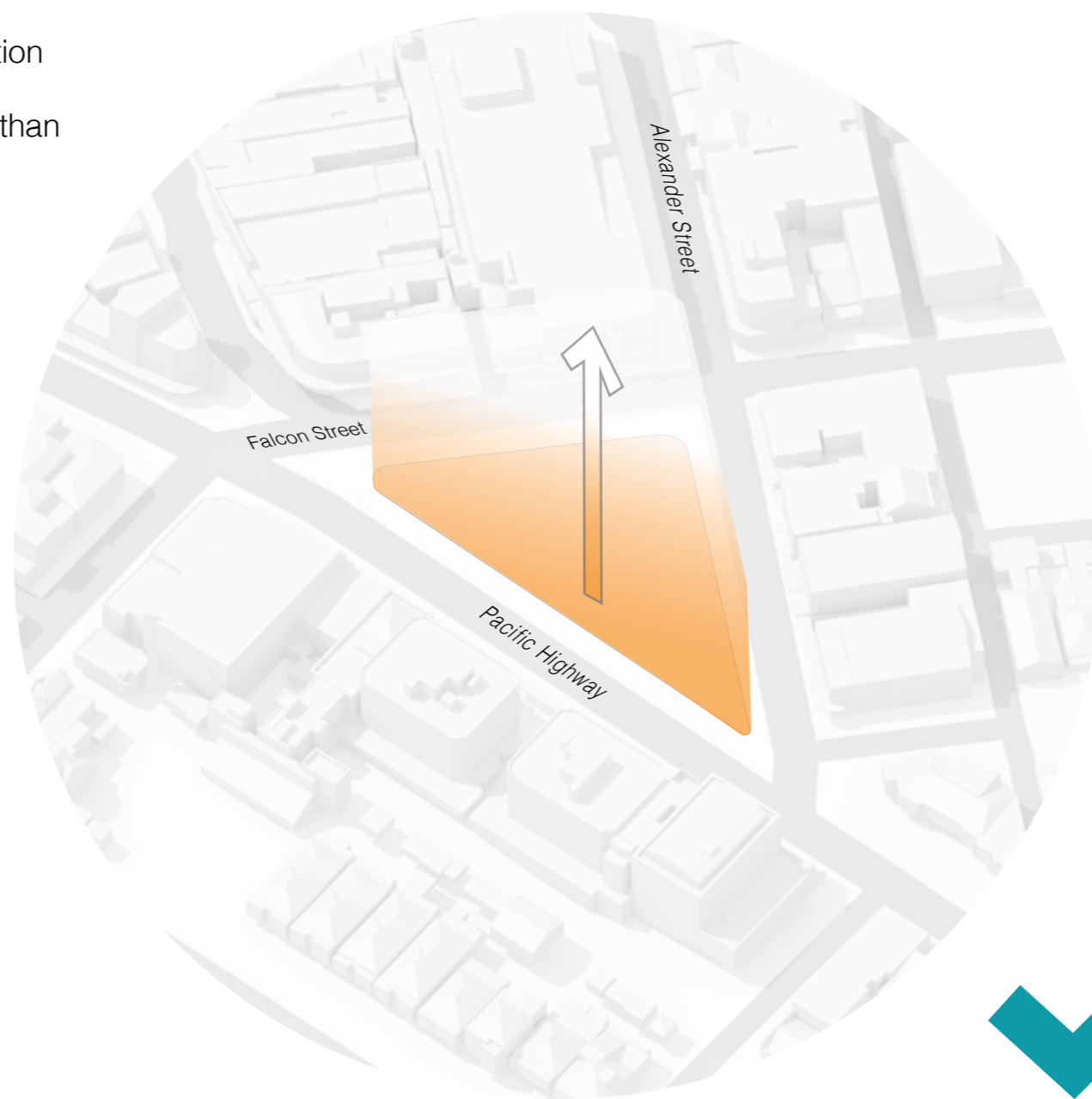


08 Design Proposal

The Base: Ground Plane and Podium

The ground plane and podium are conceived as an extension of the Crows Nest Village atmosphere.

This podium strategy offers vibrant street level activation and contribution to the public domain. As such, the proposal has been driven from the ground-up rather than top-down.



Design Proposal: Urban Design Ground Plane

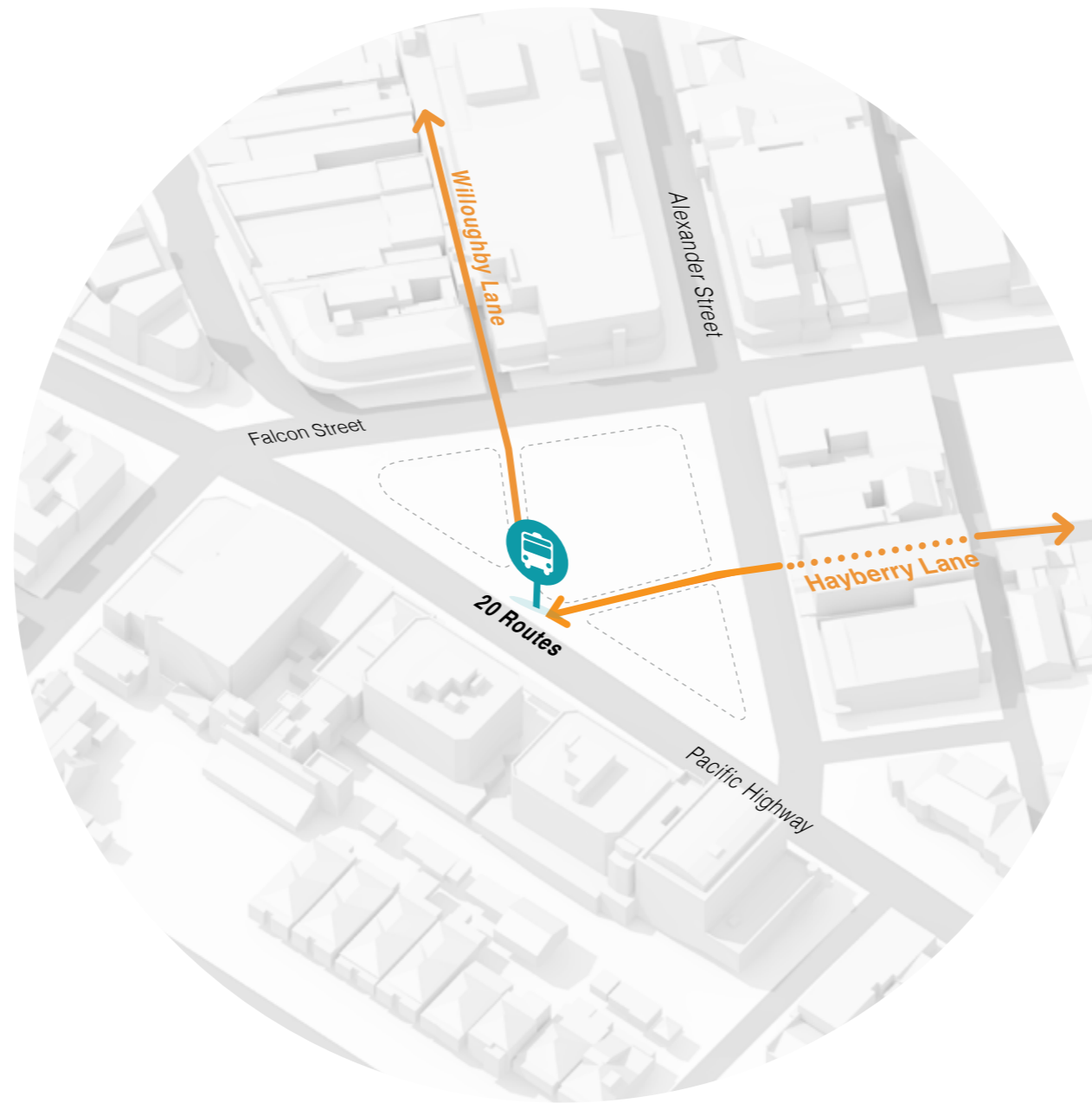
Ground-Up Design Approach

The Ground Plane: 1 Connections

The built form is responsive to the existing connections and networks across the site.

This includes the existing bus stop which provides access to over 20 routes to areas including the CBD, Inner West, North Shore, Northern Beaches, and Eastern Suburbs.

The division of the ground plane includes pedestrian pathways connecting the bus stop with desire-lines from the existing urban street-grid.



Design Proposal: Urban Design Ground Plane

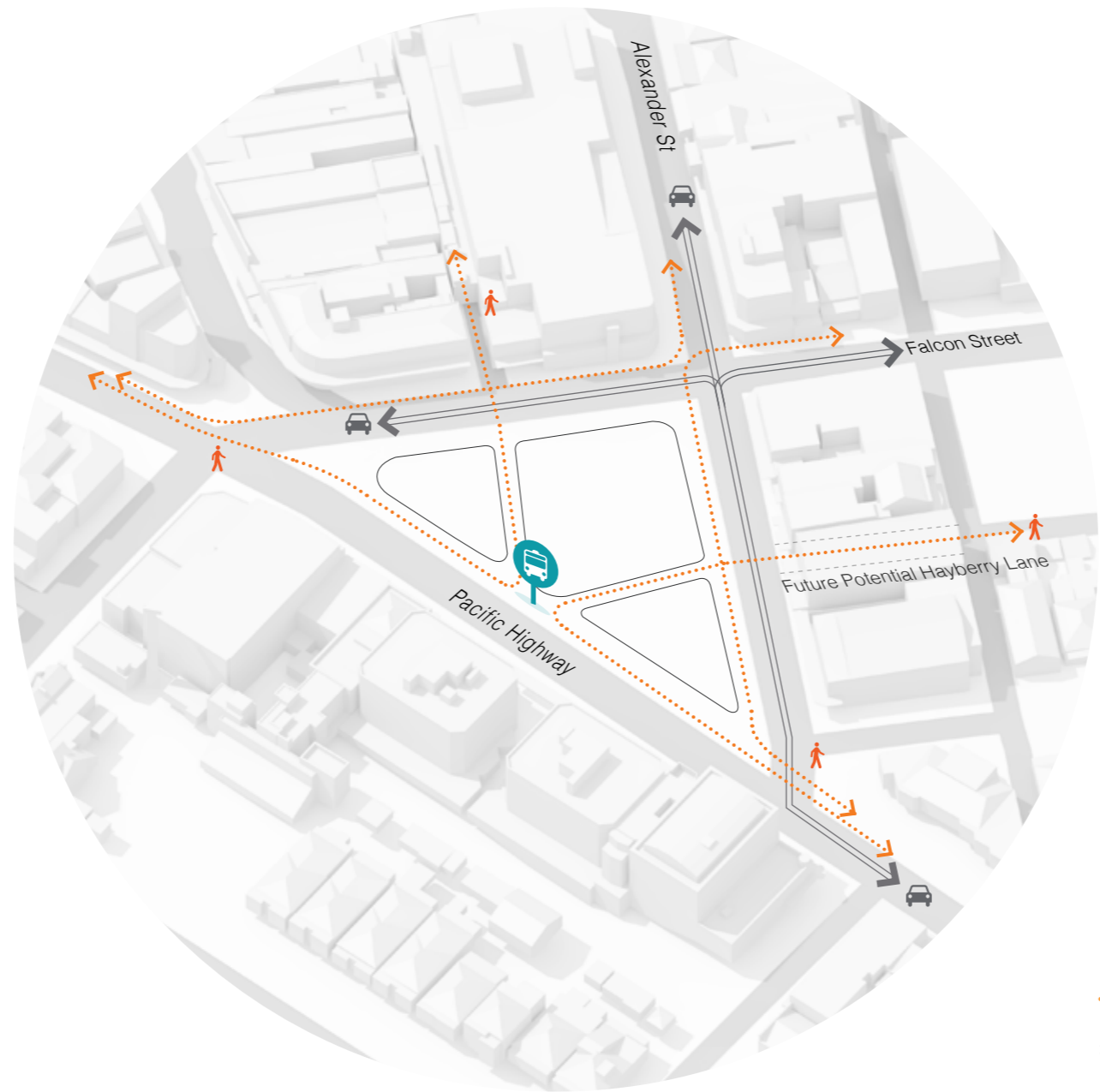
Connection to Existing Nodes & Networks

The Ground Plane 2

Sustainable, Walkable, and Liveable

Sustainable, walkable and liveable cities are important aspects of the significant site design criteria.

The division of the podium including the permeability of the two new public walks result in a fine grain podium form which connects into the existing pedestrian, vehicular and transport nodes of the site.



- Pedestrian Pathways
- ===== Vehicular Access



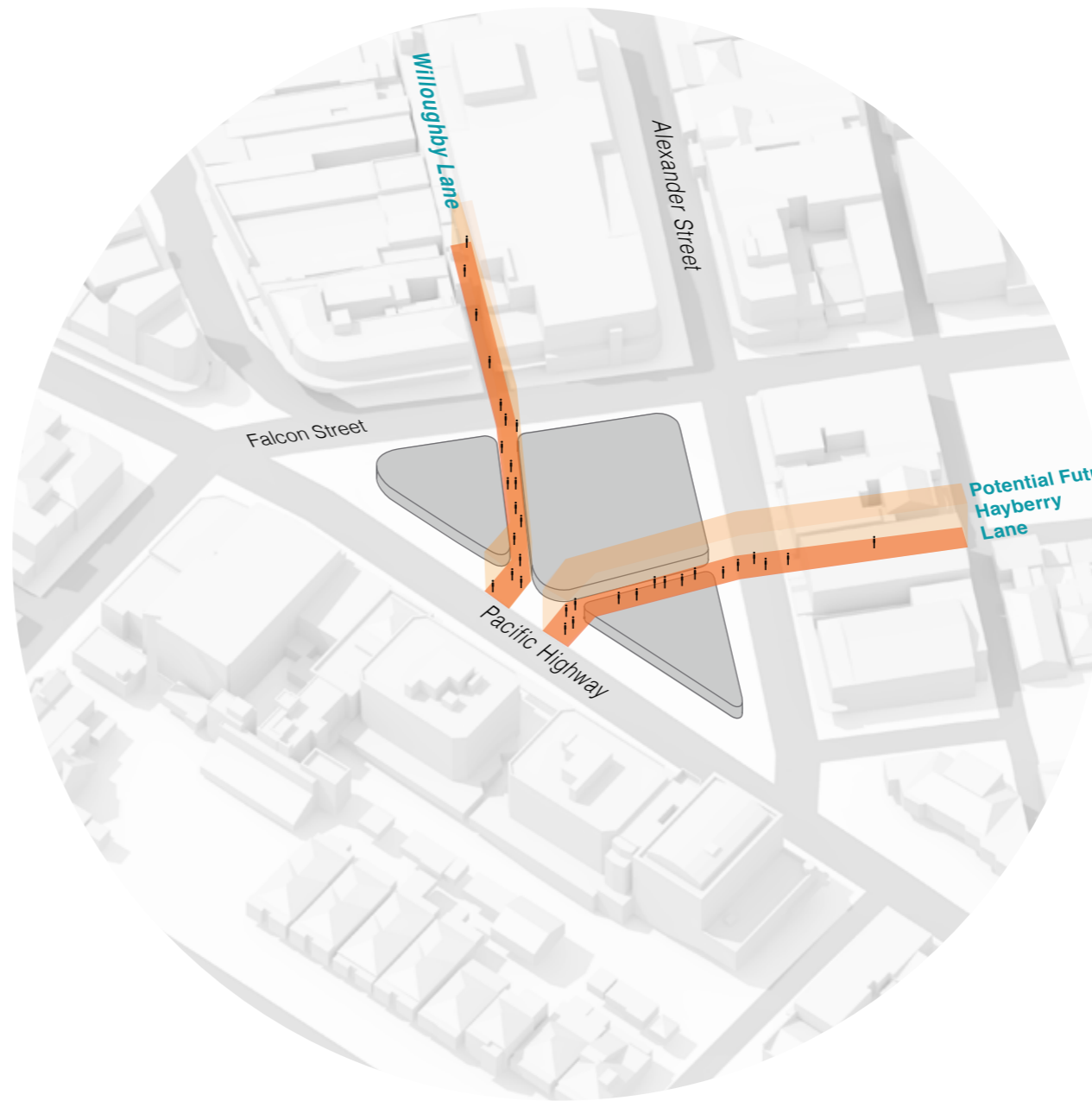
Design Proposal: Urban Design Ground Plane

Pedestrian, Vehicular & Servicing Principles

The Ground Plane 3: Street Level Activation

Street level activation and contribution to the public domain with ground level setbacks and public walk connections through the site create a sense of 'place'.

The new public walks increase site permeability and create new retail frontages and interesting, active spaces.



Design Proposal: Urban Design Ground Plane

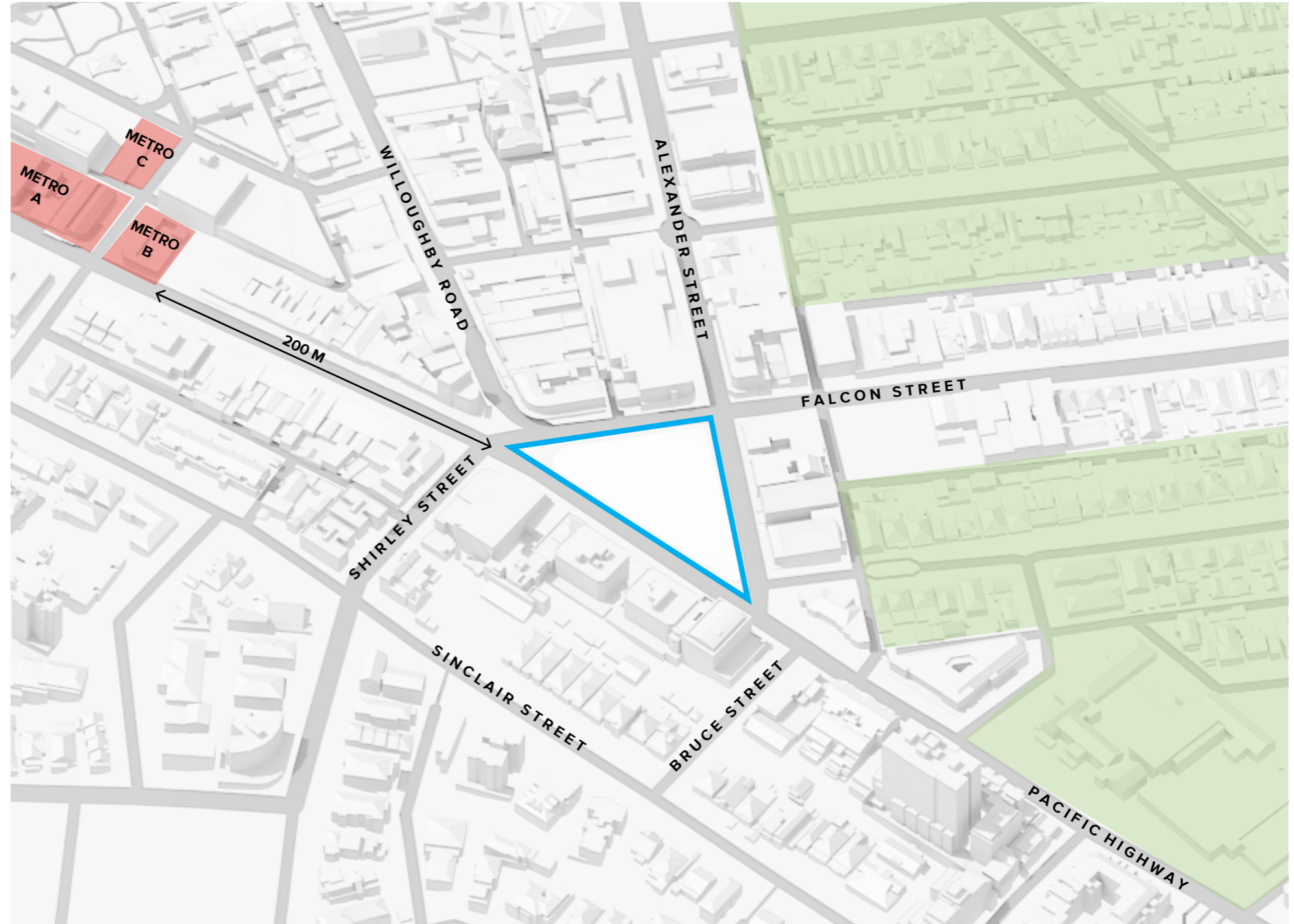
Public Walks

The Podium 1: Location

The site is located at the junction of 5 roads (Pacific Highway, Shirley Street, Willoughby Road and Falcon Street).

The new Crows Nest Metro Station is approximately 200m south of the site.

To the east is the series of Heritage Conservation Areas that make up the Holtermann Estate.



Design Proposal: Urban Design Ground Plane

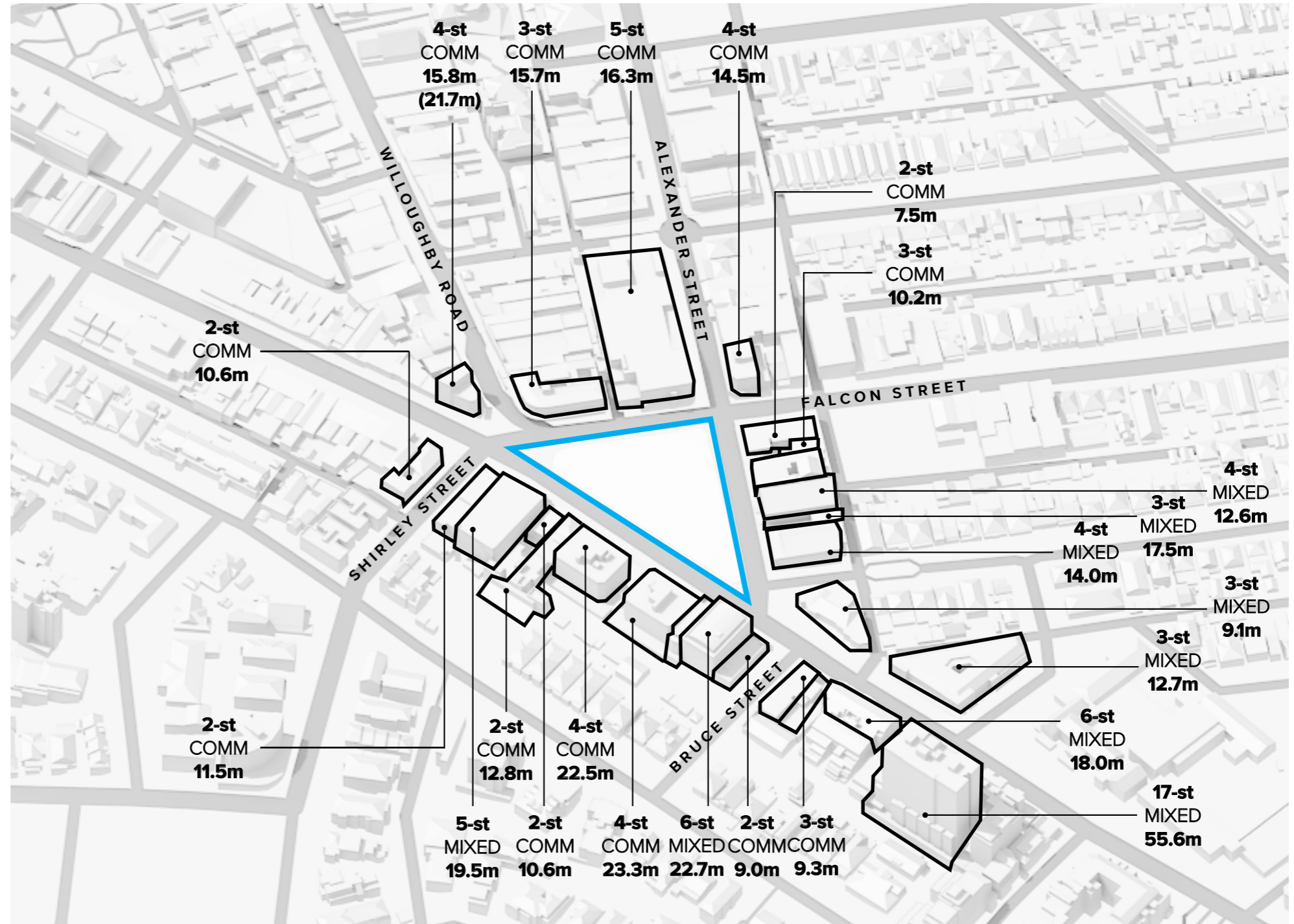
The podium

The Podium 2: Street Wall Context

With the immediate context of the site the character is urban, and the streets are composed of numerous buildings of different heights, street frontages and are from various eras.

From a closer analysis of the context, it is evident that each street contains buildings of various heights.

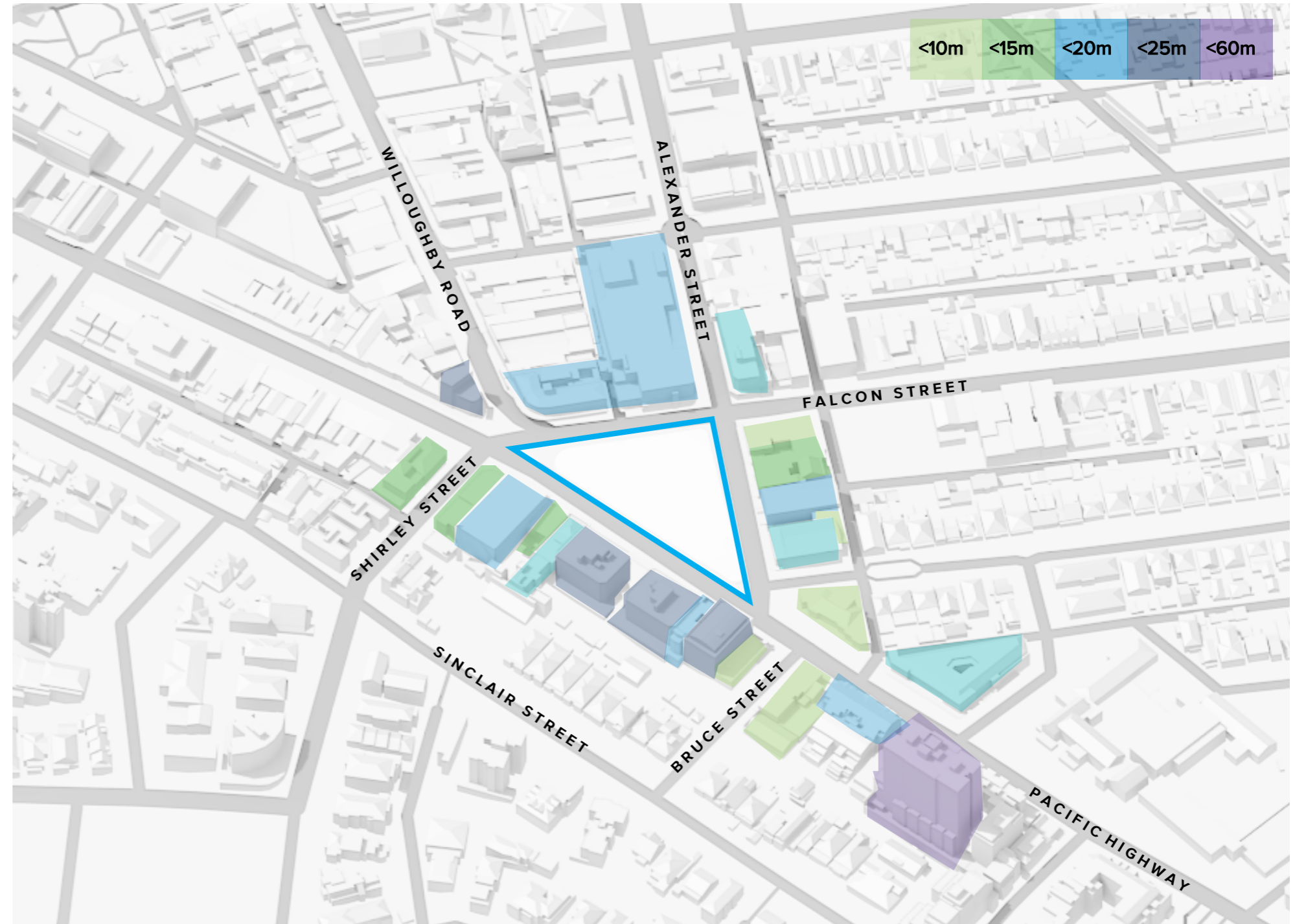
Most buildings have retail tenancies at ground level but there is more variety in the upper levels including commercial tenancies and residential apartments.



The Podium 3: Street Wall Heights

To simplify the analysis and to prepare a design response, a colour code was applied to group the buildings within ranges of heights.

Each corner of the site has both taller and lower buildings which is demonstrative of the land ownership pattern and different eras of piecemeal redevelopment.



Design Proposal: Urban Design Ground Plane

The Podium

The Podium 4: Heritage

Heritage buildings were also designated.

From the image it is clear that existing heritage buildings are already embedded in a highly varying context.

Heritage buildings are also of varying heights.



Design Proposal: Urban Design Ground Plane

The Podium

The Podium 5: Proposed Heights

The proposed podium heights are derived from a consideration of the heights observed in the context.

The proposed heights closely match buildings on the opposite side of the street.

The podium heights consider the topography of the site and the fall observed from the Corner of Pacific Highway and Falcon Street to the southern corner of the site on Alexander Street.

Retail and commercial floor to floor heights, an allowance for structural transfer from the residential tower, and podium soil depths also inform the determination of podium height.



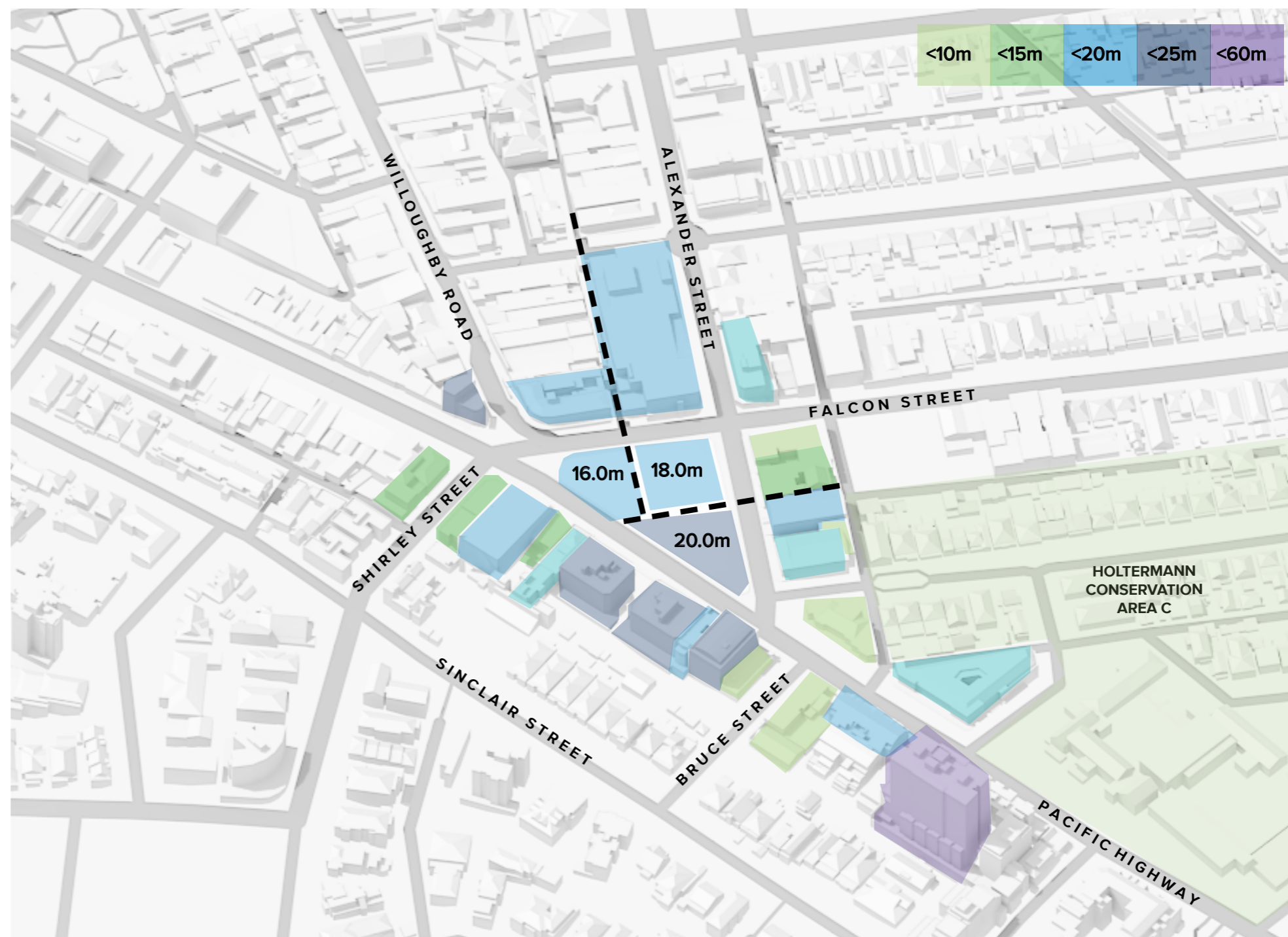
Design Proposal: Urban Design Ground Plane

The Podium

The Podium 6: Pedestrian Permeability

Two new public, pedestrian walks are derived from the surrounding urban grid and suggest the possibility of a future eastern connection.

The links also offer site permeability, tenancy divisions to allow a variety of operators and line of sight to the bus interchange on the Pacific Highway.



