# ST LEONARDS PRECINCT
# PLANNING PROPOSAL_SITE ONE

**23-35 ATCHISON STREET**

AJ+C ALLEN JACK+COTTIER

TWT

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# 01 INTRODUCTION

## 1.1 EXECUTIVE SUMMARY

The St Leonards/Crows Nest area adjoins both the Willoughby and Lane Cove Council LGA's which are also currently experiencing a transition in development height and scale.

AJ+C have prepared this Urban Design Report abd indicative design for the site known as TWT Site 1, being six (6) amalgamated lots, known as 23-35 Atchison Street (on the corner of Oxley Street)

The proposal for TWT 1 is generally in accordance with Councils proposed controls for Precinct 3 as defined in the St Lonards/Crows Nest Planning Study - Precincts 2 & 3 (The Planning Study) undertaken by North Sydney Council in 2015. This proposal has followed a process of consultation with Council resulting in Council's agreement to support the matter being considered by the Design Excellence Panel after consideration of the following items;

+ Shared basement access with 21 Atchison Street to be incorporated into design.
+ The built form to be amended to avoid overshadowing the proposed children's playground at Hume Street Park.
+ The built form to be amended to minimise overshadowing residential development at 30-46 Albany Street, and 7-19 Albany Street.
+ The relationship between building entrances, public access around the site and terraced areas are better resolved to deal with the slope across the site. Upgraded and expanded footpaths, including the new laneway, should be at grade where possible. Oxley St and Atchison St footpaths to be fully covered by awnings. There needs to be sufficient space for trees to grow without awning cut-outs. Café seating is encouraged within the setback and laneway.

This proposal notes that Council's policy is for a 3m full building setback to Atchison St and no isolation of sites. The Design Statement in Part 04 provides a justification for departures from Council's policy on the basis of the urban design considerations arising from the existing context.

As a consequence of the desired future character sought by the draft North District Plan and the latest St Leonards strategic area planning, and the future intensification expected as a result of the go ahead for the proposed Crows Nest Metro Station Council asked for the scheme to provide additional outcomes that were not part of the built form strategy set out in the Planning Study: These outcomes included;

+ Create a podium with a distinct non-residential character to reflect the desired future character sought by the draft North District Plan and the latest St Leonards strategic area planning
+ Create a new open to the sky through site link to improve the street quality and access to sunlight of Albany Lane and the walkability of the precinct with reduced block lengths

A scheme to deliver a non residential FSR of 1.9:1 in with a full commercial podium was able to be delivered with a maximum height in storeys of 18. This additional height in storeys was not accepted by Council so therefore the podium character in the proposal is in accordance with the built form strategy of the Planning Study.

The proposal will deliver a 6m wide open to the sky through site link.

The proposal seeks

+ A floor space ratio of 6.3:1 of which a minimum 1.5:1 is to be non-residential (approx. 3,170m$^2$)
+ A height limit in metres of 62m (and a max height to RL 142.60)
+ A maximum height in storeys of 16.

Figure 01: Render of indicative design


Open

Figure 02: Figure 1.1 - Render of indicative design

# 01 INTRODUCTION

## 1.2 SITE IDENTIFICATION

The subject sites are composed of thirteen lots, namely 55-89 Chandos Street (DP172499, Lot 1 DP927407, Lot 1 DP104816, SP57119, Lot 1 DP900998, Lot 1 DP115581, Lot 28/29 DP455939, Lot A/B DP443166, Lot 31 DP2872 and Lot 32 DP2872), 58-64 Atchison Street (Lot 2 DP2872, Lot 3 DP2872, Lot 4 DP2872 and Lot 1 DP1029839) and 23-35 Atchison Street (Lot 27 DP2872, Lot 28 DP2872, Lot 29 DP2872, Lot 30 DP2872, Lot 31 DP2872, Lot 321 DP566480).

The lots are amalgamated under one ownership of TWT Property Group Pty Ltd.

The site areas are:

TWT1 23-35 Atchison Street: 2109.8sqm.

TWT2 58-64 Atchison Street: 1440.9sqm;

TWT3 55-89 Chandos Street: 4211.8sqm;

This report will undertake investigations focused upon site TWT1 (23-35 Atchison Street).

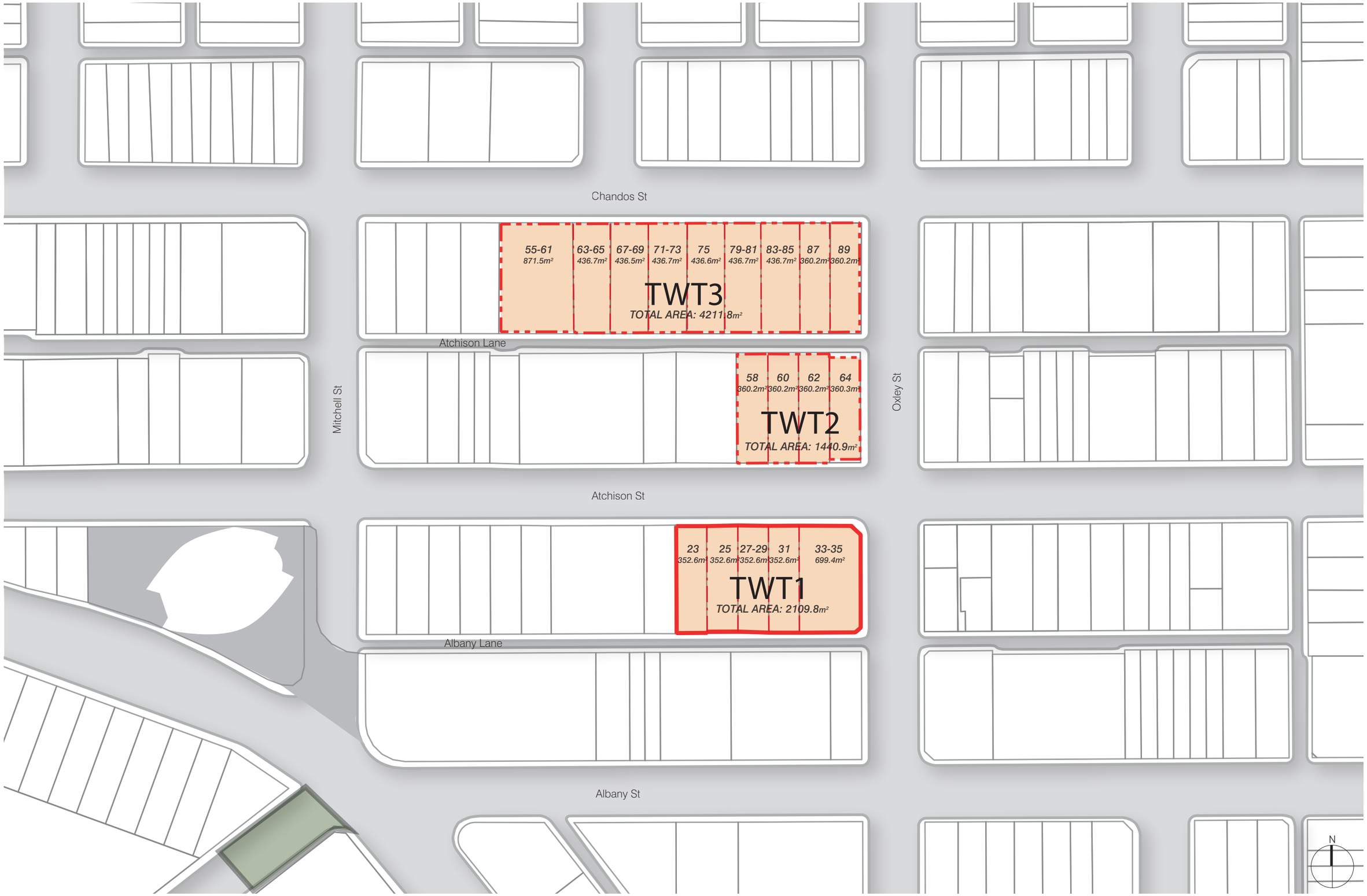



Figure 03: Figure 1.2 - Site identification

# 02 PLANNING CONTEXT

## 2.1 DISTRICT CONTEXT

### *Greater Sydney Region Plan: A metropolis of Three Cities*

Is NSW Governments 40 year strategic vision for the growth of the Sydney Metropolitan region. It provides key directions and actions to guide Sydney's productivity, environmental management, and liveability including the delivery of new housing, employment, infrastructure and open space via 6 directives.

The transformation of the Site located at 23-35 Atchison Street in St Leonards recognises the opportunity to provide new homes, mixed use activities, retail, and create new places and a laneway all with easy access to existing and planned public transport.

### *North District Plan*

The North District Plan, developed by the Greater Sydney Commission identifies St Leonards as a strategic centre in the Eastern Economic Corridor. It is a designated Health and Education Precinct and Planned Precinct and also undertaking a collaborative role by providing expert advice on the significant precincts adjacent.

The Department of Planning and Environment is working with Lane Cove, North Sydney and Willoughby councils to examine the St Leonards and Crows Nest Station Precinct. This Collaboration area will include considerations to "leverage off the new Sydney Metro station at Crows Nest to deliver additional employment and residential capacity." The Plan proposes actions to facilitate place making and the growth and diversification of job opportunities in St Leonards. Any residential intensification

proposed will need to carefully balance the capacity for further jobs growth.

The North District Plan identifies St Leonards as a health and education super precinct. Planning for the area will include considerations to:

+ Leverage off the new Sydney Metro station at Crows Nest to deliver additional employment and residential capacity
+ Identify actions to grow jobs in the centre
+ Reduce the impact of vehicle movements on pedestrian and cyclist accessibility
+ Protect and enhance Willoughby Road's village character and retail/restaurant strip while recognising increased growth opportunities due to significant NSW Government infrastructure investment
+ Deliver new high quality open space, upgrade public areas, and establish collaborative place-making initiatives
+ Promote synergies between the Royal North Shore Hospital and other health and education-related activities, in partnership with NSW Health
+ Define the northern perimeter of St Leonards to protect the adjoining industrial zoned land for a range of urban services.

### *Accelerating housing opportunities*

Urban renewal provides opportunities to focus new housing in existing and new centres with frequent public transport so that more people can live in areas that provide access to jobs and services.

### *Sydney Metro*

Transport for NSW has committed to delivering a new world-class metro system for Sydney. The Chatswood to Sydenham section of the Sydney Metro City & Southwest project received planning approval in January 2017.

The Crows Nest Metro station will provide new improved rail access to the residential area, urban renewal areas of St Leonards and creates a transport focus on the southern side of the St Leonards supporting the southern gateway to commercial and mixed-use activities.

The Crows Nest Metro Station will be located 25 metres underground on the eastern side of the Pacific Highway between Oxley Street and Hume Street.

The proposed Site is a 300 metres walk within 400m radius to the new Sydney Metro station at Crows Nest. This proximity adds value to the planning proposal to help deliver additional employment and increase residential capacity in the precinct.

The anticipated construction program is from 2017 to 2024

### *St Leonards & Crows Nest StationPrecinct Preliminary UD Analysis*

The St Leonards and Crows Station Precinct Preliminary Urban Design Analysis (May 2017) developed by the Department of Planning and Environment identifies design principles and structure plans for the area addressing open space, activity, movement and built form.

The site is in the St Leonards Centre and Crows Nest Station character area and is;

+ Identified in 4.2 Constraints - Built Form as one of the largest development sites in the area.
+ Identified in 4.8 Opportunities - Access to proposed Plazas and Local Parks as capable of delivering Item 11 Oxley Street Linear Park .
+ Identified in 4.8 Opportunities - Land Uses as a Local Centre .
+ Identified in 5.1 Challenges Item 4 which notes the difficulty of increasing the provison of open space within the St leonards Centre due to land ownership patterns as well as balancing development potential with the retention of amenity and public benefit.
+ Identified in 5.2 Opportunities Item 2 which notes any additional development value should be captured through appropriate mechanisms to improve the public domain throughout the centre.

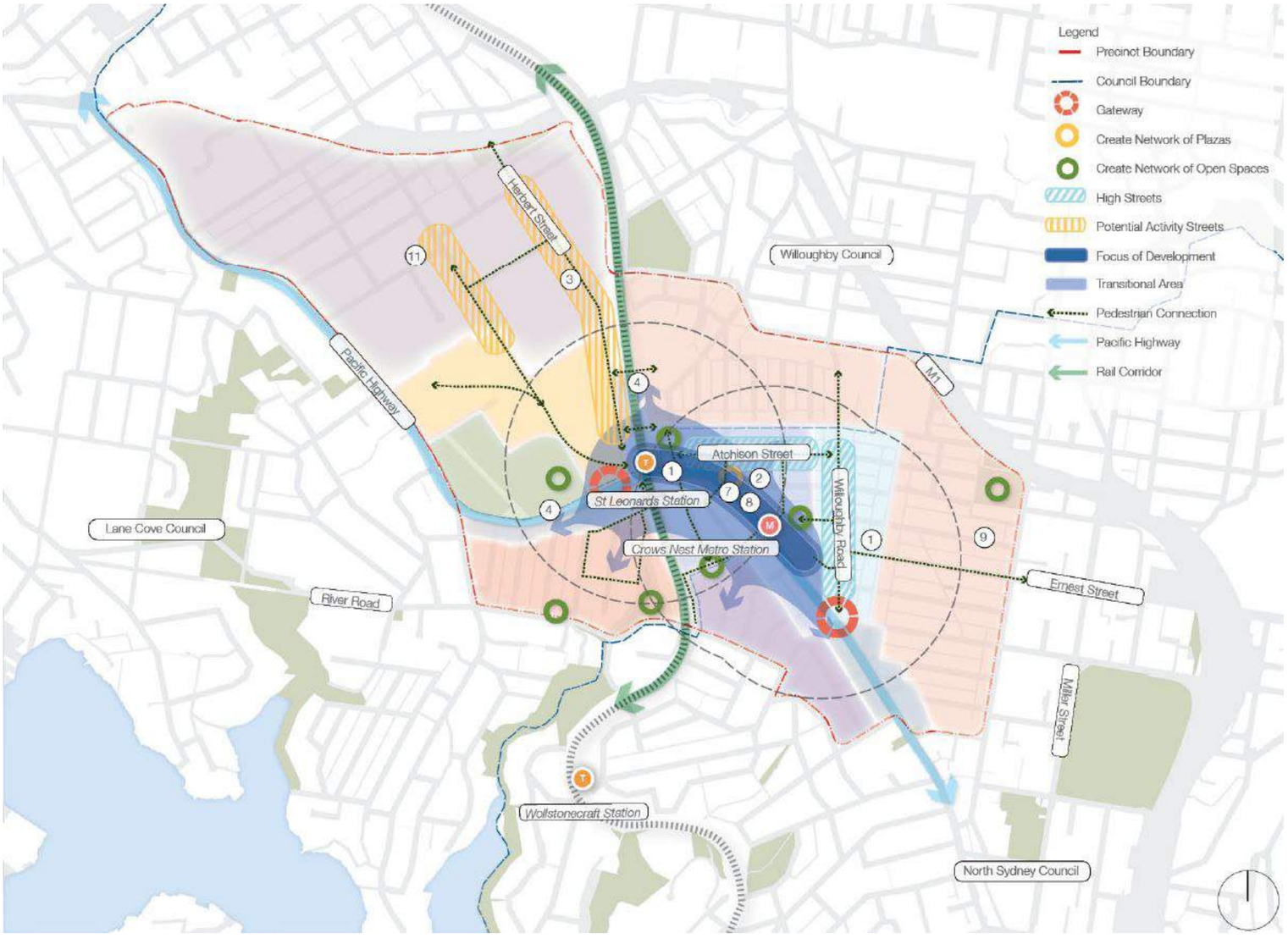



Figure 04: Figure 2.1 - St Leonards & Crows Nest Stattion Precinct Preliminary urba Design Analysis 2016. p57

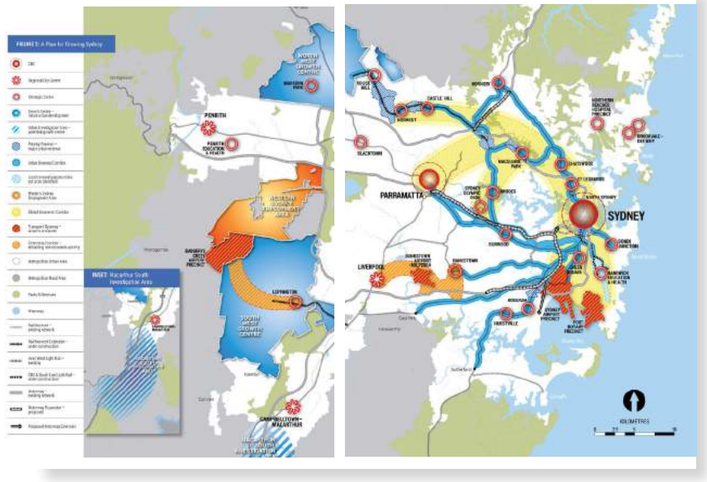



Figure 06: Figure 2.1 - District Context. Source: A Plan for Growing Sydney, December 2014, pg 12-13

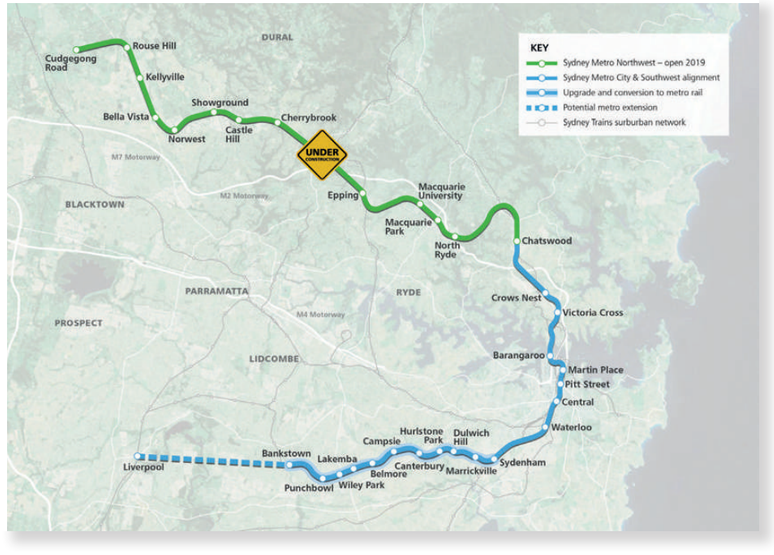



Figure 05: Figure 2.2 - Sydney Metro Plan. Source: Sydney Metro City & Southwest - Chatswood to Sydenham Design Guideline, 2016. pg4

# 02 PLANNING CONTEXT

## 2.2 ST LEONARDS PLANNING STUDY

The subject site, known as TWT Site 1, consists of namely 23-35 Atchison Street (on the corner with Oxley Street)(TWT1). This site is within Precinct 3 of the St Leonards / Crows Nest Planning Study undertaken by North Sydney Council.

The aim of the Planning Study is to develop new strategies and initiatives that will provide for:

+ New open space in St Leonards/Crows Nest;
+ Increased investment in St Leonards and decreased commercial vacancy rates;
+ Improved connectivity, particularly between St Leonards/Pacific Highway and Willoughby Road;
+ Improved urban design and street level amenity in St Leonards;
+ Improved building design and residential amenity in St Leonards;
+ A new creative precinct with civic and cultural amenity.

The St Leonards Crows Nest Planning Study outlines key guidelines to inform design decisions, this includes built form controls to stimulate job growth and support a modern, mixed use centre.

The site lies within the area identified in the St Leonards Vision as the West Oxley Creative Quarter situated to the east of The Centre and west of the Crows Nest Residential Precinct. *(1.3 Vision, Region,St Leonards Crows Nest, Planning Study, 2015 pg 12 )*
It forms the southern component of the Oxley Street Masterplan, comprised of TWT sites 1 through to 3. (55-89 Chandos Street, 23-35 and 58-64 Atchison Street)
(*6.4 Built Form Strategy, pg 101)*

The precinct vision identifies the site as part of the Oxley St Linear park, Atchison St civic 'main street' and a public benefit opportunity site. *(1.3 Vision, Precinct,, pg 13 )*

The Oxley Street linear park will provide additional open space, supporting the future residential and working community, a setback along the western side of Oxley street will be located on the ground floor with a transfer of developable area from the ground plane for additional height considered as incentive.

Atchison St will become the civic 'main street' connecting St Leonards Station to Crows Nest. The focus of this is to create a safe and engaging pedestrian focused street through streetscape upgrades. *(3.4 Placemaking Strategy, Map 3A, pg 47 )*

The Employment Strategy identifies that Floor Space Ratio is important in giving businesses room to grow. Non-residential podium floor space within a mixed scheme provides the opportunity to provide affordable start-up space for businesses. This will provide active, beneficial podium levels with a diversity of uses, services and activities.

+ TWT1, 23-35 Atchison Street is identified as lying within area 13 on Map 5A_ Non-Residential Floor Space Ratio with a new FSR minimum of 1.5:1
*(5.4 Employment Strategy, Map 5A, pg 77 )*

The Built Form Strategy outlines key factors informing design these include future character, ground level setbacks and podium heights, minimum above podium setbacks and building heights.

+ TWT1, 23-35 Atchison Street is identified as lying within the West of Oxley Street Creative Quarter, the west end of this precinct is outlined to remain a predominantly 12 storey mixed use area. *(6.4 Built Form Strategy, Future Character, pg 95)*
+ TWT1 has a podium requirement of 4 storeys with 3 storeys to laneways (except on corner sites) with a 3m whole building setback to Atchison Street, 5m whole building setback to Oxley Street and a 1.5m whole building setback to Albany Lane.
*(6.4 Built Form Strategy, Map 6A, pg 97)*
+ Non residential uses are proposed for the for two building levels *(6.4 Built Form Strategy, Atchison Street - the civic street pg 100)*
+ TWT1 has three minimum above podium setbacks: 3m to Atchison Street, 7m to Oxley Street and 4m to Albany Lane. *(6.4 Built Form Strategy, Map 6B, pg 97)*
+ TWT1 has been identified in a zone that has an adjustment to height. the maximum building height in storeys is indicated as 16 storeys *(6.4 Built Form Strategy, Map 6C, pg 105)*
+ TWT1 lies in within a height transition zone between Mitchell and Oxley street also identified as the West of Oxley Creative Quarter, along with the Abode building with a hight of 60m and the Ralan building with a height of 50m. The planning studies outlines that the Abode building will remain the tallest built form within this precinct "The western end will remain a predominantly 12 storey mixed use area with the Abode remaining the tallest built form." *(6.4 Built Form Strategy, pg 95,102,103)*


Planning study area map

Figure 07: Figure 2.3 - Precinct Study Plan. Source: St Leonards Crows Nest, Planning Study, 2015_ Page 11

# 03 SITE ANALYSIS

## 3.1 LOCAL CONTEXT + STREET NETWORK

The subject site is located within St Leonards Town Centre, which falls into the North Sydney Council municipal area.

St Leonards Railway Station is approximately 400m away to the west of the subject site.

The Pacific Highway and the Warringah Freeway(M1), which are in proximity to the subject site provide access to the broader regional area while the local street network provides access to the local and immediate surrounding areas.

Connecting St Leonards to the greater Sydney Region is the Planned Crows Nest Metro Station, located to the south of the Town Centre, in the Crows Nest Residential Area. Providing new metro rail access to the Crows Nest residential area, it improves travel to local schools, businesses and Crows Nest village. The station creates a new transport focus on the southern side of the St Leonards specialised centre which supports the St Leonards southern gateway to commercial and mixed-use activities. The Metro will provide services that connect to Central Station (11 minutes) and Sydney Metro's Martin Place Station (7 minutes).

Two local parks, namely Hume Street Park and Christie St Reserve, are within 400m walking distance from the subject site, while two other bigger parks, being St Thomas' Rest Park and Newlands Park are located further from the subject site.

The Pacific Highway and North Shore Train line are divisive elements in the overall context, acting as barriers between the east and west of St Leonards

The current Hume St Indoor Sports Centre is outlined in figure 3.1 as under development to be demolished to contribute to the Hume St Park upgrades and extensions.


Figure 08: Figure 3.1 - Local Context + Street Network

Key

- Site
- Town Centre
- Road Network
- Divisive Road/Trainline
- 400m (5min) Catchment
- Activation Centres
- Through Site Links
- Open Space
- Proposed Open Space
- Hume St Park Extension
- St Leonards Station
- Bus Interchange
- Metro Station

## 3.2 TOPOGRAPHY

The subject site sits on the edge of a high point that occurs roughly at the intersection of Mitchell Street and Atchison Street.

There is approx 6 metres of elevation change across the site of 23-35 Atchison Street and approx 2.5 metres of elevation change across the site of 58-64 Atchison Street, both at ratio between 1:10 and 1:11 declining from their western boundaries to Oxley Street, which is to the east of the site. The fall across site of 55-89 Chandos Street is much more gentle and is at a ratio between 1:14 and 1:26.


Key

- Site
- 2m Contours
- High Points

Figure 09: Figure 3.2 - Topography

# 03 SITE ANALYSIS

## 3.3 PEDESTRIAN ENVIRONMENT

The pedestrian environment within the subject site and within close proximity is free from the high traffic volumes and noise experienced along the Pacific Highway.

Most footpaths are of standard width and tree-lined. The footpaths along Oxley Street and the southern sides of Chandos Street and Atchison Street (near Oxley Street) enjoy good solar access. No awnings are provided on the subject site. However there is a relatively continuous provision of awnings along part of Atchison Street and Albany Street, which protect pedestrians from the inclement weather. Some landscaped building frontages are well established along a segment of the southern side of Chandos Street in lieu of awnings. Oxley Street has a 6.6m wide landscaped range from Chandos Street to Albany Lane which has the potential to create a well landscaped pedestrian boulevard.

Atchison Lane and Albany Lane mainly serve vehicle access. Both of them are hard-edged with sporadic provision of footpaths. There is minimal solar access to both lanes


Figure 10: Figure 3.3 - Pedestrian Environment

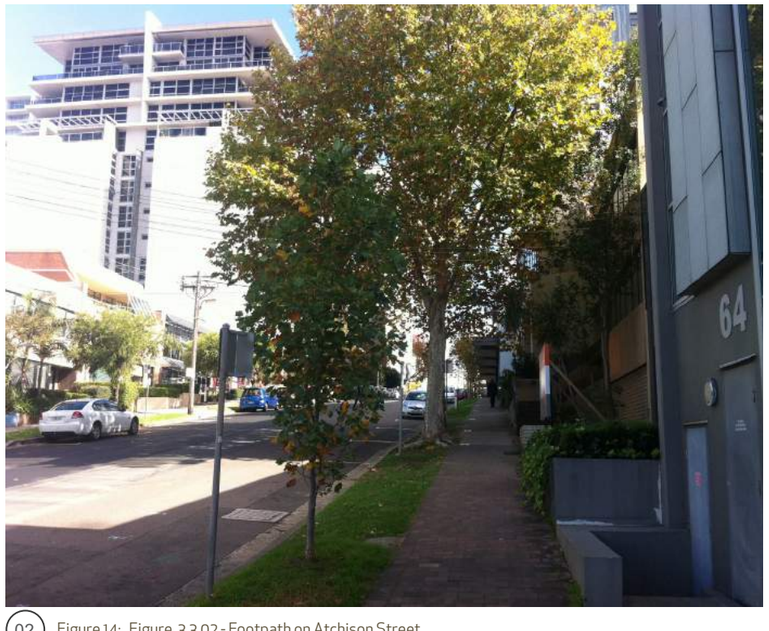
Key

- Site
- Awnings
- Active Frontages
- Laneways
- Through Site Links
- Existing Arcades
- Planned Links
- Indicative Laneways
- Grassed Open Space
- Paved Open Space
- Landscaped Frontages
- Noise Issues
- St Leonards Station
- Bus Interchange
- Metro Station


01 Figure 11: Figure 3.3.01 - Footpath on Chandos Street

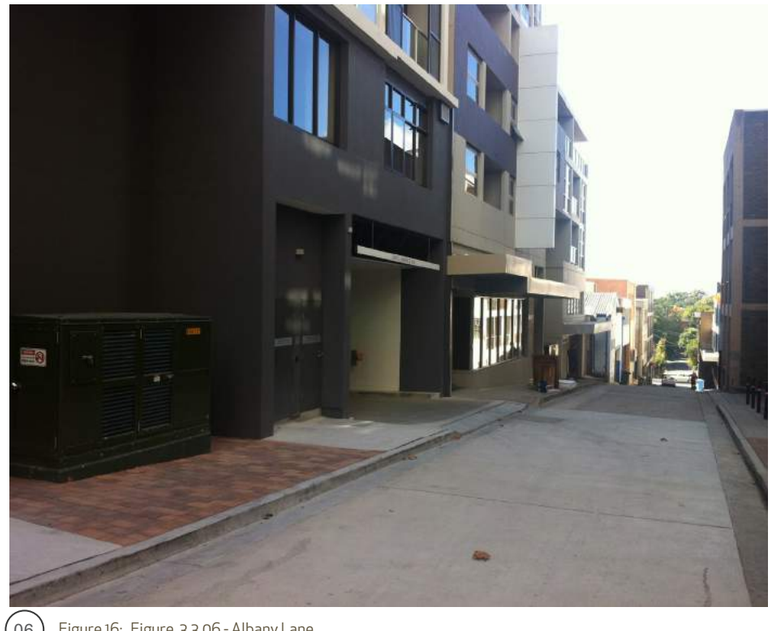
03 Figure 12: Figure 3.3.03 - Landscaped Frontage on Chandos Street

05 Figure 13: Figure 3.3.05 - Atchison Lane




02 Figure 14: Figure 3.3.02 - Footpath on Atchison Street

04 Figure 15: Figure 3.3.04 -Footpath on Oxley Street



06 Figure 16: Figure 3.3.06 - Albany Lane

# 03 SITE ANALYSIS

## 3.4 PEDESTRIAN LINKS

St Leonards Railway Station is connected with the northern end of Willoughby Road via footpaths along Chandos Street and Atchison Street. The trip length is approximately 600m with limited points of interest and no public open space along the way.

Oxley Street provides part of a connection from the St Leonards Railway Station to the southern end of Willoughby Road via the existing Hume Street Park which is designated for enlargement and improvement.


Key

- Site
- Pedestrian Links
- Open Space
- 400m (5min) Catchment
- Activation Centres
- St Leonards Station
- Bus Interchange
- Metro Station

Figure 17: Figure 3.4 - Pedestrian Links

## 3.5 OPEN SPACE

St Leonards is a high population density area with a low provision of parks and open spaces.

