

DKO

524-542 PACIFIC HIGHWAY
ST LEONARDS

STATE - LED REZONING

SEPTEMBER 2023

home
OCULUS
DKO

FCAD
Fellingham Consultancy and Design

REPORT PREPARED BY

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42 Davies St, Surry Hills NSW 2010

ISSUE	DATE	PREPARED BY	REVIEWED BY	COMMENT
P1	04.10.22	AY / NT / JB	JS	For submission
P2	28.09.23	JB	JS	For submission

We acknowledge the traditional owners of the
lands and the surrounds of our site the Cammeraygal.

We acknowledge and honour the Ancestors and Elders of the Past,
We honour the Elders that are Present and Those emerging Elders
of the Future.

We acknowledge the stories and their traditions, and we create
with a blessing over the lands, Water, Sky and winds that surround
with heart to ensure to create beautiful outcomes for generations
to come.

EXECUTIVE SUMMARY

The following Urban Design Report has been prepared by DKO on Behalf of Home, for the subject site 524-542 Pacific Highway, St Leonard's, otherwise known as the Telstra Exchange Site. The purpose of this report is to support the submitted state led rezoning, which seeks an amendment to the Lane Cove LEP:

- Rezone the site from E2 Commercial Centre to MU1 Mixed Use;
- Increase the maximum building height from 72m to 155m;
- Establish a non-residential floor space ratio of 2.3:1.

The proposed variations align with the objectives and development set out by the St Leonard's Crows Nest 2036 (SLCN 2036) plan.

The state led rezoning application is informed by and submitted concurrently with a proposed Build-to-Rent SSD for the site, which presents a significant opportunity to enable the renewal of the Telstra Exchange site with an exemplar mixed-use tower, in support of St Leonard's as a Strategic Centre and hub for Transit Oriented Development, and fulfil an outlined action to provide this type of housing in the precinct.

This report provides a detailed design analysis of the site and context, and consequent urban design response and indicative built form proposal. As will be set out within this report, the proposed design proposal has been developed with consideration of potential impacts to public and private amenity, improvement to public domain, as well as the site's opportunities and role to contribute to the rapidly transforming, high density precinct of St Leonard's.

The proposal provides a framework that responds intelligently and sensitively to its location and future urban context. As St Leonard's evolves to a sophisticated urban environment where people work, live and play, it is vital that its architecture and built fabric changes too, preserving those qualities that give identity to place, while responding to the needs of a new generation and city. The role of architecture and landscape to mediate between the past and future is fundamental to the design response.





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RELEVANT STUDY REQUIREMENTS

4.1.3 Prepare a Design Guide to include appropriate development controls for the site

- Articulates the purpose of the guide and the relationship to the planning framework;
- Includes a detailed site and context analysis that identifies strategic context, opportunities, constraints and key issues to be considered;
 - o includes relevant district and local context maps (built and planned) in alignment with applicable strategies;
 - o identifies the movement network, built form pattern and block structure, views and vistas, heritage and ecology;
 - o outlines site planning, block configuration and orientation, along with the interface between built form and public domain (including public open space);
 - o Identifies building separation requirements with adjoining land uses;
- Includes a set of place based urban design principles that underpin the proposed development;
- Demonstrates a design excellence approach or process for the proposal
- Includes detailed urban design related controls and demonstrates the proposed Building heights (HOB) and Gross Floor Area (GFA) to be included in the planning framework can achieve high quality place outcomes;
- Includes street wall heights and podium storey controls consistent with SLCN 2036;
- Includes minimum landscape standards in alignment with SLCN 2036 and GANSW's Draft Greener Places Guide;
- Outline approaches to servicing and key infrastructure to be delivered;
- Provide a framework for landscaping and other green/blue infrastructure (including consideration of Water Sensitive Urban Design), in conjunction with the public domain strategy;
- Addresses connectivity, pedestrian and vehicular access, car parking, accessibility, sustainability, building footprints, street frontage, setbacks, open space, waste management, public art, heritage;
- Identifies suitable criteria to deliver active frontages to all publicly accessible streets;
- Identifies controls to protect public amenity including:
 - o solar access controls
 - o acoustic considerations;
 - o view sharing principles and controls;
 - o wind comfort criteria for the immediate context, including nearby public domain and streets affected by the proposed development;

- Identifies suitable design guidance with reference to Safer by Design principles relating to safety and security;
- Incorporate the principles of ecologically sustainable development;
- Outlines approaches to how Aboriginal culture can be embedded into the design of built forms and the public domain with reference to GANSW's connecting with Country and Designing with Country publications, and through engagement of relevant local knowledge holders; and
- Includes a benchmarking assessment of the proposed development against international best practice precedent studies in similar high dwelling density environments.
 - o Design innovation opportunities and how these could be included;
 - o The assessment should also identify the specific initiatives used and identify both the positive and negatives effects that occurred during the budget, design and construction stages to ensure that it can be translated to an Australian setting

INCLUDED IN SECTIONS 01 TO 04 OF THIS REPORT

4.1.4 Prepare a Public Space Strategy that guides future planning and approval processes to create public open space that is high quality, varied and adaptable; streets that are safe, active and attractive spaces for people; and public facilities are located in key public places, supporting community and place identity

- Includes a vision statement and a series of goals to achieve the vision to demonstrate alignment between the design intent and the broader Precinct Strategy;
- Focuses specifically on public space, outlining what currently exists, what will be upgraded and what new public space will be delivered;
- Includes a detailed site and context analysis that identifies strategic context, opportunities, constraints and key issues to be considered;
- Includes a movement plan with reference to TfNSW's Movement and Place framework, setting out:
 - o the proposed movement corridors and connectivity network throughout the precinct;
 - o the types of movements to be captured through the precinct (i.e. walking, cycling, vehicles, machinery, employees etc. during a 24-hour period);
 - o how squares or plazas could play a role in movement, and an emphasis on creating strong pedestrian corridors linking outside areas and access to nearby St Leonards Station or Crows Nest Metro's entrances and exit points;
- Identifies appropriate wayfinding and signage to improve the useability of the public domain and promote public safety;
- Includes a landscape master plan for the precinct locating public space (open space, plazas, squares) that have been derived from site analysis, benchmarking assessment and urban design principles. The master plan is to include (but not limited to) public space connections, deep soils zones, urban canopy outcomes and targets, Water Sensitive Urban Design principles;
- Outlines approaches to how Aboriginal culture can be embedded into the design of built forms and the public domain with reference to GANSW's connecting with Country and Designing with Country publications, and through engagement of relevant local knowledge holders

INCLUDED IN SECTIONS 01 TO 04 OF THIS REPORT

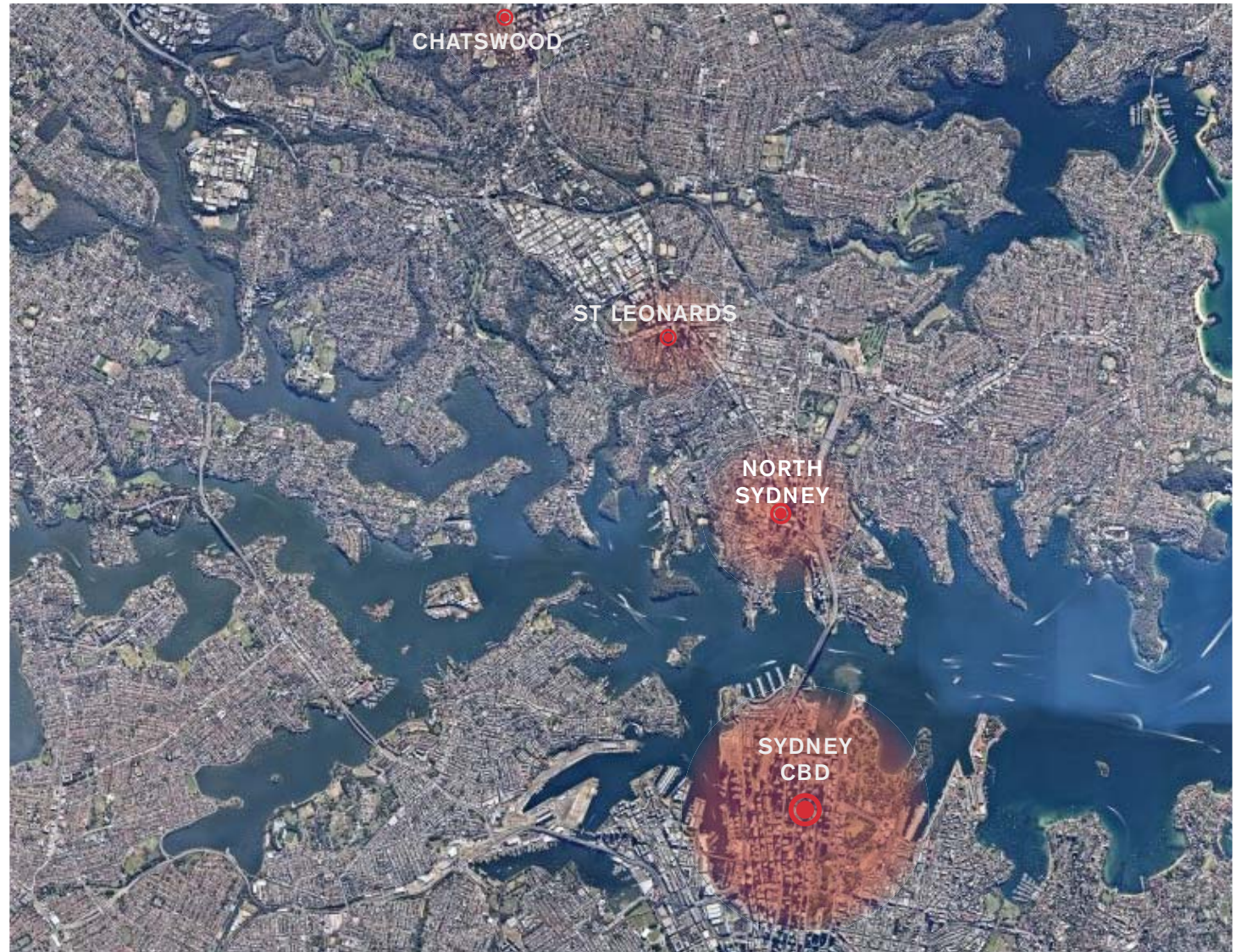
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CONTEXT + PLACE

CONTEXT + PLACE

The subject site comprises 8 existing lots forming a 1,671m² parcel situated at the corner of the Pacific Highway and Christie Street in the heart of St Leonard's. It is located at the edge of the Lane Cove Council Local Government Area (LCC), close to the boundaries of North Sydney Council (NSC) and Willoughby City Council (WCC) areas.

Located just 6km and 2km north of the Sydney CBD and North Sydney respectively, 5km south of Chatswood and 10km west of Macquarie Park, St Leonard's is a key centre in the Lower North Shore, as a transport and service hub providing significant housing and employment. Sitting at the heart of the Eastern economic Corridor, the area has rapidly evolved from historically a fine grain, local centre, to a now large-scale, high density, mixed-use strategic centre.



CONTEXT + PLACE
STRATEGIC CONTEXT

A STRATEGIC CENTRE

St Leonard's is set out as a strategic centre with the North District of the State Governments Greater Sydney Region Plan, with the core area including the Royal North Shore Hospital, TAFE and train station outlined as a Health and Education Precinct. The key directions set out for the precinct include a minimum job target of 54,000 with job growth focused at the centre; leveraging the new Sydney Metro station at Crows Nest; enhancing active transport usage; protecting and enhancing the village character; and expand and improve outdoor space and public domain.

Developed by Department of Planning, Industry and Environment in consultation with NSC, WCC and LCC, the St Leonard's Crows Nest 2036 Plan (SLCN 2036) facilitates the urban renewal of the precinct to achieve its role as a strategic centre, and informed by input of the local community and technical studies. The SLCN 2036 sets out the vision of "connectivity, innovation and a commitment to great design will see the St Leonard's and Crows Nest area transform as a jobs powerhouse". The implementation of the plan's vision and objectives is supported by strategies and controls falling under the 5 key themes of Place, Landscape, Built Form, Land Use and Movement. Despite a strong focus on employment generating land use, the SLCN 2036 outlines a key opportunity of the precinct to deliver build-to-rent-housing which has the potential to delivery public benefits through greater housing choice and stable-rental environments. Additionally, SLCN 2036 outlines the development intent for the site:

- B4 Mixed Uses land use zoning
- 35 storeys
- Street Wall of 6 stories

Situated within Lane Cove LGA, the relevant local planning frameworks applicable to the site are- Lane Cove LEP 2009, and Lane Cove DCP 2010. The existing controls for the site specified by the Lane Cove LEP are:

- E2 Commercial Centre land use zoning
- 17.1:1 FSR
- 72m Height of Building

In their Local Strategic Planning Statement, LCC outlines a 20 year vision, with a mission for the LGA "for growth and change to be managed in a way which enables the community to enjoy high levels of amenity, liveability, economic prosperity and a pristine natural environment". LCC's overall goal for St Leonard's is to support the creation of an area with a high level of liveability, amenity and connectivity.

NSW Greater Sydney Commission

Greater Sydney Commission

OUR GREATER SYDNEY 2056
North District Plan
— connecting communities

Final Plan August 2020
St Leonards and Crows Nest 2036
NSW Department of Planning, Industry and Environment

NSW Department of Planning and Environment
DRAFT LOCAL CHARACTER STATEMENT
OCTOBER 2018



NSW GOVERNMENT

Planning, Industry & Environment

THE COUNCIL OF THE MUNICIPALITY OF LANE COVE

Crows Nest Station Design and Precinct Plan
City & Southwest Chatswood to Sydenham project

sydney METRO

CONTEXT + PLACE

THE SITE

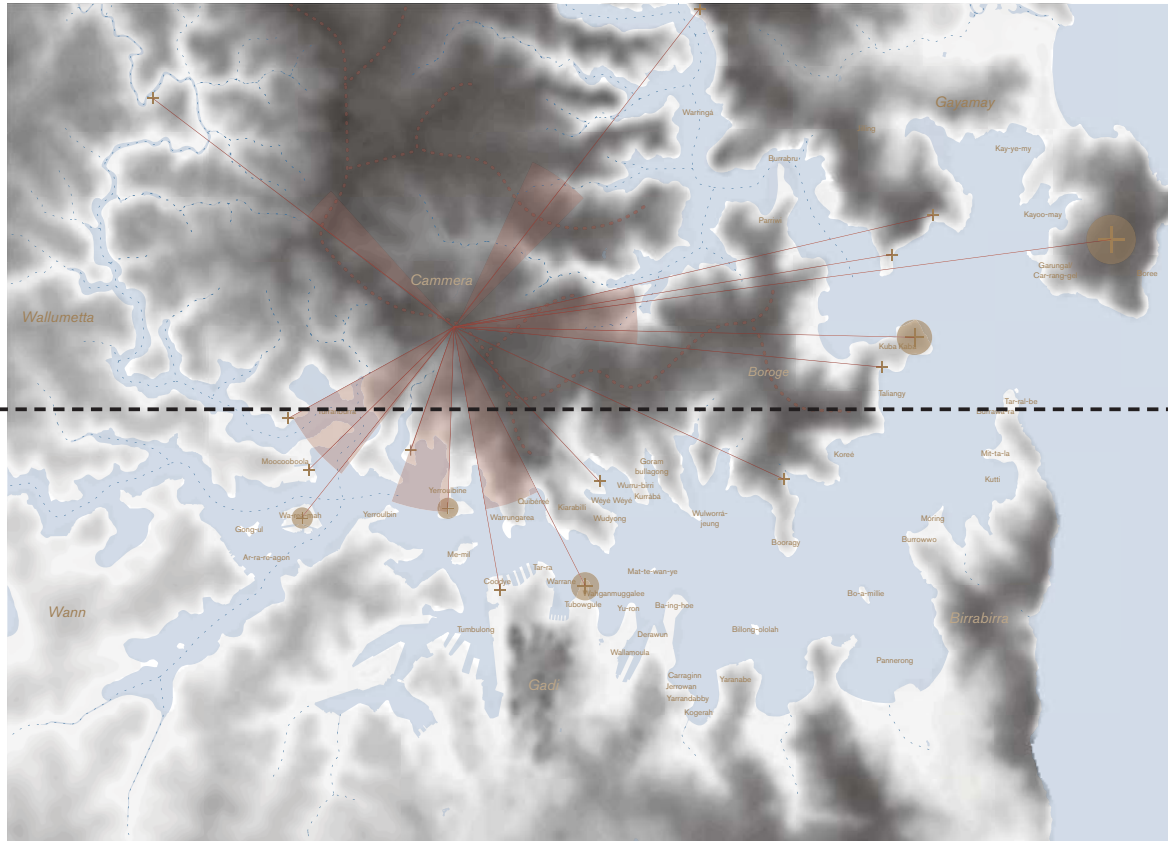
TELSTRA EXCHANGE

The Telstra Exchange is located on a prominent corner, at the intersection of Christie Street and the Pacific Highway. It is in a key location at the centre of the precinct's activity core, and is highly visible from access points to St Leonard's Station and along the Pacific Highway.

In addition to primary frontages along Pacific Highway and Christie Street, the site is bounded by 500 Pacific Highway to its east and 69 Christie Street to its south.

The site is well serviced by main vehicular routes and is within 400m walk of both St Leonard's Station and the new Sydney Metro Station in Crows Nest. The new metro station will provide a significant increase in rail service capacity, improving access to public transport and faster, and providing more direct connections between the precinct and other hubs in Sydney including Macquarie Park, Barangaroo and the CBD.





FIRST NATIONS + TRADITIONAL COUNTRY

The site is located on Cammera Country, the traditional lands of the Cammeraygal (Gammeraigal) people who lived in deep connection to and understanding of Country for thousands of years. The site is located along the ridge lines, which were often used as access routes through the landscape. Ridge lines also offered vantage points to look out to important sites and landmarks in the broader landscape used for things such as wayfinding, social gathering, obtaining resources, and sacred or ceremonial practices.





1846



1943



2023

COLONIAL SETTLEMENT

The earliest known settlements on the Cammeraygal land was made in the 1790's. Around the mid 1820's, much of the foreshore between Waverton and Cremorne had been acquired by individual land grants.

St Leonard's Station was opened in 1890 and serviced the nearby northern boundary of the North Sydney area up to Hornsby. With the opening of Sydney Harbour Bridge in 1932, St Leonard's emerged as a transport centre focused around the former Lane Cove Road (Pacific Highway).

THEN

In 1948, the County of Cumberland Planning Scheme identified St Leonard's as a sensible area for industrial growth. As a result, commercial and light industrial buildings began emerging in the area.

Around 1975-76 apartments and townhouses began to dominate the residential market, which increased the demand for new commercial space. By the mid 1980's, St Leonard's was gradually transforming into a leading employment centre, supported by key health institutions including the Royal North Shore Hospital.

NOW + FUTURE

Currently, there is a diversification and transformation of commercial centres across Sydney into mixed use precincts, seeking to provide residential development in close proximity to public transport, employment, public open space and retail. This process is transforming commercial centres into vibrant and dynamic places to live, work and relax.

In November 2015 the NSW Government announced Crows Nest Sydney Metro station. The proposed metro line will extend underground from the north west and to the city.

St Leonard's will benefit from having new opportunities for office and health based commercial uses with an increased population available to the area.

CONTEXT + PLACE PRECINCT ANALYSIS



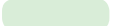


PRECINCT HIERARCHY + SERVICES

Situated at the centre of the St Leonard's precinct, the site is surrounded by a significant employment and education establishments, retail, everyday services and facilities as well as transport opportunities. These transport, retail, health and education hubs establish a network of activity nodes throughout the precinct. Additional nodes are established or will be created by existing and new urban public open spaces disbursed throughout the precinct.

The site is thus well suited to provide a high density development, offering highly a serviced place for people to live, work and play.



LEGEND

-  Railway Line
-  Metro Line
-  Existing Open Space
-  Medical Precinct
-  High activity area

CONTEXT + PLACE

PRECINCT ANALYSIS

GREEN NETWORKS

A key action and goal of the strategic planning for the precinct is the formalisation, strengthening and enhancement of a green network, to increase open space and a much needed improvement to the amenity of the public domain.

The network comprises a series of existing green open spaces varying in size and character, and a number of proposed potential open spaces with a more urban character.







These spaces are tied together by a series of green streets and connections established by increased canopy planting, landscape verges and setbacks.

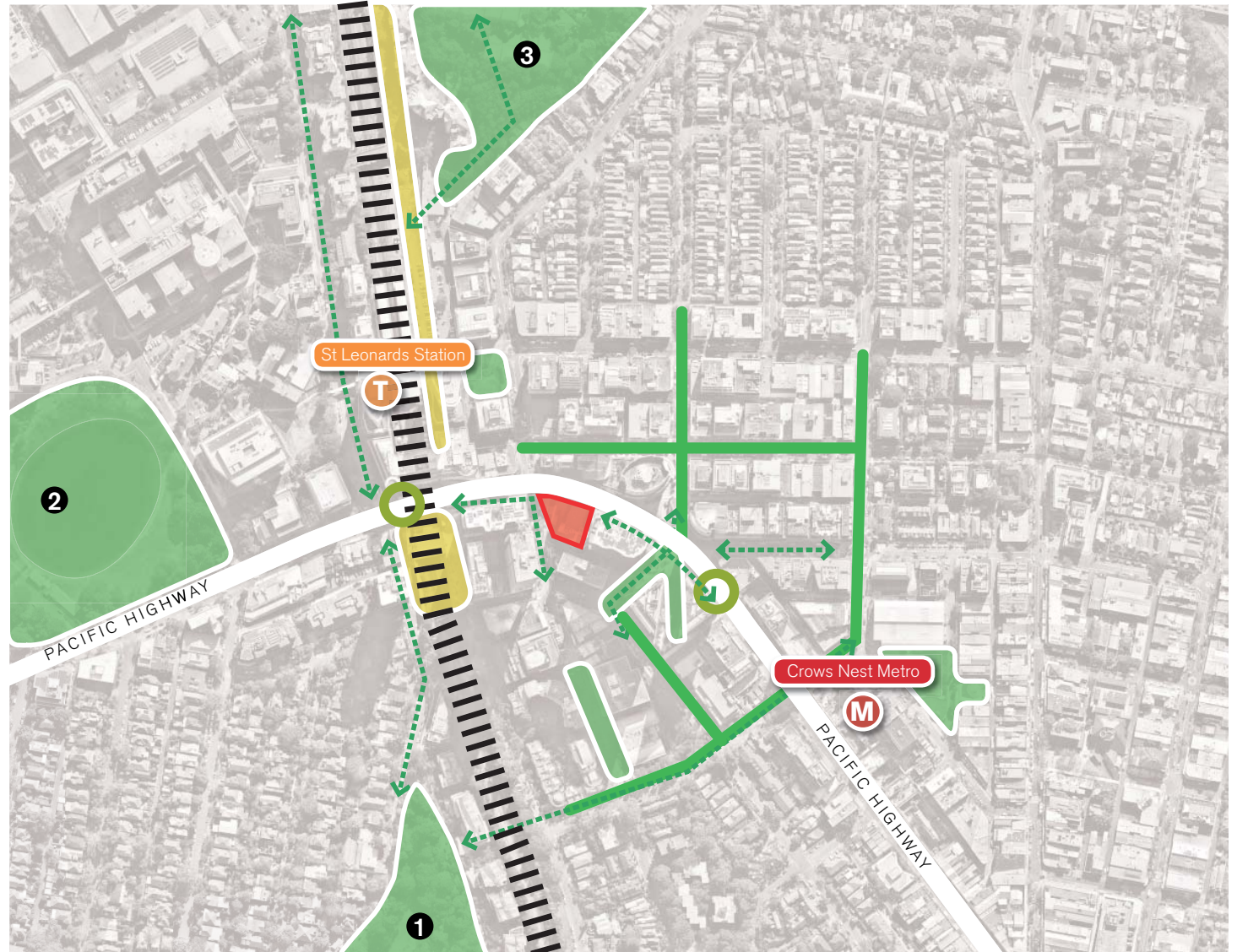
An opportunity exists for the site to continue a green connection along the Pacific Highway, and respond to the new landscape verge at 88 Christie Street, opposite the site.

