



27-57 FALCON STREET CROWS NEST URBAN DESIGN REPORT

FEBRUARY 2021 | NORTH SYDNEY COUNCIL

 Lindsay
Bennelong

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27-57 FALCON ST, CROWS NEST
URBAN DESIGN REPORT

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1.1 INTRODUCTION

EXECUTIVE SUMMARY

AJ+C have been appointed by Lindsay Bennelong to investigate the potential of a mixed-use residential development at 27-57 Falcon St, Crows Nest. This Urban Design Report provides a design concept with accompanying analysis, prepared in support of a Planning Proposal.

The study considered several design options of varying density, each mindfully considering the heritage context, urban development of the North Shore and overshadowing impacts of the site.

The report includes an extensive urban analysis, consideration of key design principles outline in the planning framework, outcomes of community an authority consultation, the preferred development in comparison to a compliant envelope, as well as the potential development outcomes and impacts.

The Planning Proposal responds to the North District Plan which came into effect in March 2018. This established a new housing target of 3,000 additional dwellings in the North Sydney LGA to be delivered by 2021. One of the key objectives of the North District Plan requires the provision of new housing supply, choice and affordability, with access to jobs, services and public transport. The Plan identifies the St Leonards/Crows Nest area as one of three health & education precincts that are also strategic centres within the district outlining actions for growing investment, business and job opportunities within the area.

27-57 Falcon St is a site that has long been dormant. This Planning Proposal represents an opportunity to replace the uninhabited lot with uses that support the ambitions of the North District Plan. The site sits within the North Sydney LGA in the St Leonards Crows Nest study area which is an area experiencing transition in height and scale due to the confirmation of the Chatswood to Sydenham line of the Sydney Metro Southwest project. The site is within a 5-minute walk to the future Crows Nest Metro Station, making it an ideal location for new housing.

The design proposal outlined in this report will deliver the following:

- A commercial & residential development comprising of four separate buildings of varying heights and typologies including:
 - 340m² of retail space (GFA)
 - 77 apartments
 - 8 townhouses
- Multiple green space zones
- Appropriate setback zones and a street widening of Alexander Lane to provide two-way traffic
- Activated street frontage to Falcon Street & Alexander Lane

This Urban Design Report outlines the background of the project and its planning history, the opportunities and constraints evident in the physical site, an analysis of a compliant design under current planning controls, and a recommended alternative design that forms the basis of the Planning Proposal.

The Report demonstrates that the site is capable of accommodating buildings of a greater scale than currently permitted, without resulting in significant adverse impacts upon the locality and adjacent properties. Impacts were tested in terms of overshadowing, visual massing and resident amenity.

Ultimately, this Report demonstrates that the site is of sufficient size, orientation and topography to allow the increase in development intensity proposed.

THE SITE

27-57 Falcon Street is made up of 7 parcels of land, currently zoned B4 [mixed used] with a total site area of 4342m², located within walking distance from the Crows Nest Centre, Willoughby Road shopping district and is within close proximity to the Pacific Highway. The suburb of Crows Nest is located on the North Shore of Sydney approximately 4.5km from the Sydney CBD. The site currently accommodates a private carpark and contemporary commercial/industrial brick buildings.

The dimensions of the site's two main street frontages are approximately 110m along Falcon Street and 39m along Alexander Lane.

Falcon Street bounds the site to the north, residential development to the east, Hayberry Lane to the south and Alexander Lane to west.

Currently the site consists of vacant lots to the west unused since the former service station was demolished two decades ago. The remaining lots to the east have four existing 2-3 storey commercial/industrial buildings which are currently unused.

There is a cross fall of approximately 6.48m across the entire site from the high point at the corner of Alexander Lane and Falcon St of RL93.94 to the low point on the southern boundary of RL 87.46.



Aerial showing the site

BACKGROUND: PLANNING PROCESS

The site of 27-57 Falcon St has been empty for at least 20 years, despite extensive development in the area during that time period. It is therefore apparent that the existing planning controls are insufficient to support the development of the empty site.

A previous Planning Proposal that was prepared for the site by a prior owner attempted to address the planning framework in 2015. Although that Planning Proposal was not pursued through to Gateway, the following aspects received conditional approval from North Sydney Council staff:

- Rezoning of the site to R4 High Density Residential
- Amending of the building heights by applying a stepped building height limit across the site of 19m, 16m and 10
- Removal the non-residential floor space ratio requirements
- Maximum floor space ratio of 1.9:1
- Minimum side setback of 1.5m at the first three storeys. Above the first three storeys, minimum side setback of 5m
- Break the development into separate buildings creating through site links

This current Planning Proposal seeks to complete the process of adjusting the planning framework to make 27-57 Falcon St a viable development. The aspects of the previous design that gained approval from Council staff were used as the basis for the development of design and site principle frameworks in this Proposal.