There is a lack of connections and linkages between existing open spaces and parks that hampers any potential for individual open spaces to form part of a greater whole.

The existing parks offer limited diversity or opportunities for recreational or cultural activities. The GHD Recreation Needs Study (June 2005) shows that there is no existing provision for children's play area in St Leonards. The closest children's playground is in St Thomas Rest Park which is 670m walk from the corner of Atchison Street and Oxley Street.

In 2015, North Sydney Council resolved to expand the Hume Street Park to the site occupied by the Indoor Sports Centre.

It is envisaged this will be developed within a 10 year period.


Key

- Site
- Grassed Open Space
- Paved Open Space
- 400m (5min) Catchment
- Links to Open Spaces
- St Leonards Station
- Bus Interchange
- Metro Station
- Existing Sports Centre
- Proposed Expansion of Hume St Park

Figure 18: Figure 3.5 - Open Space

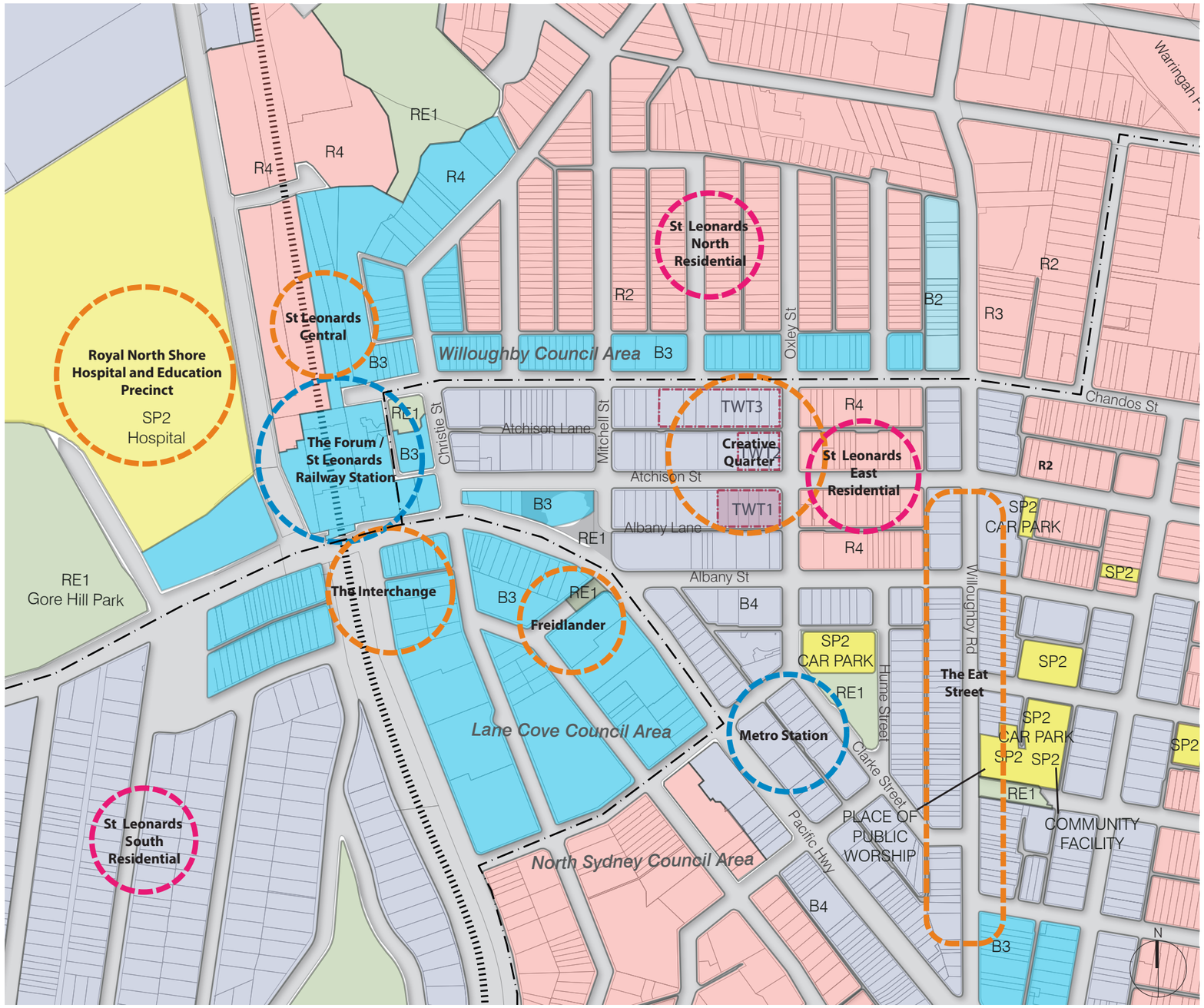
# 03 SITE ANALYSIS

## 3.6 LAND USE

St Leonards is a mixed use centre with a B3 Commercial Core zoning located around the St Leonards Railway Station and the Forum development, being a public transport hub.

The Royal North Shore Hospital site is to the northwest of the transport hub and forms a Hospital & Education Precinct.

To the east of the St Leonards Commercial and Transport Hub is a mixed use precinct, zoned B4, which forms part of Emerging St Leonards Town Centre Precinct. This use extends northward across Chandos Street into Willoughby Council area, and southward across Pacific Highway into Lane Cove Council area.




Key

- Site
- B2 - Local Centre
- B3 - Commercial Core
- B4 - Mixed Use
- R2 - Low Density Residential
- R3 - Medium Density Residential
- R4 - High Density Residential
- RE1 - Public Recreation
- SP2 - Infrastructure
- Activation Centres
- Residential Centres
- Precinct Centres
- T St Leonards Station
- B Bus Interchange
- M Metro Station

Figure 19: Figure 3.6 - Land Use

## 3.7 ST LEONARDS REDEVELOPMENT

### Transition To New Built Forms

St Leonards is currently experiencing development pressure in high rise, mixed use development due to its proximity to St Leonards Railway Station which provides convenient access to the Sydney CBD, its close proximity to the restaurant strip in Willoughby Road Crows Nest, and potential harbour views. The JRPP have approved development which is non-compliant with height controls in the St Leonards area, where impact on existing amenity has been reasonably considered, and the built form of the area is undergoing transformation. North Sydney Council have supported this transition following completion of the St Leonards / Crows Nest Planning Study - Precinct 1, " where increased development opportunities are matched by public benefits of commensurate value."

### Built Form: Approved Developments

1. Under Assessment: 617-621 Pacific highway – Mixed Use, 50 storeys

2. Determined: 20 – 22 Atchison Street – staged development (JRPP)

Stage 1: 22 Atchison Street – 16 Storeys

Stage 2: 20 Atchison Street – 15 Storeys

3. Under Construction/Recently built: 51 – 53 Chandos Street – 12 storeys – mixed use

4. Under Construction/Recently built: 32 – 38 Atchison Street – 16 storeys – mixed use

5. Determined: 1 Atchison St, Alterations and additions to ground floor of commercial building.

6. Under Construction/Recently built: 9 – 11 Atchison Street (T1) – 13 storeys – mixed use

7. Under Construction/Recently built: 66-70a Atchison Street – DA 449/12

8. Under Assessment: 84 – 90 Atchison Street, Crows Nest, Residential Flat building. Demolition of existing structure and construction of a 6 storey RFB containing 39 apartments with basement parking for 53 cars.

9. Under Construction/Recently built: 48 Albany Street – 6 Storeys – Mixed use

10. Determined: 575-583 Pacific highway – Mixed Use. Increase maximum Building height and FSR to 7:1.

11. Determined: 7- 9 Albany Street, To add an additional lot to the approved subdivision

12. Under Construction/Recently built: 11 – 19 Albany Street – 10 Storeys (JRPP) (Application lodged for 13 storeys)

13. Determined: 34 Oxley Street, Alterations and additions to mixed use building

14. Determined: 38 Oxley Street, Demolition of an existing building and construction of a 9 storey mixed use building.

15. Under Construction/Recently Built: 545 Pacific highway – JRPP approved, 15 storeys.

16. Under Construction/Recently Built: 521 Pacific highway – 12 Storey mixed use

17. Under Assessment: 101-111 Willoughby Road, Mixed use redevelopment

18. Under Assessment: 100 Christie Street – Conversion of levels 4-11 to 96 residential apartments

19. Determined: 655-657 Pacific highway, Rezoning from B3 commercial Core to B4 Mixed use, increase building height, introduce a maximum FSR of 26:1 and a minimum non-residential FSR of 7:1

20. Under Assessment: 548-552 Pacific Highway. Demolition and construction of hotel comprising of 194 rooms 49 car parking spaces

21. Under Assessment: 75 – 79 Lithgow St & 84 – 90 Christie Street – 2 Residential towers, Mixed use podium and basement car parking.

22. Under Assessment: 500-504 Pacific Highway, New Hope Development.

23. Under Construction/Recently Built: 472-486 Pacific highway & Nicholson street, 37, 34 and 24 storeys – mixed use

24. Under Construction/Recently Built: 72 – 76 Chandos Street – 6 storeys – mixed use

25. Under Construction/Recently Built: 78 Chandos Street – 6 storeys – mixed use

26. Recently Built: 10 Atchison Street – 26 storeys – Commercial


Figure 20: Figure 3.7 - Redevelopment Sites

# 03 SITE ANALYSIS

## 3.8 LAND OWNERSHIP

The subject sites, owned by Auswin TWT Development Pty Ltd, consists of three sites, namely

23-35 Atchison Street (TWT1, 2109.8m² of site area).

58-64 Atchison Street (TWT2, 1440.9m² of site area); and

55-89 Chandos Street (TWT3, 4211.8m² of site area);

This land ownership amalgamates thirteen different lots and provides a unique opportunity to deliver significant linked public open spaces on the site for public benefit.

Land on the eastern side of Oxley Street is characterised by small land holdings. Land on the western side of Oxley Street contains relatively large land holdings, many of which are residential or commercial strata plans.


Figure 21: Figure 3.8 - Land Ownership

Key

- Site
- TWT Properties
- Private Owner
- Residential Strata Plan
- Planning Study Precinct
- T St Leonards Station
- B Bus Interchange
- M Metro Station

## 3.9 TRAFFIC

The Pacific Highway, as a part of state road network, accommodates very high traffic volumes. The streets within the local area to the east of Pacific Highway carry much less traffic while some streets and lanes, such as Atchison Lane and Albany Lane, carry a very low volume of traffic.

Site Analysis Existing Traffic Volumes counted on site by GTA

| Road | Daily Traffic Volume [1] | Classification |
|---|---|---|
| Pacific Highway | ~35,000vpd | Very High |
| Albany Street | ~11,000vpd | High |
| Chandos Street | ~10,000vpd | High |
| Oxley Street | ~7,000vpd | Medium |
| Atchison Street | ~1,500vpd | Very Low |
| Atchison Lane | ~900vpd | Very Low |
| Albany Lane | ~750vpd | Very Low |
| Mitchell Street | NA | NA |

[1] Based on peak hour traffic counts and adopting a peak-to-daily ratio of 10%.


Key

- Site
- Very High
- High
- Medium
- Low
- Very Low
- Street Parking
- T St Leonards Station
- B Bus Interchange
- M Metro Station

Figure 22: Figure 3.9 - Traffic

# 03 SITE ANALYSIS

## 3.10 VIEWS AND VISTAS

Only two buildings in Atchison Street have the potential to suffer loss of existing views as a result of development on the subject site with increased building heights.

No. 48 Atchison Street (Arden) enjoys district views to the east and north.  The building is 11-storey high. Generally the eastern elevation windows are secondary windows to living spaces or bedrooms. Views to the Sydney CBD are restricted by the built form of the Nexus building at No. 15 Atchison Street.

No. 15 Atchison Street (Nexus) enjoys district views to the east and Sydney CBD views to the south. The building is 13-storey high. District views to the east are only available from the top four levels. Sydney CBD views are generally available from the top four levels on the southern facade.


Key

- Site
- Existing Residential Neighbouring Developments
- Iconic Views to Sydney
- District Views

Figure 23:  Figure  3.10 - Views and Vistas

Figure 24: Figure 3.10.1 - Views to Chatswood CBD

Figure 25: Figure 3.10.2 - Views to Districts

Figure 26: Figure 3.10.3 - Views to Harbour Bridge & Sydney CBD

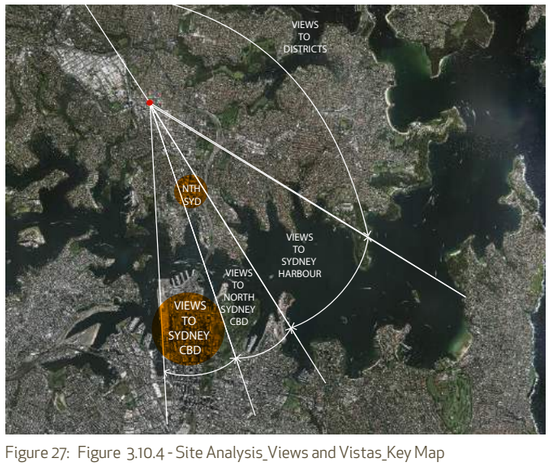



Figure 27: Figure 3.10.4 - Site Analysis_Views and Vistas_Key Map

# 03 SITE ANALYSIS

## 3.11 ISOLATED SITES

### 21 Atchison Street

Council have identified 21 Atchison Street as a potential isolated site. An assessment of the development potential of 21 Atchison Street is included in 06: Appendix of this report. This assessment concludes that there is no reduction in development potential as a result of this planning proposal.

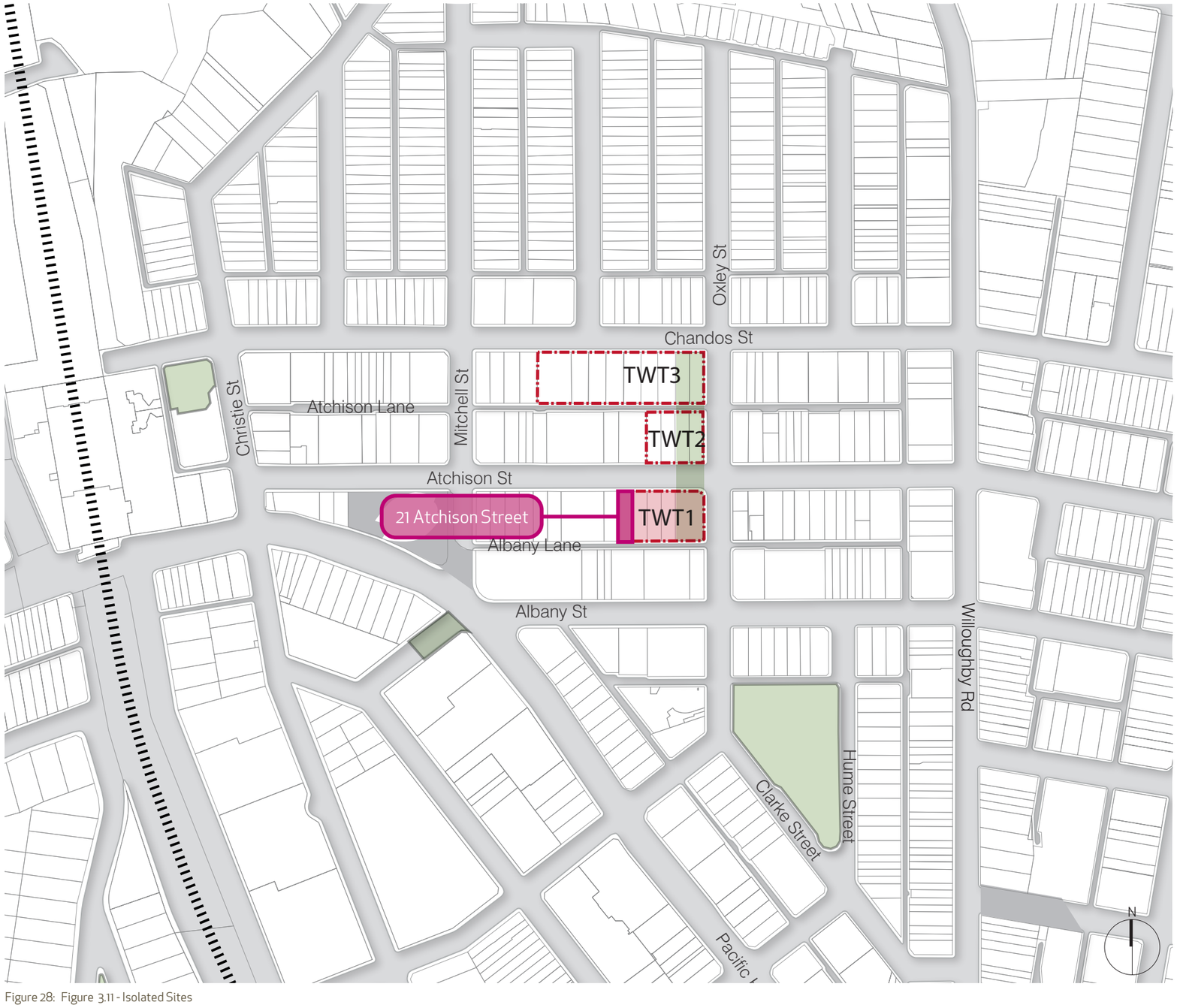



Figure 28: Figure 3.11 - Isolated Sites

Key

- Site
- Isolated Site
- Potential Open Space

## 3.12 BUILT FORM

### Existing Built Form

The Planning Study observes *(6.2 Site analysis_Built form)* that the "alignment of podiums and street frontage reduces the perceived bulk and scale of development when viewed from the street.

Streets in the Study Area (are) generally well defined by developments that provide a continuous 4-storey podium along all the main streets in the B4 Mixed Use zone."

It remarks that *(6.2 Site analysis_Public Domain)* "Most streets have a strong building line which also assists with way-finding and establishes a strong spatial character to the area." (*3.3 Place Quality Assesment)* observes that in terms of place quality assessment "the study area rates are quite poor with only portions of Atchison St and Albany St achieving a 'good' place quality rating."

The consistency of the podium/tower built form in Atchison Street from Mitchell Street to the Nexus building contribute to the strongest spatial identity and the highest place assessment ratings in the St Leonards Precinct 2/3 study area. The podium forms on both sides of this section of Atchison street contribute to what is an existing human scale street.

The Planning Study *(6.2 Site analysis_Built form)* states that Atchison Street, as the primary east west spine connecting Willoughby Road with the railway station, is to remain a human scale street and is to have upgraded streetscape to transform it into a "civic street'.

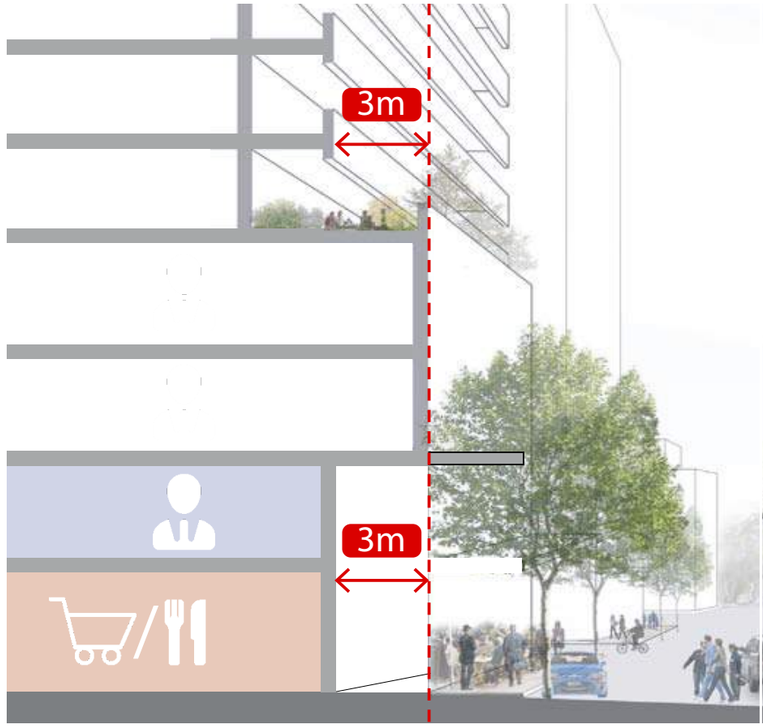
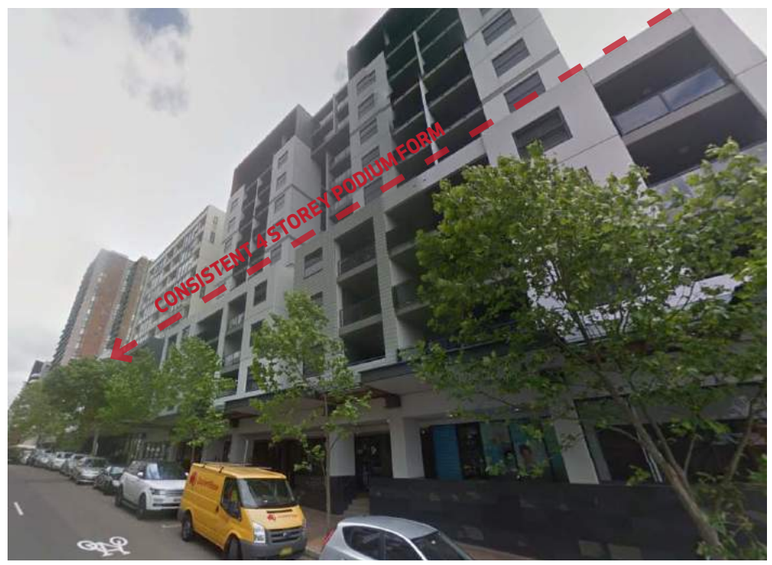




Figure 29: Figure 3.12.2 - T1, 9 Atchison Street


Figure 30: Figure 3.12.4 - Nexus, 15 Atchison Street


1 Figure 31: Figure 3.12.3 - T1, 9 Atchison Street




2 Figure 32: Figure 3.12.5 - 50 Atchison Street

# 03 SITE ANALYSIS

## 3.13 CONSTRAINTS

1. Maintain solar access to Hume St Park by adhering to the sun access plane hight contours indicating maximum building heights above ground

2. Potential for isolated sites

3. Maintain neighbouring building's views and vistas to district and Sydney CBD

4. Divisive Elements create a break between St leonards East and St Leonards West.

5. Maintain local traffic network

6. Traffic and noise: associated with the Pacific Highway

7. Topography: the site is located along the edge of a ridge, increasing the potential for overshadowing.


Figure 33: Figure 3.13 - Constraints

## 3.14 OPPORTUNITIES

1. Close proximity to public transport hubs St Leonards Train Station, Metro Station and Bus Interchange
2. Improved critical circulation links and pedestrian amenity
3. Potential for new public open space
4. Potential for lane-way activation and new through site links providing better site permeability and activation thresholds
5. Views: Iconic views to District and Sydney CBD
6. Access to existing open space
7. Inclusion in emerging mixed use Town Centre
8. Potential for street-front activation
9. Street tree coverage: potential for good coverage and improved public domain


Figure 34: Figure 3.14 - Opportunities

# 04 DESIGN STATEMENT

## 4.1 CONTEXT + NEIGHBOURHOOD CHARACTER

Good design responds and contributes to its context. Context is the key natural and built features of an area, their relationship and the character they create when combined. It also includes social, economic, health and environmental conditions.

Responding to context involves identifying the desirable elements of an area's existing or future character. Well designed buildings respond to and enhance the qualities and identity of the area including the adjacent sites streetscape and neighbourhood. Consideration of local context is important for all sites in established area, those undergoing change or identified for change.

The proponent owns three amalgamated development sites being;

+ 23-35 Atchison Street (on the corner with Oxley Street) (TWT1) – 2109.8m2
+ 58-64 Atchison Street (TWT2) – 1440.9m2
+ 55-89 Chandos Street (on the corner with Oxley Street) (TWT3) – 4,211.8m2

The subject site is TWT Site 1. The site is bounded by Atchison St to the North, Oxley St to the East and Albany Lane to the South. The site lies within a developing area, undergoing substantial change; therefore the existing context is not fixed. As such, it is necessary to take into account the desired future character of the area.

### EXISTING CHARACTER

The existing area is characterised by a mix of land uses, building types and architectural styles, often inconsistent. North Sydney Council have undertaken planning studies for 3 precincts in the St Leonards area which are identified in the St Leonards /Crows Nest Planning Study of May 2015.

+ Precinct 1 is a high density commercial and mixed use area containing the site identified as the future Crows Nest Metro Station. With building heights up to 38 storeys. Hume Street Park which is the only public green space planned to be extended within the next 10 years.
+ Precinct 2 is a high density commercial and mixed use area immediately east of the St Leonards train station with building heights up to 38 storeys. Christie Street reserve is the only public green space in the precinct.
+ Precinct 3 is a low to medium density mixed use and residential area that extends east to towards Willoughby Rd with building heights ranging from 1-5 storeys

23-35 is a 4 storey office block with no street setback and the remaining buildings are two storey commercial buildings with an approximate 3m setback. There are no through-site links and the interface with the street is substandard. No amenity such as awnings or balconies contribute to an animated building edge, with high sill, mirrored glass façades contributing to an impersonal conversation to the streetscape.

### DESIRED FUTURE CHARACTER

*The Draft North District Plan (November 2016)* developed by the Greater Sydney Commission identifies St Leonards as a strategic growth centre. The Plan also identifies St Leonards as a Collaboration Area.

The Department of Planning and Environment is working with Lane Cove, North Sydney and Willoughby councils to examine the St Leonards and Crows Nest Station Precinct. This Collaboration area will include considerations to "leverage off the new Sydney Metro station at Crows Nest to deliver additional employment and residential capacity." The Plan proposes actions to facilitate place making and the growth and diversification of job opportunities in St Leonards. Any residential intensification proposed will need to carefully balance the capacity for further jobs growth. Figure 3-8 identifies the TWT sites as being in a mixed use zone.

The three amalgamated TWT sites are within Precincts 2 and 3 of the St Leonards /Crows Nest Planning Study undertaken by North Sydney Council and are identified collectively as masterplan sites. The Study refers to the St Leonards Strategy of 2006 that envisages;

> *"St Leonards will continue to develop as one of the major employment centres for knowledge-based industries within the Sydney metropolitan region, by capitalising on its location within Sydney's 'global arc' and building on opportunities arising from its excellent accessibility and co-location with regional scaled health and educational facilities.*
>
> *New and diverse housing opportunities will also continue to emerge and be supported by convenience shopping, cafés, bars, entertainment venues, community facilities, a high quality environment and excellent public transport, walking and cycling accessibility, creating a desirable place for cosmopolitan urban living.*
>
> *New development and public domain improvements will create a more consistent and high quality image throughout the centre, leading to an identifiable 'sense of place'. "*

The Study identifies the area containing the TWT sites as 'West Oxley' being "an exciting 'creative quarter' supporting small-medium sized firms, start-ups, galleries, specialty retail and urban living"


TWT Creative Precinct

http://twtstleonards.com.au/auswin-twt

*"A major arts undertaking by TWT, the TWT Creative Precinct is an exciting, vibrant new initiative which involves the conversion of a number of commercial buildings between Atchison St and Chandos St to be used as creative spaces."*

# 04 DESIGN STATEMENT

## DESIGN PRINCIPLES

+ Provide a linear park along Oxley Street. A public domain strategy has been prepared by council that provides further detail as to how this may be designed
+ Ensure Atchison Street will become a civic 'main street'. Connecting St Leonards Station to Crows Nest
+ Provide new publicly accessible through site links, to reduce excessive block lengths and produce fine grained pedestrian laneways. (The transfer of developable area from the ground plane for additional height may be considered)
+ Enable a greater mix of employment, dining, recreation, entertainment, retail community and other non-residential uses
+ Encourage active street level uses and outdoor dining activities
+ Provide rooftop gardens, social and recreational uses on upper levels of developments
+ Activity will originate from urban renewal projects that include additional space for businesses in the podium levels

## THE PROPOSAL

The subject site is within 10 minutes' walk from both the St Leonards Station and the proposed Crows Nest Metro Station. The proposal will provide approximately 4,200m2 of specialty retail, entertainment and commercial space in a 3-4 storey podium that will ensure the stronger employment and economic function of St Leonards, envisaged by both the Planning Study and the Draft District Plan.

The podium at street level will be set back with landscaped terraces to contribute to the concept of Atchison Street as a civic street and to ensure an activated street with outdoor dining activities.

On Oxley Street a 5m setback will deliver the first stage of the Council's "linear park" concept. Following discussions with Council it was agreed that a 6m wide laneway open to the sky could be provided ensure a finer grain street pattern that would also contribute to the longer term activation of Albany Lane. This laneway was not expressly identified in Map 3B of the Planning Study. The floor area that was lost to deliver the laneway has been transferred to upper levels of the building without any additional impact on the winter solar access of adjoining properties. Refer to *4.2 Scale+Built Form Concept Diagrams Pg.34*

Above this podium will be a residential apartment building to contribute to increasing the residential density with a GFA of approximately 9,900m2 . The residential component will contribute to the 18 hour economy, the vibrancy and viability of St Leonards by improved safety, increasing al fresco and retail demand. In addition, make better use of existing and proposed public transport infrastructure. The residential lobby leads directly off the western laneway, ensuring activation of the ground floor. The residential apartments will have access to rooftop gardens for social and recreational purposes on the podium and at the upper levels.