Mitigating overshadowing of this green network, particularly Newlands Park situated to the south of the site, is another key consideration of proposed built form.

- ① Newlands Park
- ② Gore Hill Park
- ③ Naremburn Park

LEGEND

-  Railway Line
-  Tree Lined Green Streets
-  Existing Open Space
-  Proposed Open Space
-  Green Connections
-  Proposed Landmark Tree Cluster



CONTEXT + PLACE





LOCAL CHARACTER

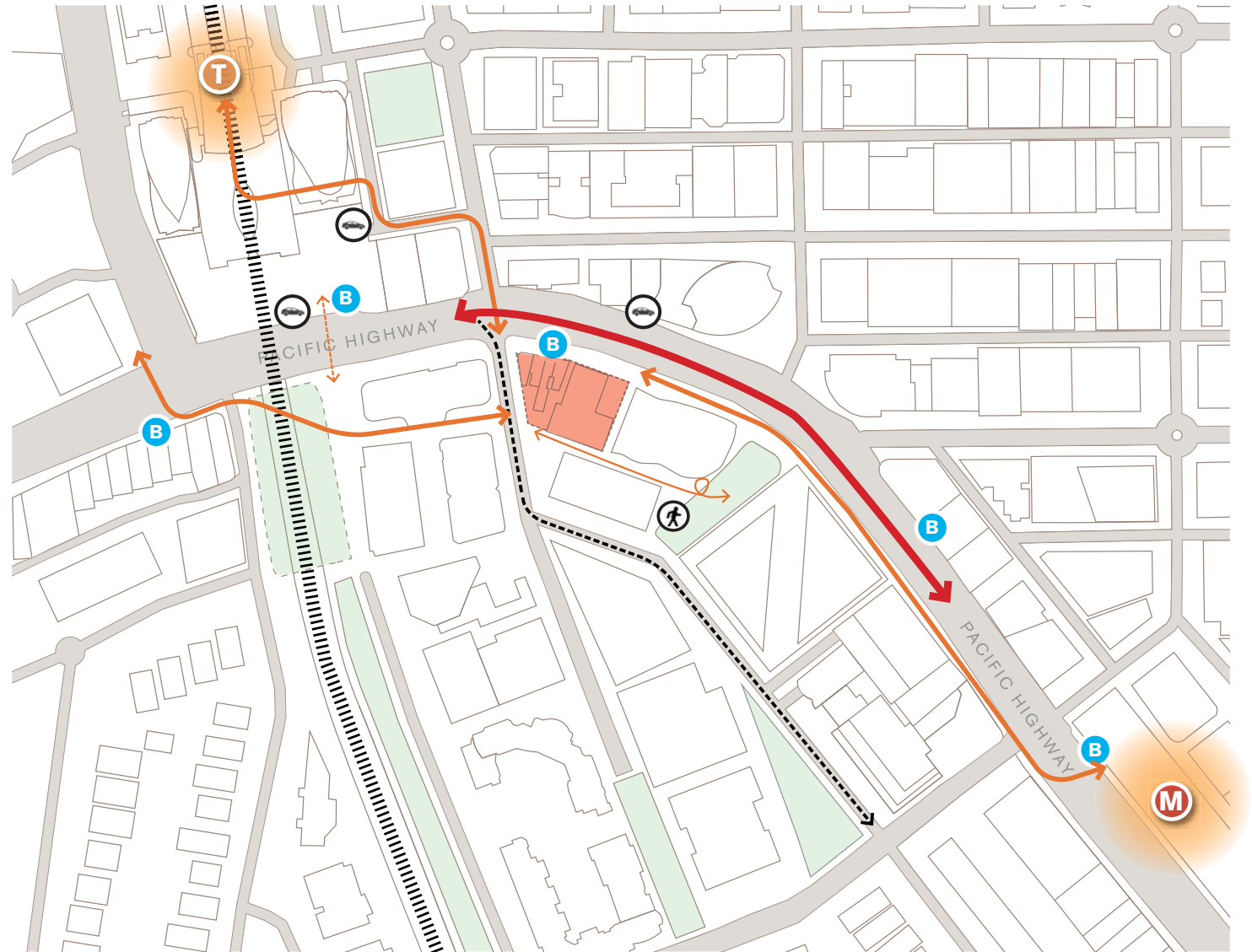
CONNECTIONS

This site is situated on the busy Pacific Highway near St Leonard's Train Station, the new Metro station and multiple other transport links. Future residents will have the option to travel by car, foot, bike or public transport from this highly accessible location.

A combination of underground and overground connections run directly from this site through to surrounding transport links. The neighbouring developments all provide transport links alongside Pacific Highway that combine to guide pedestrians throughout the transport hub. There is an opportunity for the ground plane of this development to build on the pedestrian connections through creating key arrival locations and improve pedestrian amenities and experience.

LEGEND

-  Secondary Vehicular
-  Major Vehicular
-  Underground Pedestrian Link
-  Overground Pedestrian Link



CONTEXT + PLACE

LOCAL CHARACTER

ACTIVE EDGES ANALYSIS





The surrounding developments of the site have undergone extensive renewal with a highly activated street edge. At a key landmark corner of St Leonard's, the existing condition has long inactive edges due to the Telstra Exchange building and four existing shoptop retail with no tenancies. Along Christie Street, there is limited active edges due to the extensive falls across Christie Street.

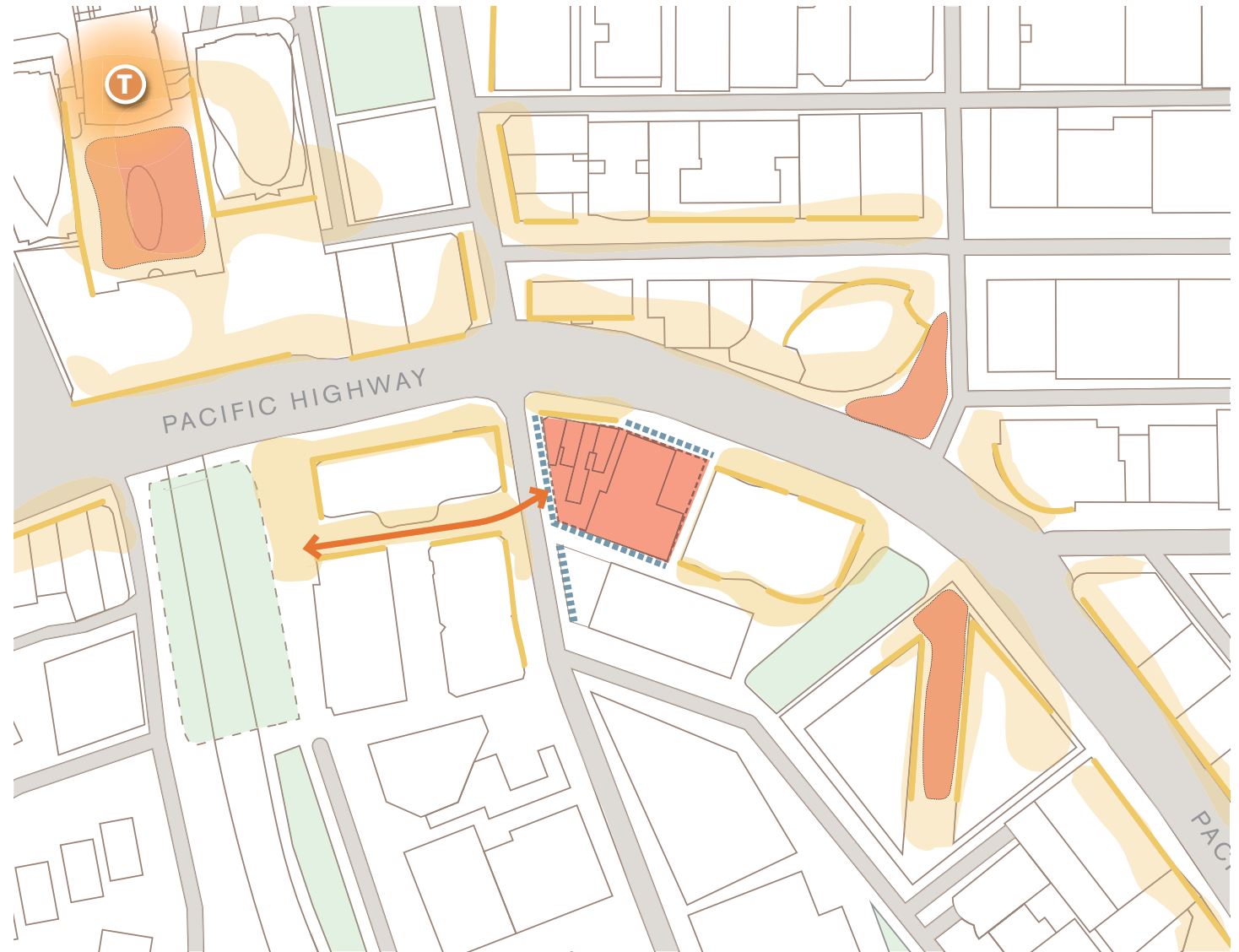
Key Corner:

The proposal will seek to significantly upgrade the key corner responding to one of the key pedestrian arrival locations.

Upgrades to these street edges will be in line with adjacent developments and add to the creation of a true mixed used precinct on the ground plane.

LEGEND

-  Inactive Edges
-  Active Edges
-  Activity Zones
-  Open Space



CONTEXT + PLACE

LOCAL CHARACTER

ADJOINING LAND USES

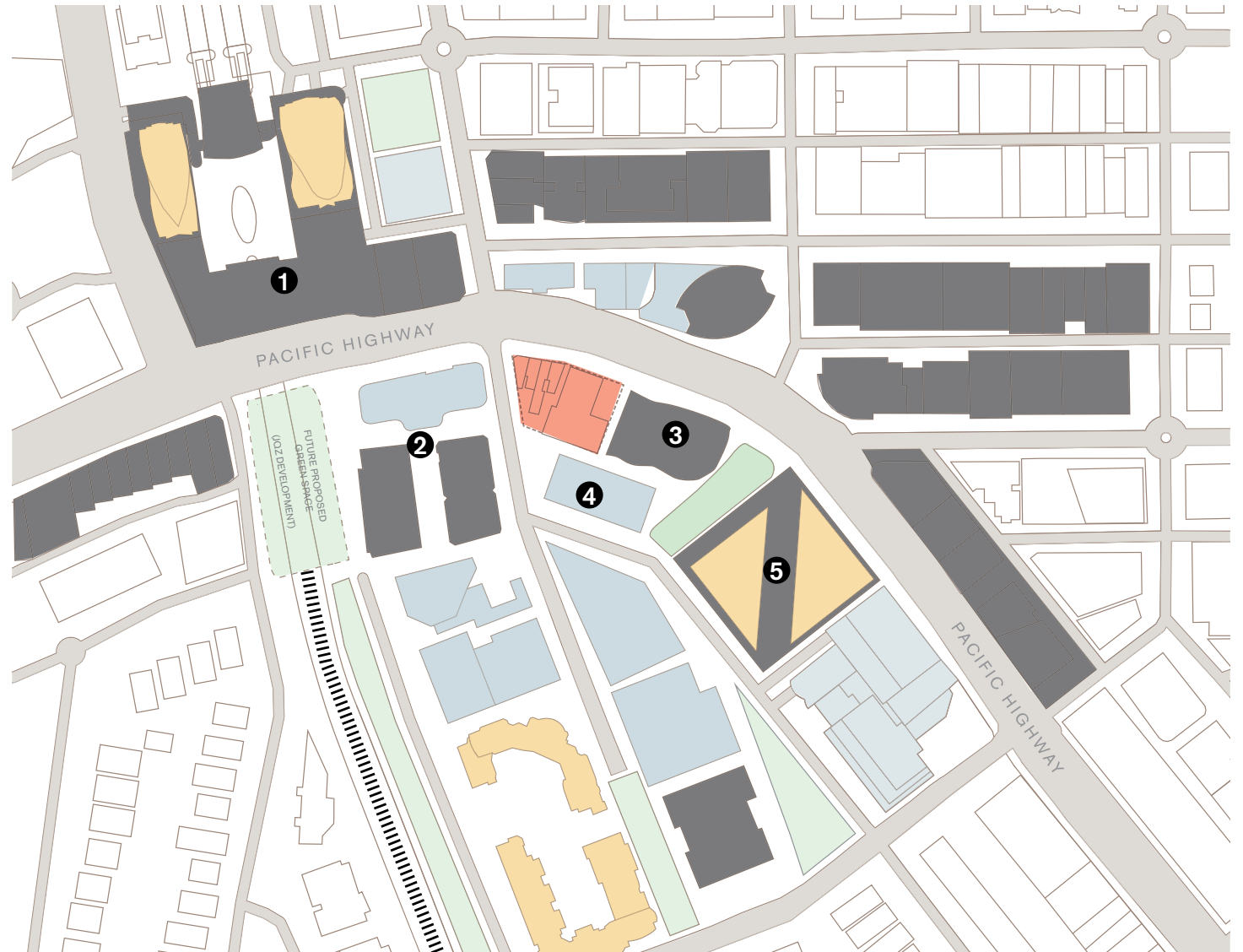
The site is located in a mixed use precinct with neighbouring residential, mixed-use and commercial towers. Retail and lobby spaces at the bases of the buildings help to create activated street frontages which have been realised with varying levels of success due to the poor microclimate conditions and pedestrian experience along the streets, particularly the Pacific Highway.

The current condition of the site has created a number of inactive edges for what act as a key corner. Another opportunity of the site's redevelopment is to continue the activation of the streets in the round, which would be expected from the site's key and prominent position with three street frontages.

- ❶ The Forum
- ❷ 88 By JQZ
- ❸ The Landmark
- ❹ Australian Medical Association
- ❺ St Leonard's Square

LEGEND

- Commercial
- Residential
- Mixed Use
- Open Spaces
- Site Location



CONTEXT + PLACE

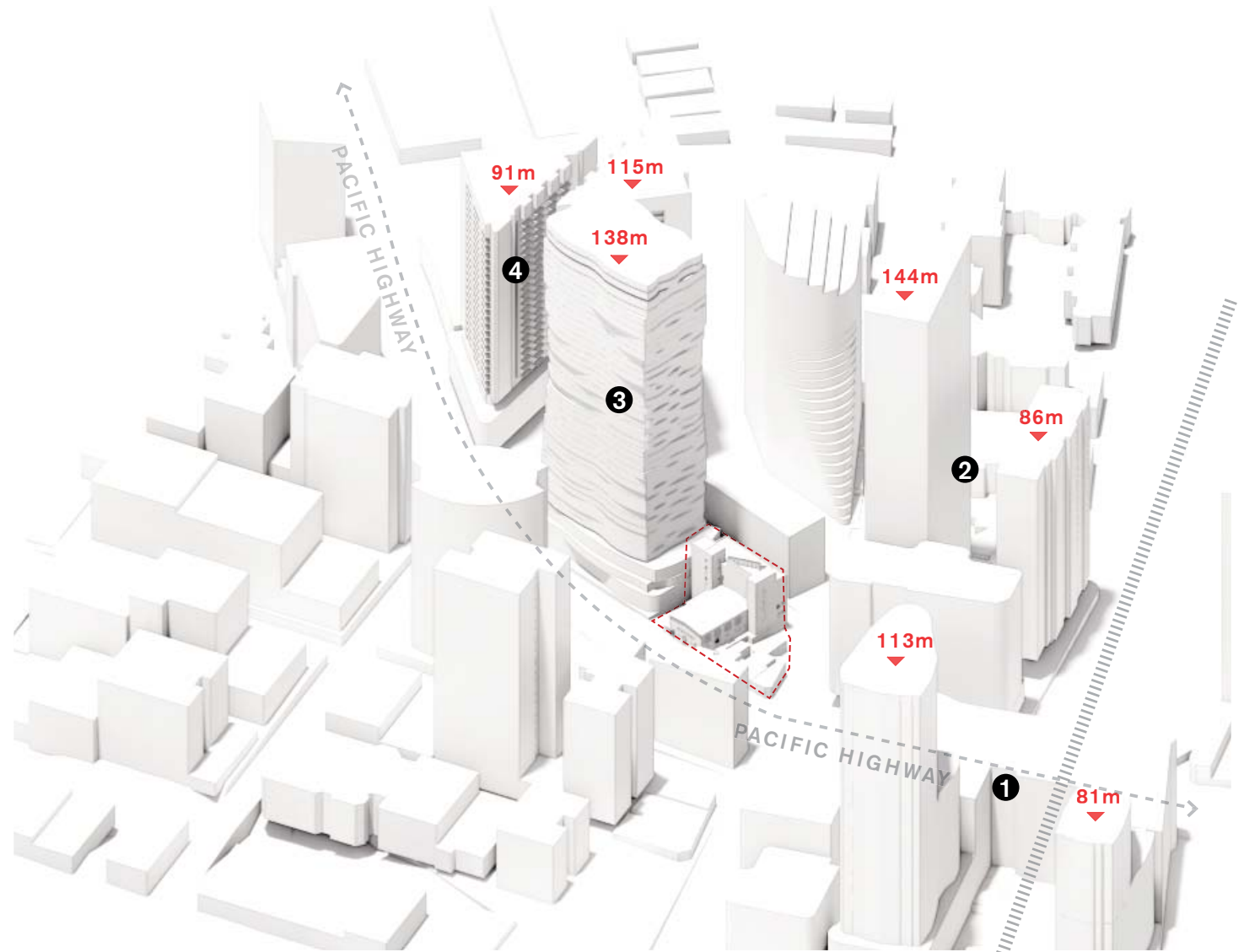
LOCAL CHARACTER

ADJOINING DEVELOPMENT

The precinct has already seen the emergence of several large-scale tower developments surrounding the site. These developments have significantly and rapidly increased the area's density, setting a precedent for a scale coherent with the SLCN 2036 plan. Taller buildings are located within 150-200m of the train and metro stations and along the Pacific Highway, with height and scale transitioning down away towards existing low-mid rise areas.

The developments have also significantly altered the built form and streetscape character, replacing smaller, ageing commercial buildings and fine grain shops allowing for an opportunity to reintroduce human scale fine grain to this precinct on this site.

- ① The Forum
- ② 88 By JQZ
- ③ The Landmark
- ④ St Leonard's Square



CONTEXT + PLACE

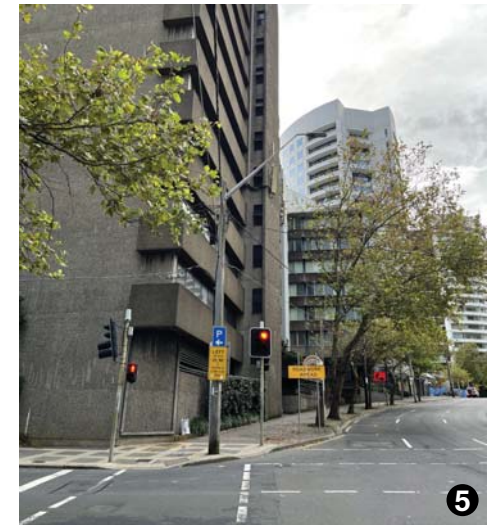
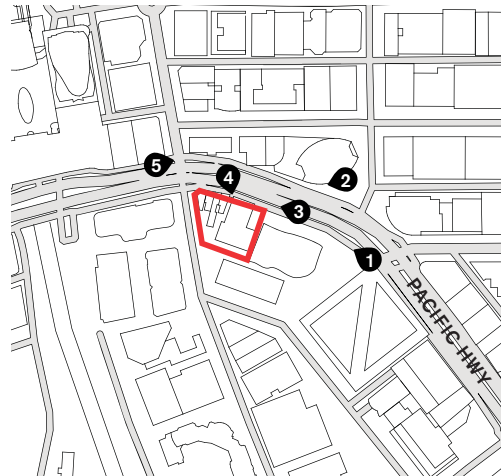
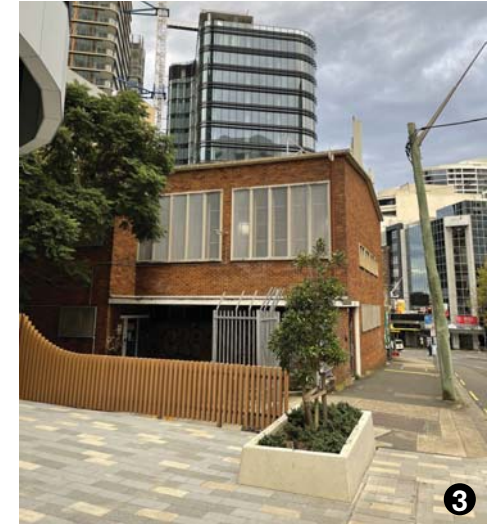
LOCAL CHARACTER

STREETScape CHARACTERISTICS + PATTERNS

PACIFIC HIGHWAY

Pacific Highway is a busy arterial road with high volumes of traffic and noise. This results in a hostile, uninviting pedestrian experience with excessive wind conditions and little shelter. Existing buildings also have little ground floor activation or suitable interface design along the Highway to provide respite from the conditions. Alongside adjoining new developments, the existing site is in need of an upgrade.

Characterised by high rise commercial buildings, Christie Street is a busy street with significant pedestrian movement. Albeit sheltered in comparison to Pacific Highway, Christie Street provides a human-scale pedestrian experience with its green edges and one way car movement for pedestrians.



CONTEXT + PLACE

LOCAL CHARACTER

STREETScape CHARACTERISTICS + PATTERNS

CHRISTIE STREET

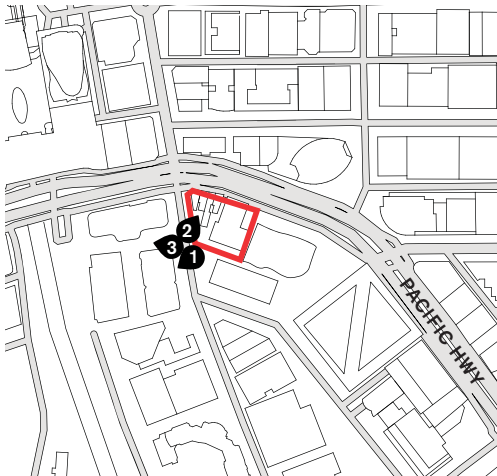
Characterised by high rise commercial buildings, Christie Street is a busy street with significant pedestrian movement. The street is more sheltered in comparison to Pacific Highway, Christie Street provides a human-scale pedestrian experience with its green edges and one way car movement for pedestrians.

Opposite the Telstra Exchange site is 88 Christie Street development with extensive retail, urban plaza and Wadanggari Park and an underground pedestrian link below Pacific Highway linking to St Leonard's station. This underground pedestrian link along with the newly established pedestrian crossing on Christie Street will ensure Christie Street as one of the main approaches to the Telstra Exchange site for commuters.

1 - Landscaped interface on Christie Street

2 - Current site interface on Christie Street with large inactive solid interface and service driveways to existing retail lots and Telstra Exchange.

