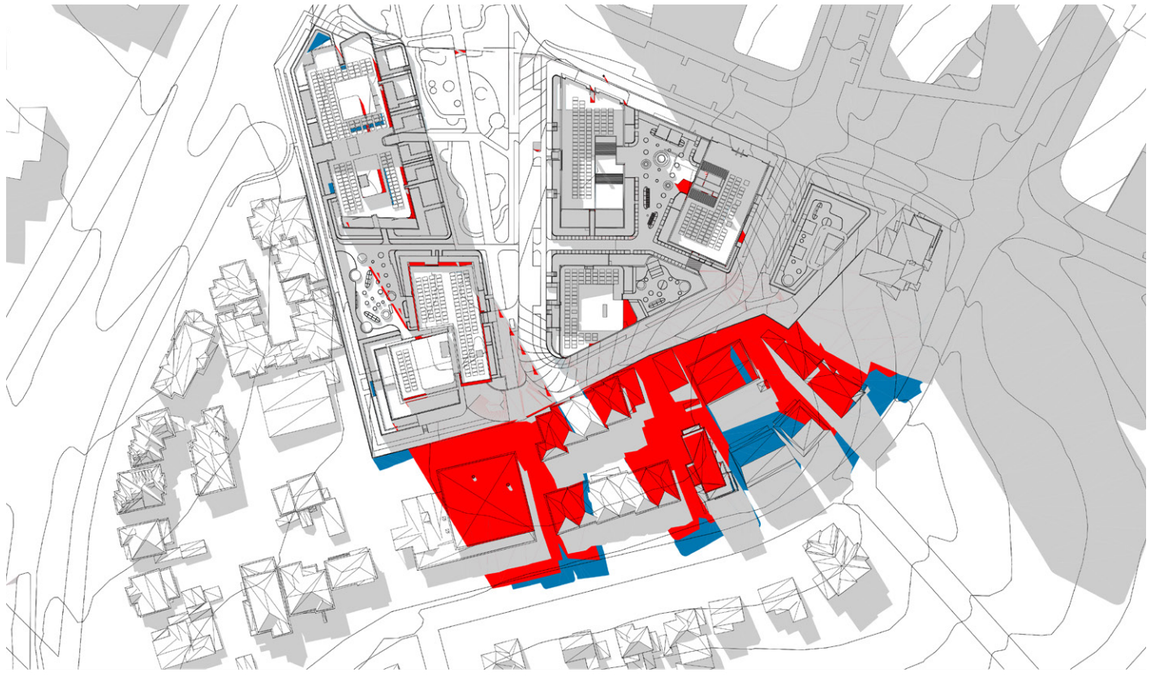
11AM

12PM

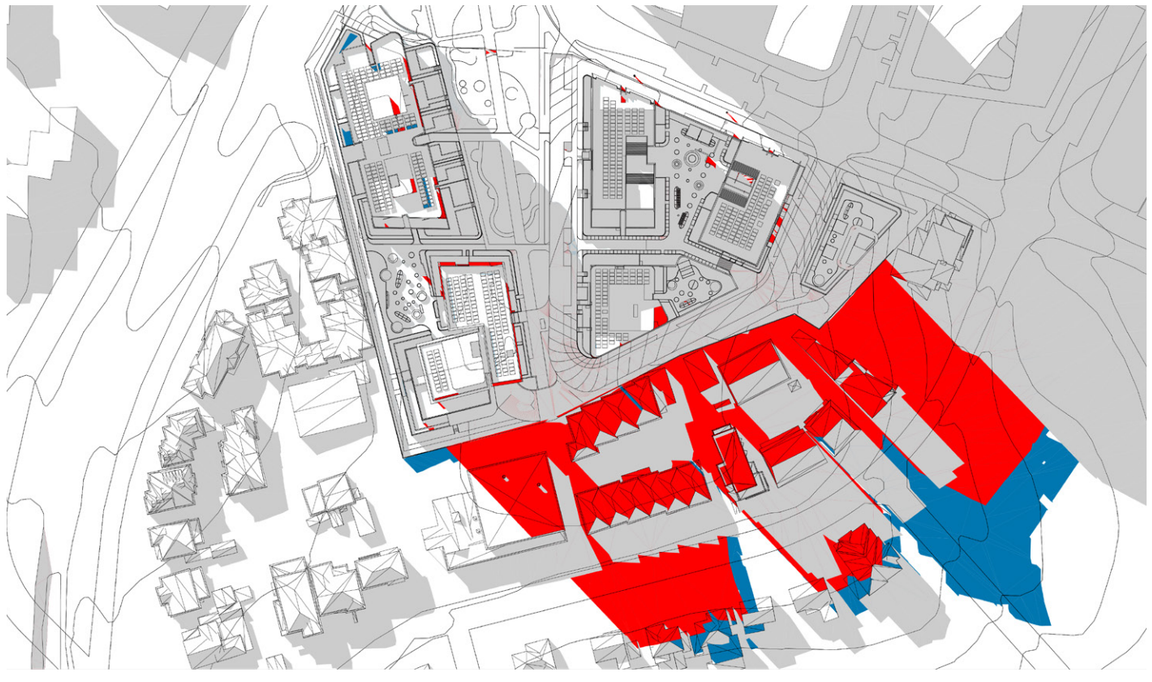
SHADOW ANALYSIS - JUN 21

SHADOW OF CONTEXT BUILDINGS
COMPLIANT HEIGHT SHADOW
BUILDING ABOVE HEIGHT PLANE SHADOW

1PM



2PM

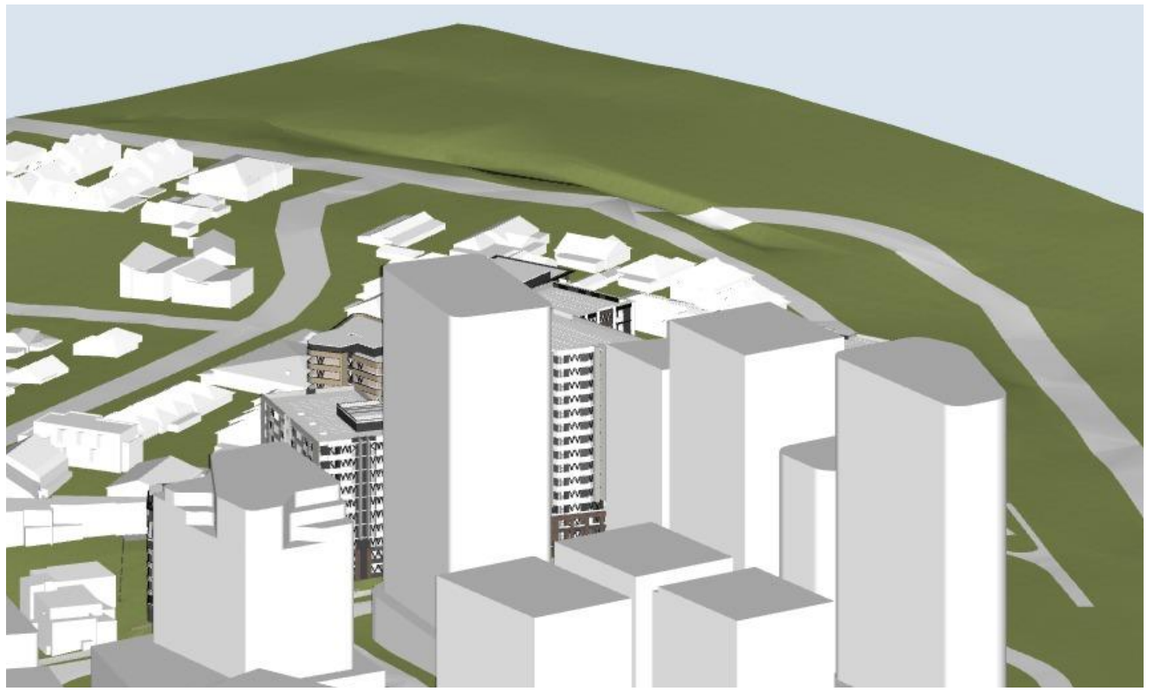


3PM

* Percentage of overshadowing caused by current proposal estimated by comparing the approximated areas of overall overshadowing with approximated compliant shadow areas.

* Overshadowing percentage is an approximated average.

SUN EYE VIEW ANALYSIS - JUN 21



9AM

10AM

11AM

12PM

SUN EYE VIEW ANALYSIS - JUN 21

9AM

10AM

11AM

SCHEDULE

Schedule

DEVELOPMENT SUMMARY

OVERALL

HEIGHT (m)	FTF (m)	LEVEL	TOTAL G.B.A. (m^2)	RESIDENTIAL G.B.A. (m^2)	RESIDENTIAL F.E.C.A (m^2)	RESIDENTIAL U.C.A (m^2)	TOTAL G.F.A. (m^2)	COMMUNAL G.F.A. (m^2)	RESIDENTIAL G.F.A. (m^2)	N.S.A. (m^2)	Apartment Mix							No. of Aparments	Solar Access	Ventilation	Efficiency			Solar Access	No Solar
											Studio	1 Bed	1 Bed + S	2B 1B	2 Bed	2 Bed + S	3 Bed				GFA / GBA	NSA / GFA	NSA / GBA		
48000	3200	**L14**																							
44800	3200	**L13**	659	659			570		570	510	0	2	0	2	2	0	1	7	7	0	86%	89%	77%	7	0
41600	3200	**L12**	659	659			570		570	510	0	2	0	2	2	0	1	7	7	0	86%	89%	77%	7	0
38400	3200	**L11**	659	659			570		570	510	0	2	0	2	2	0	1	7	7	0	86%	89%	77%	7	0
35200	3200	**L10**	659	659			570		570	510	0	2	0	2	2	0	1	7	7	0	86%	89%	77%	7	0
32000	3200	**L09**	659	659			570		570	510	0	2	0	2	2	0	1	7	7	0	86%	89%	77%	7	0
28800	3200	**L08**	2574	2574			2130		2130	1891	0	9	0	9	6	0	3	27	20	15	83%	89%	73%	20	1
25600	3200	**L07**	3596	3596			3083		3083	2735	0	13	0	10	10	1	5	39	32	27	86%	89%	76%	31	2
22400	3200	**L06**	3754	3754			3244		3244	2879	0	16	0	10	10	2	4	42	35	28	86%	89%	77%	34	2
19200	3200	**L05**	3754	3754			3244		3244	2879	0	16	0	10	10	2	4	42	35	28	86%	89%	77%	34	2
16000	3200	**L04**	3754	3754			3244		3244	2879	0	16	0	10	10	2	4	42	32	28	86%	89%	77%	32	2
12800	3200	**L03**	3754	3754			3244		3244	2879	0	16	0	10	10	2	4	42	32	28	86%	89%	77%	30	2
9600	3200	**L02**	4205	4205			3629		3629	3208	0	21	0	11	10	2	4	48	38	34	86%	88%	76%	30	2
6400	3200	**L01**	4407	4407			3811		3811	3361	0	21	0	12	10	3	4	50	35	29	86%	88%	76%	29	3
3200	3200	**UG**	4272	4272			3606		3606	3050	0	19	0	9	6	3	7	44	29	24	84%	85%	71%	27	7
0	3200	**LG**	851	851			682		682	477	0	6	0	3	0	0	0	9	3	3	80%	70%	56%	0	2
	3000	**B01**	280	280			223		223	249	0	2	0	1	0	0	0	3	2	2	80%	112%	89%	0	0
	3000	**B02**	0	0			0		0	0	0	0	0	0	0	0	0	0	0	0	0%	0%	0%	0	0
TOTALS			**38496**	**38496**			**32990**		**32990**	**29037**	**0**	**165**	**0**	**105**	**92**	**17**	**44**	**423**	**328**	**246**				**302**	**25**
%											**0.0%**	**39.0%**	**0.0%**	**24.8%**	**21.7%**	**4.0%**	**10.4%**		**78%**	**63%**	**85.9%**	**88.0%**	**75.4%**	**71%**	**5.9%**
										Targeted	*3%*	*35%*			*52%*		*10%*		*From 8 am to 4pm*		*77%*	*87%*	*From 9 am to 3 pm*		

SITE AREA	**18150 m^2**
BASE FSR ALLOWED	**1.70 :1**
FSR ALLOWED WITH BONUS	**2.20 :1**
FSR	**1.82 :1**
HOB ALLOWED	**28.00 m**
HOB	**48.48 m**

As per Homes NSW briefing requirements

Car Rate (Social)	0.4	0.4	0.4	0.5	0.5	0.5	0.9	N/A	**Bike**	**Motor Bike**
Required	0	41	0	49	15	0	15	0	1 per 1 unit + 1 per 15 visitor	1 per 25 car spces
TOTAL	**120**								**261**	**1**

As per SEPP car parking requirements

Car Rate (Market)	0.5	0.5	0.5	1	1	1	1.5	1 per 5 units	**Bike**	**Motor Bike**
Required	0	31	0	7	63	17	44	36	1 per 1 unit + 1 per 15 visitor	1 per 25 car spces
TOTAL	**197**								**190**	**8**

Silver Livable	112	*77%*
Gold Livable	25	*17%*
Platinum Livable	9	*6%*
	146	

Adaptable Unit	**14**	*5%*

Open space	5810	*32.01%*
Deep soil	3434	*18.92%*

Carparking efficiency	Stage 1 (m2)	Stage2(m2)	Overall (m2)
LG	68.0	38.3	47.4
B01	54.2	40.1	46.8
B02	46.0		46.0
	53.8	**39.1**	**46.9**
Targeted	*40*	*40*	*40*

DEFINITIONS

GFA GROSS FLOOR AREA AS DEFINED BY COUNCIL FOR THE PURPOSES OF DERIVING A FLOOR SPACE RATIO. TYPICALLY DEFINED AS THE SUM OF THE FLOOR AREA OF A BUILDING MEASURED FROM THE INTERNAL FACE OF EXTERNAL WALLS OR FROM THE INTERNAL FACE OF WALLS SEPARATING THE BUILDING FROM ANY OTHER BUILDING, **AND INCLUDES:**

*THE AREA OF A MEZZANINE

*HABITABLE ROOMS IN A BASEMENT OR ATTIC

*ANY SHOP, AUDITORIUM, CINEMA, AND THE LIKE IN A BASEMENT OR ATTIC

BUT EXCLUDES:

*ANY AREA FOR COMMON VERTICAL CIRCULATION INCLUDING LIFTS AND STAIRS

*ANY BASEMENT STORAGE, VEHICULAR ACCESS, LOADING AREA, GARBAGE AND SERVICES

*PLANT ROOMS, LIFT TOWERS, AND OTHER AREAS USED EXCLUSIVELY FOR MECHANICAL SERVICES OR DUCTING

*CARPARKING TO MEET THE REQUIREMENTS OF THE CONSENT AUTHORITY (INCLUDING ACCESS TO THAT PARKING)

*ANY SPACE USED FOR THE LOADING AND UNLOADING OF GOODS (INCLUDING ACCESS TO IT)

*TERRACES AND BALCONIES WITH OUTER WALLS LESS THAN 1.4M HIGH

*VOIDS ABOVE A FLOOR AT THE LEVEL OF A STOREY OR STORE ABOVE

GBA DEFINED AS THE SUM OF THE AREA OF EACH FLOORPLATE, MEASURED TO THE EXTERNAL FACE OF FAÇADE WALLS INCLUSIVE OF BALCONIES

SITE AREA SITE AREA OF R4 HIGH DENSITY RESIDENTIAL ZONE ONLY. EXCLUDES RE1 PUBLIC RECREATION.