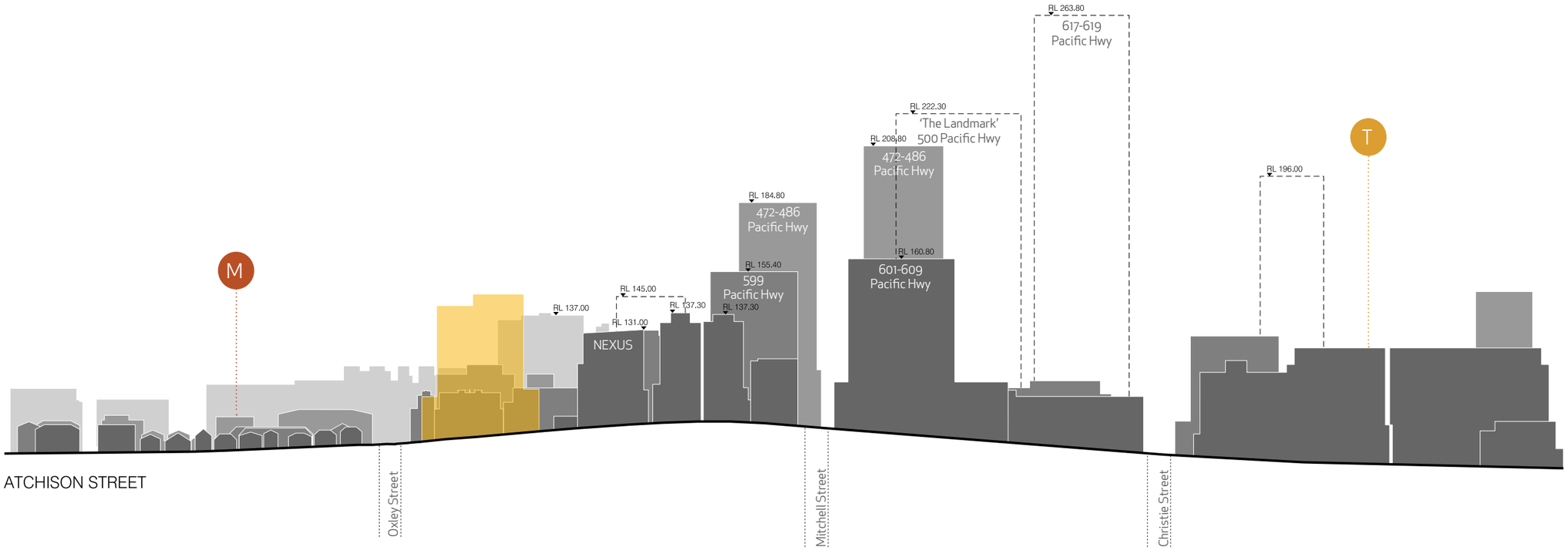

Figure 35: Figure 4.1.1 - Context + Neighbourhood Character

### Key

- Site
- Key Pedestrian Links
- Active Frontages
- Activation Centres
- Through Site Links
- Existing Arcades
- Planned Links
- Indicative Laneways
- Grassed Open Space
- Paved Open Space
- 400m Catchment
- St Leonards Station
- Bus Interchange
- Metro Station

N

# 04 DESIGN STATEMENT

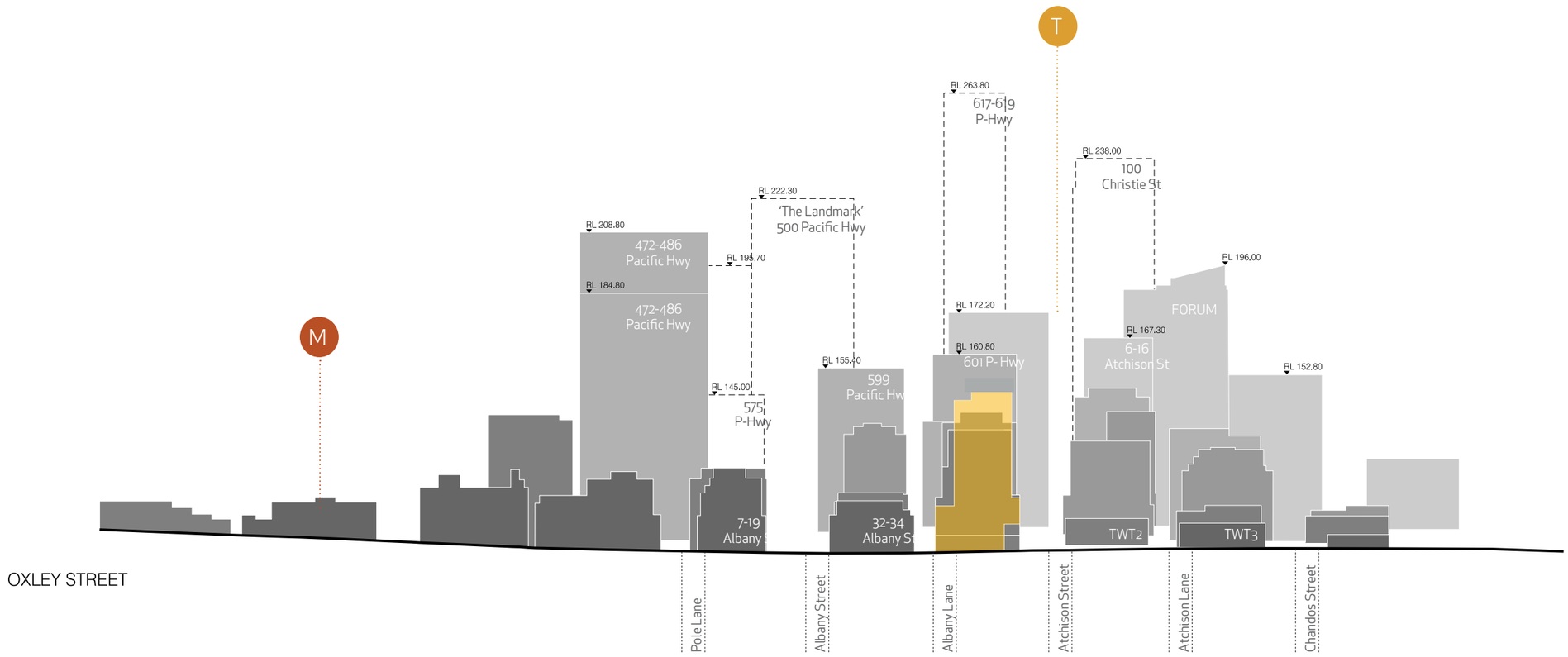



## Context Cityscape Elevations

Date 6.12.17 Rev D 1:2000 @ A3

### Key

- Twt1 Proposal
- M Metro Station
- T St Leonards Train Station




## Context Cityscape Elevations

Date 6.12.17 Rev D

1:2000 @ A3

### Key

- Twt1 Proposal
- Metro Station
- St Leonards Train Station

# 04 DESIGN STATEMENT

## 4.2 SCALE + BUILT FORM

Good design achieves a scale, bulk and height appropriate to the existing or desired future character of the street and surrounding buildings.

Good design also achieves an appropriate built form for a site and the buildings purpose in terms of building alignments, proportions, building types, articulation and the manipulation of building elements. Appropriate built form defines the public domain, contributes to the character of streetscapes and parks, including their views and vistas and provides internal amenity and outlook.

### EXISTING BUILT FORM CONTEXT

Density and height is currently concentrated around the railway station with the taller buildings being

+ Forum: 115m RL 196.3 and 86m RL 166.50.
+ IBM: 601 Pacific Hwy 65m
+ Air: 6-16 Atchison 95m RL 196.25
+ Abode: 60m
+ 601 Pacific Hwy: 65m

The scale of development transitions down towards lower scale, predominantly 2-5 storey residential buildings further away from the railway station, before the busy, fine grain strip of Willoughby Rd. On the TWT sites almost all buildings are more than 25 years old. The taller existing buildings in immediate proximity to the site are

+ Nexus: 15 Atchison Street RL 132 40m 12 storeys
+ Arden: 40-48 Atchison Street RL 12 storeys
+ 32-38 Atchison Street: RL 136 16 storeys

The existing podium and tower form of Atchison Street in the Precinct 2 study area create a consistent, strong building line which, the Planning Study notes, "establishes a strong spatial character to the area."

### FUTURE BUILT FORM CONTEXT

St Leonards is currently experiencing development pressure in high rise, mixed use development due to its proximity to St Leonards Railway Station and the proposed Crows Nest Metro Station which provides convenient access to the Sydney CBD. Its close proximity to the district health infrastructure and the amenity provided by the restaurant strip in Willoughby Road Crows Nest, adding to this pressure. Recent development is changing the character of the area and this will continue to evolve under the strategic directions set by State government policies for the area as identified in A Plan for Growing Sydney and supported by the draft District Plan. New higher density development has been approved as set out as follows:

+ 100 Christie Street: 156m RL 238 November 2016 planning proposal under assessment
+ 617-621 Pacific Hwy: March 2017 planning proposal under assessment approx. 173m RL 263
+ 75-79 Lithgow street / 84-90 Christie Street: Planning proposal 144m RL 224 awaiting gazettal
+ 472-468 Pacific Hwy: DA approval. 91m 28 storeys and 115m 42 storeys
+ 500-520 Pacific Hwy: DA under assessment. 138m 46 storeys
+ 617-621 Pacific Hwy: March 2017 planning proposal under assessment approx. 173m RL 263
+ 2 Pacific Hwy: planning proposal approx. 94m 29 storeys

### DESIGN PRINCIPLES

+ The Planning Study identifies a maximum building height in storeys of 16 for TWT Site 1.
+ In accordance with the Planning Study "a planning proposal seeking additional height must demonstrate that the proposed built form envelope will:
  + Reinforce the desired character of the area;
  + Adhere to the setbacks, podium height, ground level and above podium setbacks illustrated in maps 6A and 6B;
  + Maximise sunlight access to streets and the linear parks;
  + Maximise sunlight access and view sharing of nearby residences;
  + Provide a high level of residential amenity;
  + Creates a safe, comfortable, accessible, vibrant, and attractive public realm and pedestrian environment.

Podium character seeks to deliver the objectives of a pedestrian focussed civic street

Safe, comfortable, accessible, vibrant, and attractive public realm and pedestrian environment.

## THE PROPOSAL

**Podium**

The proposal is an appropriate built form for the site as it defines the public domain and contributes to the character of the streetscape using a podium form consistent with the existing and future context.

The proposed podium form

+ Is in accordance with Planning Study setbacks to both Oxley Street and Albany Lane. The Oxley Street setback will ensure the proposed Oxley Street linear park is able to be delivered as envisaged by the St Leonards East Public Domain Upgrade strategy.
+ Creates a new, open to the sky, through site link between Albany Lane and Atchison Street so that the street block between Oxley and Mitchell Street reduces from 160m to 100m/54m. This pedestrian laneway will allow new winter sun to the Albany Lane streetscape
+ Is aligned with the existing podiums in recently constructed buildings on 5, 9 (T1) and 15 (Nexus) Atchison Street. This is not in accordance with the Planning Study setbacks .(Maps 6A and 6B).which require a 3m setback to the podium. The objective of this setback is to deliver a pedestrian focussed "civic street' with widened footpaths and outdoor dining. The Planning Study site analysis of existing built form in Atchison Street recognises the "alignment and configuration of podiums along the street frontage reduces the perceived bulk and scale of development when viewed from the street (i.e. it provides a 'human scale')." The Planning Study also observes that the "streets in the Study Area generally well defined by developments that provide a continuous 4-storey podium along all the main streets in the B4 Mixed Use zone.'
+ The proposal seeks to deliver the objectives of a pedestrian focussed civic street without losing the street definition which gives Atchison Street its distinctive character, perhaps more so than any other street in the St Leonards precinct, by retaining existing podium and tower alignments but using a cantilevered podium form, sliced vertically for sun and daylight, creates a semi enclosed street loggia with an additional 3m of public space than is required by the Planning Study controls.

The podium element of the proposal contains retail on Ground Floors (Upper and Lower) , commercial spaces on Level 1 and residential spaces on Level 2. The built form of commercial level provides excellent internal amenity due to the fact that the percentage of Grade A day lit space (max 6m from a daylight source -DEGW method) is 65%.

The cantilevered podium forms are highly flexible and spatially interesting whilst being suited to commercial uses as well as gallery spaces and residential uses. The interstitial spaces between the cantilevered forms are envisaged as break out spaces that overlook gardens at street level. The central core arrangement allows for maximum efficiency in sub tenancy layouts meaning that smaller commercial tenancies will be viable. The articulated form contributes to the design quality of the podium built form.

Figure 38: Albany Lane podium facade

Proposal

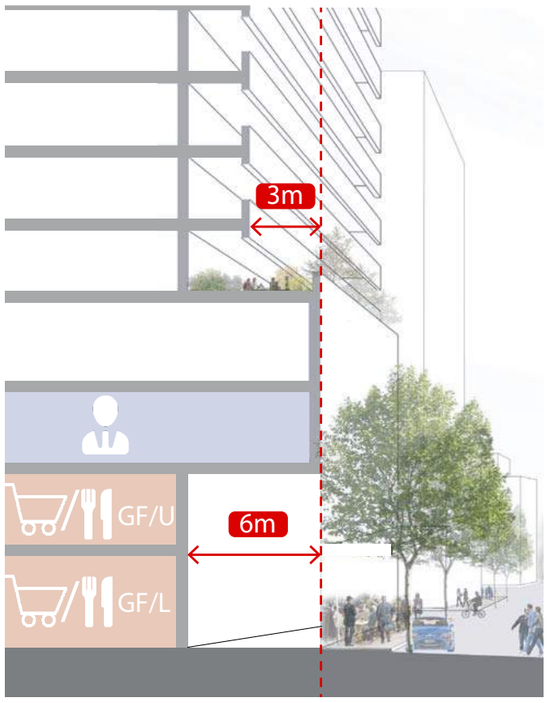



Figure 36: Figure 4.1.3 - 23-35 Atchison Street

Proposal

Figure 37: Figure 4.1.3 - 23-35 Atchison Street

# 04 DESIGN STATEMENT

## 4.2 SCALE + BUILT FORM

Good design achieves a scale, bulk and height appropriate to the existing or desired future character of the street and surrounding buildings.

Good design also achieves an appropriate built form for a site and the buildings purpose in terms of building alignments, proportions, building types, articulation and the manipulation of building elements. Appropriate built form defines the public domain, contributes to the character of streetscapes and parks, including their views and vistas and provides internal amenity and outlook.

### THE PROPOSAL

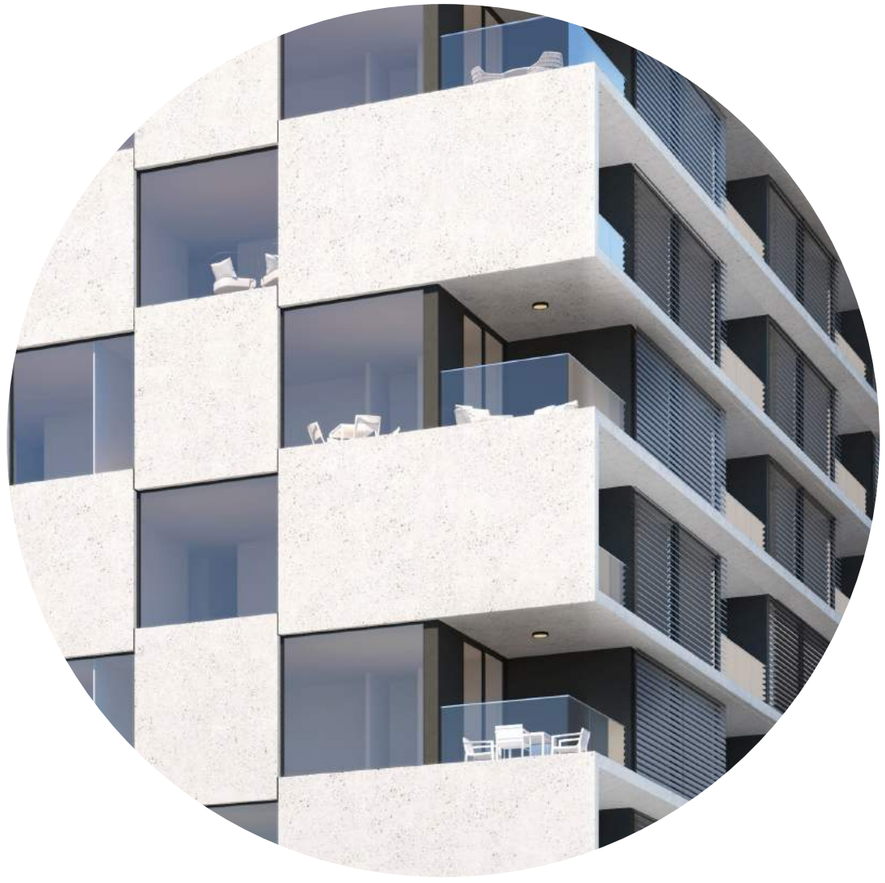
**Tower**

The proposal is 16 storeys high. The tower element;

+ Increases the Albany Lane above podium setback from 4m to 7.4m so that a minimum 18m separation is delivered to buildings on 38-46 Albany Street and 30-36 Albany Street notwithstanding that the ADG Objective 3F requires "Adequate building separation distances are shared equitably between neighbouring sites, to achieve reasonable levels of external and visual privacy'.
+ Provides a 12m setback to the side boundary with 21 Atchison Street
+ Provides 24 m separation to the existing habitable rooms above Level 8 in the Nexus apartments
+ Provides a 7m setback from the podium facing Oxley Street as required by the Planning Study.
+ Has a tower length of approximately 36.7m which less than the 40m maximum length prescribed for 'Tall Buildings' In the Planning Study. (The tower proposed is not defined as 'Tall Building' as it is not in excess of 18 storeys).
+ The built form of the tower has 36.7m x 23.1m floorplate. The floorplate delivers high amenity floor plans with ADG compliance in terms of solar and daylight access, natural ventilation, apartment size and layout. Over half the apartments (53%) are dual aspect. The unencumbered floorplates with centrally located shared cores result in excellent tenancy efficiency.

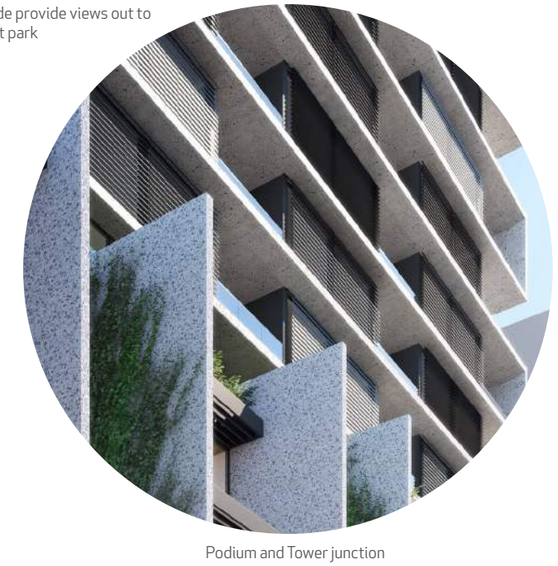
The tower benchmark design as presented to the Design Excellence Panel showed a form within the proposed envelopev that was able to articulated in three ways;

+ The alternating cantilevered floors create a lightness to a building form that otherwise fills the allowable envelopes
+ The built form has a 3m wide vertical recess to upper levels, aligning with the central public lift lobbies and corridor, that cleaves the building into two parts to increase the apparent slenderness of the building.
+ An possible open loggia to the communal roof garden on Level 16 has the potential to create architectural interest at the top and creates an asymmetrical composition for the built form without additional overshadowing to the proposed extended Hume Street Park or Albany Lane properties in mid winter .



Corner balcony articulation

Balcony spaces on the east facade provide views out to Oxley Street park

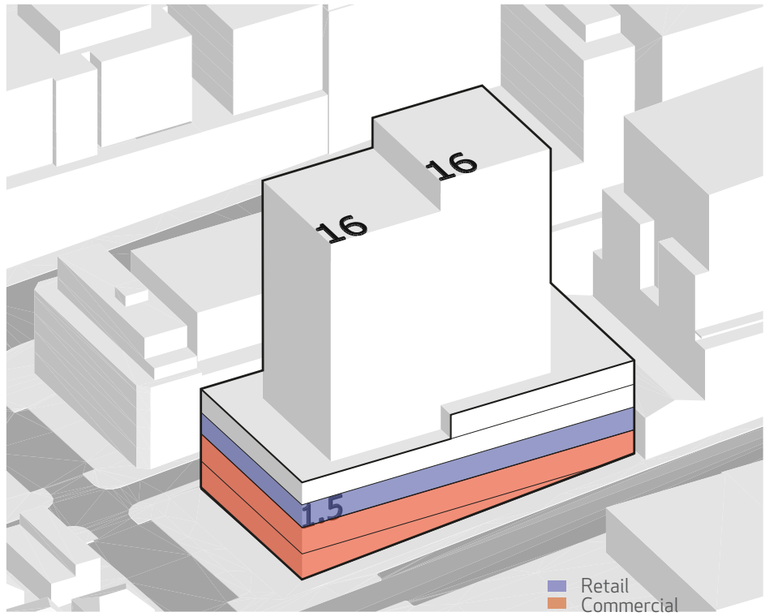


Podium and Tower junction

# 04 DESIGN STATEMENT

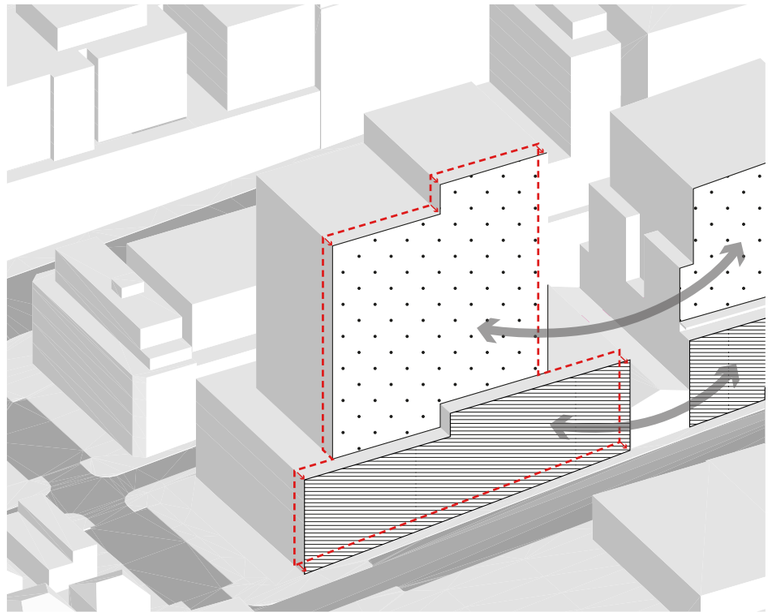
## SCALE + BUILT FORM _ CONCEPT DIAGRAMS

The following diagrams set out the methodology and principles driving the scale and built form of the proposed indicative design. Outlined are the key design actions guiding the setbacks, podium massing, building mass, heights and bulk of the proposal.



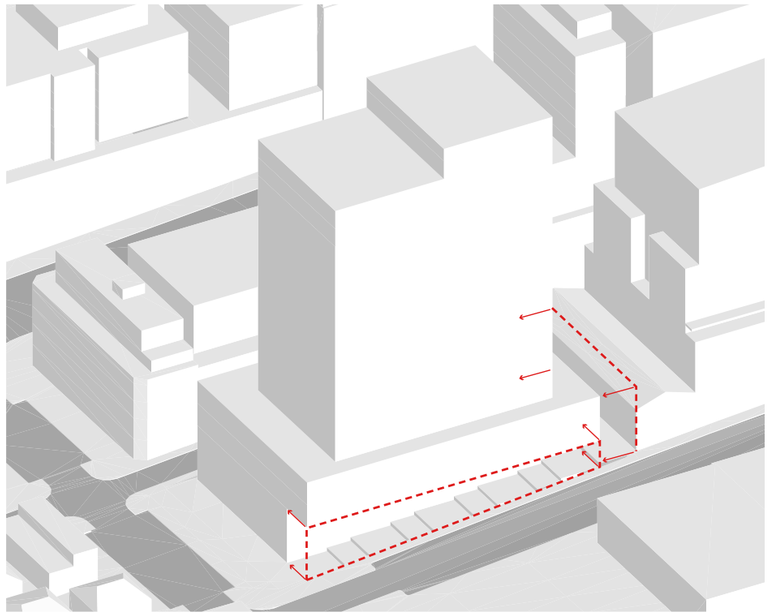

The Planning Study envelope:

+ Height in storeys of tower from Maps - 16
+ Podium height in storeys 4 on street 3 on lane 4 on corners, with a 3m whole building setback to Atchison Street, 5m whole building setback to Oxley Street and a 1.5m whole building setback to Albany Lane.
+ Three minimum above podium setbacks: 3m to Atchison Street, 7m to Oxley Street and 4m to Albany Lane
+ LEP non-residential FSR minimum is 0.6:1 to 1.5:1 . A minimum of 1.5:1 is proposed.



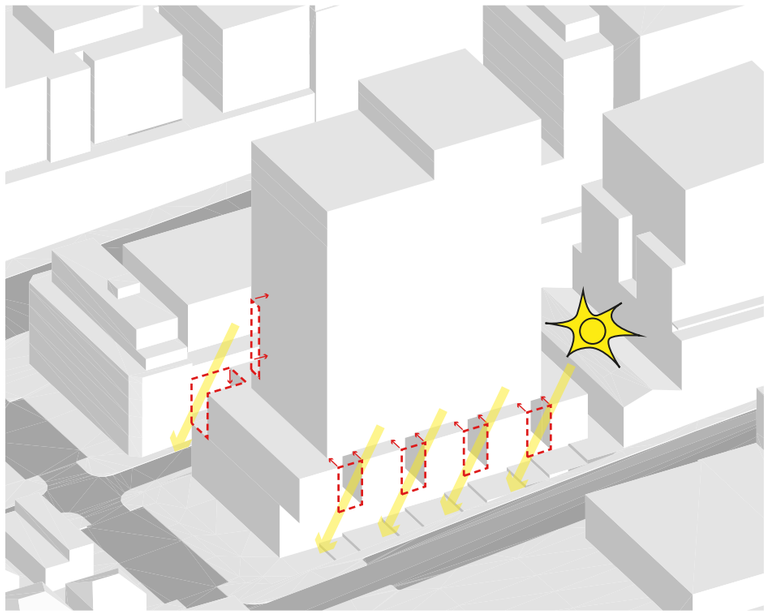
Establish setback zones to:

+ Bring the tower and the podium forward 3m to reinforce the existing consistent street alignments



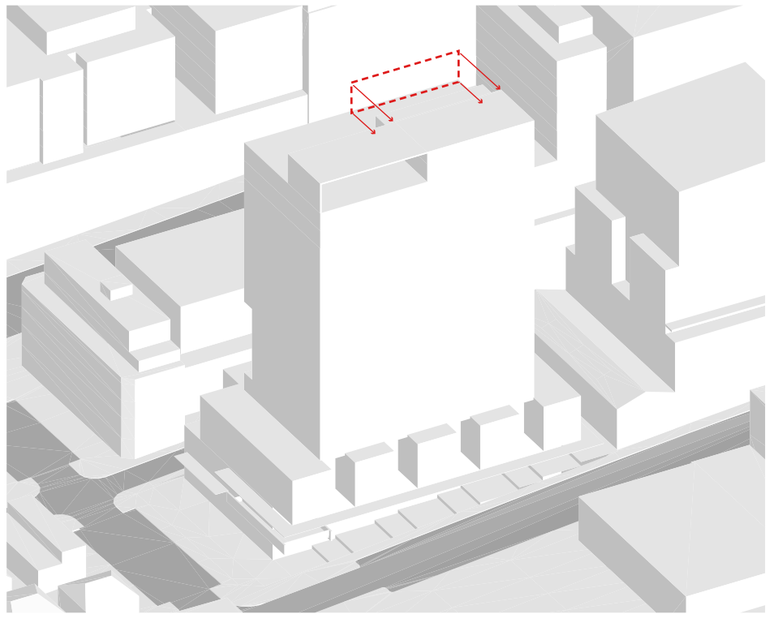
Establish active ground level frontages to:

+ Provide a 6m setback on Atchison Street to the ground floor
+ Provide a 6m wide open to sky through site link connecting Albany Lane to Atchison Street



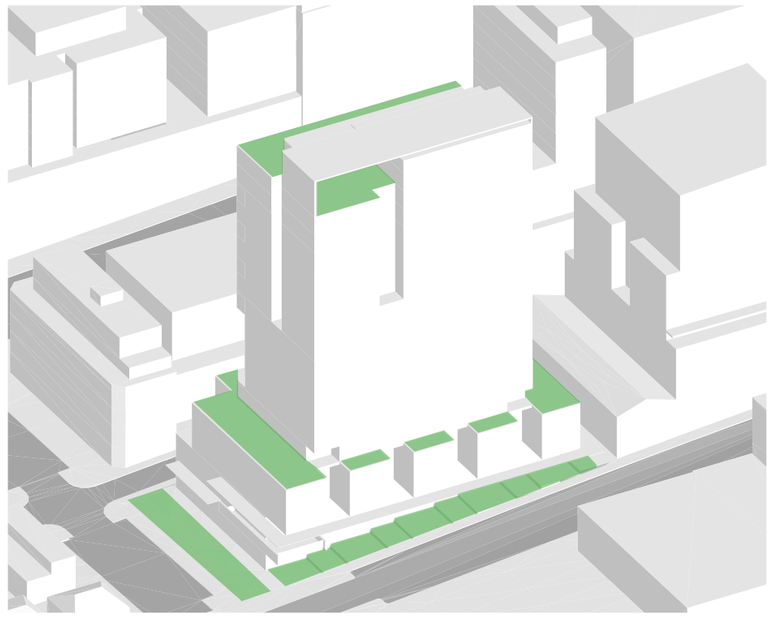
Articulate the podium form

+ Cut out vertical slots from the upper podium to allow sun and daylight to the landscaped terraced setback
+ Cut out the podium form facing Albany Lane to maximise solar access to the existing residences
+ Balconies between Level 4 to Level 7 on the south-east & south west are recessed by 2.4m to allow a greater amount of solar access to the existing resiences



Setback upper building levels from south facade:

+ Level 16 southwest floorplate is setback as required to eliminate all overshadowing to the future expansion of Hume Street Park excluding the proposed carpark driveway
+ Create an open loggia/pergola over Level 16 north east to contribute to diverse communal spaces for residents and an interesting skyline without additional overshadowing impacts



Articulate the built form to provide:

+ Vertical slots to naturally daylight corridors and introduce slenderness to the built form
+ Vertical recess at the location of 3B apartment master bedroom to reduce the apparent scale of the north façade
+ Intensive and semi extensive roof gardens to the communal open areas on L3 and L16
+ High quality landscaping to the new public domain areas

# 04 DESIGN STATEMENT

## 4.3 DENSITY

Good design has a density appropriate for a site and its context, in terms of floor space yields (or number of units or residents).

Appropriate densities are sustainable and consistent with the existing density in an area or, in precincts undergoing a transition, are consistent with the stated desired future density. Sustainable densities respond to the regional context, availability of infrastructure, public transport, community facilities and environmental quality.