3 - Looking towards the new retail plaza as part of 88 Christie Street development taken from the new pedestrian crossing



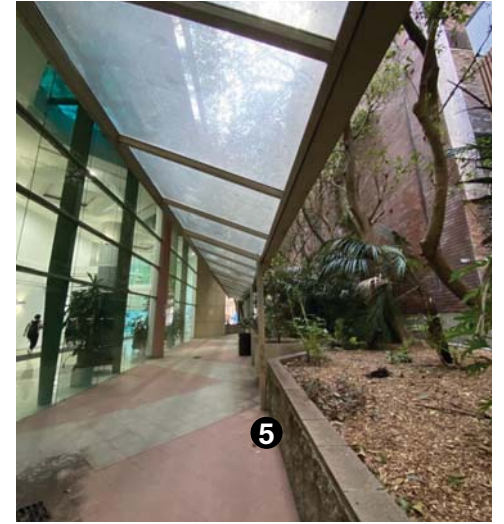
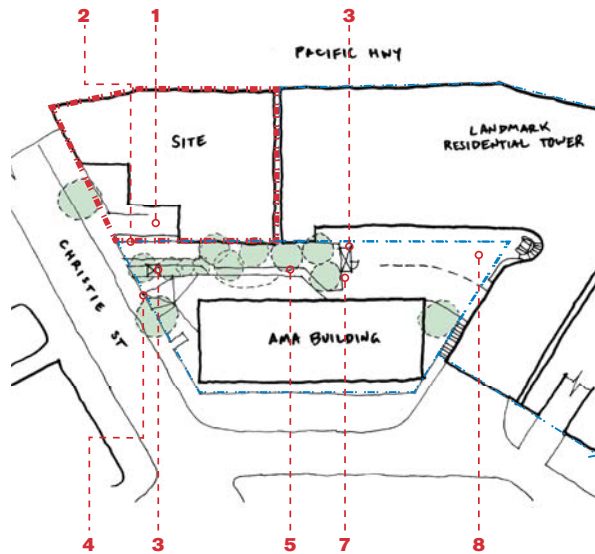
CONTEXT + PLACE

LOCAL CHARACTER

69 CHRISTIE STREET

The Telstra Exchange site directly abuts 69 Christie Street to the south with a privately owned pedestrian services lane. The services lane acts as an universal access route for 69 Christie Street as well as fire egress route for 69 Christie Street carpark with an additional easement in place for egress use for 500 Pacific Highway. The pathway also encompasses critical services for 69 Christie Street including carpark exhaust, services loading docks and bin holding area for 69 Christie Street, Telstra Exchange and 500 Pacific Highway.

- 1 - Driveway servicing Telstra Exchange building
- 2 - Delivery dock and bin holding area for 69 Christie Street
- 3 - AMA building carpark exhaust flue
- 4 - Driveway to AMA building
- 5 - DDA and pedestrian egress route undercover adjacent to the site within 69 Christie Street
- 6 - Fire egress stair for 69 Christie Street
- 7 - 69 Christie Street loading dock
- 8 - 500 Pacific Highway (The Landmark)'s services dock

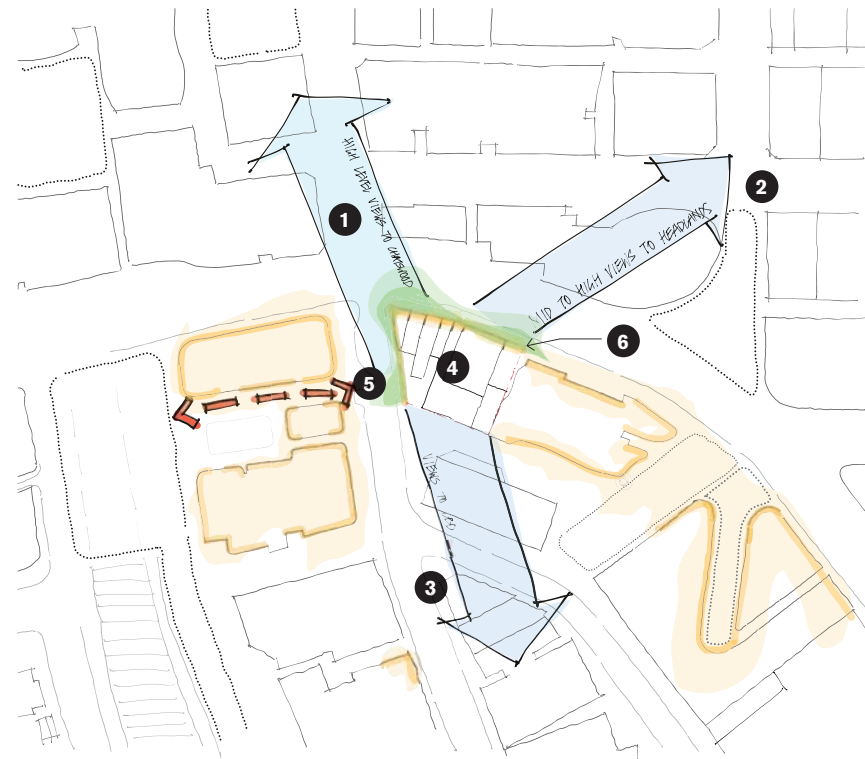


CONTEXT + PLACE

SITE ANALYSIS

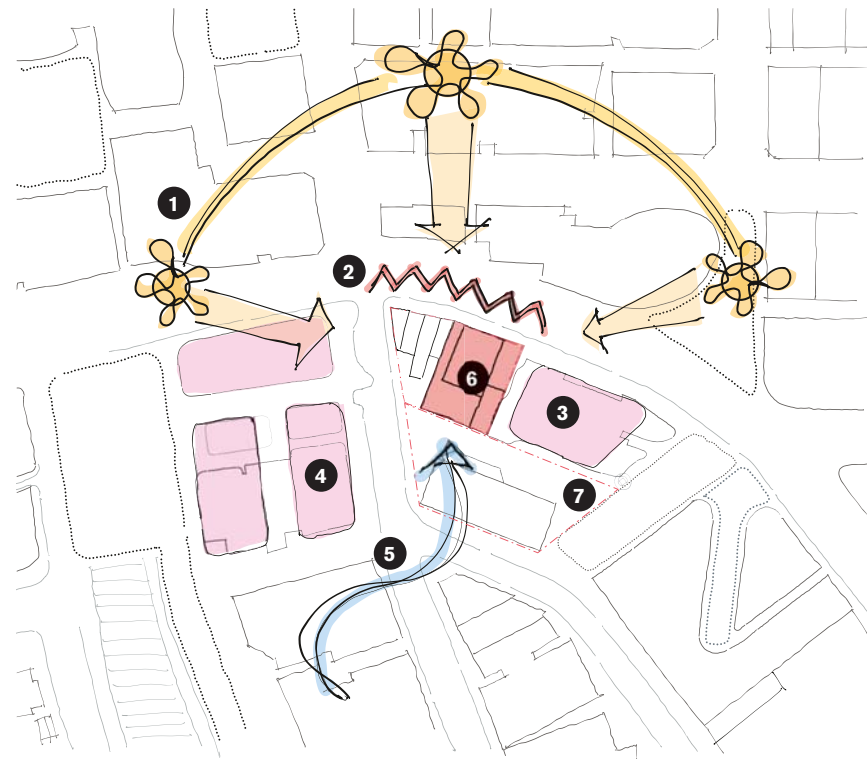
OPPORTUNITIES

- 1 - Views to Chatswood from mid to high rise levels
- 2 - Views to the northern Sydney headlands and waterways at mid to high rise levels
- 3 - Views to Sydney CBD including the Sydney Harbour Bridge and Opera House from low to high rise levels
- 4 - Continuing the activated strip on ground level
- 5 - Residential entry facing Christie Street responding to 88 Christie Street mall and St Leonard's train station access
- 6 - Continuing the green link along the streetscape as it responds to adjoining buildings



CONSTRAINTS

- 1 - Ensuring sufficient sunlight into the building
- 2 - Mitigating noise issues from Pacific Highway
- 3 - Interfacing with the Landmark sufficiently. The Landmark is 7m from boundary (non-compliant)
- 4 - Directing views away from JQZ
- 5 - Mitigating wind especially south-westerlies as it moves up the headlands
- 6 - The Telstra Exchange building to be full operational
- 7 - 69 Christie Street boundary to our southern interface



CONTEXT + PLACE

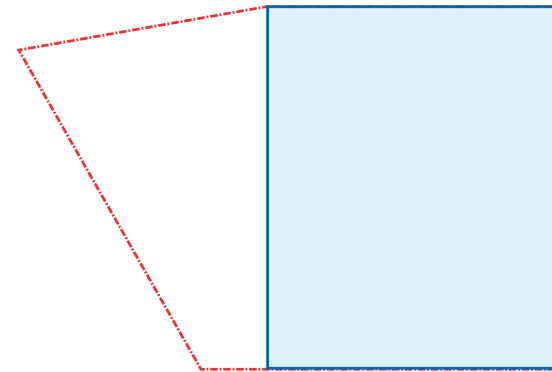
THE TELSTRA EXCHANGE

TELSTRA EXCHANGE CONSTRAINT

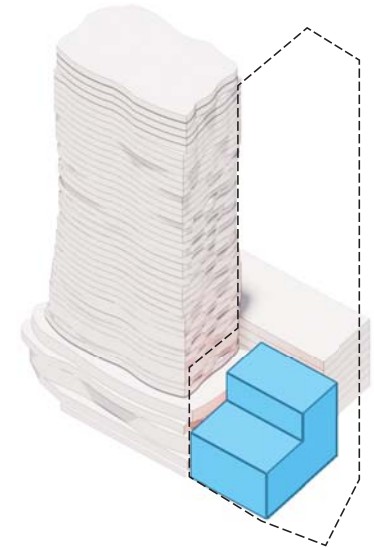
The eastern portion of the site is currently occupied by the St Leonard's Telstra Telephone Exchange. This critical telecommunications infrastructure forms the nodal point for Sydney's North Shore, ranking as the second-highest within the order of significance for the Telstra network.

The Exchange is a crucial location for the Federal Government's NBN rollout, housing NBN networking equipment and employees. Therefore, it cannot be demolished, relocated or used for support in constructing any new development. The Telephone Exchange Building is a three-storey red brick building fronting the Pacific Highway with six storeys to the south of the site.

The existing exchange infrastructure building takes up roughly 1.3:1 FSR footprint of the site.



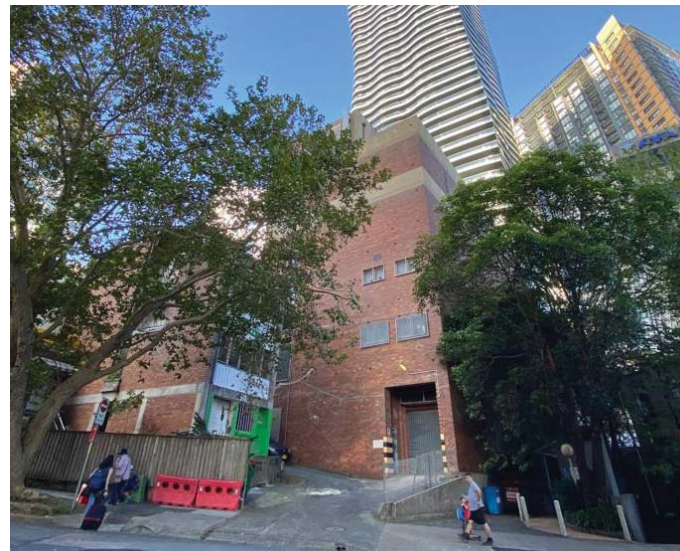
The Telstra Exchange takes up 2/3 of the site footprint which drives the structural concept and core location of the tower. To the southern interface with 69 Christie Street, the Telstra Exchange takes up 80% of the interface.



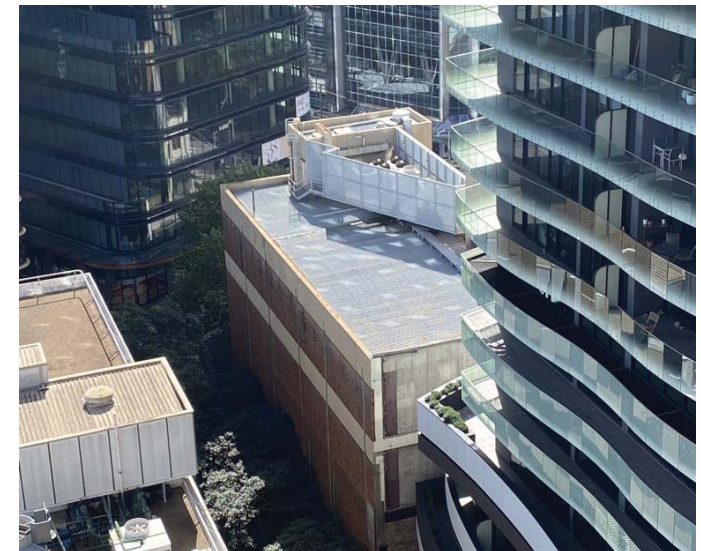
The Telstra Exchange building as three storeys to Pacific Highway and six storeys to the south



Pacific Highway interface as a three storey structure



Christie Street interface with existing driveway and loading dock access



Telstra building from above, critical Telstra facade interfaces with 69 Christie Street boundary.

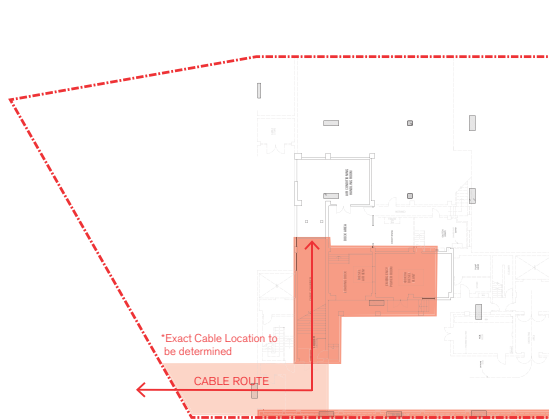


CONTEXT + PLACE
THE TELSTRA EXCHANGE

TELSTRA EXCHANGE CONSTRAINT

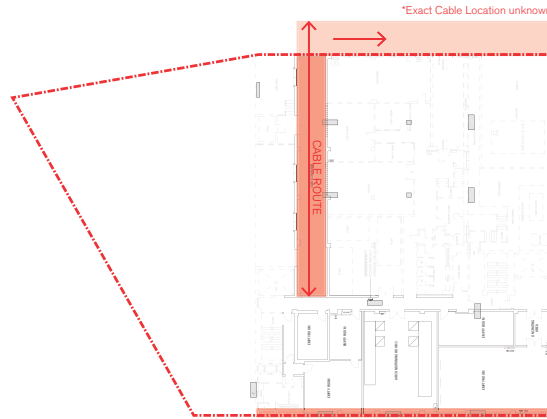
Extensive studies have been done with Telstra representatives to understand what can be kept and what cannot be removed. A number of zones containing critical equipment will need

to be retained and remain fully operational throughout the construction process with protection from vibration and dust. There are also a number of cables and cable risers to be tracked within the building and protected throughout.



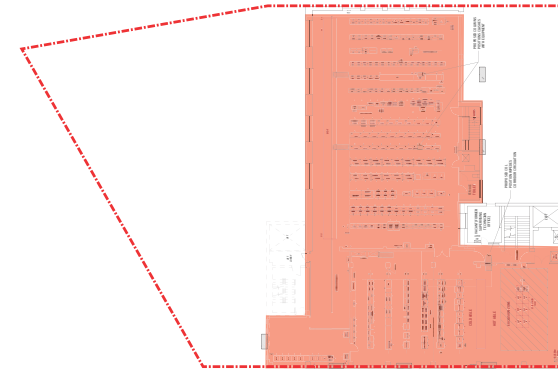
Ground floor - Christie Street interface

This floor houses the Telstra Diesel plant, Cable Chamber and a critical expanse of concrete slab that has cables buried just below it. The southern wall protects critical exchange infrastructure cable risers and existing Telstra Exchange columns.



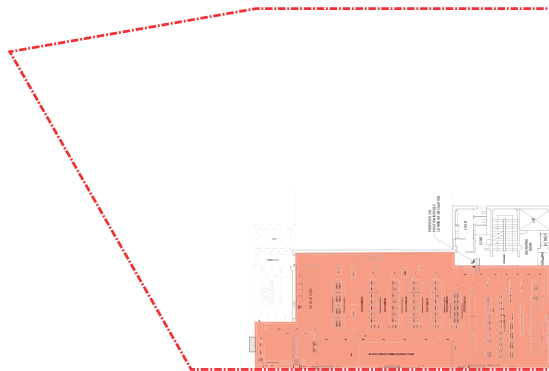
Level 01 - Pacific Highway interface

The Cable Chamber traverses the site, with cables changing direction at the northern boundary to travel adjacent to the Pacific Highway. The chamber requires direct egress to the highway.



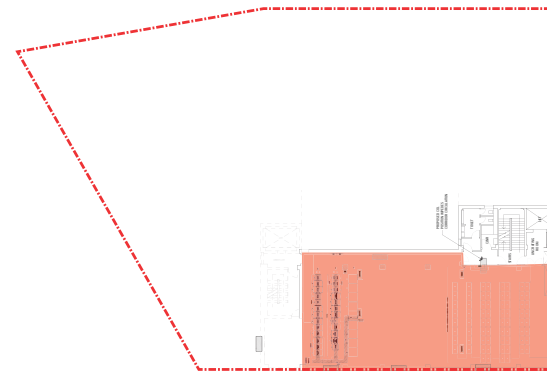
Level 02 - MDF room

This critical level contains MDF equipment and boards, fibre cables as well as a large amount of batteries. This level is to be carefully temperature controlled at all times.



Level 03

This level includes an air conditioning plant, fibre pathways as well as equipment boards and battery storage. Certain areas are to be carefully temperature controlled.



Level 04

This floor houses critical NBN equipment as well as fibre risers.



2

PROJECT VISION

PROJECT VISION
DESIGN NARRATIVE

The vision for the site is to create a new offering that promotes community establishing a sense of sharing and communication inwardly between future residents and outwardly with place and the broader community. The development will create a transition between the former desirable qualities of place with its emerging identity as a sophisticated, high density urban environment.

The proposal will be driven by creating an authentic and considered connection to Country. This includes caring for Country, with exemplary environmental sustainability design and goal to be carbon neutral, as well as through the creation of a variety of landscape areas to support other living species in the urban environment.

The proposal will offer residents a sustainable lifestyle which supports everyday needs, work and play.



**COMMUNICATING TO
COUNTRY**

Designing with Country is an integral driver for the project. The design philosophy of communication and connection has informed the way the building looks from the outside and driven the spatial arrangements of the building inside.



PUBLIC DOMAIN

Working closely with key specialist consultant team members, the proposal seeks to create a pleasant and comfortable public domain that contributes positively to its context.



VERTICAL VILLAGES

Redefining a sense of community in a tower typology through external and internal amenity dispersed throughout the building.



ARCHITECTURE

The architecture is derived from the base design principles established through our Communicating to Country concepts.

Passive solar shading performance and contextual fit are also key drivers in the proposed architectural response.



SUSTAINABILITY

A broad spectrum of Sustainable living and sustainable building initiatives have been targeted for the proposal

PROJECT VISION

A NEW MODEL TO LIVE

GREATER HOUSING CHOICE

St Leonard's varied demographic provides an opportunity to deliver a variety of housing options from Build to Rent (BTR) in a rent stable environment, short term accommodation and key worker housing within an established community of commercial buildings, apartments, active retail hub and metro and the Royal North Shore Hospital closeby.

BUILT TO RENT

Home is Australia's leading developer in built-to-rent housing, creating high-quality apartments that are purposefully designed and constructed for the rental market. Each Home property focuses on providing a holistic resident experience, featuring professionally managed services. Home will provide residents the opportunity to personalise their homes and lifestyle and will focus on creating a sense of community.

Home properties are held in a portfolio as a long-term investment, allowing residents greater length and security of tenancy. Hence providing a contemporary, long-term, high-quality housing option that meets the needs of the one-third of Australians who rent their homes.

Ongoing redevelopment in St Leonard's means this site is highly suitable for a build-to-rent housing scheme due to its close proximity to public transport as well as rich offerings of services and facilities in immediate locality.

The tower will also deliver key public benefits for the community, including greater housing choice in a rent-stable environment which can result in more established residents who actively participate in the community.



BED

PROJECT VISION VERTICAL COMMUNITIES

SMALLER COMMUNITIES

Smaller communities are better communities - supporting community connectivity and individual inclusion to combat ever increasing urban isolation which occurs in large scale development.

Dispersing a number of communal spaces throughout the building, acting as contemporary village congregational points, breaks down both the scale of community cluster sizes, as well as informing the built form scale.

Residents will have access to a number of unique offerings that will become an extension of their personal living spaces. Therefore offering expansive living opportunities alongside apartment living.



PROJECT VISION

SUSTAINABLE LIVING SUSTAINABLE BUILDING

HOLISTIC SUSTAINABILITY

There is huge incentive to sustain an environmentally driven approach, with conscious building being desirable in both short and long term building scenarios. Residents have access to cleaner living opportunities whilst the developer attains a sustainable asset. The overall operations, residents happiness and environmental impact can all be bettered by implementing the following initiatives:

- Climate Positive
- Healthy communities + Individual wellbeing - mental health, physical activity
- Caring for country/consideration of other users (flora and fauna)
- Resilient and Adaptable
- Biodiverse Habitat
- Zero Water Waste
- Circular Economy
- Mobility
- Digital



3

URBAN DESIGN RESPONSE

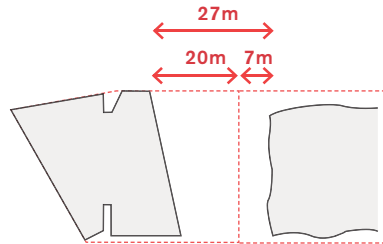
URBAN DESIGN RESPONSE A NEW LANDMARK

SLCN 2036 PLAN URBAN DEVELOPMENT POTENTIAL

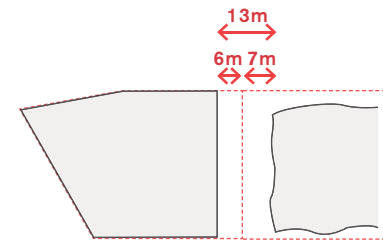
The proposal builds on the urban design objectives of the St Leonard's Crows Nest 2036 Plan, by contributing to the creation of a high density centre of the area.

Given the site's position in the central area and visual prominence as a landmark corner, it is naturally suited to a building height which will complete the envisioned skyline, height knuckle of the area.

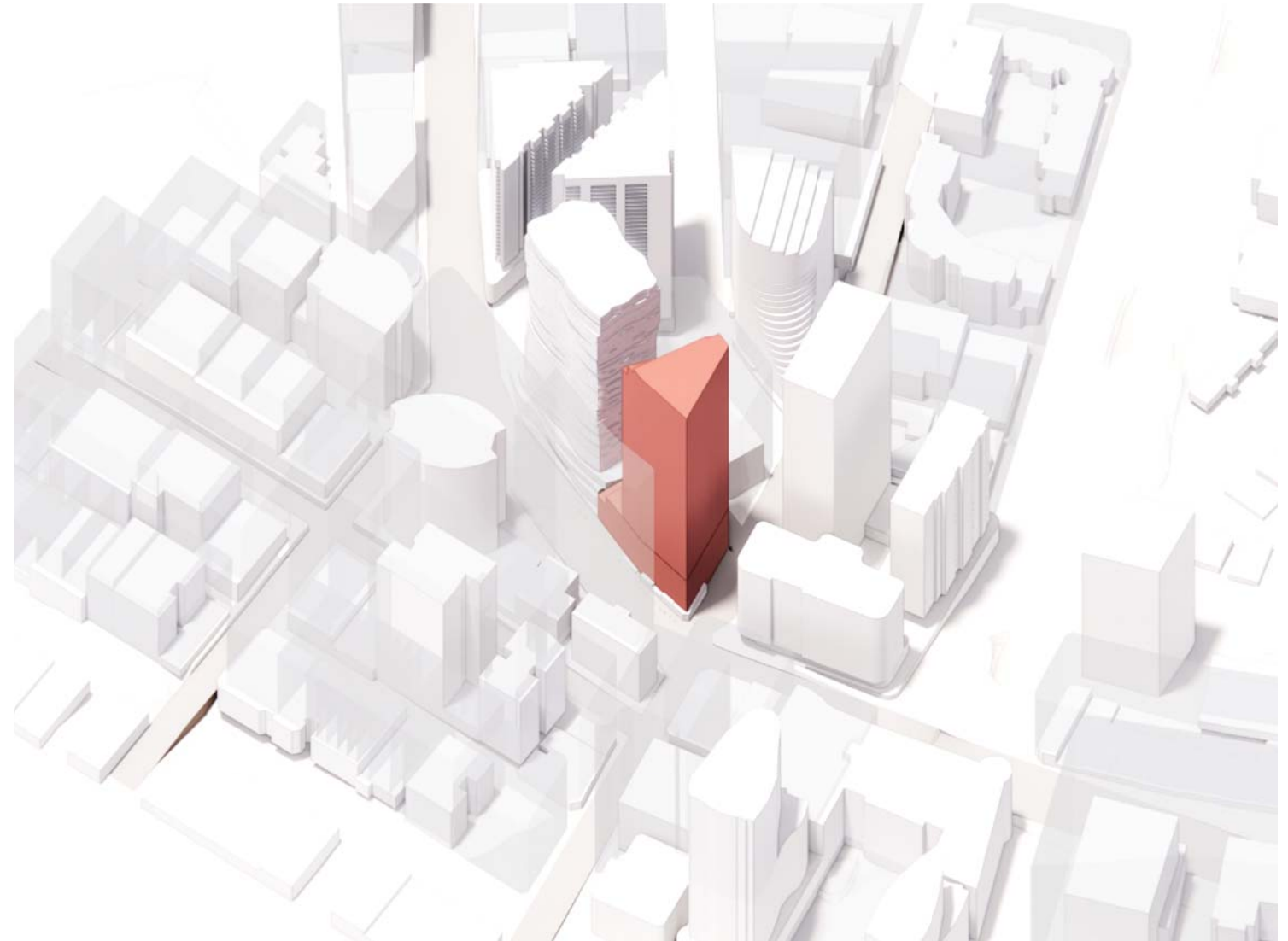
The proposal will provide greater amenity to the context with the provision of greater separation to adjacent residential towers than what is outlined by a SLCN 2036 compliant envelope. This is a critical move to improve visual and solar amenity for surrounding dwellings, as well as amenity which is required for the proposed tower to have a residential rather than commercial use.