NSA/GBA EXCLUDES COMMUNAL GBA (COMMUNAL OPEN SPACE).

ADG COMPLIANCE

TELOPEA MASTERPLAN - STAGE 1A RESIDENTIAL
REVISED DA DEVELOPMENT SCHEDULE

Job No 20320
Date 22/10/2025

PLUS STUDIO®

ADG Ref.	Item Description	Compliance	Notes
PART3	**SITING THE DEVELOPMENT**		
3A	SITE ANALYSIS		
3A-1	Objective: Site Analysis illustrates that design decisions have been based on opportunities & constraints of the site conditions & their relationship to the surrounding context.		
	Design Guidance	YES	The Development has been designed to respond to the site analysis undertaken in relation to orientation, views, internal apartment amenity and both the current surrounding context as well as the projected future context for the area, particularly in relation to the vision for the Telopea Masterplan.
	Each element in the Site Analysis Checklist is addressed.	YES	
3B	ORIENTATION		
3B-1	Objective: Building types & layouts respond to the streetscape & site while optimising solar access within the development		
	Design Guidance	YES	The alignment and orientation of the buildings have been assessed to ensure both the apartments as well as the context will maintain sufficient solar access. **Refer to Architecturals PLA-AR-DA0300 - PLA-AR-DA0329* .
	Buildings along the street frontage define the street by facing it & incorporating direct access from the street	YES	
	Where the street frontage is to the east or west, rear buildings are orientated to the north	N/A	
	Where the street frontage is to the north or south, over-shadowing to the south is minimised & buildings behind the street frontage are orientated to the east & west	YES	
3B-2	Objective: Overshadowing of neighbouring properties is minimised during mid winter.		
	Design Guidance	YES	The proposal has been designed to minimise both overshadowing of communal areas within the site and potential overshadowing to neighbouring sites. The site orientation allows the northern public communal landscape zones to receive generous solar access during the day. The proposal also has a limited impact on the adjacent development to the south. **Refer to Architecturals PLA-AR-DA0300 - PLA-AR-DA0301.*
	Living areas, private open space & communal open space receive solar access in accordance with section 3D Communal & Public Open Space and section 4A Solar & Daylight Access	YES	
	Solar access to living rooms, balconies & private open spaces of neighbours are considered	YES	
	Where an adjoining property does not currently receive the required hours of solar access, the proposed building ensures solar access to neighbouring properties is not reduced by more than 20%	YES	
	If the proposal will reduce the solar access of neighbours, building separation is increased beyond minimums contained in 3F Visual Privacy	YES	
	Overshadowing is minimised to the south or downhill by increased upper level setbacks	YES	Roof top expression have been setback to further reduce the bulk and scale.
	Buildings are orientated at 90 deg to the boundary with neighbouring properties to minimise overshadowing & privacy impacts, particularly where minimum setbacks are used & where buildings are higher than the adjoining development	YES	
	A minimum of 4 hours of solar access is retained to solar collectors on neighbouring buildings	YES	
3C	PUBLIC DOMAIN INTERFACE		

3C-1	Objective: Transition between private & public domain is achieved without compromising safety & security.		
	Design Guidance	YES	The lobbies of each building, located on their respective ground floors, will present as a clearly defined and legible entry point to the development and mediating the transition between public street and private development.
	Terraces, balconies and courtyard apartments have direct street entry, where appropriate	YES	
	Changes in level between private terraces, front gardens & dwelling entries above the street level provide surveillance & improve visual privacy for ground level dwellings	YES	
	Upper level balconies & windows overlook the public domain	YES	
	Front fences & walls along street frontages use visually permeable materials & treatments. Height of solid fences or walls is limited to 1m	YES	
	Length of solid walls is limited along street frontages	YES	
	Opportunities for casual interaction between residents & the public domain is provided for. Design solutions may include seating at building entries, near letter boxes & in private courtyards adjacent to streets	YES	
	In developments with multiple buildings and/or entries, pedestrian entries & spaces associated with individual buildings/entries are differentiated to improve legibility for residents, using the following design solutions: Architectural detailing; Changes in materials; Plant Species; Colours; Opportunities for people to be concealed are minimised	YES	
3C-2	Objective: Amenity of the public domain is retained & enhanced.		
	Design Guidance	YES	The architecture and building composition define a network of landscaped areas which celebrate the clusters of existing trees. The neighbourhood park, public link and communal open spaces are well defined by the built form and allow for a variety of uses and program. **Refer to Landscape Architects Details.*
	Planting is used to soften the edges of any raised terraces to the street, for example above sub-basement car parking	YES	
	Mail boxes are located in lobbies, perpendicular to the street alignment or integrated into front fences where individual street entries are provided	YES	
	The visual prominence of underground car park vents is minimised & located at a low level where possible	YES	
	Substations, pump rooms, garbage storage areas & other service requirements are located in basement car parks or out of view	YES	
	Ramping for accessibility is minimised by building entry location & setting ground floor levels in relation to footpath levels	YES	
	Durable, graffiti resistant & easily cleanable materials are used	YES	
	Where development adjoins public parks, open space or bushland, the design positively addresses this interface & uses the following design solutions: Street access, pedestrian paths & building entries are clearly defined; Paths, low fences & planting are clearly delineate between communal/private open space & the adjoining public open space; Minimal use of blank walls, fences & ground level parking	YES	
	On sloping sites protrusion of car parking above ground level is minimised by using split levels to step underground car parking	YES	
3D	COMMUNAL & PUBLIC OPEN SPACE		
3D-1	Objective: An adequate area of communal open space is provided to enhance residential amenity & to provide opportunities for landscaping.		
	Design Criteria	CONSIDERED	The proposal achieves a generous 5,837 m2 (**32.2%** of total site area 18,150 m2) as open space. This is inclusive of the public open space, of which accounts for **2,763m2 (15.2%)** of the site area. Great residential amenity will still be achieved as the development is generally sited adjacent the generous public domain (2,763sqm). This public domain will provide a variety of active spaces, gardens and shelters to support the community all while achieving 100% solar amenity (2hours beween 9am-3pm 21/06) enhanced by the passive surveillance from the 4 buildings around it. These buildings are also within walking distance to the future Telopea light rail plaza. (Fig. 3D1.1 & Fig. 3D1.2). The proposed communal open space can achieve the required 50% solar amenity between 9am - 3pm 21/06. The overall open space receives **82%** solar amenity(Fig. 3D1.2). **Refer to Landscape Architects details.* **Refer to Telopea Revised DA Report pg.22* **Refer to Architecturals PLA-AR-DA0350.*

1	Communal open space has a minimum area equal to 25% of the site	CONSIDERED	 Fig. 3D1.1 Stage 1A Communal Open Space
2	Developments achieve a minimum of 50% direct sunlight to the principal usable part of the communal open space for a minimum of 2 hours between 9 am and 3 pm on 21 June (mid winter)	YES	 Fig. 3D1.2 Solar Access within Open Space
	Design Guidance	YES	Retention of trees is the main driver for communal open space on ground - as such deep soil areas and communal open space are largely co-located. This along with podium communal spaces creates pocket spaces across the overall development ensures easy access for all users. The variety of open spaces creates easily identifiable spaces for relief. **Refer to Landscape Architects Details.*
	Communal open space is consolidated into a well designed, easily identified & usable area	YES	
	Communal open space have a minimum dimension of 3m. Larger developments should consider greater dimensions	YES	
	Communal open space are co-located with deep soil areas	YES	
	Direct, equitable access are provided to communal open space areas from common circulation areas, entries & lobbies	YES	
	Where communal open space cannot be provided at ground level, it is provided on a podium or roof	YES	
	Where developments are unable to achieve the design criteria, such as on small lots, sites within business zones, or in a dense urban area, they need to: Provide communal spaces elsewhere such as a landscaped roof top terrace or a common room; Provide larger balconies or increased private open space for apartments; Demonstrate good proximity to public open space & facilities and/or provide contributions to public open space	N/A	
3D-2	Objective: Communal open space is designed to allow for a range of activities, respond to site conditions & be attractive and inviting		
	Design Guidance	YES	The communal open space proposed is intended to be an activated, inviting space that can be used for a variety of functions. The proposed roof level communal space will allow for diversity in use and it is proposed to provide shading structures and seating arrangements with generous soft landscaping to encourage sustained use. Each building receives well defined communal spaces while also maintaining a clear pedestrian link through to the heart of the public open space as well as the future Telopea Light rail plaza. **Refer to Landscape Architects Details.*

	Facilities are provided within communal open spaces & common spaces for a range of age groups (see 4F Common Circulation & Spaces), incorporating the following: Seating for individuals or groups; Barbeque areas; Play equipment or play areas; Swimming pools, gyms, tennis courts or common rooms	YES	
	Location of facilities responds to microclimate & site conditions with access to sun in winter, shade in summer & shelter from strong winds & down drafts	YES	
	Visual impacts of services are minimised, including location of ventilation duct outlets from basement car parks, electrical substations & detention tanks	YES	
3D-3	Objective: Communal open space is designed to maximise safety.		
	Design Guidance	YES	The overall developments' communal open space will be naturally supervised through passive surveillance by adjacent apartments. These open spaces will also be well illuminated in conjunction with CCTV camera surveillance to further enhance safety. Walkways though these space will have clear legible view lines and are clearly defined reducing blind spots.
	Communal open space & public domain should be readily visible from habitable rooms & private open space areas while maintaining visual privacy. Design solutions include: Bay windows; Corner windows; Balconies	YES	
	Communal open space is well lit	YES	
	Communal open space/facilities that are provided for children & young people are safe and contained	YES	
3D-4	Objective: Public open space, where provided, responds to the existing pattern & uses of the neighbourhood.		
	Design Guidance	YES	The development provides public open space at ground level and has direct connection to the Light Rail Plaza to the north encouraging natural pedestrian movement through the site (Fig. 3D1.1). **Refer to Landscape Architects Details.*
	Public open space is well connected with public streets along at least one edge	YES	
	POS is connected with nearby parks & other landscape elements	YES	
	POS is linked through view lines, pedestrian desire paths, termination points & the wider street grid	YES	
	Solar access is provided year round along with protection from strong winds	YES	
	Opportunities for a range of recreational activities is provided for all ages	YES	
	Positive street address & active street frontages are provided adjacent to POS	YES	
	Boundaries are clearly defined between POS & private areas	YES	
3E	DEEP SOIL ZONES		
3E- 1	Objective: Deep soil zones are suitable for healthy plant & tree growth, improve residential amenity and promote management of water and air quality.		
	Design Criteria	YES	The objective of the Concept Plan was to retain existing trees which in turn acts as the primary driver for deep soil location. The proposed basement is largely contained below the proposed built from and maintains **3.434 m2 (18.9% of total site area 18,150 m2)** of deep soil area for existing and proposed planting (Fig.3E1.1). **Refer to Telopea Revised DA Design Report pg 22.* **Refer to Architecturals PLA-AR-DA0350.*
1	Deep soil zones are to meet the following minimum requirements: Site Area (sqm) / Minimum Dim (m) / Deep Soil Zone (% of site area) less than 650 / - / 7 650-1500 / 3 greater than 1500 / 6	YES	
	Design Guidance	YES	The Public open space is intended to support large scale planting, providing for a deep soil zone within the site.
	On some sites it may be possible to provide larger deep soil zones, depending on the site area & context: 10% of the site as deep soil on sites with an area of 650sqm - 1,500sqm; 15% of the site as deep soil on sites greater than 1,500sqm	YES	

	Deep soil zones are located to retain existing significant trees & to allow for the development of healthy root systems, providing anchorage & stability for mature trees. Design solutions may include: Basement & sub-basement car park design that is consolidated beneath building footprints; Use of increased front & side setbacks; Adequate clearance around trees to ensure long term health; Co-location with other deep soil areas on adjacent sites to create larger contiguous areas of deep soil	YES	
	Achieving the design criteria may not be possible on some sites including where: location & building typology have limited or no space for deep soil at ground level (e.g. central business district, constrained sites, high density areas, or in centres); there is 100% site coverage or non-residential uses at ground floor level Where a proposal does not achieve deep soil requirements, acceptable stormwater management is achieved & alterna-tive forms of planting provided	YES	
3F	VISUAL PRIVACY		
3F-1	Objective: Adequate building separation distances are shared equitably between neighbouring sites, to achieve reasonable levels of external & internal visual privacy.		
	Design Criteria	YES	Stage 1A is compliant generally compliant with side and rear setbacks to existing context. There are a few non-compliances within the development that we believe achieves the overall ADG objective (Fig. 3F1.1). Whilst the ADG 3F-1 requires various setbacks depending on building storeys for visual privacy; the chief intent of the ADG is to achieve solar access to adjacent buildings, as visual privacy can easily be enhanced through privacy screens - which Stage 1A implements. And despite being largely overshadowed by the Core Precinct to its north which hosts towers ranging from 14 – 24 stories, Stage 1A achieves 70% solar amenity (9am-3pm). **Refer to Architecturals PLA-AR-DA0098-PLA-AR-DA0115 and PLA-AR-DA0201 - PLA-AR-DA0208 & PLA-AR-DA0271 - PLA-AR-DA0275 for privacy screen location.* **Refer to Telopea Revised DA Report pg.81*
	1	CONSIDERED	

Fig. 3F1.1 Stage 1A Separation Diagram

Building Separation on Site (Minor non-compliances)

Building A-B

BLD A is on a slope and is largely perceived as a 4 storey building offset from building B by 15m (Fig. 3F1.A1).

It largely complies within the ADG requirements, and is only at the extreme frontage on the northern facade which portrays itself as 5 storey building creating a minor non-compliance of 3m on one floor. (Fig.3F1.A2 & Fig.3F1.A3).