The current Planning Proposal is the result of numerous rounds of engagement, and iterations of the design, with North Sydney Council planning staff and Councillors, the Local Planning Panel and Community Groups.

This Planning Proposal was initially submitted to North Sydney Council in August 2019, after two Pre-PP meetings with Council staff. Since then, the project team has held further meetings with authority and stakeholder groups to provide information and obtain feedback. A summary of those meetings and the outcomes is provided below:

North Sydney Council
Councillors, 25 November 2019
Planning Staff, 5 December 2019
Councillors, 24 February 2020
Planning Staff, 27 February 2020

A preliminary assessment of the planning proposal was prepared by North Sydney Council planning staff, based on the material submitted and meetings with the proponent’s design team. This was presented to the Council to seek a position on key planning matters including:

- Quantum of non-residential floorspace
- Council’s willingness to progress a site specific planning proposal on the site in light of the direction in the State Governments St Leonards Crows Nest 2036 Plan
- Council’s application for a moratorium on residential planning proposals
- Height and scale as well as principles on design, heritage, transition, overshadowing, and site layout.

Council resolved to refer the planning proposal to the North Sydney Local Planning Panel (NSLPP) for advice on the proposed land use, height and FSR. Council also requested that the planning proposal was communicated factually and extensively with the local community.

Subsequent meetings with North Sydney Council Planning staff requested specific amendments such as a 25% reduction in on-site parking.

North Sydney Council Local Planning Panel, 5 February 2020
The NSLPP considered the planning proposal at their meeting on and recommended to Council that the planning proposal has strategic merit and may proceed to Gateway Determination subject to further examination and resolution of certain issues.

Community Engagement Sessions
Selected Local Community Representatives, 12 January 2020
Public Presentation, 12 February 2020

Two rounds of community engagement were held in early 2020. The first was an invited meeting with community representatives. A second public presentation was then advertised to the larger community, held in the building next door to the site. More than 50 people attended to hear from the design team about the planning process, the analysis undertaken and the design proposed. Representatives of Lindsay Bennelong, Ethos Urban and AJ+C spoke at the session.