Proposed tower separation with greater tower separation at the Pacific Highway for increased permeability between towers from the public domain



Proposed podium separation to the adjoining interface whilst taking into account existing Telstra Exchange infrastructure

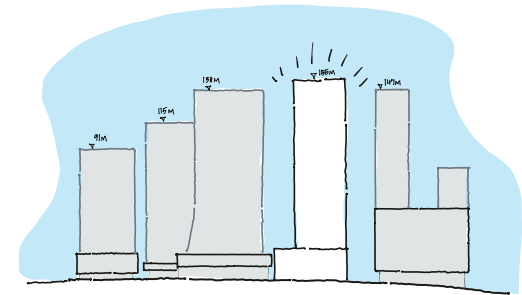


URBAN DESIGN RESPONSE

A NEW LANDMARK

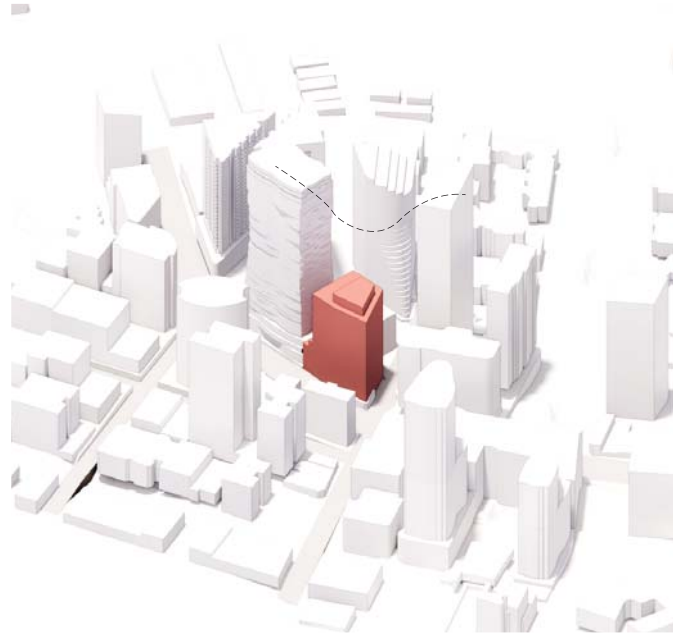
EXISTING CONTEXT

A comparative analysis of the existing LEP controls, the SLCN 2036 plan controls, and the proposed building envelope in the context of the immediate area, clearly illustrates that a slender, taller tower is appropriate for the site. The proposal will fit well within the context and the largely approved heights on adjacent sites. The proposed envelope will provide a missing focal point, a elegant tall tower, for the 'CBD' building cluster, which suits the position of the site as a key corner and completes the urban composition of the area.



LEP PLANNING CONTROLS

FSR LIMIT AT 17.1:1
MAXIMUM HEIGHT 72M
ZONING: E2 COMMERCIAL CENTRE



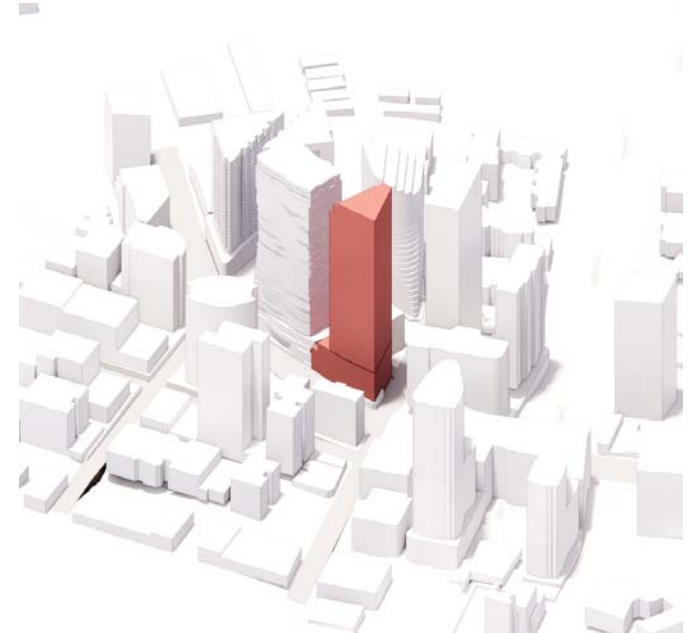
SLCN 2036 CONTROLS

FSR LIMIT AT 14:1
MAXIMUM HEIGHT AT 35 STOREYS
ZONING: MU1 MIXED USE



PROPOSED OUTCOME

FSR LIMIT AT 17.1:1
MAXIMUM HEIGHT AT 154.15M
ZONING: B4 MIXED USE

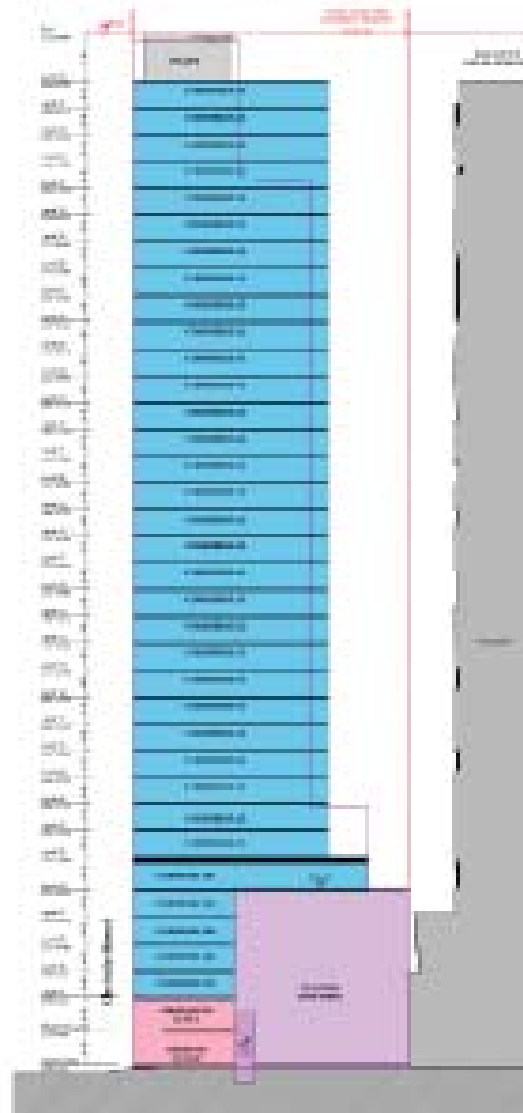


URBAN DESIGN RESPONSE SLCN 2046 SCHEME COMPARISON

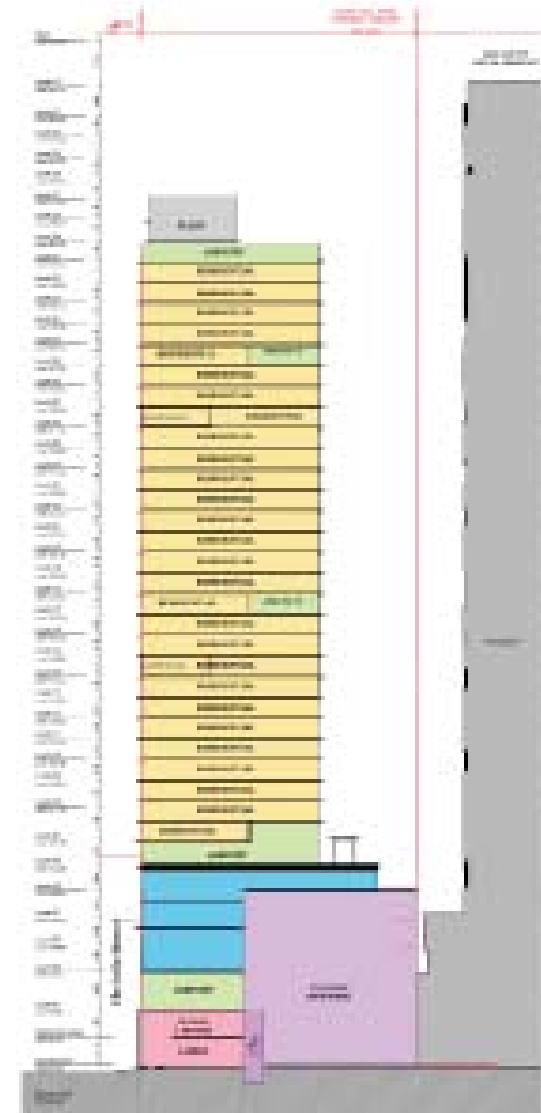
Under the SLCN 2036 development height control, the Telstra Exchange site allows for 35 storeys.

The following diagrams show a 35 storey commercial and mixed-use building with added plant setting the height limit for future developments.

Please refer to accompanying supporting documentation as part of this application for further justification of the height limit.



SLCN 2036 SCHEME - COMMERCIAL



SLCN 2036 SCHEME - MIXED-USE



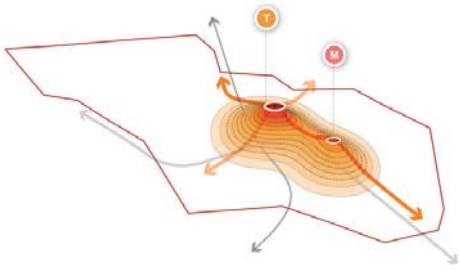
URBAN DESIGN RESPONSE

URBAN CENTRE DENSITY

HEIGHT KNUCKLE AREA

Despite the focus on height and taller buildings around the 'knuckle area', the 2036 Plan recommends a building height of 35 storeys for the Telstra Exchange site, which is significantly shorter than the surrounding development of 45 storeys, 48 storeys and 50 storeys.

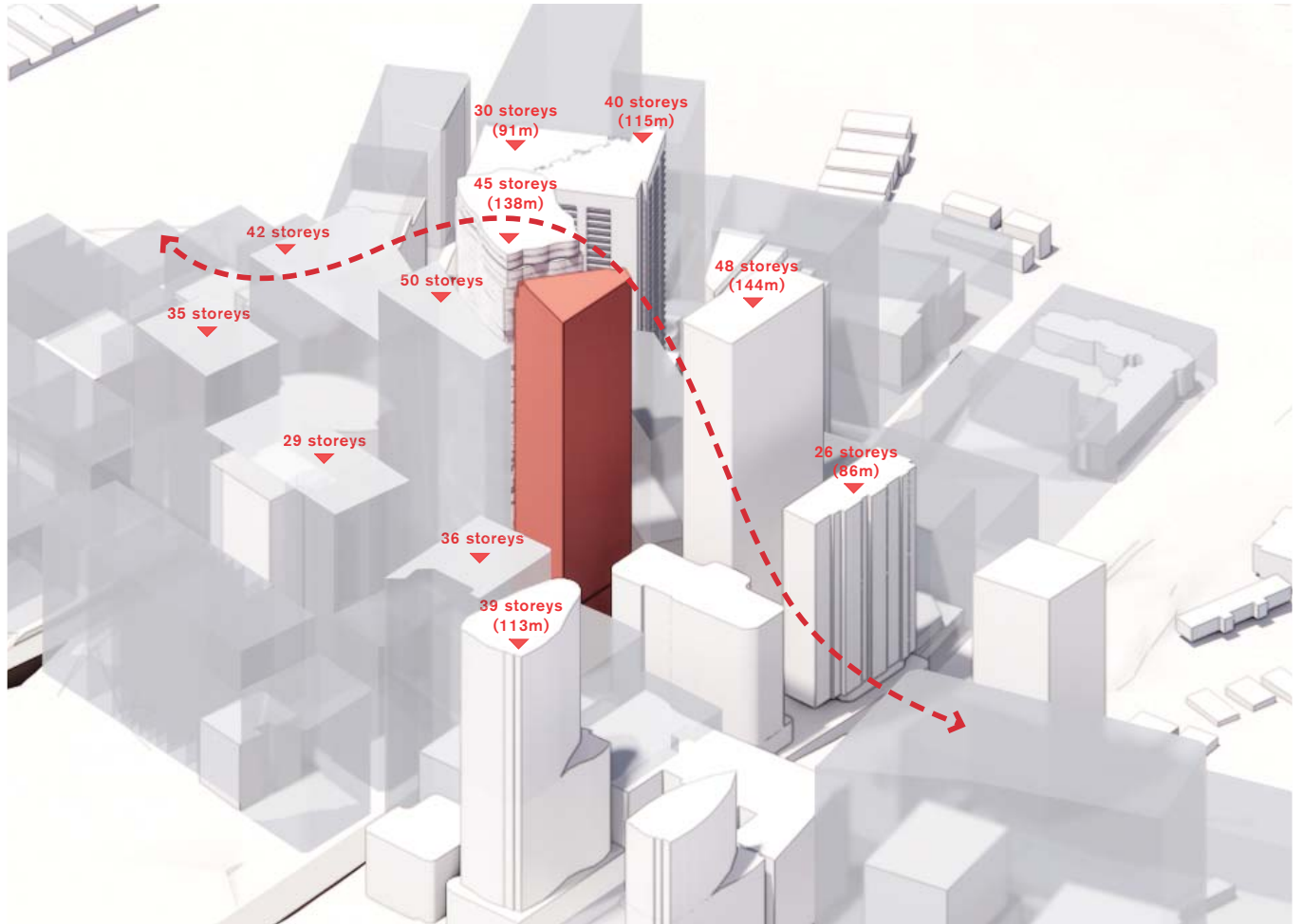
The design will enhance the 'height knuckle' concept set out in the SLCN 2036 plan, and the site's role with extra height due to its corner position, and location in relation to the train station.



Source: NSW Department of Planning, Industry and Environment | August 2020 | Final Plan | Page 66

LEGEND

- Proposed Envelope
- SLCN 2036 Envelope
- Existing context

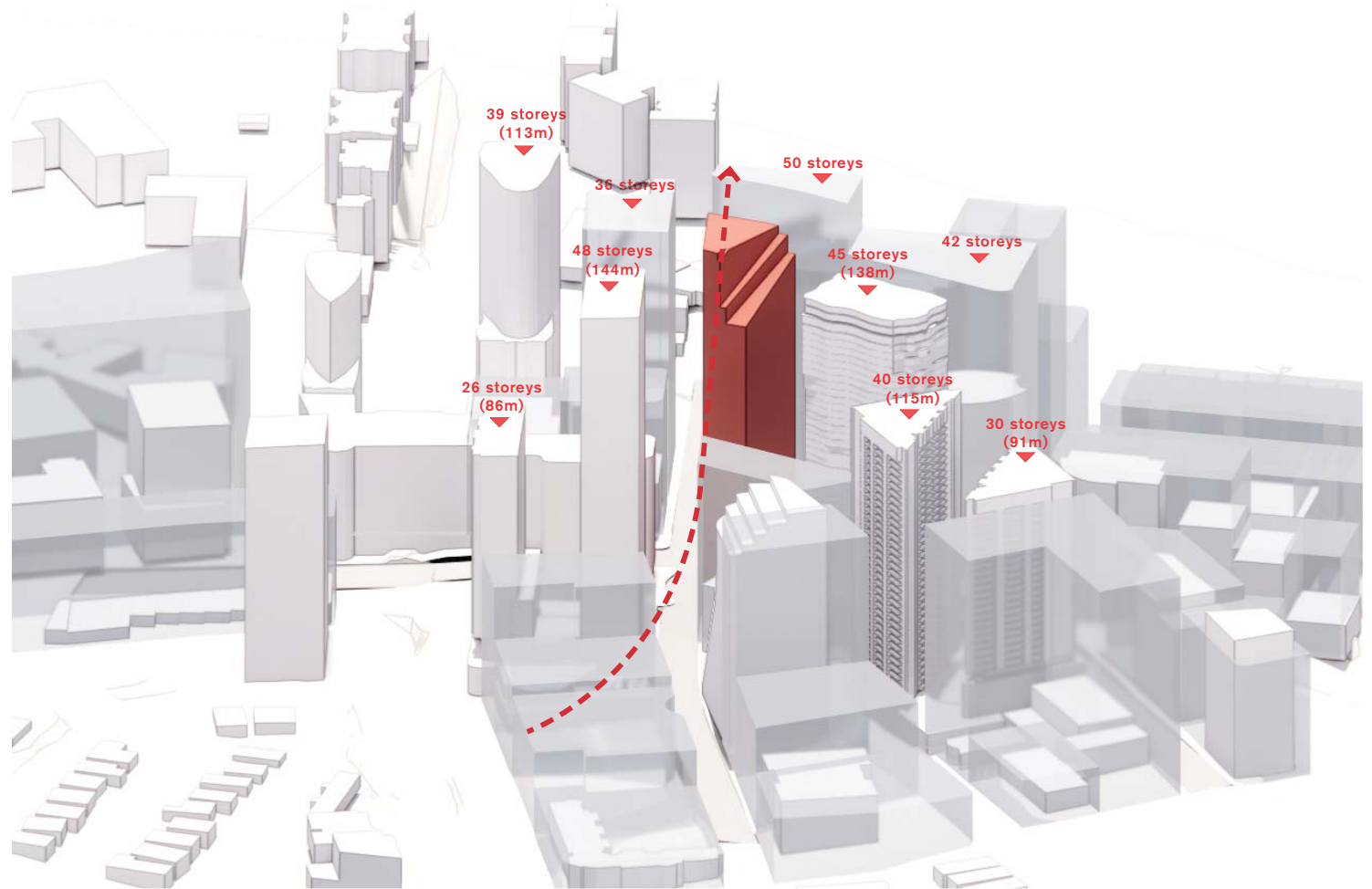


URBAN DESIGN RESPONSE

URBAN CENTRE DENSITY

COMPLETING THE SKYLINE

The SLCN 2036 Plan for the urban skyline builds up in height towards Pacific Highway and towards St Leonard's train station. The proposed tower's height is aligned with the gradual increase in height from low rise residential areas to high-rise projected skyline and to the 50 storey tower directly opposite on Pacific Highway.



LEGEND

- Proposed Envelope
- SLCN 2036 Envelope
- Existing context

URBAN DESIGN RESPONSE

SOLAR CONSIDERATIONS

OVERSHADOWING

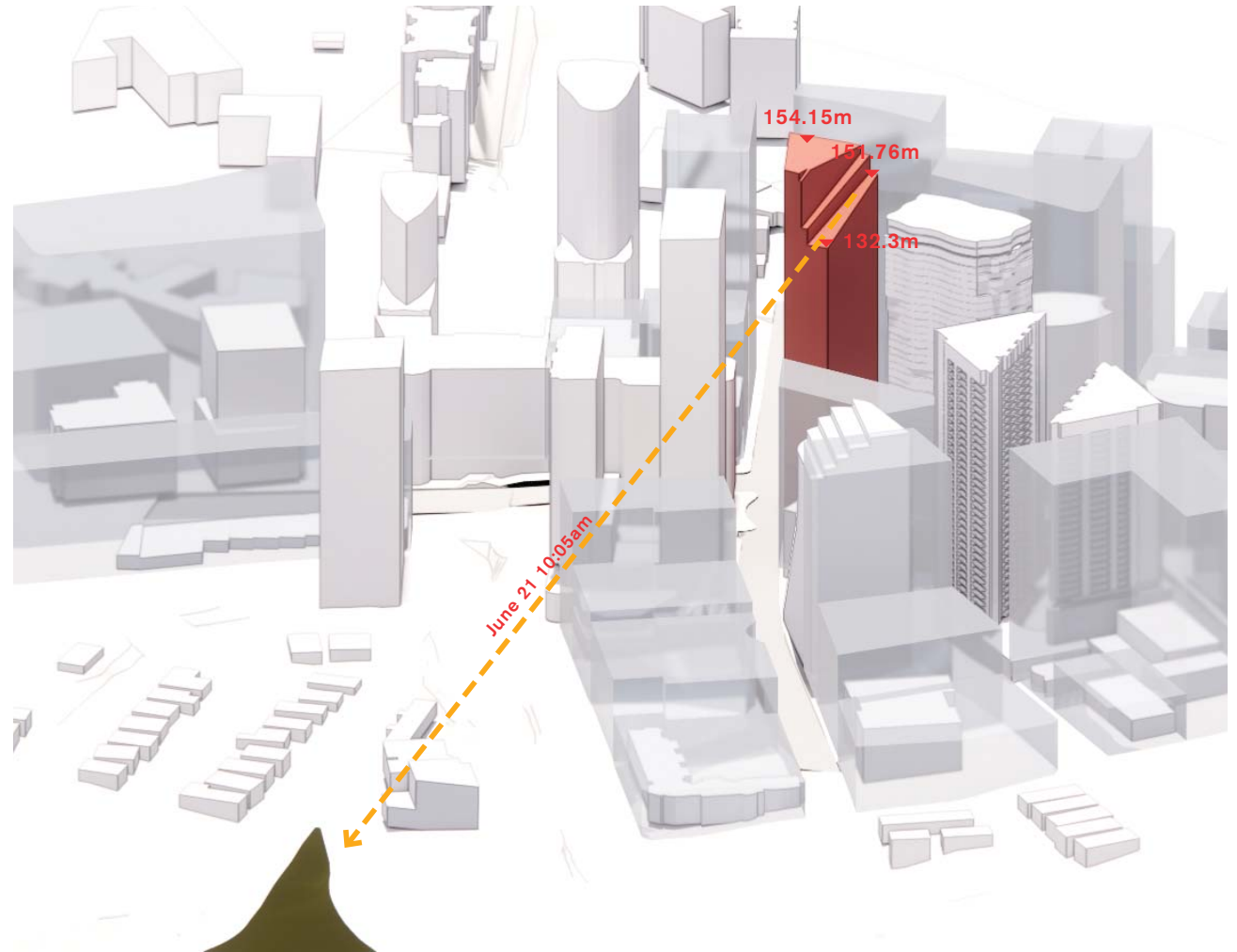
The SLCN 2036 Plan requires that new development within the area does not produce substantial additional overshadowing during specific hours in mid-winter (21 June), particularly to Newlands Park. Any development on the site will require detailed overshadowing analysis.