Design Proposal: Urban Design Ground Plane

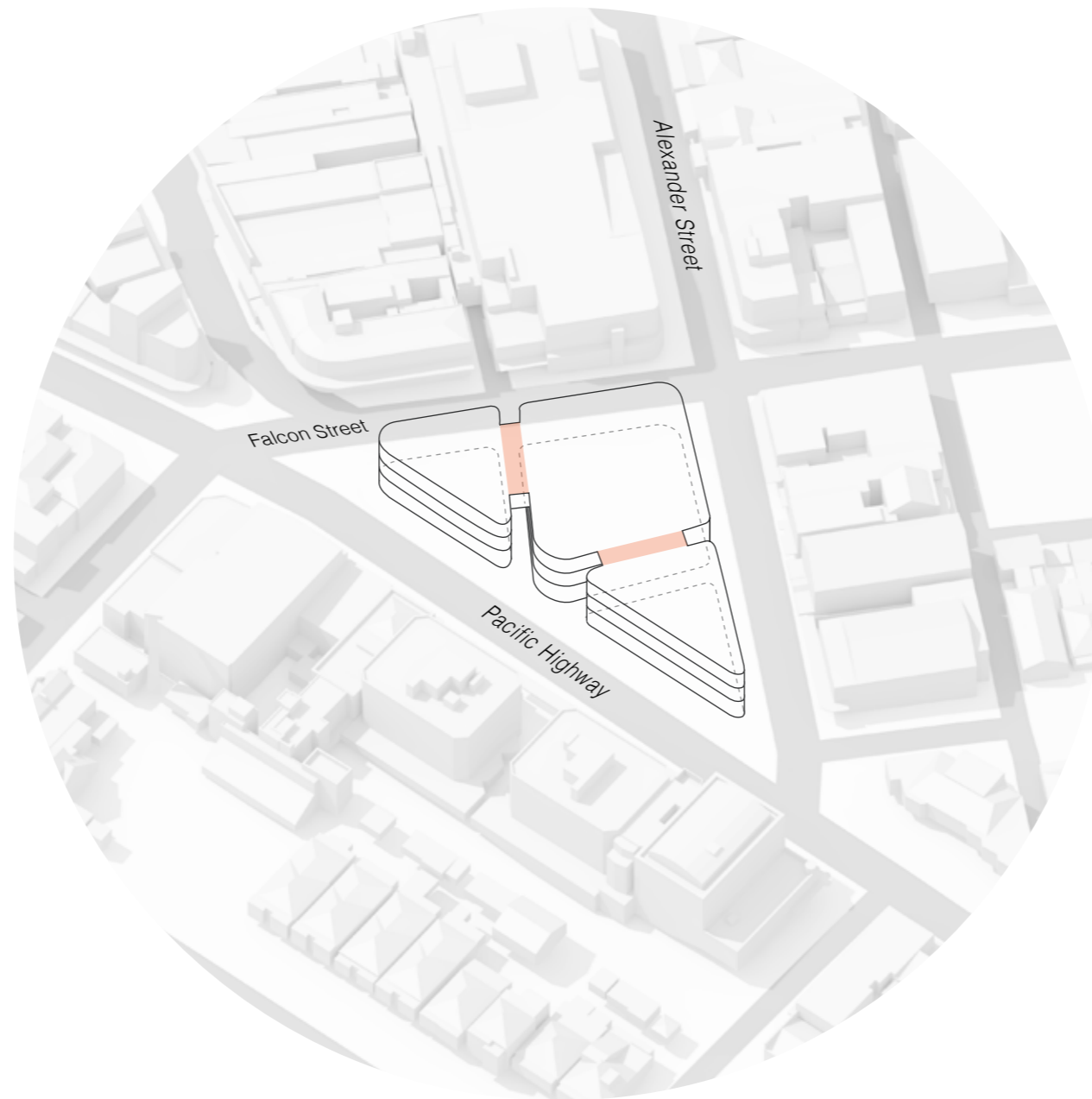
The Podium

The Podium 7: Bridging Floorplates

The podium form connects floorplates on upper levels with areas which bridge over the public walks below.

These bridging floorplates not only promote flexible workplace tenancies but also creates coverage for the activity of the public walks below. The changing scale through the walk from street to street creates a dynamic experience for pedestrians and retail frontages.

The podium includes flexibility for the tenancies to connect vertically and to the ground floor.



Design Proposal: Urban Design Ground Plane

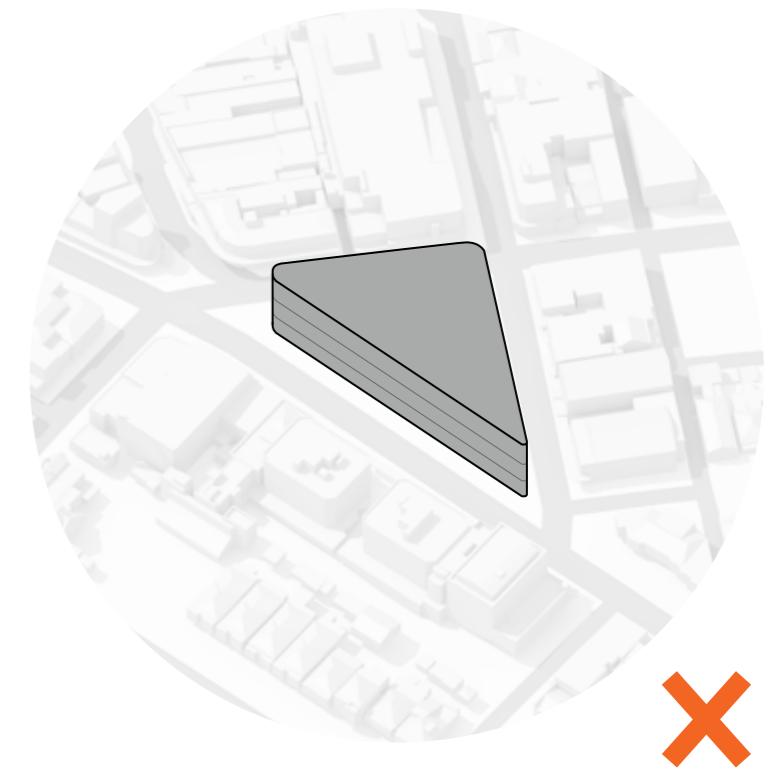
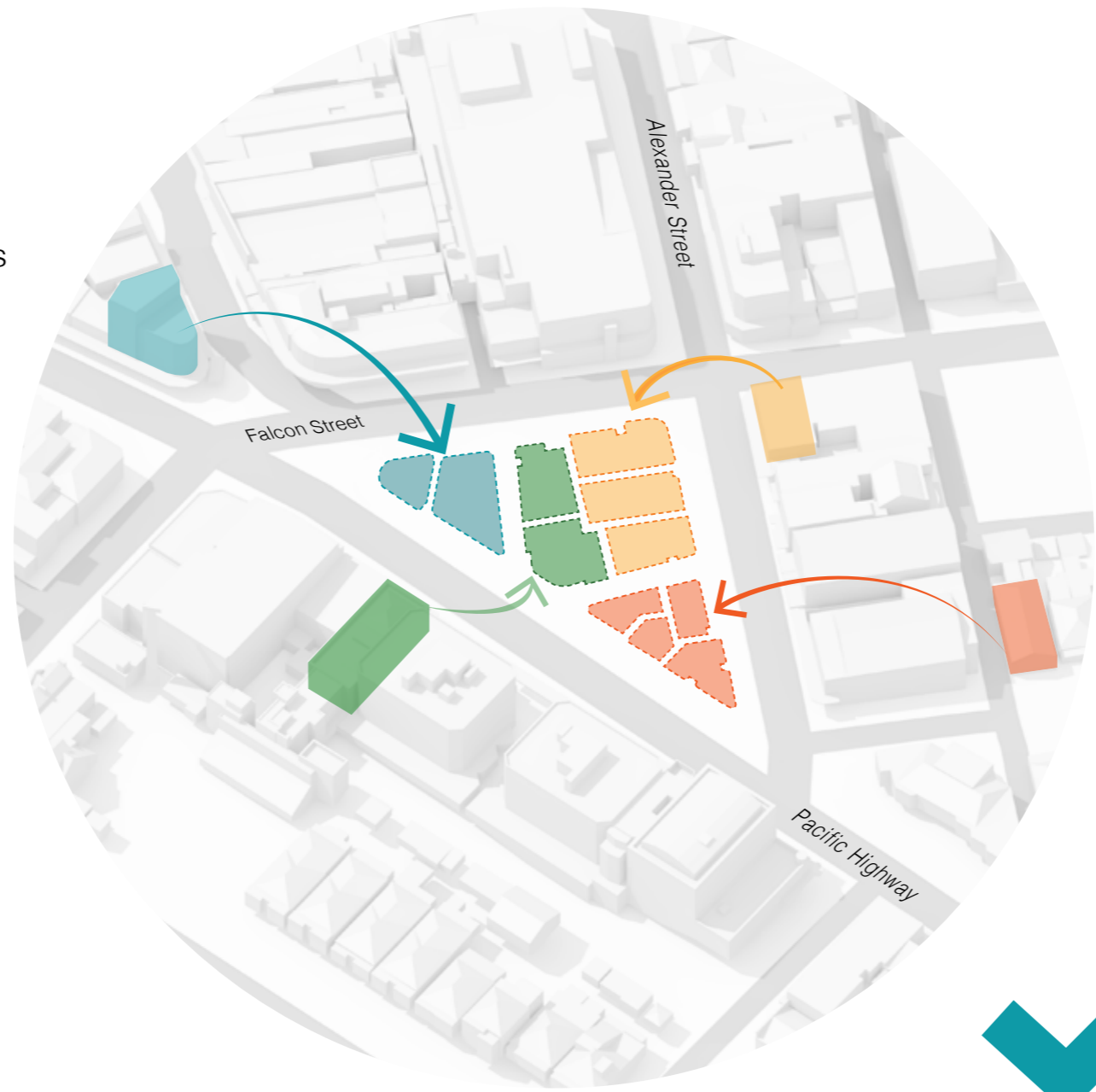
The Podium

The Podium 8: Fine Grain and Scale

The proposal adopts an intentional strategy of fine-grain and human scale in response to the character of Crows Nest Village, the retail High-Streets and the surrounding heritage items.

Indentation and articulation to the podium walls accentuate the individual retail tenancies and create a sense of scale similar to the surrounding buildings and the character of retail High-Streets around Crows Nest.

The materiality and detail of the podium also contributes to the fine-grain approach.



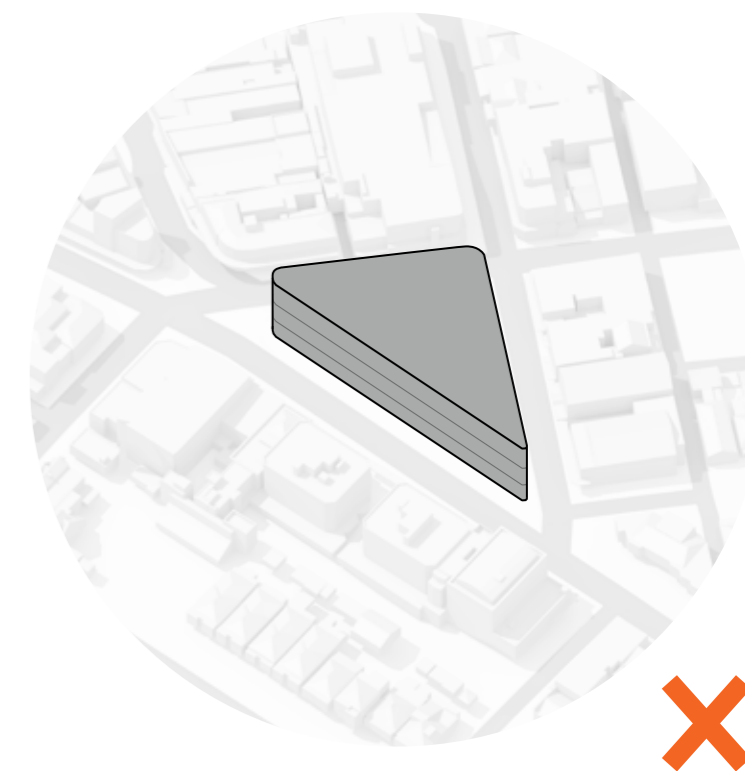
Design Proposal: Urban Design Ground Plane & Podium

Adopted Grain & Scale

The Podium 9: A Collection of Buildings

A collection of smaller buildings is the result, avoiding a singular monolithic form. In turn, this creates gradual transitions, sensitive interfaces and an appropriate response to the scale of the street.

The articulated forms create rhythm to the street wall that responds to the character of the local High-Street retail.



- LR
- NC
- BC
- IR
- AE
- CS
- VH
- DE
- VU

Design Proposal: Urban Design Ground Plane & Podium

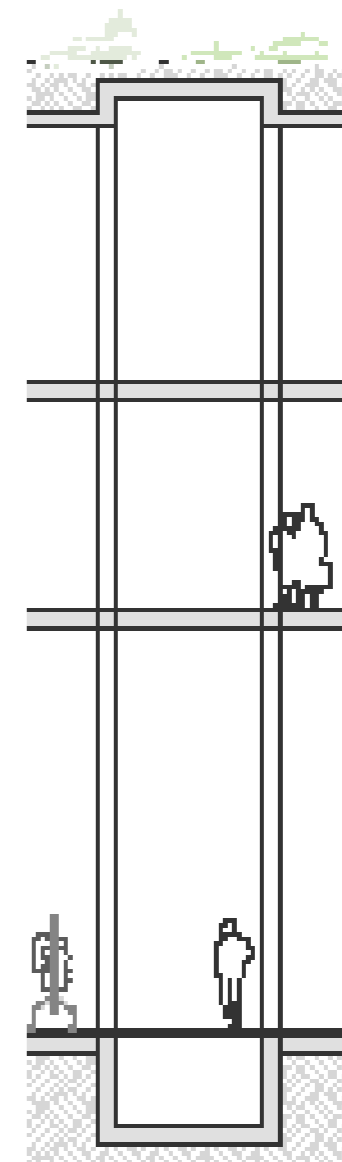
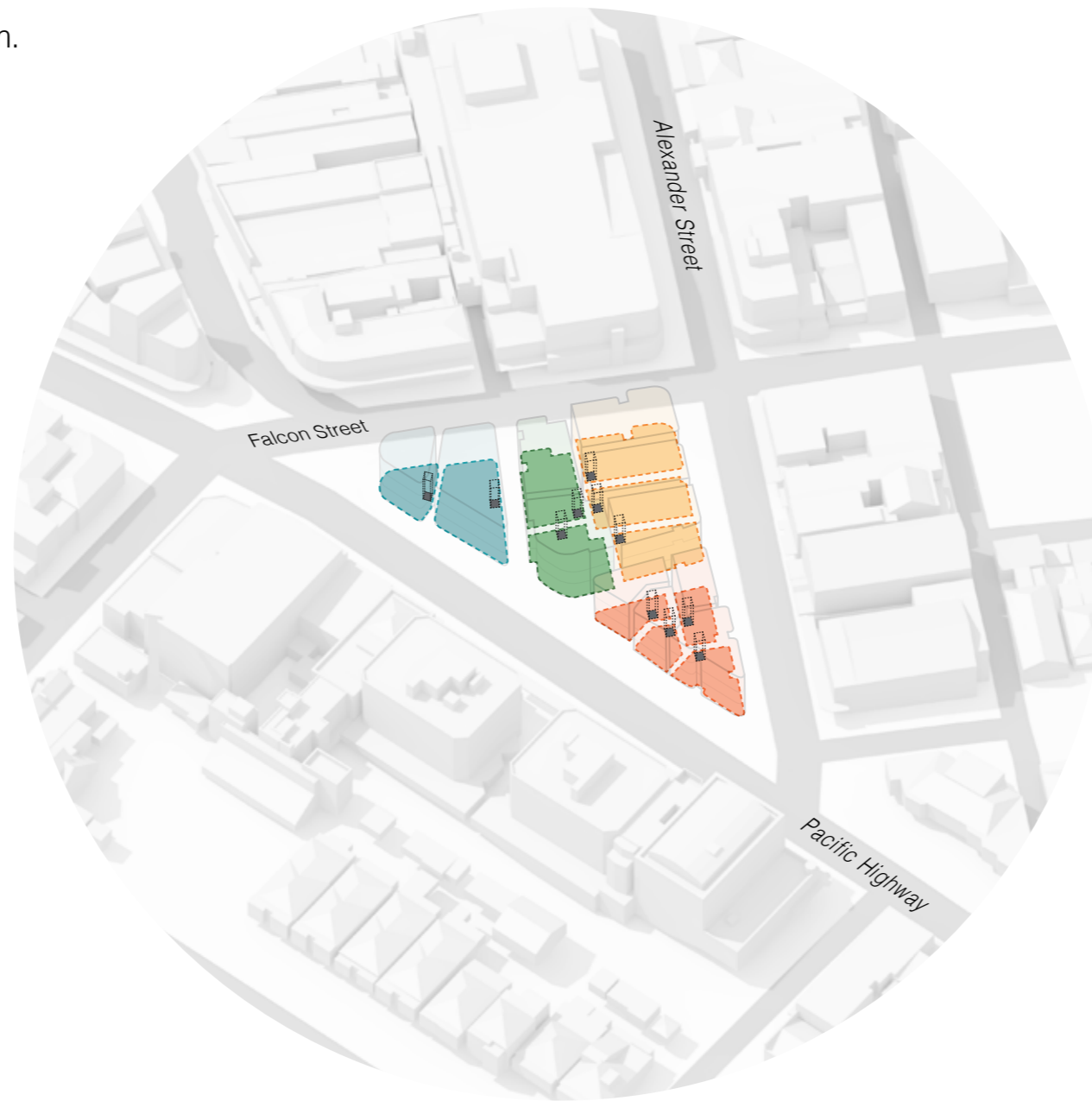
A Collection of Buildings

Podium 10: Adaptable Floor Plates

Commercial floor plates are highly flexible and adaptable. This is achieved through the provision for vertical circulation in floorplate sections of the podium.

The provision and integration of lift pits enables flexibility to unite tenancies across multiple floors.

Commercial tenancy can connect into the ground plane if required.



Lift Pit Indicative Section

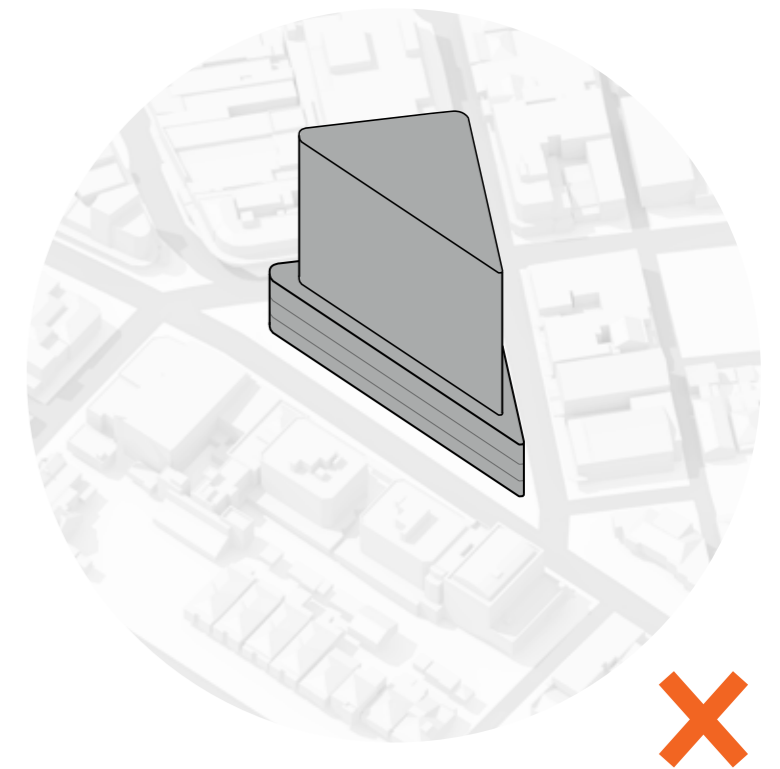
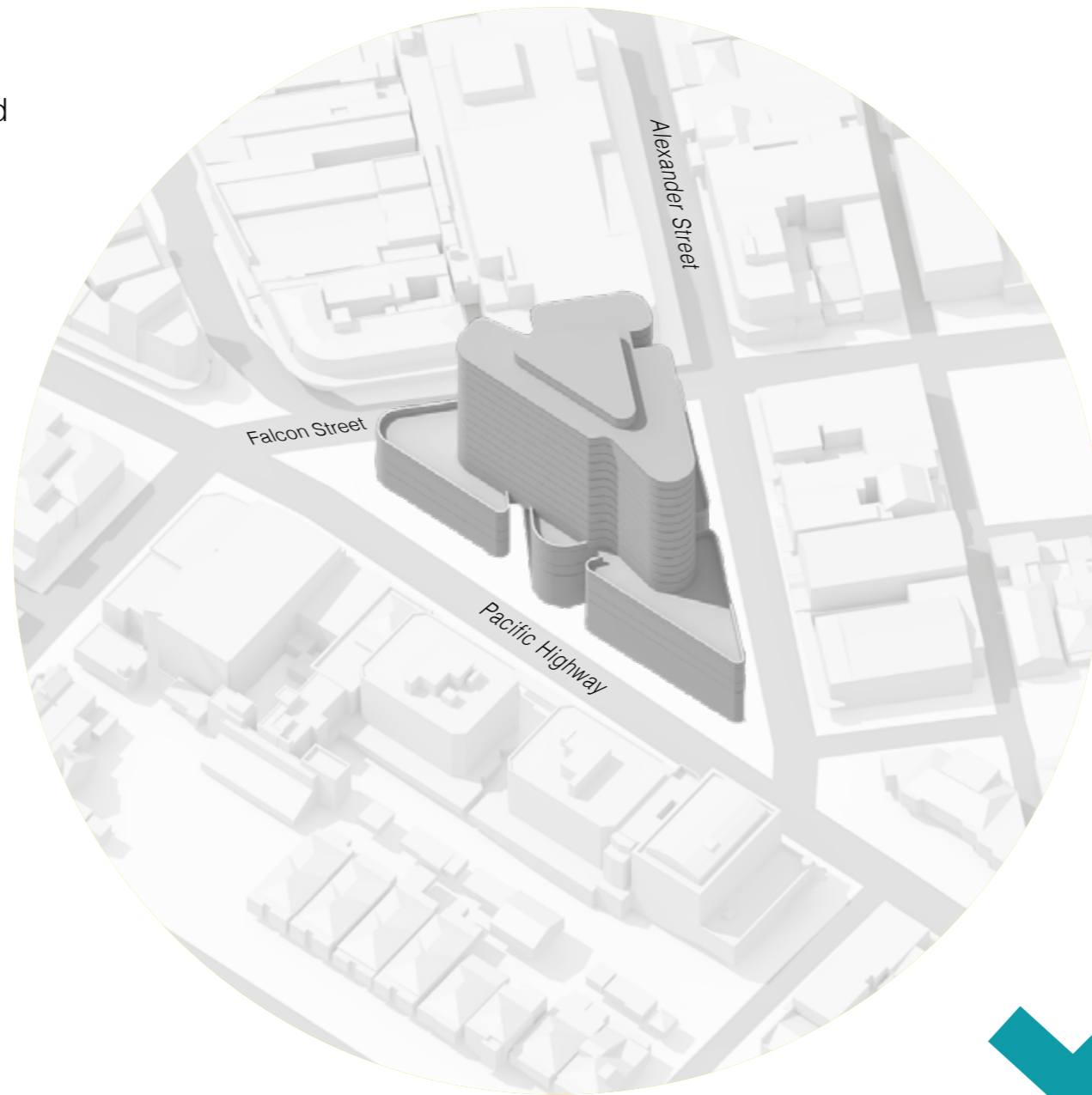


Design Proposal: Urban Design Podium & Tower

Retail Adaptability

The Tower: The Residential Tower

The form generates a positive outcome for view lines and vistas from the public domain. The outcome is consistent with the 2036 Plan sense of a gateway element for the southern end of Willoughby Road and Crows Nest Village.



- LR
- NC
- BC
- IR
- AE
- CS
- VH
- DE
- VU

Design Proposal: Urban Design Podium & Tower

Tower Form

The Proposal

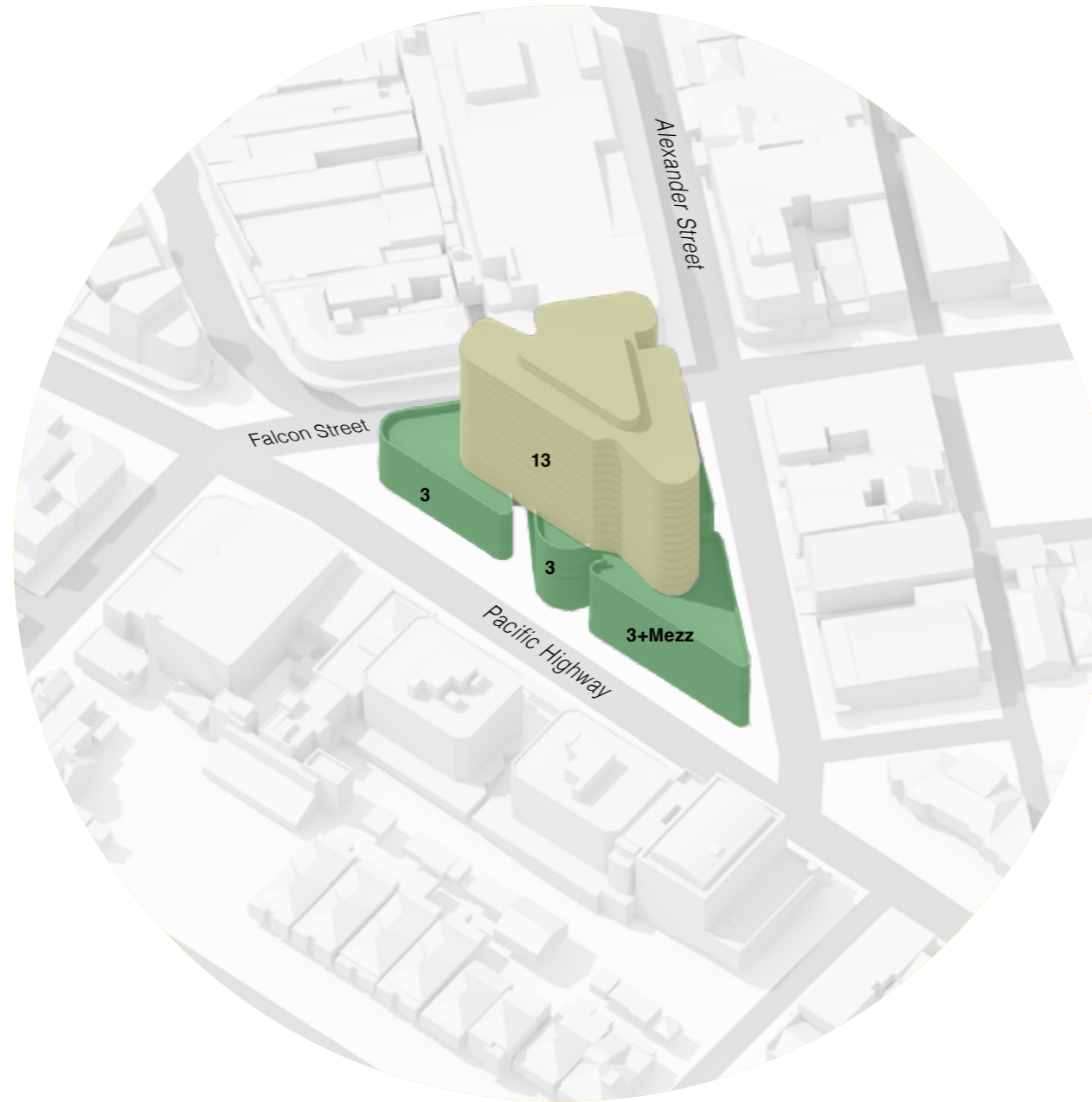
The proposal includes is composed of a 3-storey level podium and 13-storeys of residential apartments.

The height of the proposal is based on the revised planning control of the 2036 Plan and a comparative mixed-use building.

There is a 3-storey high podium, aligning with the 2036 Plan street wall control. The 13-storey residential tower above align with the height expectations for the site.

Within the tower the 8 to 12 apartments are arranged around an atrium, circulation core and communal corridors with access to natural daylight.

The design includes podium & rooftop landscape spaces for the use of residents.



Total Height (Including Podium)

16 Storeys

Podium GFA (3 levels)

8,002m²

Tower GFA (13 levels)

10,564m²

Typical Tower Floorplate GFA

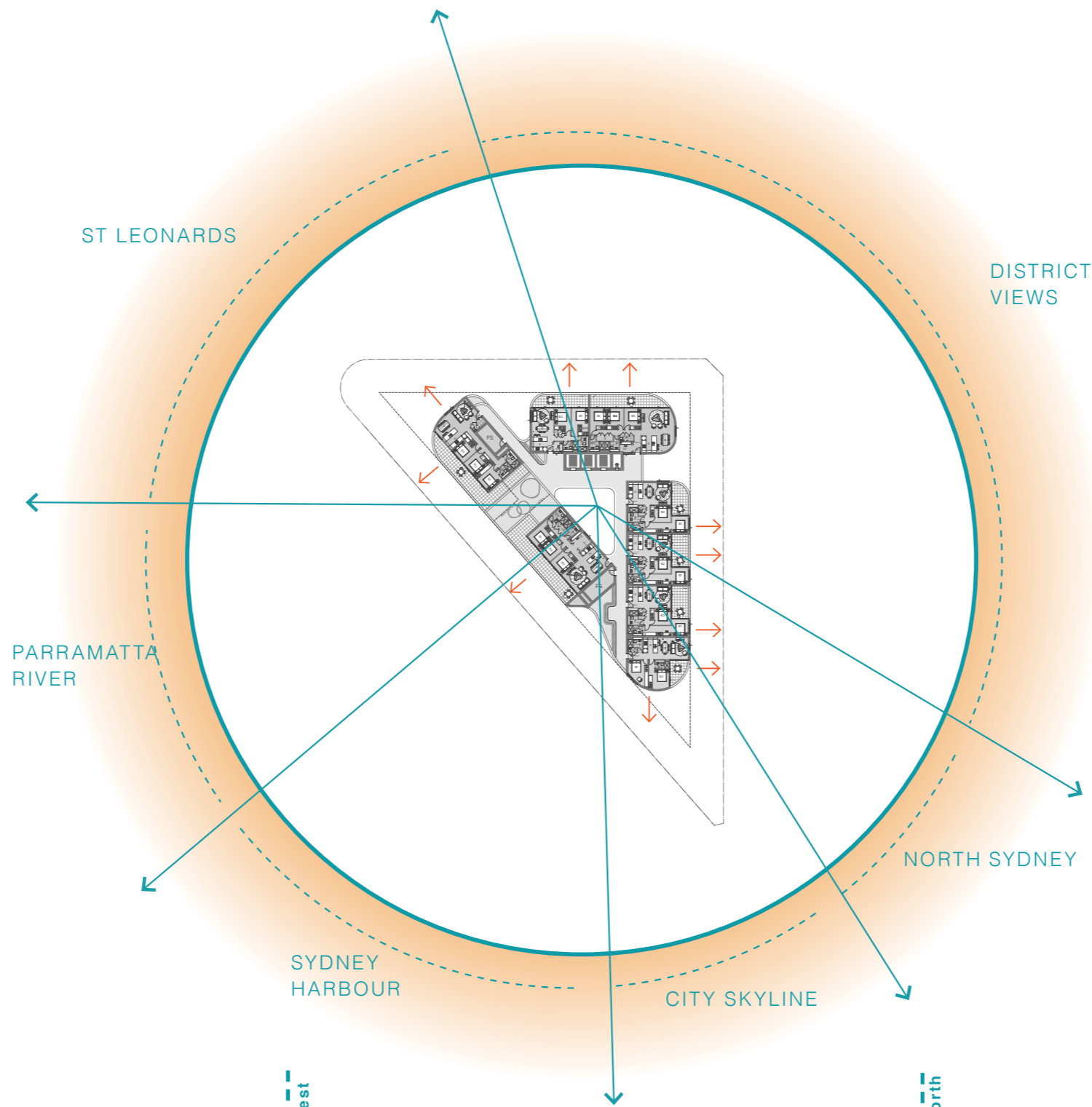
829m²



Design Proposal: Urban Design Podium & Tower

Development Metrics

Apartments are orientated to maximise views to the district, North Sydney, St Leonards, Sydney City CBD and the harbour.



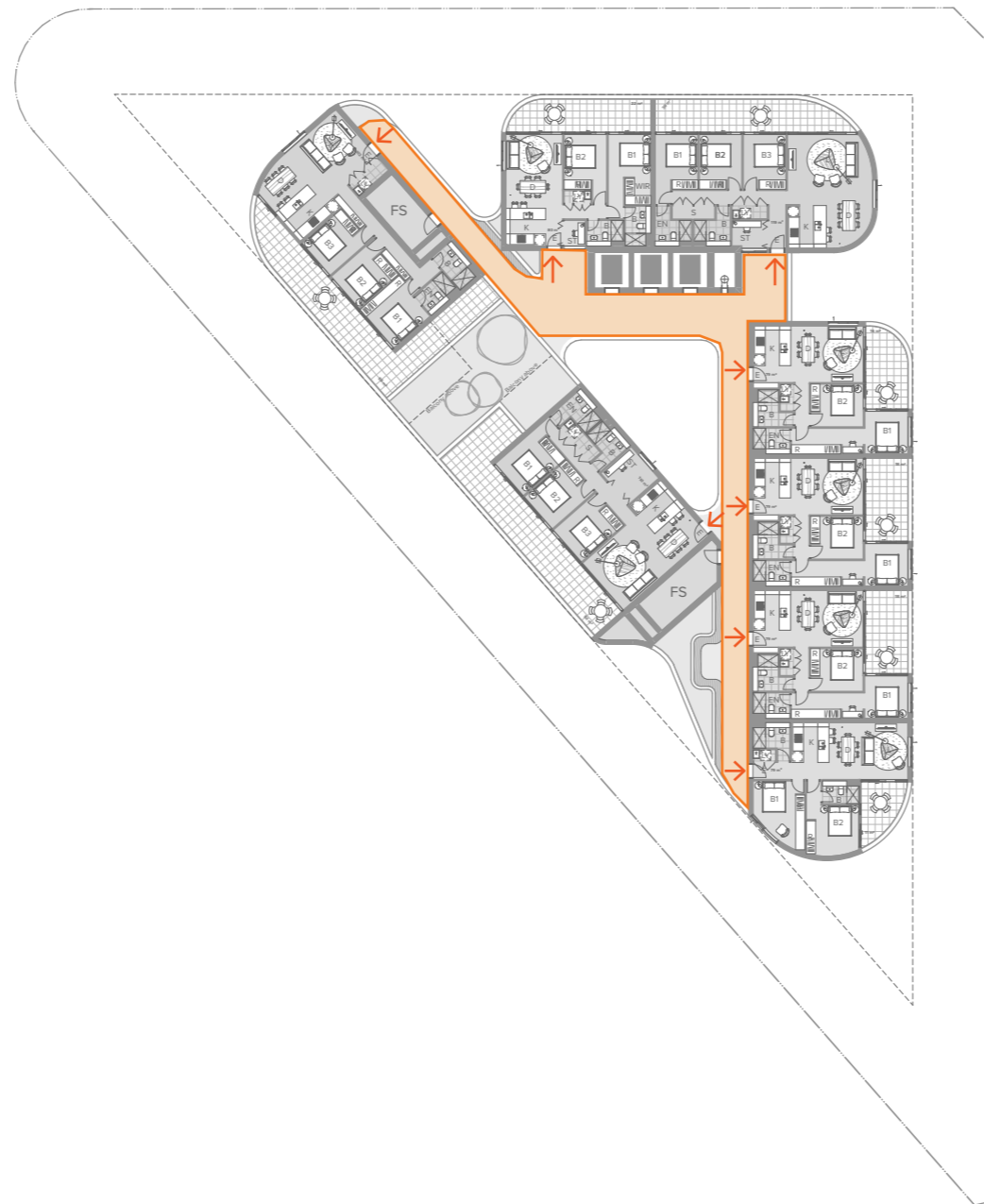
View Panorama - Level 15

Circulation & Core Strategy

Each common corridor has natural ventilation and daylight access through the openings at the end of each corridor. The central atrium adds flow to the natural ventilation and increases amenity. There is a maximum of 12 apartments accessed from the core.

Apartment Design Guide - Common Circulation

Objective 4F-1 - Common circulation spaces achieve good amenity and properly service the number of apartments.