### DESIRED FUTURE DENSITY

In May 2015 North Sydney Council endorsed a strategic review of its planning framework for the St Leonards /Crows Nest area. The intention of the Planning Study was to explore opportunities for the further intensification of development across the area. The Planning Study acknowledges that capacity is available to support more intensive development within St Leonards. The Planning Study provides that clarity of land use and built form density direction for TWT Site 1 as it makes a number of recommendations involving amendments to the existing LEP and DCP controls. The following are relevant to the determination of appropriate density;

To increase the non-residential floor space ratio of mixed use land to fill podium levels (minimum 1.5:1 proposed for the subject site).

+ Upgrade and extend Hume Street Park

The Greater Sydney Commission (GSC) released the draft North District Plan in November 2016. The plan has a range of priorities to primarily guide growth of employment and housing as well as achieving sustainability city goals. Relevant actions include:

+ Increase housing choice around all centres through urban renewal in established areas
+ Stronger economic development in strategic centres and transport gateways
+ Facilitate place-making and growth and diversification of job opportunities in St Leonards

The draft District Plan proposes a Collaboration Area for St Leonards to co-ordinate and balance the competing needs of residential and commercial development.

In late 2015 the NSW Government made an announcement that the Metro Station in St Leonards/Crows Nest will be located on the western fringe of the Crows Nest village, between the Pacific Highway and Clarke Lane (eastern side of the Pacific Highway).

The station creates a new transport focus on the southern side of the St Leonards specialised centre supporting the St Leonards southern gateway commercial and mixed-use activities, further enhancing the accessibility of St Leonards and enabling further design led intensification.

### DESIGN PRINCIPLES

+ Protect the employment function of the precinct. Ensure a minimum non-residential FSR of 1.5:1 due to the proximity of the site to the proposed New Metro Station.
+ Provide additional housing density near St Leonards stations and the proposed New Metro Station.
+ Contribute to the following GSC objectives :
  + Increase housing choice around all centres through urban renewal in established areas
  + Stronger economic development in strategic centres and transport gateways
  + Facilitate place-making, growth and diversification of job opportunities in St Leonards
+ Ensure appropriate separation between towers
+ Contribute to public domain and community service improvements necessary to support additional density.
+ Contribute to a high amenity built environment which allows knowledge based industries to cluster and exchange ideas easily
+ Provide podium floor to floor height that enable residential uses in the podium to be converted to employment spaces and/or non-residential uses

Distinctly non-residential podium containing employment spaces including retail, business and cafés.

# 04 DESIGN STATEMENT

## THE PROPOSAL

This application proposes an FSR of 6.3:1 for this site, of which 1.5:1 will be allocated to non – residential purposes . The proposal is generally in accordance with the Council Planning Study. An additional open to sky through site link is proposed

The proposal satisfies the strategic directions of the Draft North District Plan since it provides for a substantial proportion of non-residential floor space in the form or retail or commercial office space. This will ensure that St Leonards maintains a clear employment function and a diversity of employment opportunities as sought for the centre. The proposal also incorporates residential apartments in a tower form that will contribute to North Sydney Council's 5 year housing target of 3,000 dwellings in a high-amenity location with ready access to retail services and transport.

The proposed building makes a substantial contribution to the public domain through delivery of the first stage of the Oxley Street linear park, the new public through site link as a pedestrian laneway and the contribution to Atchison Street as a future civic street with the stepped terraced garden and the outdoor eating areas.

The density proposed is generally equal to or less than recent relevant approvals

+ 575-583 Pacific Highway 18 storeys 56M - FSR of 7:1 of which 2:1 non–residential . Dec 2015
+ 18-20 Atchison Street 16 storeys 59M - FSR of 11:1 of which 6.4:1 non–residential . Dec 2013
+ 6-16 Atchison Street 16 storeys 59M - FSR of 11.3:1 of which 2.5:1 non–residential . Dec 2013

Oxley Street linear park and Atchison Street future civic street providing high-amenity and readily accessible open space

# 04 DESIGN STATEMENT

## 4.4 RESOURCE, ENERGY + WATER EFFICIENCY

Good design makes efficient use of natural resources, energy and water throughout its full life cycle,including construction. Sustainability is integral to the design process. Aspects include demolition of existing structures,recycling of materials, selection of appropriate and sustainable materials, adaptability and reuse of buildings, layouts and built form, passive solar design principles, efficient appliances and mechanical services, soil zones for vegetation and reuse of water.

### STRATEGY

An ESD Strategy will be prepared for the project. The development will designed to respond to the requirements of BASIX and the SEPP 65.

Five interventions are able to be explored;

+ Efficient appliances & improved thermal design
+ Solar Photovoltaic (PV) & battery ready facilities
+ Recycled water ready infrastructure
+ Green roof gardens
+ Best practice parking measures and access to car share facilities

The ESD strategy can be achieved through a combination of "standard" building level sustainable interventions such as installing rooftop PV systems, ensuring high thermal efficiency, installing efficient appliances and capturing and reusing rainwater. Along with "creative" interventions such as unbundled and decoupled parking systems, encouraging the uptake of car share, a recycled water system, green roof terraces and additional canopy cover and battery storage.

+ Public domain improvements will incorporate storm-water management at the road slump in the form of Water Sensitive Urban Design (WSUD) rain gardens
+ The 5m setback to Oxley Street, 3m of the Atchison Street setback and the proposed through site link will be over deep soil areas.  The deep soil area is able to almost 20% of the site area. A minimum 10% is proposed.
+ Apartment layouts are to be optimally designed for passive response solar design principles and cross ventilation as outlined in the Apartment Design Guide requirements.

### Natural Light

Depth of Space Analysis (DEGW Method)

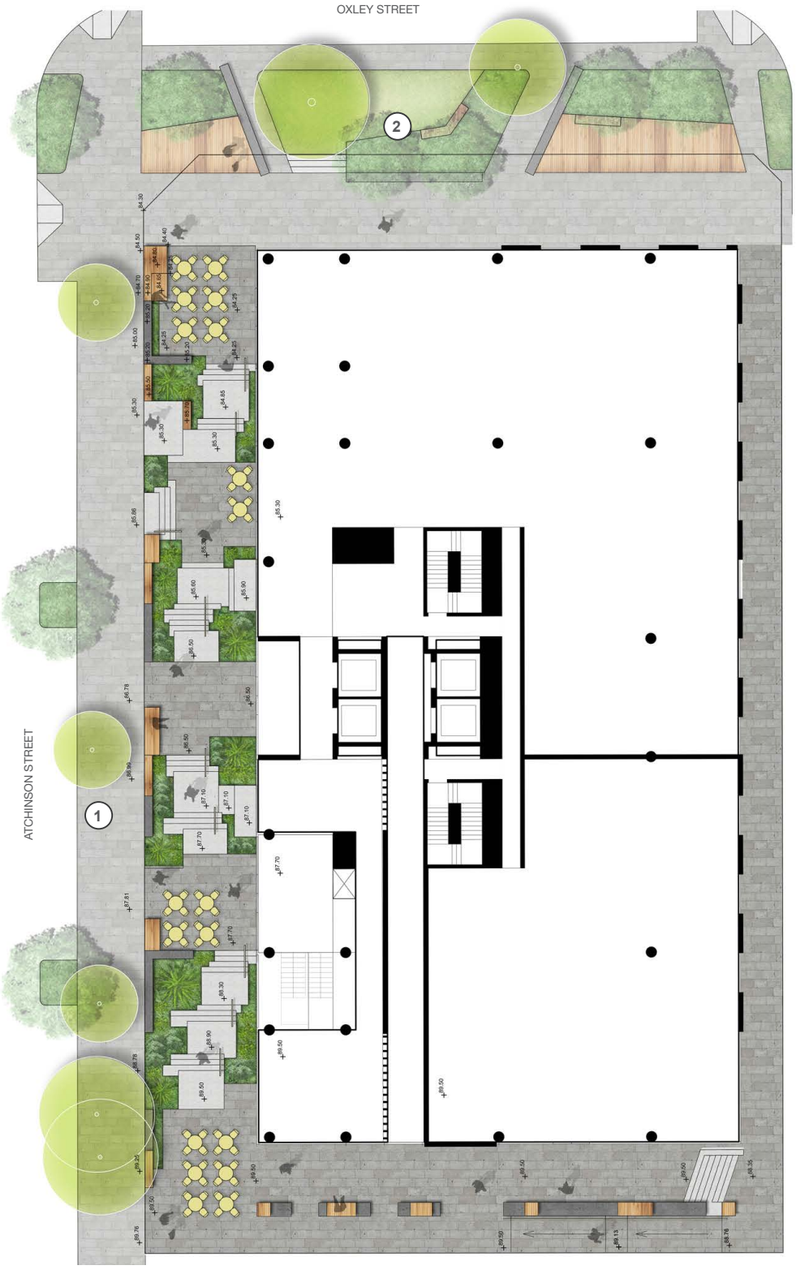
+ The floorplate has excellent access to natural light with 73% Type A light (within 6m of natural light)

Water sensitive urban design


Carshare

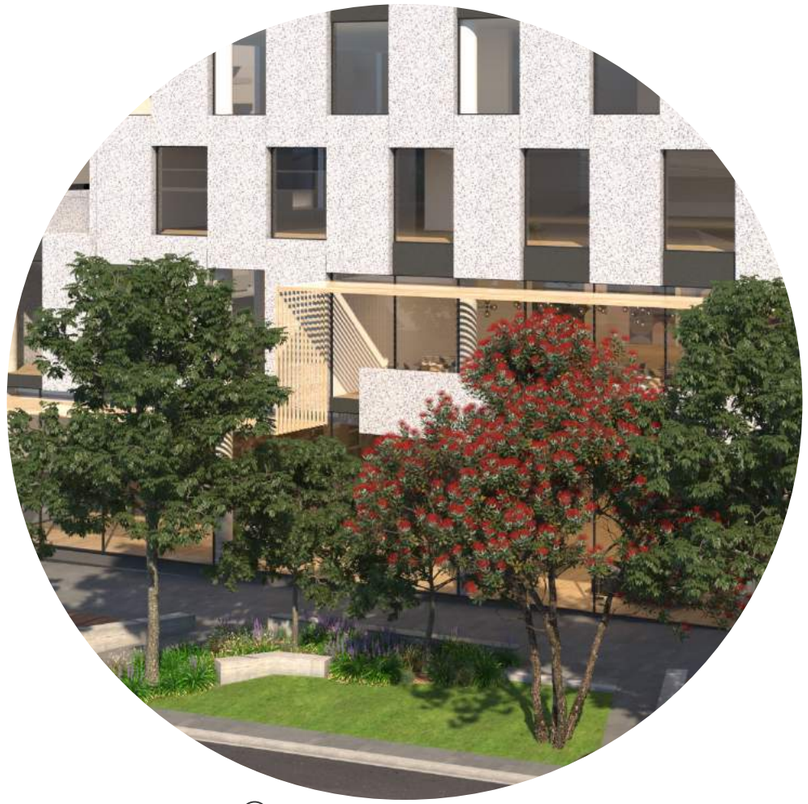
Green roof gardens

# 04 DESIGN STATEMENT




Deep soil planting provided in landscape plan


1 Deep soil planting provided along Atchison St



2 Rain gardens provided along Oxley St

# 04 DESIGN STATEMENT

## 4.5 LANDSCAPE

Good design recognises that together landscape and buildings operate as an integrated and sustainable system, resulting in greater aesthetic quality and amenity for both occupants and the adjoining public domain.

Landscape design builds on the existing site's natural and cultural features in responsible and creative ways. It enhances the development's natural environmental performance by coordinating water and soil management, solar access, microclimate, tree canopy and habitat values. It contributes to the positive image and contextual fit of development through respect for streetscape and neighbourhood character, or desired future character.

Landscape design should optimise usability, privacy and social opportunity, equitable access and respect for neighbours' amenity, and provide for practical establishment and long term management.

### DESIRED FUTURE CHARACTER

The vision for St Leonards is articulated in the St Leonards East Public Domain Upgrade. Design concepts are given for Atchison Street and Oxley Street. Atchison Street is to be a civic 'high street'. A linear park is to be created along Oxley Street integrated with WSUD to emphasise the north / south pedestrian links to adjoining community and provide additional activity nodes.

### DESIGN PRINCIPLES

**Atchison Street**

The landscape design must support the overarching principle of Atchison Street as a the civic 'high street' by;

+ Providing deep soil zones minimum 3m wide within the setback area
+ Enable good access to winter sunlight to the planting and dining spaces within the setback area
+ The podium form is to have a verdant character to connect it to the earth and street
+ The stepped form of the landscape zone is to be designed to reduce as far as any visual barriers to the plane of the existing footpath

**Oxley Street**

The landscape design must;

+ Allow level access to the shop front line
+ Be integrated with the Council's public domain strategy and recognise that the detail design of the public domain in front of 48 Albany Street is unlikely to be delivered.

**Through site link**

The through design link must;

+ Be 6m wide and open to the sky
+ Allow for the future possibility of shop fronts to the boundary with 21 Atchison Street
+ Be designed to be capable of operating as flexible outdoor exhibition and gallery space
+ Be publicly accessible 24/7.

**Residents communal open space**

The communal open space must;

+ Provide a diversity of characteristics for a diversity of activities and age groups
+ Must be conceived as a minimum semi extensive green roof as defined in the North Sydney Green Roof and Wall Resource Manual
+ 3D-1.2 Both communal open spaces will be capable of achieving in excess 50% sunlight for 2 hours between 9am and 3pm in mid-winter.

### THE PROPOSAL

**Atchison Street**

The verge zone is to be widened by 6m through ground level building setbacks in a way that minimises vertical visual barriers in the ground plane at the boundary line. Terraced gardens are proposed to provide the transitions in level. These gardens are located under 4m wide excisions from the upper podium forms that cantilever to provide a form of loggia space to the building. The excisions are designed to let sunlight into the podium loggia space and the retail or café shop fronts. . Between the terraced gardens are covered level spaces that are to be fully accessible from the footpath. The concept plan is to be developed to ensure these level spaces are clearly of the public domain and accessible so as to provide al fresco dining areas and forecourts to the residential and commercial lobbies.

**Oxley Street**

The verge zone is to be widened by 5m through ground level building setbacks to provide a 4m wide pedestrian path along the shop fronts which is to be integrated with the Council's design concepts for the linear park.

**TWT Public Art Laneway**

A new pedestrian through site link is to be provided connecting Albany Lane with Atchison Street and interfacing with the residential lobby. The laneway will be based on a public art concept of an external gallery space so that in the interim that No.21 Atchison Street (Eckersleys) remains undeveloped the wall space can be used as an exhibition space to add colour, culture and art. The layout of the laneway will be flexibly designed so that any future development on No.21 can also have shop fronts and residential lobbies to the lane frontage. It will be a hard edged urban space designed to contribute to the idea of a 'village enclave' with open green space surrounded by specialty retail, so that the community can engage with inspiring arts activities.

**Residents communal open space**

Communal open space in the order of 530m2 (25% x site area) will be provided in the form of roof gardens on levels 3 and 16.

Level 3 podium: This level will provide approximately 332m2 of outdoor area for a number of resident activities including a community garden, a children's play area and an outdoor exercise facility. This will be an intensive green roof in accordance with the descriptions set out in the North Sydney Green Roof and Wall Resource Manual

L16 Roof garden:

This roof garden will provide

A 80m2 winter garden space with a possible loggia roof overlooking Atchison Street and protected from the cold westerly and southerly winds subject to future DA.

A 185m2 summer garden space with distant city views and harbour views. It will be sheltered from strong afternoon north easterly winds and will have several BBQ and outdoor eating areas. The accessible areas will be set back 1.2m from the south facade overlooking the Albany lane properties to maximise their visual privacy.

A communal space with kitchen, and amenities is proposed to the roof level communal garden.

This will be an semi-extensive green roof in accordance with the descriptions set out in the North Sydney Green Roof and Wall Resource Manual

A Public Art Laneway

Level spaces, fully accessible from the footpath provide forecourts to internal lobbies subject to future design development with Council input

Sculptural stairs

Hanging garden creepers cascading within cutouts along Atchison St

Stepped form of the landscape zone reduces visual barriers to the existing footpath

# 04 DESIGN STATEMENT

## 4.6 AMENITY

Good design provides amenity through the physical, spatial and environmental quality of a development.

Optimising amenity requires appropriate room dimensions and shapes, access to sunlight, natural ventilation, visual and acoustic privacy, storage, indoor and outdoor space, efficient layouts and service areas, outlook and ease of access for all age groups and degrees of mobility.

### DESIGN PRINCIPLES

**Room dimensions and shapes**

+ Units layouts are to comply with SEPP 65 minimum room dimensions and apartment sizes

**Access to sunlight**

Apartments:

+ Access to sunlight and daylight is to comply with SEPP 65 / ADG Part 4A minimums

Adjoining residents:

+ Recognising that densities in St Leonards are planned to increase, overshadowing to adjoining residents is to be minimised by:
    + Ensuring where setbacks and building heights are to be varied from the Council Planning Study, the variation does not reduce further the extent of sunlight received between 9am and 3pm mid-winter by a complying envelope
    + Modifying the podium form where possible to improve mid-winter solar access to properties in Albany Lane

Public Domain:

+ Ensure that there is no additional overshadowing between 9am and 3pm mid-winter of Hume Street Park, including the proposed extension. Except for areas used as driveway access to the underground carpark.
+ Where the podium form overhangs street level setbacks ensure the podium forms allow full solar access to the ground planes between 9am and 3pm mid-winter except where existing built form currently results in overshadowing.

**Natural ventilation**

+ Natural ventilation of apartments is to comply with SEPP 65 / ADG Part 4B minimums

**Visual and acoustic privacy,**

+ Ensure ADG compliant separations are provided.
+ Where adjoining apartments do not comply with ADG setbacks ensure that recommended separations are provided on the subject site.
+ Where commercial spaces in the podium are within 12m of habitable rooms or private open space of existing adjoining apartments ensure the extent of window area does not exceed 50% of the building façade and provide appropriate fixed screening devices to maintain visual privacy

**Storage,**

+ Units are to comply with SEPP 65 storage requirements within the units. Some additional basement bulky storage is to be provided.
+ Provide at least 1 on-site, secure bicycle parking space/ storage for each apartment in addition to SEPP 65 storage requirements

**Indoor and outdoor space**

+ Balcony spaces are to comply with ADG minimums
+ Where apartments receive no winter sunlight between 9am and 3pm in midwinter wintergarden balconies are to be provided

**Efficient layouts and service areas,**

+ Floor plans are to be designed to provide vistas to external views from the point of entry
+ Corridor space is to be minimised
+ Provide 3 bedroom apartments to corner locations

**View sharing and outlook**

View sharing: Developments are to allow for the reasonable sharing of views and assess impact in accordance with the following Land and Environment Court planning principles

+ Iconic views, such as views to Sydney CBD and Harbour Bridge, are valued more highly than district views without icons; Iconic views are to be retained
+ Whole views are valued more highly than partial views
+ The protection of views from front and rear boundaries of the existing developments is more realistic than the protection of views across side boundaries
+ The impact on views from living areas is more significant than from bedrooms or service areas.
+ Apartment layouts are to take advantage of city views above 10 storeys
+ Maximise the number of rooms with east outlook to apartments below level 10
+ The podium form is to be redesigned to maximise the outlook of residents in Albany Lane to new public domain parks and laneways without unduly impacting on the ability of the podium spaces to support viable employment uses

**Ease of access for all age groups and degrees of mobility.**

+ 10% of the units are to be designed to the requirements of AS 4299-1995 Adaptable Housing

### THE PROPOSAL

The floor plans attached in *05 Concept Design, 5.1 Indicative Design* are capable of delivering the following SEPP 65 amenity criteria

**Room dimensions and shapes,**

4D Apartment size and layout: - Objective 4D-1:

+ The layout of rooms within the apartments are functional well organised and provide a high standard of amenity. Refer *05 Concept Design, 5.1 Indicative Design*|

**Access to sunlight,**

4A Solar and Daylight access

+ 77% (5.4/7) typical
+ A maximum 15% (1/7) of apartments on the plate receive no direct sunlight between 9am and 3pm in mid winter

2A Primary controls: The scale of the development has been determined by the setbacks and heights recommended in the Planning Study building.

+ The proposed built form will not overshadow Hume Street Park between 9am and 3pm. Refer to Solar Studies provided in *06 Appendix, 6.4 Solar Studies*

**Natural ventilation**

4B Natural ventilation:

+ All habitable rooms are naturally ventilated
+ The layout and design of single aspect apartments maximises natural ventilation
+ 85% (6/7) are effectively naturally cross ventilated. 57% (4/7) are corner units and 28% (2/7) are shallow depth 7.7m (11m incl. plenum) cross plenum apartments. Within Level 3-7 (first nine floors) 36/59 (61%) are cross ventilated by ADG described means.
+ The floor plate includes 53% dual aspect apartments and all apartment depths are less than 8.2m.

**Visual and acoustic privacy**

+ The separations proposed are all in accordance with ADG 2F Building separation. Refer *05 Concept Design, 5.1 Indicative Design: Concept Master Plan Diagram*

**Storage**

4G Storage:

+ 50% x minimum storage volumes are able to be provided accessible from circulation areas.
+ In addition to basement storage, space will be provided for 1 bicycle per apartment in the basement.

**Indoor and outdoor space**

4E Private open space and balconies:

+ All balconies have comply with minimum areas: 1B - 8m2 (and a minimum depth of 2.0m) 2B - 10m2 and 3B - 12m2 (and a minimum depth of 2.4m)

**Efficient layouts and service areas,**

**Social amenity**

4F Common circulation spaces:

+ The maximum number of apartments off any corridor is 8.
+ The indicative apartment mix has 102 apartments which equates to 51 apartments per lift.

4F-1 Generally corridors are minimum 1.6m wide with a 2m width in the lift lobby. . Corridors are naturally day lit and ventilated on each side. Corridors are approximately 10m long from the lifts and articulated with a centrally located lobby and chatting nooks with a place for furniture or seating.

**View sharing and outlook**

The proposed development will have some impact on existing views, which are enjoyed by the existing surrounding developments.

The "Principles of view sharing" set out in the Land and Environment Court case of Tenacity Consulting v Warringah [2004] NSWLEC 140, have been considered to reduce the impact on the views of neighbours.

Refer Fig 31. Figure 4.6: View sharing

**Ease of access for all age groups and degrees of mobility.**

+ 10% of the units are to be designed to the requirements of AS 4299-1995 Adaptable Housing

View from apartment neighbouring TWT1

Maximise sunlight access and view sharing of nearby residences through podium corner cut outs


Figure 39: Figure 4.6 - View Sharing

Key

Site
Existing Residential Neighbouring Developments
Indicative Proposed Tower
Iconic Views to Sydney
District Views

# 04 DESIGN STATEMENT

## 4.7 SAFETY

Good design optimises safety and security within the development and the public domain. It provides for quality public and private spaces that are clearly defined and fit for the intended purpose. Opportunities to maximise passive surveillance of public and communal areas promote safety.

A positive relationship between public and private spaces is achieved through clearly defined secure access points and well lit, visible areas that are easily maintained and appropriate to the location and purpose.

### DESIGN PRINCIPLES

+ The entry lobby to the commercial podium will be clearly identifiable from the street with a carefully designed forecourt and laneway frontage for the residential lobby, to ensure safe, well lit access to, and egress from, the building.
+ The thresholds between public, communal and private areas will be clearly defined to ensure a sense of ownership and legibility between the public and private domains. In keeping with the desired future character of the area (to provide a visually open interface between public and private) a strong, legible, visual connection will be retained between the two domains. The through site link and the Atchison Street landscaped terraces are to be clearly identified as public domain.
+ Retail frontages will provide lighting to the area at night, passive surveillance of the street and opportunity for night-time activation. These premises will have direct access from street fronts
+ Commercial offices will overlook Albany Lane providing passive surveillance.
+ Apartment buildings overlook the landscaped communal roof gardens on Level 3, providing passive surveillance of the open space areas and the children's garden to improve safety. The development is designed to avoid blind corners and hidden spaces.
+ Access to each building and individual apartments will be coordinated with a security key system.
+ Secure parking for residents is located within the podium with clear and direct lift access to the apartments.

Passive surveillance
Apartments overlook open space along Oxley Street

Clearly defined thresholds with visually open interface between the public and private domains

Distinguished entry lobby to Atchison St

## 4.8 HOUSING DIVERSITY+SOCIAL INTERACTION

Good design achieves a mix of apartment sizes, providing housing choice for different demographics, living needs and household budgets.

Well designed apartment developments respond to social context by providing housing and facilities to suit the existing and future social mix. Good design involves practical and flexible features, including different types of communal spaces for a broad range of people, providing opportunities for social interaction amongst residents.

### DESIGN PRINCIPLES

*North Sydney Residential Development Strategy 2009* states:

"North Sydney's population is steadily increasing. In addition its population is ageing and the household occupancy rate is decreasing (i.e. fewer people living in houses). These three factors will result in an increased demand for additional dwellings in North Sydney and need to plan for appropriate housing types."

+ Real estate advice obtained from CBRE proposed that a market based mix would be 35% 1 Bed, 50% 2 Bed and 15% 3 Bed . This is generally in accordance with the dwelling mix in North Sydney DCP which would require maximum 45% 2 Bed and minimum 10% Studios. The development mix is able to be modified and any variation sought would be the subject to detailed analysis of current and future market demand.
+ The design is mindful of the increasing need for family friendly housing in urban areas. Ground floor apartments opening to gardens are all to be 2B and 3B apartments and have floor plans capable of accommodating families.

### THE PROPOSAL

+ The proposed development provides housing choice. The communal open spaces, retail uses at ground level, and ancillary open spaces will encourage social interaction amongst residents.
+ The proposed development will have 10% of units designed to be adaptable to the needs of people with disabilities and to facilitate inter-generational changes and changing lifestyles.
+ Variety in height above ground, aspect and outlook within apartment types will result in some price differentiation.
+ Communal open spaces are provided on L3 and L15 each with direct access to sunny (minimum 50% sun in mid winter) roof gardens and BBQ areas to support the communal life of the building.
+ The maximum number off apartment corridor is 8.
+ The indicative apartment mix has 102 apartments which equates to 51 apartments per lift.
+ Generally corridors are minimum 1.6m wide with a 2m width in the lift lobby. A 2.1x1.6m space is provided at the end of each corridor. Corridors are naturally day lit and ventilated. Corridors are 21m long and articulated with a centrally located lobby and chatting nooks with a place for furniture or seating at the windows.

Communal open spaces on L3 and L18 with direct access to sunny roof gardens and BBQ areas

The residential lobby spaces provide interactive areas for residents to socialise

Laneway space on the ground level providing a residental forecourt and potential outdoor art exhibtion areas

# 04 DESIGN STATEMENT

## 4.9 AESTHETICS

Good design achieves a built form that has good proportions and a balanced composition of elements, reflecting the internal layout and structure. Good design uses a variety of materials, colours and textures.

The visual appearance of well designed apartment development responds to the existing or future local context, particularly desirable elements and repetitions of the streetscape.

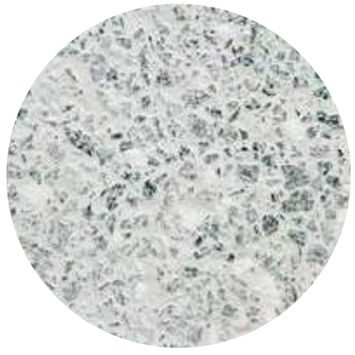
### THE PODIUM

+ The proposal has a legible commercial character in the podium forms through its scale, its dramatic cantilevers and the large expanses of glass that are to express activities that will happen in the spaces
+ The podium is to be constructed in off form concrete which is to be off white with blue metal aggregate sandblasted to give the concrete a natural finish.
+ The podium is to be 'organic' in character. Planting is to be used to create a verdant feel.
+ Vertical cables will carry creepers over the glass walls between the cantilevered spaces. Walls will be mirrored in-front of escape stair zones
+ External soffits are to be in oiled timber battens that extend into lobbies and interiors
+ Garden terraced stairs will be sculptural in character

### THE TOWER

+ The tower will have a precast concrete panel cladding with the same aggregate base as the podium concrete. It is to be satin polished to ensure a low maintenance, high quality shimmering finish
+ The precast panels are arranged in simple alternating compositions to create illusory forms to break down the scale of the façades. Windows are set back 200mm to express the depth of the panels.
+ The tower form uses extruded Cartesian forms that are cantilevered at all corners to reduce the bulk of the building. Slab edges provide shade and weather protection.
+ Extensive roof gardens will be on level 18 and level 3 .
+ Substations, plant and garbage storage areas are located in basement or with an integrated frontage to Albany Lane

Black Anodised
Window Frames



Sandblasted concrete.
Off white with blue metal aggregate

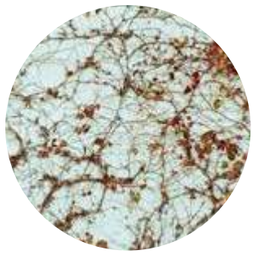
Satin polished concrete.
Off white with blue metal aggregate

Planting to create verdant feel

Oiled timber battens
External soffits

Vertical cables carrying creepers over the glass walls

Black anodised window frames



Virginia creeper

Sculptural garden terraced stairs

External soffits: Oiled timber battens

# 05 CONCEPT DESIGN

## 5.1 INDICATIVE DESIGN

The concept design was prepared to demonstrate how the site could potentially accommodate a mixed use development at the densities and heights shown in the Site 1 Master Plan and the following yield analysis.