Detailed overshadowing analysis (on the adjacent page) shows that adherence to the 10:05am solar plane on June 21 is critical to ensuring no additional overshadowing to Newlands Park. This results in a sloped edge to the eastern edge of the buildable envelope. The western edge is protected by existing overshadowing cast by adjacent 88 Christie Street development.



LEGEND

- Proposed Envelope
- SLCN 2036 Envelope
- Existing context



URBAN DESIGN RESPONSE

SOLAR CONSIDERATIONS

OVERSHADOWING

Overshadowing analysis shows that June 21 at 10:05am is the critical solar plane that will overshadow Newlands Park.

Diagrams below depict overshadowing analysis at 5mins intervals of the current envelope with no additional shadows casted on Newlands Park.

There are no new overshadowing to Newlands Park, with any shadows being created by the already established JQZ development.

Please refer to Section 5: Built Form Justification for further overshadowing impact analysis.



June 21st - 10:05am



June 21st - 10:10am



June 21st - 10:15am

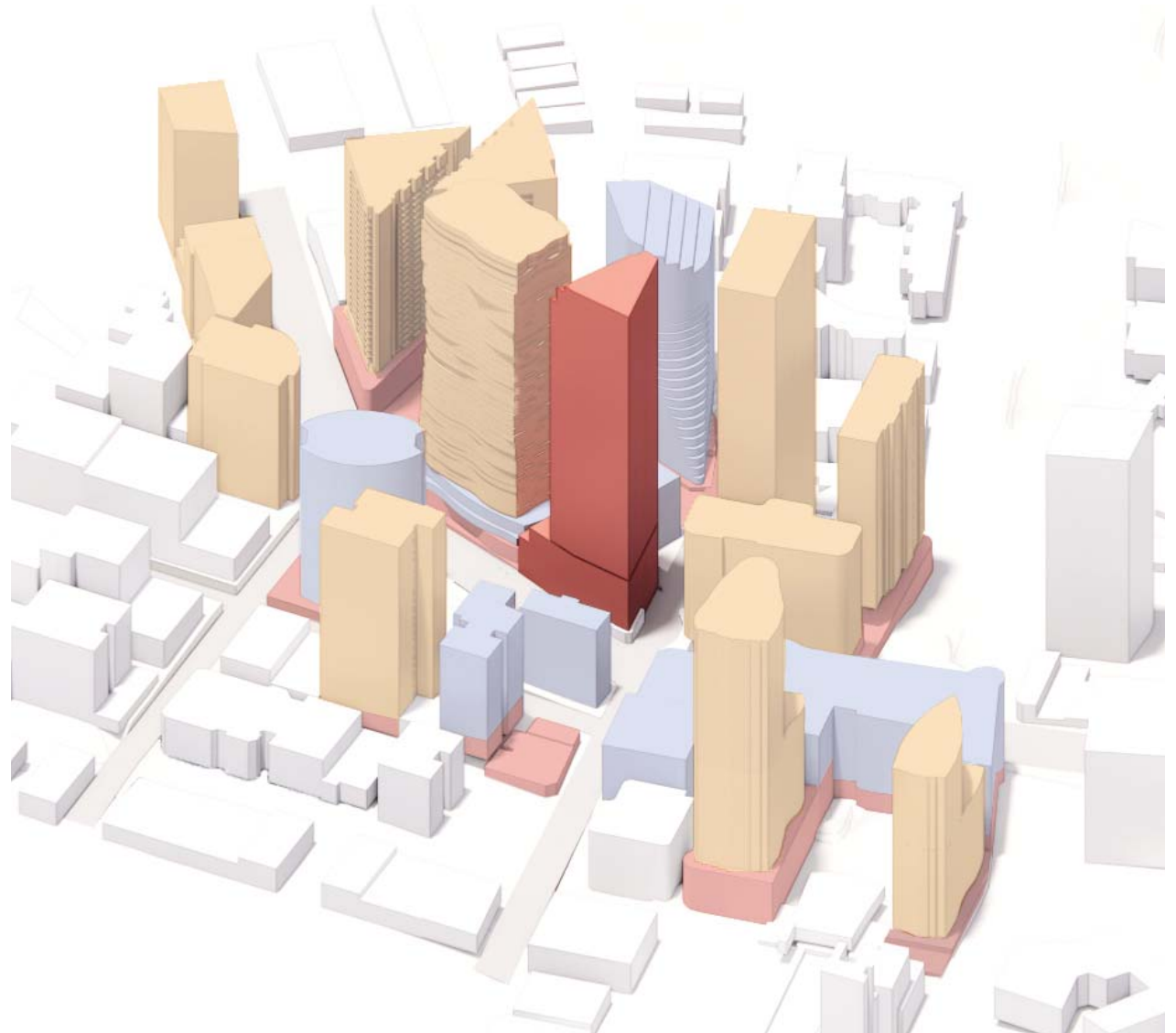
URBAN DESIGN RESPONSE A TRUE MIXED USE PRECINCT

CREATING A MIXED USE HEART

The SLCN 2036 plan envisions the site as a B4 mixed use precinct promoting the creation of an active and varied mixed use future for St Leonard's instead of a commercial core.

Amongst the site and its adjacent developments, there are a variety of proposed mixed uses with an active ground plane. The proposal will aim to add to and enhance the vision with a mixed used tower supporting residential, retail and commercial offering in line with the SLCN vision.

Residents will be able to access jobs, education, health, services, outdoor amenities and retail within 30mins of their homes.



LEGEND

- Commercial
- Retail
- Residential

URBAN DESIGN RESPONSE CREATING A LIVELY GROUND PLANE

GROUND PLANE

The surrounding developments of the site have undergone extensive renewal with a highly activated street edge. At a key landmark corner of St Leonard's, the existing condition has long inactive edges due to the Telstra Exchange building and four existing shoptop retail with no tenancies.

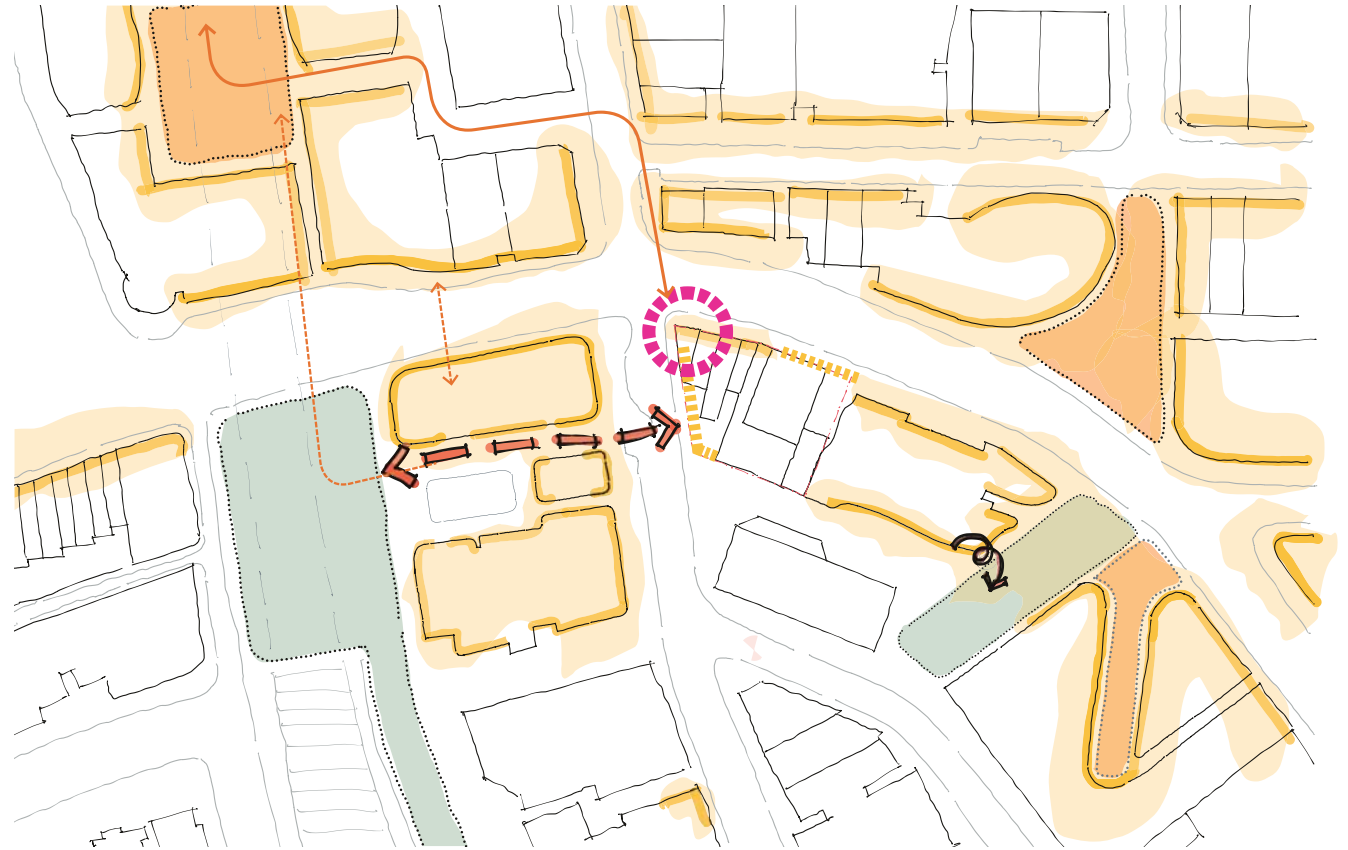
Active edges:

Continuous active edges on the ground plane is vital to the precinct with a mixture of retail and public lobbies along all edges particularly along the street edges.

Key Corner:

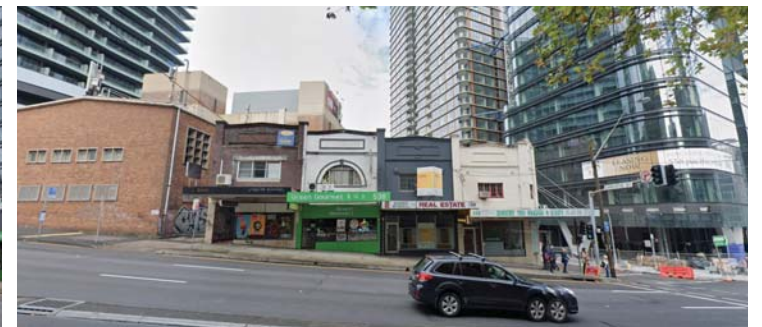
The proposal will seek to significantly upgrade the key corner responding to one of the key pedestrian arrival locations.

Upgrades to these street edges will be in line with adjacent developments and add to the creation of a true mixed used precinct on the ground plane.



LEGEND

- - - - Proposed active edges
- ← → Overground pedestrian connections
- - - - Underground pedestrian connections
- Active edges
- Urban plazas
- Public spaces



URBAN DESIGN RESPONSE

PODIUM

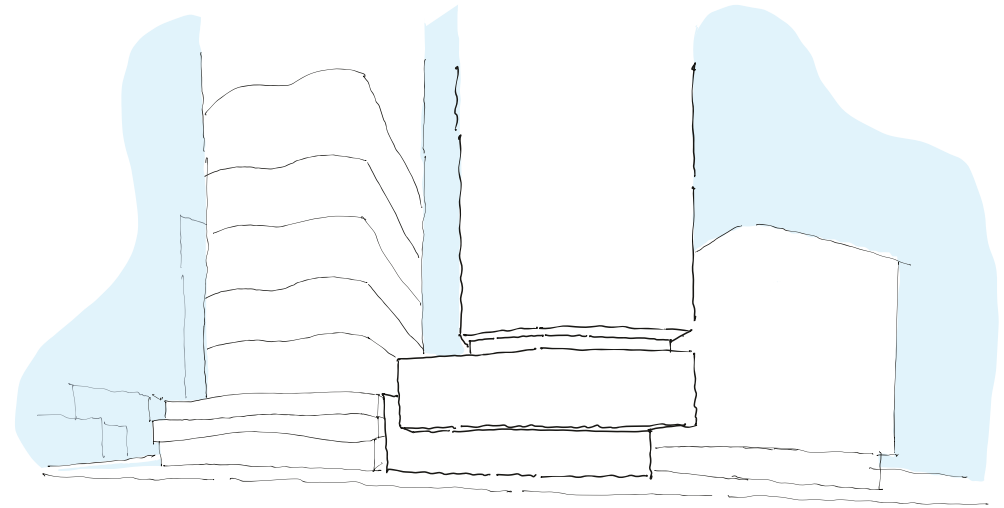
PODIUM + STREET WALL HEIGHT

SLCN 2036 envisions a six storey street wall for the Telstra Exchange site.

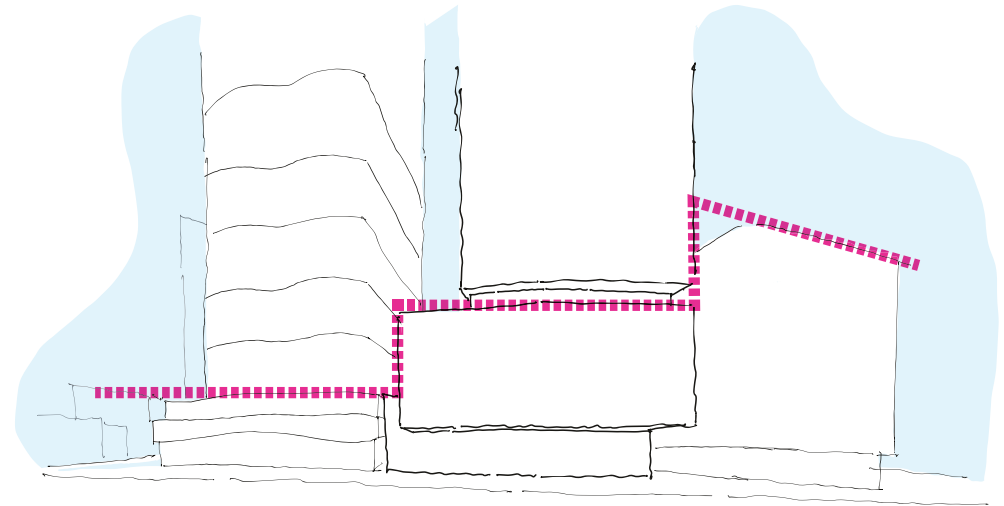
To the east, The Landmark has a four storey podium whilst to its west, across Christie Street, is a 14 storey commercial building.

The design proposes a transitional 8 storey street wall. The 8 storey street wall creates a greater sense of transition by proposing an appropriate podium which steps equally in scale between 4 storey podium of the Landmark to the east and 14 storeys of 88 Christie to the west. This also allows for more non-residential FSR whilst caters for an operational Telstra Exchange infrastructure within the podium footprint.

SLCN 2036
6 STOREY STREET WALL REQUIREMENT



PROPOSED
TRANSITIONAL 8 STOREY STREETWALL



URBAN DESIGN RESPONSE

VIEW SHARING

VIEW SHARING FROM NEIGHBOURING BUILDINGS

Views from adjacent buildings have access to:

- Minor district views of the western suburbs
- Northern district views to Chatswood
- On the upper levels, views of the Sydney Harbour to the south

The proposed development will impact minor district views of the western suburbs to the upper levels of the Landmark development.

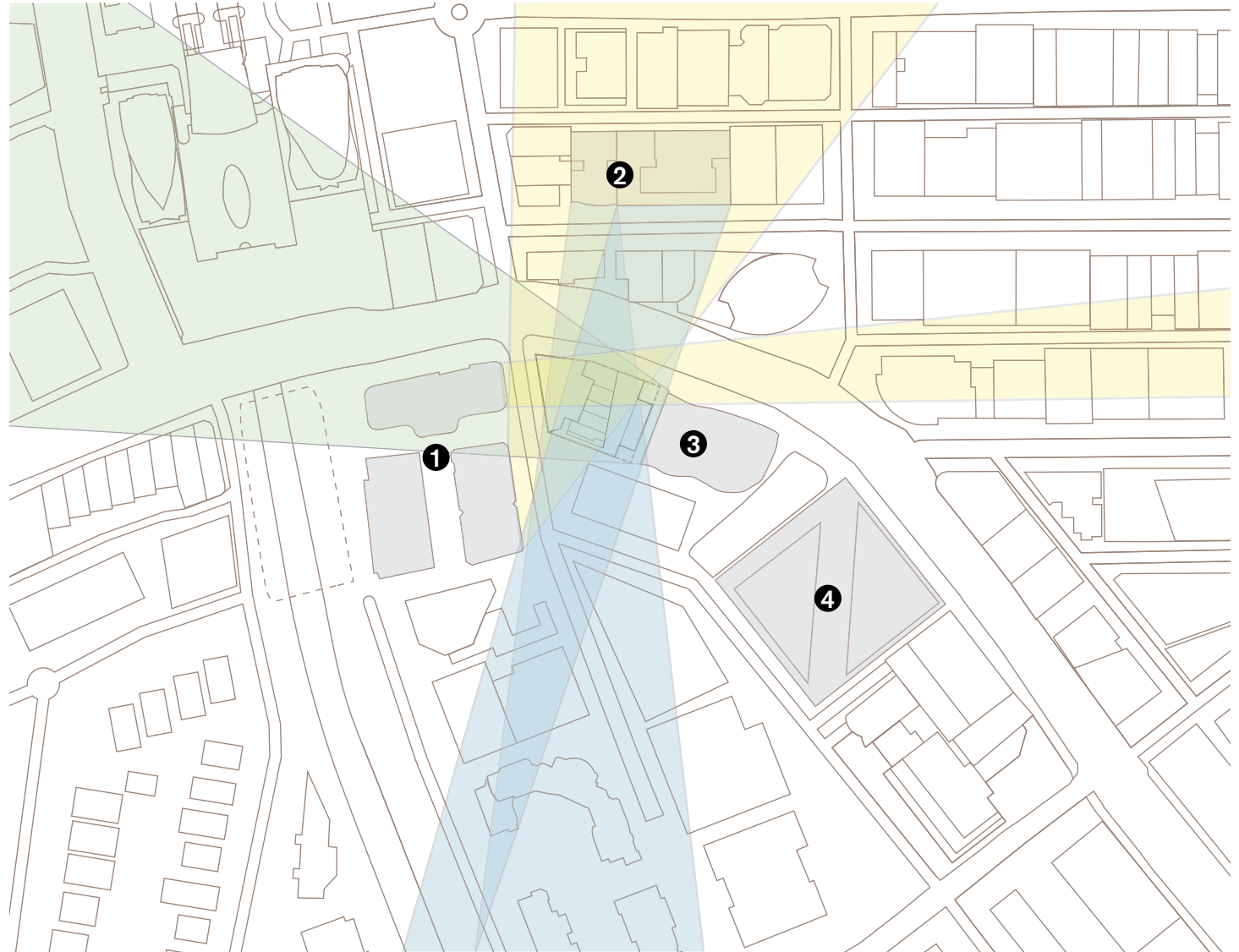
There is minor view impact to the northern district views to Chatswood for 88 Christie due to future possible 50 storeys development as per SLCN 2036 plan north of the Telstra Exchange site.

Similarly, there is also minor view disruption towards the south for the nearby Atchison Street residential apartments. Please refer to accompanying view impact analysis report.

- ❶ 88 by JQZ (44 Storeys)
- ❷ 6-16 Atchison Street, Crows Nest (18 storeys)
- ❸ The Landmark (43 Storeys)
- ❹ St Leonard's Square (27 & 35 Storeys)

LEGEND

- Western Sydney
- Middle Harbour
- Inner Harbour / City



4

INDICATIVE DESIGN

INDICATIVE DESIGN THE NARRATIVE

COMMUNICATE

A central concept for the proposal which has driven the architectural proposition and social design is "communication". The Telstra exchange site is a landmark within the North Sydney (Cammeragyl) area and is renowned for connecting people in Sydney and Country (Nura). The combined elevation of the site with proposed the proposed building height will re-establish the site as a new landmark, significant vantage point and wayfinding element in the contemporary cultural landscape.

The theme of communication is seen through the interaction between people (individuals, local community, first nations community), and place. This is seen through the following:

1. Communicating with Country;

Embedding active listening through Aboriginal consultation and co-design process to create an offering that both respects and improves its land.

2. Communicating with neighbours:

Facilitating ongoing conversation between residents of the development with the idea of the tower being a vertical series of villages.

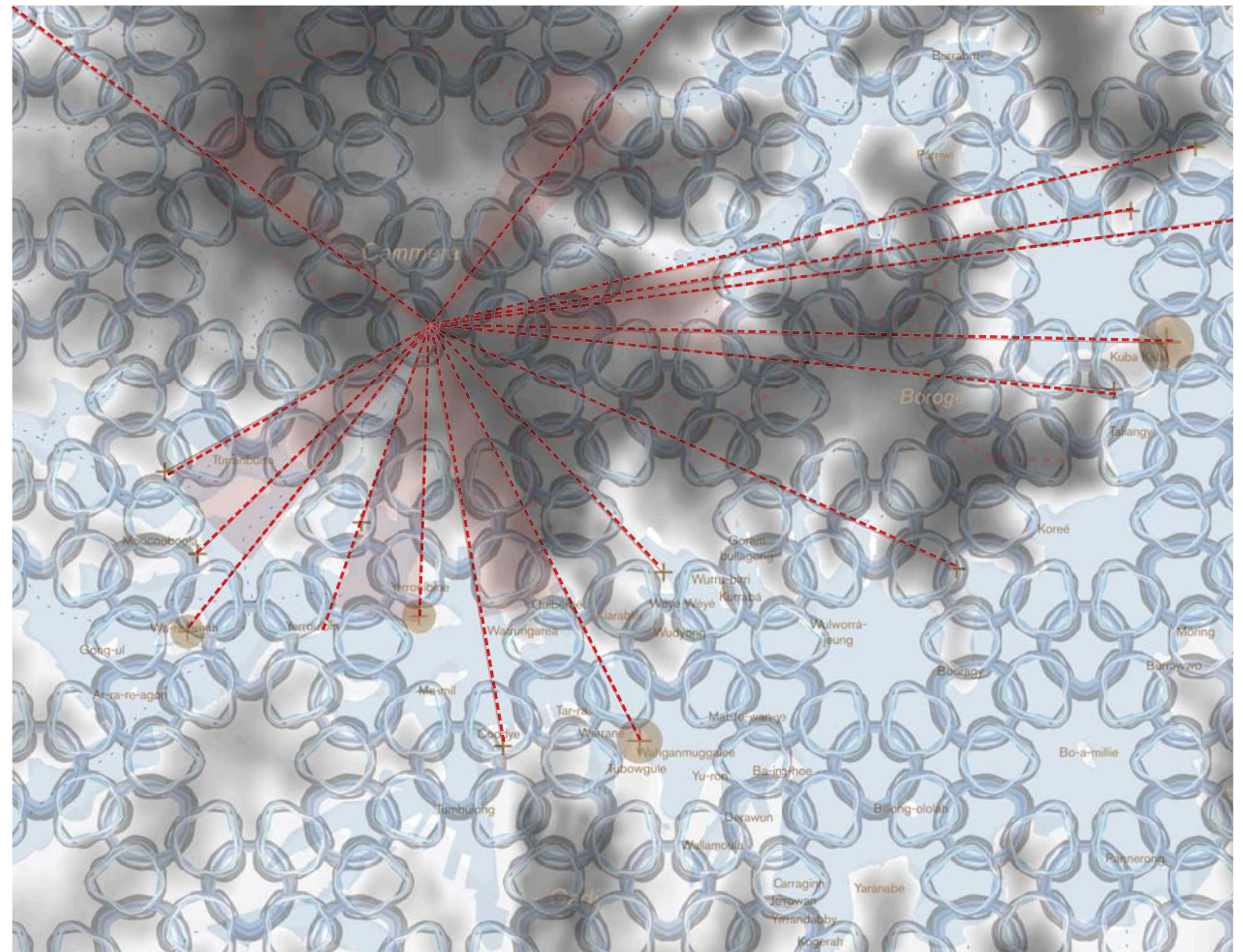
3. Communicating with wider communities:

Facilitating conversations between residents and members of the wider communities in Sydney and beyond. This is also considered in the way the proposal is designed to positively contribute to the built form of the area, responding to neighbouring buildings and the street.