→ Apartment Entries
 Lobby/Corridors

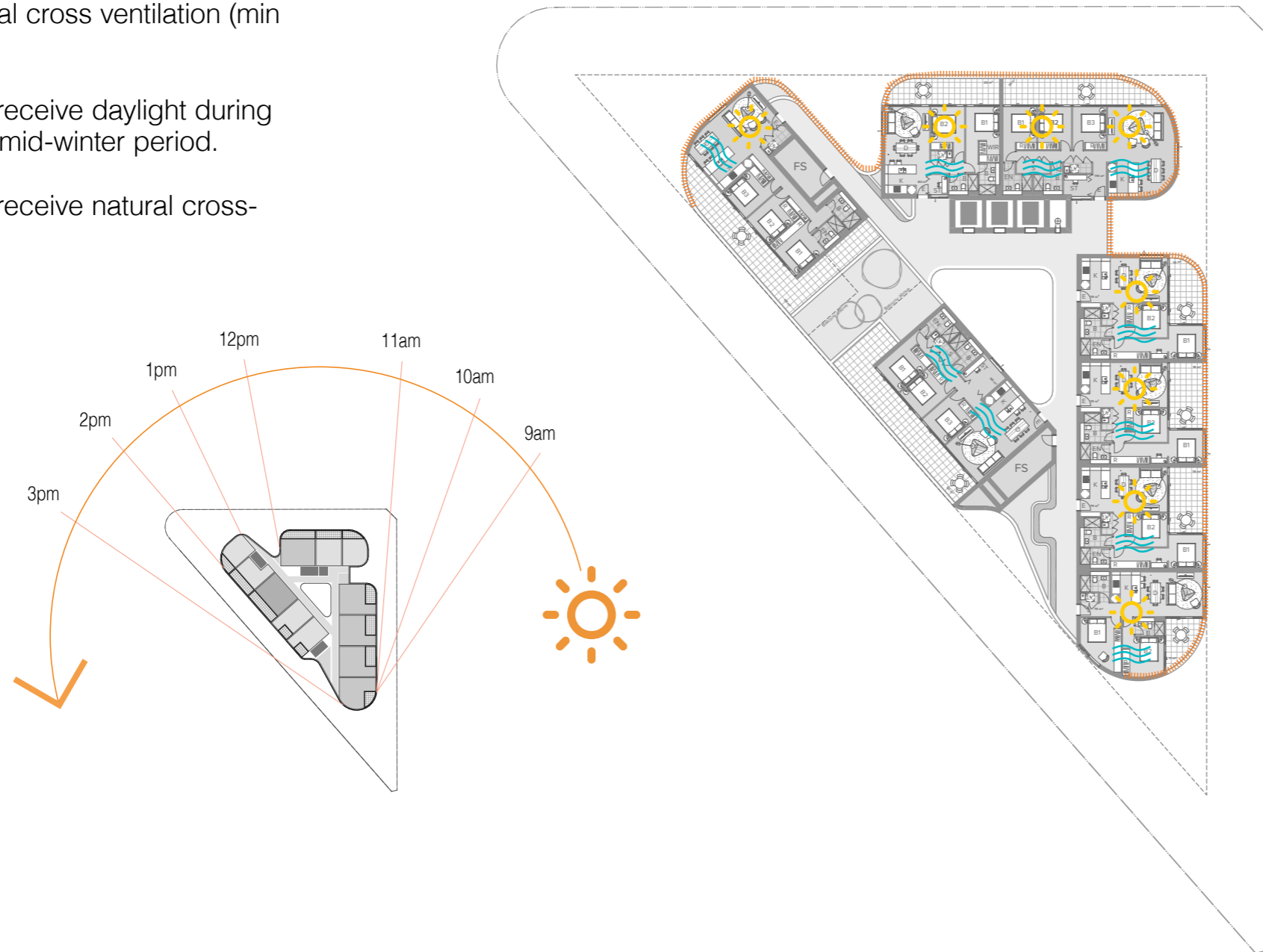
Tower Amenity




Apartment Design Guide - Solar and daylight access and Natural Ventilation

The tower form exceed the ADG design criteria for solar access (min 70%) and natural cross ventilation (min 60%).

All apartments receive daylight during the 9am - 3pm mid-winter period.

All apartments receive natural cross-ventilation.

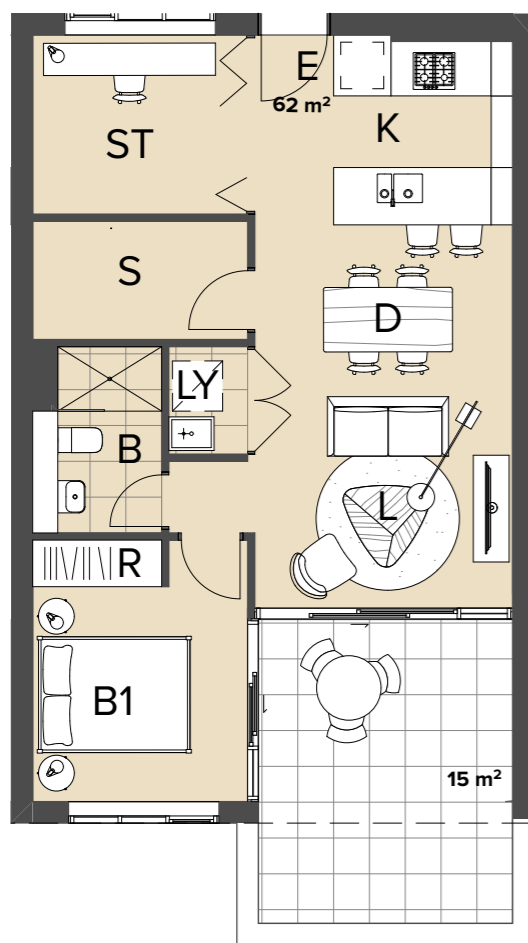


-  Apartments achieving minimum ADG solar access requirements
-  Apartments achieving minimum ADG cross ventilation requirements
-  Facade with Solar Access

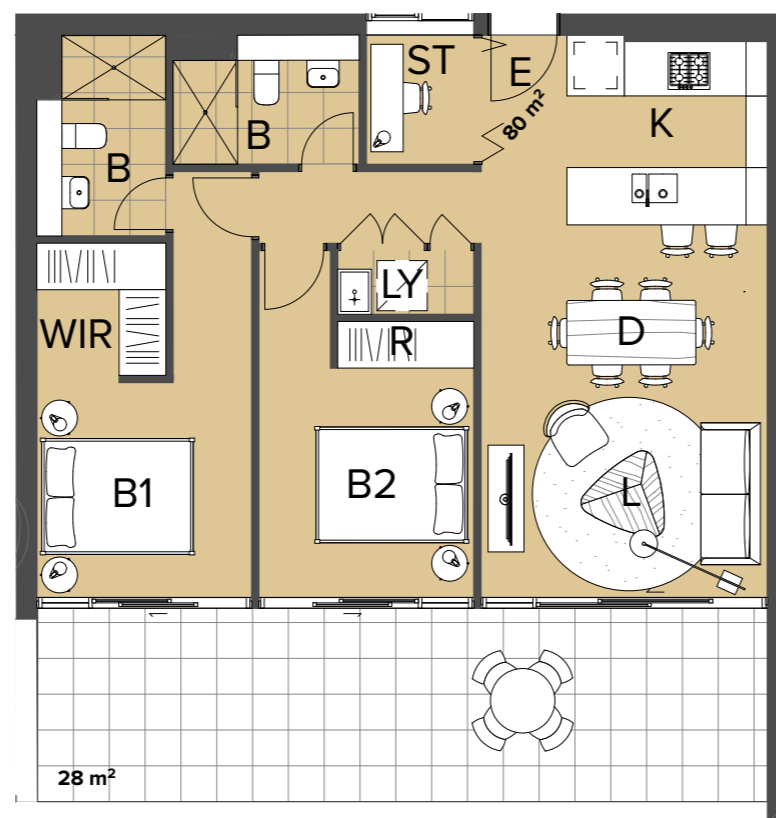
Residential Amenity

The tower form allows the design of the apartments to be logically organised and achieve excellent amenity. This is supplemented through the provision of generous balconies, ample storage space and integrated study areas with work-from-home (WFH) capacity. Windows and walls are placed to optimise views and maintain privacy.

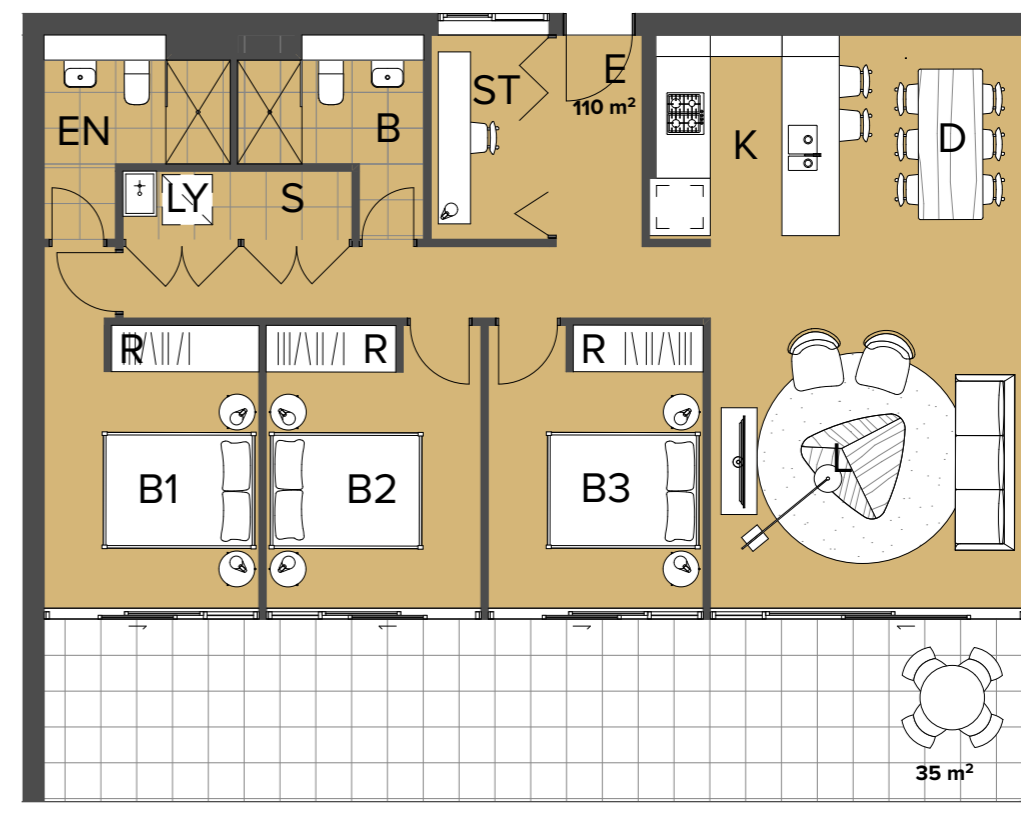
The plans demonstrate how ADG objectives for apartment size, planning, apartment depth and storage are achieved.



1 Bed + Study



2 Bed + Study



3 Bed + Study

09

ADG Response

ADG Guidance

Response

2A Primary Controls

Primary controls should be developed taking into account sunlight and daylight access, orientation and overshadowing, natural ventilation, visual and acoustic privacy, ceiling heights, communal open space, deep soil zones, public domain interface, noise and pollution.

The St Leonards and Crows Nest 2036 Plan outlines a set of key Urban Design Principles that are derived from the overall Plan Vision of a regenerated employment centre and growing residential community. These principles include increased density in close proximity to the stations, transition from larger development to lower density areas, and consideration of solar access to transition areas and areas outside of the Plan.

Further consideration of the proposal in light of the individual Urban Design Principles are outlined elsewhere in this report.

Regarding the Five Ways site, the Urban Design Principles are translated into a series of new planning controls which outline zones, heights (overall and street walls), setbacks and densities. Responding to these principles and indicative planning controls, a series of design solutions was tested on the site including consideration of the solar access to areas in the vicinity of the site, transitional heights and visual impact.

The indicative plans included in the proposal demonstrate a solution which is consistent with the 2036 Plan.

2B Building Envelopes

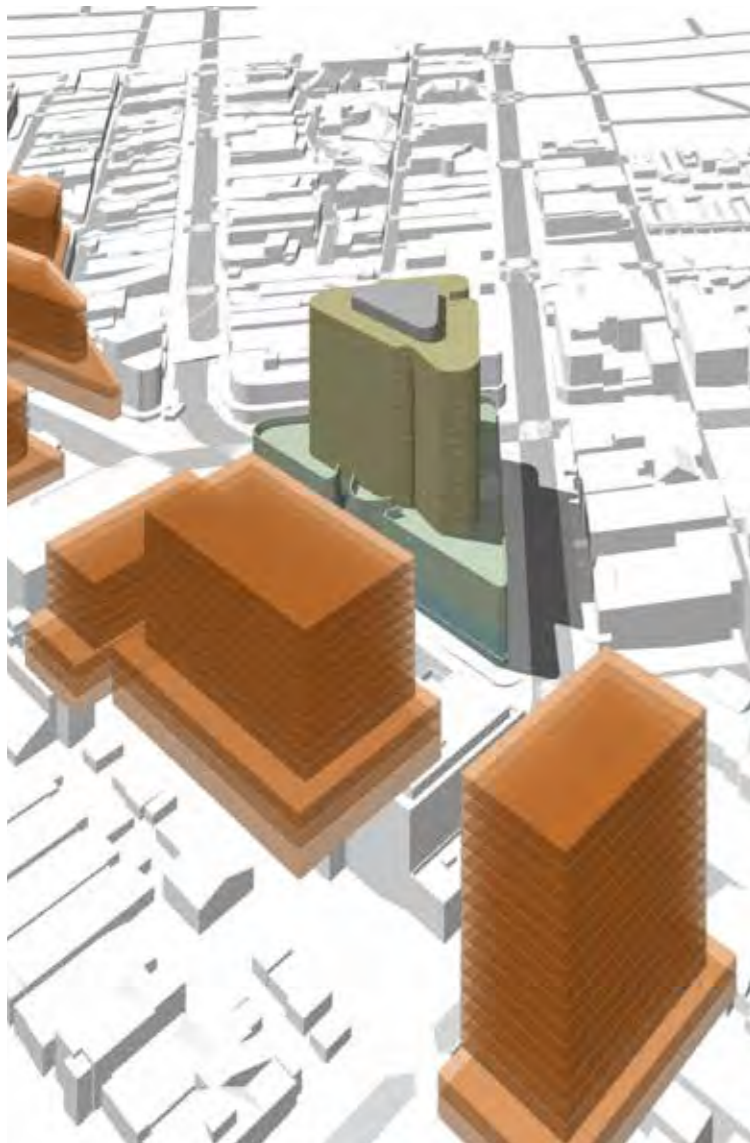
A building envelope should be 25-30% greater than the achievable floor area (see section 2D Floor space ratio) to allow for building components that do not count as floor space but contribute to building design and articulation such as balconies, lifts, stairs and open circulation space.

The 2036 Plan indicates a basic outline of the building envelope for the Five Ways Crows Nest site defined by new set of planning controls: street wall, tower setback, height and density.

For the proposal, a number of options were tested with respect to the overarching Urban Design Principles and the revised planning controls.

The indicative plans demonstrate an outcome within the spatial controls including an assessment of the solar access to areas in the vicinity of the site.

The urbanised nature of the site included consideration of landscape and tree canopy for the proposal. Planting on buildings including vertical gardens, street trees and roof-top gardens were included which necessitated the loose fit intended by the ADG.



ADG Guidance

Response

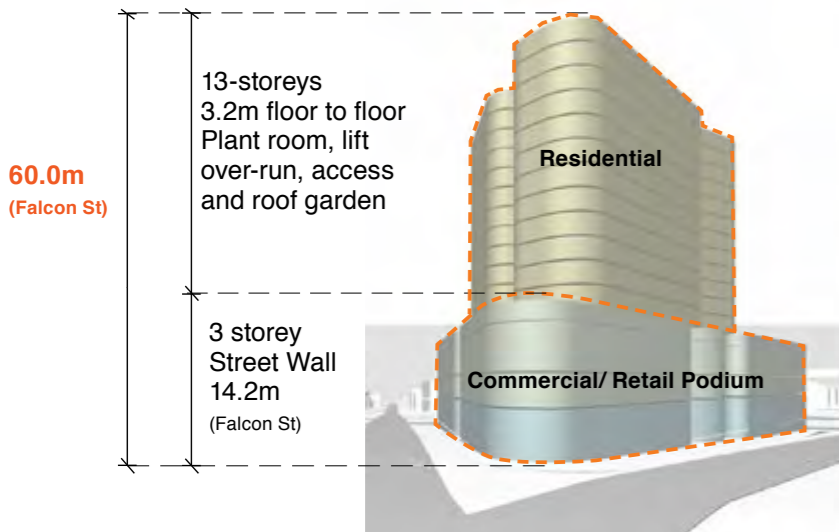
2C Building Height

Building height helps shape the desired future character of a place relative to its setting and topography. It defines the proportion and scale of streets and public spaces and has a relationship to the physical and visual amenity of both the public and private realms. Height controls should be informed by decisions about daylight and solar access, roof design and use, wind protection, residential amenity and in response to landform and heritage.

The 2036 Plan identifies height and street wall height controls for the site based on an Urban Design Study of the wider Crows Nest and St Leonards district.

The heights in the 2036 Plan include consideration of the overall Vision to regenerate the Crows Nest and St Leonards precinct for an expanding employment centre and growing residential community. The Plan outlines indicative planning controls showing a 16-storey overall height limit with a 3 storey street wall.

The building height is consistent with the 2036 Plan indicative height and was tested against the solar access controls. The arrangement and articulation of the podium aligns with the Urban Design Principle for transitional height from larger developments to neighbouring low-density areas.



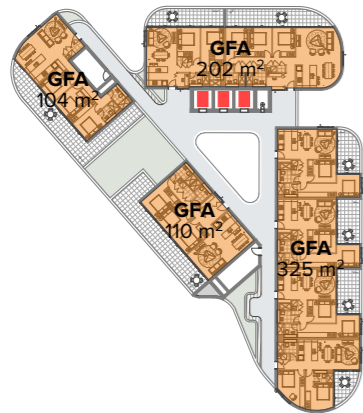
2D Floor Space Ratio

Floor space ratio (FSR) is the relationship of the total gross floor area (GFA) of a building relative to the total site area it is built on. It indicates the intended density. FSR is a widely used method for estimating the development potential of a site.

The 2036 Plan includes indicative plans outlining potential densities for both residential and non-residential components for the Five Ways Crows Nest site.

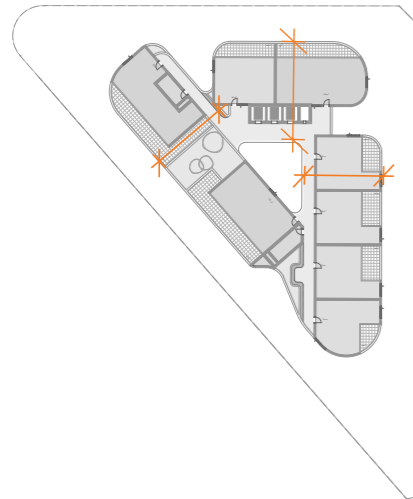
The location of the proposal has excellent amenity being in close proximity to the Crows Nest Village and Willoughby Road precinct and also in close proximity to the Hume Street entry of the new Crows Nest Metro station (240m). The proposal includes the minimum floor space for non-residential uses.

Given the amenity of the area and proximity to the Metro Station and the 2036 Plan Vision of a regenerated employment area and growing residential neighbourhood the proposal is consistent with the Plan and the aims of the ADG.



ADG Guidance

Response



2E Building Depth

Building depth is an important tool for determining the development capacity of a site. It is the overall cross section dimension of a building envelope. Building depth dimensions typically include articulation such as projecting balconies, gallery access, eaves, overhangs, sun hoods, blades and other architectural features.

The 2036 Plan seeks to optimise the liveability of the Crows Nest and St Leonards neighbourhood in both the placement of density and height and the amenity of the regenerated sites.

The preparation of the proposal investigated several outcomes for the site. The residential tower is arranged in a building with central circulation and atrium servicing 8-12 apartments. This arrangement was tested in light of the ADG criteria, particularly solar access, natural cross ventilation and the amenity of common space. The indicative plan demonstrates the profile of the tower (13 - 17m).

The building form changes at street wall height into a commercial/retail building with a series of public walks to create a more permeable ground plane and commercial levels with optimised access to natural daylight.



2F Building Separation

Building separation is the distance measured between building envelopes or buildings. Separation between buildings contributes to the urban form of an area and the amenity within apartments and open space areas.

The Five Ways Crows Nest site is located at the junction of three different roads and hence is characterised as an island site. The orientation and placement of apartments allows the design to meet the ADG objectives.

Within the site there is a fine-grain approach to privacy with the placement of individual apartments determined by access to outlook, solar access and natural cross-ventilation. All apartments look out to the street and enjoy views to the district, the cityscape of St Leonards, North Sydney, Sydney CBD and Sydney Harbour.

The indicative floor plans proposal have considered ADG objectives including for solar access, natural cross-ventilation and privacy. The floor plans indicate that the ADG objectives are obtainable by the scheme allowing excellent amenity for the residential dwellings.

ADG Guidance

Response

2G Street Setbacks

Street setbacks establish the alignment of buildings along the street frontage, spatially defining the width of the street. Combined with building height and road reservation, street setbacks define the proportion and scale of the street and contribute to the character of the public domain.



The 2036 Plan Urban Design Principles include consideration of the existing character of the Crows Nest and St Leonards district. Part of the character of the area is the distinctive street wall heights and alignments of the main retail streets, particularly around the Crows Nest Village precinct.

The proposal follows the indicative controls of the 2036 Plan and adopts a 3-storey height to the street frontages. An additional setback is included in the central block area to allow additional space for retail activation, landscape elements including street trees and for the bus interchange on site.

The street wall elements of the proposal are articulated and modulated to speak to the typical rhythm of different buildings observed in the surrounding retail streets. A fine-grain materiality is designed to respond to material cues in the context while providing a building enclosure that can develop a handsome patina.

The residential tower is setback from the street wall to allow a clear visual distinction between street wall and tower and also to provide landscape terraces to the podium level apartments.

The ground floor of the proposal contains the most public spaces of the development. The commercial levels above are serviced by ground floor lobbies. The residential areas above have a clear separation from the public areas at grade and the commercial levels in between.

Residential and commercial lobbies are legible from the public domain and do not detract from the retail activation at grade.

2H Side and Rear Setbacks

Side and rear setbacks do not apply to this proposal as the subject site is an isolated island site separated from neighbouring properties by streets.

10
**Placemaking
Strategies**

Human-scale design

A series of human-scale design moves are deliberately integrated into the Planning Proposal as part of the place making strategy.

The following categories have been addressed to assist in creating a sense of place and identity for the development site.



GREENERY

Greener People & Places



EQUITY

Equitable & Inclusive



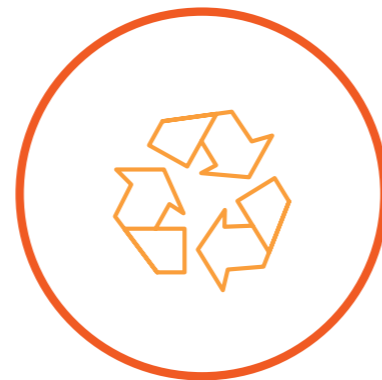
MOBILITY

Conscious Mobility



WELLNESS

Healthy Streets & Places



RESILIENCE

Adaptable & Resilient



IDENTITY

Celebrate Unique Character &
Create Attachment

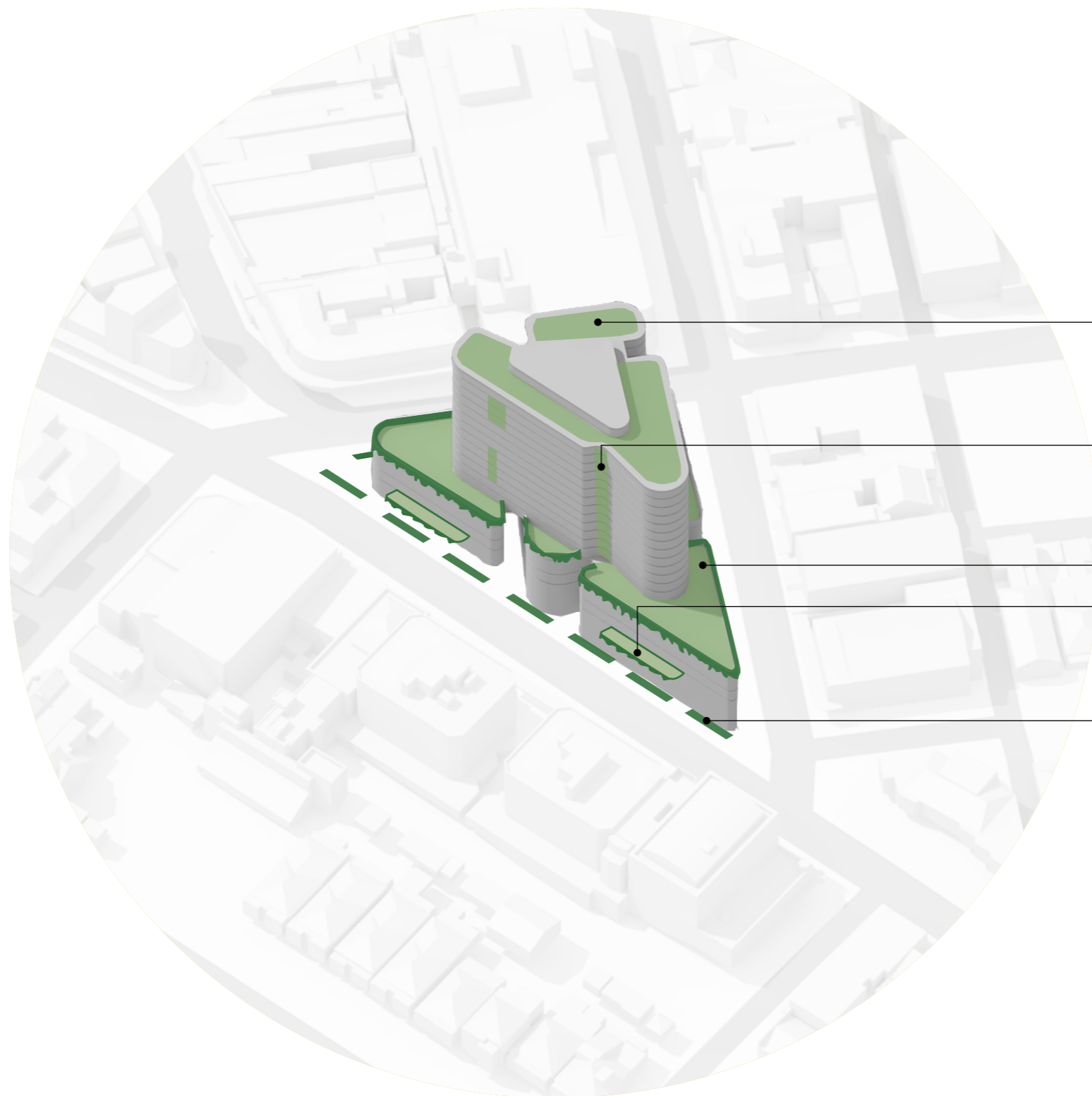


URBANITY

Loveable Places

Landscape Replacement Area Control

Communal landscape zones and/or vertical plantings to encourage abundant and accessible greenery in high-rise urban environments.



Tower private roof gardens

Tower facade gardens

Residential Podium roof garden

Awning planters

Ground Floor street planting



Placemaking Strategies: Greener People & Places

Landscape Replacement Area Control

Green View Index & Tree Canopy

A healthy and well-managed tree canopy provides multiple environmental, social and economic benefits.



Tower private roof tree canopy

Residential podium roof tree canopy

Ground floor pedestrian pathway tree canopy



Placemaking Strategies: Greener People & Places

Green View Index & Tree Canopy

Mobility on Demand Network - Optimised Access to Car Share

Building upon the sharing economy, the opportunity to reduce the number of vehicles in our cities and neighbourhoods assist in mitigating issues of vehicles on the road, parking, pollution, accidents and congestions on the roads. As such, the proposed development includes the provision of 12 car share spaces.



Car Share Spaces



Placemaking Strategies: Conscious Mobility

Mobility on Demand Network - Optimised Access to Car Share

Food & Water

The increasing shift towards safeguarding the environment is leading to a rise in demand for environmentally friendly goods locally made products, organic foods and access to water.

To support this sustainability consideration agenda, local retail and businesses need to be prioritised in local communities to safeguard these values.



Fresh Produce Retailers



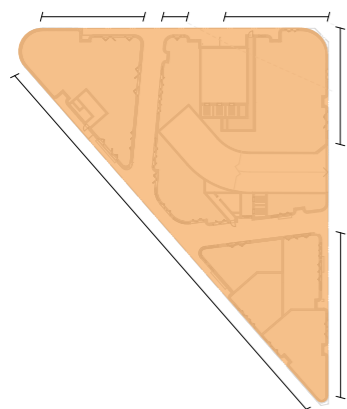
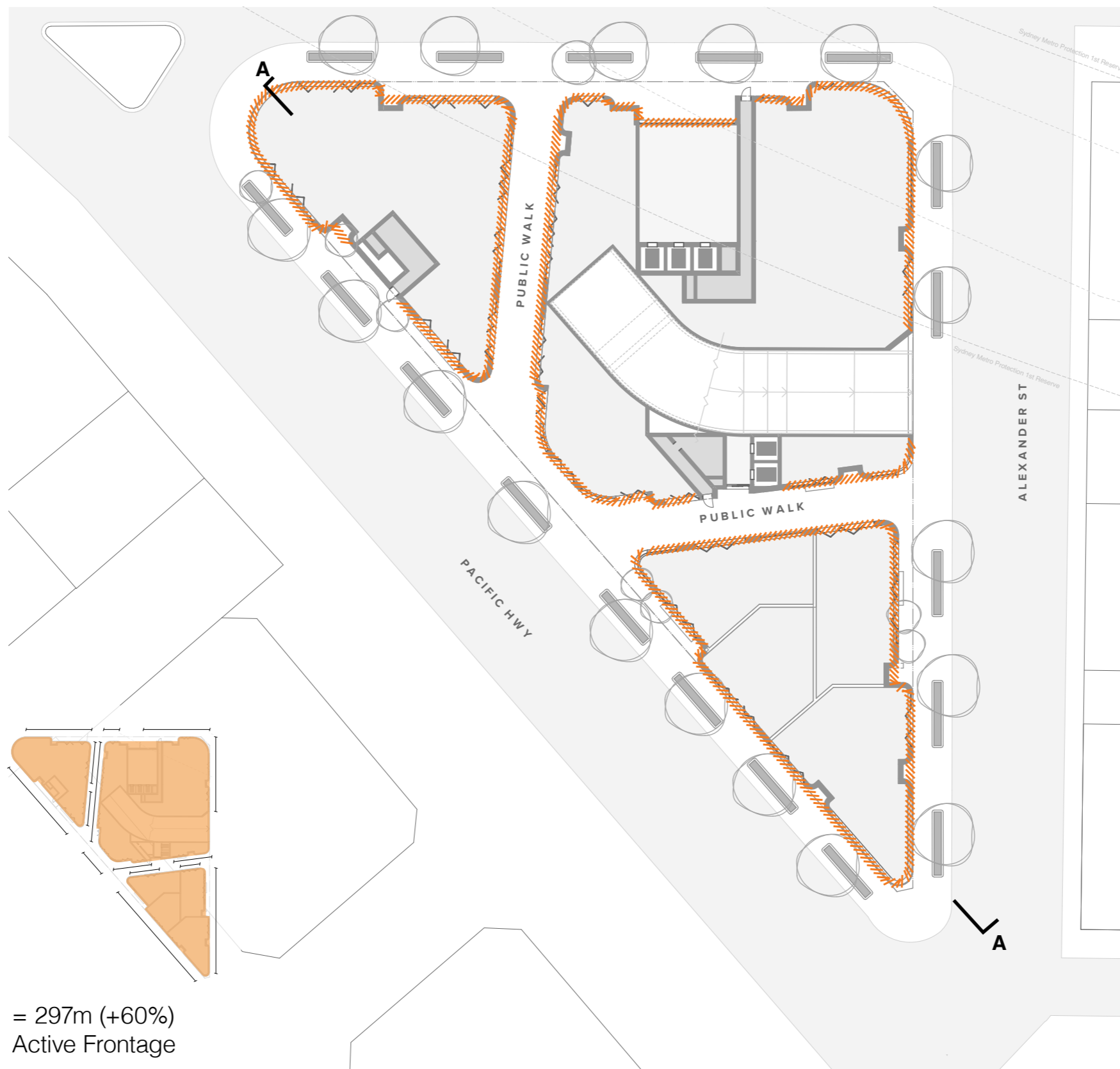
Placemaking Strategies: Healthy Streets & Places

Food & Water

Adaptable Ground Floors

Activated building frontages maximise pedestrian pleasure and enjoyment, and in turn increase opportunities for social interaction and street commerce.

The segmented podium and generous arcades of the proposed development maximises opportunity for active frontages on the Ground Floor.



= 190m
Active Frontage



= 297m (+60%)
Active Frontage

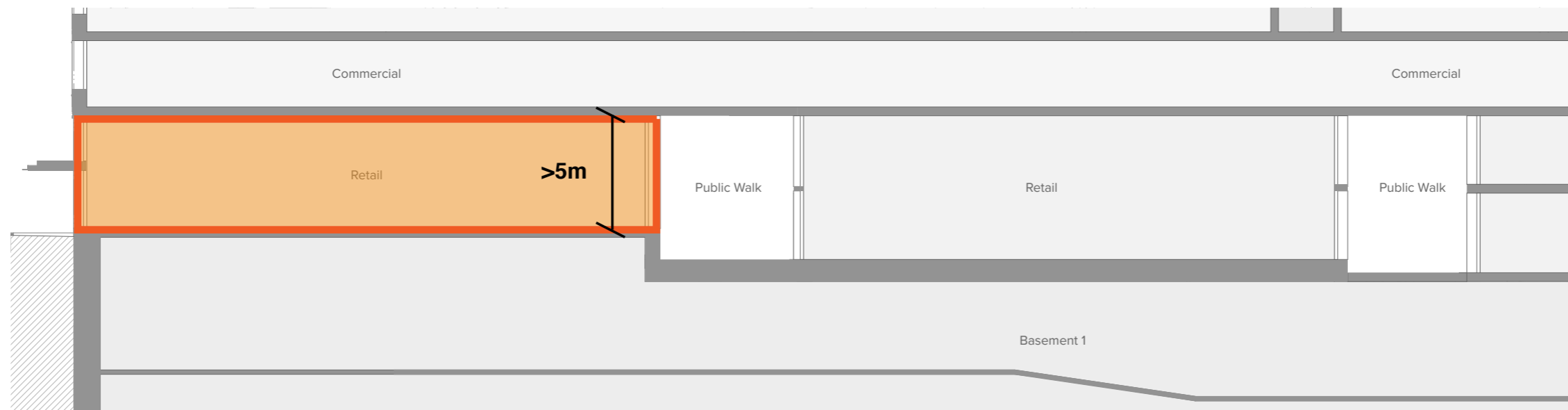


Placemaking Strategies: Adaptable & Resilient

Active Edges

Adaptable Ground Floors

Adaptable ground floors have a generous floor-to-ceiling height, active frontages and awnings to create shelter for pedestrians (for commercial and retail uses).