**Refer to Architecturals PLA-AR-DA0102,*
**Refer to Architecturals PLA-AR-DA0201*

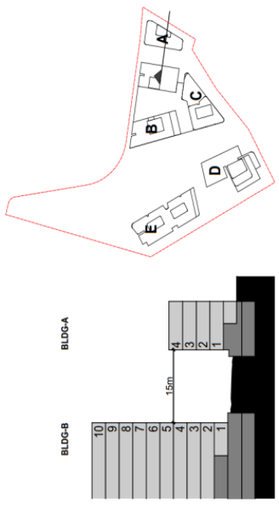


Fig. 3F1.A1 Building A-B Section1 & Key Plan

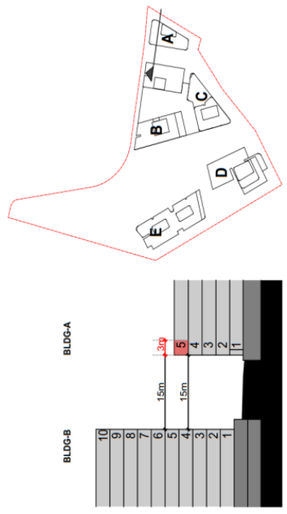


Fig. 3F1.A2 Building A-B Section2 & Key Plan

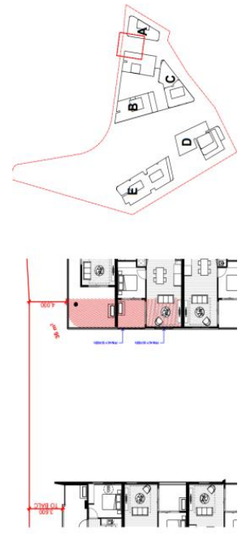


Fig. 3F1.A3 BLD A plan. Screens location annotated in blue

Building B-C
Building separation is consistent with the ADG design criteria for building separation between Levels 1 to 8.

BLD B storeys 10+ face no visual privacy issues as adjacent BLD C does not exceed over the 9th storey (Fig. 3F1.B1).

Non-compliance occurs only on storey 9 of BLD C to be addressed with privacy screen on BLD B facade(Fig. 3F1.B1 & Fig. 3F1.B3).

Visual amenity of the primary habitable spaces are still maintained as primary glass line faces away from one another. Intent of the design was to maintain a strong tower expression and to avoid a ziggurat appearance with multiple setbacks. The setbacks are, on average, compliant with the required setback concerns.

Privacy screens have been provided on the southern facade of building B - to mitigate privacy issues to C, whilst ensuring building C achieves great solar amenity (Fig. 3F1.B6 & Fig. 3F1.B7).

**Refer to Architecturals PLA-AR-DA0100-PLA - AR-DA0108 and PLA-AR-DA0203 for privacy screen location.*
**Refer to 20320 Development Schedule - Overall .*

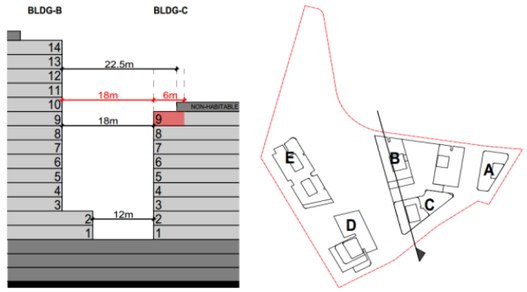


Fig. 3F1.B1 Building B-C separation & Key Plan

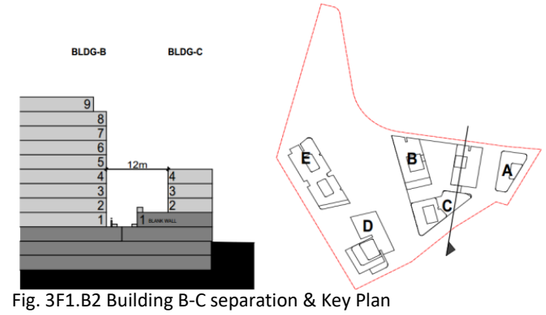


Fig. 3F1.B2 Building B-C separation & Key Plan

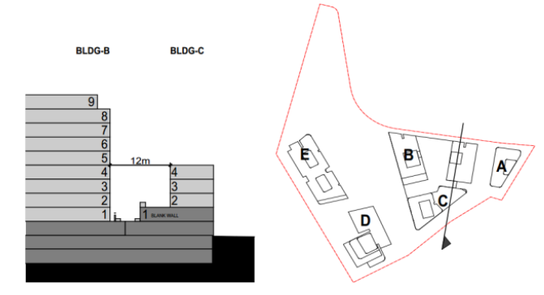


Fig. 3F1.B3 Building C_Level 9 privacy screening

Building B1-B2

Storeys 1-3 are compliant as they're separated 15.3m apart (Fig.3F1.B4).

Minor non-compliances occur only in one corner between storeys 5-8 that is mitigated with privacy screens and facade elements (Fig.3F1.B5).

BLDG B tower 1 storeys 10-15 face no visual privacy issues as adjacent tower does not exceed the 9th storey (Fig. 3F1.B6).

Whilst the ADG 3F-1 requires various setbacks depending on building storeys for visual privacy; the chief intent of the ADG is to achieve solar access to adjacent buildings. Solar and ventilation amenity are both achieved and views have been maximised.

**Refer to Architecturals PLA-AR-DA0100-PLA-AR-DA0108 and PLA-AR-DA0205 for privacy screen location.*

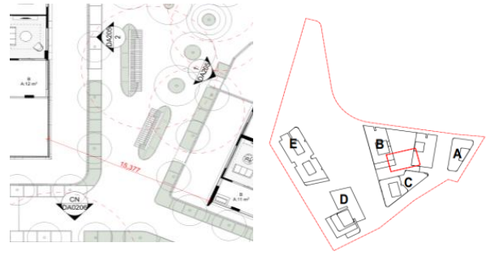


Fig. 3F1.B4 Building B Plan. Privacy screens annotated in blue & Key Plan

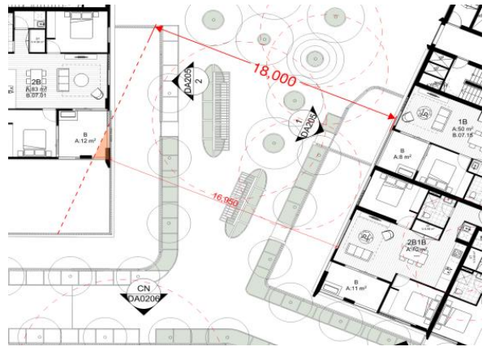


Fig. 3F1.B5 Building B separation (storeys 5-8) with blade wall projection to address visual privacy.

Building B1-E

Compliant as theyre 47m apart

**Refer to Architecturals PLA-AR-DA0100 - PLA-AR-DA0108*

Building B2-C

Building separation is consistent with the ADG design criteria for building separation between Levels 1 to 8.

BLD B2 storeys 10+ face no visual privacy issues as adjacent BLD C does not exceed over the 9th storey (Fig. 3F1.1).

Non-compliance occurs only on storey5-9 of BLD C to be addressed with privacy screen on BLD B1 balcony (Fig. 3F1.B2.1 & Fig. 3F1.B2.3).

Visual amenity of the primary habitable spaces are still maintained as primary glass line faces away from one another. Intent of the design was to maintain a strong tower expression and to avoid a ziggurat appearance with multiple setbacks. The setbacks are, on average, compliant with the required setback concerns.

Privacy screens have been provided on the south-western corner of building B2 - to mitigate privacy issues to C, whilst ensuring building C achieves great solar amenity.

**Refer to Architecturals PLA-AR-DA0100-PLA - AR-DA0108 and PLA-AR-DA0203 for privacy screen location.*
**Refer to 20320 Development Schedule - Overall .*

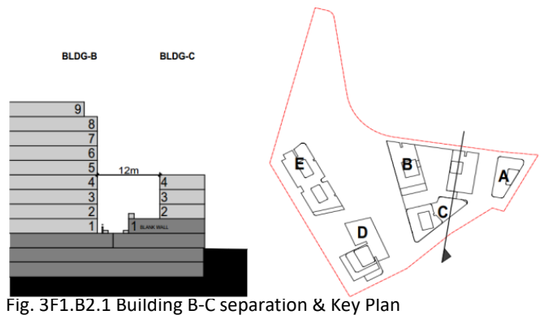


Fig. 3F1.B2.1 Building B-C separation & Key Plan

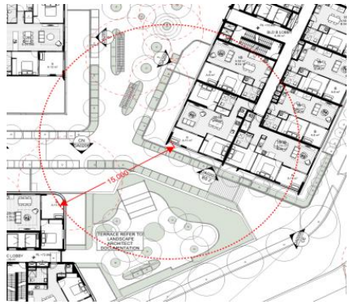


Fig. 3F1.B2.2 Building C_Level 9 privacy screening

Building C-D

Careful consideration has been made regarding the positioning of Buildings C & D position, resulting in the splaying of Building D away from C. This ensures a higher visual amenity and maximises views and solar amenity. Building C's rounded corner also minimises extent of non-compliance.

Non-complaince equivalent of 5 m2 per floor approximately1% of the GBA per floor (or 0.1% of the whole building) occurs only in the southern balcony on one storey, storey 9, with a separation of 22.65m at its most extreme. It however, is separated on average of 25m between the towers. Privacy screening elements have been implemented on Building C's southern corner to provide better visual privacy (Fig. 3F1.D8).

**Refer to Architecturals PLA-AR-DA0100 - PLA-AR-DA0108 and PLA-AR-DA0206 for privacy screen location.*

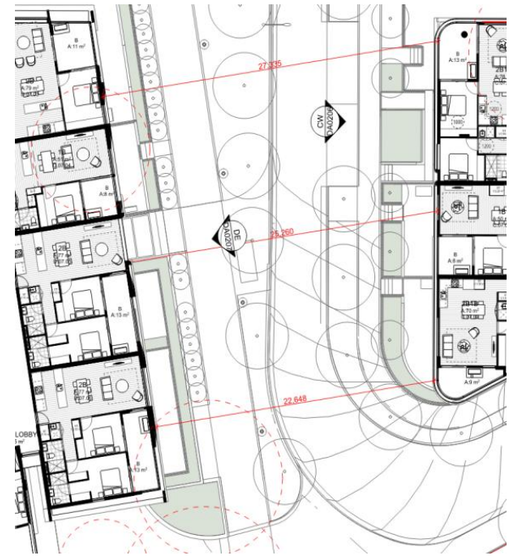


Fig. 3F1.D4 Building D-C separation (storeys 1-9) & Key Plan

Fig. 3F1.5 Building D-C separation (storeys 9)

Side & Rear Boundary Conditions
Building A
The design of bldg. A seeks to maintain a vertical tower expression to suggest a gentle transition between the low density to high density whilst also refrains from multiple setbacks that would suggest a ziggurat form.

Bldg. A seeks to minimise privacy concerns through the careful planning of unhabitable and habitable space. Unhabitable spaces are generally located on the eastern boundary to reduce privacy concerns.

Non-compliance occurs on the habitable space of Level 01-02, resulting a in minor compliance of 7% (29/525sqm of the total level's GFA). Although the non-compliance of L01 applies to only two apartments their primary habitable space (living room), however, achieves amenity in privacy.

Privacy screens have been implemented to alleviate privacy concerns (Fig. 3F1.A5).
**Refer to Architecturals PLA-AR-DA0101 - PLA-AR-DA0102,*
**Refer to Architecturals PLA-AR-DA0201*

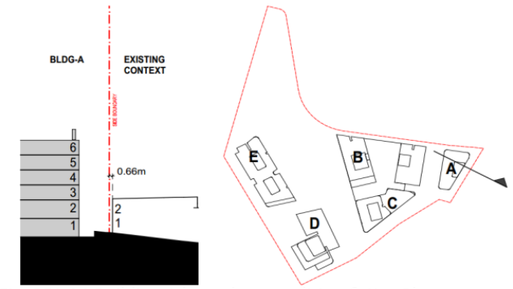


Fig. 3F1.A4 Building A boundary condition & Key Plan

Fig. 3F1.A5 Building A L01 (storey 5) Plan

Building A Side Setback (Fig. 3F1.A5)

Proposed screens location at level 5 & 6 annotated in blue

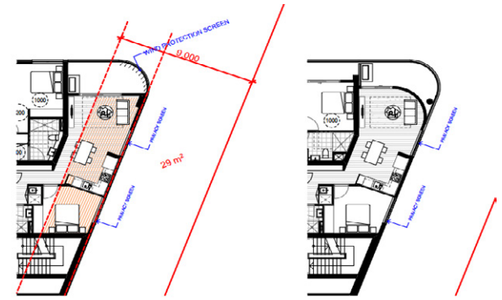


Fig. 3F1.6 Building A boundary condition at Level 5 & 6

Building A Rear Setback (Fig. 3F1.6)

Compliant as setback is over 6m at 4 storeys.

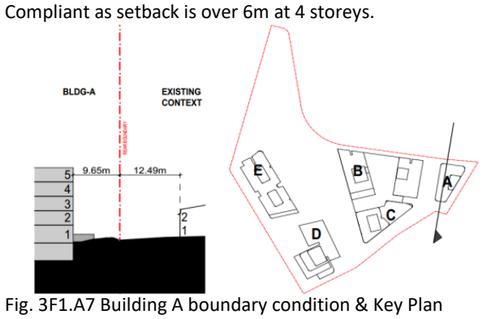


Fig. 3F1.A7 Building A boundary condition & Key Plan

Building B1 Side & Rear Setback

N/A

Building B2 Side & Rear Setback

N/A

Building C Rear Setback

Compliant as setback is over 9m between 5-8 storeys (Fig.3F1.C4).

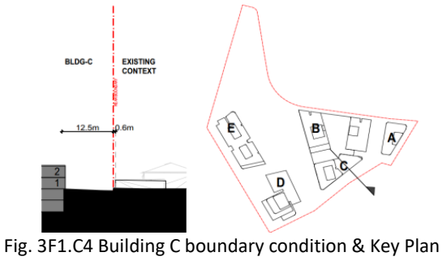


Fig. 3F1.C4 Building C boundary condition & Key Plan

Building C Rear Setback 2

The design of Bldg. C seeks to maintain a vertical tower expression throughout this facade. This resulted in Lower Ground to L06 (stories 1-8) exceeding setback requirements of 6m (stories 1-4) and 9m (stories 5-8), as such we believe this minor-infringement of ~0.5m is acceptable on the top two stories as the overall design outcome as future developments does not exceed over 6 storeys. (Fig.3F1.C5).

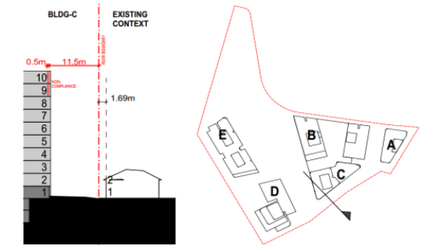


Fig. 3F1.C5 Building C boundary condition & Key Plan

The proposed development seeks to maintain building separation for privacy, acoustic and solar purposes.

In locations where ADG building separation could not be met, privacy screens have also been used throughout to further ensure visual privacy.

Building D Rear Setback

Compliant as storeys 1-8 are setback over 9m and storeys 9-10 are setback over 12m (Fig.3F1.5).

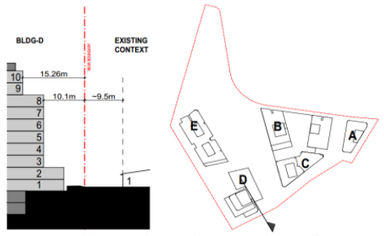


Fig. 3F1.D5 Building D boundary condition & Key Plan

Building D Side Setback

Compliant as storeys 1-8 are setback over 9m and storeys 9-10 are setback over 12m (Fig.3F1.D6).