Above: Community Consultation Presentation, 12 February 2020

Design Response

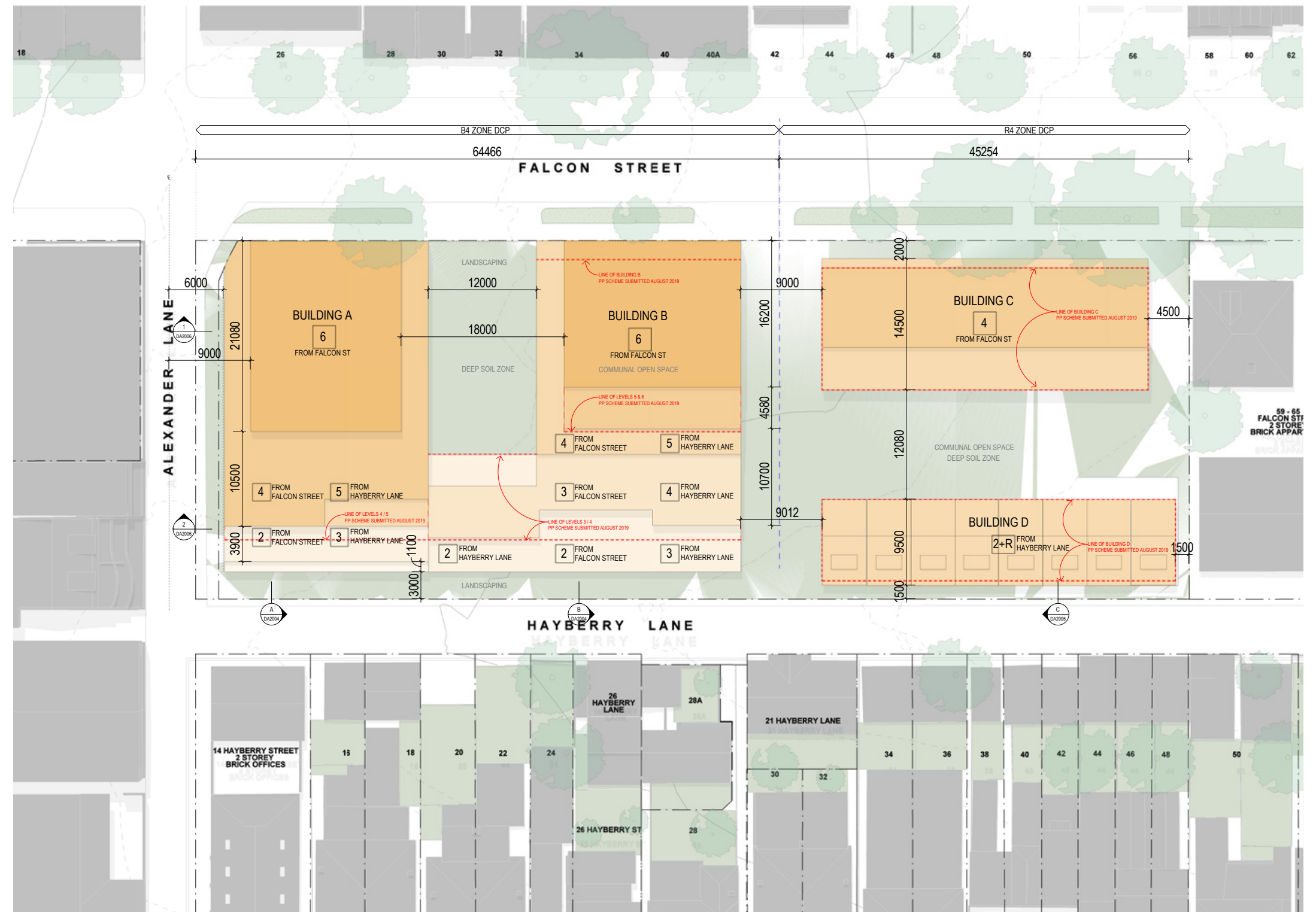
Feedback from these meetings informed amendments to the design to enhance the proposal and further improve overall quality. Changes particularly focused on improving solar access to the neighbouring properties along Hayberry Street and Lane and reducing the visual scale of the proposal along Hayberry Lane.

This revised Urban Design Report outlines the amended design. Changes from the August 2019 submission include:

- Reduced building mass on southern end of Building A, increasing rear Level 2 setback from 3m to 4.1m and Level 3 setback from 6.5m to 8m, measured from Hayberry Lane.
- Reduced building mass on southern end of Building B, increasing rear Level 2 setback from 6.5m to 8.1-8.9m and Level 6 setback from 18.5m to 23m, measured from Hayberry Lane.
- Changed upper level massing of Building C, reducing setback from 3m to 2m, measured from Falcon Street.
- Reduction in building height of Building D from 3-storeys to 2-storeys plus a pitched roof.
- Reduced Building D rear setback from 2m to 1.5m, measured from Hayberry Lane.
- Reduction in on-site car parking from 121 down to 90 spaces.
- Increased deep soil area.

KEY

- EXTENT OF BUILDING MASSING PP
- REFERENCE SCHEME SUBMITTED IN AUGUST 2019



CURRENT SITE PLAN

1.0

SITE CONTEXT

1.1 SITE LOCATION

The site is located on the edge of the Crows Nest local centre within the North Sydney Local Government Area, approximately 4.5km north of Sydney's CBD. The Crows Nest town centre is typically characterised by high density commercial and residential development. It is in walking distance to the job centres of North Sydney (1.1km) and St Leonards (1km).

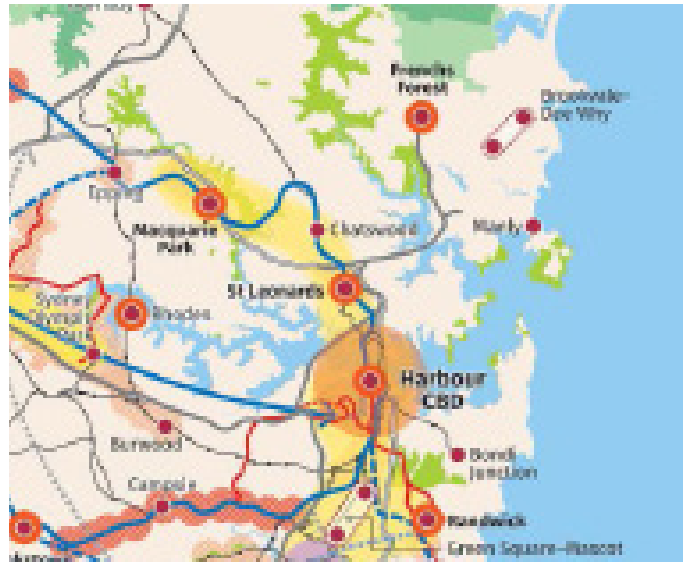
The site is in close proximity to the T1 - North Shore Train line, approximately 1km from St Leonards Station.