Ground Floor Retail Space



Placemaking Strategies: Adaptable & Resilient

Adaptable Ground Floors

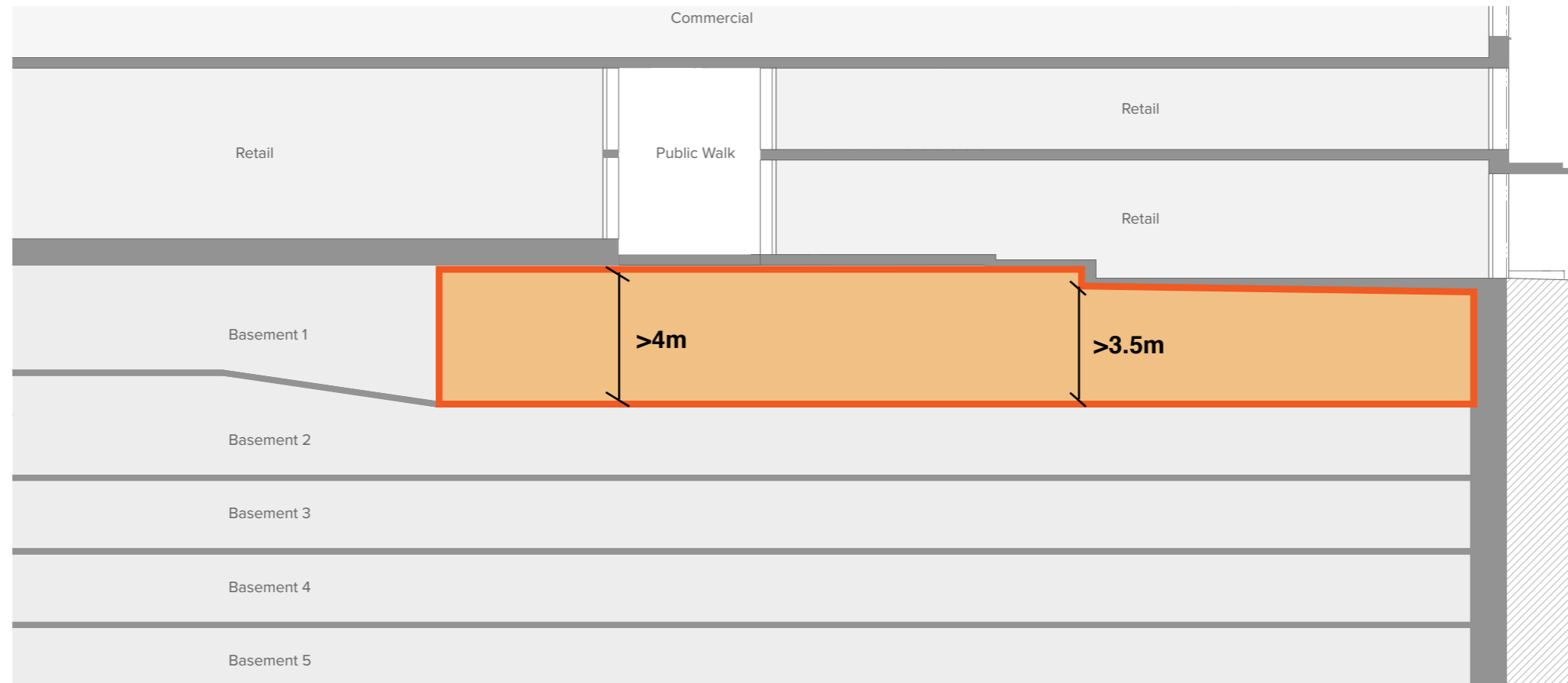
Flexible Parking

For a variety of reasons urban residents will increasingly drive fewer cars and as a result the need for parking spaces will diminish over time. The zone within Basement 01, as highlighted above, is proposed with an appropriate ceiling height to enable the space to be easily adaptable to alternative future uses.




Placemaking Strategies: Adaptable & Resilient

Flexible Parking



Section B: The increased ceiling heights of over 3.5m in the adaptable basement zone enables flexibility for future uses.

 Adaptable Basement Zone

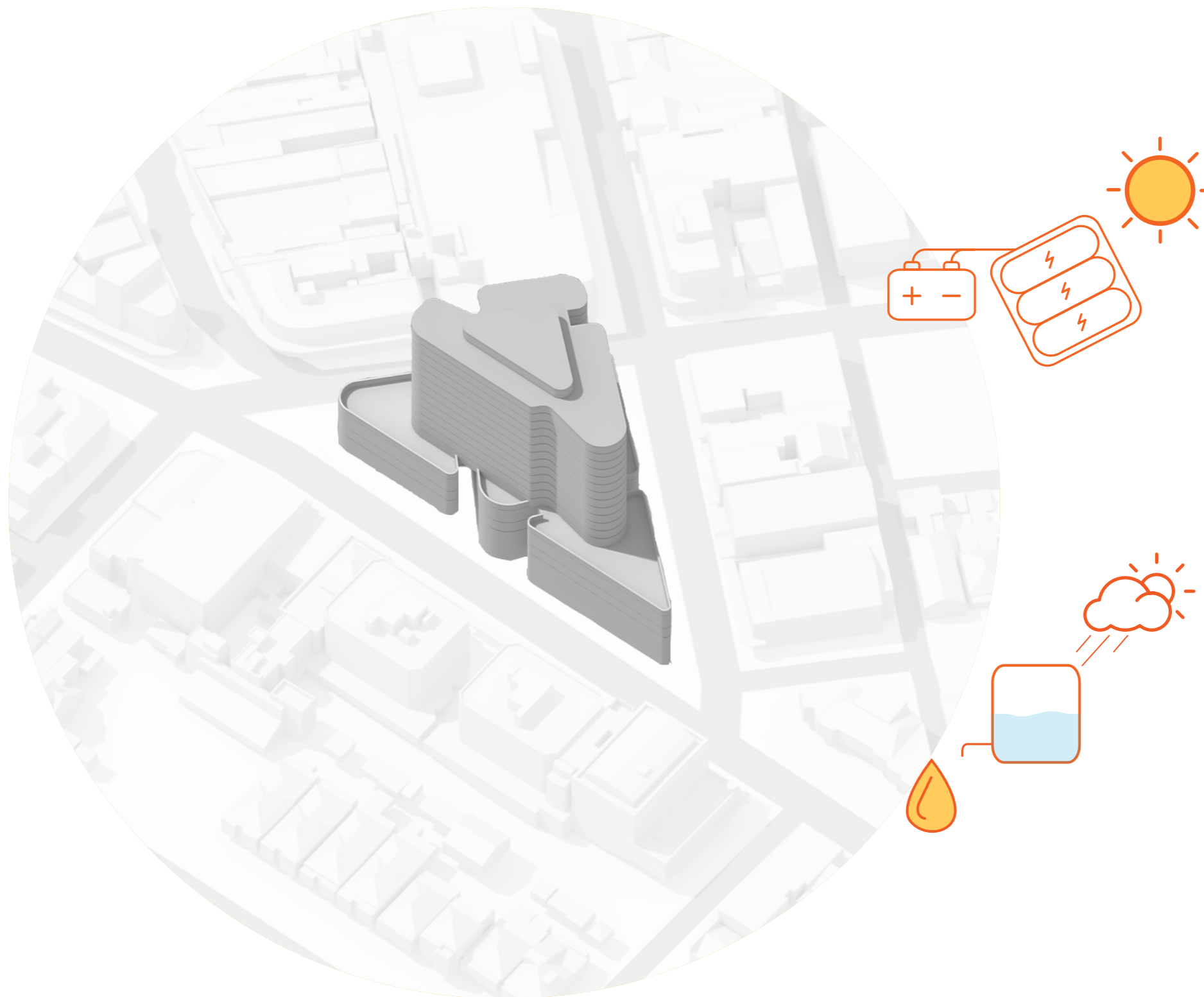


Placemaking Strategies: Adaptable & Resilient

Flexible Parking

Net Positive Energy & Water

The living building challenge envisions a safe, reliable and decentralized power grid, powered by renewable energy, supplied to incredibly efficient buildings and infrastructure without the negative externalities associated with combustion or fusion. It also envisions a future whereby all developments are configured based on the carrying capacity of the site: harvesting sufficient water to meet the needs of a given population while respecting the natural hydrology of the land, the water needs of the ecosystem the site inhabits, and those of its neighbours.




- LR
- NC
- BC
- IR
- AE
- CS
- VH
- DE
- VU

Productive Gardens

This productive garden space aims to build community cohesion and self sufficiency whilst encouraging involvement and integration.



Podium Roof top Gardens

 Potential Areas for Productive Gardens



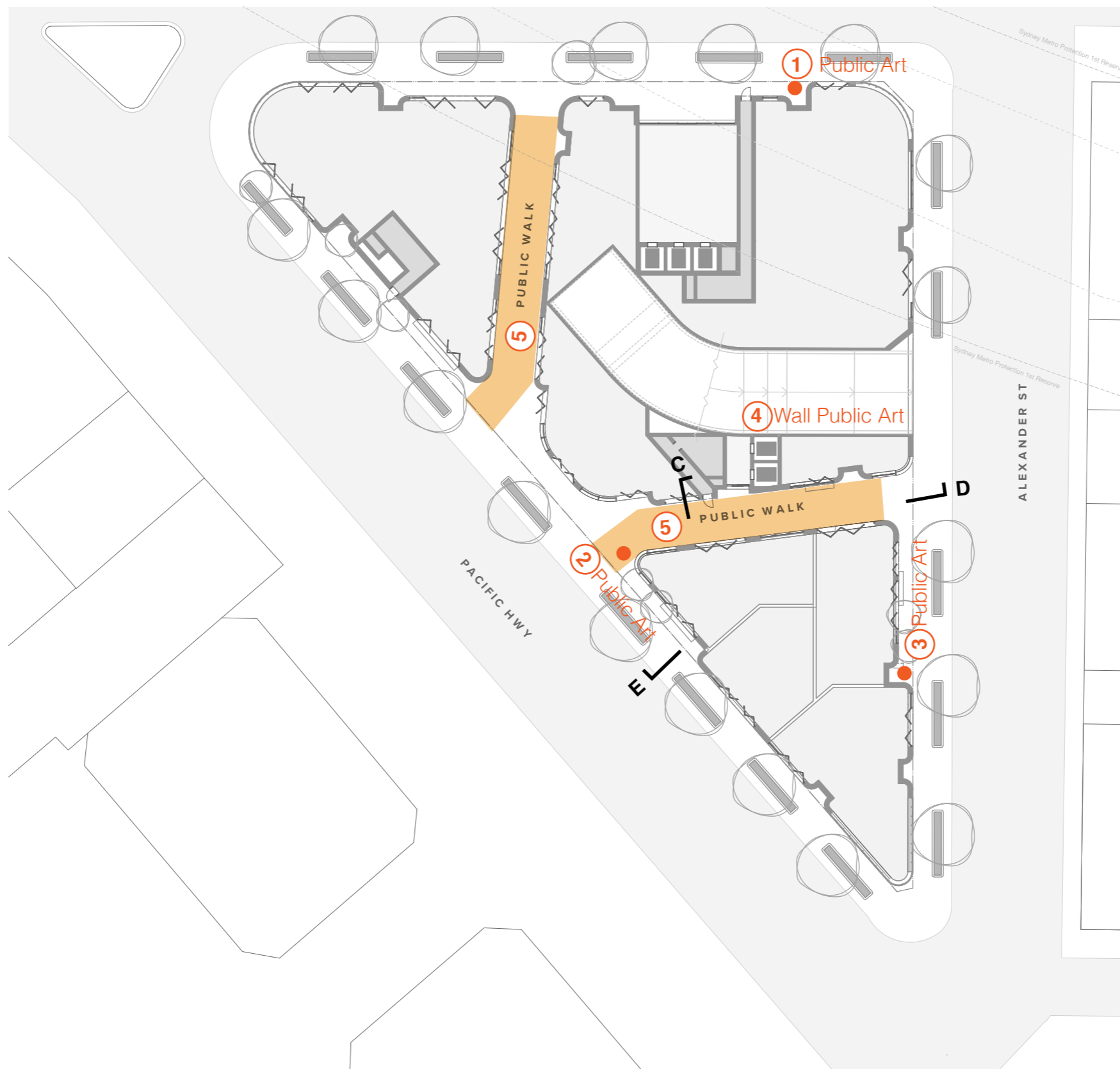
Placemaking Strategies: Adaptable & Resilient

Productive Gardens

Local Public Art

Public artists are sense agents of change and are highly influential in the process of place making. Murals, sculptures, lighting and other forms of public art can act as 'pause points' along streets and within public spaces.

The provision of potential locations for Public Art has been incorporated into the proposal, allowing for diversity in form and expression.

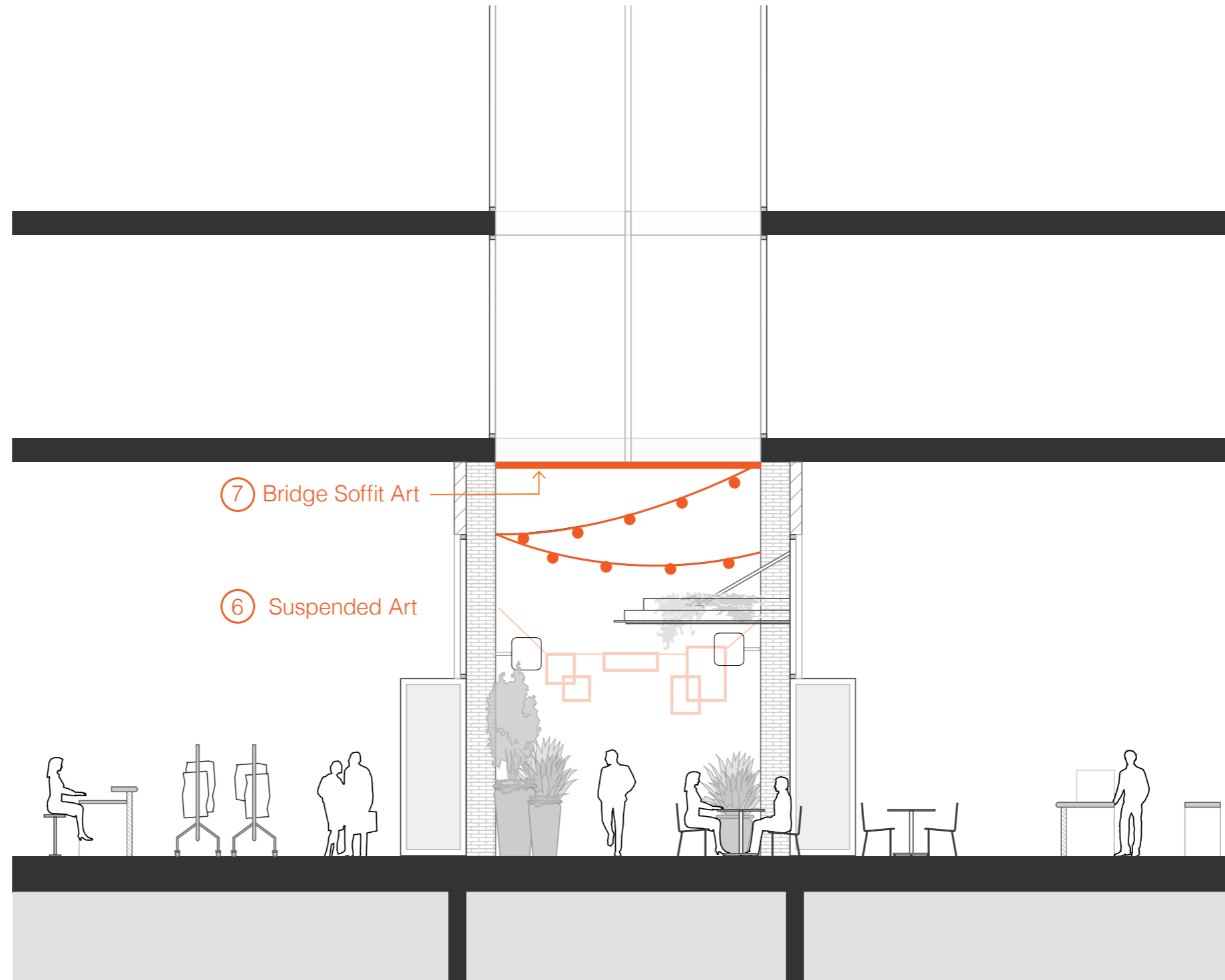


Public Walk Floor Area



Placemaking Strategies: Celebrate Unique Character & Create Attachment

Local Public Art

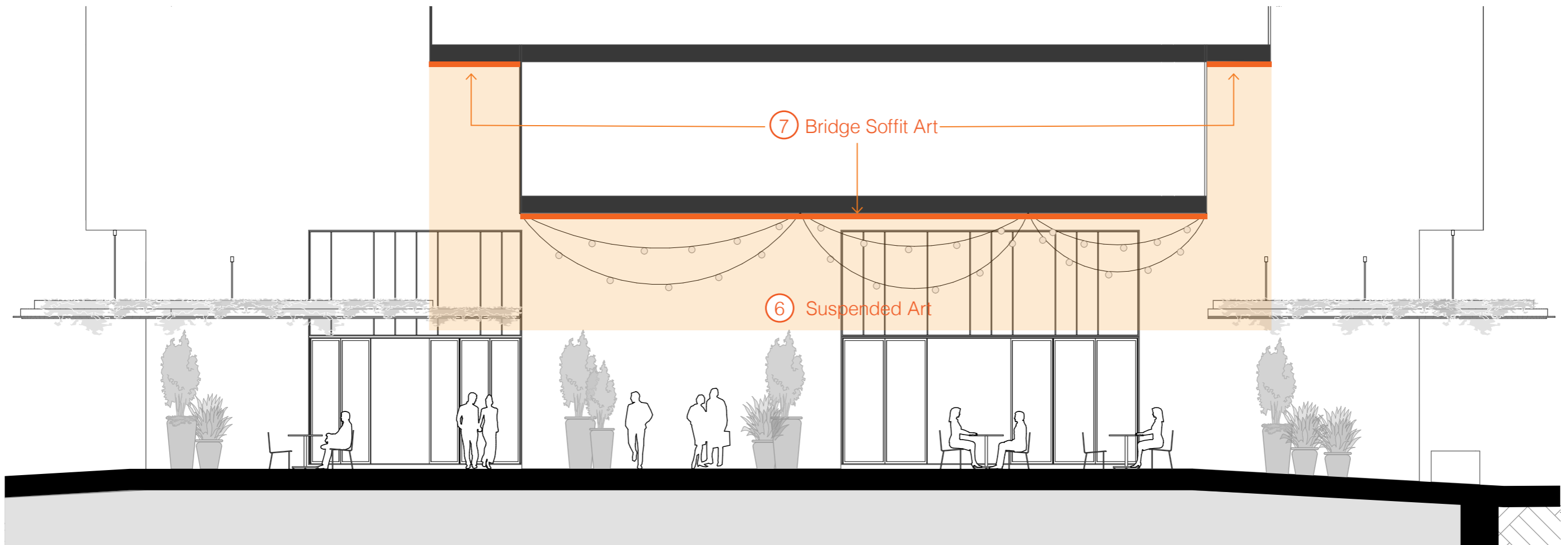


Section C: Public Walk Suspended Art Locations



Placemaking Strategies: Celebrate Unique Character & Create Attachment

Local Public Art

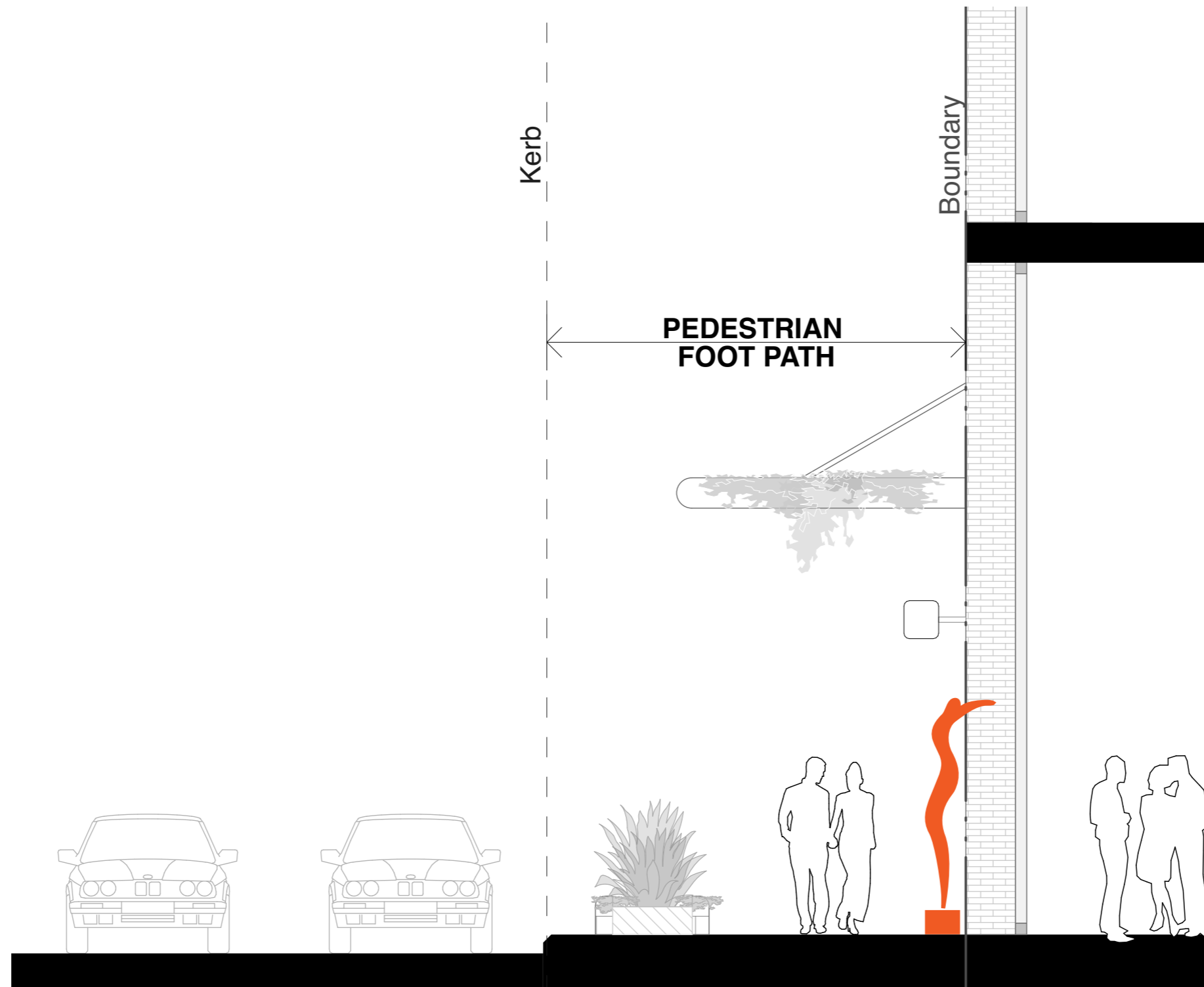


Section D: Public Walk Suspended Art Locations



Placemaking Strategies: Celebrate Unique Character & Create Attachment

Local Public Art



Section E: Example of freestanding public art piece



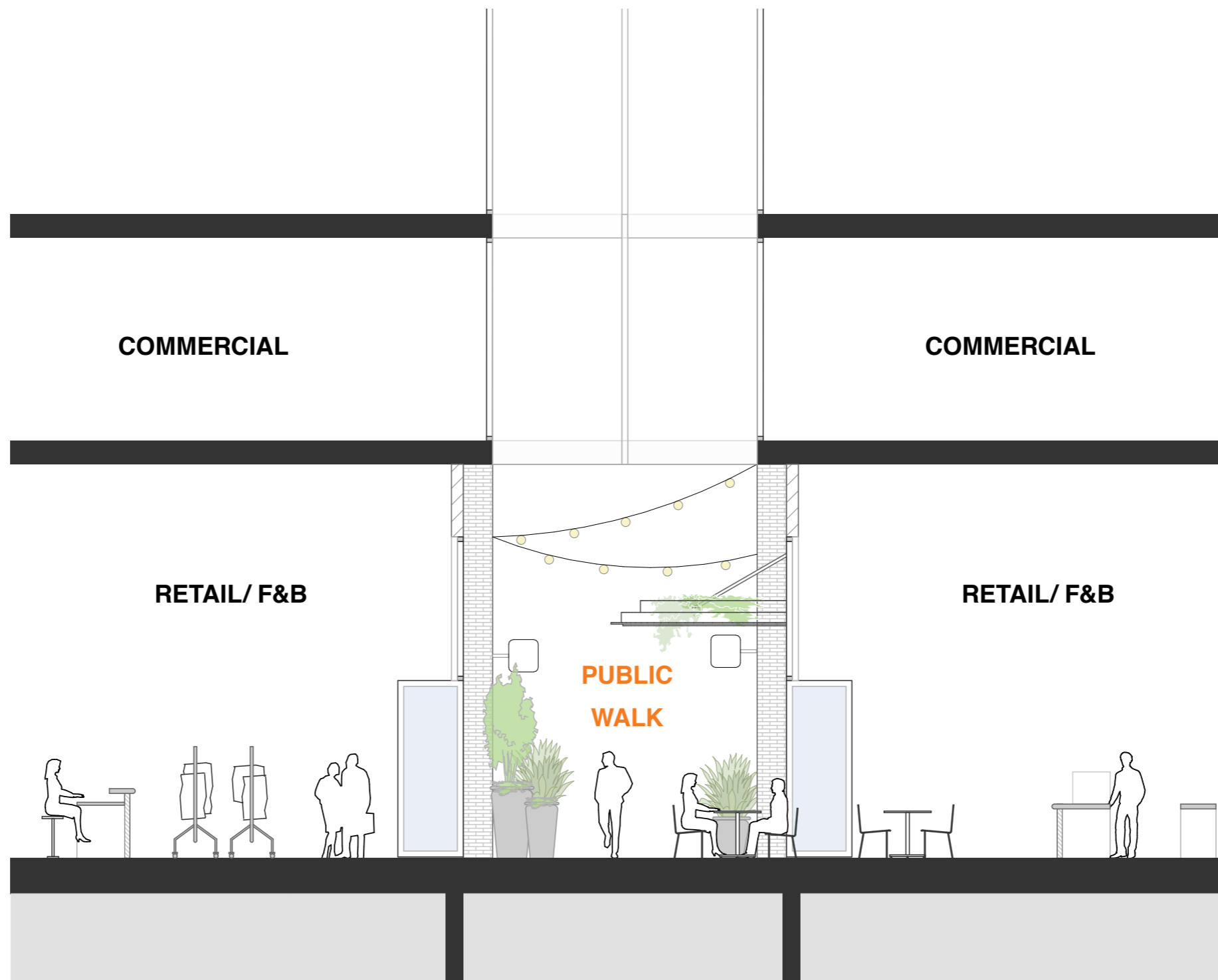
Placemaking Strategies: Celebrate Unique Character & Create Attachment

Local Public Art

**Public Walk as
“Outdoor Rooms”**

Designing public walks and arcades as places means incorporating multiple activities with regular affordances.

An affordance is a mix of public and private elements grouped at key locations to help furnish outdoor rooms, create delight, lingering and chance social encounters.



Placemaking Strategies: Celebrate Unique Character & Create Attachment
Arcades and Public Walks as “Outdoor Rooms”

Creative Live/ Work Places

Creative live/work spaces are dwellings that cater for working-from-home and/ or there is shared office space in the building.

These contribute value to places by offering spaces for those who work flexibly or are involved in creative, entrepreneurial or start-up industries.



 Integrated Home Studies

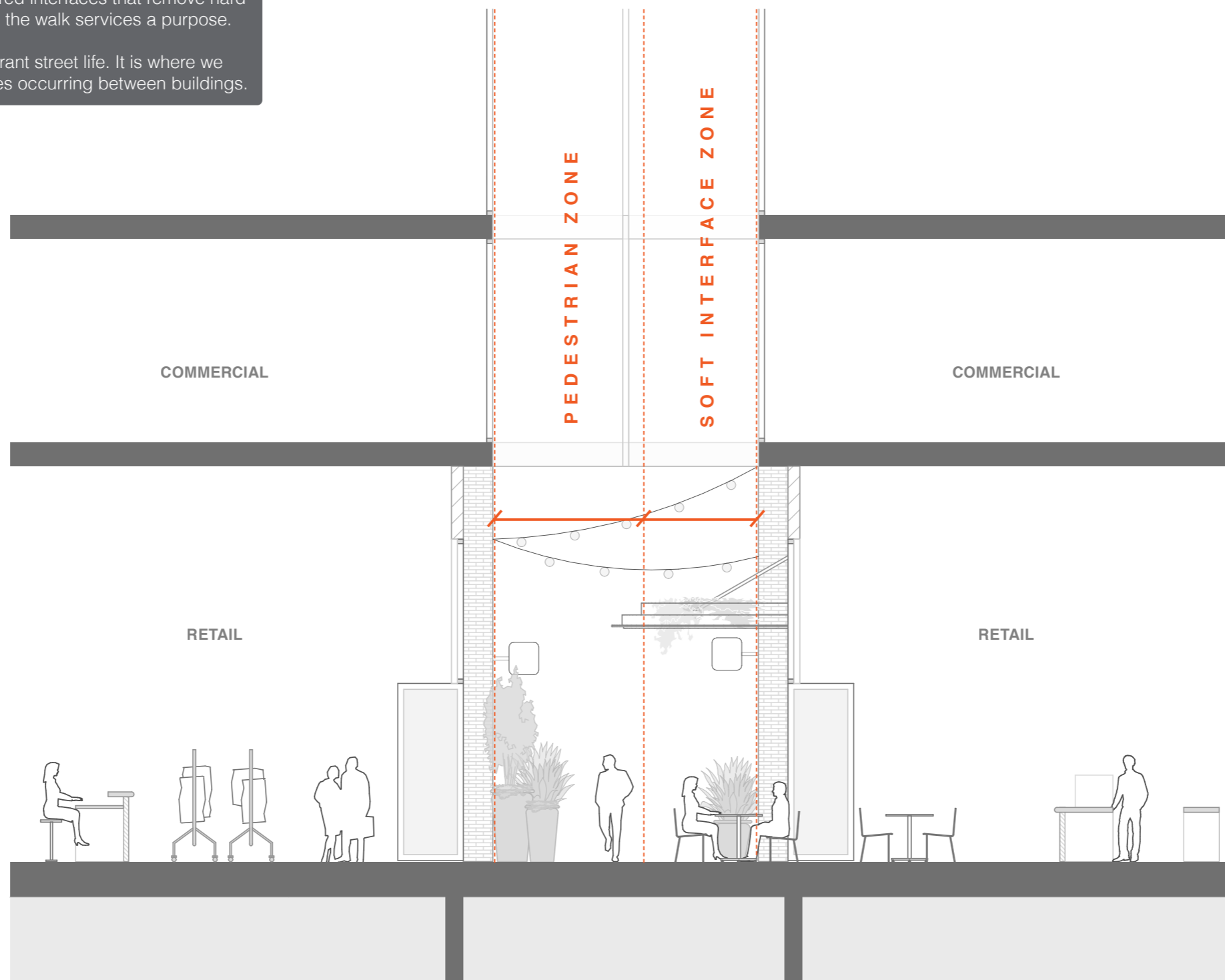


Placemaking Strategies: Celebrate Unique Character & Create Attachment

Creative Live/ Work Places

Soft City & Diversity at the Ground Floor

A soft city approach is centred on providing layered interfaces that remove hard boundaries in city spaces. People will walk when the walk services a purpose. Therefore, mixing and layering uses. Diversity at the ground floor helps to create a vibrant street life. It is where we can find a range of activities, uses and exchanges occurring between buildings.

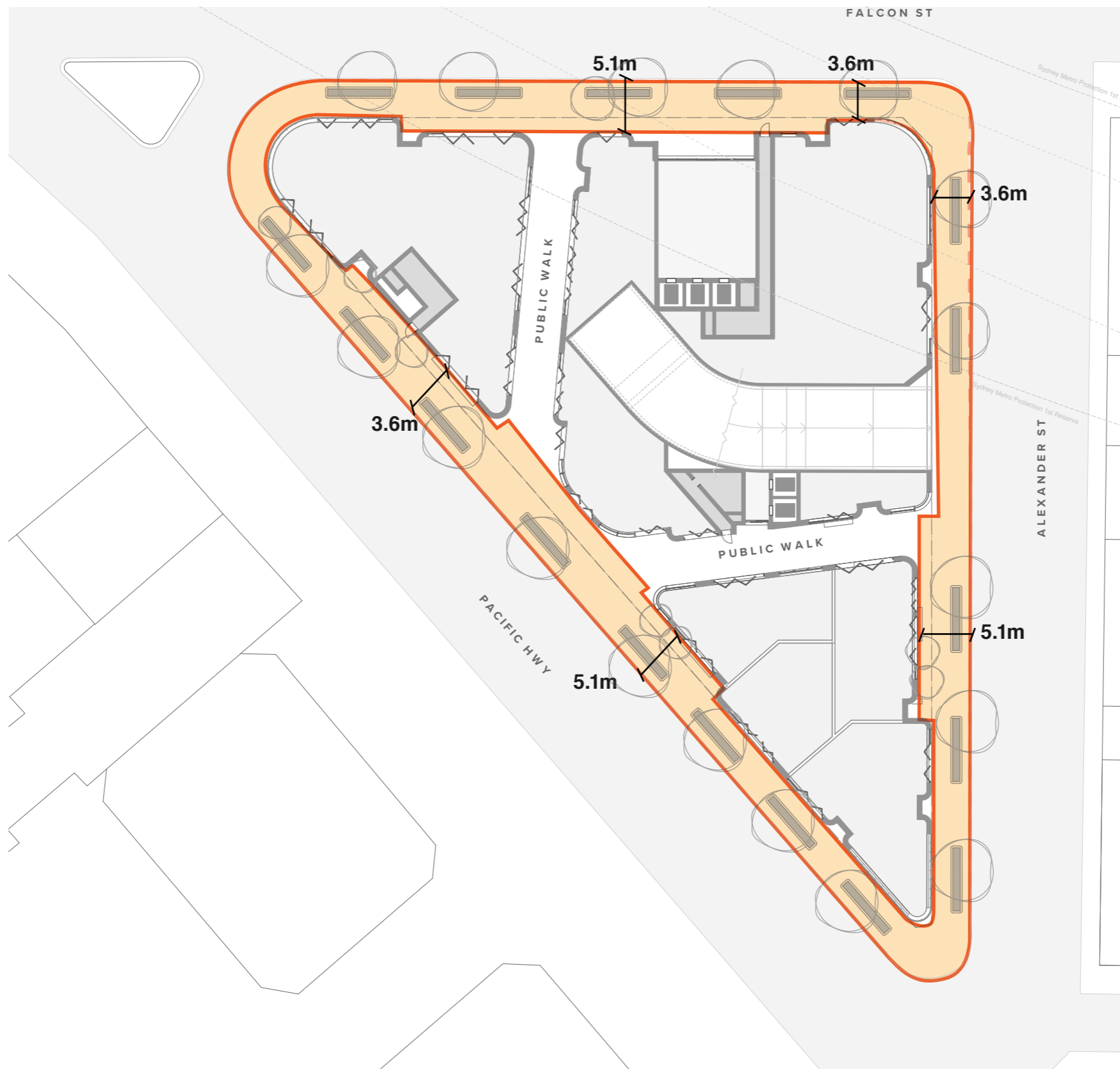


Placemaking Strategies: Loveable Places

Soft City & Diversity at the Ground Floor

Footpath Width

Footpaths should be wide enough to include space for the active frontage zone, pedestrian clear path, furniture zone and street buffer zone.