# PROJECT SUMMARY

SITE 1 PP 2017-16 ST _ 1.5 Non Resi_REV AB

## Residential Areas

| Site-Building | Storeys | NSA | GFA | FECA | UCA | NSA/GFA | NSA/FECA |
|---|---|---|---|---|---|---|---|
| 23-35 ATCHISON | 16 | 7,944 | 10,127 | 10,797 | 1,139 | 78% | 74% |
| | | **7,944** | **10,127** | **10,797** | **1,139** | | |

## Non Residential Areas

| Building | Use | NSA | GFA | FECA | UCA | NSA/GFA | NSA/FECA |
|---|---|---|---|---|---|---|---|
| 23-35 ATCHISON | GF_L Retail | 766 | 825 | 1,355 | 0 | 93% | 57% |
| | GF_U Retail/Comm | 1,013 | 1,120 | 1,222 | 0 | 90% | 83% |
| | L1 Commercial | 1,220 | 1,220 | 1,542 | 0 | 100% | 79% |
| **Totals** | | **2,998** | **3,165** | **4,118** | **0** | | |

## Carparking areas

| Site-Building | Use | NSA | GFA | FECA | UCA |
|---|---|---|---|---|---|
| 23-35 ATCHISON | Carparking | | 0 | 1,415 | 0 |
| **Total** | | **0** | **0** | **1,605** | **0** |

## Residential numbers and mix

| Building | Unit Type | 1B | 2B | 3B | Total |
|---|---|---|---|---|---|
| | Mix | 33% | 58% | 9% | 100% |
| | Avg NSA incl W/G | 55 | 85 | 118 | 78 |
| 23-35 ATCHISON | | 34 | 59 | 9 | **102** |
| | | 34 | 59 | 9 | **102** |

## Carparking numbers

| | Residential | Non Residential | Total |
|---|---|---|---|
| 23-35 ATCHISON | 42 | 5 | |
| VISITOR | | 0 | |
| CAR SHARE | 2 | | |
| | **44** | **5** | **49** |
| MOTORCYCLES | | | **4** |
| BICYCLES | 102 | 49 | |
| VISITOR BICYCLES | 10 | 16 | |
| | **112** | **65** | **177** |

## Site Summary

| | |
|---|---|
| FECA+UCA - Residential | 11,936 |
| FECA+UCA - Non residential | 4,118 |
| FECA+UCA - Carparking | 1,605 |
| FECA+UCA - Total | 17,659 |
| GFA - Non Residential | 3,165 |
| GFA - Residential | 10,127 |
| **GFA** - Total | **13,292** |
| **Site Area** - Total | **2,109.8** |
| **FSR** - Non Residential | **1.5 :1** |
| **FSR** - Total | **6.3 :1** |
| **No. of apartments** | **102** |
| **No. of cars** | **49** |
| Disclaimer | This is for high level feasibility only and all projections are approximate |

## Site FSR

| | Residential | Non residential | Total FSR |
|---|---|---|---|
| **PP1_23-35 Atchison** | **4.8** | **1.5** | **6.3** |

## Site Areas

| | Oxley Strip Park | Through Site Link | Total Site |
|---|---|---|---|
| 23-35 Atchison | 169.5 | 198.0 | 2,109.8 |

## Definitions

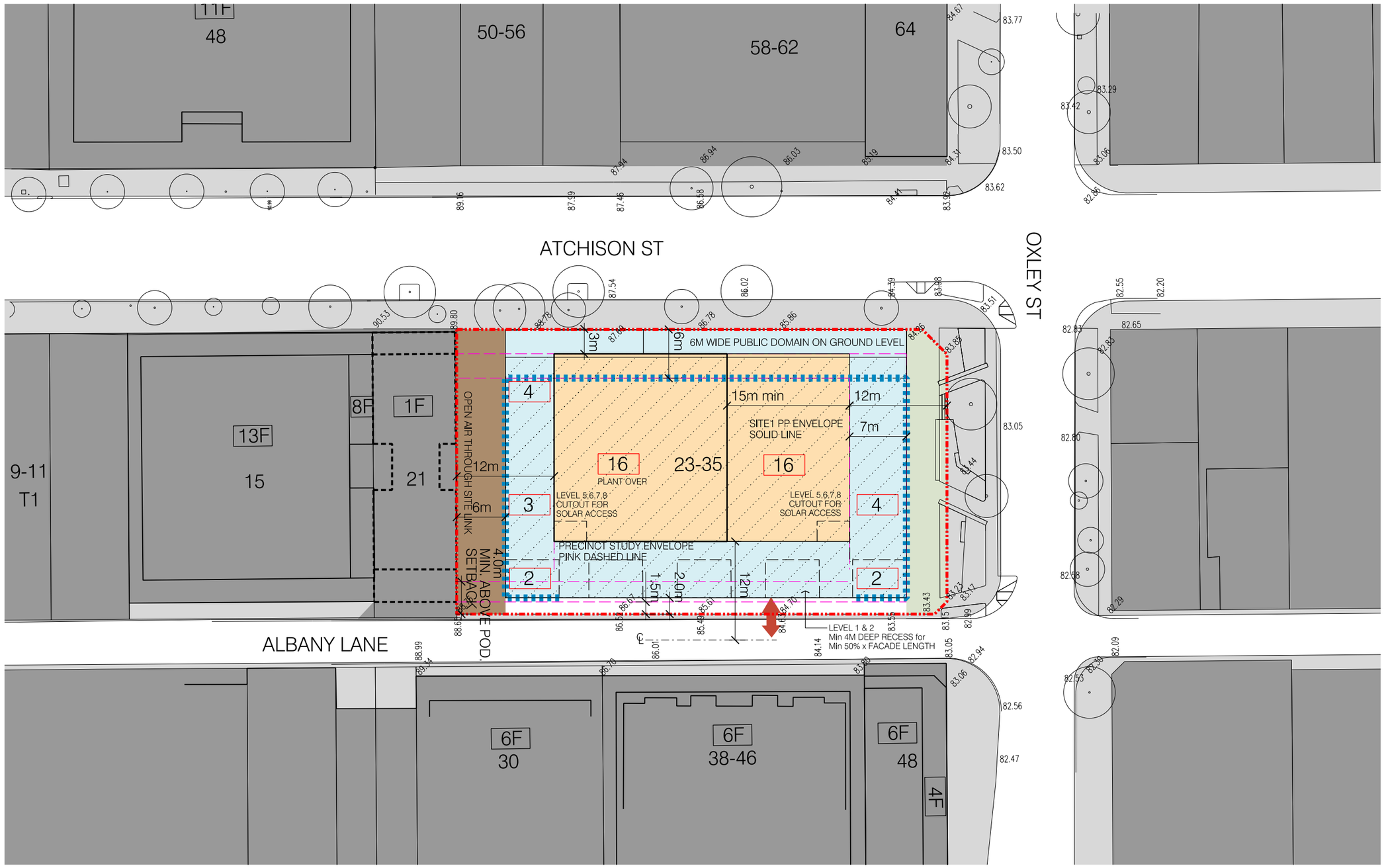
- FSR is Floor Space Ratio = GFA (LEP)/Site Area
- NSA is Nett Sellable Area measured to the inside face of enclosing walls excluding voids above a floor and balconies
- GFA (LEP) is Gross Floor Area measured as defined by the governing Local Government Authority
- FECA is Fully Enclosed Covered Area as defined by the Australian Standard Method of Measuring Building Works
- UCA is Uenclosed Covered Area as defined by the Australian Standard Method of Measuring Building Works

Rev BB PP Submission 03.07.2018

# 05 CONCEPT DESIGN

Photomontage view of indicative design

Date 6.12.17 Rev D @ A3




## Site 1 Master Plan

Date 6.12.17 Rev D

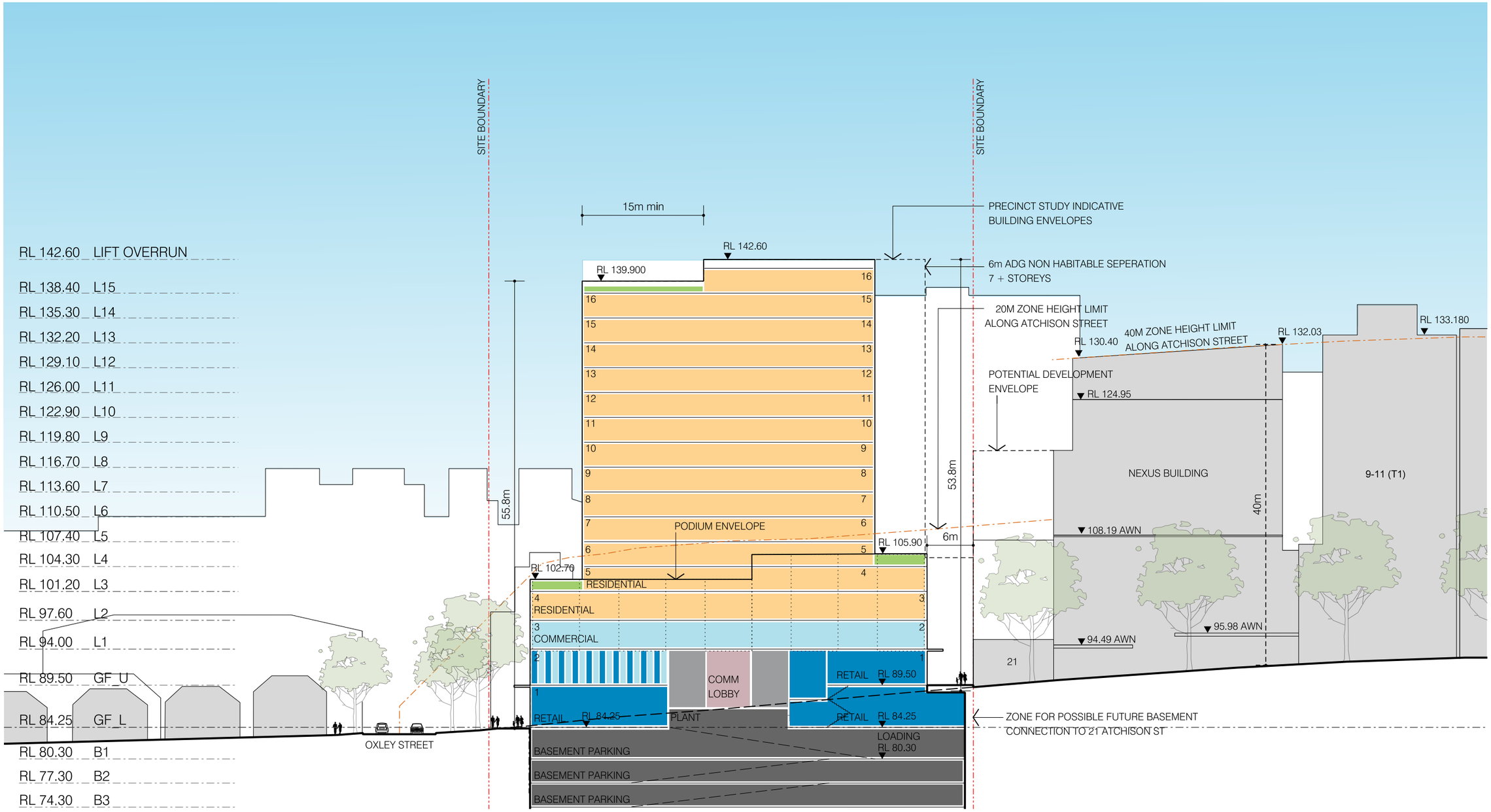
1:500 @ A3

### Key

- RESIDENTIAL COMPONENT (TOWER)
- COMMERICIAL/RETAIL COMPONENT (PODIUM)
- THRU-SITE LINK
- PROPOSED URBAN SPACE/LINEAR PARK
- EXTENT OF BASEMENT CAR PARKING
- SURROUNDING POTENTIAL DEVELOPMENT
- 4 PROPOSED BUILDING HEIGHT (IN LEVELS)
- 6F SURROUNDING BUILDING HEIGHT (IN LEVELS)
- PROPOSED CAR PARK ENTRY/EXIT
- PROPOSED ACTIVATED BUILDING FRONTAGE

N

# 05 CONCEPT DESIGN




## East West Section

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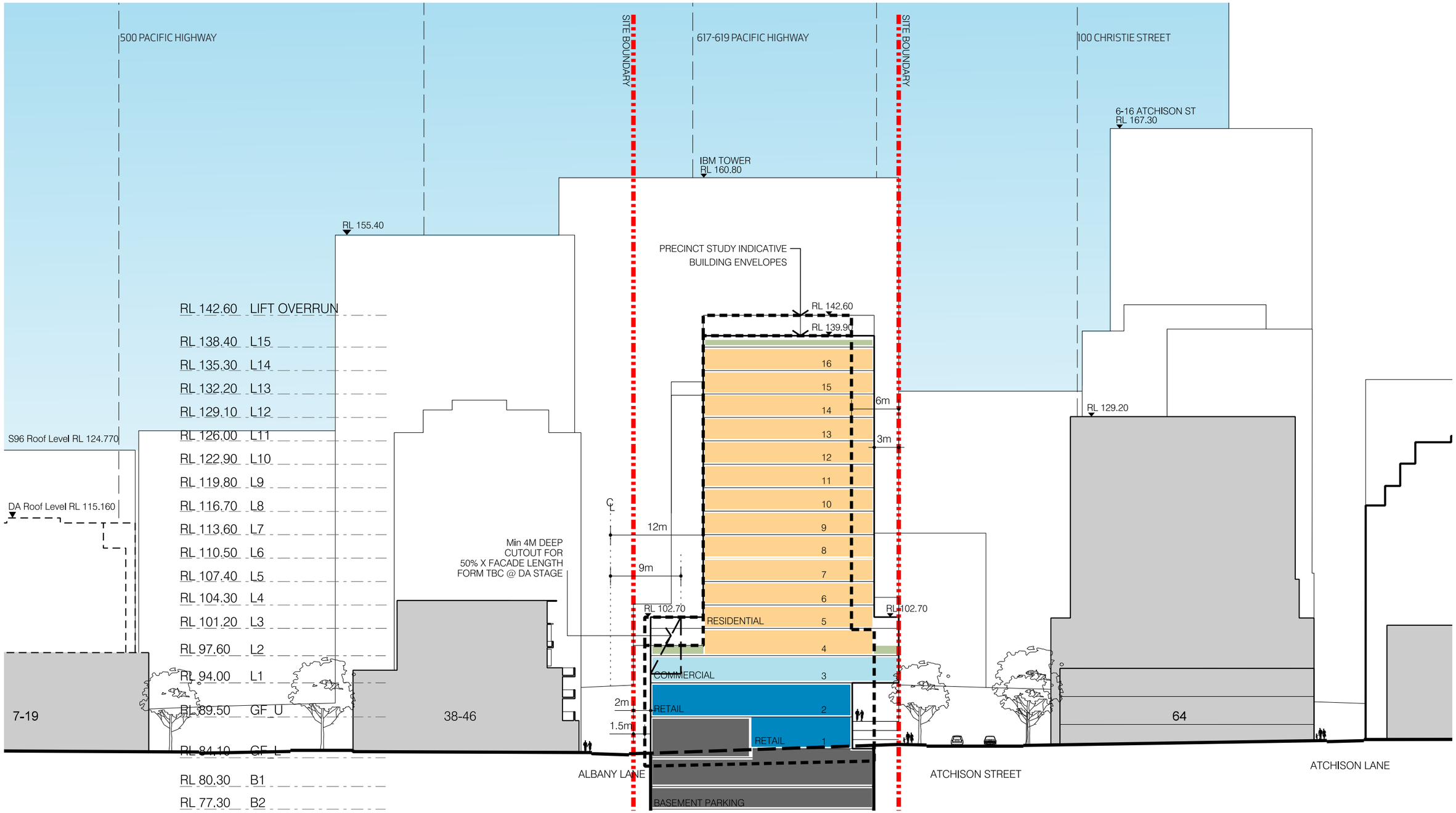
Key

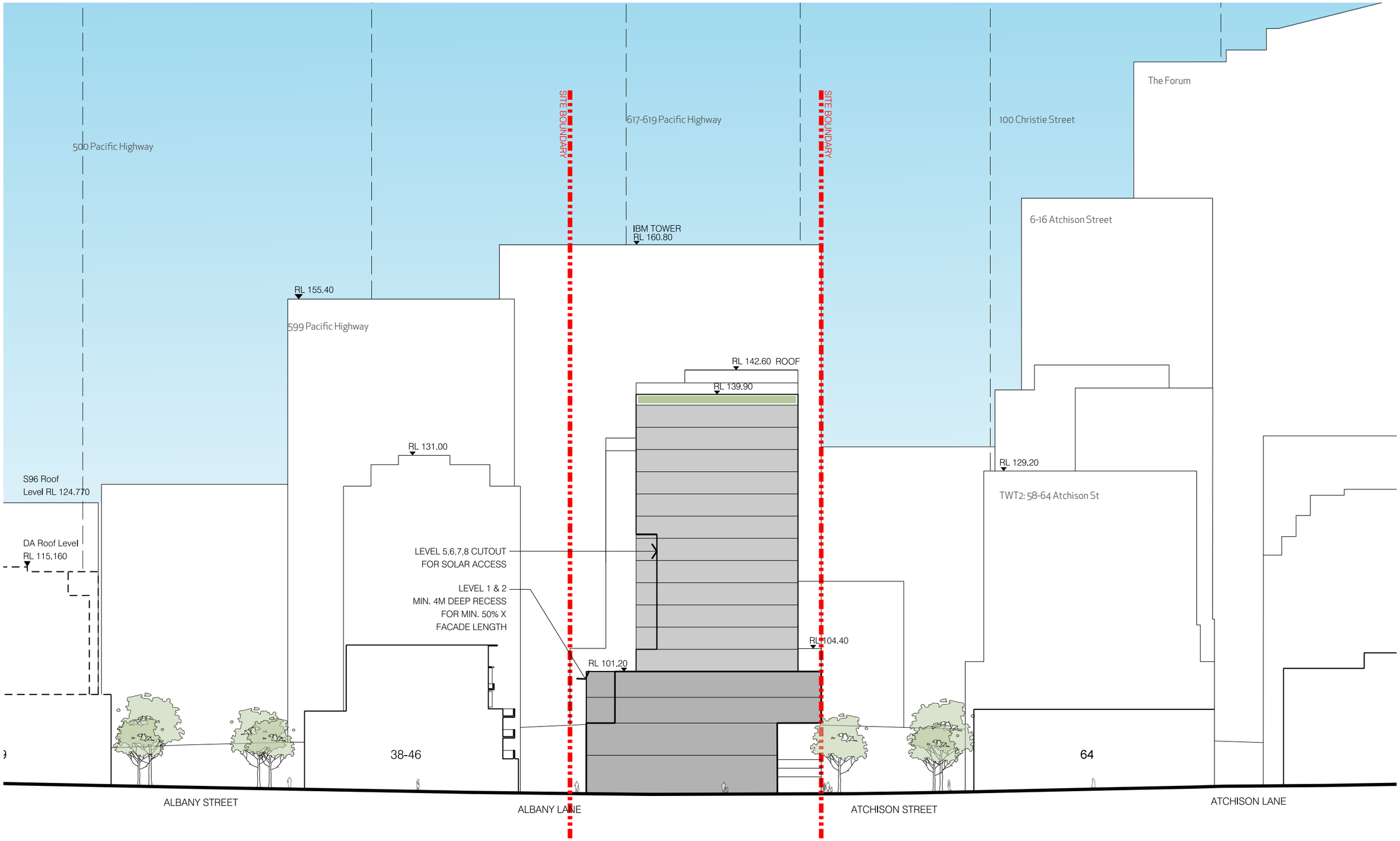



## North South Section

Date 04.07.18 Rev D 1:500 @ A3

## Key

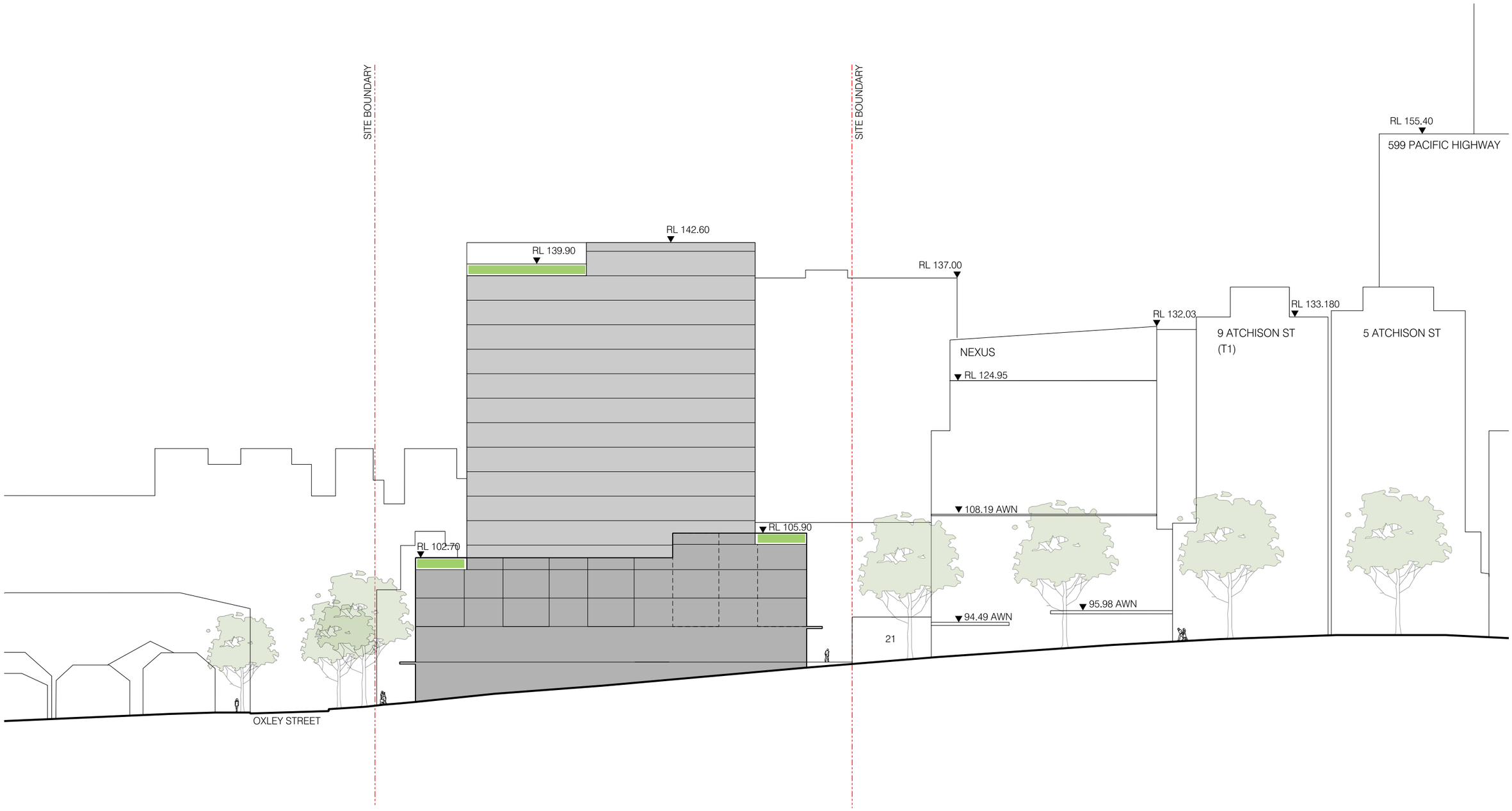
# 05 CONCEPT DESIGN




## Oxley Street Elevation

Date 6.12.17 Rev D

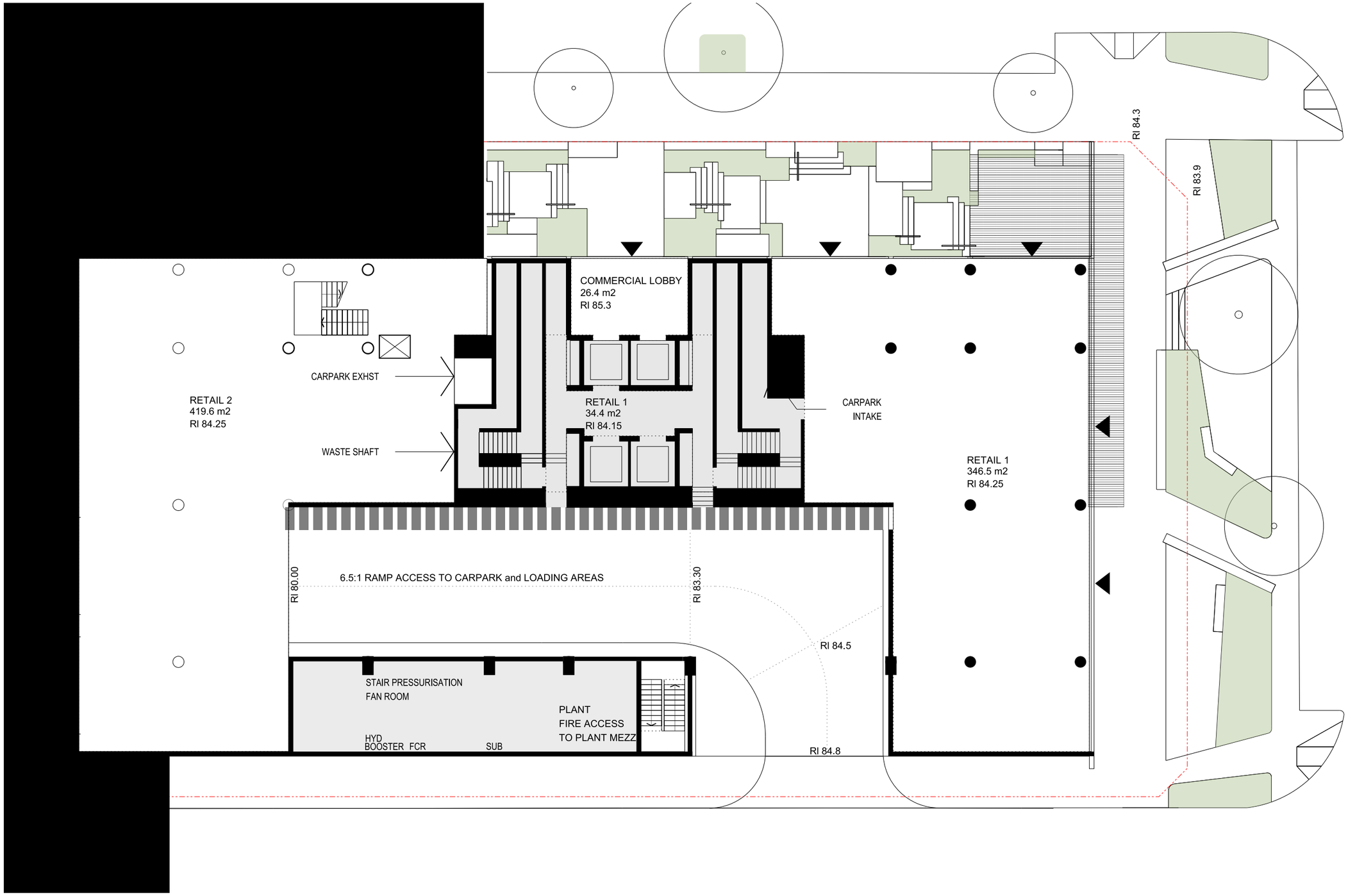
1:500 @ A3




## Atchison Street Elevation

Date 6.12.17 Rev D 1:500 @ A3

# 05 CONCEPT DESIGN

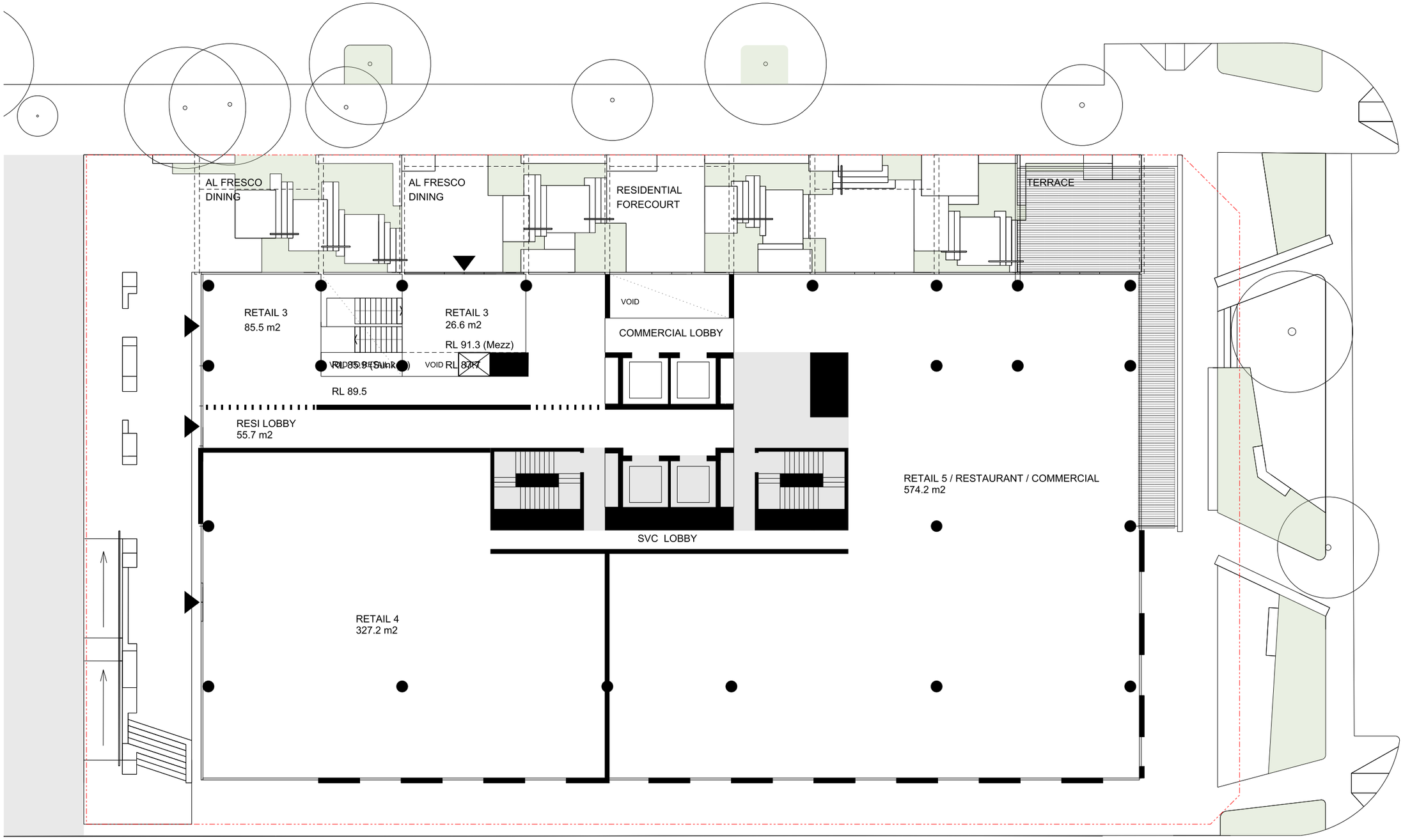



Lower Ground Plan

Date 6.12.17 Rev D

1:200 @ A3

N



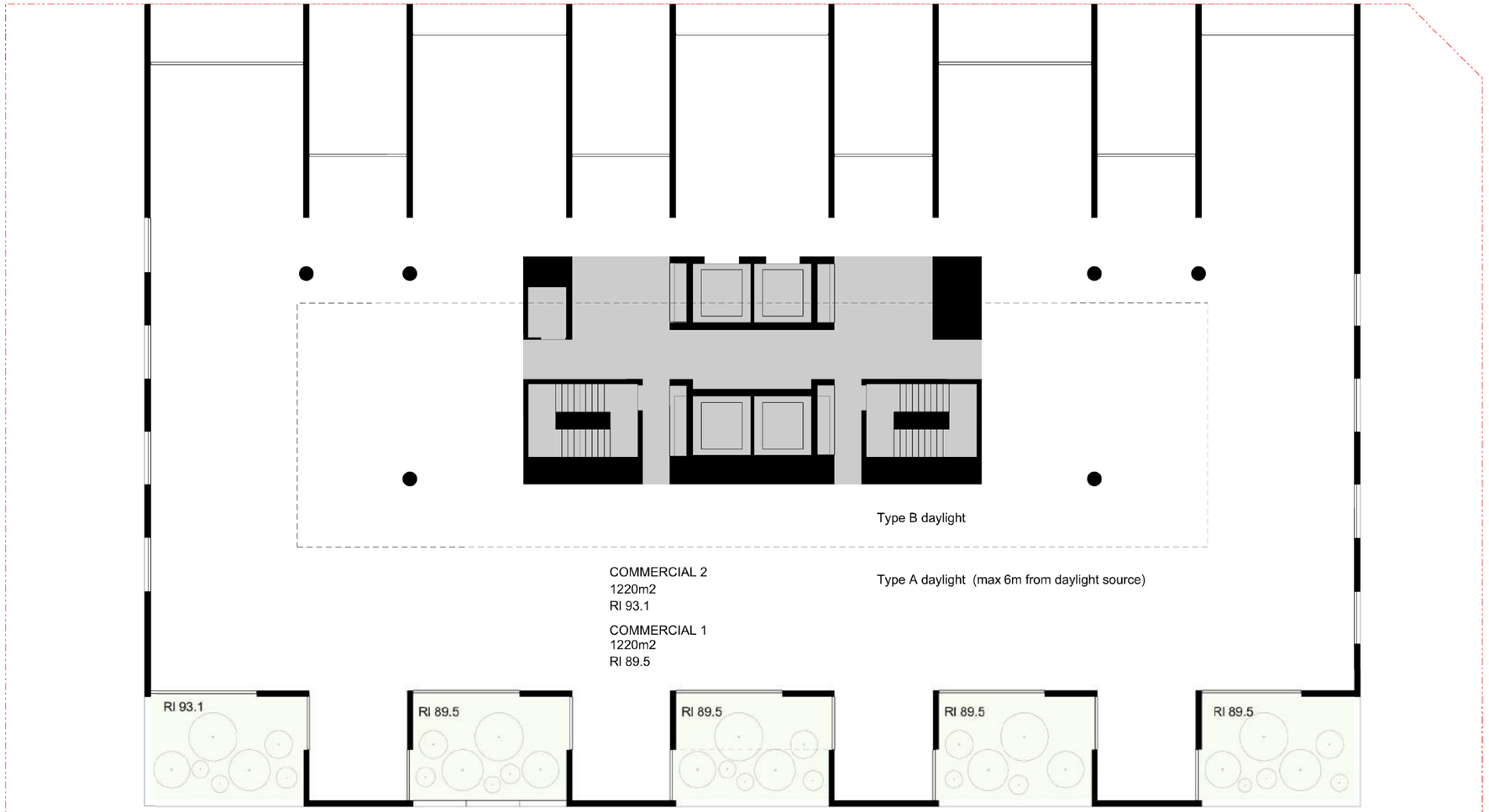

## Upper Ground Plan

Date 6.12.17 Rev D

1:200 @ A3

N

# 05 CONCEPT DESIGN




## Level One Plan

Date 6.12.17 Rev D

1:200 @ A3

### Key

- Apartment Achieving ADG 2hr Solar Access
- Apartment Achieving ADG Cross Ventilation
- Apartment with ADG No Direct Sunlight