The site is within a 5 minute walk of the future Crows Nest Metro Station forming part of the Chatswood to Sydenham Metro Line which is due to be completed in 2024.



- Legend
- Train Station
 - Future Metro Station
 - Metro Station 800m Radius
 - Motorway
 - Primary Road
 - Train Line

1.2 STRATEGIC PLANNING FRAMEWORK

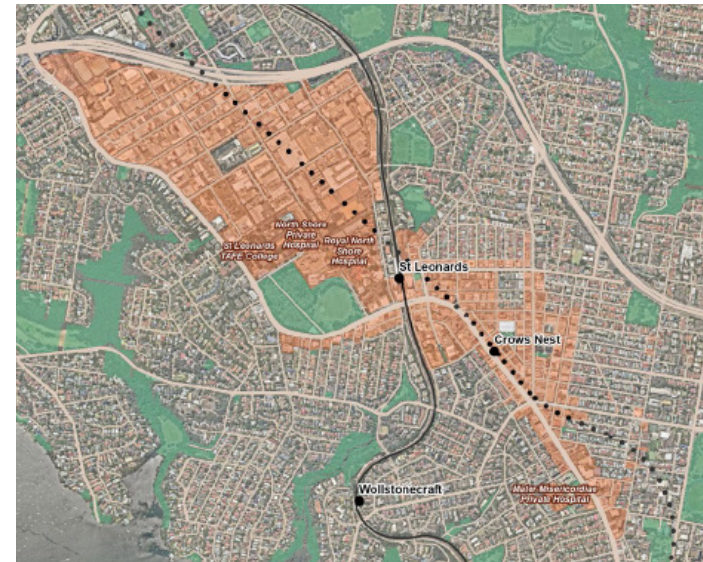


GREATER SYDNEY PLAN

The Greater Sydney Region Plan released in 2018 by the Greater Sydney Commission (GSC) sets out a vision for a growing Sydney and outlines strategies to transform it into a metropolis of three cities.

The Plan identifies St Leonards/Crows Nest as a collaboration area and part of the critical Eastern Economic Corridor connecting Macquarie Park to Sydney Airport which currently contains 775,000 jobs.

The area is also defined as a strategic centre, a commercial office precinct and a health and education precinct. GSC's North District Plan expands of the area's role and importance within the region.

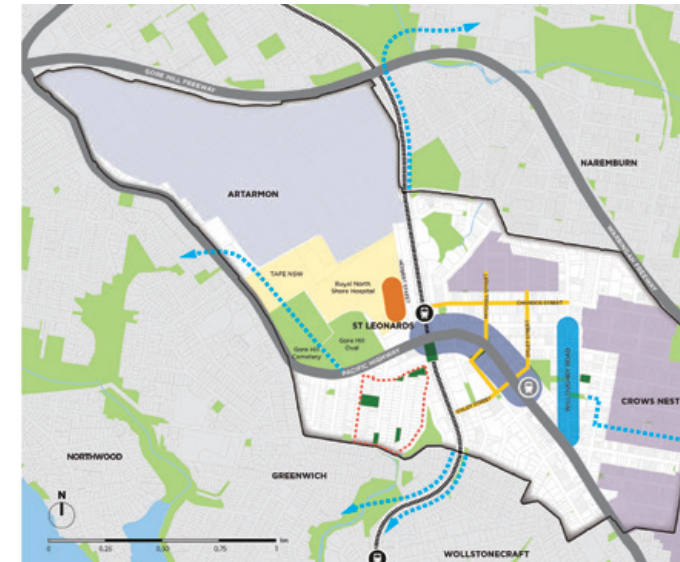


NORTH DISTRICT PLAN

The GSC North District Plan identifies the St Leonards/Crows Nest area as one of three health & education precincts that are also strategic centres within the district.