4. Communication to Site:

By listening to the land and creating a building that responds to the existing natural elements with an environmentally responsive and sustainable design, and considers the true seasons of Country.

Through developing the proposal through the lens of communication, it results in an outcome for the site that is truly embedded in and responds to Country (place) and the community.



INDICATIVE DESIGN THE NARRATIVE

CONNECT AND COMMUNICATE...

The Telstra Exchange site is located in the land of the Cammeraygal people.

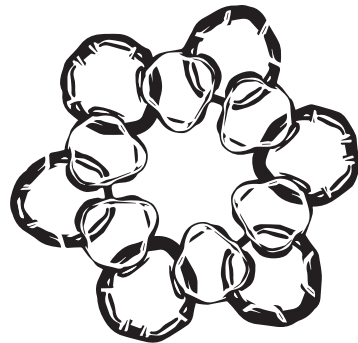
The act of active listening and connection or communication to country allowed stewardship since the beginning of dreaming. This is the act of Communication with Country (Ngara Nura), watching seasons bring change, seasons to fish, to hunt and to time gather on site.

The Cammeraygal people are fisher people and renowned for connecting with other communities as they travelled across the waters of the harbour. One particular Cammeraygal clan woman, Barangaroo, was a skilled fisherwoman and one of the most powerful figures in early Sydney history.

She was the one who connected with other clans and acted as a bridge between herself, Bennelong and the colonial government.

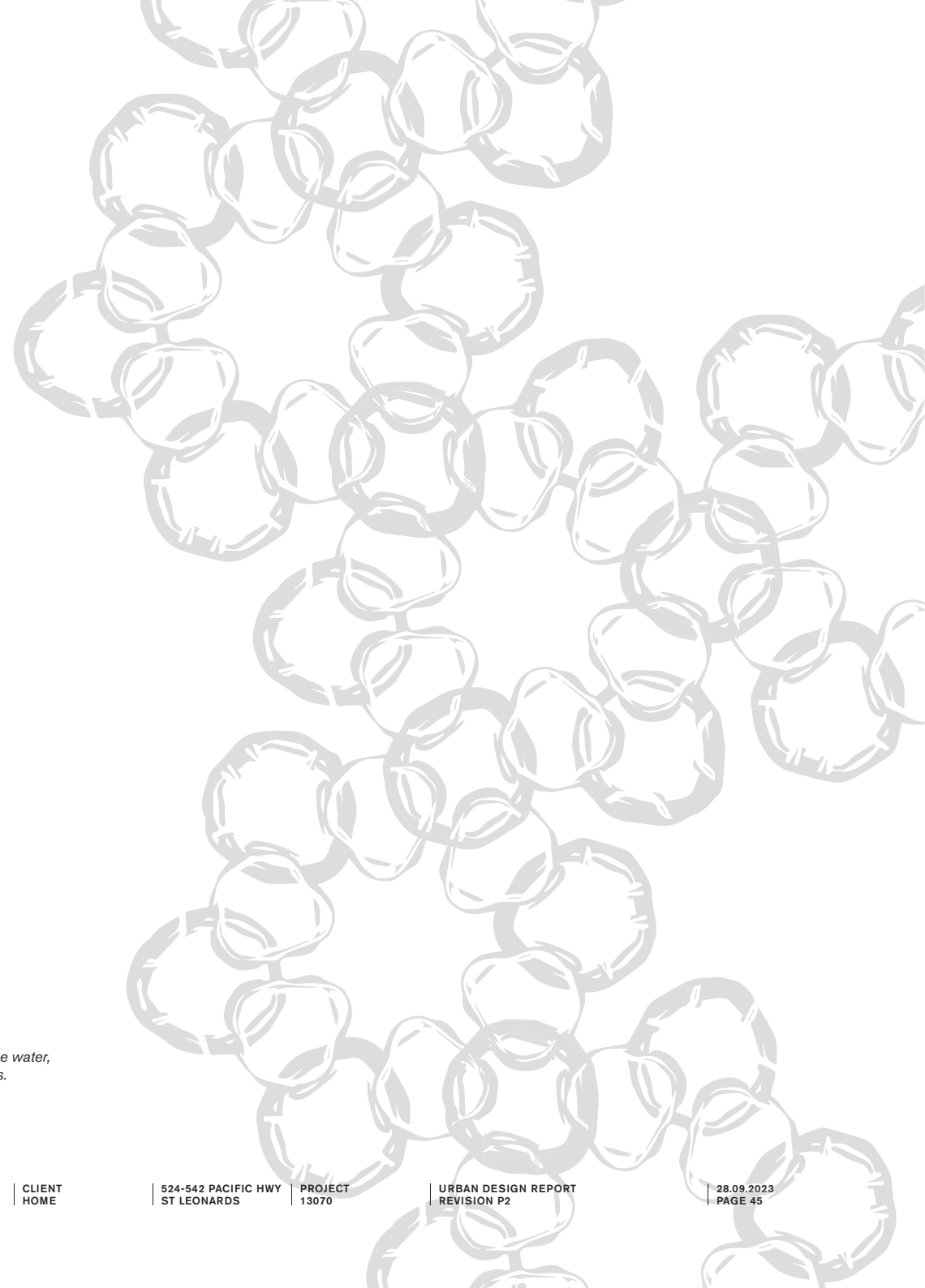


Barangaroo - one of the most powerful figures in the Cammeraygal clan of the area and skilled fisher woman and communicator



The fish hooks of the fisher people, as like droplets of the water, it continually connects and communicates as it spreads.

Graphic from FCAD



INDICATIVE DESIGN
THE CONCEPT

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THE VERTICAL VILLAGES

Redefining a sense of community in a tower typology through external and internal amenity dispersed throughout the building.



ARCHITECTURE

The architecture is derived from the base design principles established through our Communicating to Country concepts.

Passive solar shading performance and contextual fit are also key drivers in the proposed architectural response.



SUSTAINABILITY

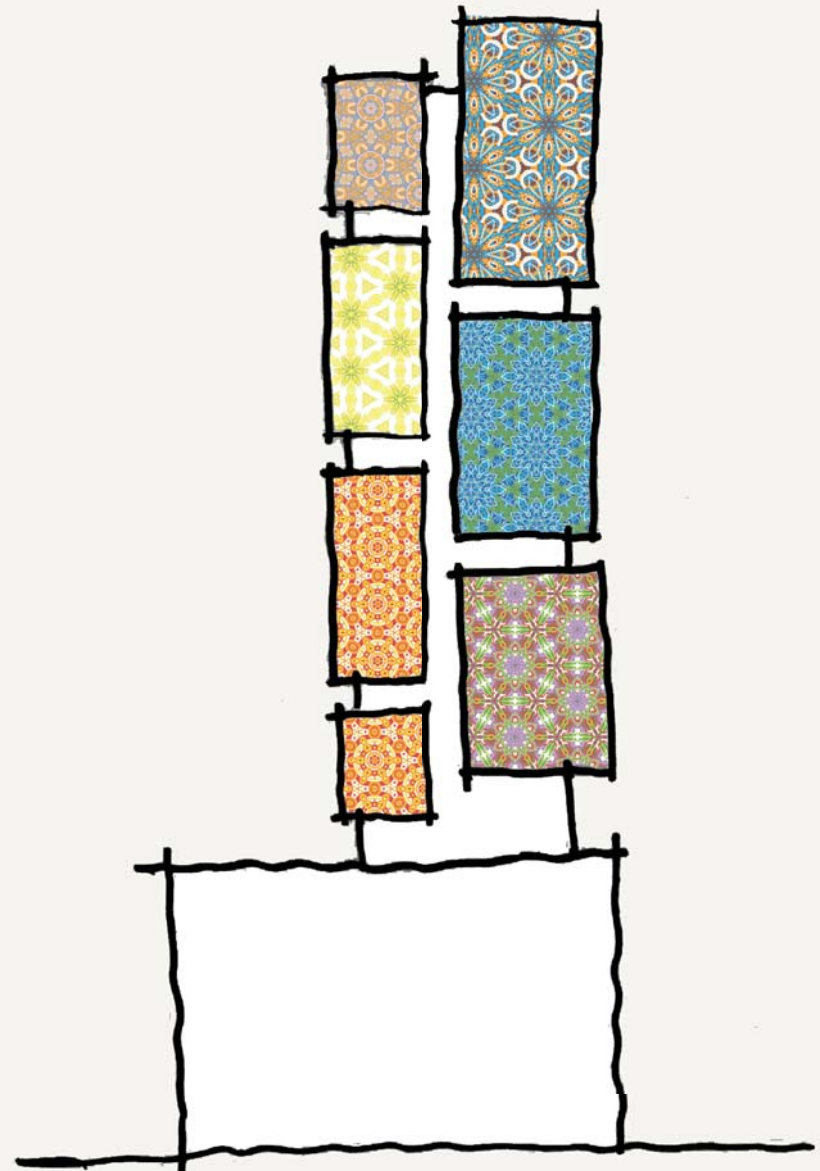
A broad spectrum of Sustainable living and sustainable building initiatives have been targeted for the proposal

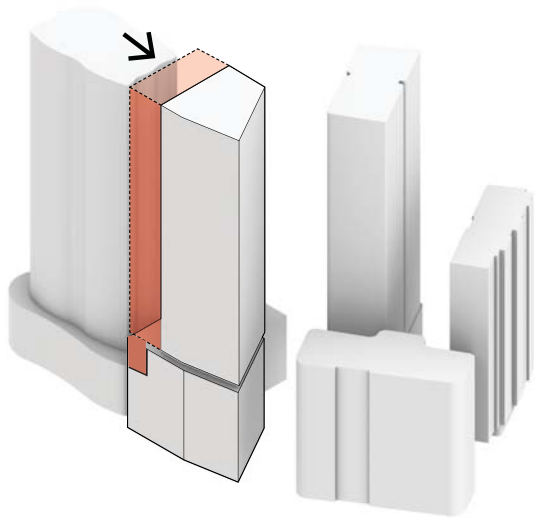
INDICATIVE DESIGN
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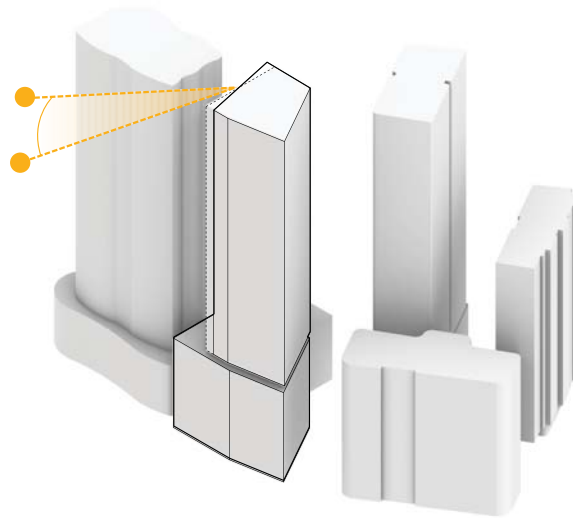




SEPARATION TO THE LANDMARK

12m ADG setback is provided on the East to our boundary providing an average of 23m separation to the habitable elevation of The Landmark.

Above four storeys in the podium, a 6m setback has been provided to the Landmark for ADG separation. This datum aligns with the four storey podium of the Landmark.

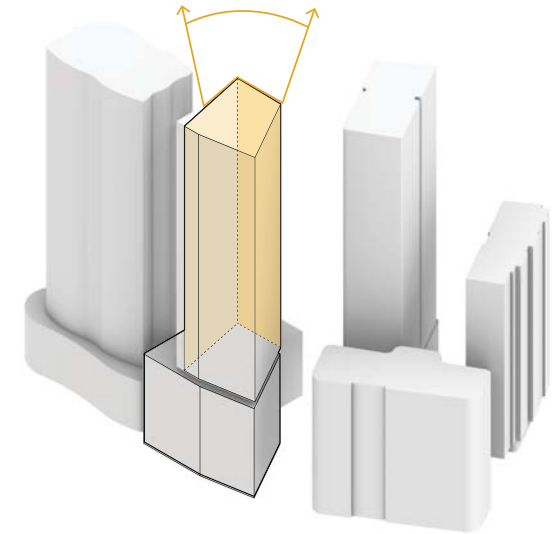


CHAMFERING THE CORNER

The Eastern facade has been angled to achieve solar access between 9:00 am and 11:45 am.

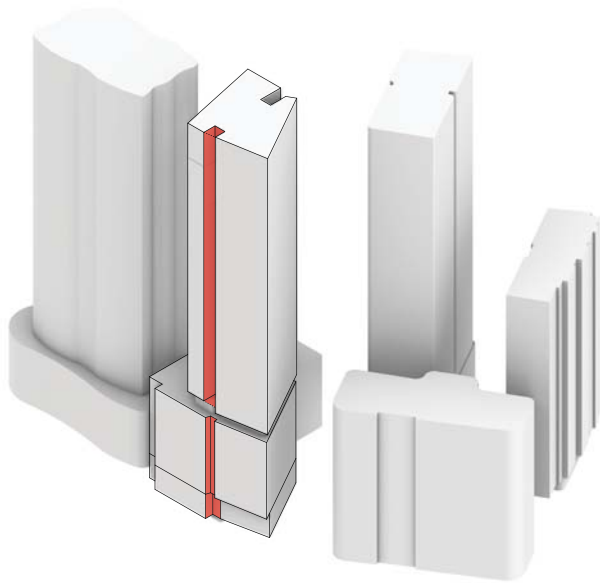
Minimum 12m separation to the neighbouring building retained.

This also provides increased permeability between buildings to the Pacific Highway allowing for increased view sharing from the public domain and the existing towers.



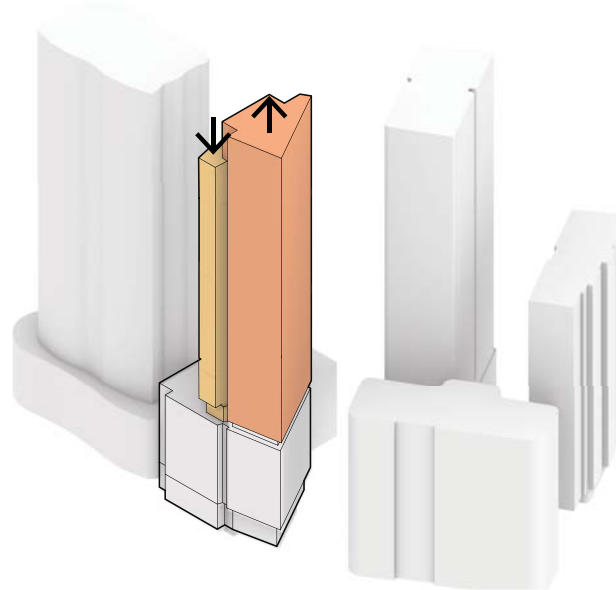
ORIENTATING TO THE VIEWS

Apartment planning has maintained the optimum balance between solar compliance and maximising Southerly views.



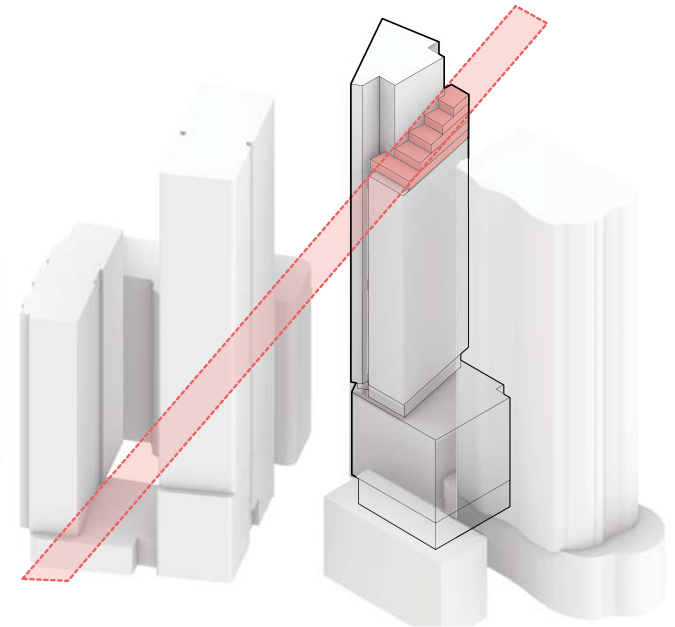
CREATING PRIMARY ARTICULATION

A vertical slot allows sunlight and ventilation deep into the core and breaks the tower into two primary forms.



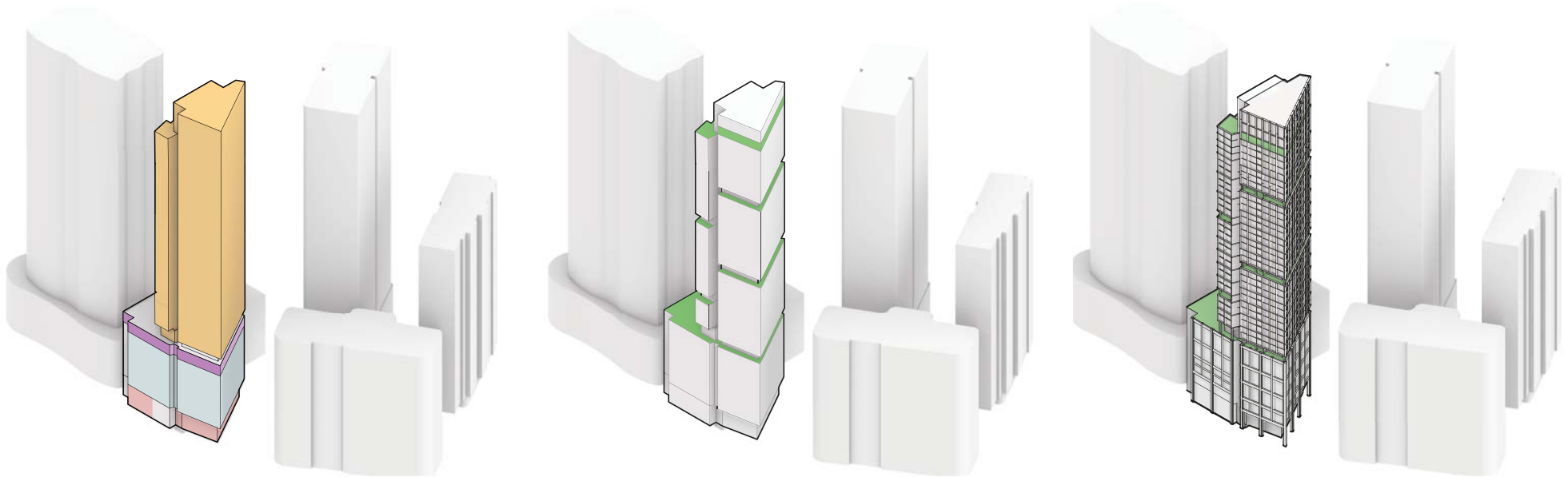
SHIFTING THE MASSING

The two primary forms are further emphasised by lifting the dominate corner element increasing verticality.



OVERSHADOWING TO NEWLANDS PARK

Eastern form steps to ensure no overshadowing to Newlands Park



PROGRAM

The program of the building is simply articulated in the massing of the building.

- Yellow - residential
- Blue - short term accommodation
- Purple - key worker housing
- Red - retail

CREATING DISTINCT COMMUNITIES FROM MASSING

Distinct communities are reflected in the articulation of the tower. Further setback levels are provided as larger common areas.

FACADE RESPONSE

The facade needs to provide a passive solar shading response and an extra level of filigree and human scale to the design

A NEW TOWER CREATING SEPARATION

SLENDER AND SEPARATED

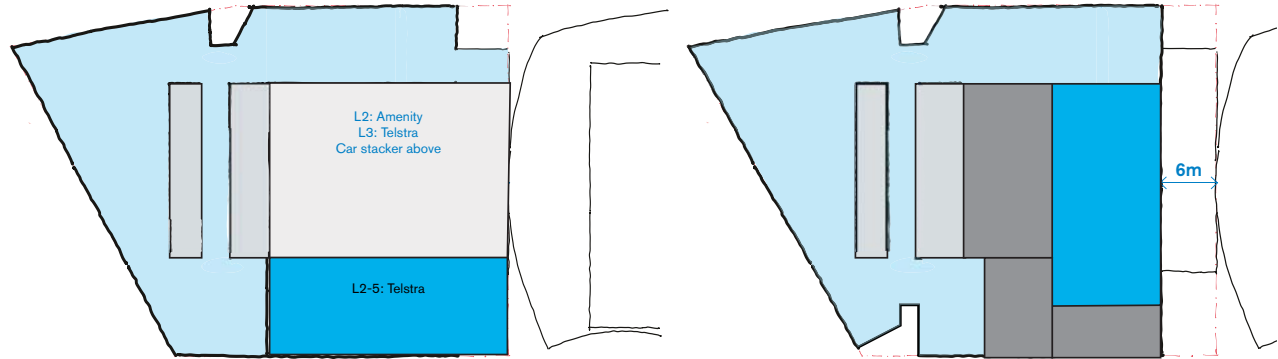
The tower is designed to be slim to minimise overshadowing as well as the perceived mass and bulk from the public domain. The design has provided more than minimum ADG separation requirements from the Landmark's habitable edge.

Podium:

On the podium, there is 0m on the first four storeys to The Landmark whilst the top storeys meet 6m ADG separation requirements to Landmark's habitable edges.

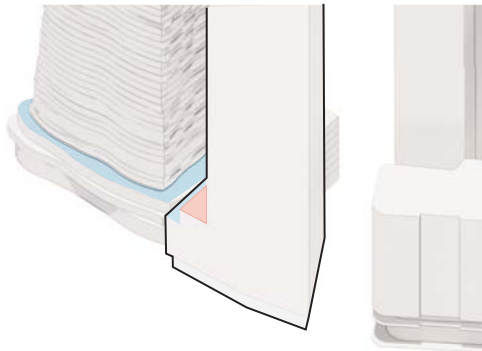
Tower:

At the southernmost point, the tower floorplate meets 12m ADG separation as it continues to 20m separation from the boundary creating a 27m separation from the Landmark on the Pacific Highway elevation.



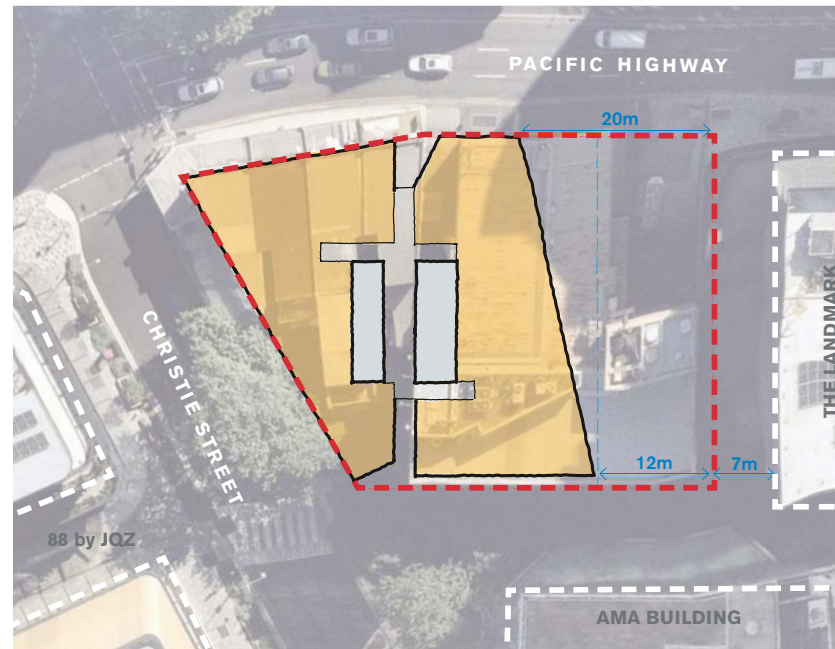
PODIUM LEVELS 1-5
0 setback (L5 shown)

PODIUM LEVELS 6-8
Short term accomodation and affordable housing (L8 shown)



INTERFACE ANALYSIS

Responding to Landmark's 4 storey podium and ADG separation requirements



TOWER

The design of the floorplate maximises setback to the adjoining neighbour, averaging 23m setback whilst the Landmark only provides 7m setback.