N


## Level 2 Plan

Date 6.12.17 Rev D

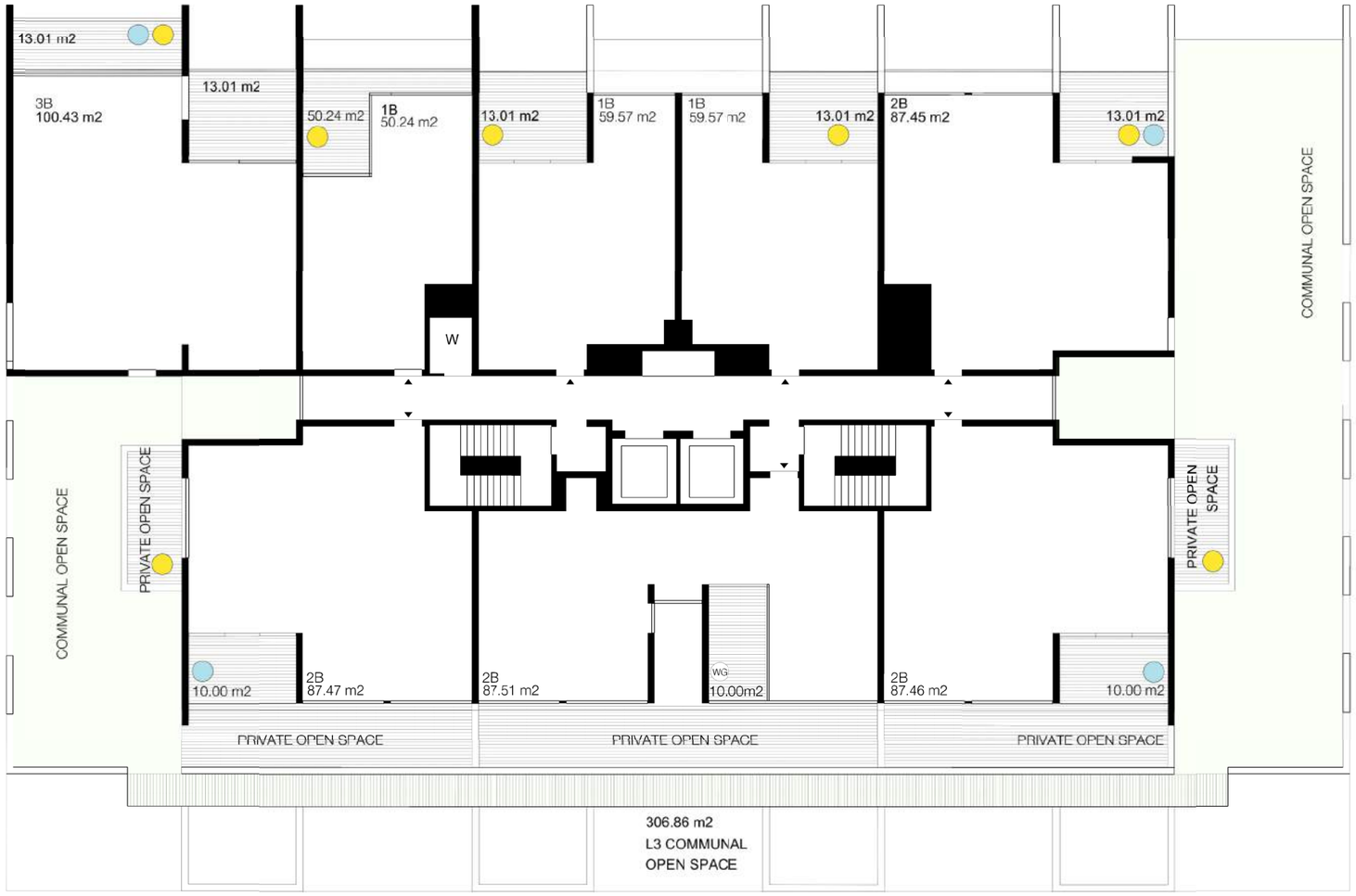
1:200 @ A3

### Key

- Apartment Achieving ADG 2hr Solar Access
- Apartment Achieving ADG Cross Ventilation
- Apartment with ADG No Direct Sunlight

N

# 05 CONCEPT DESIGN




## Level 3 Residential Plan

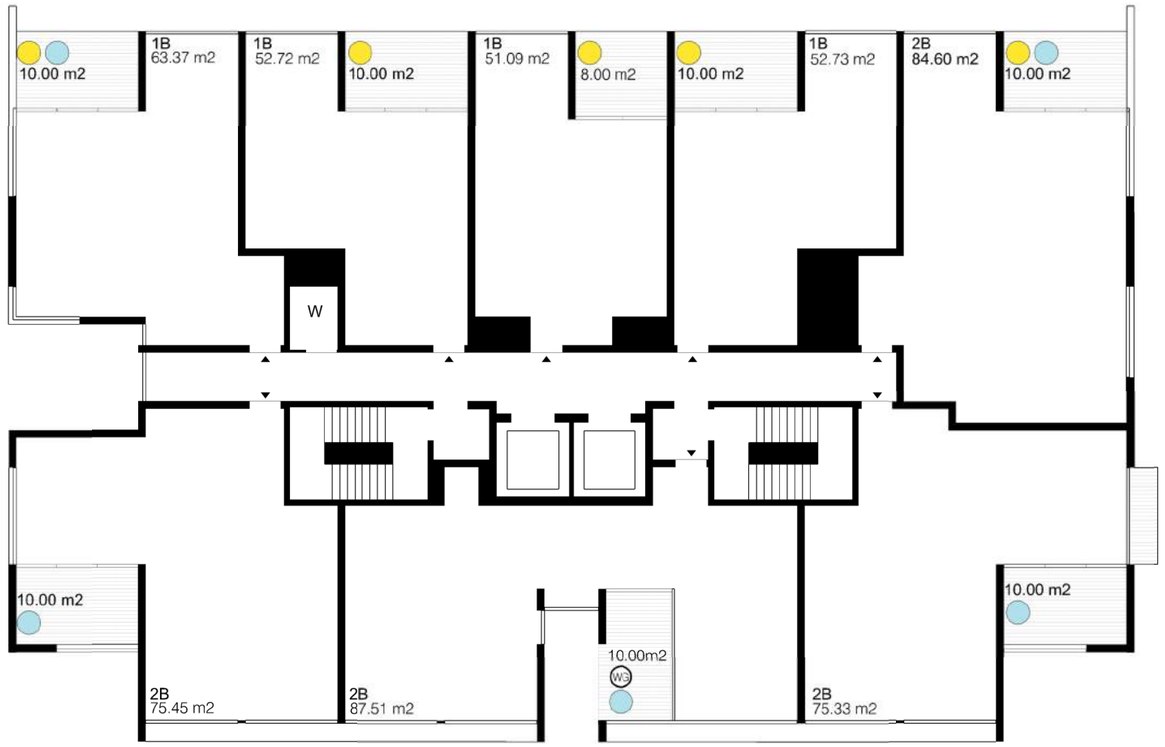
Date 6.12.17 Rev D

1:200 @ A3

### Key

- Apartment Achieving ADG 2hr Solar Access
- Apartment Achieving ADG Cross Ventilation
- Apartment with ADG No Direct Sunlight

N




## Level 5 Plan (4-8 Similar)

Date 6.12.17 Rev D

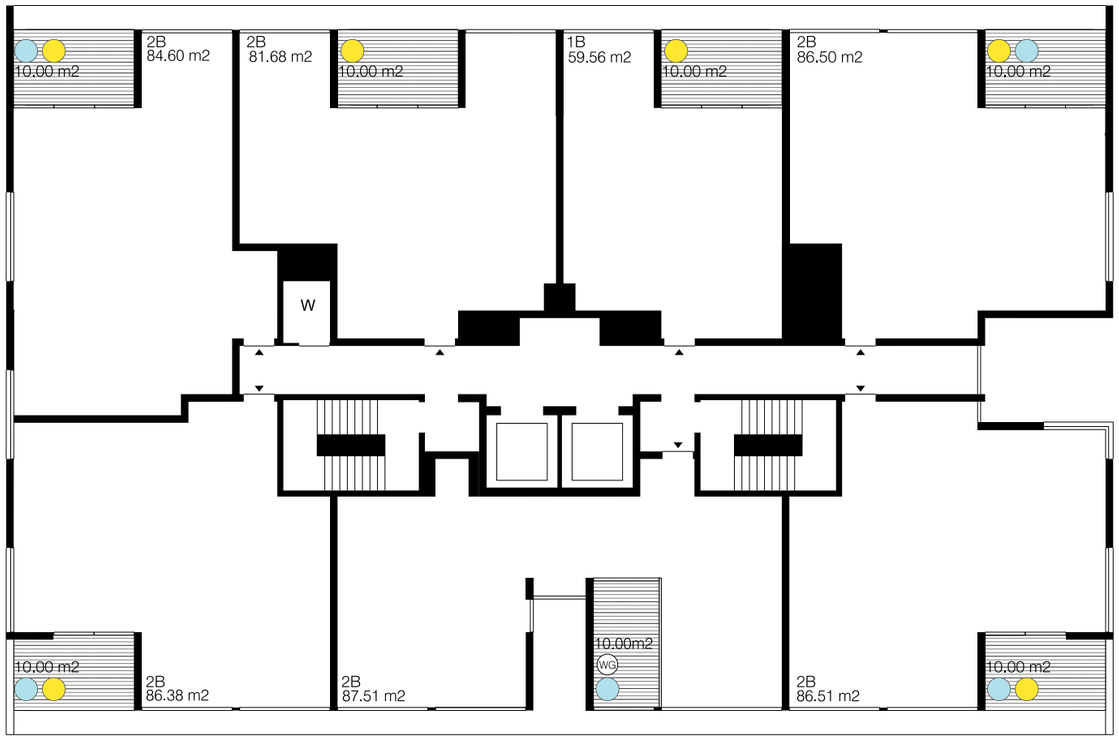
1:200 @ A3

### Key

- Apartment Achieving ADG 2hr Solar Access
- Apartment Achieving ADG Cross Ventilation
- Apartment with ADG No Direct Sunlight

N

# 05 CONCEPT DESIGN




## Level 9 Plan (10-12 Similar)

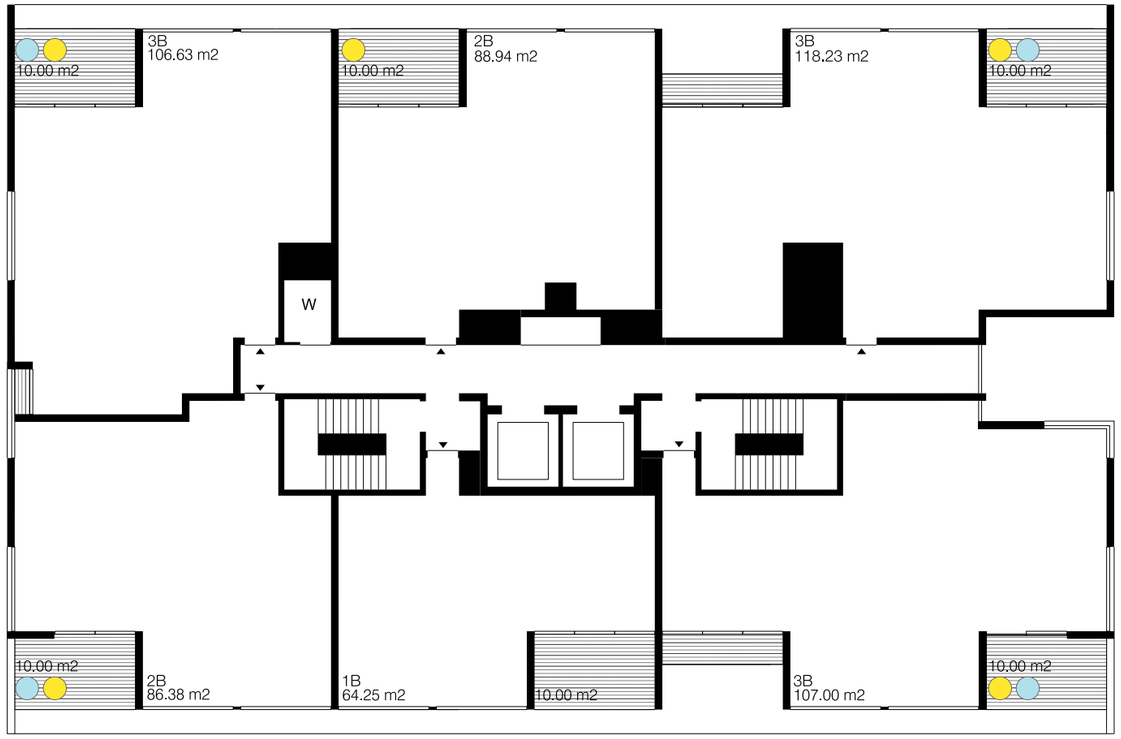
Date 6.12.17 Rev D

1:200 @ A3

## Key

- Apartment Achieving ADG 2hr Solar Access
- Apartment Achieving ADG Cross Ventilation
- Apartment with ADG No Direct Sunlight

N




## Level 14 Plan (13 Similar)

Date 6.12.17 Rev D

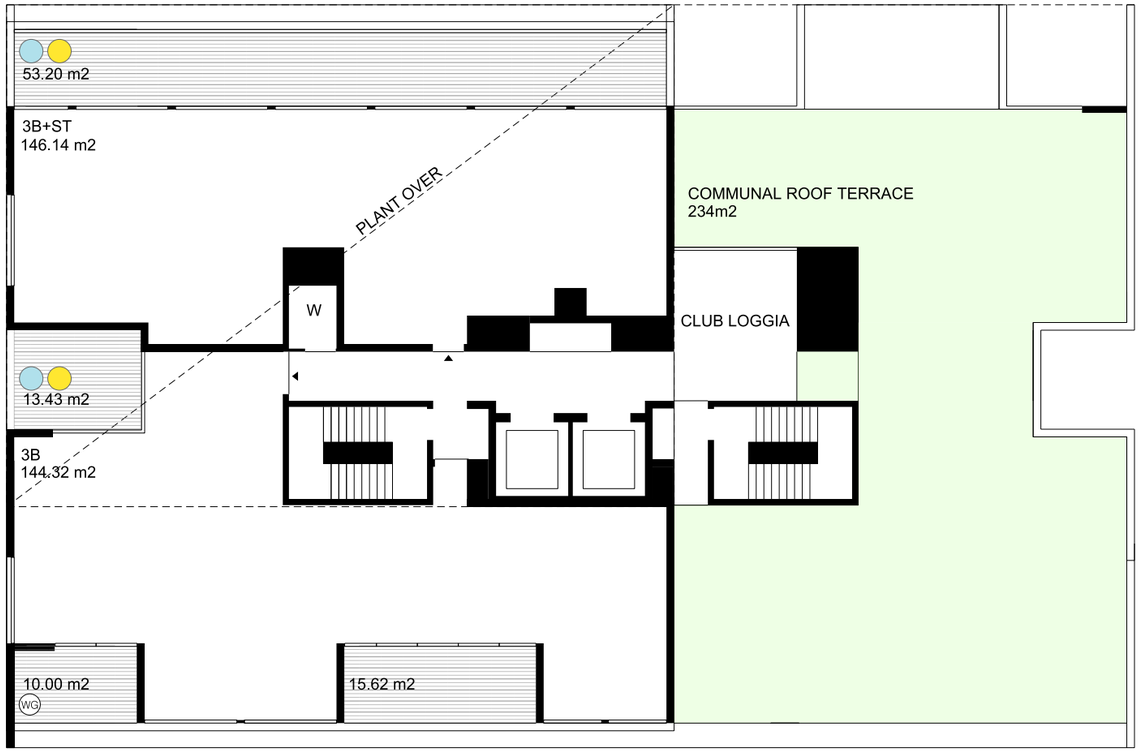
1:200 @ A3

## Key

- Apartment Achieving ADG 2hr Solar Access
- Apartment Achieving ADG Cross Ventilation
- Apartment with ADG No Direct Sunlight

N

# 05 CONCEPT DESIGN




## Level 15 Plan

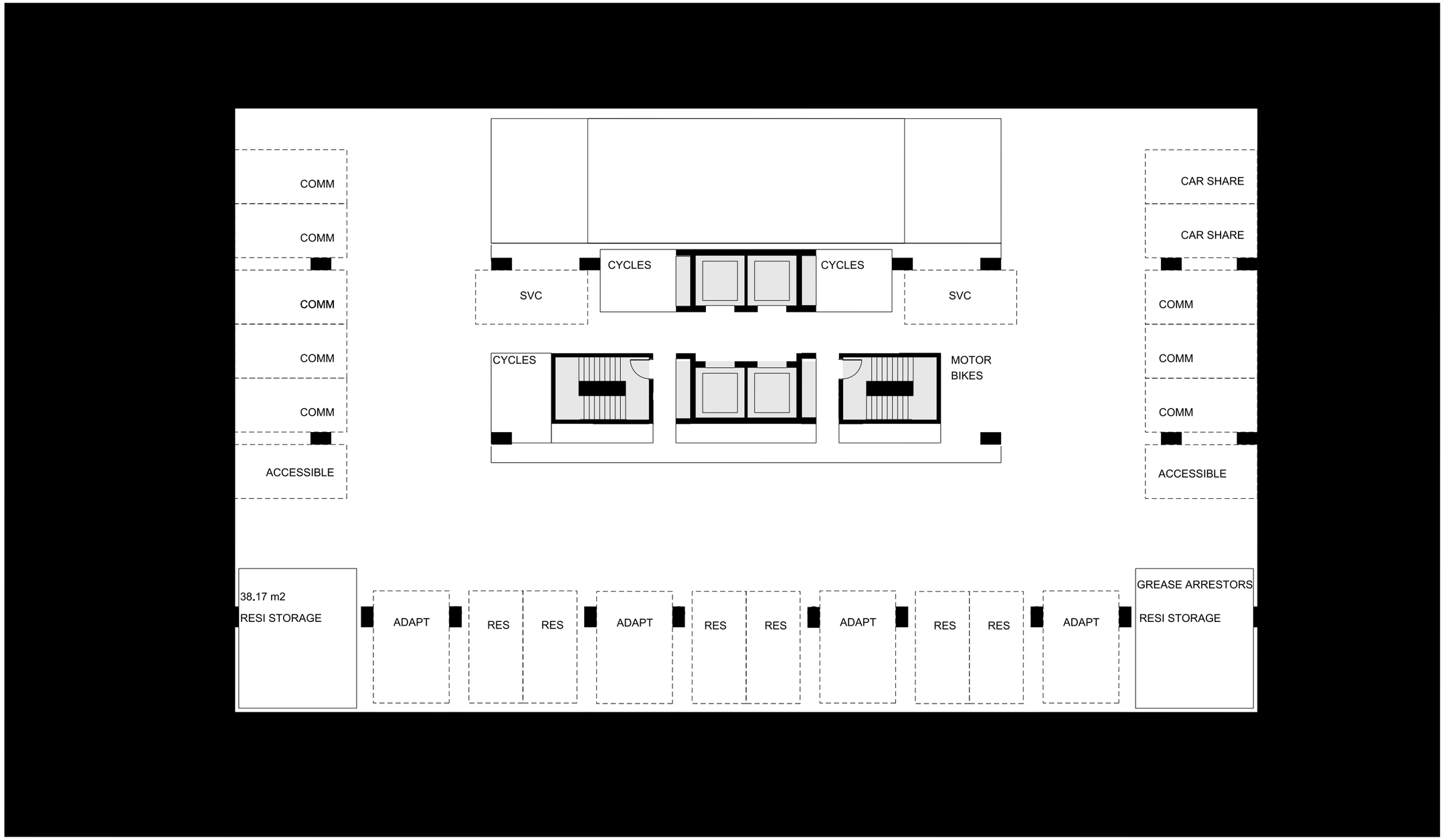
Date 6.12.17 Rev D

1:200 @ A3

## Key

- Apartment Achieving ADG 2hr Solar Access
- Apartment Achieving ADG Cross Ventilation
- Apartment with ADG No Direct Sunlight

N




## Basement Plan

Date 6.12.17 Rev D

1:200 @ A3

N

# 05 CONCEPT DESIGN

Photomontage view of indicative design

Date 6.12.17 Rev D

Photomontage view of indicative design

Date 6.12.17 Rev D

Photomontage view of indicative design

Date 29.11.17 Rev D

# 06 APPENDIX

## 6.1 CONCEPT LANDSCAPE MASTERPLAN

The following indicative design was prepared by ASPECT to indicate landscaping for the proposed TWT1 masterplan

-AJ+C markup_Septemeber 2017

# St Leonards

# Draft Landscape Concept Plan

July 2017_ REV P3
Project No.: 17033

ASPECT Studios™

ATCHINSON STREET

Future Public domain design to provide increased 1.5m width to existing footpath, shown dashed red

OXLEY STREET

ALBANY LANE

## Legend

- Existing Tree
- New Tree (By Others)
- Planting
- Large Format Paving
- Precast Concrete Steps
- Stainless Steel Handrail
- Retaining Wall
- Sitting Wall with Timber Seat
- Alfresco Seating
- +89.50 Proposed Level

## Key

1. Oxley Street public realm upgrade (by Council)
2. Atchinson Street public realm upgrade (by Council)

# 23-35 Atchison Street, St Leonards | Landscape Concept

ASPECT Studios™

## Landscape Concept Plan Option 2

Architects: **Allen Jack + Cottier**

Client: **Austwin TWT Development Pty Ltd**

Scale: **1:200 @ A3**

0 2.5 5 7.5M

Date: **11.12.2017**
Dwg no.: **A17033-SK06**
Rev: **A**


## Indicative Ground Plane Section A-A'

1. *Staggered precast concrete steps*
2. *'Floating' precast concrete steps with stainless steel handrail*
3. *Opportunity for paving artwork detailing*
4. *Alfresco dining & laneway art installations*
5. *Opportunity for laneway art exhibitions and bespoke landscape elements*





## Landscaped Terraces | Precedent Images

# 23-35 Atchison Street, St Leonards | Landscape Concept

ASPECT Studios™

Architects: **Allen Jack + Cottier**

Client: **Austwin TWT Development Pty Ltd**

Scale: **1:200 @ A3**

0 2.5 5 7.5M

Date: **24.07.2017**
Dwg no.: **A17033-SK08**
Rev: **P3**

1. *Agave attenuata*
   Century Plant
2. *Beschorneria Yuccoides*
   Yucca-leaved Beschorneria
3. *Crassula ovata*
   Money Tree
4. *Cycas revoluta*
   Sago Palm
5. *Cotyledon orbiculata 'Silver Wave'*
   Silver Pigs Ear
6. *Dichondra argentea 'silver falls'*
   Silver Ponysfoot
7. *Echium candicans*
   Pride of Madeira
8. *Euphorbia wulfenii*
   Mediterranean Spurge
9. *Hylotelephium spectabile*
   Sedum 'Autumn Joy'
10. *Limonium perezii*
    Perennial Statice
11. *Liriope muscari*
    Lilyturf
12. *Liriope muscari 'Just Right'*
    Just Right Liriope
13. *Lomandra confertifolia 'Little Con'*
    Oz Breed Little Con
14. *Myoporum parvifolium*
    Creeping boobialla
15. *Miscanthus sinensis 'Yakushima Dwarf'*
    Eulalia 'Yakushima Dwarf'

# 06 APPENDIX

## 6.2 ISOLATED SITES

### Council letter (Concept for 25-35 Atchison Street, St Leonards) 5 April. Point 1:

21 Atchison Street has been been identified as a potential isolated site.

*"The proponent is encouraged to continue negotiations with 21 Atchison Street and incorporate the site into the scheme. "*

Evidence of continued negotiations with 21 Atchison Street are provided separately.

*"Alternatively, if negotiations are unsuccessful, the concept proposal for 23-35 Atchison Street is revised to have full regard to the principles and separation requirements of the ADG assuming the future development 21 Atchison Street with nil side setbacks."*

Design testing was undertaken for 21 Atchison Street. The site is approximately 35.07m deep by 10.17m wide. To the west the Nexus building has a zero setback to 8 storeys with light well that is approximately 6m x 3m in dimension.

The tested design utilises floorplates that would be generally applicable under both North Sydney DCP 2013 (DCP 13) and the controls proposed by the St Leonards / Crows Nest Planning Study - Precincts 2 and 3 Precinct (Planning Study). The proposal is for an 8 storey building with zero setbacks and two light wells that are approximately 6m x 2.5m in dimension with a 4 storey podium street frontage.

Due to the Nexus building form it is not possible to construct 21 Atchison Street above 8 storeys. Commercial space is proposed to the first 3 levels and can deliver approximately 1.69:1 FSR. Refer Appendix for Yields Table of 21 Atchison Street. SEPP 65 and ADG compliance is achievable to both 21 Atchison

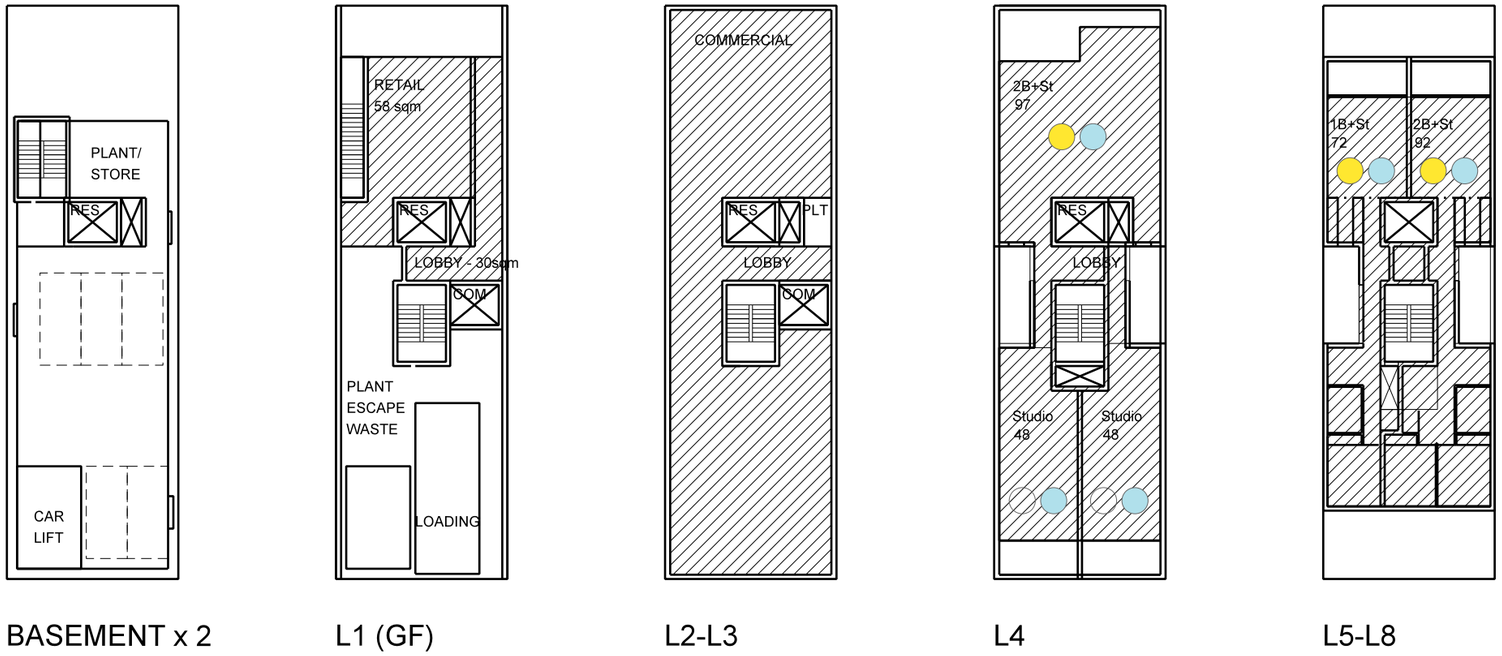



Figure 40: Figure 6.2.01. Potential Development Concept for Isolated Site

*Alternatively, if negotiations are unsuccessful, the concept proposal for 23-35 Atchison Street is revised to have full regard to the principles and separation requirements of the ADG assuming the future development 21 Atchison Street with nil side setbacks."*

Refer Figure 1.02. Indicative Yield table for 21 Atchison St.