Footpath Area



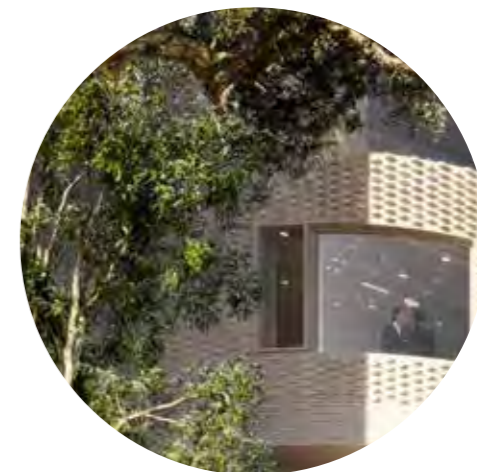
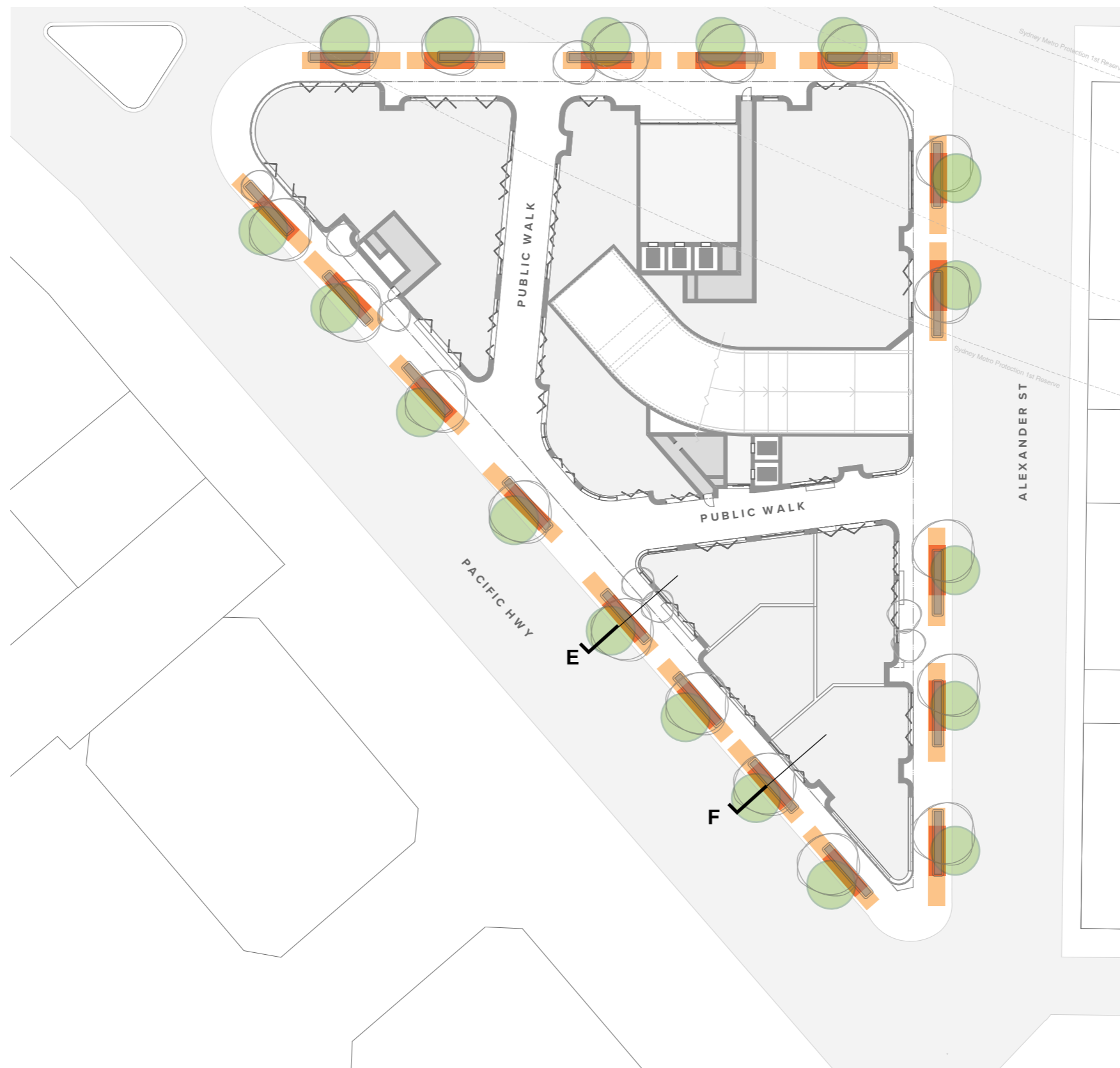
Placemaking Strategies: Loveable Places

Footpath Width

Pedestrian Microclimate

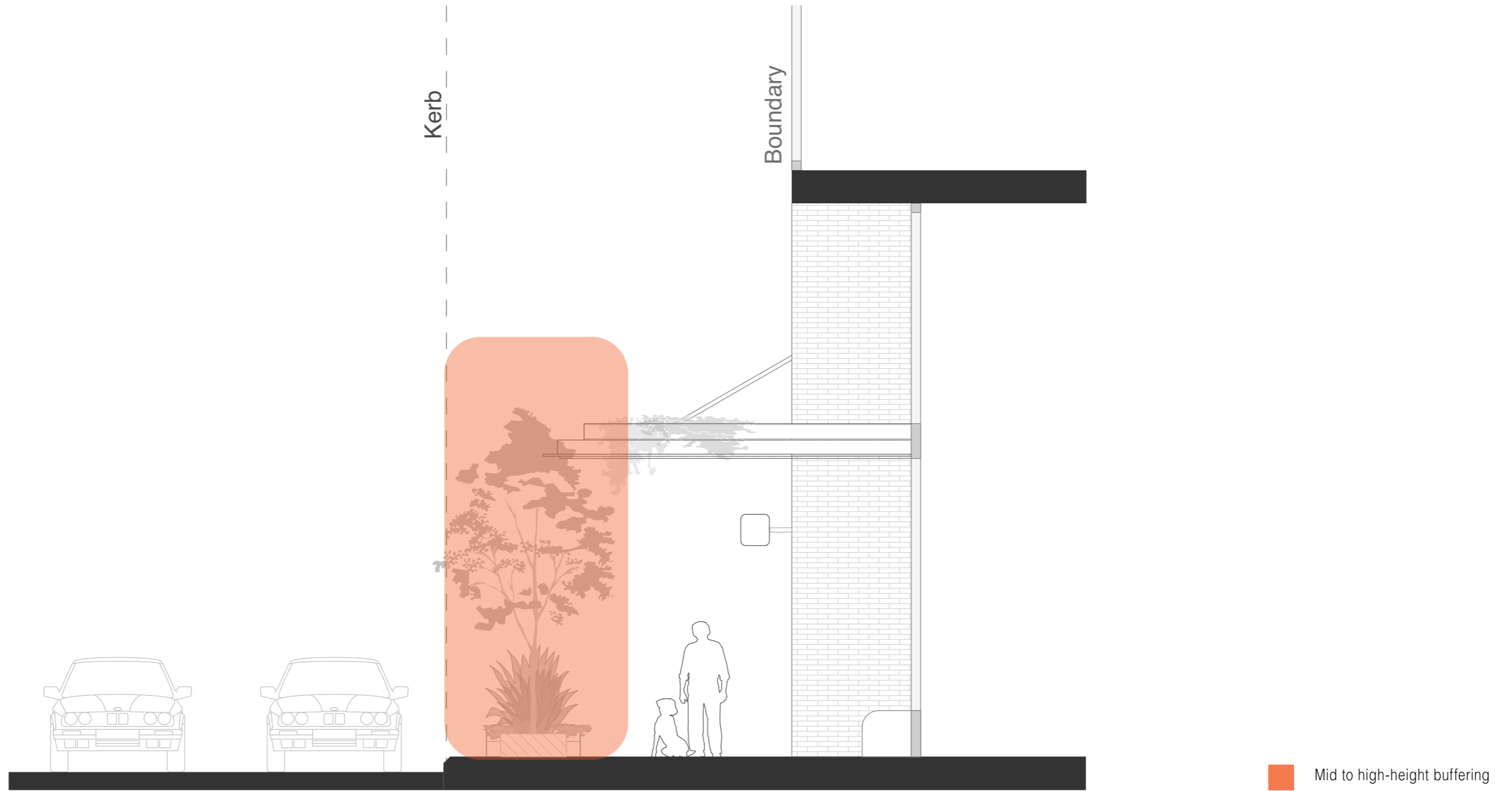
Positive pedestrian microclimates enhance the safety and comfort of uses at the street level. A comfortable relationship to the sun and wind creates a good microclimate, essential for sitting, and people lingering and enjoying the space (Source: Jan Gehl).

This protection can be achieved through awning coverage, landscaped elements and trees. Shrubbery can provide mid-height buffering from nearby traffic and wind, whilst trees can provide mid to high-height protection.



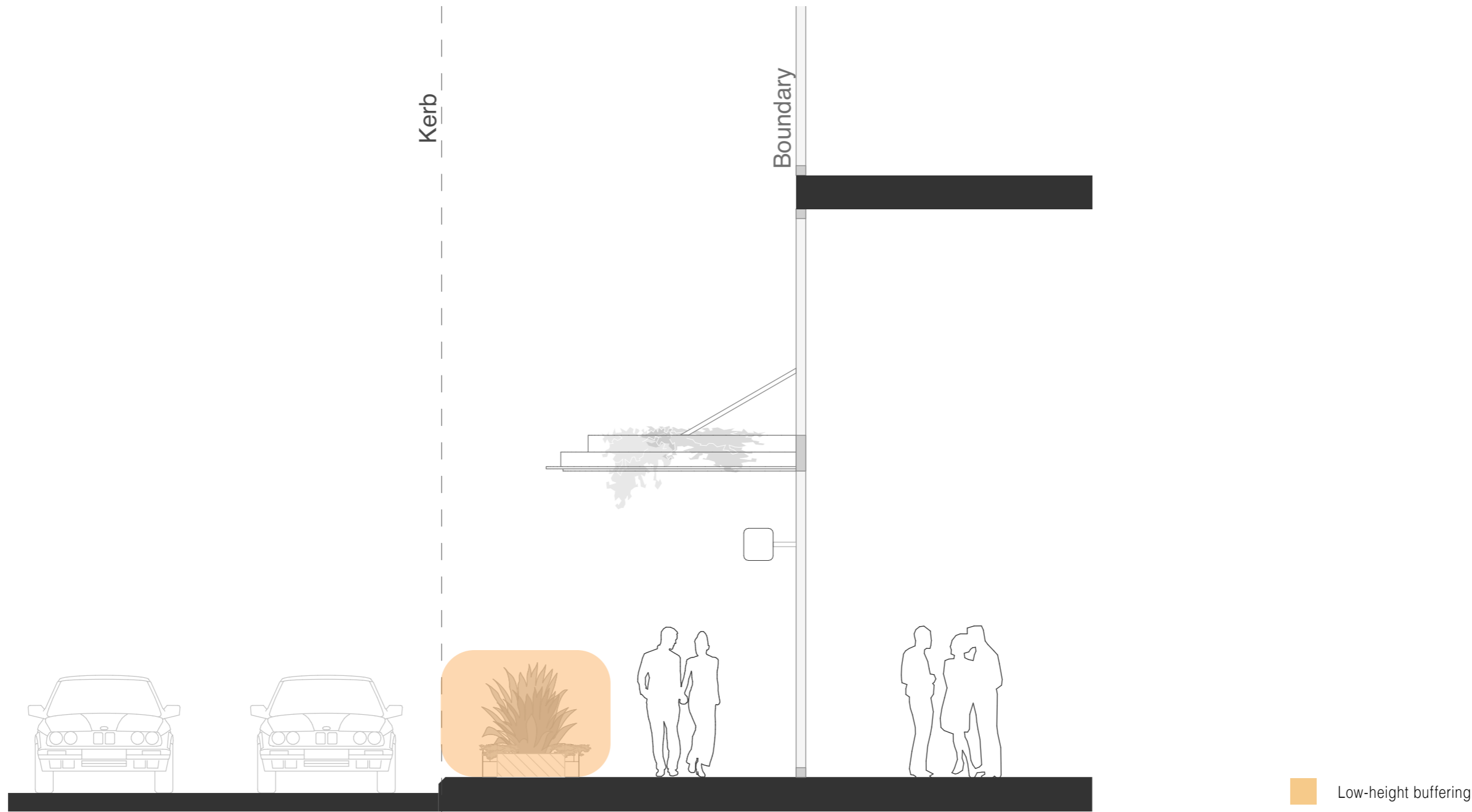
- Low-height buffering
- Mid to high-height buffering





Section E: Mid-height footpath buffering



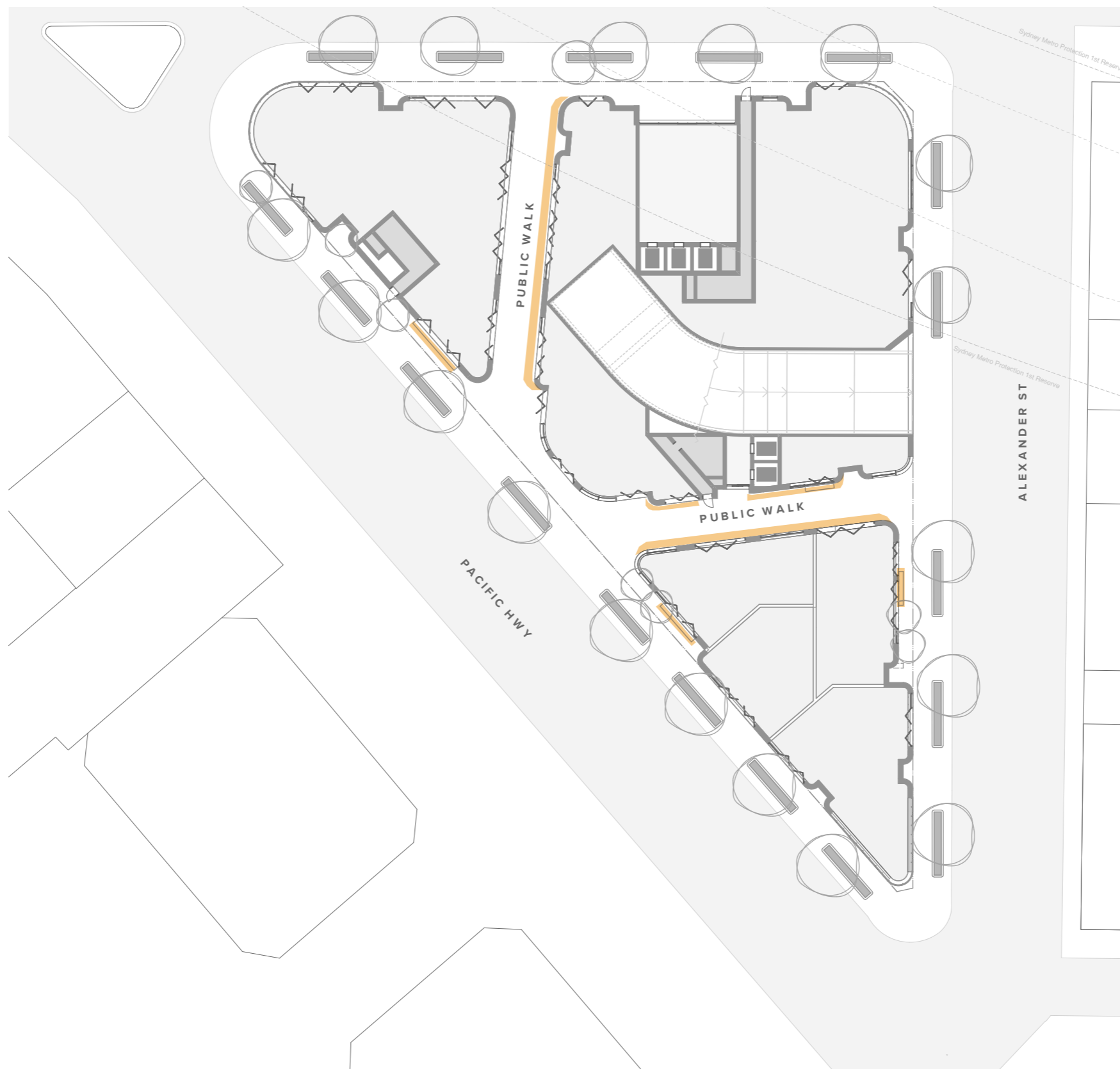


Section F: Low-height footpath buffering



Places to Stop & Rest

Number, frequency and variety (e.g. benches, bubblers, etc.) of public furnishings have been incorporated to allow people to stop and rest. Street furniture should be inclusive with carefully considered locations to allow for a variety of uses and interactions available for different people's needs and preferences.



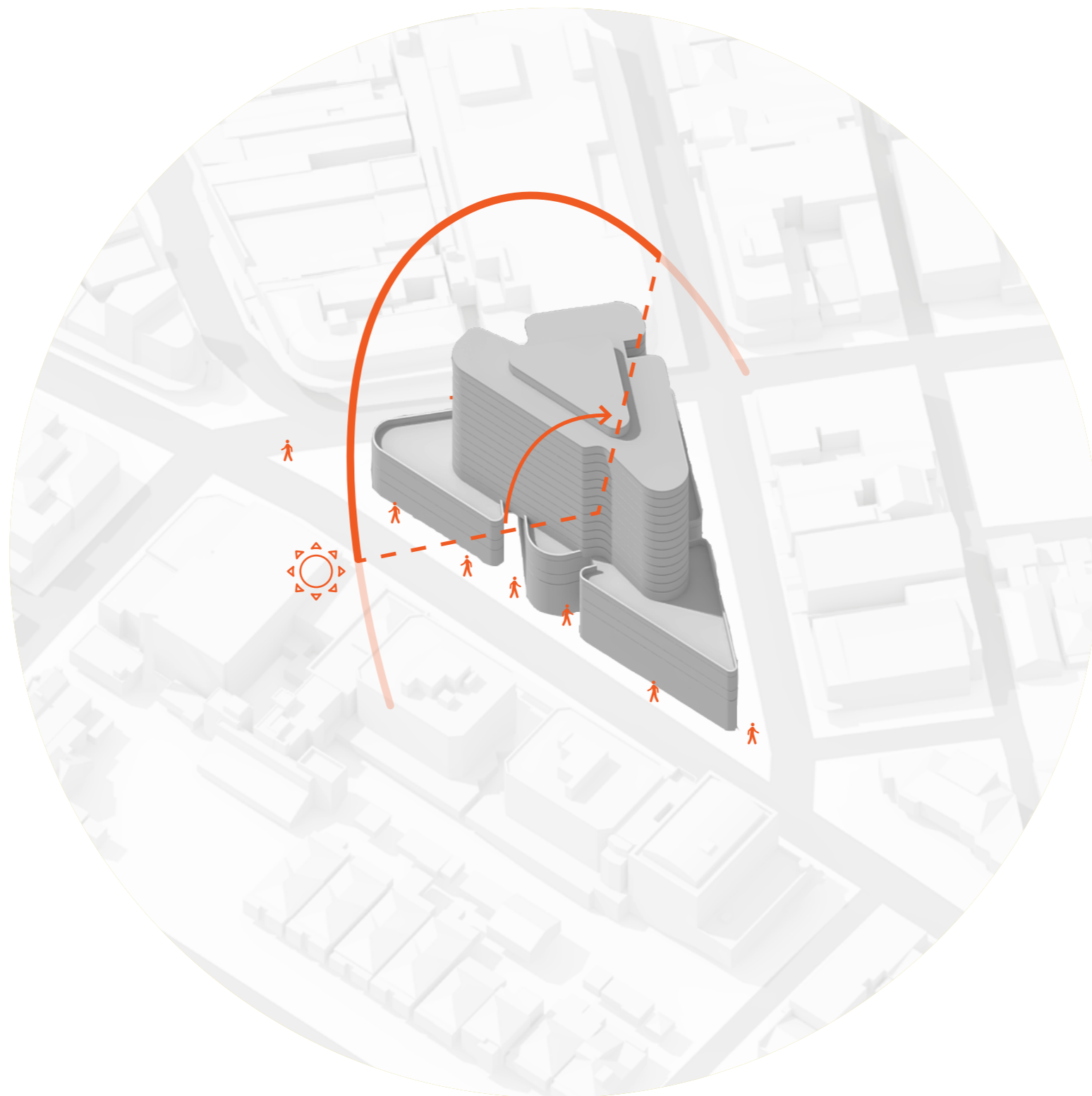
Rest Zones

- LR
- NC
- BC
- IR
- AE
- CS
- VH
- DE
- VU

Placemaking Strategies: Loveable Places
Places to Stop and Rest

18hr City

18-hour cities is an emerging trend which can be generally defined as second-tiered metros, whereby many businesses operate beyond the typical 9-5 hours, but less than the 24h operations commonly seen in bigger cities. This classification is relevant to the subject site, which will contain retail spaces operating beyond typical hours, creating prolonged daily activity in the area.



Placemaking Strategies: Loveable Places

18 Hour City

11

Visual Analysis

View Analysis

A view analysis study for the proposal was prepared based on site photography from streets and the public domain around the site.

The analysis is an updated of earlier studies prepared by the Government Architect NSW as part of the urban design analysis of the precinct.

The following images consider the envelope form of the proposed building in the local context.

The visual analysis imagery and analysis was prepared by Urbaine Architectural following a methodology based on the requirements of the Land and Environment Court 'Use of photomontages' policy.





Photomontage of Building Extents

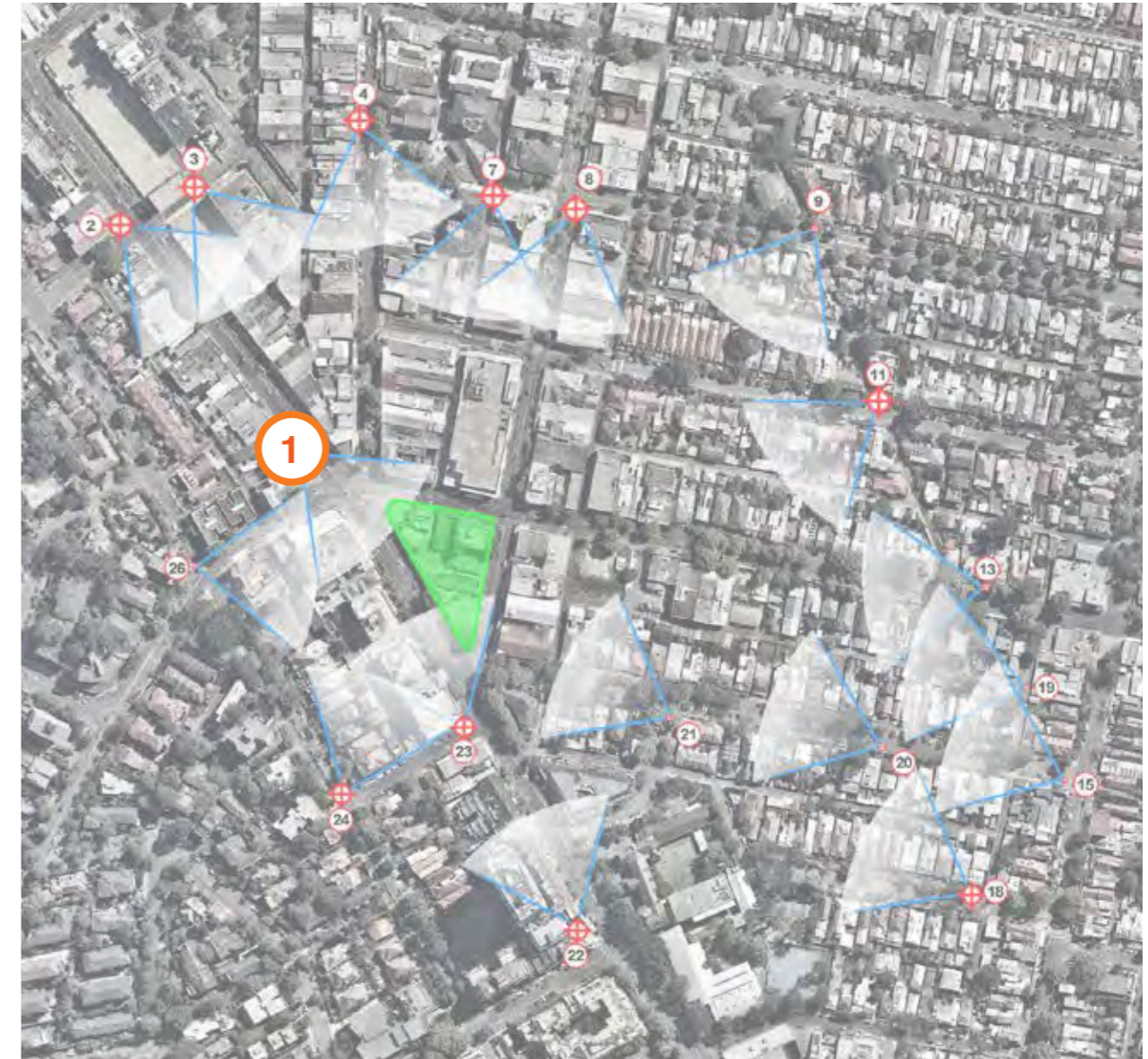
Analysis of Visual Impact: View 1

This is a dynamic, public viewpoint, looking south east towards the subject site, with an unobstructed view of the new proposal, across the junction with Pacific Highway, Falcon Street and Shirley Road.

The extent of visual impact is considerable from this location, as the building stands as a focal landmark point or gateway element at the geographical centre of Crows Nest, a symbolic position reinforced as a positive attribute within

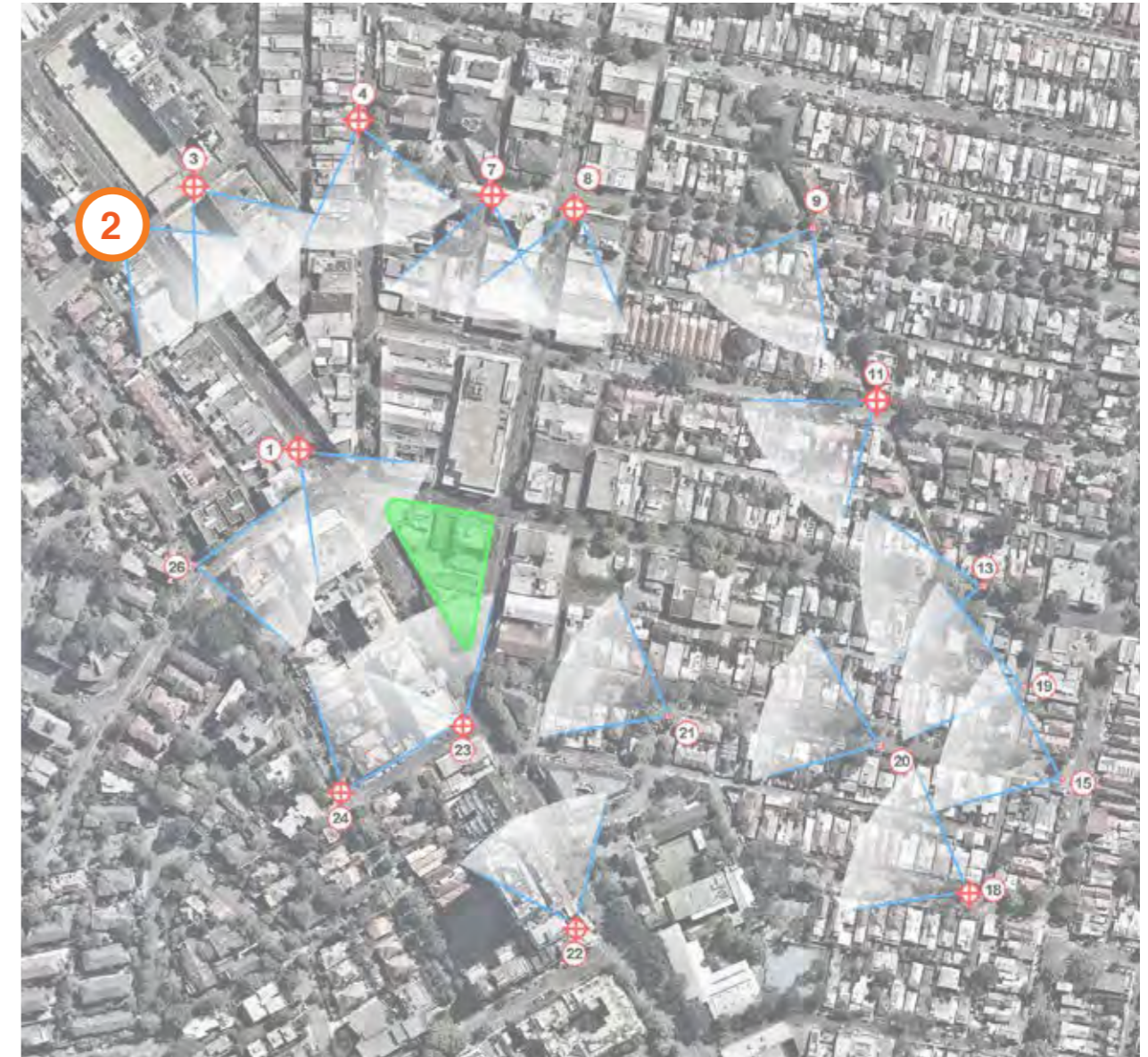
both the 2036 Plan and the Roberts Day place making report.

The surrounding buildings are all of commercial and retail use and of varied architectural styles and heights, between 2- and 6-storeys. This area of Pacific Highway in Crows Nest is the most elevated part of the immediate vicinity and, as such the visual impact of the new proposal does not result in any material view loss, only sky view loss.



Location & View Map

The use of a defined podium will assist in creating a sense of separation of the building elements, allowing the lower levels to integrate into the existing urban fabric and the upper towers to act as the landmark icon.



Photomontage of Building Extents

Analysis of Visual Impact: View 2

This is a dynamic, public viewpoint, looking south east towards the subject site, with a partial view of the upper levels of the new proposal but with most of the podium level obscured by foreground buildings, particularly at the main junction.

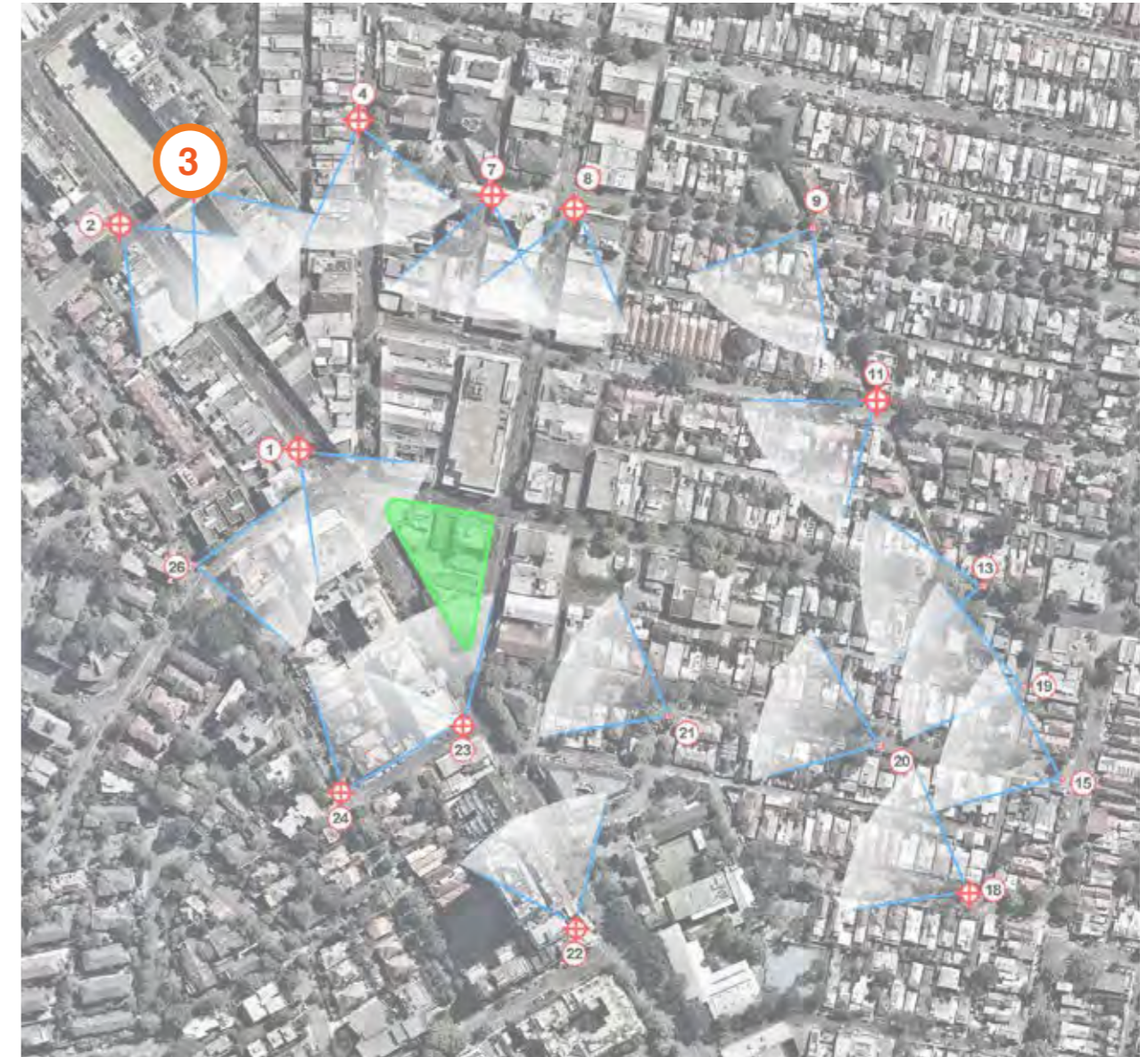
The extent of visual impact is significant at a distance, but not oppressively so. The retail buildings along Pacific Highway are mostly 2- and 3-storeys and of mixed quality.

The raised position of the new proposal clearly allows the new proposal to act as a beacon for the suburb of Crows Nest and the core of its future development plans.

Across the Pacific Highway is a new train station development, part of the plan for growth for this suburb and in keeping with the intent of the new proposal.

Location & View Map

Visually, the upper portions of the built form will be lighter and more open in their structure and materiality than the podium, serving to diminish the visual impact against the sky. There is no loss of view as a result of the low viewing angle relative to the raised site.