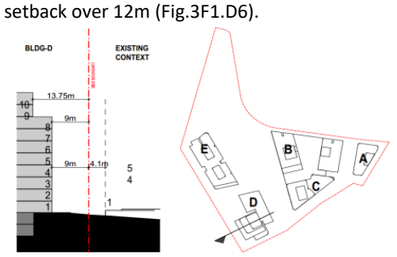


Fig. 3F1.D6 Building D boundary condition & Key Plan

Building E Side Setback 1 (Fig. 3F1.E4)

Compliant as storeys 1-8 are setback over 9m.

Minor 0.5m non-compliance on storey 9, however as neighbour does not exceed over 4 storeys, visual privacy of storeys 9 is unaffected.

Furthermore privacy screens are implemented on the western facade of BLDG-E to mitigate any potential development.

**Refer to Architecturals PLA-AR-DA0100-PLA - AR-DA0108 and PLA-AR-DA0207 for privacy screen location.*

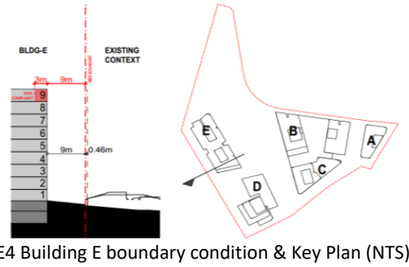


Fig. 3F1.E4 Building E boundary condition & Key Plan (NTS)

Building E Side Setback 2 (Fig. 3F1.E5)

Compliant at storeys 1-8 as setbacks over 9m.

2.9m non-compliance occurs on storey 9, however as this façade faces the light rail with no potential development, BLD-E visual

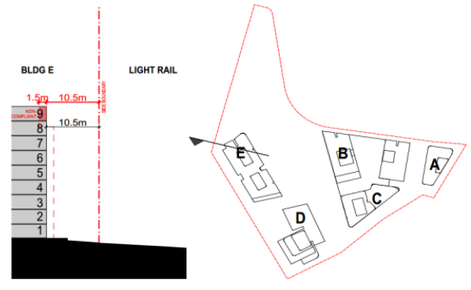
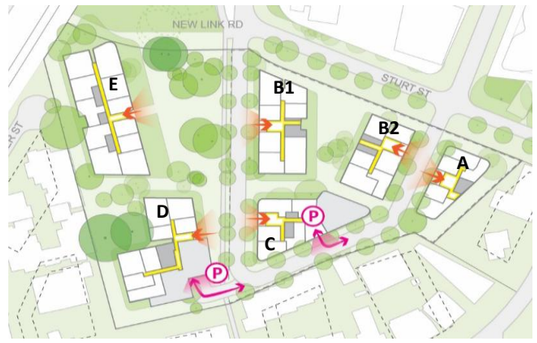


Fig. 3F1.E5 Building E boundary condition & Key Plan

	Design Guidance	YES	The proposal seeks to maintain building separation for both privacy and acoustic purpose. In locations where ADG building separation could not be met, privacy screens have been used throught to further protect the residents to ensure privacy is maintained.
	Generally as the height increases, one step in the built form is desirable due to building separations. Any additional steps do not cause a 'ziggurat' appearance	YES	
	For residential buildings next to commercial buildings, separation distances are measured as follows: Retail, office spaces & commercial balconies use the habitable room distances; Service & plant areas use the non-habitable room distances	N/A	
	New development are located & oriented to maximise visual privacy between buildings on site & for neighbouring buildings. Design solutions include: site layout & building are orientated to minimise privacy impacts (see 3B Orientation); on sloping sites, apartments on different levels have appropriate visual separation distances (see pg 63 figure 3F.4)	YES	
	Apartment buildings have an increased separation distance of 3m (in addition to 3F-1 Design Criteria) when adjacent to a different zone that permits lower density residential development, to provide for a transition in scale & increased landscaping (pg 63 figure 3F.5)	N/A	
	Direct lines of sight are avoided for windows & balconies across corners	YES	
	No separation is required between blank walls	YES	
3F-2	Objective: Site & building design elements increase privacy without compromising access to light & air and balance outlook & views from habitable rooms & private open space.		
	Design Guidance	YES	The communal open space proposed on the ground level, as well as the roof level communal space, common areas and access paths of the overall development have been designed to be screened from apartments through the use of privacy screen.
	Communal open space, common areas & access paths are separated from private open space & windows to apartments, particularly habitable room windows. Design solutions include: setbacks; solid or partially solid balustrades on balconies at lower levels; fencing and/or trees and vegetation to separate spaces; screening devices; bay windows or pop out windows to provide privacy in one direction & outlook in another; raising apartments or private open space above the public domain or communal open space; planter boxes incorporated into walls & balustrades to increase visual separation; pergolas or shading devices to limit overlooking of lower apartments or private open space; on constrained sites where it can be demonstrated that building layout opportunities are limited, fixed louvres or screen panels on windows and/or balconies	YES	
	Bedrooms, living spaces & other habitable rooms are separated from gallery access & other open circulation space by the apartment's service areas	YES	
	Balconies & private terraces are located in front of living rooms to increase internal privacy	YES	
	Windows are offset from the windows of adjacent buildings	YES	
	Recessed balconies and/or vertical fins are used between adjacent balconies	YES	
3G	PEDESTRIAN ACCESS & ENTRIES		
3G-1	Objective: Building entries & pedestrian access connects to and addresses the public domain.		
	Design Guidance	YES	The overall development has been designed to clearly define entry points and to ensure each lobby has direct street address. The private road to along the southern boundary of the site has been introduced to ensure all entries have direct street access (Fig.3G1.1). **Refer to Architecturals PLA-AR-DA0098 - PLA-AR-DA0100.* **Refer to Landscape Architects Details.*
	Multiple entries (including communal building entries & individual ground floor entries) activate the street edge	YES	 Fig. 3G1.1 Overall Stage 1A entries and paths

	Entry locations relate to the street & subdivision pattern, and the existing pedestrian network	YES	Fig. 3G1.1
	Building entries are clearly identifiable. Communal entries are clearly distinguishable from private entries	YES	
	Where street frontage is limited, a primary street address should be provided with clear sight lines and pathways to secondary building entries	YES	
3G-2	Objective: Access, entries & pathways are accessible & easy to identify.		
	Design Guidance	YES	The overall proposal for Stage 1A, contains a new private road cutting through heart of the site. This ensures all buildings receive clear pedestrian entry points (Fig.3G1.1). Each buildings' entries are clearly defined by the architecture of the lobby entrance which increases its visibility from the proposed through road. Stage 1A also implements ramps and steps to absorb the natural level changes on site - thus creating an accessible and easily distinguishable entry. **Refer to Architecturals PLA-AR-DA0098 - PLA-AR-DA0100* **Refer to Architecturals PLA-AR-DA0201 - PLA-AR-DA0208*
	Building access areas including lift lobbies, stairwells & hallways are clearly visible from the public domain & communal spaces	YES	
	The design of ground floors & underground car parks minimise level changes along pathways & entries	YES	
	Steps & ramps are integrated into the overall building & landscape design	YES	
	For large developments 'way finding' maps are provided to assist visitors & residents	YES	
	For large developments electronic access & audio/video intercom are provided to manage access	YES	
3G-3	Objective: Large sites provide pedestrian links for access to streets & connection to destinations.		
	Design Guidance	YES	An internal through-site link has been provided as a connection between light rail plaza and Manson Street (Fig.3G3.1).
	Pedestrian links through sites facilitate direct connections to open space, main streets, centres & public transport	YES	 Fig.3G3.1 Built form and connectivity
	Pedestrian links are direct, have clear sight lines, are overlooked by habitable rooms or private open spaces of dwellings, are well lit & contain active uses, where appropriate	YES	Fig.3G3.1
3H	VEHICLE ACCESS		
3H-1	Objective: Vehicle access points are designed & located to achieve safety, minimise conflicts between pedestrians & vehicles and create high quality streetscapes.		
	Design Guidance	YES	Vehicle access points have been carefully considered. Due to the natural sloping topography of the site, the entry points have been provided at two ends of the site at its lowest point to minimise carpark ramp being exposed onto the street front (Fig.3H1.1). Separate entries have also been designed to separate loading dock from residential vehicle access, reducing vehicle conflicts. Pedestrian entries are also located away from the vehicle entries in high visibility areas further reducing vehicular and pedestrian conflict (Fig.3H1.1).

Fig.3H1.1 Stage 1A vehicle access point

	Car park access is integrated with the building's overall facade. Design solutions include: materials & colour palette minimise visibility from street; security doors/gates minimise voids in the facade; where doors are not provided, visible interiors reflect facade design, and building services, pipes & ducts are concealed	YES	
	Car park entries are located behind the building line	YES	
	Vehicle entries are located at the lowest point of the site, minimising ramp lengths, excavation & impacts on the building form and layout	YES	
	Car park entry & access are located on secondary streets or lanes where available	YES	
	Vehicle standing areas that increase driveway width & encroach into setbacks are avoided	YES	
	Access point is located to avoid headlight glare to habitable rooms	YES	
	Adequate separation distances are provided between vehicle entries & street intersections	YES	
	The width & number of vehicle access points are limited to the minimum	YES	
	Visual impact of long driveways is minimised through changing alignments & screen planting	YES	
	The need for large vehicles to enter or turn around within the site is avoided	YES	
	Garbage collection, loading & servicing areas are screened	YES	
	Clear sight lines are provided at pedestrian & vehicle crossings	YES	
	Traffic calming devices, such as changes in paving material or textures, are used where appropriate	YES	
	Pedestrian & vehicle access are separated & distinguishable. Design solutions include: Changes in surface materials; Level changes; Landscaping for separation	YES	
3J	BICYCLE & CAR PARKING		
3J-1	Objective: Car parking is provided based on proximity to public transport in metropolitan Sydney & centres in regional areas.		
	Design Criteria	YES	The proposed development meets the required through basement carparking and on-street carparking . **Refer to Archtitecturals PLA-AR-0097 - PLA-AR-0099.* **Refer to the accompanying traffic report.*
	1 For development in the following locations: on sites that are within 800m of a railway station or light rail stop in the Sydney Metropolitan Area; or on land zoned, and sites within 400m of land zoned, B3 Commercial Core, B4 Mixed Use or equivalent in a nominated regional centre the minimum car parking requirement for residents & visitors is set out in the Guide to Traffic Generating Developments, or the car parking requirement prescribed by the relevant council, whichever is less. The car parking needs for a development must be provided off street.	YES	
	Design Guidance	YES	**Refer to the accompanying traffic report.*
	Where a car share scheme operates locally, car share parking spaces are provided within the development.	YES	
	Where less car parking is provided in a development, council do not provide on street resident parking permits	YES	
3J-2	Objective: Parking & facilities are provided for other modes of transport.		
	Design Guidance	YES	The proposed carpark will provide secure undercover bicycle and motorbike parking spaces for residents and visitors. Carparking meets requirements with on street and basement parking.
	Conveniently located & sufficient numbers of parking spaces are provided for motorbikes & scooters	YES	
	Secure undercover bicycle parking is provided & easily accessible from both public domain & common areas	YES	
	Conveniently located charging stations are provided for electric vehicles, where desirable	YES	
3J-3	Objective: Car park design & access is safe and secure.		
	Design Guidance	YES	The Basement has been designed to maximise efficiency within the floorplate while maintaining site lines where possible. Storage cages and bicycle parking will be accessed from dedicated pedestrian areas. Pedestrian paths through the carpark will be clearly delineated through signposting and line marking, with adequate lighting throughout
	Supporting facilities within car parks, including garbage, plant & switch rooms, storage areas & car wash bays can be accessed without crossing car parking spaces	YES	
	Direct, clearly visible & well lit access is provided into common circulation areas	YES	

	Clearly defined & visible lobby or waiting area is provided to lifts & stairs	YES	
	For larger car parks, safe pedestrian access is clearly defined & circulation areas have good lighting, colour, line marking and/or bollards	YES	
3J-4	Objective: Visual & environmental impacts of underground car parking are minimised.		
	Design Guidance	YES	The extent of excavation required to the basement levels has been minimised as much as possible. This has been achieved through an efficient carpark layout with double loaded corridors throughout. Whilst the site itself slopes significantly, the design of the basement carpark allows for it to be entirely submerged The basement carpark will be mechanically ventilated to allow for fresh air supply. Furthermore, the western extent of the car park below Buildings D & E on Lower ground floor exists above ground, allowing for additional, natural ventilation and light to filter through the screened facade, further enhancing environmental quality of this area.
	Excavation minimised through efficient car park layouts & ramp design	YES	
	Car parking layout is well organised, using a logical, efficient structural grid & double loaded aisles	YES	
	Protrusion of car parks do not exceed 1m above ground level. Solution include stepping car park levels or using split levels on sloping sites	YES	
	Natural ventilation is provided to basement & sub-basement car parking	YES	
	Ventilation grills or screening devices for car parking openings are integrated into the facade & landscape design	YES	
3J-5	Objective: Visual & environmental impacts of on-grade car parking are minimised.		
	Design Guidance	YES	All residential carparking has been provided in the basement levels. Few visitor carparking that are located on the private road adjacent the proposed public park which will have landscaping to reduce its visibility and buffer it from pedestrians.The loading dock entry has also been carefully considered to be located south of the site away from the public park and primary pedestrian movement (Fig.3G1.1). The number of on grade parking is minimised. On grade parking has a maximum gradient of 1:50. **Refer to Archtitecturals PLA-AR-0097 - PLA-AR-0099.* **Refer to Landscape Architects Details.*
	Parking is located on the side or rear of the lot away from the primary street frontage	YES	
	Cars are screened from view of streets, buildings, communal and private open space areas	YES	
	Safe and direct access to building entry points is provided	YES	
	Parking is incorporated into the landscape design of the site, by extending planting and materials into the car park space	YES	
	Stormwater run-off is managed appropriately from car parking surfaces	YES	
	Bio-swales, rain gardens or on site detention tanks are provided, where appropriate	YES	
	Light coloured paving materials or permeable paving systems are used and shade trees are planted between every 4-5 parking spaces to reduce increased surface temperatures from large areas of paving	YES	
3J-6	Objective: Visual & environmental impacts of above ground enclosed car parking are minimised.		
	Design Guidance	YES	See 3J-5 Above ground parking will be provided on site
	Exposed parking should not be located along primary street frontages	YES	
	Screening, landscaping and other design elements including public art should be used to integrate the above ground car parking with the facade. Design solutions may include: - Car parking that is concealed behind the facade, with windows integrated into the overall facade design (approach should be limited to developments where a larger floor plate podium is suitable at lower levels) - Car parking that is 'wrapped' with other uses, such as retail, commercial or two storey Small Office/Home Office (SOHO) units along the street frontage (see figure 3J.9) - Positive street address and active frontages should be provided at ground level	YES	
PART4	**DESIGNING THE BUILDING**		
4A	SOLAR & DAYLIGHT ACCESS		
4A-1	Objective: To optimise number of apartments receiving sunlight to habitable rooms, primary windows & private open space.		