## PROJECT SUMMARY

21 ATCHISON PP 2017 _ 1.5 N

0

### Residential Areas

| Site-Building | Storeys | NSA | GFA | FECA | UCA | NSA/GFA |
|---|---|---|---|---|---|---|
| 21 ATCHISON | 8 | 851 | 975 | 1,108 | 174 | 87% |
| | | **851** | **975** | **1,108** | **174** | |

### Non Residential Areas

| Building | Use | NSA | GFA | FECA | UCA | NSA/GFA |
|---|---|---|---|---|---|---|
| 21 ATCHISON | Retail | 58 | 58 | 56 | 0 | |
| *L2 and L3* | Commercial | 537 | 537 | 647 | 0 | |
| **Totals** | | **595** | **595** | **703** | **0** | |

### Carparking areas

| Site-Building | Use | NSA | GFA | FECA | UCA |
|---|---|---|---|---|---|
| 21 ATCHISON | Carparking | | 0 | 354 | 0 |
| **Total** | | **0** | **0** | **594** | **0** |

### Residential numbers and mix

| Building | Unit Type | Studio | 1B | 1B+Study | 2B_Sm | 2B_Lg | 3B |
|---|---|---|---|---|---|---|---|
| | Mix | 18% | 0% | 36% | 0% | 45% | 0% |
| | Average NSA | 48 | 50 | 72 | 75 | 93 | 95 |
| 21 ATCHISON | | 2 | 0 | 4 | 0 | 5 | 0 |
| | | 2 | 0 | 4 | 0 | 5 | 0 |

### Carparking numbers

| | Residential | Non Residential |
|---|---|---|
| | | |
| | | |
| 21 ATCHISON | 8 | 1 |
| | | |
| | | |
| | | |
| | **8** | **1** |

### Site Summary

| | |
|---|---|
| FECA+UCA - Residential | 1,282 |
| FECA+UCA - Non residential | 703 |
| FECA+UCA - Carparking | 594 |
| FECA+UCA - Total | 2,579 |
| GFA - Non Residential | 595 |
| GFA - Residential | 975 |
| **GFA** - Total | **1,569** |
| **Site Area** - Total | **352.6** |
| **FSR** - Non Residential | **1.69** |
| **FSR** - Total | **4.45** |
| **No. of apartments** | **0** |
| **No. of cars** | **9** |

Disclaimer — This is for high level feasibility only and all projections are approximate

### Site FSR

| | Residential | Non residential | Total FSR |
|---|---|---|---|
| 21 ATCHISON | 2.76 | 1.69 | 4.45 |

### Site Areas

| | | Total Site |
|---|---|---|
| 21 ATCHISON | 352.6 | 352.6 |

### Definitions

Rev A — 21 ATCHISON FSR Isolated Site Study (Non Resi FSR 1.5)

- FSR is Floor Space Ratio = GFA (LEP)/Site Area
- NSA is Nett Sellable Area measured to the inside face of enclosing walls excluding voids above a floor and balconies
- GFA (LEP) is Gross Floor Area measured as defined by the governing Local Government Authority
- FECA is Fully Enclosed Covered Area as defined by the Australian Standard Method of Measuring Building Works
- UCA is Uenclosed Covered Area as defined by the Australian Standard Method of Measuring Building Works
- Efficiency = NSA/FECA
- all areas are measured in square metres
- Efficiency of GBA to GFA for towers at DESIGN TEST %

Figure 41: Figure 6.2.02. Indicative Yield Table 21 Atchison St.

# 06 APPENDIX

## 6.3 SOLAR ANALYSIS (38-46 & 30-36 ALBANY ST)

| | 6 storeys | 16 Storeys | | 16 Storeys | 16 Storeys | 16 Storeys |
|---|---|---|---|---|---|---|
| Street Address/Level/Apartment no. | Current LEP | Council Planning Study | Proposed | * Council Planning Study Comparison | **Equinox** Council Planning Study | **Equinox** Proposed |
| 46 Albany | | | | | | |
| 46.10 | 0 | 0.5 | 1.5 | Cutout Diagram 01+02 | 2.75 | |
| 46.11 | 0 | 0 | 0.25 | Cutout Diagram 01+02 | 2.25 | 2.5 |
| 46.12 | 0 | 0 | 0 | | 2 | 2.5 |
| 46.13 | 0 | 0 | 0 | | 1.5 | 2 |
| 46.14 | 0 | 0 | 0 | | 1.25 | 1.5 |
| 46.20 | 0.5 | 0.5 | 2.75 | Cutout Diagram 01+02 | 2.75 | 2.75 |
| 46.21 | 0 | 0 | 1 | Cutout Diagram 01+02 | 2.25 | 2.25 |
| 46.22 | 0 | 0 | 0 | | 2.25 | 2.25 |
| 46.23 | 0 | 0 | 0 | | 1.5 | 1.75 |
| 46.24 | 0 | 0 | 0 | | 1.5 | 1.5 |
| 46.30 | 5 | 2.75 | 2.75 | | 2.75 | 2.75 |
| 46.31 | 4 | 1 | 1.5 | Cutout Diagram 01+02 | 2.25 | 2.25 |
| 46.32 | 4 | 0.5 | 1 | Cutout Diagram 02+03 | 2.5 | 2.5 |
| 46.33 | 3 | 0.25 | 0.5 | Cutout Diagram 02+03 | 1.75 | 1.75 |
| 46.34 | 2 | 1 | 1.5 | Cutout Diagram 02+03 | 1.75 | 1.75 |
| 46.40 | 5 | 2.5 | 2.5 | | 2 | 2 |
| 46.41 | 5 | 0.75 | 1 | Cutout Diagram 01+02 | 2.25 | 2.25 |
| 46.42 | 5 | 0.25 | 0.5 | Cutout Diagram 02+03 | 2.25 | 2.25 |
| 46.43 | 5 | 1 | 1.25 | Cutout Diagram 02+03 | 2 | 2 |
| 46.50 | 6 | 2.5 | 2.5 | | 2 | 2 |
| 46.51 | 6 | 0.75 | 1 | Cutout Diagram 01+02 | 2.25 | 2.25 |
| 46.52 | 6 | 0.25 | 0.75 | Cutout Diagram 02+03 | 2 | 2 |
| 46.53 | 5 | 1 | 1.25 | Cutout Diagram 02+03 | 2.25 | 2.25 |
| 30 Albany | | | | | | |
| 30.10 | 0 | 0 | 0 | | 1.50 | 1.50 |
| 30.11 | 0 | 0 | 1.75 | Thru-Site Link | 1.75 | 1.75 |
| 30.12 | 0.25 | 0 | 1.75 | Thru-Site Link | 1.75 | 1.75 |
| 30.13 | 0.25 | 0 | 1.75 | Thru-Site Link | 1.75 | 1.75 |
| 30.14 | 1 | 1.25 | 1.5 | Thru-Site Link | 1.5 | 1.5 |
| 30.20 | 0 | 0 | 1 | Thru-Site Link | 1.75 | 1.75 |
| 30.21 | 0 | 0 | 2 | Thru-Site Link | 2 | 2 |
| 30.22 | 1 | 0 | 2 | Thru-Site Link | 2 | 2 |
| 30.23 | 1.5 | 1.75 | 2 | Thru-Site Link | 1.75 | 1.75 |
| 30.30 | 4.5 | 2 | 2 | | 2.25 | 2.25 |
| 30.31 | 2 | 2 | 2 | | 2 | 2 |
| 30.32 | 2 | 2 | 2 | | 2.25 | 2.25 |
| 30.40 | 5 | 1.75 | 2 | Thru-Site Link | 2.25 | 2.25 |
| 30.41 | 4.5 | 2 | 2 | | 2.25 | 2.25 |
| 30.42 | 4 | 1.75 | 1.75 | | 2 | 2 |
| 30.50 | 5 | 1.75 | 2 | Thru-Site Link | 2.5 | 2.5 |
| 30.51 | 4.5 | 2 | 2 | | 2.5 | 2.5 |
| 30.52 | 4 | 1.75 | 1.75 | | 2.75 | 2.75 |

* Reasoning behind improvement Provided. Refer to page 81 for Cutout Diagrams 01,02 & 03.

LEGEND

Equinox

Mid winter solstice

Indicates Improvement to Council Planning Study

### Overshadowing mitigation strategy

#### 38-46 Albany and 30-36 Albany North Facing Apartments Below Podium –

A total of 27 apartments are located in the podium over Levels 1, 2 & 3. These apartments will be overshadowed such that 7 will receive no direct sunlight between 9am – 3pm during the midwinter solstice.

Of the remaining 20 apartments during midwinter between 9am – 3pm:

- 2 apartments will receive less than 1 hour
- 3 apartments will receive 1 hour
- 7 apartment will receive 1 ½ hours
- 8 apartments will receive 2 hours.

All apartments receive 2 hours direct sunlight from October 20th until March 5th

#### North Facing Apartments Above Podium

A total of 14 north-facing apartments are located above the podium level. Of these apartments, 6 will receive 2 hours of sunlight between 9am – 3pm during the midwinter solstice. Of the remaining 8 apartments during midwinter between 9am – 3pm:

- 2 apartment will receive less than 1 hour
- 2 apartments will receive 1 hour

It is noted that all apartments which fail to receive 2 hours during the midwinter solstice, each receive 2 hours to 3 hours of sunlight between 9am – 3pm by the equinox.

#### Conclusions for impacts to 38-46 Albany and 30-36 Albany

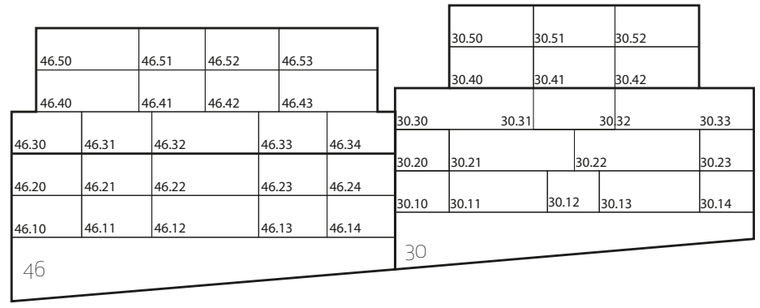
As with the 34 Oxley Street apartments (as overshadowed by 7-19 Albany St) , the apartments within 38-46 Albany and 30-36 Albany presently receive solar access to their northern facades over existing generally under-developed subject site, considered to be essentially borrowed amenity.

23 existing apartments will receive improved solar performance from a compliant building envelope from Council's Planning Study, due to the inclusion of building cutouts and the creation of a laneway pedestrian link.

The proposed development for 25-35 Atchison Street has been designed to maximise solar access to these apartments by

- Increasing the street setback from Oxley Street by 7m from a zero setback in the DCP controls
- Increasing the setback to the podium of Albany Lane from 1.5m to 2m
- Providing a 6m wide open to the sky laneway between Atchison Street and Oxley Street
- Providing 2 storey cut outs in the podium form along Albany Street
- Providing 2.5m deep cut outs in the tower form on Levels 5-8 inclusive.

The solar impacts are an expected outcome of the site dictated by the planning controls and are considered reasonable in this regard.




North Elevation Diagram

## 6.3 SOLAR ANALYSIS 7-19 ALBANY ST

| | 6 storeys | 16 Storeys | | 16 Storeys | 16 Storeys | 16 Storeys |
|---|---|---|---|---|---|---|
| Street Address/Level/Apartment no. | Current LEP | Council Planning Study | Proposed | Council Planning Study Comparison * | **Equinox** Council Planning Study | **Equinox** Proposed |
| 7-19 Albany | | | | | | |
| 7.10 | 5.5 | 4 | 4 | | 6 | 6 |
| 7.11 | 5.5 | 3.25 | 3.25 | | 6 | 6 |
| 7.12 | 5.5 | 3.25 | 3.25 | | 6 | 6 |
| 7.13 | 5.25 | 3 | 3 | | 6 | 6 |
| 7.14 | 5 | 3 | 3 | | 6 | 6 |
| 7.15 | 4.75 | 2.75 | 2.75 | | 6 | 6 |
| 7.16 | 4.5 | 2.25 | 2.25 | | 5.75 | 5.75 |
| 7.17 | 4 | 2.25 | 2.25 | | 5 | 5 |
| 7.18 | 3.75 | 1.75 | 1.75 | | 5 | 5 |
| 7.20 | 5.75 | 4.75 | 5.25 | Roof Plant Setback | 6 | 6 |
| 7.21 | 5.5 | 3.75 | 5.5 | Roof Plant Setback | 6 | 6 |
| 7.22 | 5.5 | 4 | 5.25 | Roof Plant Setback | 6 | 6 |
| 7.23 | 5.25 | 3.75 | 5 | Roof Plant Setback | 6 | 6 |
| 7.24 | 5 | 3.75 | 5 | Roof Plant Setback | 6 | 6 |
| 7.25 | 4.75 | 3.75 | 4.75 | Roof Plant Setback | 6 | 6 |
| 7.26 | 4.5 | 3.5 | 3.5 | | 6 | 6 |
| 7.27 | 4 | 2.25 | 2.25 | | 5.75 | 5.75 |
| 7.28 | 3.75 | 1.75 | 2 | Roof Plant Setback | 5.5 | 5.5 |
| 7.30 | 6 | 5.5 | 6 | Roof Plant Setback | 6 | 6 |
| 7.31 | 5.5 | 5.5 | 5.5 | | 6 | 6 |
| 7.32 | 5.5 | 5.25 | 5.25 | | 6 | 6 |
| 7.33 | 5.25 | 5.25 | 5.25 | | 6 | 6 |
| 7.34 | 5 | 5 | 5 | | 6 | 6 |
| 7.35 | 4.75 | 4.75 | 4.75 | | 6 | 6 |
| 7.36 | 4.5 | 4.5 | 4.5 | | 6 | 6 |
| 7.37 | 4.25 | 3 | 4 | Roof Plant Setback | 5.75 | 5.75 |
| 7.38 | 3.75 | 3 | 3.75 | Roof Plant Setback | 5.5 | 5.5 |
| 7.40 | 6 | 6 | 6 | | 6 | 6 |
| 7.41 | 6 | 6 | 6 | | 6 | 6 |
| 7.42 | 5.25 | 5.25 | 5.25 | | 6 | 6 |
| 7.43 | 5.25 | 5.25 | 5.25 | | 6 | 6 |
| 7.50 | 6 | 6 | 6 | | 6 | 6 |
| 7.51 | 6 | 6 | 6 | | 6 | 6 |
| 7.52 | 5.5 | 5.5 | 5.5 | | 6 | 6 |
| 7.53 | 5.5 | 5.5 | 5.5 | | 6 | 6 |
| 7.60 | 6 | 6 | 6 | | 6 | 6 |
| 7.61 | 6 | 6 | 6 | | 6 | 6 |
| 7.62 | 5.75 | 5.75 | 5.75 | | 6 | 6 |
| 7.63 | 5.5 | 5.75 | 5.75 | | 6 | 6 |
| 7.70 | 6 | 6 | 6 | | 6 | 6 |
| 7.71 | 6 | 6 | 6 | | 6 | 6 |
| 7.72 | 5.75 | 5.75 | 5.75 | | 6 | 6 |
| 7.73 | 5.75 | 5.75 | 5.75 | | 6 | 6 |
| 7.80 -7.83 | 6 | 6 | 6 | | 6 | 6 |
| 7.90 -7.93 | 6 | 6 | 6 | | 6 | 6 |
| 7.100 - 7.103 | 6 | 6 | 6 | | 6 | 6 |
| 7.110 - 7.113 | 6 | 6 | 6 | | 6 | 6 |

TWT SITE 1

Date 29.11.17 Rev D

* Reasoning behind improvement Provided. Refer to page 81 for Cutout Diagrams 01,02 & 03.

LEGEND

Equinox

Mid winter solstice

Indicates Improvement to Council Planning Study

### Overshadowing of some podium level dwellings at 7-19 Albany Street

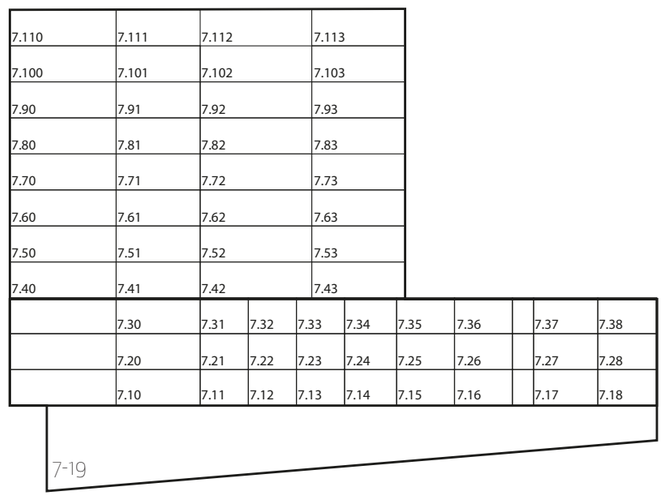
A total of 59 apartments are located on the north facing façade. 100% of the apartments will receive a minimum 2 hours of direct sunlight between 9am –3pm during the midwinter solstice. For the 32 apartments in the tower form there will be no additional overshadowing.

90% (53/59) of all north facing apartments will receive in excess of 3 hours direct sunlight in midwinter.

### Comparative analysis of solar impacts of 7-19 Albany Street S96 approval on 34 Oxley Street

The design of 25-35 Atchison Street has been analysed in comparison to the approval for 7-19 Albany Street (DA167/14) with data obtained from the Report of Lara Huckstepp to the JRPP (2014SYE067)

- 44.8% (13/29) of the apartments to the 34 Oxley Street site receive 2 hours sunlight afterovershadowing by the approved 7-19 AlbanyStreet development.
- 46.3% (19/41) of the apartments to the 38-46 Albany and 30-36 Albany Street sites receive 2 hours sunlight after overshadowing by the proposed 25-35 Atchison Street development




North Elevation Diagram

# 06 APPENDIX

## 6.4 SOLAR STUDIES

*"Additional Shadow analysis, including careful consideration as how the scheme mitigates shadow impacts to the planned children's playground at Hume Park, 30-46 Albany Street and 7-19 Albany Street"*

The solar studies show that the development will:

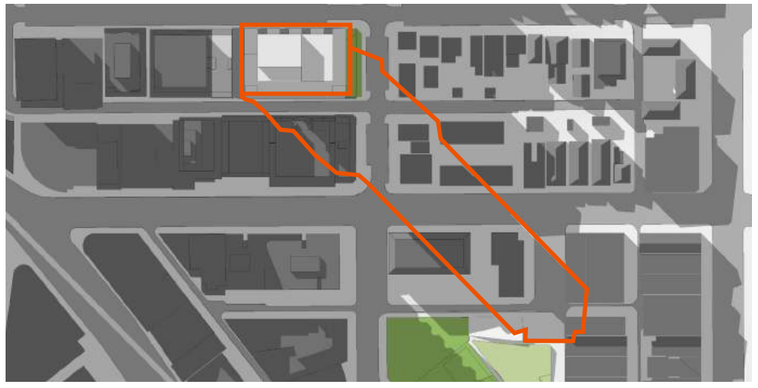
+ Have no impact on the Hume Street Park except for minor overshadowing after 2.55 pm of the proposed carpark access driveway 1

Shadow Diagrams

SOLAR DIAGRAMS, WINTER SOLSTICE

9am June 21st, Winter Solstice

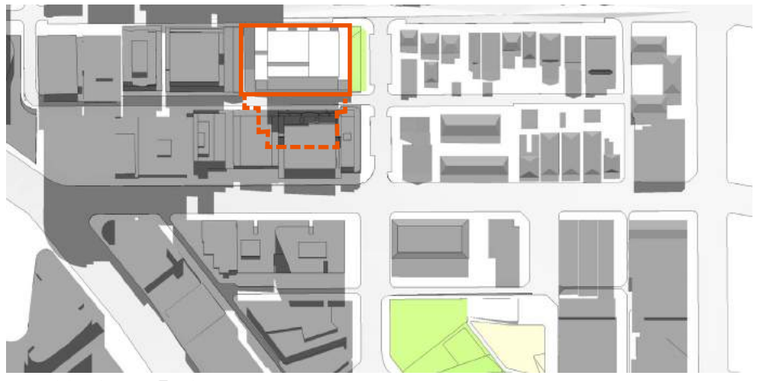
12pm June 21st, Winter Solstice



3pm June 21st, Winter Solstice

SOLAR DIAGRAMS, EQUINOX

9am March 21st, Equinox



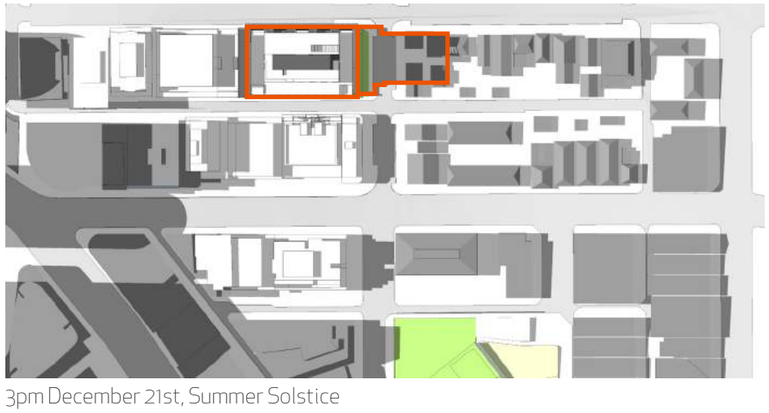
12pm March 21st, Equinox

3pm March 21st, Equinox

SOLAR DIAGRAMS, SUMMER SOLSTICE

9am December 21st, Summer Solstice

12pm December 21st, Summer Solstice



3pm December 21st, Summer Solstice

## 6.6 OVERSHADOWING MINIMISATION

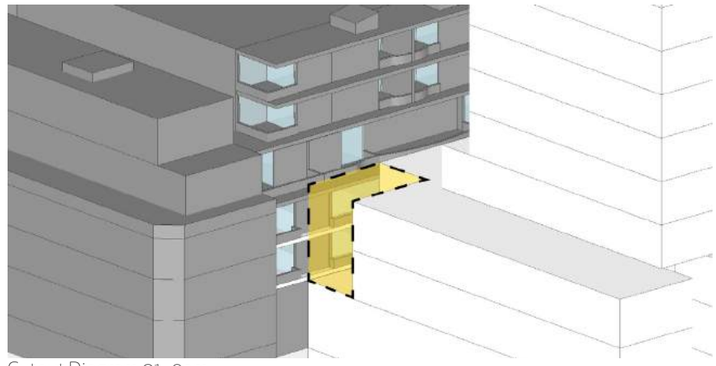
Council letter (Concept for 25-35 Atchison Street, St Leonards) 5 April. Point 3

*"The built form to be amended to minimise overshadowing of residential developments 30-46 Albany Street and 7-19 Albany Street"*

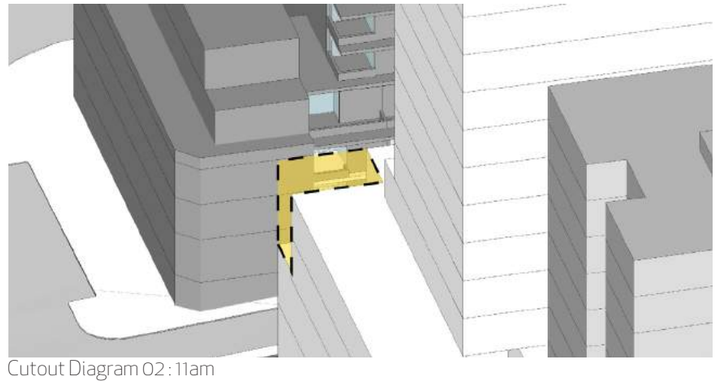
Minimise the overshadowing into living spaces of existing residential development by amending the bulk of the built form.

Overshadowing has been minimised by removing a 6.1m x 4.8m rectangle from the Southern corners of podium on Level 3, extent of which is shown in dashed orange. An increase in solar amenity is achieved for a number of apartments, as seen in the following diagrams.

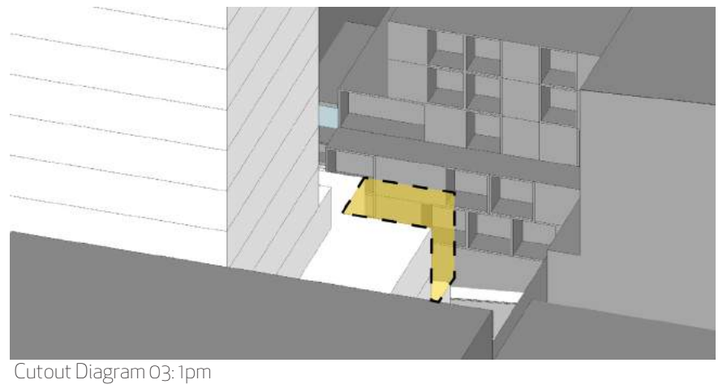
In addition, balconies addressing Albany Lane are introduced, increasing activation and passive surveillance along the length of the southern boundary.