RESIDENTIAL TOWER SCALE AND BULK

VERTICAL VILLAGE RECESSES

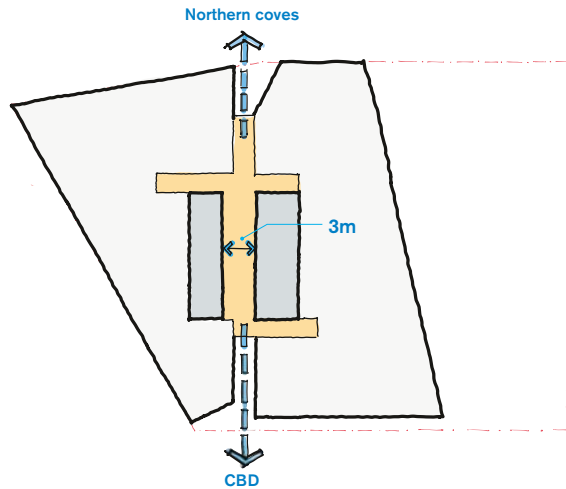
The residential tower has been carefully considered to have a separate identity from the podium whilst still reading as overall as a single composition. At the heart of the scheme are Vertical Villages articulated as recesses interspersed throughout the tower to help break down the perceived mass and bulk.

These continuous recesses are carried around the full perimeter of each level, so that are clearly identifiable afar at a city scale as well as from the ground plane.

Vertical articulation:

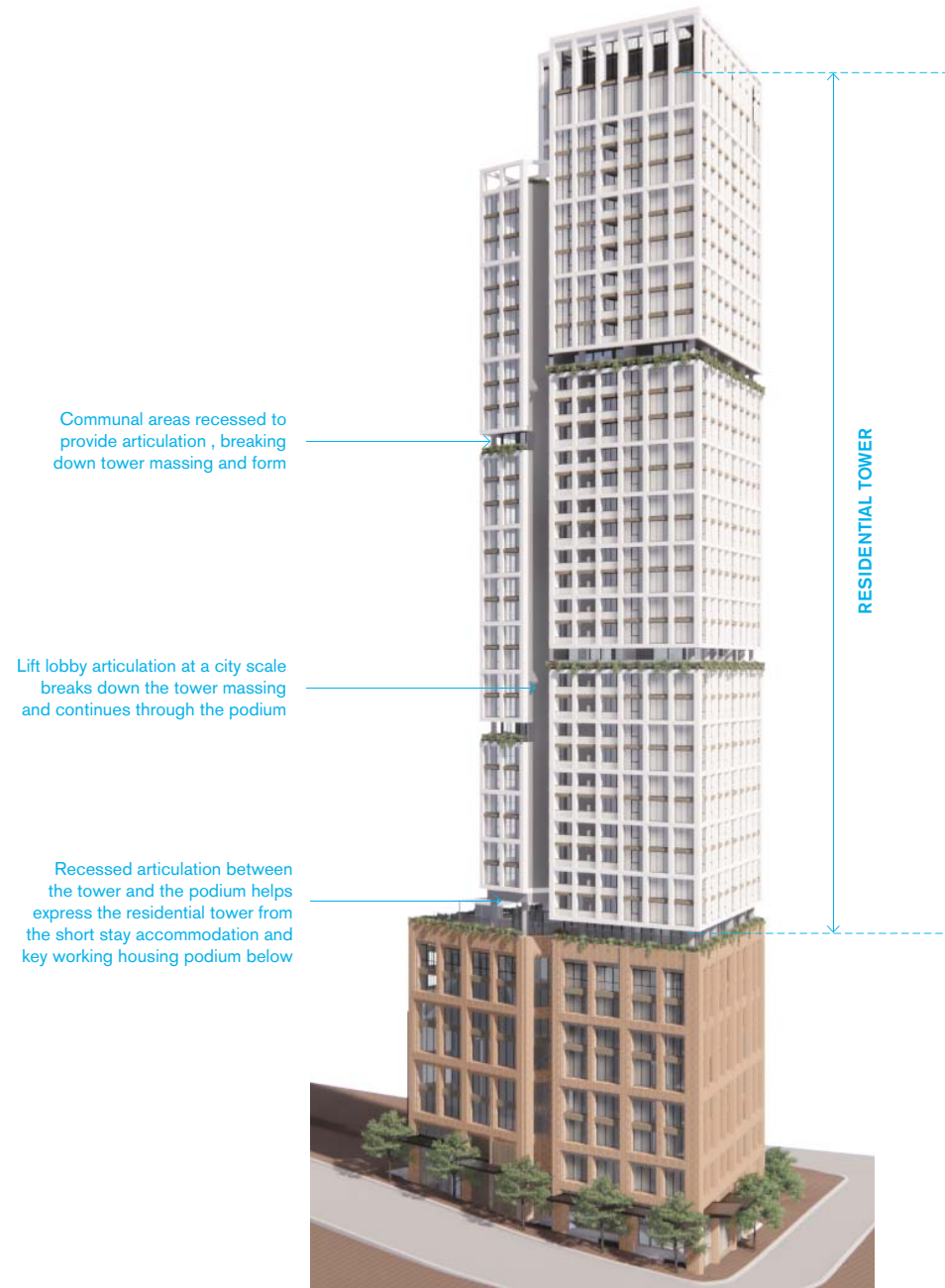
Continuous vertical recesses further minimises the mass and bulk of the tower. On the podium, these recesses provide a direct view from the lift lobby as an essential part of the arrival experience.

On the residential tower, the recesses are glazed providing daylighting and views out from the arrival point of the lifts, creating high amenity lobby spaces.



LIFT LOBBY

Wider than typical lift lobbies at 3m with views on either side with natural daylight access. Entrances to apartments are in direct sight lines from the lift lobbies through the elimination of dog leg corridors in the design.



RESIDENTIAL TOWER FLOORPLATE DESIGN

RESIDENTIAL APARTMENT DESIGN

The residential apartments have been designed with high amenity with considerations of solar access, increasing dual aspect apartments with cross ventilation provision. Apartments have also been orientated to maximise views.

Solar access:

The eastern edge pivots along the 11:45am solar plane to ensure maximum solar access to all apartments. Southern units have a view to the Sydney Harbour.

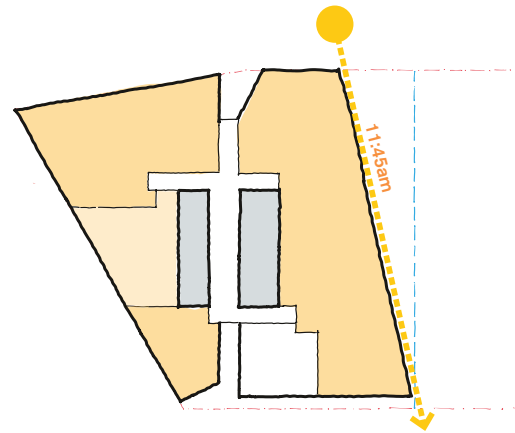
2 hr solar: 70% (197 units)

No Solar: 10% (27 units)

Cross ventilation:

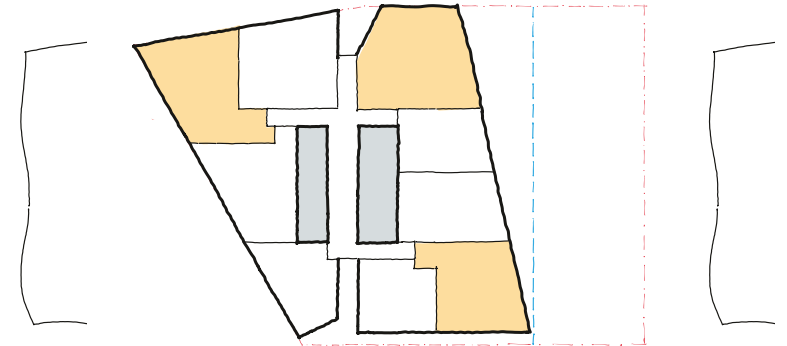
The vertical recess creates an opportunity to increase cross ventilation and dual aspect apartments. Cross ventilation under the ADG is only required up to 9 storeys.

Dual aspect: 62% (176 units)



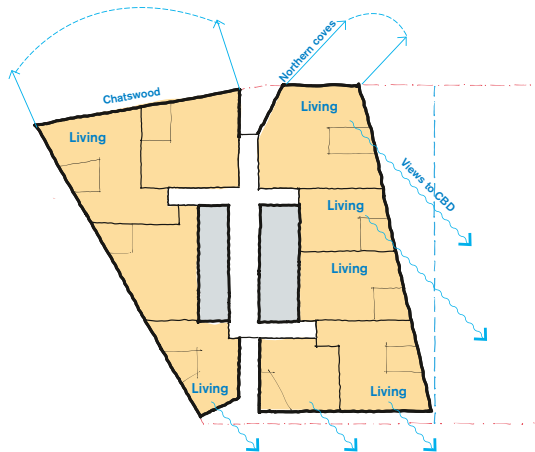
SOLAR

The design pivots the floorplate on the eastern side to ensure maximum solar access to the apartments. Only the southern apartment has no solar access.



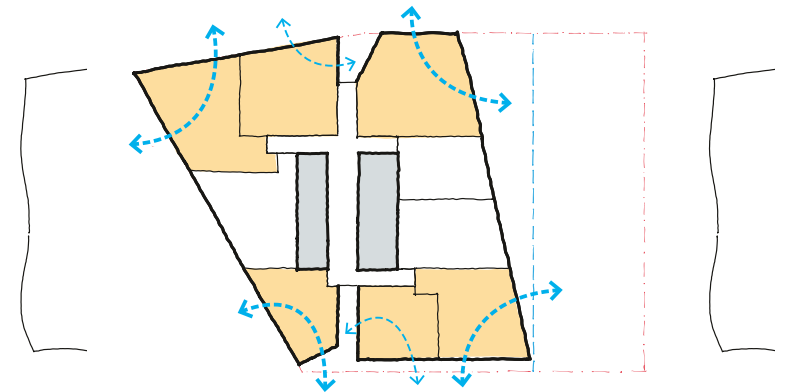
CORNER APARTMENTS

Larger apartments where possible are placed in the corners. SW apartment is 1 bed due location of the core limited by the constraints of the existing Telstra Exchange building



VIEWS OUT

From mid rise and up there are views to Chatswood and the Northern Coves from high rise on the northern face. Low rise and up enjoys views to the CBD.



DUAL ASPECT

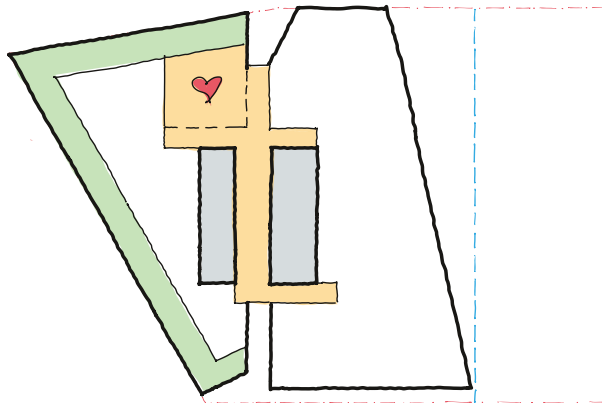
The design maximises dual aspect apartments with 60% of all apartments with dual aspect.

VERTICAL VILLAGES COMMUNICATING WITH COUNTRY

VERTICAL VILLAGE HUBS

At the heart of the scheme is the design of the Vertical Villages, the hub and communal heart of the tower. Designed to be accessed throughout the tower, it caters to different groups of people with an extensive program.

The Vertical Villages are designed as an extension to the lift lobby, democratic and egalitarian in use for all. Expressed as a continuous recess on the tower and articulated through the Connecting with Country thematic framework of the endemic seasons to provide identity to each Village, it is articulated and understood at a city scale and can be seen from the ground plane



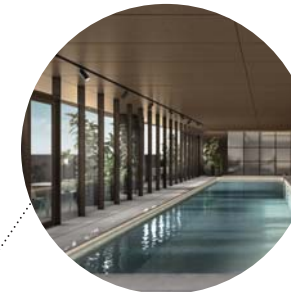
Northern vertical villages have access to daylight and have views to the northern coves.



**KITCHEN/DINING
EDIBLE GARDEN**



KID'S PLAY



**WELLNESS
ZONE**



WORKHUB



RETAIL CAFE

VERTICAL VILLAGES COMMUNICATING WITH COUNTRY

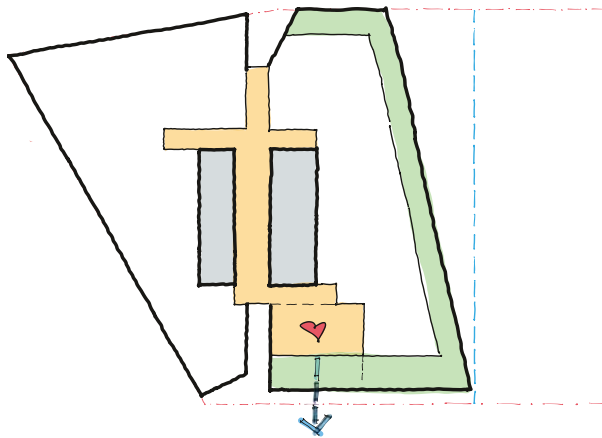
AMENITY ZONES

The amenity spaces have been carefully programmed and located throughout the building to facilitate communication, a sense of community and encourages sharing and reuse for sustainable living.

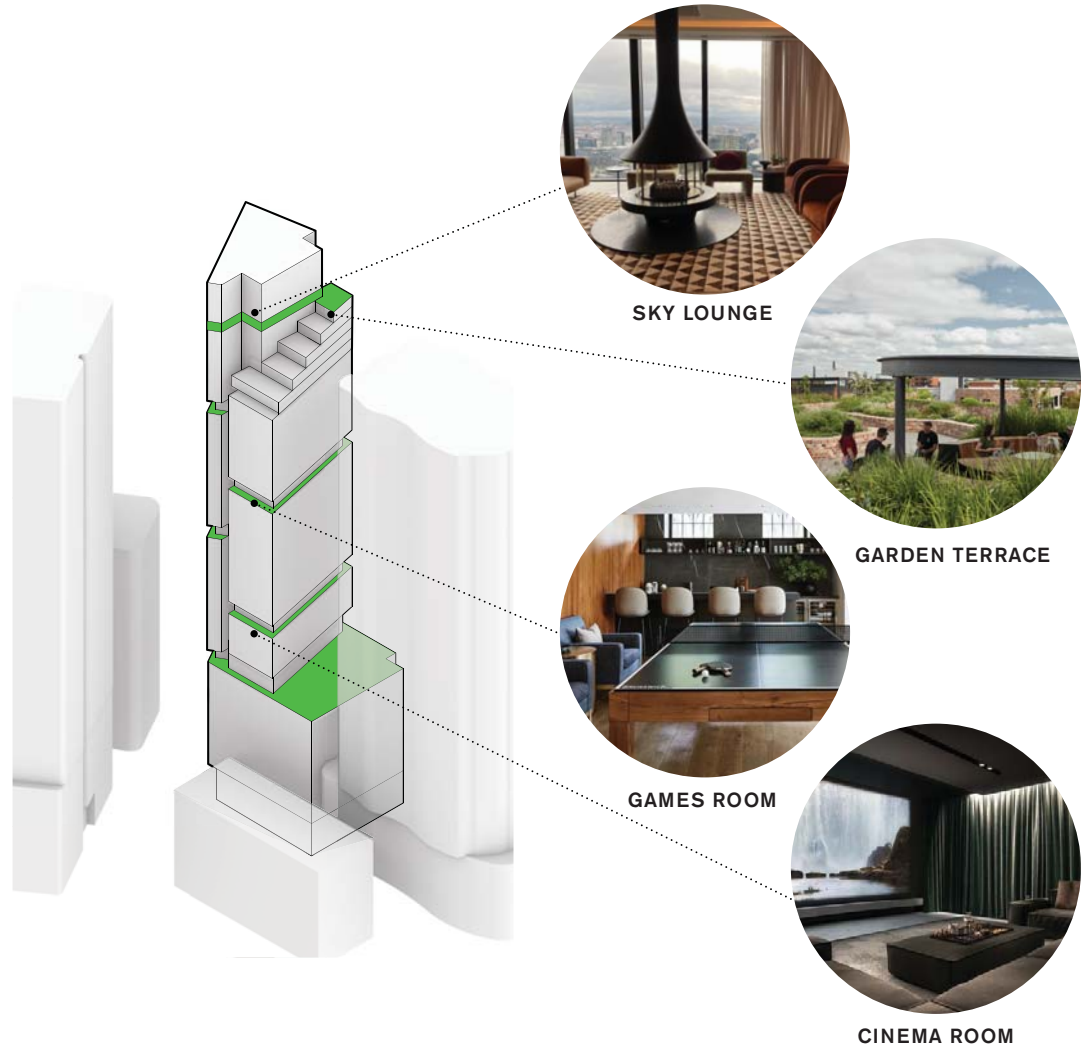
The theme of communication is laced through the design. Lobby spaces are designed to be public offerings with F&B provision to activate it.

In the podium, co-working offerings provide a hub for communication and collaboration, with provisions for access by the wider public.

At the rooftop, the sky lounge provides a vantage point for the residents to connect and communicate with their surroundings at a macro scale, whilst socialising at a micro scale within the building.



Southern vertical villages have access to views of the Sydney Harbour



SKY LOUNGE



GARDEN TERRACE



GAMES ROOM



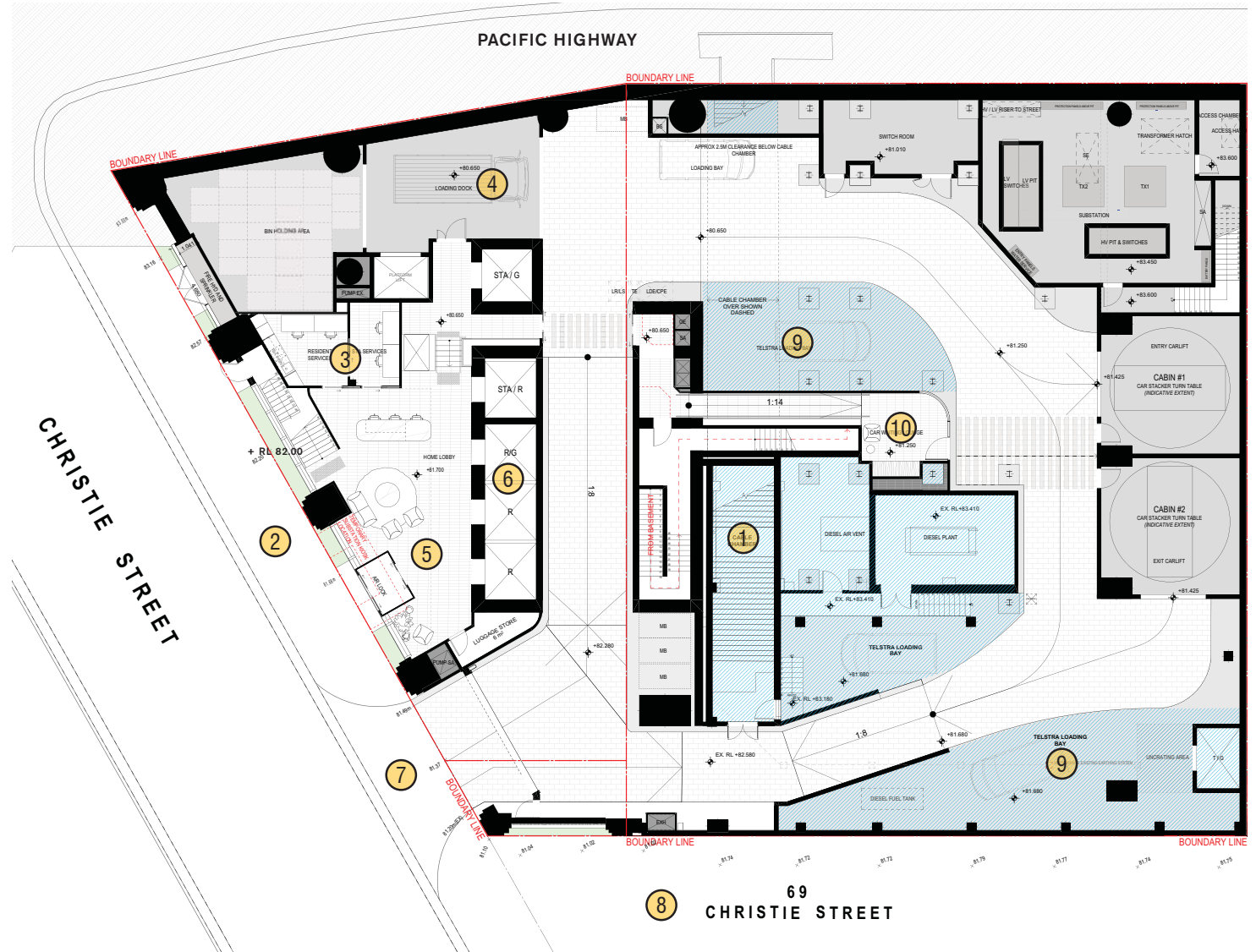
CINEMA ROOM

PUBLIC DOMAIN
LOWER GROUND - CHRISTIE STREET (GROUND LEVEL)

RESIDENTIAL LOBBY

The residential lobby accessed from Christie Street is a large double height space tiered down over three levels activated with the main lobby, retail and finally a residents library/lounge breakout on the mezzanine space.

It is an open, engaging and dynamically designed space, with the entry surrounded by activity. It is conceived as a space open to the public and a continuation of the public domain of the street, reminiscent of a hotel lobby rather than a traditional closed residential lobby.