	Design Criteria	YES	Stage 1A proposes a total of 423 new apartments. Of these, **328** receive a minimum of 2 hours sunlight **(78%)** From 8am-4pm in winter. **302** apartments **(71%)** achieve solar access from 9am-3pm. **5.9%** of total apartments proposed with south facing aspect receiving no solar access. **Refer to 20320 Development Schedule - Overall & Staging.* **Refer to Architecturals PLA-AR-DA0320 - PLA-AR-DA0322, PLA-AR-DA0327 - PLA-AR-DA0329.*
1	Living rooms & private open spaces of at least 70% of apartments in a building receive a minimum of 2 hrs direct sunlight between 9am - 3pm at mid winter in Sydney Metropolitan Area and in Newcastle and Wollongong local government areas	YES	
2	In all other areas, living rooms & private open spaces of at least 70% of apartments in a building receive a minimum of 3 hrs direct sunlight between 9 am - 3 pm at mid winter	N/A	
3	A maximum of 15% of apartments in a building receive no direct sunlight between 9 am - 3 pm at mid winter	YES	
	Design Guidance	YES	
	The design maximises north aspect. The number of single aspect south facing apartments is minimised	YES	
	Single aspect, single storey apartments have a northerly or easterly aspect	YES	
	Living areas are located to the north and service areas to the south & west of apartments	YES	
	To optimise direct sunlight to habitable rooms & balconies a number of the following design features are used:Dual aspect apartments, Shallow apartment layouts, Two storey &mezzanine level apartments, Bay windows	YES	
	To maximise the benefit to residents of direct sunlight within living rooms & private open spaces, a minimum of 1sqm of direct sunlight, measured at 1m above floor level, is achieved for at least 15 minutes	YES	
	Achieving the design criteria may not be possible 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; significant views are oriented away from the desired aspect for direct sunlight Design drawings need to demonstrate how site constraints & orientation preclude meeting Design Criteria & how the development meets the objective.	YES	
4A-2	Objective: Daylight access is maximised where sunlight is limited.		
	Design Guidance	YES	Skylights have been proposed to apartments with limited solar access to ensure living spaces are well lit throughout the day. **Refer to Architecturals PLA-AR-DA0108, PLA-AR-DA0109, PLA-AR-DA0115*
	Courtyards, skylights & high level windows (with sills of 1,500mm or greater) are used only as a secondary light source in habitable rooms	YES	
	Where courtyards are used: Use is restricted to kitchens, bathrooms & service areas; Services are concealed with appropriate detailing & materials to visible walls; Courtyards are fully open to the sky; Access is provided to the light well from communal area for cleaning & maintenance; Acoustic privacy, fire safety & minimum privacy separation distances (see 3F Visual Privacy) are achieved	YES	
	Opportunities for reflected light into apartments are optimised through: Reflective exterior surfaces on buildings opposite south facing windows; Positioning windows to face other buildings or surfaces (on neighbouring sites or within site) that will reflect light; Integrating light shelves into the design; Light coloured internal finishes	YES	
4A-3	Objective: Design incorporates shading & glare control, particularly for warmer months.		
	Design Guidance	YES	The proposed design incorporates overhangs to balconies to allow shading from summer sun. Windows are recessed into the facade to provide overhangs for solar control, and slab edges extend above windows to minimse high level, summer sun and glare.
	A number of the following design features are used: Balconies or sun shading that extend far enough to shade summer sun, but allow winter sun to penetrate living areas; Shading devices such as eaves, awnings, balconies, pergolas, external louvres & planting; Horizontal shading to north facing windows; Vertical shading to east & particularly west facing windows; Operable shading to allow adjustment & choice; High performance glass that minimises external glare off windows, with consideration given to reduce tint glass or glass with a reflectance level below 20% (reflective films are avoided)	YES	
4B	NATURAL VENTILATION		
4B-1	Objective: All habitable rooms are naturally ventilated.		
	Design Guidance	YES	All habitable rooms are naturally ventilated with careful consideration of window placement to optimise natural ventilation.
	The building's orientation maximises capture & use of prevailing breezes for natural ventilation in habitable rooms	YES	

	Depths of habitable rooms support natural ventilation	YES	
	The area of unobstructed window openings should be equal to at least 5% of the floor area served	YES	
	Light wells are not the primary air source for habitable rooms	YES	
	Doors & openable windows maximise natural ventilation opportunities by using the following design solutions: Adjustable windows with large effective openable areas; Variety of window types that provide safety & flexibility such as awnings & louvres; Windows that occupants can reconfigure to funnel breezes into apartment, such as vertical louvres, casement windows & externally opening doors	YES	
4B-2	Objective: The layout & design of single aspect apartments maximises natural ventilation.		
	Design Guidance	YES	Single aspect apartments have been designed to have limited depth in order to facilitate airflow within the apartment. Building breaks are employed in single aspect apartments to encourage cross ventilation in apartments
	Apartment depths limited to maximise ventilation & airflow	YES	
	Natural ventilation to single aspect apartments is achieved with the following design solutions: Primary windows are augmented with plenums and light wells (generally not suitable for cross ventilation); Stack effect ventilation, solar chimneys or similar used to naturally ventilate internal building areas or rooms such as bathrooms & laundries; Courtyards or building indentations have a width to depth ratio of 2:1 or 3:1 to ensure effective air circulation & avoid trapped smells	YES	Capable of complying
4B-3	Objective: Number of apartments with natural cross vent is maximised to create comfortable indoor environments for residents.		
	Design Criteria	YES	
1	At least 60% of apartments are naturally cross ventilated in the first nine storeys of the building. Apartments at ten storeys or greater are deemed to be cross ventilated only if any enclosure of the balconies at these levels allows adequate natural ventilation and cannot be fully enclosed	YES	The development proposes a total of **423** apartments up to 15 storeys, **388** are within the first 9 storeys. Of these, **246** are naturally cross ventilated **(63%)**
2	Overall depth of a cross-over or cross-through apartment does not exceed 18m, measured glass line to glass line	YES	
	Design Guidance	YES	
	The building includes dual aspect apartments, cross through apartments & corner apartments, and limited apartment depths	YES	
	In cross-through apartments, external window & door opening sizes/areas on one side of an apartment (inlet side) are approximately equal to the external window & door opening sizes/areas on the other side of the apartment (outlet side)	YES	
	Apartments are designed to minimise the number of corners, doors & rooms that might obstruct airflow	YES	
	Apartment depths, combined with appropriate ceiling heights, maximise cross ventilation & airflow	YES	
4C	CEILING HEIGHTS		
4C-1	Objective: Ceiling height achieves sufficient natural ventilation & daylight access.		
	Design Criteria	YES	The minimum ceiling heights have been accommodated with 2.7m for habitable rooms and 2.4m for non-habitable rooms.
1	Measured from finished floor level to finished ceiling level, minimum ceiling heights are: Minimum Ceiling Height for apt and mixed-used buildings (m) Habitable rooms 2.7 Non-habitable rooms 2.4 For 2 storey apts 2.7 for main living area floor 2.4 for second floor, where its area does not exceed 50% of the apt area Attic spaces 1.8 at edge of room with 30deg minimum ceiling slope If located in mixed-used area 3.3 for ground and first floor to promote future flexibility of use These minimums do not preclude higher ceilings if desired	YES	
4C-2	Objective: Ceiling height increases the sense of space in apartments & provides for well proportioned rooms.		
	Design Guidance	YES	The hierarchy of rooms within apartments will be emphasised by providing 2.7m ceiling heights for habitable rooms such as bedrooms and living areas, with 2.4m ceilings to service zones such as bathrooms.
	A number of the following design solutions are used: Hierarchy of rooms in apartment is defined using changes in ceiling heights & alternatives such as raked or curved ceilings, or double height spaces; Well proportioned rooms are provided, for example, smaller rooms feel larger & more spacious with higher ceilings; Ceiling heights are maximised in habitable rooms by ensuring that bulkheads do not intrude. The stacking of service rooms from floor to floor & coordination of bulkhead location above non-habitable areas, such as robes or storage, can assist	YES	
4C-3	Objective: Ceiling heights contribute to the flexibility of building use over the life of the building.		
	Design Guidance	N/A	
	Ceiling heights of lower level apartments should be greater than the minimum required by Design Criteria allowing flexibility & conversion to non-residential uses	N/A	The development of the ground floor is designed for residential use and is not zoned for mixed use or commercial use.
4D	APARTMENT SIZE & LAYOUT		
4D-1	Objective: The layout of rooms within apartment is functional, well organised & provides a high standard of amenity.		

	Design Criteria	YES	All of the apartment internal areas either meet or exceedthe required minimum sizes, including the provision of 5sqm for additional bathrooms. All habitable rooms have windows.
1	Apartments have the following minimum internal areas:	YES	
	Apartment Type Minimum Internal Area (sqm)	YES	
	Studio 35		
	1 Bedroom 50		
	2 Bedroom 70		
	3 Bedroom 90		
	The minimum internal areas include only one bathroom. Additional bathrooms increase the minimum internal area by 5sqm each.	YES	
	A fourth bedroom & further additional bedrooms increase the minimum internal area by 12sqm each		
2	Every habitable room has a window in an external wall with a total minimum glass area of not less than 10% of the floor area of the room. Daylight & air is not borrowed from other rooms	YES	
	Design Guidance	YES	All apartments have been designed carefully and oriented sensibly within the Concept Plan to achieve the most amenity.
	Kitchens is not located as part of the main circulation space in larger apartments (such as hallway or entry space)	YES	
	A window is visible from any point in a habitable room	YES	
	Where minimum areas or room dimensions are not met, apartments demonstrate that they are well designed and demonstrate the usability & functionality of the space with realistically scaled furniture layouts & circulation areas.	YES	
4D-2	Objective: Environmental performance of the apartment is maximised.		
	Design Criteria	YES	
1	Habitable room depths are limited to a maximum of 2.5 x the ceiling height	YES	
2	In open plan layouts (living, dining & kitchen are combined) maximum habitable room depth is 8m from a window	YES	All open plan layouts comply with maximum ADG depth.
	Design Guidance	YES	
	Greater than minimum ceiling heights allow for proportional increases in room depth up to the permitted max depths	YES	
	All living areas & bedrooms are located on the external face of building	YES	
	Where possible: bathrooms & laundries have external openable window; main living spaces are oriented toward the primary outlook & aspect and away from noise sources	YES	
4D-3	Objective: Apartment layouts are designed to accommodate a variety of household activities & needs.		
	Design Criteria	YES	
1	Master bedrooms have a minimum area of 10sqm & other bedrooms 9sqm (excluding wardrobe space)	YES	
2	Bedrooms have a minimum dimension of 3m (excluding wardrobe space)	YES	

Majority of the bedrooms comply with the ADG.
Some bedrooms have irregular wall shapes due to angled or rounded walls. In theses few instances where dimensions vary, an average 3m dimension is always achieved and functionally the room exceeds the suggested sqm requirement and can accommodate a variety of needs

Building A

Bedrooms in BLD A have irregular wall shapes due to BLD A splaying in two axis. In the few instances where dimensions vary due to the angled walls, an average 3m dimension is always achieved and functionally the room exceeds the suggested sqm requirement where it can accommodate a variety of needs. As such, the objectives been met.

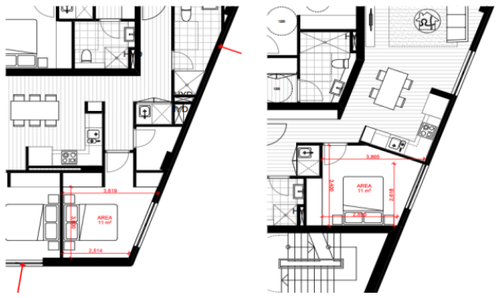


Fig.4D.3.A1 Typical bedroom measurement, functionality of the rooms are maintained.

Building E

	3 Living rooms or combined living/dining rooms have a minimum width of: – 3.6m for studio & 1 bedroom apartments – 4m for 2 & 3 bedroom apartments	YES	
	4 The width of cross-over or cross-through apartments are at least 4m internally to avoid deep narrow apartment layouts	YES	
	Design Guidance	YES	The habitable rooms within the development has been designed in accordance to the ADG.
	Access to bedrooms, bathrooms & laundries is separated from living areas minimising direct openings between living & service areas	YES	
	All bedrooms allow a minimum length of 1.5m for robes	YES	
	Main bedroom of apartment or studio apartment is provided with a wardrobe of minimum 1.8m L x 0.6m D x 2.1m H	YES	
	Apartment layouts allow flexibility over time, design solutions include: Dimensions that facilitate a variety of furniture arrangements & removal; Spaces for a range of activities & privacy levels between different spaces within the apartment; Dual master apartments; Dual key apartments (Note: dual key apartments which are separate but on the same title are regarded as two sole occupancy units for the purposes of the BCA & for calculating mix of apartments); Room sizes & proportions or open plans (rectangular spaces 2:3 are more easily furnished than square spaces 1:1); Efficient planning of circulation by stairs, corridors & through rooms to maximise the amount of usable floor space in rooms	YES	
4E	PRIVATE OPEN SPACE & BALCONIES		
4E -1	Objective: Apartments provide appropriately sized private open space & balconies to enhance residential amenity.		
	Design Criteria	CONSIDERED	
	1 All apartments are required to have primary balconies as follows: Apartment Type / Minimum Area (sqm) / Minimum Depth (m) Studio / 4 / - 1 Bedroom / 8 / 2 2 Bedroom / 10 / 2 3+ Bedroom / 12 / 2.4 The minimum balcony depth to be counted as contributing to the balcony area is 1m	CONSIDERED	Most apartment balconies comply with ADG requirements. In cases where balcony geometry is triangular or rounded due to the facade articulation, an average minimum dimension is achieved with ample area for a small table and chairs. Articulation can be refined in Design Development (Fig.4E1.1). In cases where balconies have rounded corners, no negative impacts are imposed on the functionality of the space. Non-compliances occur in only in Building C, 2x1 apartments in the south-eastern corner, C.01.02-C.08.02) Generous communal open spaces have been proposed to alleviate the slight non-compliance of these balconies (FIG.3D1.2).

Some bedrooms in BLD E have irregular walls.
In these few instances where dimensions vary due to the angled or curved walls, an average 3m dimension is achieved (in all but one case) and is alwayssupplement by a generous floor area that can accommodate a variety of needs.

With regards to the eastern bedroom of apartment E.02.08-E.07.08, (Fig 4D3.E1) this will require further development of the internal planning or balcony extents to ameliorate

FIG.4D3.E1 Example of an irregular bedroom on the south facade where dimensions average to 3m but functional area exceeds the requirement

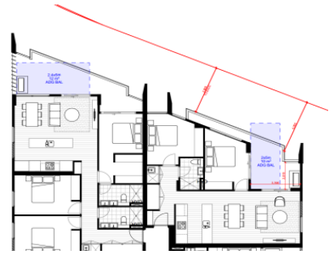


Fig.4E1.1 Typical triangular balcony where dimensions may not adhere exactly to ADG, objectives are still met.
Stage1A largely complies with minimum areas, few apartmentsin BLD C are short 1m2. Solar amenity and cross ventilation are still achieved. This will require further development of the internal planning or balcony extents with regards to the facade articulation in the Design Development. (Fig.4E1.C1).