Cutout Diagram 01 : 9am



Cutout Diagram 02 : 11am

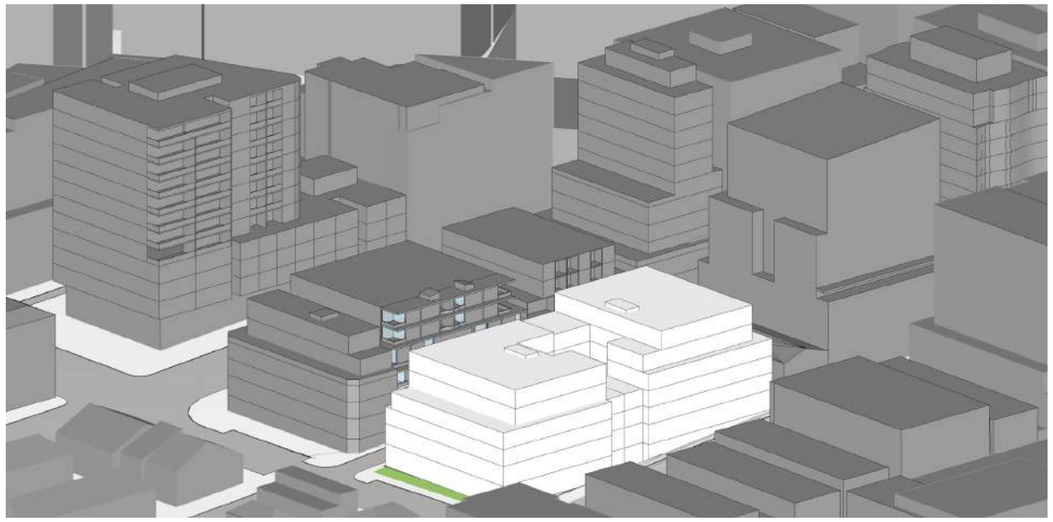


Cutout Diagram 03: 1pm

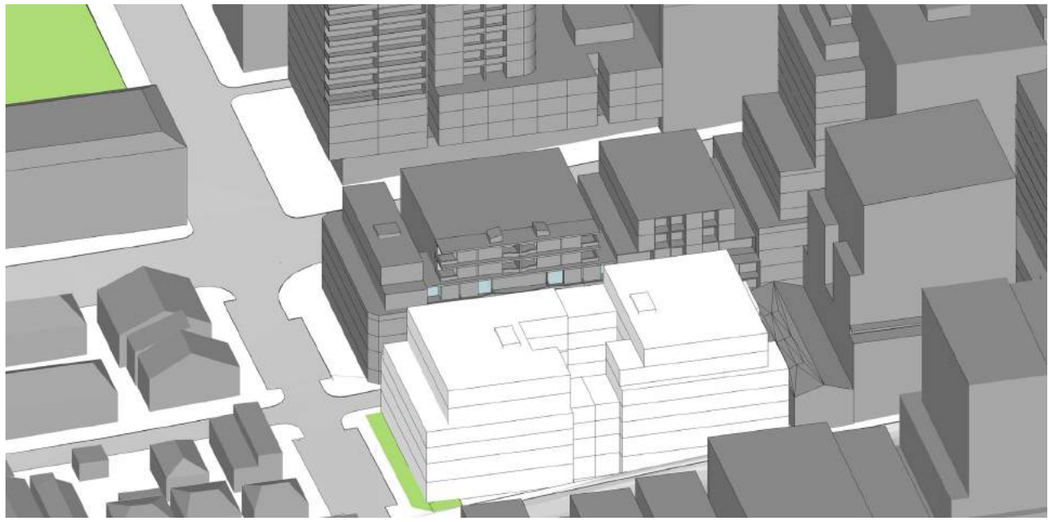
# 06 APPENDIX

## SUN EYE DIAGRAMS_BASE CASE (6 STOREYS)

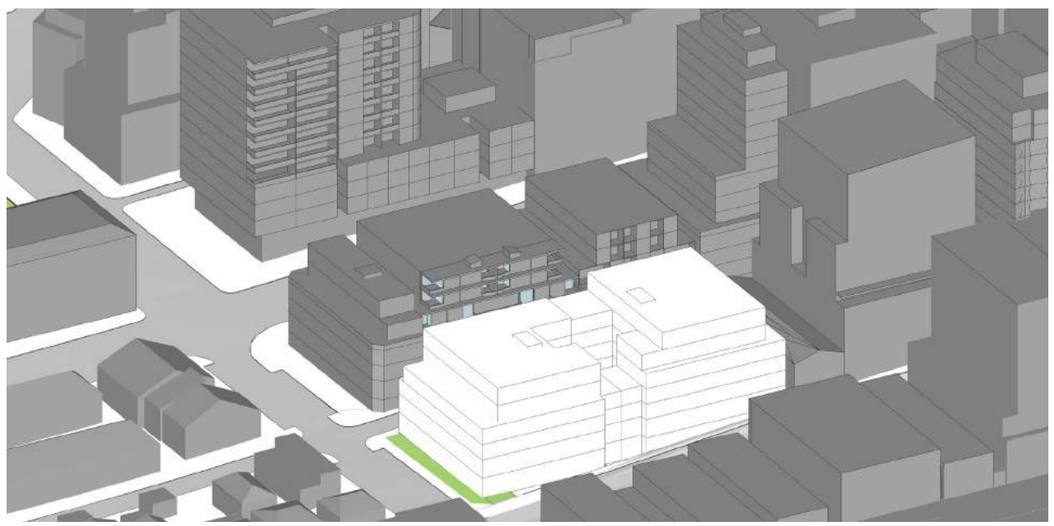
Suneye Views



9 am June 21st

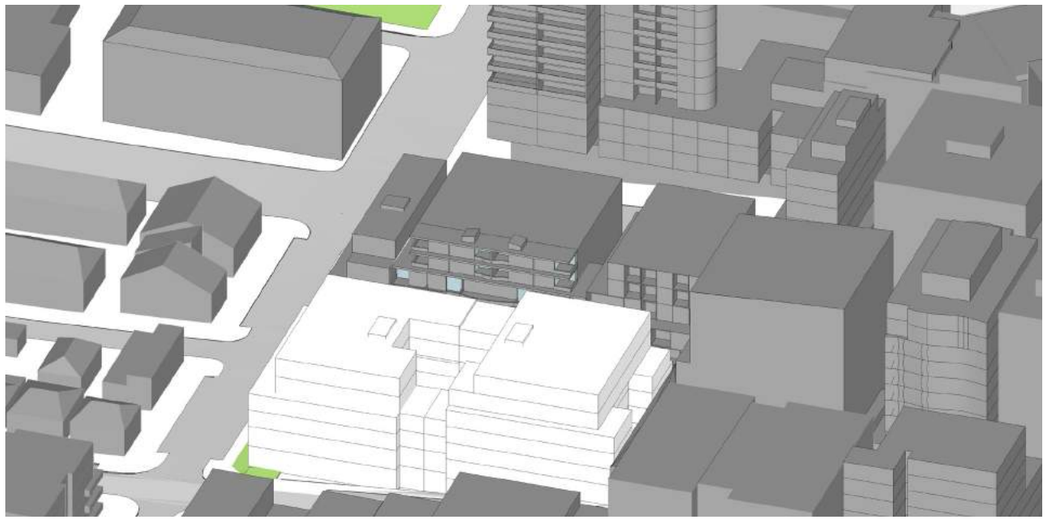


11 am June 21st

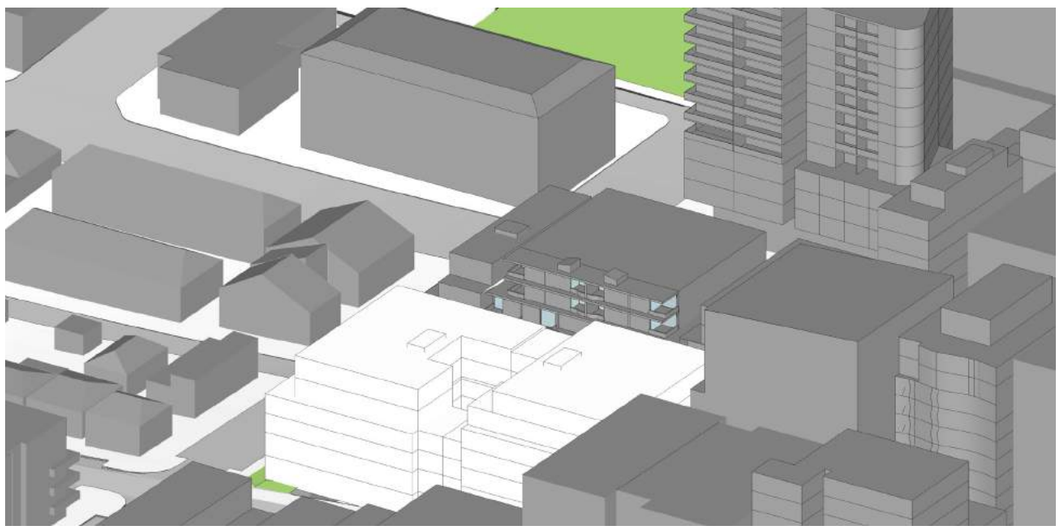


10 am June 21st

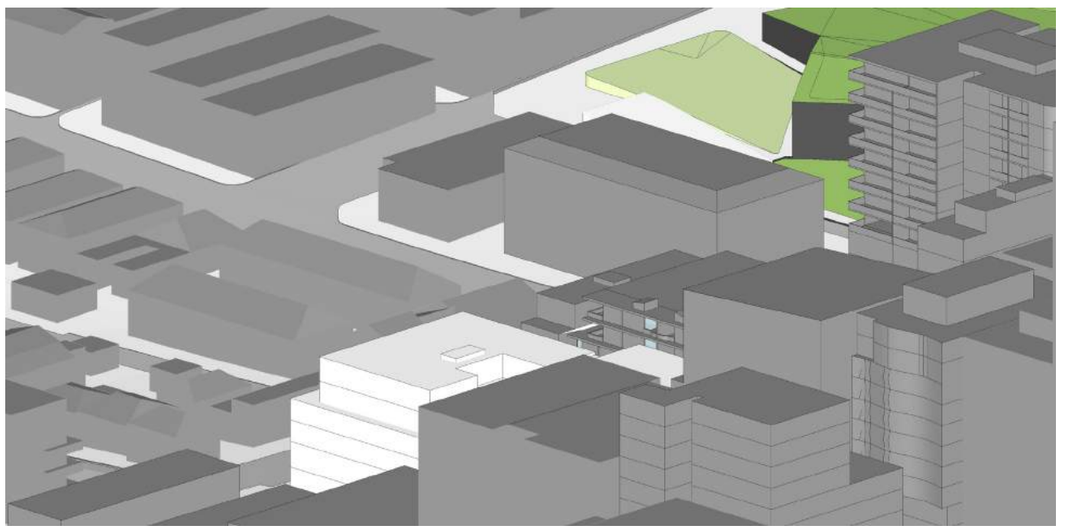
12 pm June 21st



1 pm June 21st



2 pm June 21st



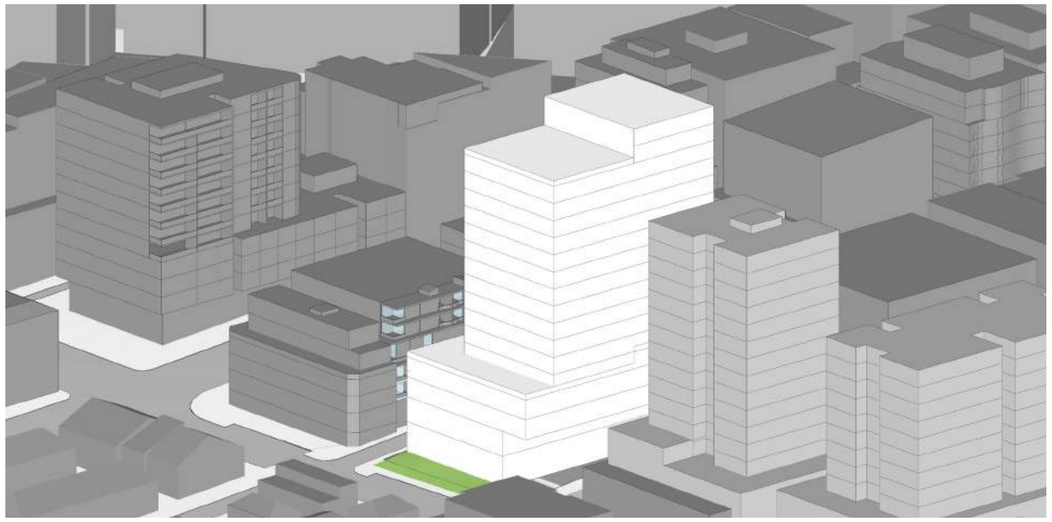
3 pm June 21st

# 06 APPENDIX

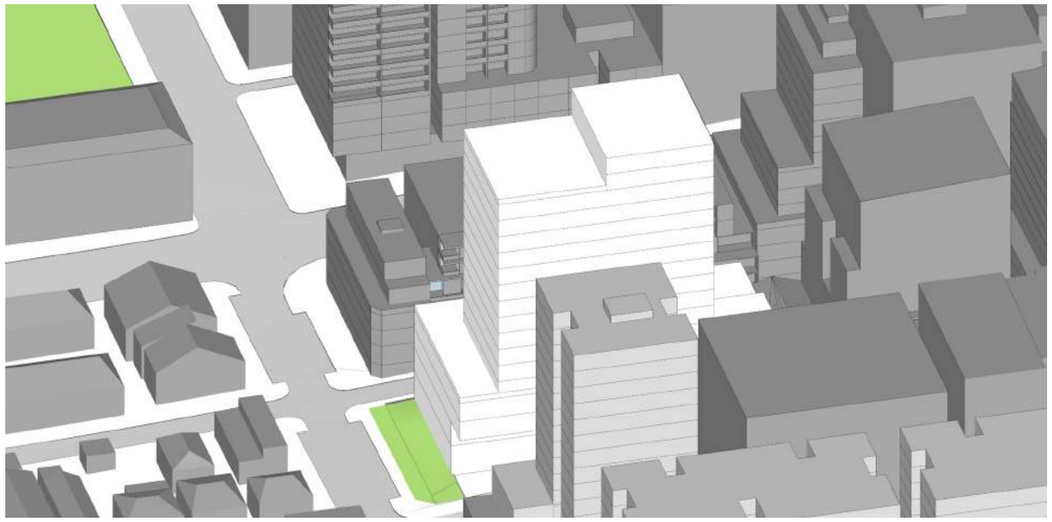
## SUN EYE DIAGRAMS_COMPLIANT (16 STOREYS)

Suneye Views.

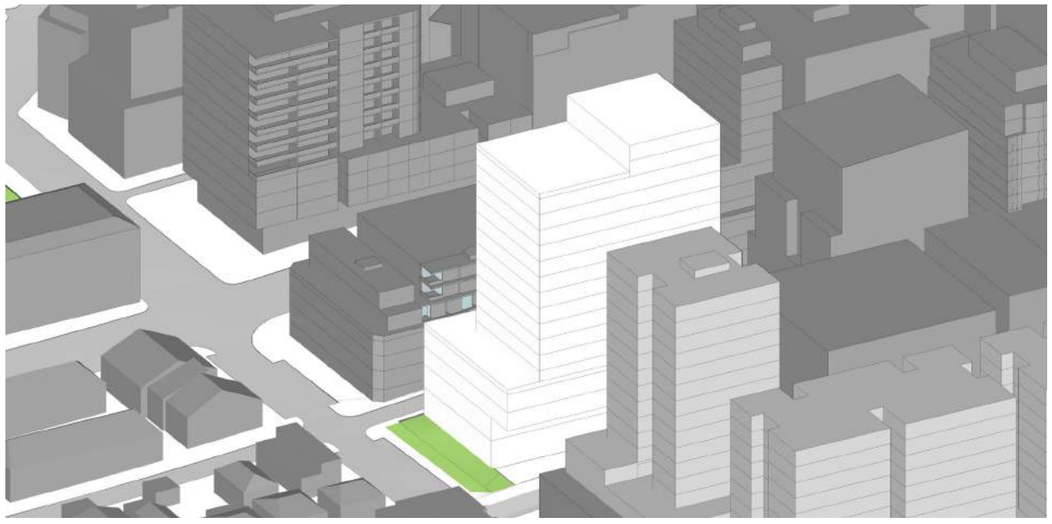
Note: TWT Sites 2 & 3 possible building envelope based on Precinct Study shown light grey



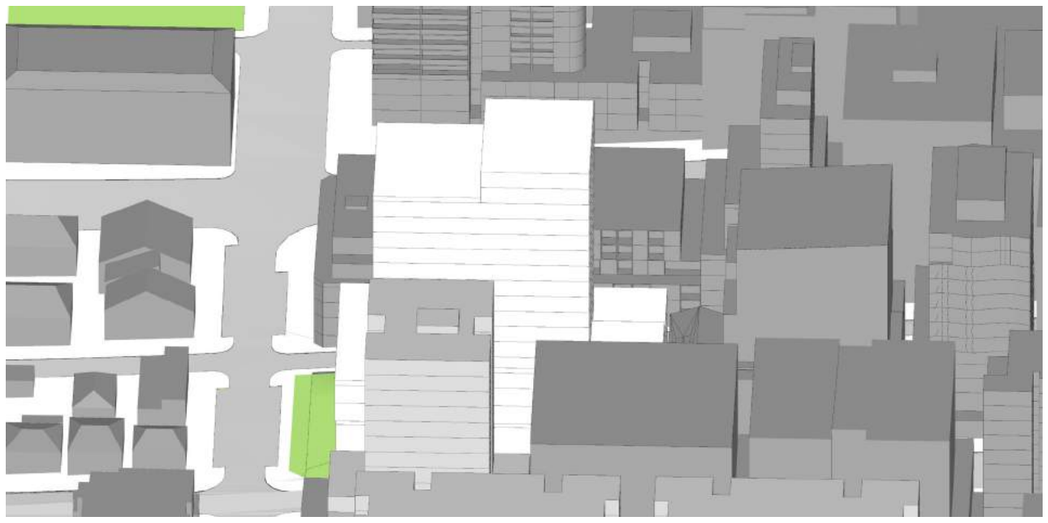
9 am June 21st



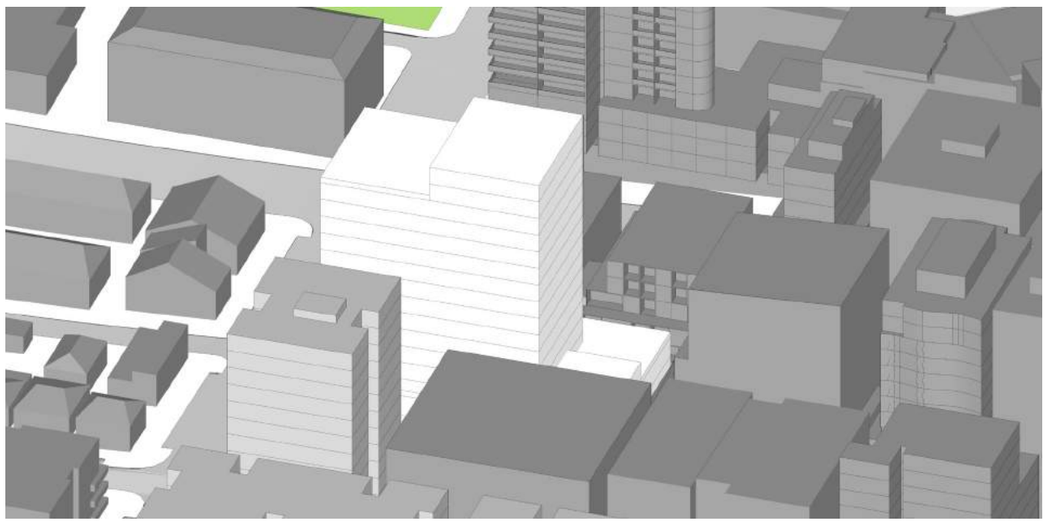
11 am June 21st



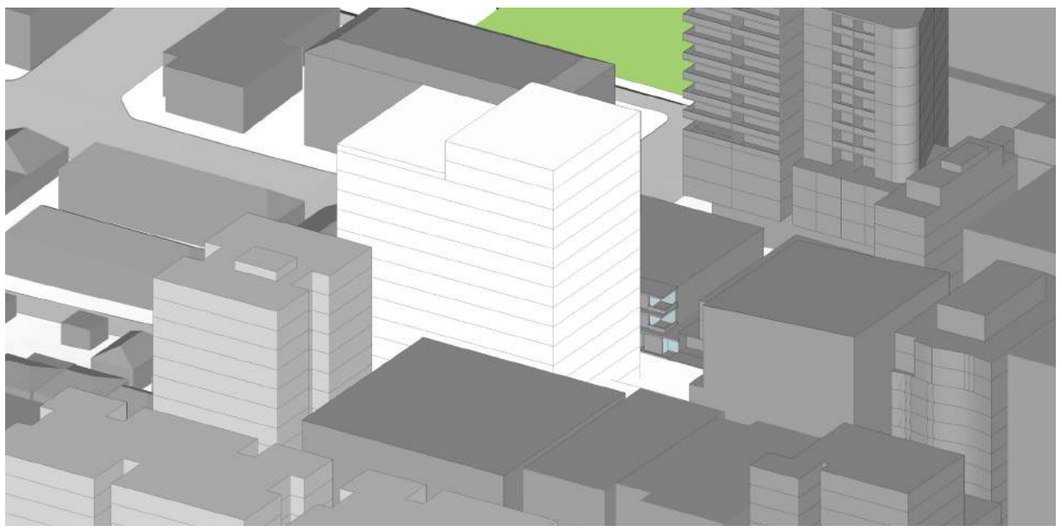
10 am June 21st



12 pm June 21st



1 pm June 21st



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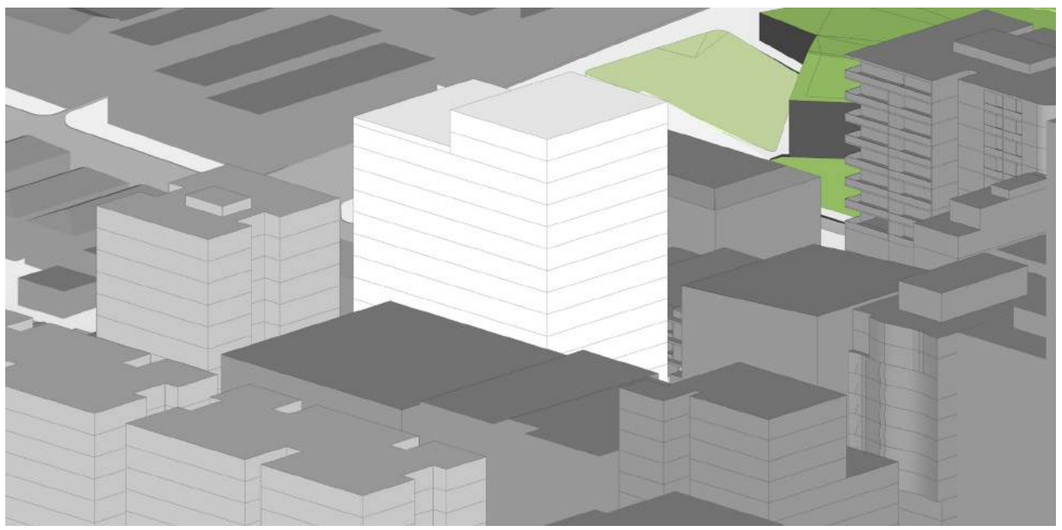


3 pm June 21st

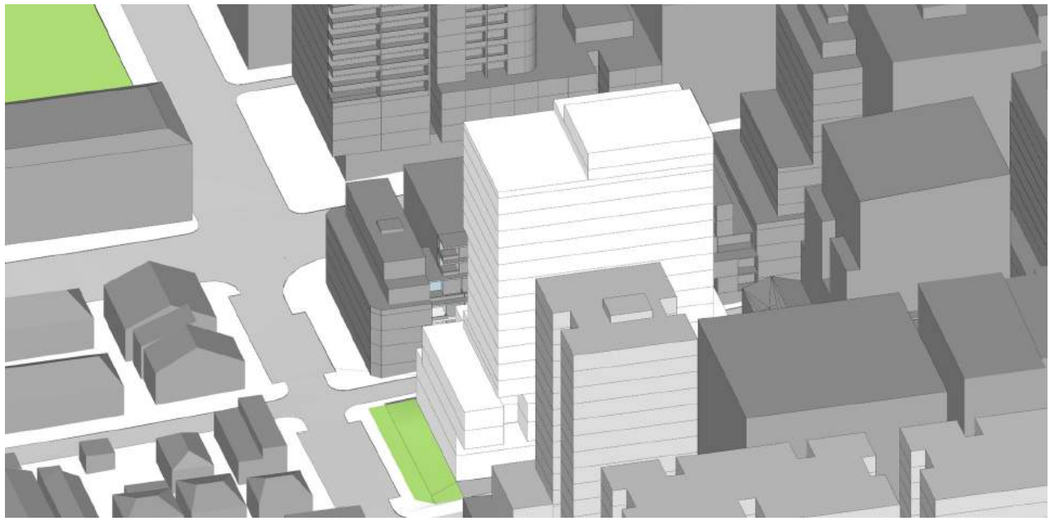
# 06 APPENDIX

## SUN EYE DIAGRAMS_MODIFIED PROPOSAL(16 STOREYS)

Suneye Views.

Note: TWT Sites 2 & 3 possible building envelope based on
Precinct Study shown light grey

9 am June 21st



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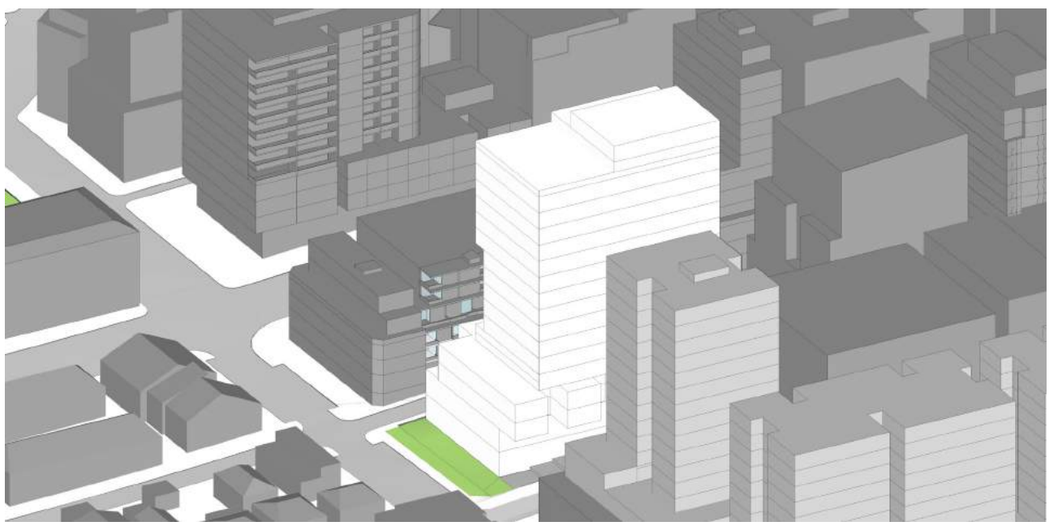

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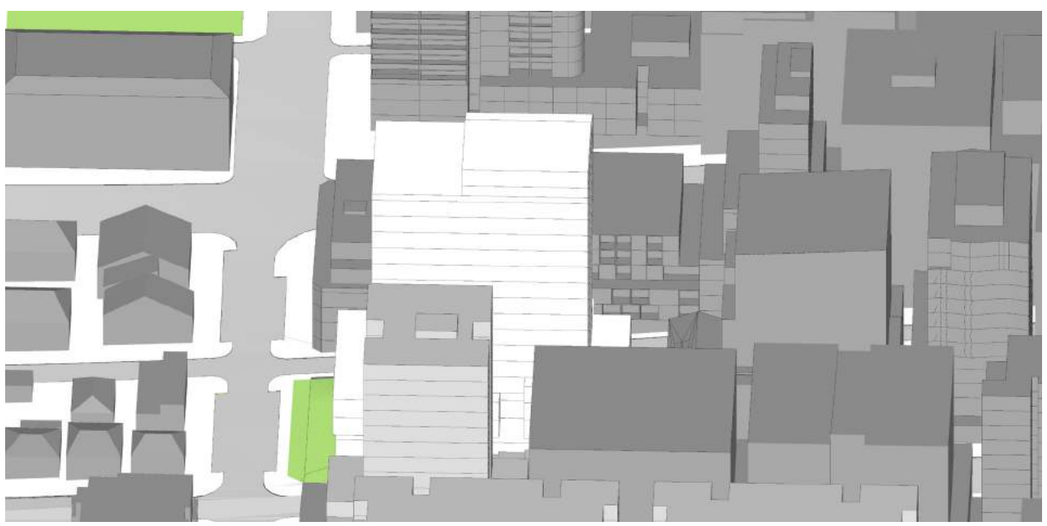

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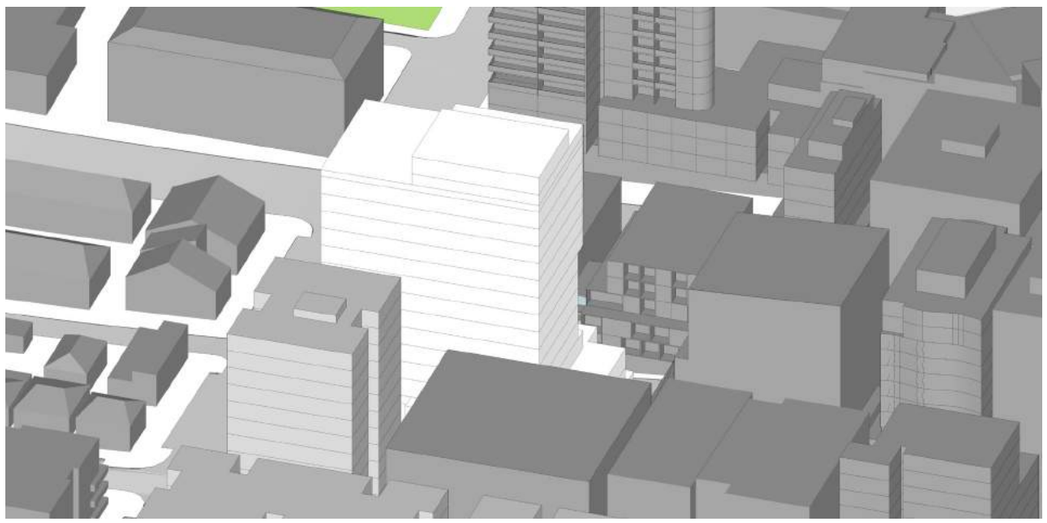

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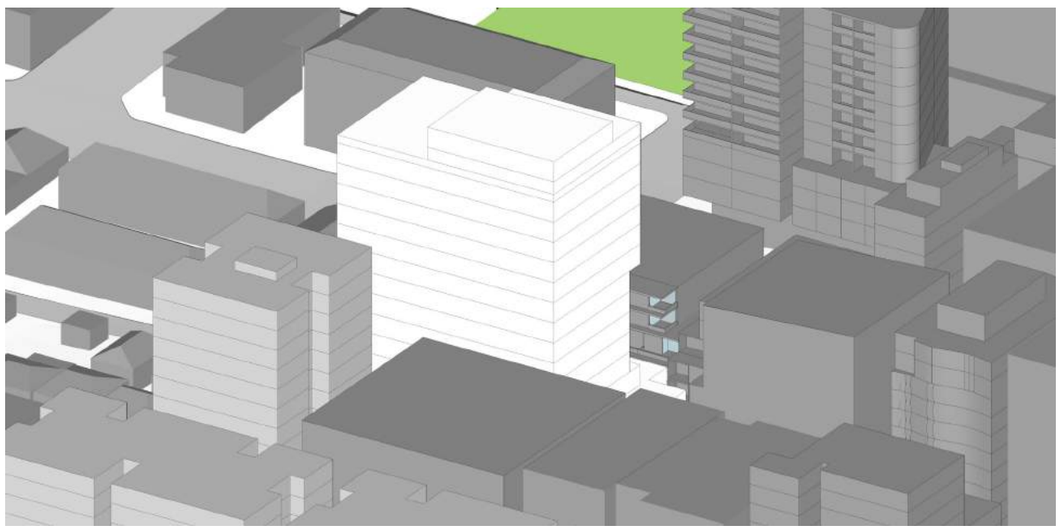

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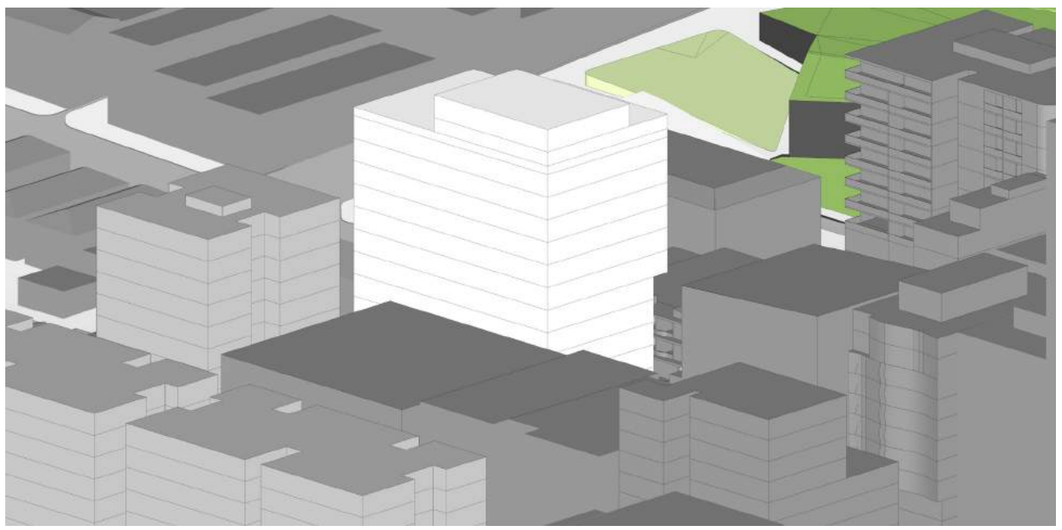

3 pm June 21st

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Date 04.07.2018 Rev AB