LOWER GROUND FLOOR LEGEND

1. Cable chamber
2. New street tree planting and planting edge to Christie Street
3. Workstations to support 18/7 concierge
4. Residential tower loading dock
5. Lower lobby entry to main residential lobby
6. Common lobby and lift core
7. Vehicular building entry and exit
8. Service pedestrian laneway to 69 Christie Street
9. Telstra Exchange loading dock
10. Car lift lobby

PUBLIC DOMAIN

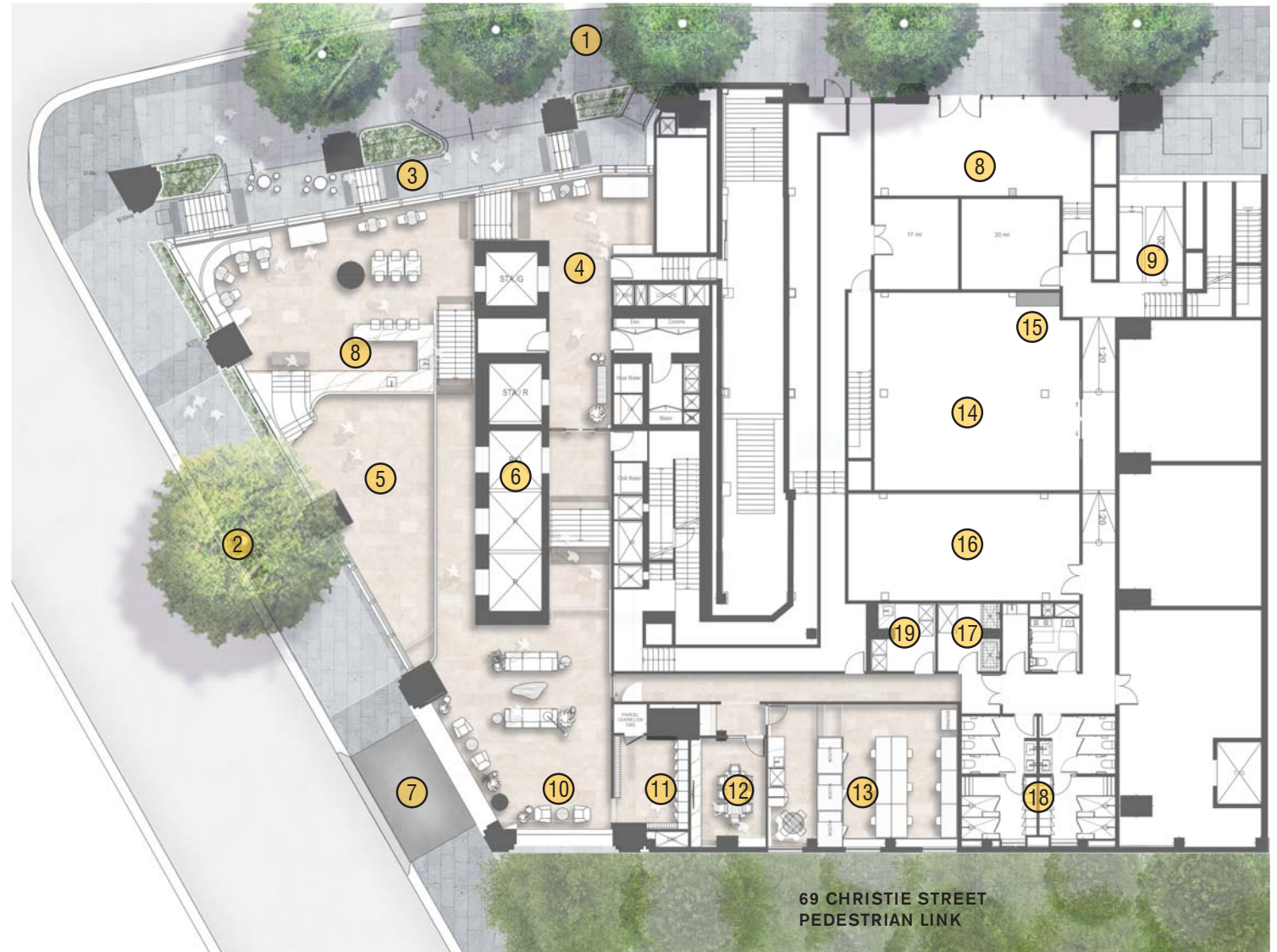
UPPER GROUND - PACIFIC HIGHWAY (LEVEL 1)

PACIFIC HIGHWAY INTERFACE WITH THE LANDMARK (500 PACIFIC HIGHWAY)

The interface to the Pacific Highway also includes a retail tenancy which continues the line of activation from the adjacent Landmark development. The tenancy will also provide passive surveillance and engagement with the adjoining EOT and bike hub lobby, bike storage areas, workshop and other communal spaces.

PACIFIC HIGHWAY ENTRY LEGEND

1. New street tree planting to Pacific Highway
2. New street tree planting to Christie Street
3. Stepped level street frontage to Pacific Highway
4. Upper lobby entry
5. Void to main residential lobby below
6. Common lobby and lift cores
7. Vehicular entry below
8. Retail & lobby cafe
9. EOT and bike access lobby
10. Residents library/lounge
11. Mail room
12. Leasing office
13. Staff areas
14. Bike storage including bike share
15. Bike workshop
16. Residential storage
17. Pet spa
18. EOT
19. Communal laundry



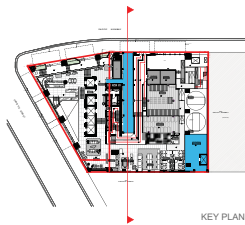
INDICATIVE VIEWS



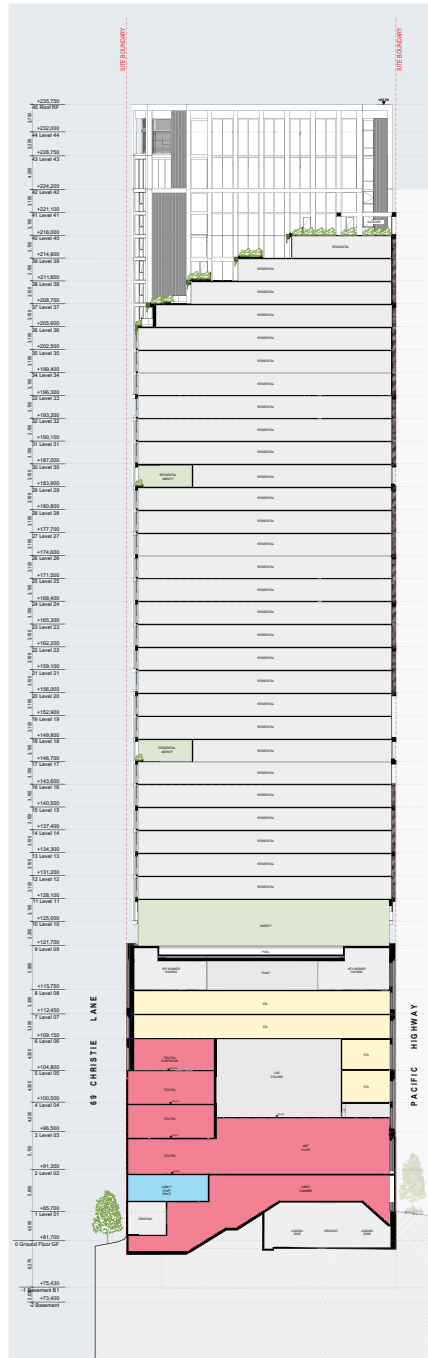
INDICATIVE VIEWS



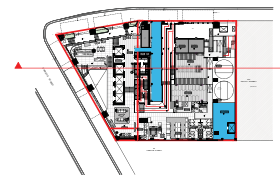
PROPOSED SECTIONS



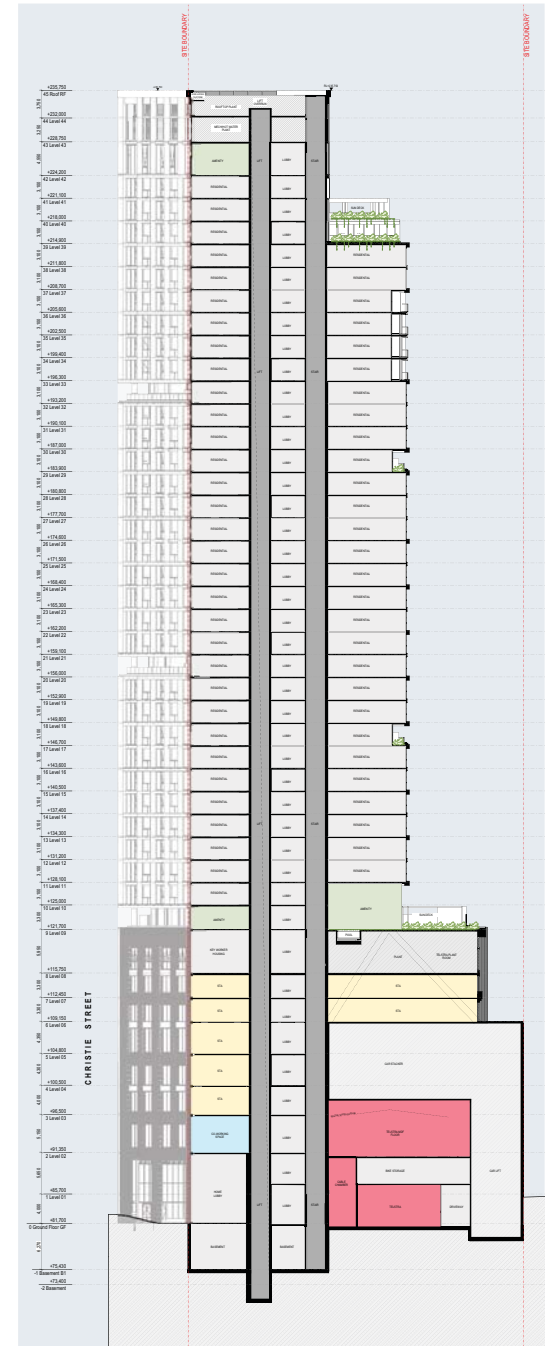
KEY PLAN



CLIENT HOME



KEY PLAN



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5

BUILT FORM JUSTIFICATION

OVERSHADOWING STUDIES

BUILT FORM JUSTIFICATION

The following is a study on overshadowing impacts of the indicative design against the SLCN 2036 envelope. All existing residential areas are boxed in magenta. The proposed design's overshadowing impacts are noted below:

Newlands Park impact:

The proposed design does not overshadow Newlands Park, a public park. The critical time is between 10:00 - 10:15am and has been further analysed in detail in Section 3: Urban Design Response of the report.

Surrounding residential area impact:

Given the envelope of the indicative design, overshadowing impacts are less than an hour and a half on existing residential areas.

Residential area impact - Lithgow Street Residences:

Further analysis of the proposed scheme's overshadowing overall impact on Lithgow Street residences show that residences are impacted between 11am - 1:00pm. However, each unit will be impacted for less than two hours. Overshadowing impact from the proposed scheme is less than SLCN 2036 envelope.



9am

10am

11am

- PROPOSED SHADOW
- SLCN 2036 PLAN SCHEME SHADOW
- EXISTING RESIDENTIAL AREAS
- SLCN 2036 SCHEME - MIXED -USE

**OVERSHADOWING STUDIES
BUILT FORM JUSTIFICATION**



12pm



1pm



2pm



3pm

OVERSHADOWING STUDIES

BUILT FORM JUSTIFICATION

The following is a study on overshadowing impacts of the indicative design against the SLCN 2036 envelope. All existing residential areas are boxed in magenta. The proposed design's overshadowing impacts are noted below:

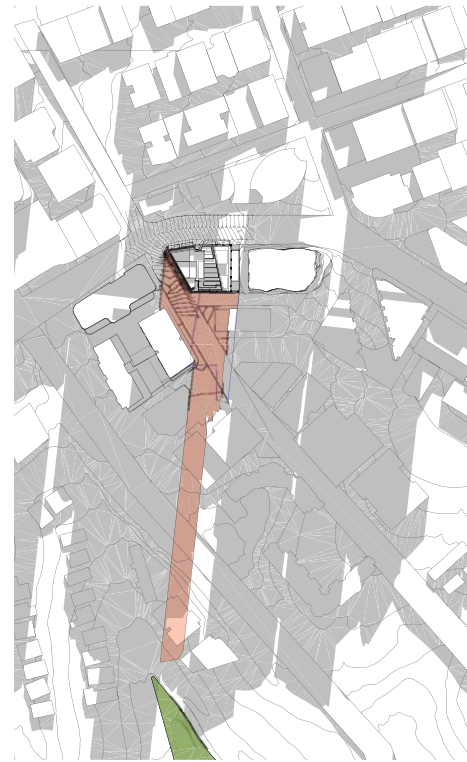
Newlands Park impact:

The proposed design does not overshadow Newlands Park. The adjoining diagrams show in detail the impact to Newlands Park in 15min increments between 10:00am - 11:00am.

Analysis show that the critical time where there is possible impact on Newlands Park is between 10:00 - 10:15am. Further 5mins overshadowing analysis has been provided, please also refer to Section 3: Urban Design Response of the report.



10:00am



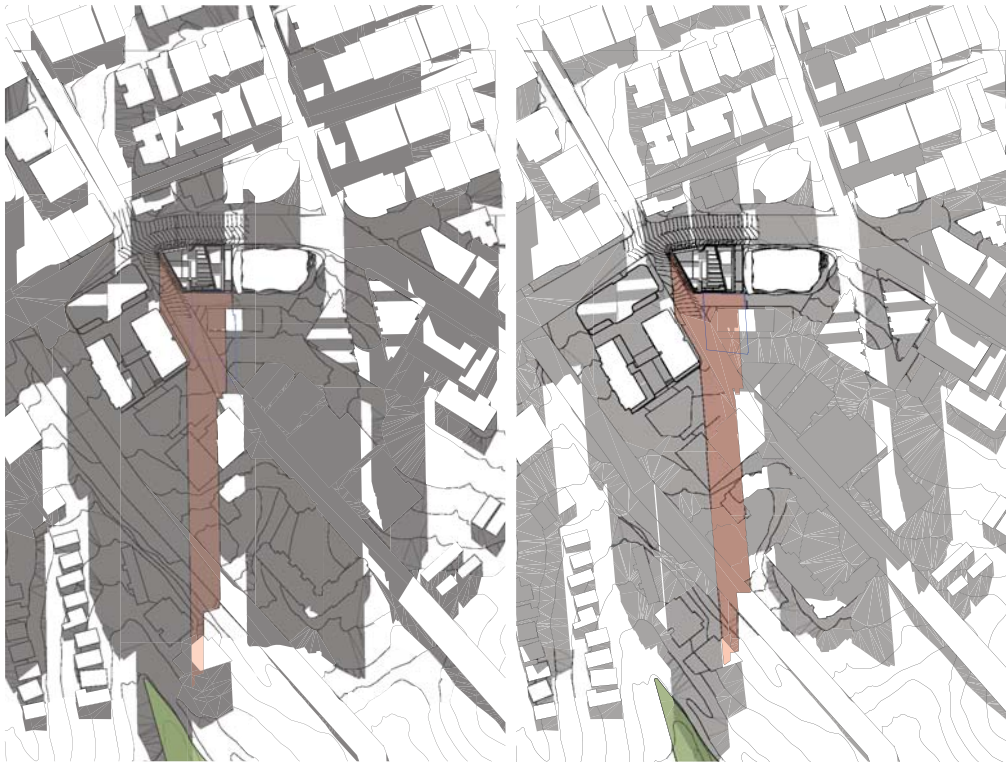
10:15am



10:30am



**OVERSHADOWING STUDIES
BUILT FORM JUSTIFICATION**



10:45am

11:00am

OVERSHADOWING STUDIES BUILT FORM JUSTIFICATION

NEWLANDS PARK - CRITICAL TIME ANALYSIS

Overshadowing analysis shows that June 21 at 10:05am is the critical solar plane that will overshadow Newlands Park.

Diagrams below depict overshadowing analysis at 5mins intervals of the current envelope with no additional shadows casted on Newlands Park.

There is no new overshadowing to Newlands Park, with any shadows being created by the already established JQZ development.



June 21st - 10:05am



June 21st - 10:10am



June 21st - 10:15am

5.2

BUILT FORM JUSTIFICATION -
SCHEME COMPARISONS

BUILT FORM JUSTIFICATION CONTROL SCHEMES

LEP Scheme:

Zoning: E2 Commercial Centre

Proposed use: Commercial tower

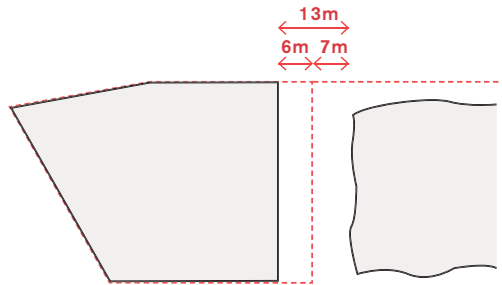
FSR: 17.1:1

Storeys: 18 storeys

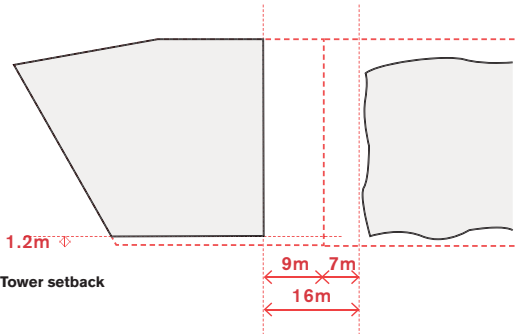
Podium storeys: 6 storeys

Height: 72m

Setbacks: Podium: 0m due to Telstra constraints
Podium: 6m setback on eastern boundary from 4th storey and up
Tower: 24m setback to eastern boundary
Tower: 1.2m setback to southern boundary



Podium setback - 4 storeys and up



Tower setback



BUILT FORM JUSTIFICATION CONTROL SCHEMES

SLCN 2036 Scheme:

Zoning: MU1 Mixed use

Proposed use: Commercial tower

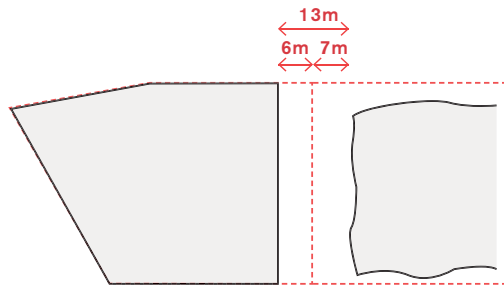
FSR: 14:1

Storeys: 35 storeys + Plant

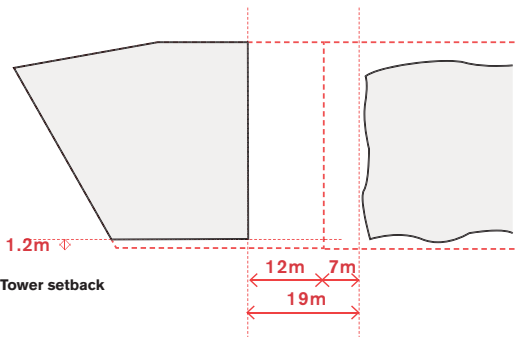
Podium storeys: 6 storeys

Height: 154.15m

Setbacks: Podium: 0m due to Telstra constraints
 Podium: 6m setback on eastern boundary from 4th storey and up
 Tower: Average 22m setback to eastern boundary
 Tower: 1.2m setback to southern boundary



Podium setback - 4 storeys and up



Tower setback



BUILT FORM JUSTIFICATION PROPOSED SCHEME

Proposed Scheme:

Zoning: B4 Mixed use

Proposed use: Mixed use BTR tower

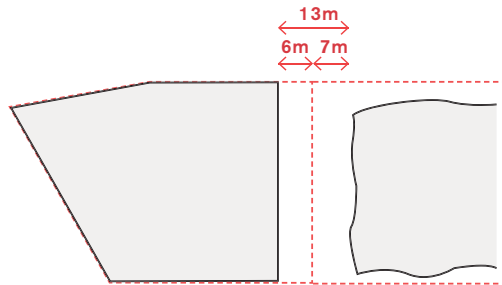
FSR: 16.78 :1

Storeys: 42 storeys + Plant

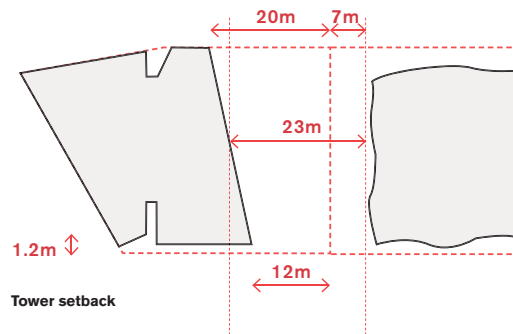
Podium storeys: 8 storeys

Height: 154.15m

Setbacks: Podium: 0m due to Telstra constraints
Podium: 6m setback on eastern boundary from 4th storey and up
Tower: Average 23m setback to eastern boundary
Tower: 1.2m setback to southern boundary

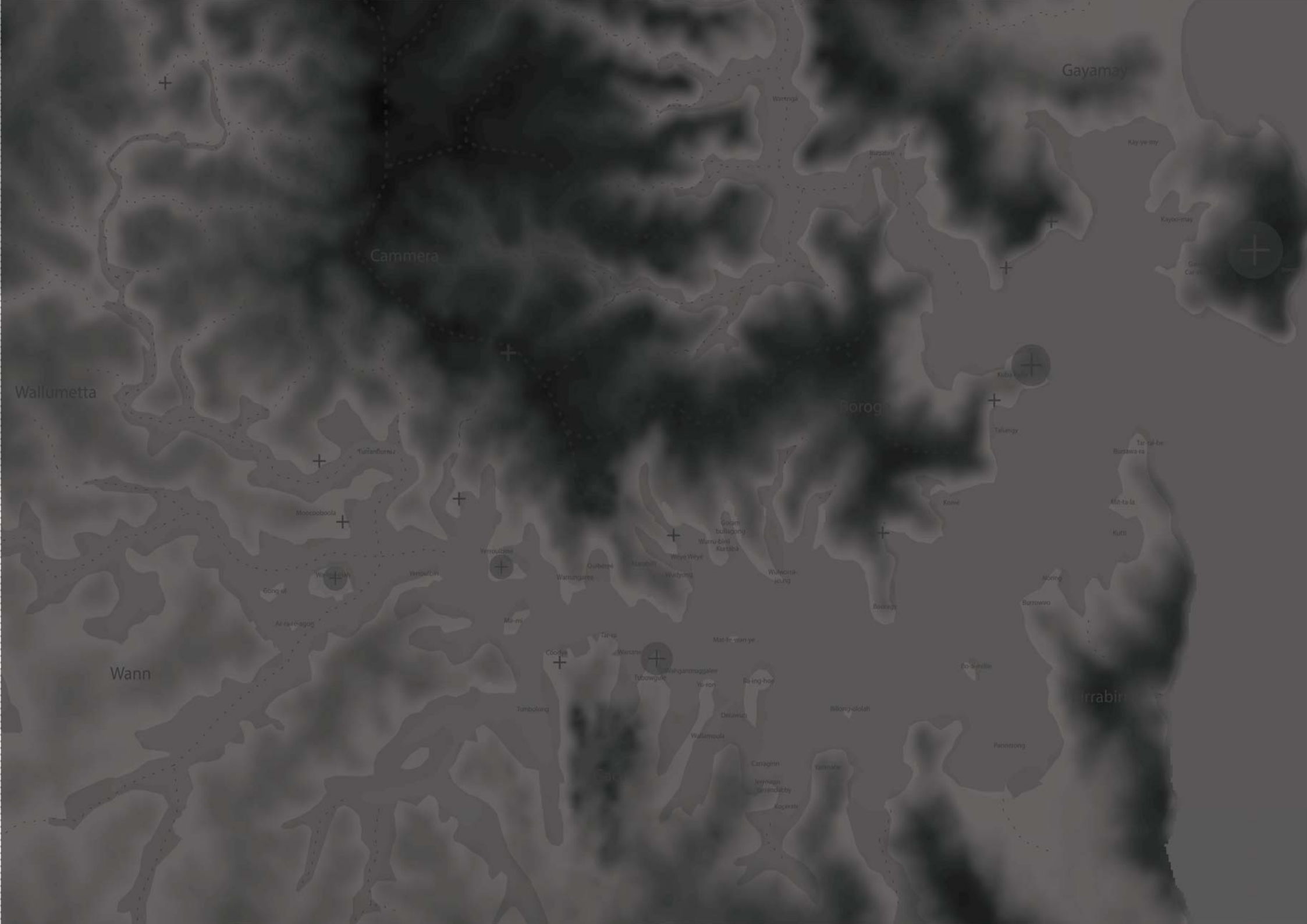


Podium setback - 4 storeys and up



Tower setback





Gayamay

Cammera

Wallumetta

Borog

Wann

Irrabin



Gong al

TuTanBuma

Mobeaboola

Ai rai rai gog

Yeroulin

Yeroulin

Waturupare

Tai ra

Warane

Tabowude

Tumboling

Sid O

Quibese

Kurabon

Weyo Weyo

Wadyong

Golan

Wang bing

Katiba

Wuhora

uchung

Borog

Kome

Moring

Butrowo

Ta-ra-ho

Burawara

Mit-ta-la

Kuto

To-Swella

Pannong

Bilang-jolati

Garama

Carragin

Irraman

Arandaby

Rogerali

Worngi

Buzabon

Kayey-my

Kayey-my

Gama

Carabon

Ta-ra-ho

Burawara

Mit-ta-la

Kuto

To-Swella

Pannong

Bilang-jolati

Garama

Carragin

Irraman

Arandaby

Rogerali

Worngi

Buzabon

Kayey-my

Kayey-my

Gama

Carabon