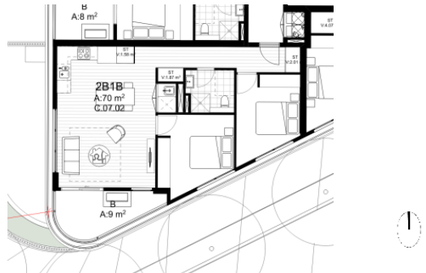


Fig.4E1.C1 9m2 balcony to 2-bedroom x 1-bathroom apartment (C.01.02 - C.08.02)

	2 For apartments at ground level or on podium or similar, a private open space is provided instead of a balcony. It must have minimum area of 15sqm & minimum depth of 3m	YES	
	Design Guidance	YES	
	Increased communal open space are provided where the number or size of balconies are reduced	YES	
	Storage areas on balconies is additional to the minimum balcony size	YES	
	Balcony use may be limited in some proposals where:consistently high wind speeds at 10 storeys & above; close proximity to road, rail or other noise sources; exposure to significant levels of aircraft noise; heritage & adaptive reuse of existing buildings In these situations juliet balconies, operable walls, enclosed wintergardens, and bay windows are appropriate. Other amenity benefits for occupants are provided in the apartments or in the development or both. Natural ventilation is also demonstrated	YES	
4E -2	Objective: Primary private open space & balconies are appropriately located to enhance liveability for residents		
	Design Guidance	YES	Ground level apartments have extended generous front garden which have direct access to the private communal spaces. Privacy screen has been used throughout the ground floor apartment to ensure privacy is maintained. Balconies have been carefully positioned adjacent to living rooms to promote indoor and outdoor living and to maximise solar amenity and ventilation.
	Primary open space & balconies are located adjacent to the living room, dining room or kitchen to extend the living space	YES	
	POS & balconies predominantly face north, east or west	YES	
	POS & balconies are orientated with the longer side facing outwards or be open to the sky to optimise daylight access into adjacent rooms	YES	
4E -3	Objective: Private open space & balcony design is integrated into & contributes to the overall architectural form & detail of the building		

	Design Guidance	YES	The architecture of private open spaces and balconies have been carefully considered. They are well balanced and oriented to create articulated apartments which responds to solar amenity, visual amenity, privacy amenity. The design of the ground level extended gardens are an integral part of the overall articulation of the proposal. Their extents define the overall form of the tower elements and their generous sizing, as well as their relationship to internal spaces encourage sustained use. **Refer to Architecturals PLA-AR-DA0201 - PLA-AR-DA0208*
	Solid, partially solid or transparent fences & balustrades are selected to respond to the location. They are designed to allow views & passive surveillance of the street while maintaining visual privacy & allowing for a range of uses on the balcony. Solid & partially solid balustrades are preferred	YES	
	Full width full height glass balustrades alone are generally not desirable	YES	
	Projecting balconies are integrated into the building design. The design of soffits are considered	YES	
	Operable screens, shutters, hoods & pergolas control sunlight & wind	YES	
	Balustrades are set back from the building or balcony edge where overlooking or where safety is an issue	YES	
	Downpipes & balcony drainage are integrated with the overall facade & building design	YES	
	Air-conditioning units are located on roofs, in basements, or fully integrated into the building design	YES	
	Where clothes drying, storage or air conditioning units are located on balconies, they are screened & integrated in the building design	YES	
	Ceilings of apartments below terraces are insulated to avoid heat loss	YES	
	Water & gas outlets are provided for primary balconies & private open space	YES	No gas provided throughout this development
4E -4	Objective: Private open space & balcony design maximises safety		
	Design Guidance	YES	Private open space on ground level consists of planter walls and fencing which are consistent with the level it sits on. They also provide screening and buffering from the street and through-site links. All balconies to be designed and constructed in accordance with the BCA.
	Changes in ground levels or landscaping are minimised	YES	
	Balcony design & detailing avoids opportunities for climbing & falling	YES	
4F	COMMON CIRCULATION & SPACES		
4F-1	Objective: Common circulation spaces achieve good amenity & properly service the number of apartments		
	Design Criteria	CONSIDERED	
1	The maximum number of apartments off a circulation core on a single level is eight	CONSIDERED	Stage 1A provides between 4-11 apartments per circulation core which generally meets the design guidance of 12 apartments per floor per core.
2	For buildings of 10 storeys & over, the maximum number of apartments sharing a single lift is 40	YES	
	Design Guidance	YES	The proposal does not strictly comply with the design criteria as it has floorplates between 4 and 11 apartments per level and a single core. However, the core is adjacent to an opening in the building floorplate, which allows for the provision of natural daylight creating an inviting circulation space.
	Greater than minimum requirements for corridor widths and/or ceiling heights allow comfortable movement & access particularly in entry lobbies, outside lifts & at apartment entry doors	YES	
	Daylight & natural ventilation are provided to all common circulation spaces that are above ground	YES	
	Windows are provided in common circulation spaces & are adjacent to the stair or lift core or at the ends of corridors	YES	
	Longer corridors greater than 12m in length from the lift core are articulated. Design solutions include: Series of foyer areas with windows & spaces for seating; Wider areas at apartment entry doors & varied ceiling heights	CONSIDERED	
	Common circulation spaces maximise opportunities for dual aspect apartments, including multiple core apartment buildings & cross over apartments	YES	
	Achieving Design Criteria for the number of apartments off a circulation core may not be possible. Where development is unable to achieve this, a high level of amenity for common lobbies, corridors & apartments is demonstrated, including: Sunlight & natural cross ventilation in apartments; Access to ample daylight & natural ventilation in common circulation spaces; Common areas for seating & gathering; Generous corridors with greater than minimum ceiling heights; Other innovative design solutions that provide high levels of amenity	YES	
	Where Design Criteria 1 is not achieved, no more than 12 apartments should be provided off a circulation core on a single level	CONSIDERED	

	Primary living room or bedroom windows do not open directly onto common circulation spaces, open or enclosed. Visual & acoustic privacy from common circulation spaces to any other rooms are carefully controlled	YES	
4F-2	Objective: Common circulation spaces promote safety & provide for social interaction between residents		
	Design Guidance	YES	The proposal incorporates a clear and legible entry procession from the entrance to each apartment door. Corridors will have ample daylight and will be clearly lit at night.
	Direct & legible access are provided between vertical circulation points & apartment entries by minimising corridor or gallery length to give short, straight, clear sight lines	YES	
	Tight corners & spaces are avoided	YES	
	Circulation spaces are well lit at night	YES	
	Legible signage are provided for apartment numbers, common areas & general wayfinding	YES	
	Incidental spaces, eg space for seating in a corridor, at a stair landing, or near a window are provided	YES	
	In larger developments, community rooms for activities such as owners corporation meetings or resident use, are provided & are co-located with communal open space	YES	
4G	STORAGE		
4G-1	Objective: Adequate, well designed storage is provided in each apartment		
	Design Criteria	YES	The proposal will accommodate the recommended amount of storage per apartment. 50% or greater of the required area being accessible from with the apartment living areas. Details will be finalised during design development. 50% of required storage will be provided in the basement. Apartment storage allocation at this stage is as follows: studio apartments: 4m3 1 bedroom 6m3 2 bedroom 8m3 3 bedroom 10m3
	1 In addition to storage in kitchens, bathrooms and bedrooms, the following storage is provided:	YES	

Apartment Type	Storage Size Volume (cubic m)
Studio	4
1 Bedroom	6
2 Bedroom	8
3+ Bedroom	10

	At least 50% of the required storage is to be located within the apartment		
	Design Guidance	YES	
	Storage is accessible from either circulation or living areas	YES	
	Storage provided on balconies (in addition to the minimum balcony size) is integrated into the balcony design, weather proofed & screened from view from the street	YES	
	Left over space such as under stairs is used for storage	YES	
4G-2	Objective: Additional storage is conveniently located, accessible & nominated for individual apartments		
	Design Guidance	YES	Additional storage not located in apartments will be located in carpark levels in secure storage 'cages'. These stores will be clearly allocated to specific apartments and be readily accessible from common aisles or from adjacent allocated car spaces.
	Storage not located in apartments is secure and clearly allocated to specific apartments	YES	
	Storage is provided for larger & less frequently accessed items	YES	
	Storage space in internal or basement car parks is provided at the rear or side of car spaces or in cages, such that allocated car parking remains accessible	YES	
	If communal storage rooms are provided they are accessible from common circulation areas of the building	YES	
	Storage not located in apartment is integrated into the overall building design & not visible from public domain	YES	
4H	ACOUSTIC PRIVACY		
4H-1	Objective: Noise transfer is minimised through the siting of buildings & building layout		
	Design Guidance	YES	Will comply in accordance with acoustic report recommendations.
	Adequate building separation is provided within the development & from neighbouring buildings/adjacent uses (see 2F Building Separation & 3F Visual Privacy)	YES	
	Window & door openings are orientated away from noise sources	YES	

	Noisy areas within buildings including building entries & corridors are located next to or above each other while quieter areas are located next to or above quieter areas	YES	
	Storage, circulation areas & non-habitable rooms are located to buffer noise from external sources	YES	
	The number of party walls (shared with other apartments) are limited & are appropriately insulated	YES	
	Noise sources such as garage doors, driveways, service areas, plant rooms, building services, mechanical equipment, active communal open spaces & circulation areas should be located at least 3m away from bedrooms	YES	
4H-2	Objective: Noise impacts are mitigated within apartments through layout & acoustic treatments		
	Design Guidance	YES	Will comply in accordance with acoustic report recommendations.
	Internal apartment layout separates noisy spaces from quiet spaces, using a number of the following design solutions: Rooms with similar noise requirements are grouped together; Doors separate different use zones; Wardrobes in bedrooms are co-located to act as sound buffers	YES	
	Where physical separation cannot be achieved, noise conflicts are resolved using the following design solutions: Double or acoustic glazing; Acoustic seals; Use of materials with low noise penetration properties; Continuous walls to ground level courtyards where they do not conflict with streetscape or other amenity requirements	YES	
4J	NOISE & POLLUTION		
4J-1	Objective: In noisy or hostile environments impacts of external noise & pollution are minimised through careful siting & layout		
	Design Guidance	YES	Will comply in accordance with acoustic report recommendations.
	To minimise impacts the following design solutions are used: Physical separation between buildings & the noise or pollution source; Residential uses are located perpendicular to the noise source & where possible buffered by other uses; Non-residential buildings are sited to be parallel with the noise source to provide a continuous building that shields residential uses & communal open spaces; Non-residential uses are located at lower levels vertically separating residential component from noise or pollution source. Setbacks to the underside of residential floor levels are increased, relative to traffic volumes & other noise sources; Buildings respond to both solar access & noise. Where solar access is away from noise source, non-habitable rooms will provide a buffer; Where solar access is in the same direction as the noise source, dual aspect apartments with shallow building depths are preferred; Landscape design reduces the perception of noise & acts as a filter for air pollution generated by traffic & industry	YES	
	Where developments are unable to achieve Design Criteria, alternatives are considered in the following areas: Solar & daylight access, Private open space & balconies, Natural cross ventilation	YES	
4J-2	Objective: Appropriate noise shielding or attenuation techniques for building design, construction & choice of materials are used to mitigate noise transmission		
	Design Guidance	YES	Will comply in accordance with acoustic report recommendations.
	Design solutions to mitigate noise include: Limiting the number & size of openings facing noise sources, Providing seals to prevent noise transfer through gaps, Using double or acoustic glazing, acoustic louvres or enclosed balconies (wintergardens), Using materials with mass and/or sound insulation or absorption properties eg solid balcony balustrades, external screens & soffits	YES	
4K	APARTMENT MIX		
4K-1	Objective: A range of apartment types & sizes is provided to cater for different household types now & into the future		
	Design Guidance	YES	A variety of apartment types are proposed ranging from 1B, 2B, 2B+Study, and 3B apartments.
	A variety of apartment types is provided	YES	
	The apartment mix is appropriate, taking into consideration: Distance to public transport, employment & education centres, Current market demands & projected future demographic trends, Demand for social & affordable housing, Different cultural & socioeconomic groups	YES	
	Flexible apartment configurations are provided to support diverse household types & stages of life including single person households, families, multi-generational families & group households	YES	
4K-2	Objective: The apartment mix is distributed to suitable locations within the building		
	Design Guidance	YES	The apartment mix is distributed throughout the building. There are larger apartments on both lower and upper levels and each level accommodates a diversity of apartment types.
	Different apartment types are located to achieve successful facade composition & to optimise solar access	YES	
	Larger apartment types are located on ground or roof level where there is potential for more open space, and on corners where more building frontage is available	YES	
4L	GROUND FLOOR APARTMENTS		
4L-1	Objective: Street frontage activity is maximised where ground floor apartments are located		
	Design Guidance	YES	Ground floor apartment with extended front garden helps to activate the open communal spaces.
	Direct street access are provided to ground floor apartments	YES	
	Activity is achieved through front gardens, terraces & the facade of the building. Design solutions include: Both street, foyer & other common internal circulation entrances to ground floor apartments, Private open space is next to the street, Doors & windows face the street	YES	
	Retail or home office spaces are located along street frontages	YES	

	Ground floor apartment layouts support SOHO use & provide opportunities for future conversion into commercial or retail areas. In these cases higher floor to ceiling heights & easy conversion to ground floor amenities are provided.	N/A	
4L-2	Objective: Design of ground floor apartments delivers amenity & safety for residents		
	Design Guidance	YES	1800mm fencing has been proposed throughout on the ground level apartments to ensure privacy is maintained. Planter boxes with screen planting and metal fencing act as buffers which provides visual amenity and wind protection to residents.
	Privacy & safety are provided without obstructing casual surveillance. Design solutions include: Elevating private gardens & terraces above the street level by 1-1.5m (see pg 109 Figure 4L.4), Landscaping & private courtyards, Window sill heights minimise sight lines into apartments, Integrating balustrades, safety bars or screens with exterior design	YES	
	Solar access is maximised through: High ceilings & tall windows, Trees & shrubs allow solar access in winter & shade in summer	YES	
4M	FACADES		
4M-1	Objective: Building facades provide visual interest along the street while respecting the character of the local area		
	Design Guidance	YES	The buildings are composed to be clearly legible and to clearly establish a base, middle and top. Warm shades of brick are used to differentiate the base from the middle and bronze perforated metal screens and create a break through the building form to provide further contrast and warmth within the overall composition. **Refer to Telopea Revised DA Report pg 25.* **Refer to Architecturals PLA-AR-DA0201 - PLA-AR-DA0208 & PLA-AR-DA0271 - PLA-AR-DA0275*

Fig.4M1.1 Warm brick podium expression in brown dash

Fig.4M1.2 Diverse tower expression in coloured dashes

	Design solutions for front building facades include: Composition of varied building elements, Defined base, middle & top of buildings, Revealing & concealing certain elements	YES	
	Building services are integrated within the overall façade	YES	
	Building facades are well resolved with appropriate scale & proportion to streetscape & with consideration of human scale. Solutions include: Well composed horizontal & vertical elements, Variation in floor heights to enhance the human scale, Elements that are proportional & arranged in patterns, Public artwork or treatments to exterior blank walls, Grouping of floors or elements such as balconies & windows on taller buildings	YES	
	Building facades relate to key datum lines of adjacent buildings through upper level setbacks, parapets, cornices, awnings or colonnade heights	YES	
	Shadow is created on the facade throughout the day with building articulation, balconies & deeper window reveals	YES	
4M-2	Objective: Building functions are expressed by the façade		
	Design Guidance	YES	The built form is clearly defined into 3 distinct elements; ground level, main form and top expression. Ground level entry has also been clearly defined through articulation of the portal expression.