Photomontage of Building Extents

Analysis of Visual Impact: View 3

This is a dynamic, public viewpoint, looking south east towards the subject site, with a partial view of the upper levels of the new proposal but with all of the podium level obscured by foreground buildings, particularly those located at the main Five Ways junction.

The extent of visual impact is relatively significant at a distance but will be obscured further with the completion of the new metro station building, currently underway on the

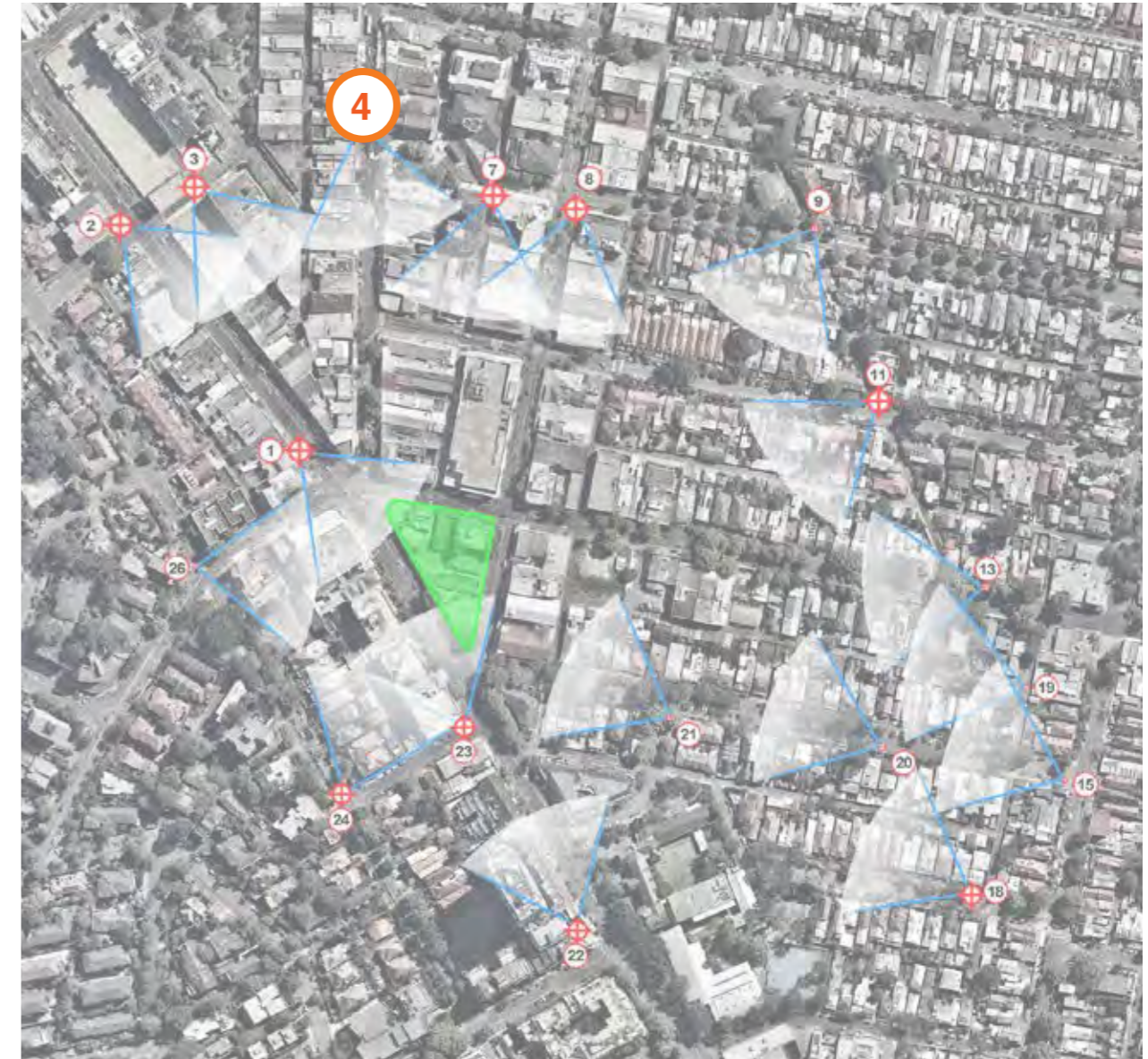
corner of Pacific Highway and Hume Street. The buildings in the foreground are commercial and between 4- and 6- storeys in height, with little architectural merit.

The visibility of the proposal from this location again serves to reinforce its role as a central visible landmark or 'gateway element' for the hub of the suburb.

Location & View Map



Note: the proposal is obscured by foreground elements in this view



Location & View Map

Photomontage of Building Extents

Analysis of Visual Impact: View 4

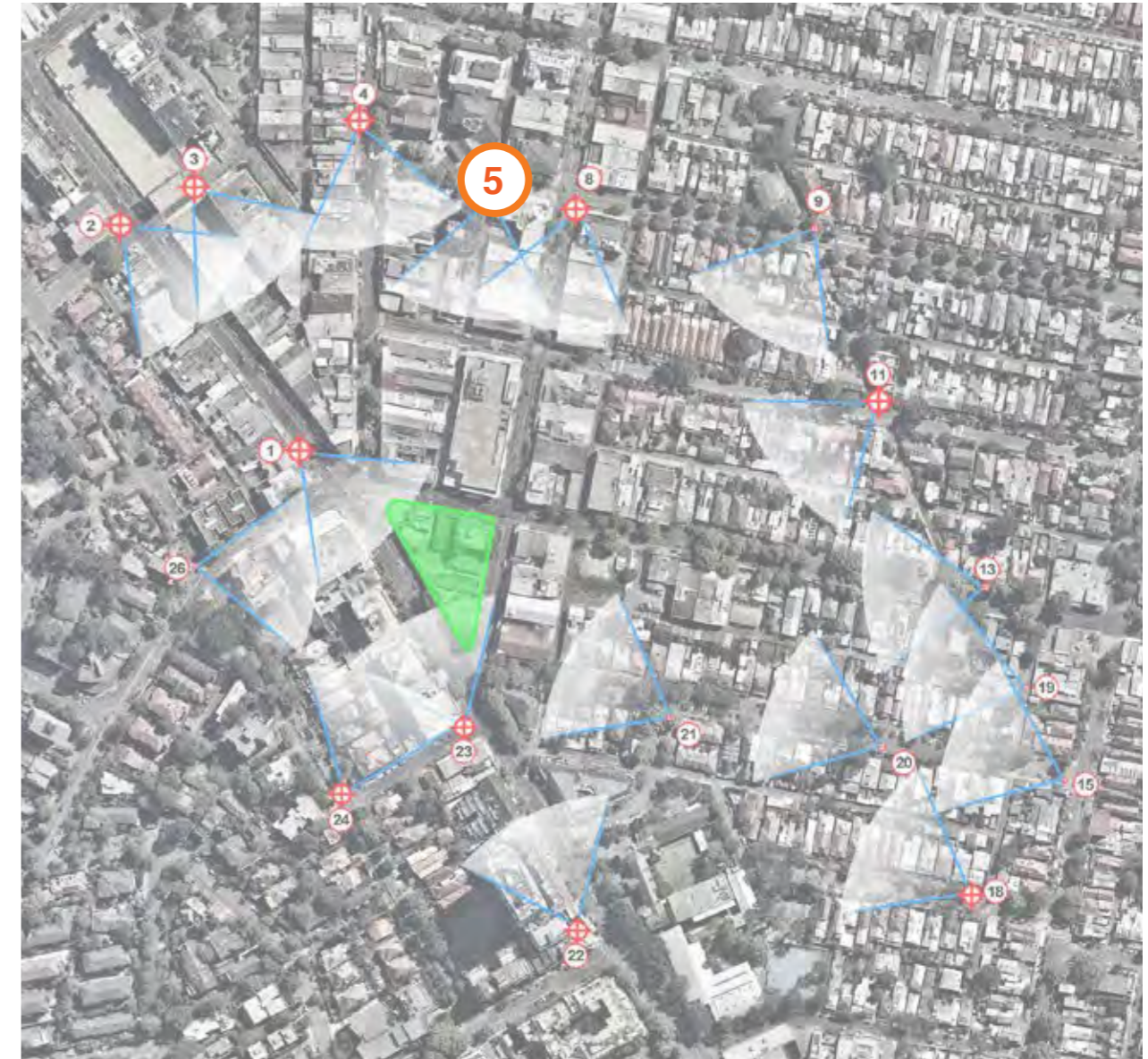
This is a dynamic, public viewpoint on the main shopping street of Crows Nest, being Willoughby Road. The view looks south towards the subject site, with a partial view of the upper levels of the new proposal but with almost all of the podium level obscured by foreground buildings, particularly those located at the main Five Ways junction.

Willoughby Road is lined with mature trees which serve to conceal a large portion of the upper levels of the proposal.

The visual glimpses seen between the trees assist in maintaining the proposal's purpose as a symbolic and visual focal point for the suburb, particularly in its heightened position in the area.

The larger amount of traffic in this area will be pedestrian and the building's architecture and built form will need to relate to a human scale in terms of its materiality and break down of overall massing. Materiality will reflect the buildings

function, whilst also serving the secondary purpose as an 'sign-posting' or 'gateway element' landmark.



Photomontage of Building Extents

Analysis of Visual Impact: View 5

This is a dynamic, public viewpoint, on a rear access lane, being Willoughby Lane. The view looks south west towards the subject site, with a significant view of the upper levels of the new proposal, but with almost all of the podium level obscured by foreground buildings, particularly those located at the north west of the Five Ways junction.

This is a relatively utilitarian area, mostly for vehicular access and deliveries.

The visual impact, whilst significant, causes no material view loss, only loss of sky view.

The building effectively terminates the vista visually, which is largely in keeping with the role of 'sign-posting' of its central location.

Location & View Map

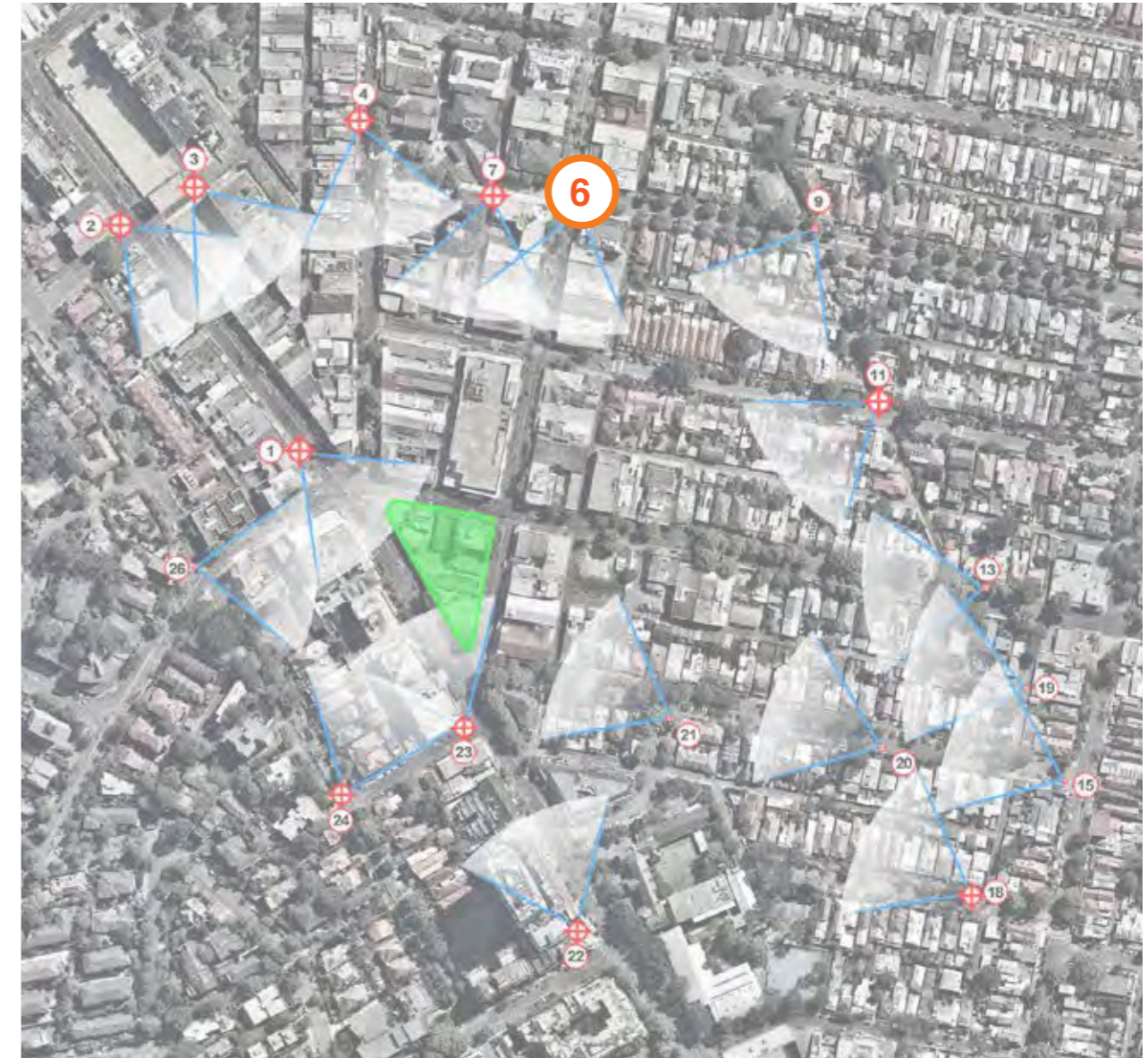


Photomontage of Building Extents

Analysis of Visual Impact: View 6

This is a dynamic, public viewpoint, on a main vehicular route and shopping street of Crows Nest, being Alexander Street, which approaches the Five Ways junction from the north. The view looks south west towards the subject site, with a very small partial view of the upper levels of the new proposal, but with almost all of the proposed built form being obscured by foreground buildings and mature trees along Alexander Street.

The nature and spacing of the trees will facilitate small glimpses of the proposal as the observer approached the Five Ways junction and subject site. These glimpses reinforce the secondary role of the upper towers of the proposal – to indicate the Five Ways junction location and the hub of Crows Nest which, over time will become the centre of new development.



Location & View Map

Seasonal variations in the landscape will permit greater visibility of the proposed buildings over time. Alexander Street, although housing retail uses, is not as pedestrian focused as Willoughby Road and the views will more likely be experienced in a dynamic manner, either vehicular, or walking.



Note: the proposal is obscured by foreground elements in this view

Photomontage of Building Extents

Analysis of Visual Impact: View 7

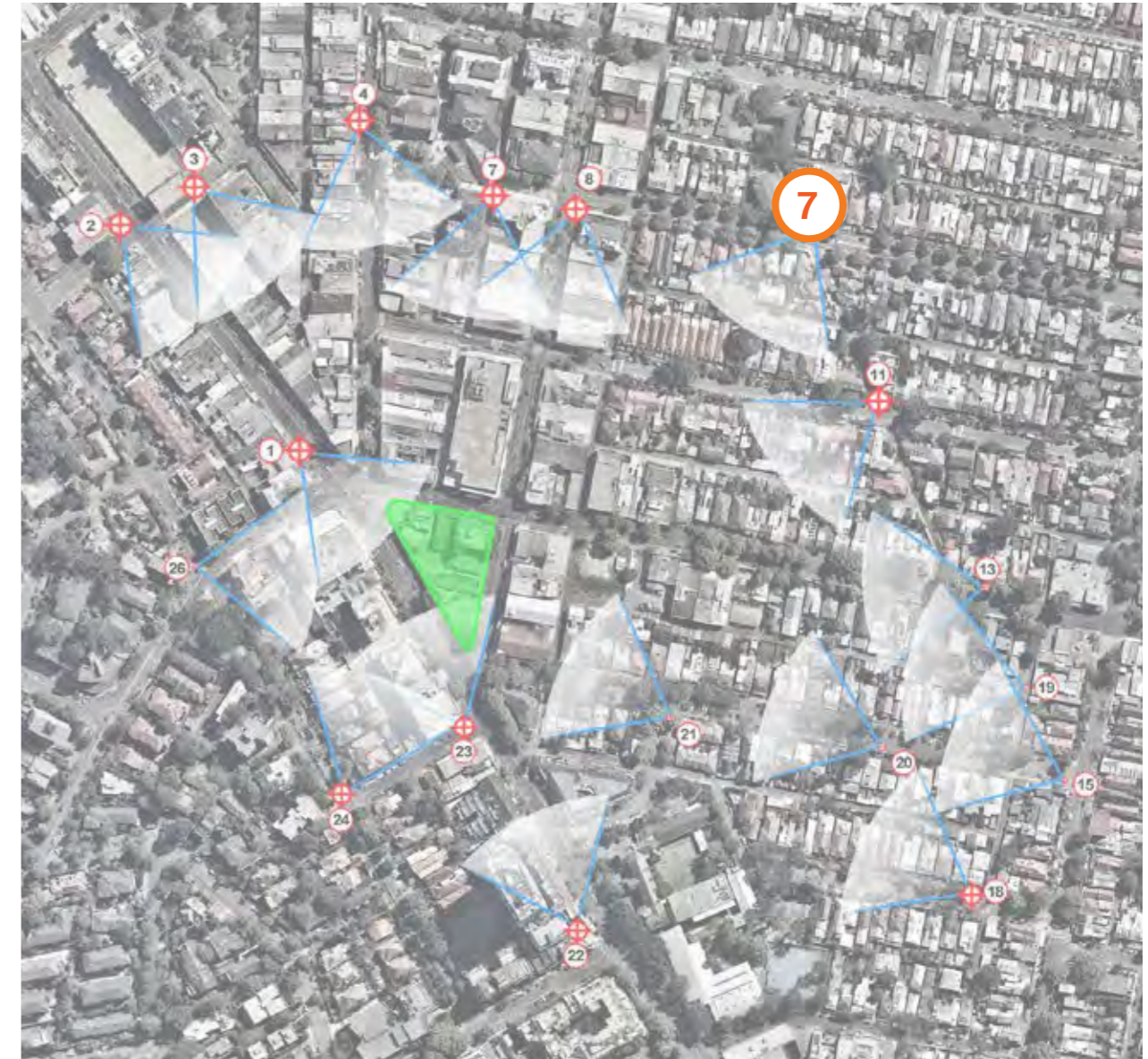
This is a dynamic, public viewpoint, on a main vehicular street of Crows Nest, being Alexander Street which approaches the Five Ways junction from the east. This area is almost entirely residential, consisting of various Federation style houses of 1- and 2-storey construction, alongside small scale residential apartments up to 3-storeys.

These streets are generally lined on both sides with mature, well maintained trees which serve to break up the visual

lines of the residential houses and also of the proposed tower structures in the distance.

Despite its elevation, the proposal is not visible from this location behind the high, raked roofs of the houses on the southern side of Ernest Street.

As in previous views, the glimpses of the proposal between trees and houses serves to act as a 'gateway element' for



Location & View Map

the suburb's commercial centre and also the starting point for future growth and expansion.



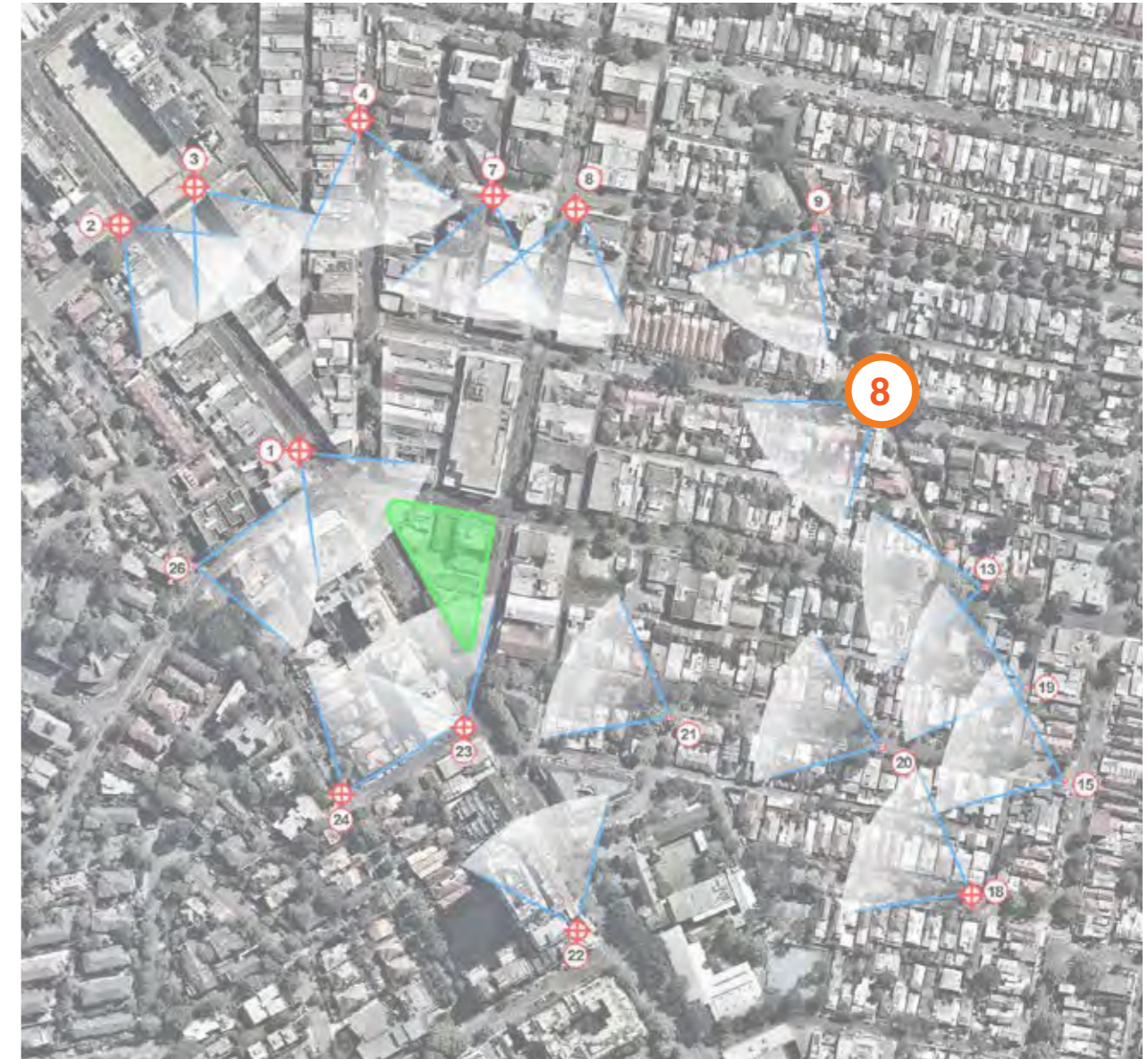
Photomontage of Building Extents

Analysis of Visual Impact: View 8

This is a dynamic, public viewpoint, on a main vehicular and residential street of Crows Nest, being Alexander Street, which approaches the Five Ways junction from the east. This area is almost entirely residential, consisting of various Federation style houses of 1- and 2-storey construction, alongside small scale residential apartments of up to 3-storeys and modern house interventions.

This street, although well planted with trees, does not have the visual screening of larger, higher tree canopies, as are observed on many of the adjoining residential streets. As a result of this, the proposal is significantly visible above the single storey house roof lines, between the observer and the subject site.

The upper levels of the proposal are visible, while the podium is entirely obscured by the foreground elements.



Location & View Map

The tower is visible in the distance but does not dominate the view from the street.

As a result of its raised position, there is no material view loss, only a loss of sky view in the distance.



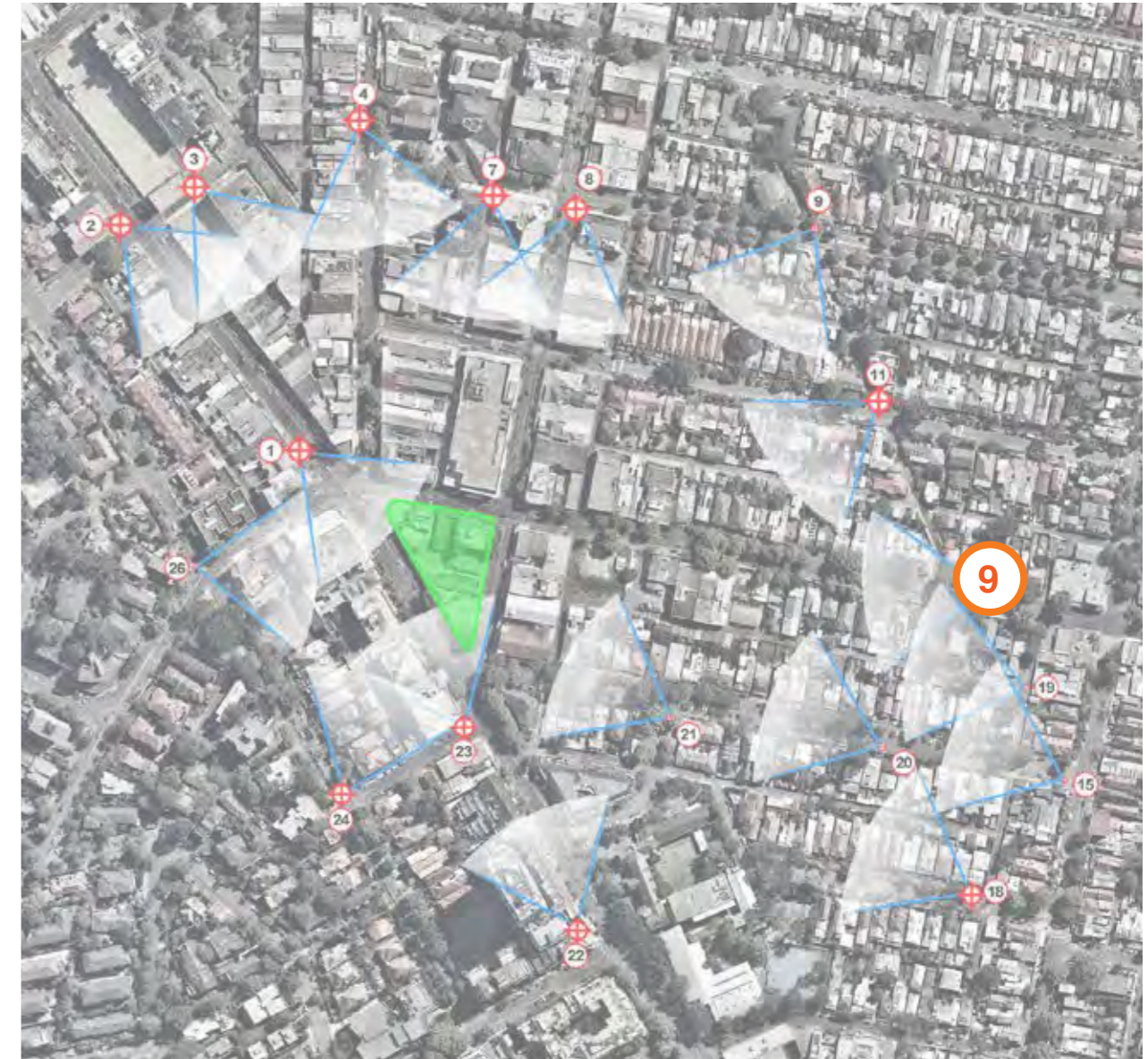
Note: the proposal is obscured by foreground elements in this view

Photomontage of Building Extents

Analysis of Visual Impact: View 9

This is a dynamic, public viewpoint, on a main vehicular street of Crows Nest, being Falcon Street, which approaches the Five Ways junction from the east. This area is almost entirely residential, interspersed with a small number of commercial and retail conversions. The street consists of various Federation style houses of 1- and 2-storey construction, alongside small scale residential apartments up to 3-storeys and various modern interventions.

Falcon Street is lined on both sides with mature, well-maintained trees which serve to break up the visual lines of the residential houses and also of the proposed tower structures in the distance. Despite its raised elevation, the proposal is only partially visible at its upper levels from this location behind the large trees on the street, towards the west.



Location & View Map

As in previous views, the glimpses of the proposal between trees and houses serves to act as a 'gateway element' for the suburb's commercial centre and also the starting point for future growth and expansion.

None of the lower podium levels are visible from this location and, as in previous views, the elevated site position ensures there are no material view losses incurred.

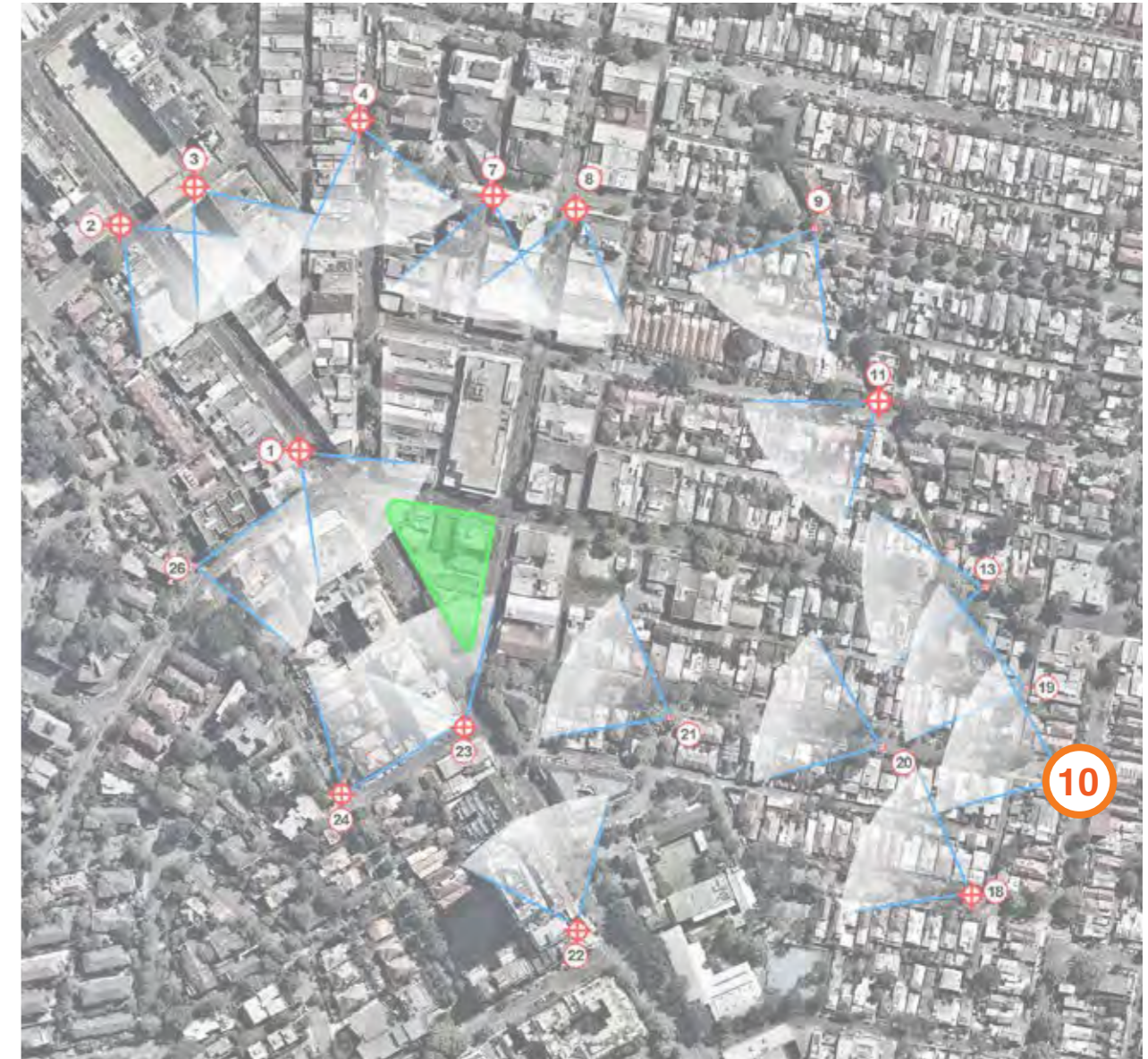


Photomontage of Building Extents

Analysis of Visual Impact: View 10

This is a dynamic, public viewpoint, at the junction of 2 residential streets in Crows Nest, being Hayberry Street and West Street. Hayberry Street approaches the Five Ways junction from the east. This area is almost entirely residential, interspersed with a small number of commercial and retail conversions. The street consists of various Federation style houses of 1- and 2-storey construction, alongside small scale residential apartments up to 3-storeys and various modern interventions.

Hayberry Street is lined on both sides with mature, well maintained trees which serve to break up the visual lines of the residential houses and also of the proposed tower in the distance. Despite its elevation, the proposal is only partially visible from this location through gaps in the large trees on the street, west of the image location.



Location & View Map

As in previous views, the glimpses of the proposal between trees and houses serves to act as a 'gateway element' for the suburb's commercial centre and also the starting point for future growth and expansion.

None of the lower podium levels are visible from this location and, as in previous views, the elevated site position ensures there are no material view losses incurred.



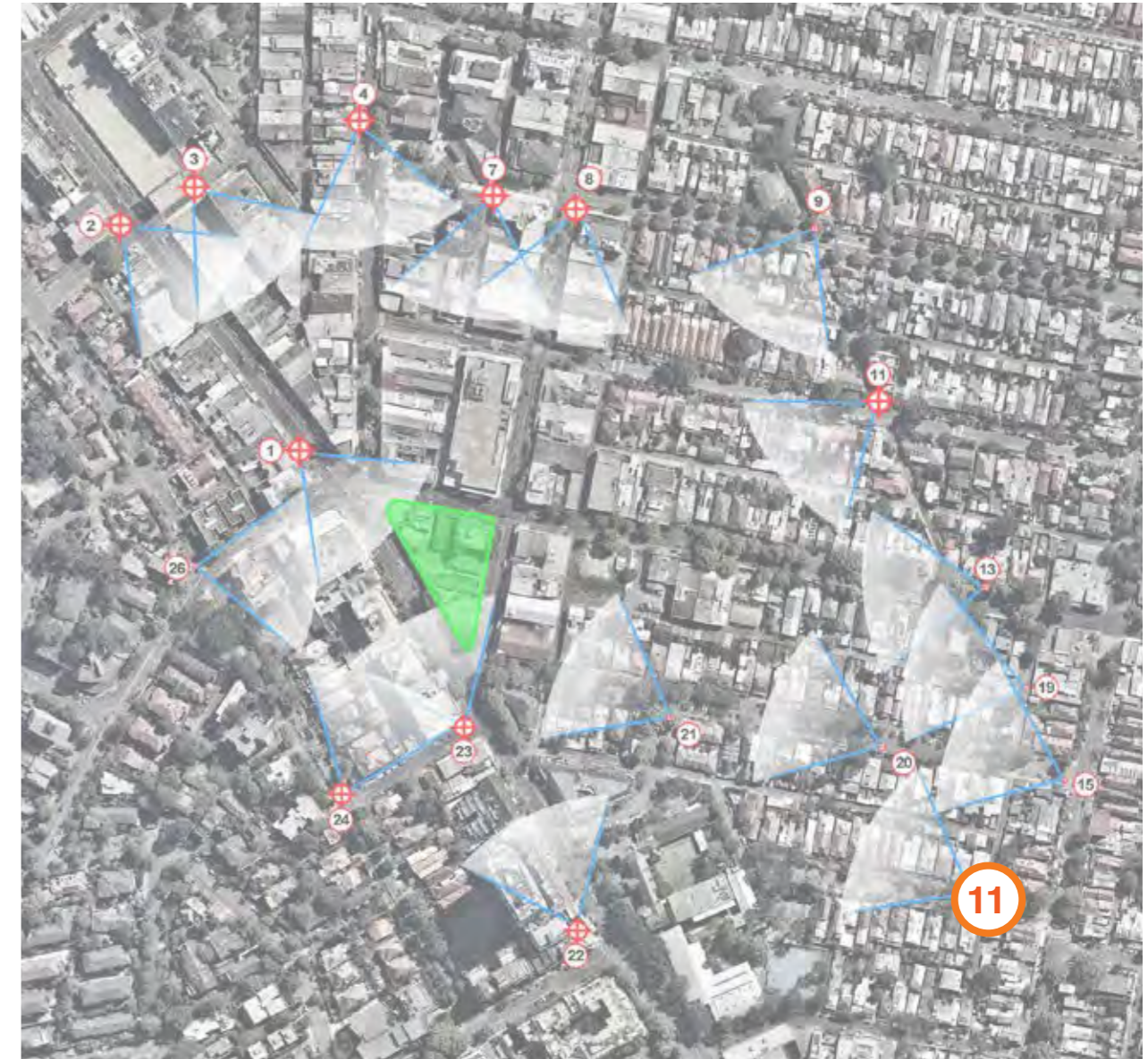
Note: the proposal is obscured by foreground elements in this view

Photomontage of Building Extents

Analysis of Visual Impact: View 11

This is a dynamic, public viewpoint, at the junction of 2 residential streets in Crows Nest, being Myrtle Street and Eden Street. Myrtle Street connects to Pacific Highway at its eastern end. This area is almost entirely residential, interspersed with a small number of commercial and retail conversions. The street consists of various Federation style houses of 1- and 2-storey construction, alongside small scale residential apartments up to 3-storeys and various modern interventions.