	Building entries are clearly defined	YES	
	Important corners are given visual prominence through change in articulation, materials or colour, roof expression or changes in height	YES	
	Apartment layout is expressed externally through facade features such as party walls & floor slabs	YES	
4N	ROOF DESIGN		
4N-1	Objective: Roof treatments are integrated into the building design & positively respond to the street		
	Design Guidance	YES	The overall proposal carefully considers the expression of the fifth facade. To compliment the variety in height, diversity in the roof plane is proposed through the use of activated landscaped roof terraces (communal and private),skylights, materiality, solar cells and planting. This creates visual variation across the development and animates the roof plane. **Refer to Architecturals PLA-AR-DA0115.*
	Roof design relates to the street. Design solutions include: Special roof features & strong corners, Use of skillion or very low pitch hipped roofs, Breaking down the massing of the roof by using smaller elements to avoid bulk, Using materials or pitched form complementary to adjacent buildings	YES	
	Roof treatments are integrated with the building design. Design solutions include: Roof design is in proportion to the overall building size, scale & form, Roof materials compliment the building, Service elements are integrated	YES	
4N-2	Objective: Opportunities to use roof space for residential accommodation & open space are maximised		
	Design Guidance	YES	Podium level landscaping provides great residential amenity. See response to Objective 4N-1 **Refer to Landscape Architects Details.*
	Habitable roof space are provided with good levels of amenity. Design solutions include: Penthouse apartments, Dormer or clerestory windows, Openable skylights	YES	
	Open space is provided on roof tops subject to acceptable visual & acoustic privacy, comfort levels, safety & security considerations	YES	
4N-3	Objective: Roof design incorporates sustainability features		
	Design Guidance	YES	Eaves have been incorporated on setback roof forms to mititgate solar. Skylights have also been incorporated to improve solar access to several residential units. Solar cells support the energy needs of the building.Light coloured roof assists In heat reflection. Landscaping and pergola on communal roof forms part of the overall sustainability agenda assisting with amenity, reduction of heat load and reflection. **Refer to Architecturals PLA-AR-DA0109 & PLA-AR-DA0115.* **Refer to NatHERs Assessment*
	Roof design maximises solar access to apartments during winter & provides shade during summer. Design solutions include: Roof lifts to the north, Eaves & overhangs shade walls & windows from summer sun	YES	
	Skylights & ventilation systems are integrated into the roof design	YES	
4O	LANDSCAPE DESIGN		
4O-1	Objective: Landscape design is viable & sustainable		
	Design Guidance	YES	The overall development contains a mix of well considered public, communal and private spaces. Generous deep soil planting, diverse selection of planting along with retention of existing trees aid in its overall sustainability. **Refer to Landscape Architects Details.*
	Landscape design is environmentally sustainable & can enhance environmental performance by incorporating: Diverse & appropriate planting, Bio-filtration gardens, Appropriately planted shading trees, Areas for residents to plant vegetables & herbs, Composting, Green roofs or walls	YES	
	Ongoing maintenance plans are prepared	YES	
	Microclimate is enhanced by: Appropriately scaled trees near the eastern & western elevations for shade, Balance of evergreen & deciduous trees to provide shading in summer & sunlight access in winter, Shade structures such as pergolas for balconies & courtyards	YES	
	Tree & shrub selection considers size at maturity & the potential for roots to compete.	YES	
4O-2	Objective: Landscape design contributes to streetscape & amenity		
	Design Guidance	YES	**Refer to Landscape Architects Details.*

	Landscape design responds to the existing site conditions including: Changes of levels, Views, Significant landscape features including trees & rock outcrops	YES	
	Significant landscape features are protected by: Tree protection zones, Appropriate signage & fencing during construction	YES	
	Plants selected are endemic to region & reflect local ecology	YES	
4P	PLANTING ON STRUCTURES		
4P-1	Objective: Appropriate soil profiles are provided		
	Design Guidance	YES	Landscape details have been selected by the Landscape Architect to suit the site conditions and take advantage of the generous deep soil opportunities within the overall development. **Refer to Landscape Architects Details.*
	Structures are reinforced for additional saturated soil weight	YES	
	Soil volume is appropriate for plant growth, including: Modifying depths & widths according to planting mix & irrigation frequency, Free draining & long soil life span, Tree anchorage	YES	
	Minimum soil standards for plant sizes should be provided in accordance with: Site Area (sqm) — Recommended Tree Planting Up to 850 — 1 medium tree per 50sqm of deep soil zone 850 - 1500 — 1 large tree or 2 medium trees per 90sqm of deep soil zone Greater than 1500 — 1 large tree or 2 medium trees per 80sqm of deep soil zone	YES	
4P-2	Objective: Plant growth is optimised with appropriate selection & maintenance		
	Design Guidance	YES	Appropriate selection of planting is used to ensure planters are well maintained. **Refer to Landscape Architects Details.*
	Plants are suited to site conditions, considerations include:Drought & wind tolerance, Seasonal changes in solar access, Modified substrate depths for a diverse range of plants, Plant longevity	YES	
	A landscape maintenance plan is prepared	YES	
	Irrigation & drainage systems respond to: Changing site conditions, Soil profile & planting regime, Whether rainwater, stormwater or recycled grey water is used	YES	
4P-3	Objective: Planting on structures contributes to the quality & amenity of communal & public open spaces		
	Design Guidance	YES	Landscape details have been selected by the Landscape Architect to suit the site conditions and take advantage of the generous deep soil opportunities within the overall development. **Refer to Landscape Architects Details.*
	Building design incorporates opportunities for planting on structures. Design solutions include: Green walls with specialised lighting for indoor green walls, Wall design that incorporates planting, Green roofs, particularly where roofs are visible from the public domain, Planter boxes Note: structures designed to accommodate green walls should be integrated into the building facade & consider the ability of the facade to change over time	YES	
4Q	UNIVERSAL DESIGN		
4Q-1	Objective: Universal design features are included in apartment design to promote flexible housing for all community members		
	Design Guidance	YES	
	Developments achieve a benchmark of 15% of the total apartments incorporating the Livable Housing Guideline's silver level universal design features	YES	Capable of complying
4Q-2	Objective: A variety of apartments with adaptable designs are provided		
	Design Guidance	YES	Stage 1A comprises a total of 423 apartments. Based on the agreed 5% of dwellings required to be accessible under the State Significant Development Application (SSDA), a minimum of 22 adaptable dwellings are required. Overall proposed development complies with this figure. **Refer to DA Access Report pg.16* **Refer to Architecturals PLA-AR-DA0501-PLA-AR-DA0513*
	Adaptable housing should be provided in accordance with the relevant council policy	YES	
	Design solutions for adaptable apartments include: Convenient access to communal & public areas, High level of solar access, Minimal structural change & residential amenity loss when adapted, Larger car parking spaces for accessibility, Parking titled separately from apartments or shared car parking arrangements	YES	
4Q-3	Objective: Apartment layouts are flexible & accommodate a range of lifestyle needs		
	Design Guidance	YES	
	Flexible design solutions include:Rooms with multiple functions, Dual master bedroom apartments with separate bathrooms, Larger apartments with various living space options, Open plan 'loft' style apartments with only a fixed kitchen, laundry & bathroom	YES	

4R	ADAPTIVE REUSE		
4R-1	Objective: New additions to existing buildings are contemporary, complementary & enhance area's identity & sense of place		
4R-2	Objective: Adapted buildings provide residential amenity but does not precluding future adaptive reuse		
4S	MIXED USE		
4S-1	Objective: Mixed use developments are provided in appropriate locations & provide active street frontages that encourage pedestrian movement.		
	Design Guidance	N/A	Stage 1A is purely a residential zoned site. Although not zoned for mixed use, the proposed private through road ensures good access and connectivity to the mixed use core to the north.
	Mixed use development are concentrated around public transport & centres	N/A	
	Mixed use developments positively contribute to the public domain. Design solutions include: Development addresses the street, Active frontages provided, Diverse activities & uses, Avoiding blank walls at the ground level, Live/work apartments on the ground floor level, rather than commercial	N/A	
4S-2	Objective: Residential levels of the building are integrated within the development. Safety & amenity is maximised.		
	Design Guidance	YES	The overall development of Stage 1A contains only residential apartments, as such residential circulation are clear and separated. Each lobby will provide swipe access as well as security cameras. Building entries are situated away from vehicle access points (Fig.3G1.1).
	Residential circulation areas are clearly defined. Solutions include:Residential entries separated from commercial entries & directly accessible from the street, Commercial service areas separated from residential components, Residential car parking & communal facilities separated or secured, Security at entries & safe pedestrian routes are provided, Concealment opportunities are avoided	YES	
	Landscaped communal open space are provided at podium or roof	YES	
4T	AWNING & SIGNAGE		
4T-1	Objective: Awnings are well located and complement & integrate with the building design.		
	Design Guidance	N/A	
	Awnings are located along streets with high pedestrian activity & active frontages	N/A	
	A number of the following design solutions are used: Continuous awnings are maintained & provided in areas with an existing pattern, Height, depth, material & form complements existing street character, Protection from sun & rain is provided, Awnings are wrapped around secondary frontages of corner sites, Awnings are retractable in areas without an established pattern	N/A	
	Awnings are located over building entries for address & public domain amenity Capable of complying.	N/A	
	Awnings relate to residential windows, balconies, street tree planting, power poles & street infrastructure	N/A	
	Gutters & down pipes are integrated and concealed	N/A	
	Lighting under awnings is provided for pedestrian safety	N/A	
4T-2	Objective: Signage responds to context & desired streetscape character.		
	Design Guidance	N/A	
	Signage is integrated into building design & respond to scale, proportion & detailing of the development	N/A	
	Legible & discrete way finding is provided for larger developments	N/A	
	Signage is limited to being on & below awnings, and single facade sign on primary street frontages	N/A	
4U	ENERGY EFFICIENCY		
4U-1	Objective: Development incorporates passive environmental design.		
	Design Guidance	YES	
	Adequate natural light is provided to habitable rooms	YES	
	Well located, screened outdoor areas are provided for clothes drying	YES	
4U-2	Objective: Passive solar design is incorporated to optimise heat storage in winter & reduce heat transfer in summer.		
	Design Guidance	YES	
	A number of the following design solutions are used: Use of smart glass or other on north & west elevations, Thermal mass maximised in floors & walls of north facing rooms, Polished concrete floors, tiles or timber rather than carpet, Insulated roofs, walls & floors. Seals on window & door openings, Overhangs & shading devices such as awnings, blinds & screens	YES	Proposed building orientations and massing have been carefully considered with passive solar design strategies to maximise solar amenity. Cross ventilation in the overall development has also been achieved thus reducing the need for cooling. Balcony overhangs and screens mitigate harsh direct summer sun. While balconies permits winter sun. High thermal mass of brick retains heat during winter.
	Provision of consolidated heating & cooling infrastructure is located in a centralised location (eg basement)	YES	
4U-3	Objective: Adequate natural ventilation to minimise the need for mechanical ventilation.		
	Design Guidance	YES	
	A number of the following design solutions are used:,Rooms with similar usage are grouped together, Natural cross ventilation for apartments is optimised, Natural ventilation is provided to all habitable rooms & as many non-habitable rooms, common areas & circulation spaces as possible	YES	
4V	WATER MANAGEMENT & CONSERVATION		
4V-1	Objective: Potable water use is minimised.		

	Design Guidance	YES	The development aims to minimise potable waterconsumption through efficient fixtures and fittings as well as reduction in landscape irrigation. Planting on the rooftop areas and podium levels will be drought resistant and will be coordinated with the landscape architect's specifications of planting.Fire protection testing water is recycled into the system to avoid wastage. **Refer to Basix Report*
	Water efficient fittings, appliances & wastewater reuse are incorporated	YES	
	Apartments are individually metered	YES	
	Rainwater is collected, stored & reused on site	YES	
	Drought tolerant, low water use plants are used within landscaped areas	YES	
4V-2	Objective: Urban stormwater is treated on site before being discharged to receiving waters.		
	Design Guidance	YES	The waste storage system is proposed on the basement level with common waste holding areas. **Refer to waste management report for more details.*
	Water sensitive urban design systems are designed by a suitably qualified professional	YES	
	A number of the following design solutions are used:, Runoff is collected from roofs & balconies in water tanks and plumbed into toilets, laundry & irrigation, Porous & open paving materials is maximised, On site stormwater & infiltration, including bio-retention systems such as rain gardens or street tree pits	YES	
4V-3	Objective: Flood management systems are integrated into site.		
	Design Guidance	YES	**Refer to Civil Engineers Drawings.*
	Detention tanks are located under paved areas, driveways or in basements	YES	
	On large sites, parks or open spaces are designed to provide temporary on site detention basins	YES	
4W	WASTE MANAGEMENT		
4W-1	Objective: Waste storage facilities are designed to minimise impacts on streetscape, building entry & amenity of residents.		
	Design Guidance	YES	The waste storage system is proposed on the basement level with common waste holding areas. **Refer to waste management report for more details.*
	Adequately sized storage areas for rubbish bins are located discreetly away from the front of the development or in basement car park	YES	
	Waste & recycling storage areas are well ventilated	YES	
	Circulation design allows bins to be easily manoeuvred between storage & collection points	YES	
	Temporary storage are provided for large bulk items such as mattresses	YES	
	Waste management plan is prepared	YES	
4W-2	Objective: Domestic waste is minimised by providing safe & convenient source separation & recycling.		
	Design Guidance	YES	Each floor will have a dual waste chute system for both general waste and recycling, which is directed to a waste room in the basement.
	All dwellings have a waste & recycling cupboard or temporary storage area of sufficient size to hold two days worth of waste & recycling	YES	
	Communal waste & recycling rooms are in convenient & accessible locations related to each vertical core	YES	
	For mixed use developments, residential waste & recycling storage areas & access is separate & secure from other uses	YES	
	Alternative waste disposal methods such as composting is provided	YES	
4X	BUILDING MAINTENANCE		
4X-1	Objective: Building design detail provides protection from weathering.		
	Design Guidance	YES	The building in its articulation and detailing is intended to be robust and low maintenance. A limited material palette is proposed - material choices have been carefully considered in relation to durability in environments close to water bodies.
	A number of the following design solutions are used:,Roof overhangs to protect walls, Hoods over windows & doors to protect openings, Detailing horizontal edges with drip lines to avoid staining surfaces, Methods to eliminate or reduce planter box leaching, Appropriate design & material selection for hostile locations	YES	
4X-2	Objective: Systems & access enable ease of maintenance.		
	Design Guidance	YES	
	Window design enables cleaning from the inside of the building	YES	
	Building maintenance systems are incorporated & integrated into the design of the building form, roof & facade	YES	
	Design does not require external scaffolding for maintenance access	YES	
	Manually operated systems such as blinds, sunshades & curtains are used in preference to mechanical systems	YES	
	Centralised maintenance, services & storage are provided for communal open space areas within the building	YES	