Myrtle Street is lined on both sides with mature, well maintained trees, which serve to break up the visual lines of the residential houses and also of the proposed tower structures in the distance. Despite its elevation, the proposal is not visible from this location behind roof line of Nos. 42-44 Myrtle Street, towards the north west.



Location & View Map

As in previous views, the glimpses of the proposal between trees and houses serves to act as a 'gateway element' for the suburb's commercial centre and also the starting point for future growth and expansion.

None of the lower podium levels are visible from this location and, as in previous views, the elevated site position ensures there are no material view losses incurred.

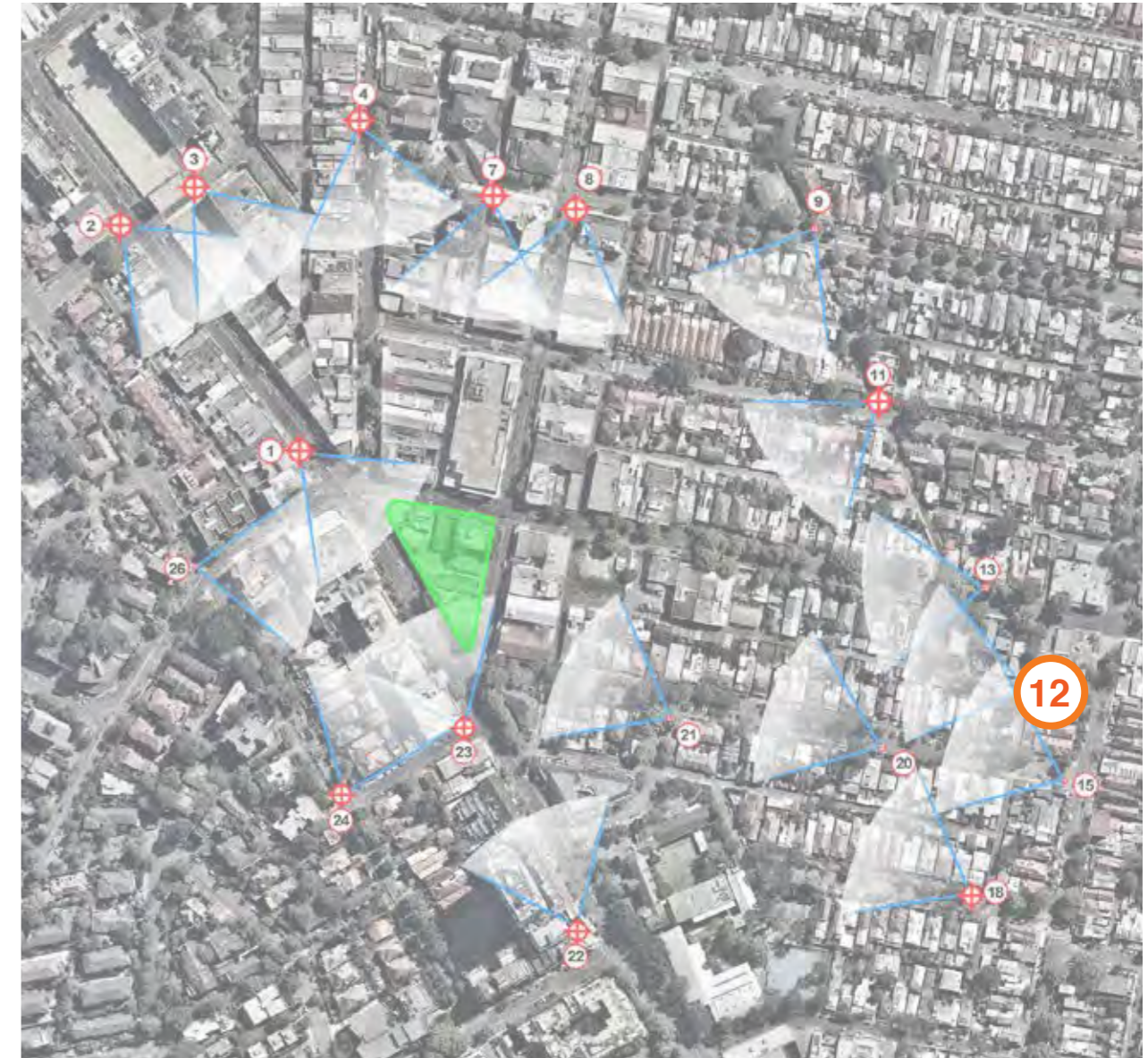


Photomontage of Building Extents

Analysis of Visual Impact: View 12

This is a dynamic, public viewpoint, at the junction of two residential streets in Crows Nest, being Hayberry Lane and Bernard Lane. Hayberry Lane approaches the Five Ways junction from the east. This lane is predominantly for vehicular access to the garages at the rear of houses on Falcon Street and Hayberry Street. The character of the area is almost entirely residential, interspersed with a small number of commercial and retail conversions.

There are a mixture of random garages, mixed with residential conversions and 3- to 4-storey apartments. Towards the western end of Hayberry Lane, a number of larger, mature trees are located in rear residential gardens, alongside the edge of the road. These conjoin at various locations to effectively obscure large parts of the upper elements of the new proposal. The podium levels are entirely obscured by the buildings surrounding the site



Location & View Map

As in previous views, the glimpses of the proposal between trees and houses serves to act as a 'gateway element' for the suburb's commercial centre and also the starting point for future growth and expansion.

The elevated site position ensures there are no material view losses incurred, only partial sky view losses.



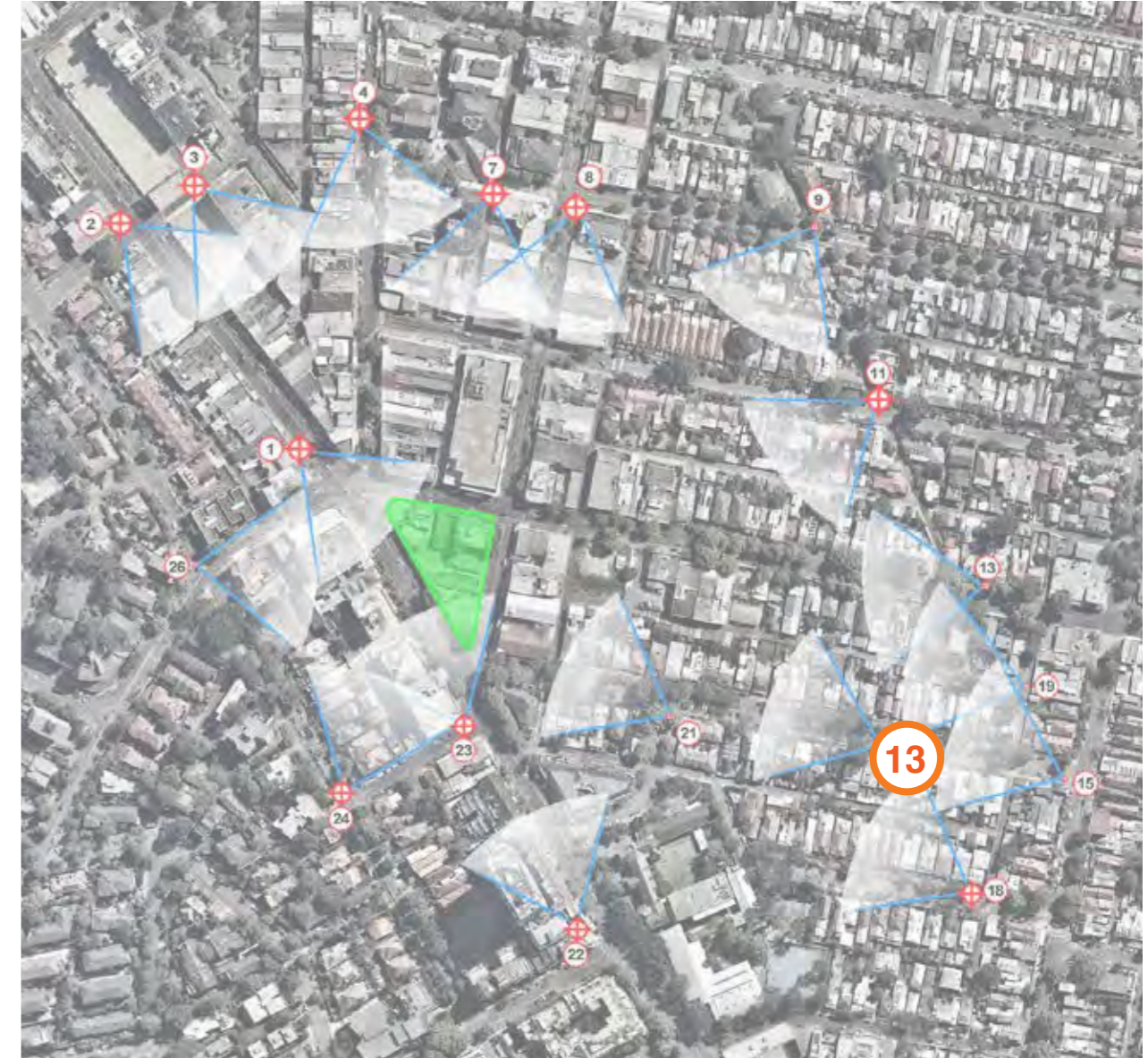
Photomontage of Building Extents

Analysis of Visual Impact: View 13

This is a dynamic, public viewpoint, approximately at the midpoint of a wide, established residential street, being Hayberry Street. This street approaches the Five Ways junction from the east. The area is almost entirely residential, interspersed with a small number of commercial and retail conversions. The street consists of various Federation style houses of 1- and 2-storey construction, alongside small scale residential apartments up to 3-storeys and various modern interventions.

Hayberry Street is lined on both sides with mature, well maintained trees, which serve to break up the visual lines of the residential houses and also of the proposed tower structures in the distance. Despite its elevation, the proposal is not visible from this location.

As in previous views, the glimpses of the proposal between trees and houses serves to act as a 'gateway element' for the suburb's commercial centre and also the starting point



Location & View Map

for future growth and expansion.

None of the lower podium levels are visible from this location and, as in previous views, the elevated site position ensures there are no material view losses incurred.



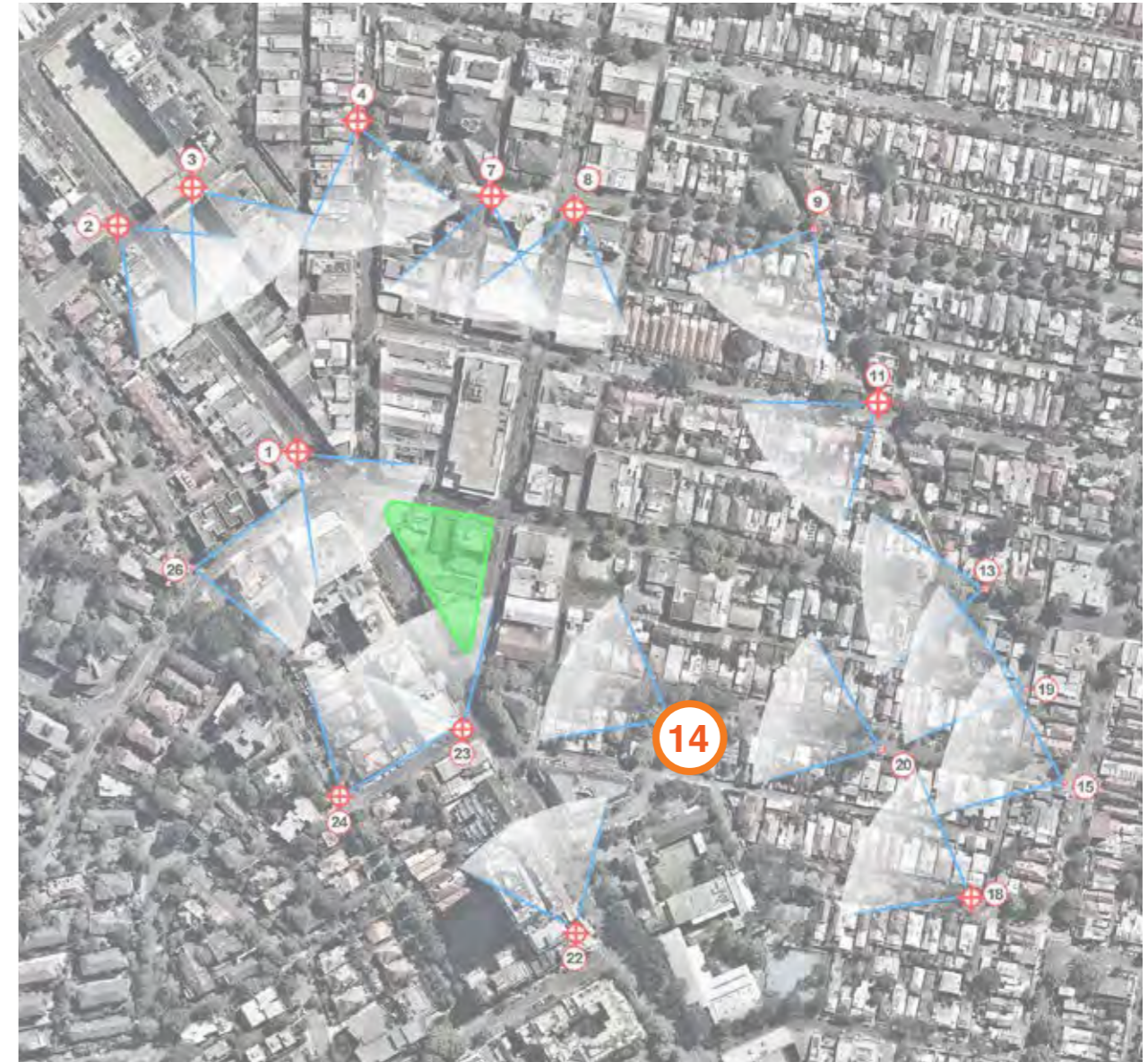
Photomontage of Building Extents

Analysis of Visual Impact: View 14

This is a dynamic, public viewpoint, at the junction of two residential streets in Crows Nest, being Hayberry Street and David Street. Hayberry Street approaches the Five Ways junction from the east. This area is almost entirely residential, interspersed with a small number of commercial and retail conversions. The street consists of various Federation style houses of 1- and 2-storey construction, alongside small scale residential apartments up to 3-storeys and various modern interventions. Beyond the eastern

end of the street the commercial buildings surrounding the subject site terminate the vista.

Hayberry Street is lined on both sides with mature, well maintained trees, which serve to break up the visual lines of the residential houses and also of the proposed tower structures. The mid to upper levels are visible through the trees from this location, with the lower levels being largely obscured by a mixture of mature trees and existing



Location & View Map

buildings.

As in previous views, the glimpses of the proposal between trees and houses serves to act as a 'gateway element' for the suburb's commercial centre and also the starting point for future growth and expansion.

None of the lower podium levels are visible from this location and, as in previous views, the elevated site position ensures there are no material view losses incurred.

Visual Analysis

Viewpoint 14



Photomontage of Building Extents

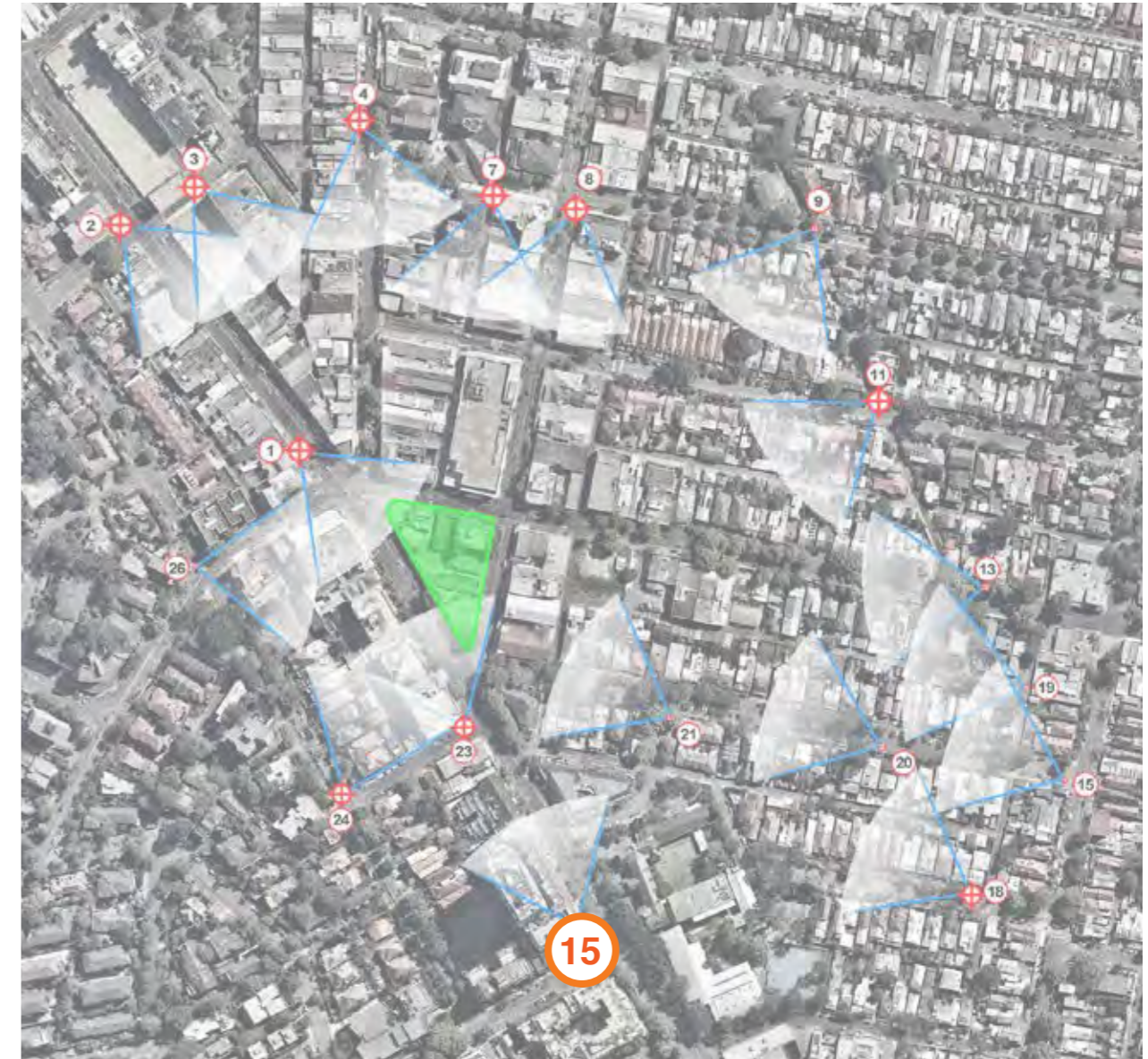
Analysis of Visual Impact: View 15

This is a dynamic, public viewpoint, at the junction of Pacific Highway and Rocklands Road. Pacific Highway is the main traffic thoroughfare approaching Crows Nest and the new proposal's form and location will be very significant in terms of its ability to locate the centre of Crows Nest.

Pacific Highway is lined by large commercial and residential buildings on its western side, with a combination of school and smaller commercial buildings on the east. There are

various mature trees established along the road and also set back, within the ground of the school.

Pacific Highway approached the subject site from the south and from a lower elevation. This makes the new proposal more prominent visually, but ensures that no actual views are lost – the only visual impact being on the sky.



Location & View Map

The Pacific Highway is the main arterial route through the North Shore suburbs, which progressively have been developed into larger commercial centres, such as North Sydney, St Leonards and Chatswood. The proposal seeks to articulate the various suburbs further by defining Crows Nest's location through its form and prominence.

Any visual impact should therefore be assessed in this context of way-finding and identification.



Photomontage of Building Extents

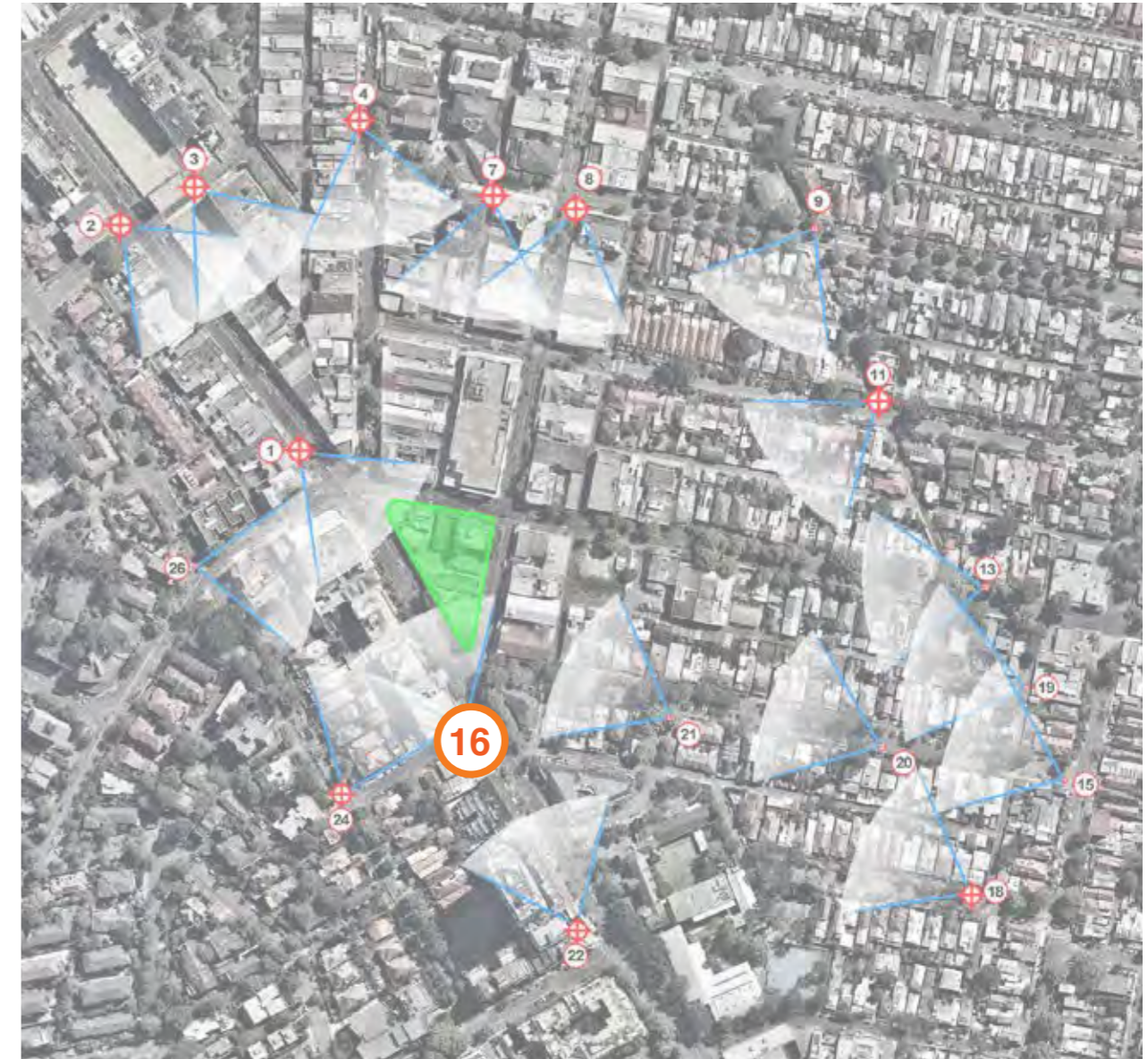
Analysis of Visual Impact: View 16

This is a dynamic, public viewpoint, at the junction of Pacific Highway and Bruce Street. Pacific Highway is the main traffic thoroughfare approaching Crows Nest and the new proposal's form and location will be very significant in terms of its ability to locate the centre of Crows Nest.

From this location, the building is visible almost in its entirety, being obscured only partially by mature trees along the roads. Pacific Highway is lined by large commercial

and residential buildings on its western side, with smaller commercial buildings on the east. There are various mature trees established along the pavements.

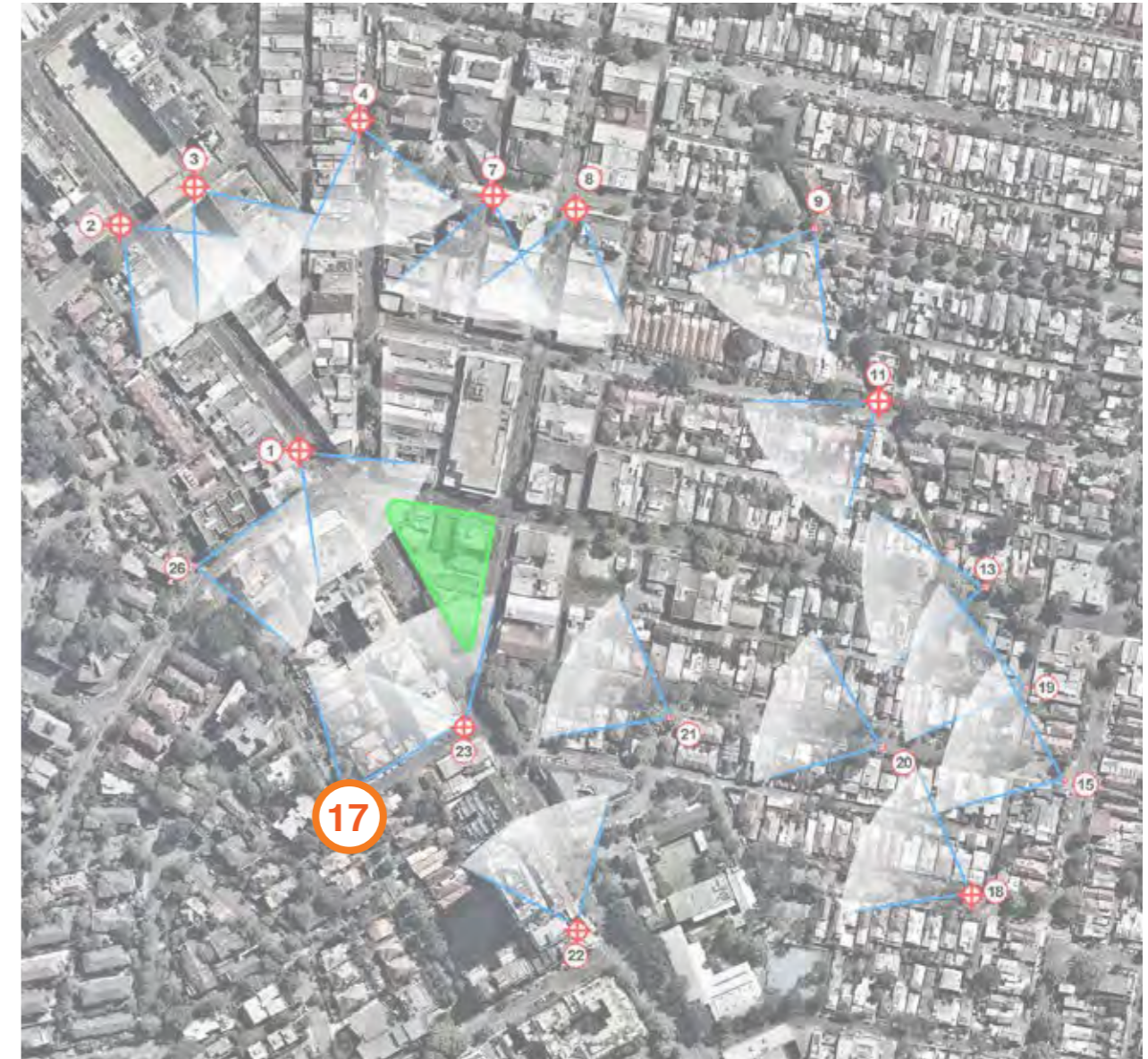
Pacific Highway approaches the subject site from the south and from a slightly lower elevation. This makes the new proposal more prominent visually, but ensures that no actual views are lost – the only visual impact being on the sky. The Pacific Highway is the main arterial route through



Location & View Map

the North Shore suburbs, which progressively have been developed into larger commercial centres, such as North Sydney, St Leonards and Chatswood. The proposal seeks to articulate the various suburbs further by defining Crows Nest's location through its form and prominence.

Any visual impact should therefore be assessed in this context of the proposal's purpose of way-finding and identification.



Photomontage of Building Extents

Analysis of Visual Impact: View 17

This is a dynamic, public viewpoint at the junction of Sinclair Street and Bruce Street. The landform drops steeply to the west from Pacific Highway creating a greater elevation of the new proposal from this location.

The buildings to the west of Pacific Highway are 6- to 8-storey residential and commercial buildings which already help to define the area as the centre of the suburb in terms of scale and interaction. The new proposal rises above the

roof lines of the residential properties on Sinclair Street and obscure sky views only.

From this location, the low to mid levels are not visible, being obscured by the existing buildings and street trees. The top levels are visible over the existing roof lines.

Location & View Map



Photomontage of Building Extents

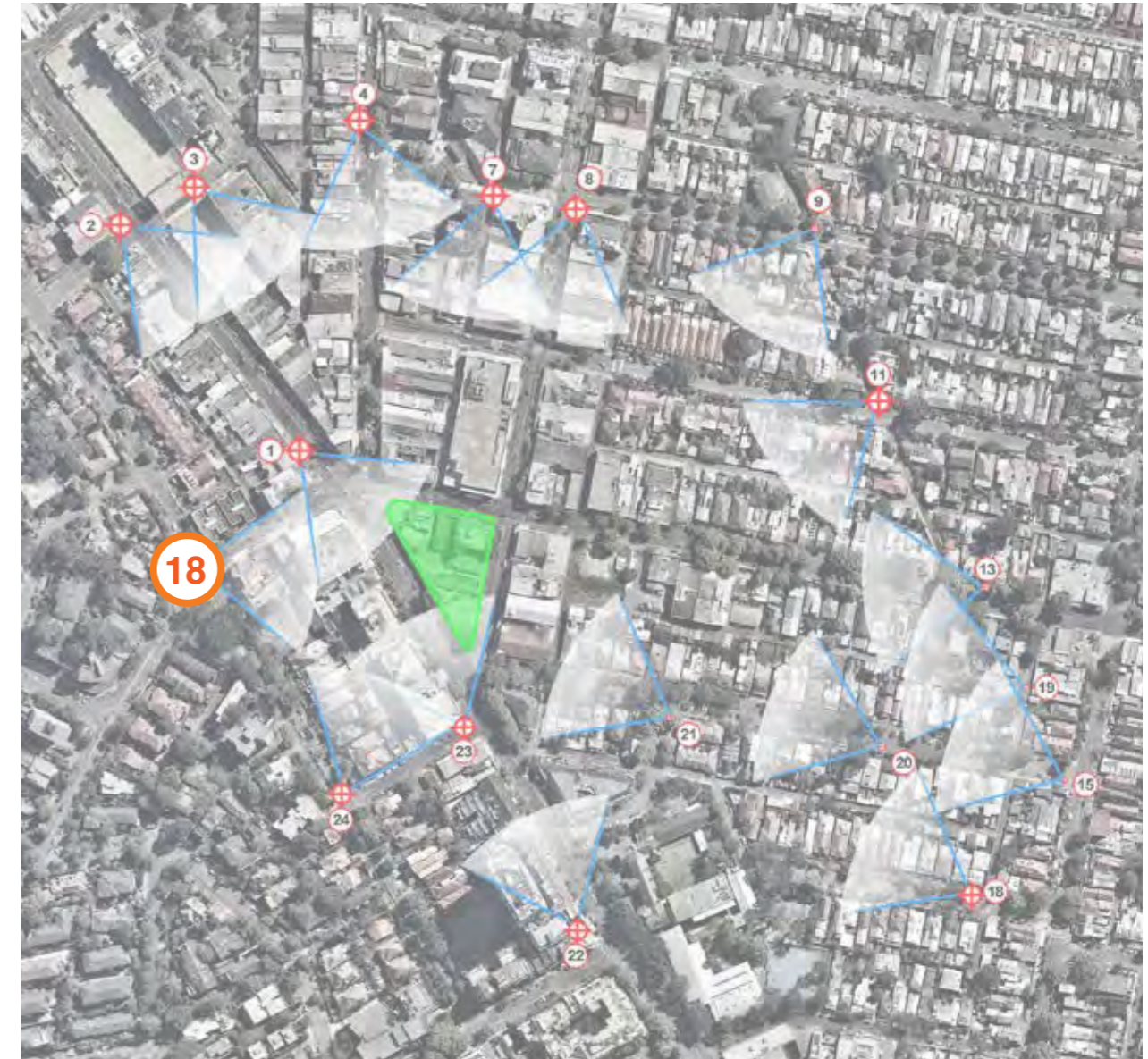
Analysis of Visual Impact: View 18

This is a dynamic, public viewpoint along Shirley Road, which is one of the main arterial roads approaching the Five Ways Junction site from the west. The landform drops steeply to the west from Pacific Highway, creating a greater elevation of the new proposal from this location.

The buildings to the west of Pacific Highway are 6 to 8 storey residential and commercial buildings, which already help to define the area as the centre of the suburb in terms

of scale and interaction. The new proposal rises above the roof lines of the institutional properties on Shirley Road and obscure sky views only.

From this location, the upper levels of the building are visible in part while the mid to lower levels are obscured by the 3-storey brick buildings in the foreground.