4X-3	Objective: Material selection reduces ongoing maintenance costs.		
	Design Guidance	YES	The building façade is intended to be robust and hard-wearing. Materials such as bricks and metal panelling systems are proposed. Internally, common areas will be resilient in order to accommodate high traffic patterns, particularly around the lift lobby. Common areas will also have lighting that is triggered by motion detectors.
	A number of the following design solutions are used: Sensors to control artificial lighting in common circulation & spaces, Natural materials that weather well & improve with time, such as face brickwork, Easily cleaned surfaces that are graffiti resistant, Robust & durable materials & finishes in locations which receive heavy wear & tear such as common circulation areas & lift interiors	YES	

THE EXTRAS

DESIGN AMENDMENT

CURRENT DA

PROPOSED DA

BUILDING A

	CURRENT	PROPOSED
NORTH SETBACK	10m	10m
GFA:	1916 sqm	1732 sqm
GBA	2662 sqm	2096 sqm
NSA	1678 sqm	1508 sqm
No. of Apts	23	26
Studio	0	0
1 bed	9	18
1 bed + S	0	0
2 bed 1B	1	8
2 bed 2B	4	0
2 bed 2B + S	3	0
3 bed	6	0
SA (8am-4pm):	9 (39%)	14 (53.8%)
SA (9am-3pm):	9 (39%)	14 (53.8%)
CV:	16 (70%)	17 (65.4%)

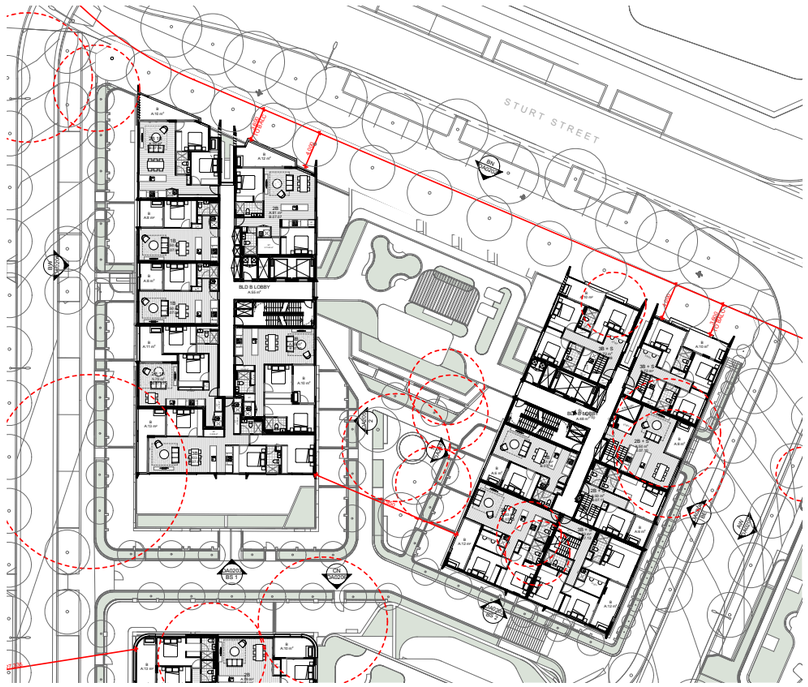
CURRENT DA - TYPICAL LEVEL 01-03

PROPOSED DA - TYPICAL LEVEL 01-03

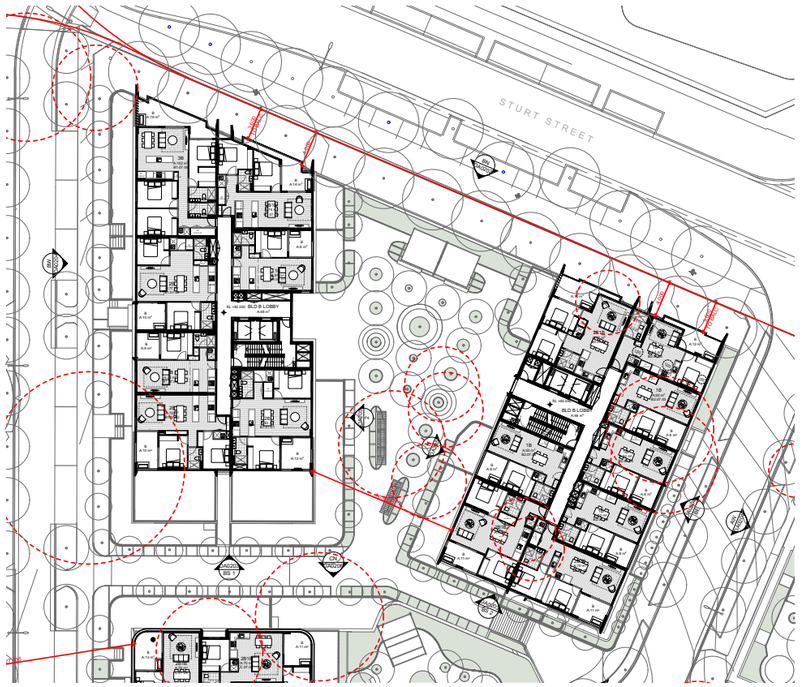
BUILDING B1&B2

	CURRENT	PROPOSED BUILDING B1	PROPOSED BUILDING B2
NORTH SETBACK	4m (3.6m at some balcs)	4m (3.6m at some balcs)	4m (3.6m at some balcs)
GFA:	15204 sqm	8144 sqm	5015 sqm
GBA	20770 sqm	9425 sqm	5936 sqm
NSA	13357 sqm	7268 sqm	4300 sqm
No. of Apts	178	99	74
Studio	0	0	0
1 bed	51	28	46
1 bed + S	3	0	0
2 bed 1B	37	27	28
2 bed 2B	55	29	0
2 bed 2B + S	11	0	0
3 bed	21	15	0
SA (8am-4pm):	128 (71.9%)	99 (100%)	26 (35.1%)
SA (9am-3pm):	120 (67.4%)	99 (100%)	28 (37.8%)
CV:	83 (61.5%)	45 (70.3%)	32 (47.8%)

DESIGN AMENDMENT



CURRENT DA - TYPICAL LEVEL 04-07

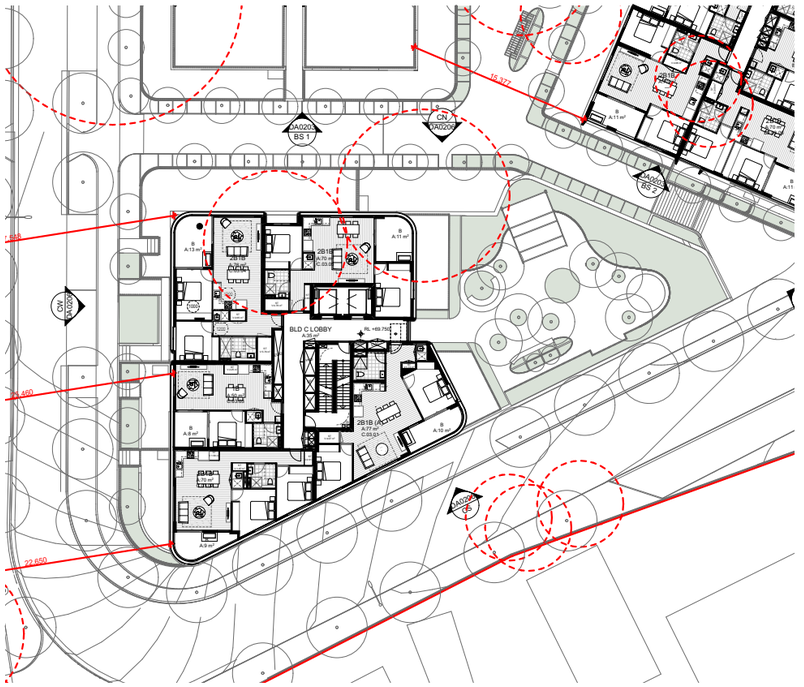


PROPOSED DA - TYPICAL LEVEL 04-07

BUILDING B1&B2

	CURRENT	PROPOSED BUILDING B1	PROPOSED BUILDING B2
NORTH SETBACK	4m (3.6m at some balcs)	4m (3.6m at some balcs)	4m (3.6m at some balcs)
GFA:	15204 sqm	8141 sqm	4994 sqm
GBA	20770 sqm	9400 sqm	5920 sqm
NSA	13357 sqm	7268 sqm	4337 sqm
No. of Apts	178	98	74
Studio	0	0	0
1 bed	51	28	45
1 bed + S	3	0	4
2 bed 1B	37	28	25
2 bed 2B	55	27	0
2 bed 2B + S	11	0	0
3 bed	21	15	0
SA (8am-4pm):	128 (71.9%)	98 (100%)	28 (37.8%)
SA (9am-3pm):	120 (67.4%)	98 (100%)	28 (37.8%)
CV:	83 (61.5%)	44 (69.8%)	34 (50.7%)

CURRENT DA

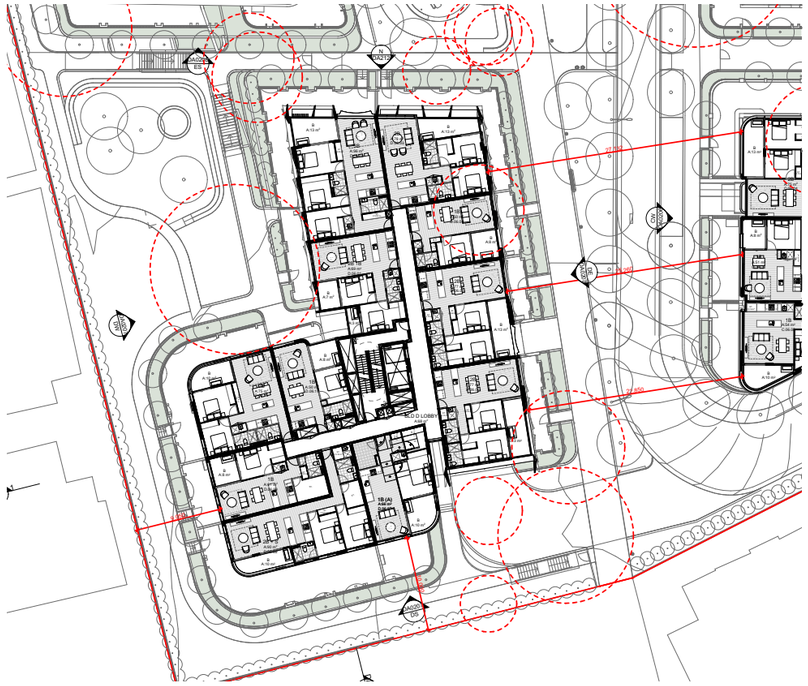


PROPOSED DA

BUILDING C

	CURRENT	PROPOSED
SOUTH SETBACK	11.0 - 11.45 m	11.0 - 11.45 m
GFA:	3969 sqm	3536 sqm
GBA	5570 sqm	4265 sqm
NSA	3467 sqm	3116 sqm
No. of Apts	55	46
Studio	1	0
1 bed	33	11
1 bed + S	0	0
2 bed 1B	2	35
2 bed 2B	18	0
2 bed 2B + S	0	0
3 bed	1	0
SA (8am-4pm):	35 (64%)	35 (76.1%)
SA (9am-3pm):	32 (58%)	32 (69.6%)
CV:	32 (58%)	34 (73.9%)

DESIGN AMENDMENT



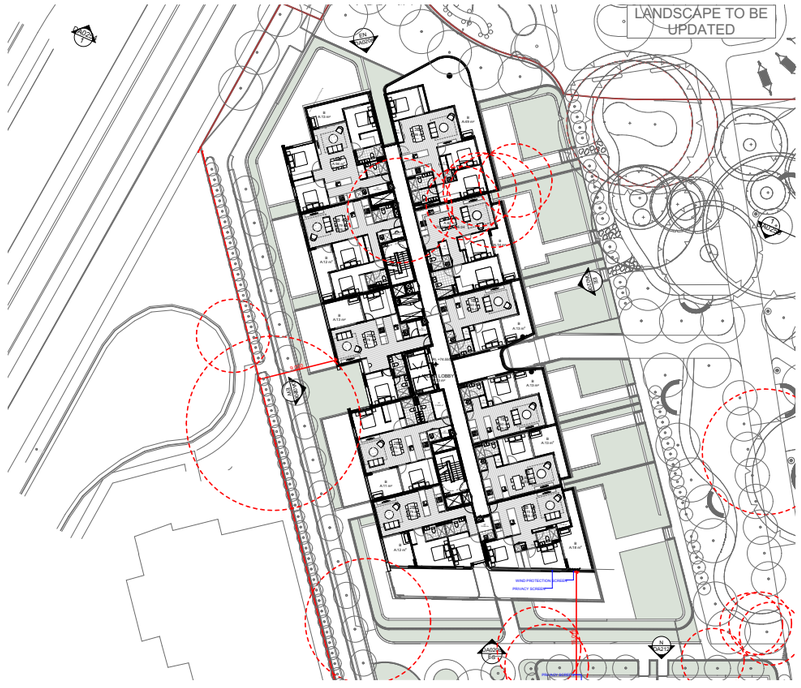
CURRENT DA

PROPOSED DA

BUILDING D

	CURRENT	PROPOSED
SOUTH SETBACK	10m	10m
GFA:	8160 sqm	7187 sqm
GBA	10570 sqm	8366 sqm
NSA	7225 sqm	6388sqm
No. of Apts	99	89
Studio	1	0
1 bed	33	37
1 bed + S	1	0
2 bed 1B	9	1
2 bed 2B	33	33
2 bed 2B + S	11	8
3 bed	11	11
SA (8am-4pm):	73 (74%)	67 (75.3%)
SA (9am-3pm):	72 (73%)	67 (75.3%)
CV:	60 (65%)	58 (65.2%)

CURRENT DA - LEVEL 02-07



PROPOSED DA - LEVEL 02-07

BUILDING E

	CURRENT	PROPOSED
NORTH SETBACK	4.6m	4.6m
GFA:	7840 sqm	7283 sqm
GBA	10288 sqm	8406 sqm
NSA	6864 sqm	6457 sqm
No. of Apts	94	89
Studio	0	0
1 bed	25	25
1 bed + S	0	0
2 bed 1B	14	7
2 bed 2B	35	30
2 bed 2B + S	11	9
3 bed	9	18
SA (8am-4pm):	90 (96%)	87 (97.8%)
SA (9am-3pm):	90 (96%)	87 (97.8%)
CV:	60 (64%)	60 (67.4%)

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