Location & View Map

12 Shadow Analysis

In order to assess the effects of overshadowing in the context, 5 principles were generated arising from the 2036 plan.

- 1** No additional overshadowing of **nominated public open spaces** between **10am - 3pm** (Winter solstice)
- 2** No additional overshadowing of **nominated streetscapes** between **11:30am - 2:30pm** (Winter solstice)
- 3** Maintain Solar Access **Residential Areas** inside boundary (for at least **2 hours**)
- 4** Maintain Solar Access to **Residential Areas** outside boundary (for the whole time between **9am and 3pm**)
- 5** Maintain Solar Access to **Heritage Conservation Areas** inside boundary (for at least **3 hours**)





1

No additional overshadowing of nominated public open spaces between 10am - 3pm (Winter solstice)



Complies

 21st of June Shadow (9am-3pm)

 Nominated Public Open Spaces





2

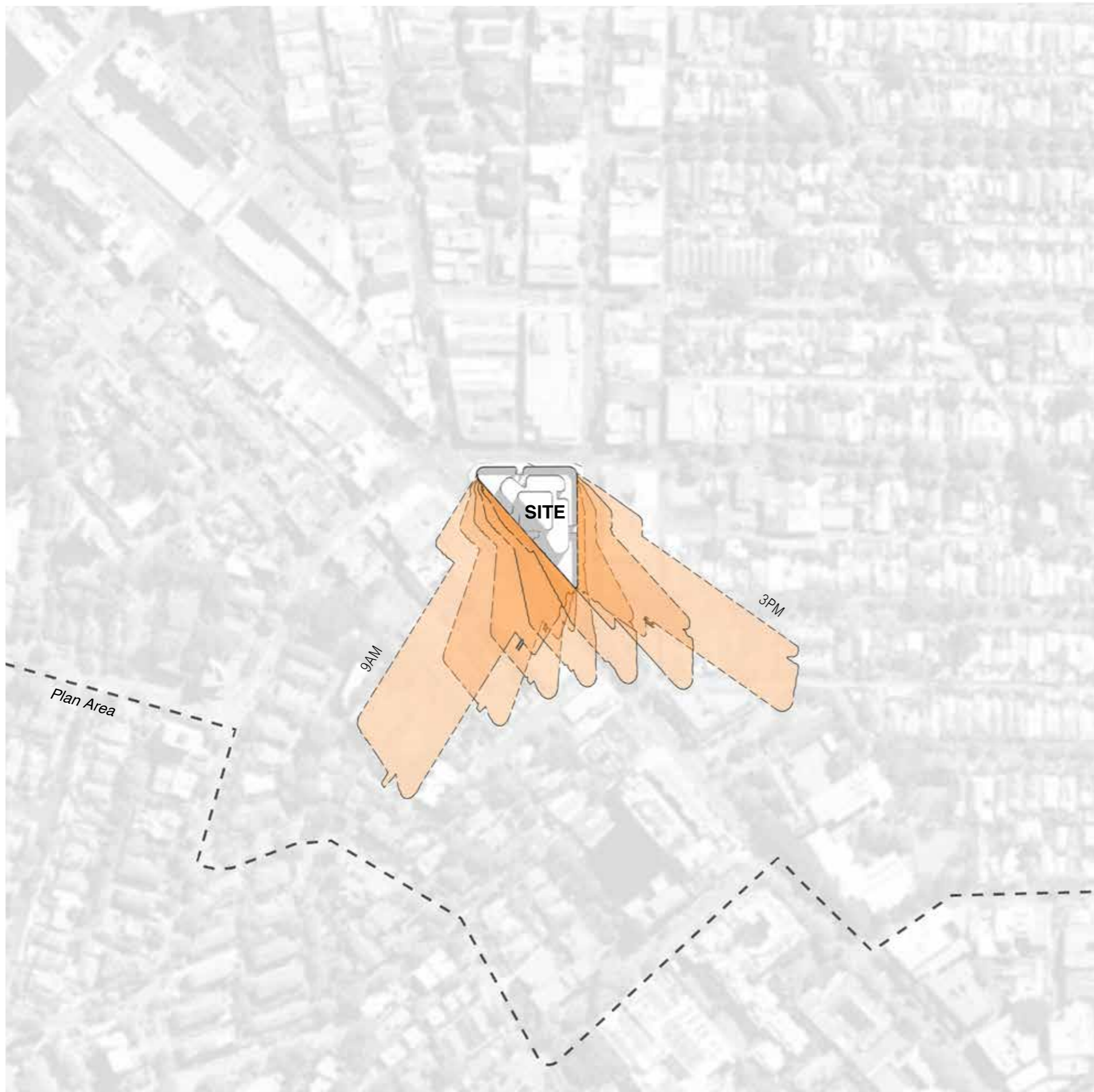
No additional overshadowing of **nominated streetscapes** between 11:30am - 2:30pm (Winter solstice)



Complies

-  21st of June Shadow (9am-3pm)
-  Nominated Streetscapes

No Additional Shadow To Nominated Streetscapes



3

Maintain Solar Access to Residential Areas outside boundary (for the whole time between 9am and 3pm)

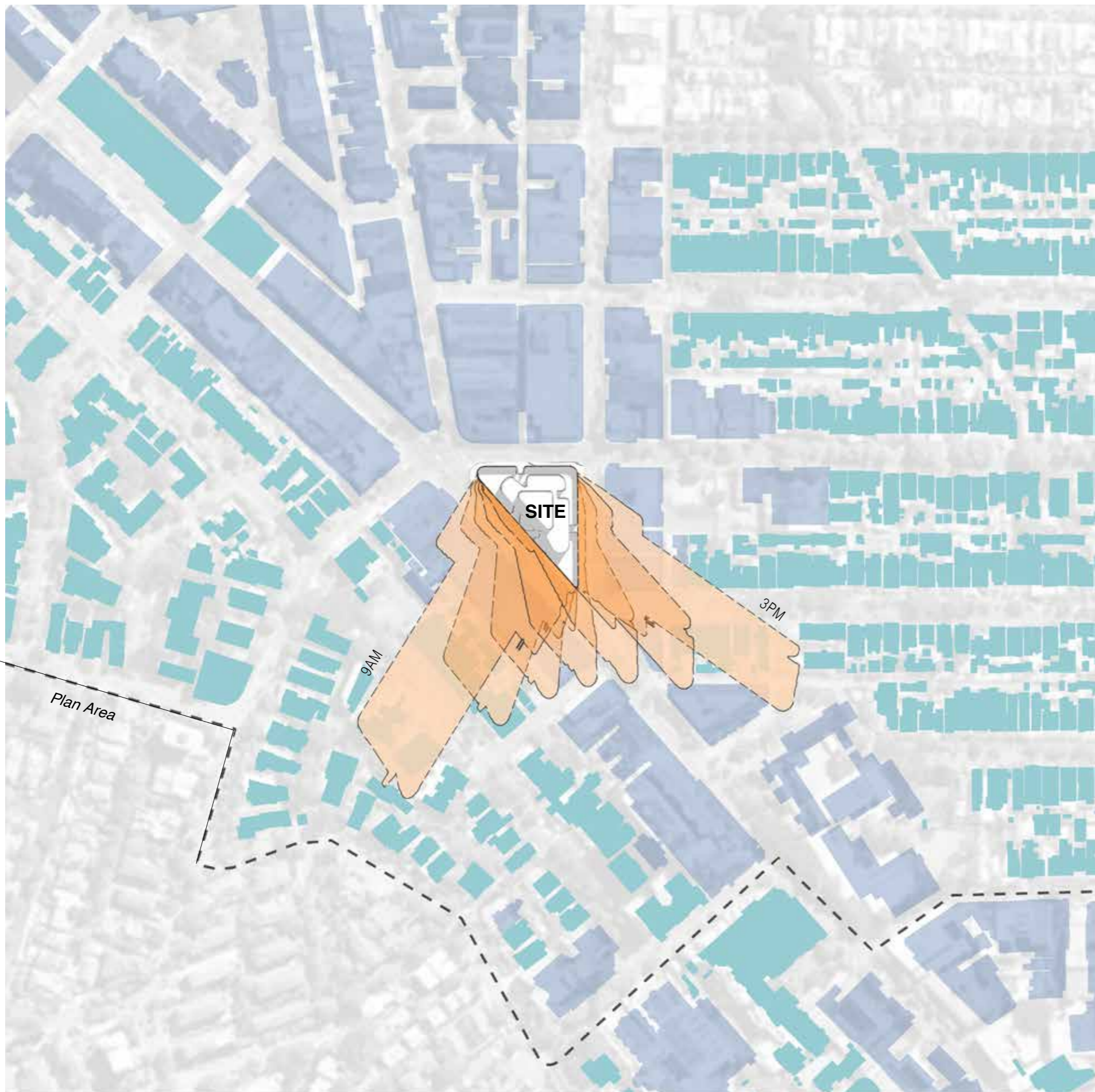


Complies



■ = 21st of June Shadow (9am-3pm)

Maintain Solar Access to Residential Areas Outside the Plan Area Boundary







4

Maintain Solar Access to **Residential Areas** inside the Plan Area boundary (for at least **2 hours**)



Complies

-  = 21st of June Shadow (9am-3pm)
-  = Residential: Solar Amenity reduced Below 3hrs by Proposed Development
-  = Residential: Solar Amenity NOT reduced Below 3hrs by Proposed Development
-  = Commercial

Maintain Solar Access to Residential Areas Inside the Plan Area Boundary





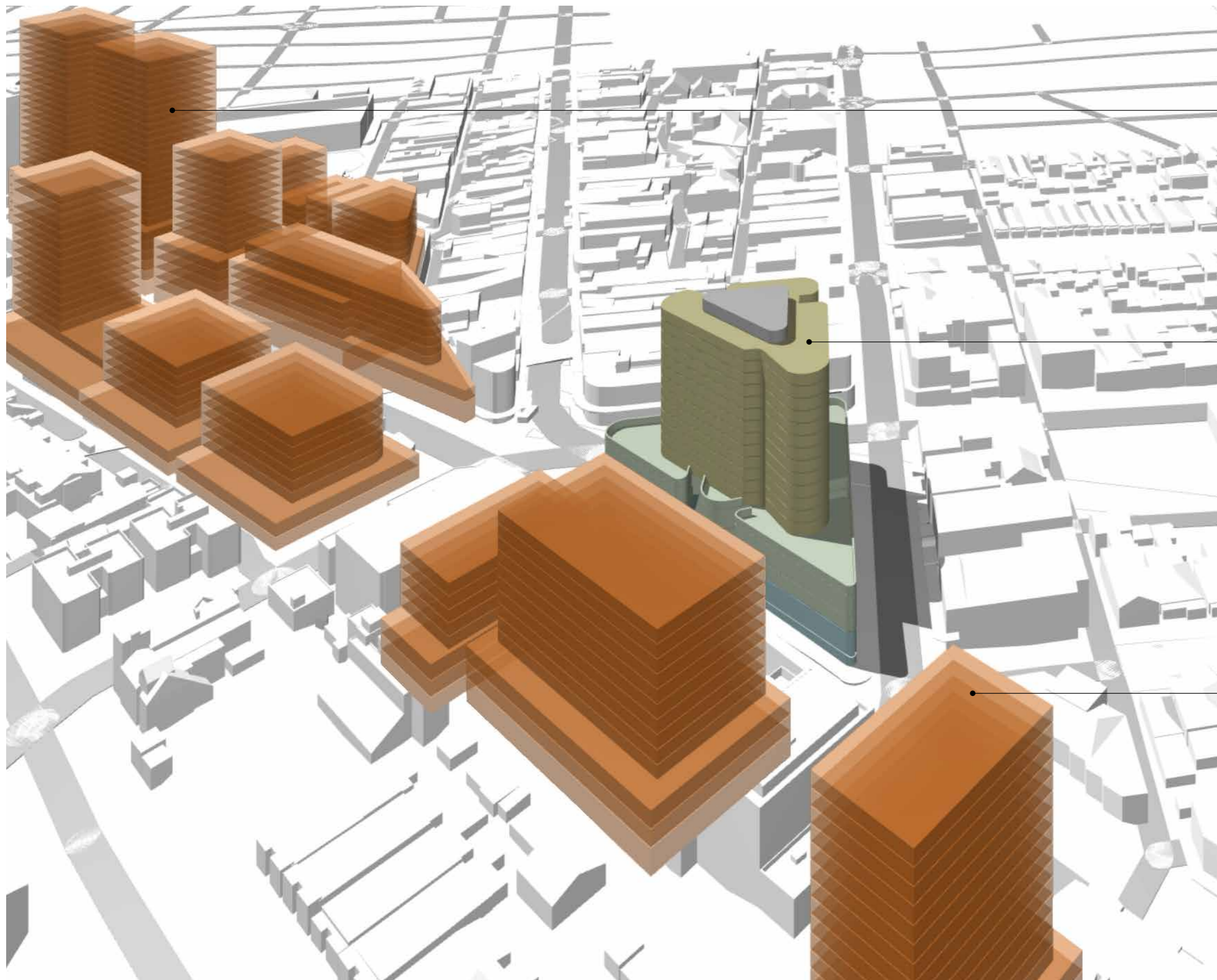
5

Maintain Solar Access to **Heritage Conservation Areas** inside boundary (for at least **3 hours**)



Complies

-  = 21st of June Shadow (9am-3pm)
-  Heritage Conservation Area



Crows Nest Metro OSD

Proposed Development





2036 Plan Future Building Heights

- 2036 Plan - Future Building Massing
- Proposed - Residential
- Proposed - Commercial
- Proposed - Retail

Shadow Analysis

2036 Plan Future Building Heights






-  Site
-  2036 Plan Area
-  Existing Shadows
-  Additional Shadow from Proposal

Shadow Analysis

9:00AM Shadow (21st June) - Existing & Proposed



-  Site
-  2036 Plan Area
-  Existing Shadows
-  Additional Shadow from Proposal

Shadow Analysis

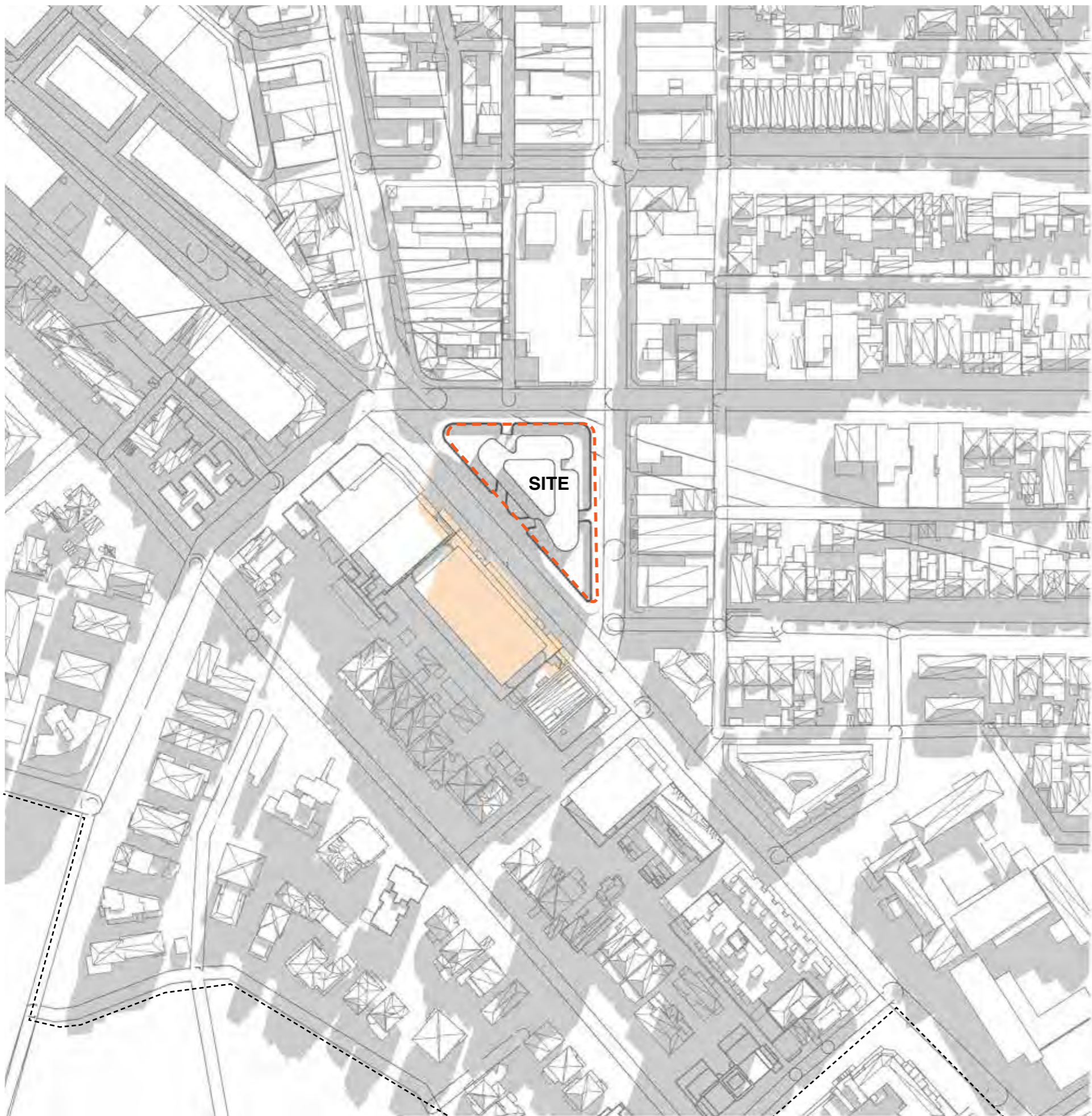
9:00AM Shadow (21st June) - 2036 Plan & Proposed



- Site
- 2036 Plan Area
- Existing Shadows
- Additional Shadow from Proposal

Shadow Analysis

10:00AM Shadow (21st June) - Existing & Proposed



- Site
- 2036 Plan Area
- Existing Shadows
- Additional Shadow from Proposal

Shadow Analysis

10:00AM Shadow (21st June) - 2036 Plan & Proposed







- Site
- 2036 Plan Area
- Existing Shadows
- Additional Shadow from Proposal

Shadow Analysis

11:00AM Shadow (21st June) - Existing & Proposed



-  Site
-  2036 Plan Area
-  Existing Shadows
-  Additional Shadow from Proposal

Shadow Analysis

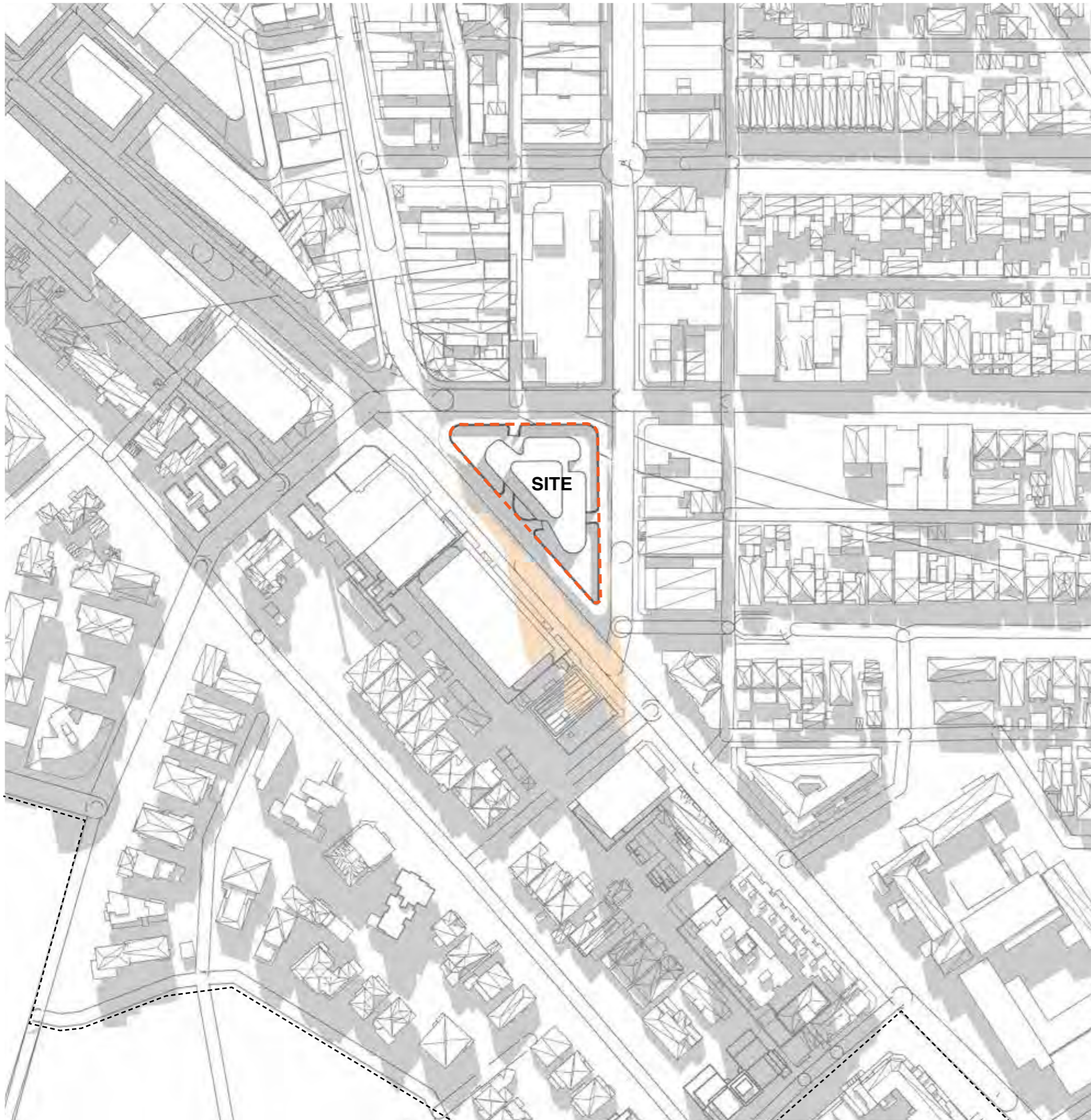
11:00AM Shadow (21st June) - 2036 Plan & Proposed







- Site
- 2036 Plan Area
- Existing Shadows
- Additional Shadow from Proposal

Shadow Analysis

12:00PM Shadow (21st June) - Existing & Proposed






-  Site
-  2036 Plan Area
-  Existing Shadows
-  Additional Shadow from Proposal

Shadow Analysis

12:00PM Shadow (21st June) - 2036 Plan & Proposed







-  Site
-  2036 Plan Area
-  Existing Shadows
-  Additional Shadow from Proposal

Shadow Analysis

1:00PM Shadow (21st June) - Existing & Proposed



-  Site
-  2036 Plan Area
-  Existing Shadows
-  Additional Shadow from Proposal

Shadow Analysis

1:00PM Shadow (21st June) - 2036 Plan & Proposed







- Site
- 2036 Plan Area
- Existing Shadows
- Additional Shadow from Proposal

Shadow Analysis

2:00PM Shadow (21st June) - Existing & Proposed







-  Site
-  2036 Plan Area
-  Existing Shadows
-  Additional Shadow from Proposal

Shadow Analysis

2:00PM Shadow (21st June) - 2036 Plan & Proposed







-  Site
-  2036 Plan Area
-  Existing Shadows
-  Additional Shadow from Proposal

Shadow Analysis

3:00PM Shadow (21st June) - Existing & Proposed



-  Site
-  2036 Plan Area
-  Existing Shadows
-  Additional Shadow from Proposal

Shadow Analysis

3:00PM Shadow (21st June) - 2036 Plan & Proposed

13 The Vision

The Vision

Access and integration to green rooftops is an important goal for the development. The design significantly increases green coverage and communal planting to encourage community integration and sustainable living.

It also provides a green buffer from the roads and creates places of interest for a variety of uses.



The Vision

The public domain enhances the vibrant community by the use of public walks used as "outdoor rooms", abundant green areas, local public art, wide footpaths for layered activities, diversity at ground, places to stop and rest and an 18 hour city strategy for activation.



The Vision

The new public walks reinforce connections to the existing street-grid and suggest new connections to create additional permeability for the neighbourhood. The proposal is an extension of the Crows Nest Village connecting through to retail and commercial areas.



The Vision

Day-time Alexander Street Visualisation

14
Conclusion

Five Ways Conclusion

As demonstrated in this report, the urban form proposed for the Five Ways Crows Nest site achieves the vision, area-wide design principles, and design criteria as outlined in the St Leonards and Crows Nest 2036 Plan. In particular:

- The project delivers significant new commercial floorspace in large flexible floorplates that will contribute to the regeneration of employment space in the district. Commercial tenancy space is designed to be flexibility and potentially suitable for the workplaces connected to Crows Nest Village and also for nearby education and health facilities such as the Mater Hospital.
- The amalgamation of the 19 allotments that currently make up the Five Ways site will enable this currently 'lost space' to be transformed as a vibrant and welcoming gateway to the Crows Nest Village.
- The new ground plane will offer shade, soft landscape, urban furniture and a pedestrian friendly environment which will provide easy and safe connections to the major bus stop on Pacific Highway and to adjacent precincts.
- The ground floor and podium spaces will contain a diverse range of spaces including retail and commercial uses. The mix of shopping and services responds to the needs of the community. The configuration of the retail spaces, new pedestrian links is designed to expand the active and vibrant experience of Crows Nest Village and to provides a catalyst to under performing retail and commercial spaces in the retail High-Streets adjacent to the site.
- The provision of new dwellings within a short walking distance of the \$12.5 billion Crows Nest Metro is responsible planning which helps to create a city where people can live within 30-minutes of their employment.
- The provision of key-working housing contributes to the community demand, Council priorities and ultimately assists local workers who may currently have difficulty accessing private housing.
- The new homes will help satisfy housing demand in the 2027-2036 period and reduce the pressure on less appropriate locations in the LGA.
- The proposal creates a 'gateway element' as anticipated in the 2036 Plan and is the only site capable of supporting a landmark building.



15

**Indicative
Plans**

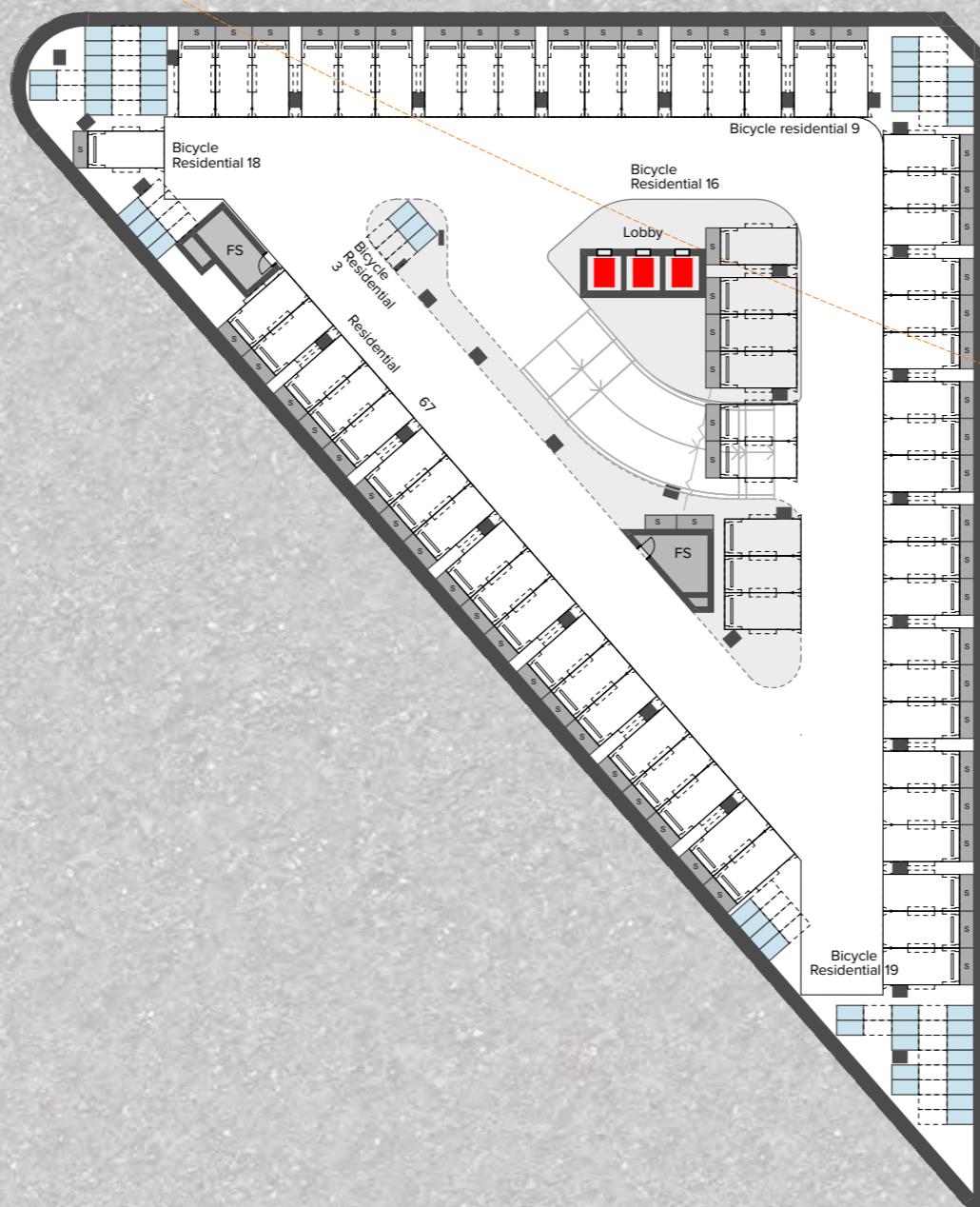


- Residential
- ♿ Residential Adaptable
- Car Share
- Residential Visitors
- Non Residential
- Bicycle Residents
- Bicycle Residents Visitors
- Bicycle Commercial
- Bicycle Commercial Visitors
- Bicycle Retail
- Bicycle Retail Visitors



Design Proposal: General Arrangement Plans

Basement Level 1



- Residential
- ♿ Residential Adaptable
- Car Share
- Residential Visitors
- Non Residential
- Bicycle Residents
- Bicycle Residents Visitors
- Bicycle Commercial
- Bicycle Commercial Visitors
- Bicycle Retail
- Bicycle Retail Visitors



Design Proposal: General Arrangement Plans

Basement Level 5



Design Proposal: General Arrangement Plans

Ground Floor







Design Proposal: General Arrangement Plans

Level 3 - Podium Roof



Design Proposal: General Arrangement Plans
Tower - Typical Floor 4-6



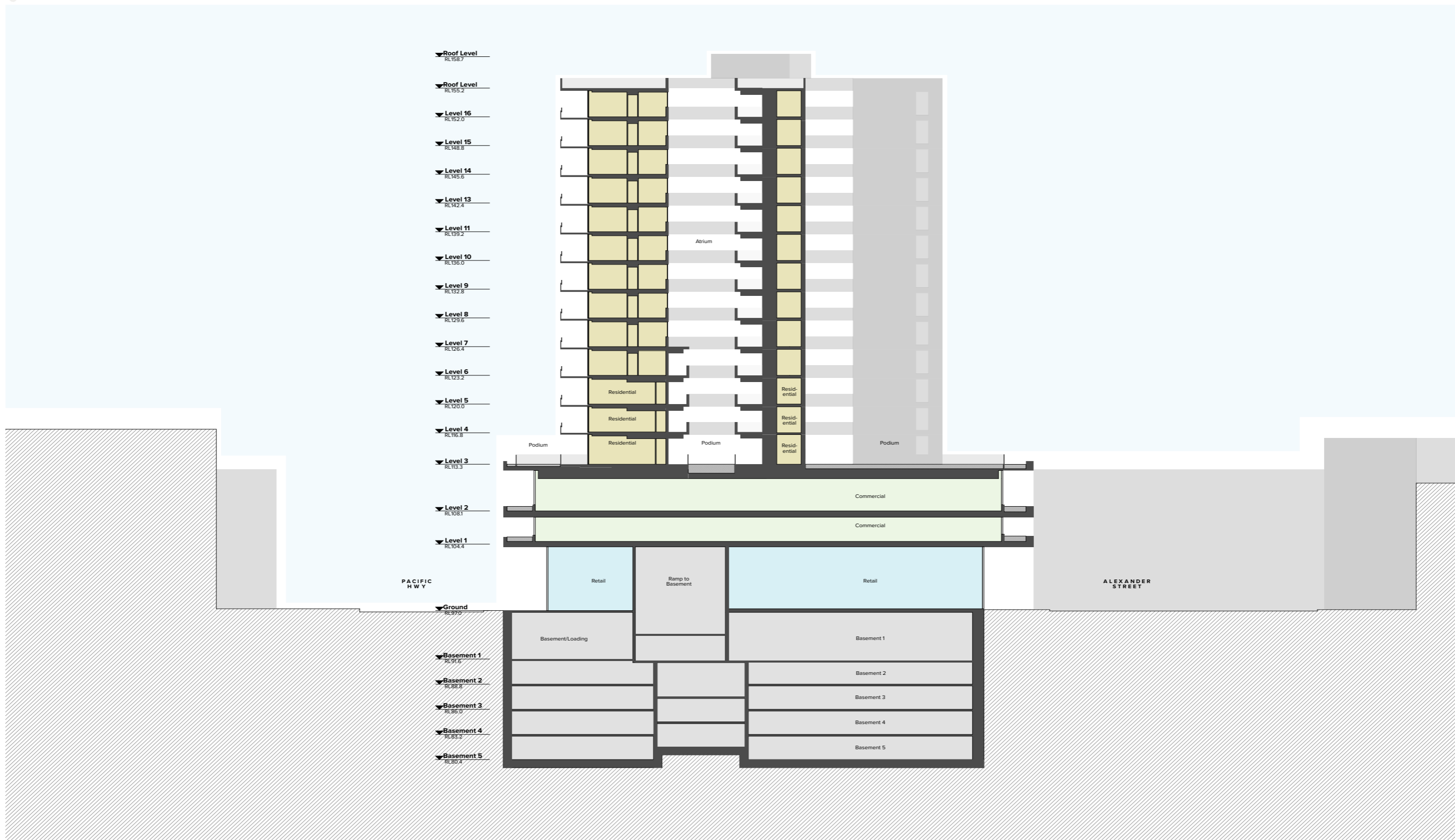
Design Proposal: General Arrangement Plans
Tower - Typical Floor 7-13



Potential Future Hayberry Lane



Design Proposal: General Arrangement Plans
Tower - Typical Floor 14-16



Design Proposal: General Arrangement Plans

Section



Development Metrics

Total Height (Including Podium)
16-Storeys

Podium GFA (3 levels)
8,002m²

Tower GFA (13 levels)
10,564m²

Typical Tower Floorplate GFA
829m²

Apartment Numbers per Floor
8 -12

Basement Levels
5

Indicative Apartment Mix
1 BED: **25%**
2 BED: **61%**
3 BED: **14%**

Indicative Basement numbers as per
North Sydney DCP

Residential	113	Car Spaces
Non Residential	133	Car Spaces
Car Share	12	Car Spaces
Motorcycles	11	Spaces
Bicycles	303	Spaces
(Residential, Non Residential & Visitors)		