The plan outlines actions for growing investment, business and job opportunities in strategic centres as well as specific actions for the St Leonards health and education precinct which includes the following:

- a. leverage the new Sydney Metro Station at Crows Nest to deliver additional employment capacity*
- b. grow jobs in the centre*
- c. reduce the impact of vehicle movements on pedestrian and cyclist accessibility*
- d. protect and enhance Willoughby Road's village character and retail/restaurant strip*
- e. deliver new high quality open space, upgrade public areas, and establish collaborative place-making initiatives*
- f. promote synergies between the Royal North Shore Hospital and other health and education-related activities, in partnership with NSW Health*
- g. retain and manage the adjoining industrial zoned land for a range of urban services.*



ST LEONARDS AND CROWS NEST 2036

Driven by the Sydney Metro project opening in Crows Nest the NSW Department of Planning and Environment (DP&E) have developed a plan that proposes to rejuvenate the St Leonards and Crows Nest area with new jobs, open space, infrastructure and homes.

The Plan released by (DP&E) sets out a long term vision for the area promoting appropriate development and infrastructure to ensure the areas capability to continue growing as an important centre for the region.

The Plan envisions between 1,950 to 3,020 new jobs by 2036 in Crows Nest and sets out a framework to provide sufficient infrastructure to meet this growth and demand.

The Plan identifies design principles and structure plans for the area addressing place, landscape, built form land use and movement.



SYDNEY METRO

Starting early works is 2017 the Chatswood to Sydenham component of Sydney Metro City Southwest will link Sydney's northern suburbs to the southern suburbs via the CBD.

The Crows Nest Metro station will provide new improved rail access to the residential and urban renewal areas of St Leonards and Crows Nest creating a transport focus on the southern side of 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 within a 5 minute walk located approximately 400m south east of 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 Metro project is anticipated to be completed by 2024.

1.3 STATUTORY PLANNING FRAMEWORK

NORTH SYDNEY LOCAL ENVIRONMENTAL PLAN 2013

The North Sydney Local Environmental Plan 2013 (LEP) sets out the planning controls for the North Sydney LGA.

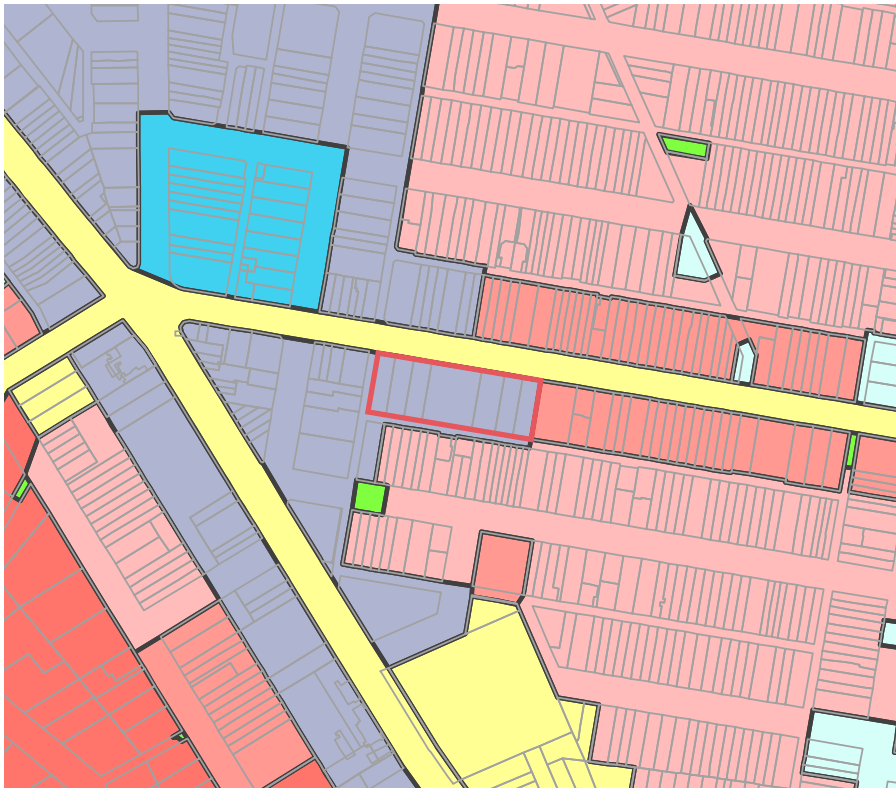
The key LEP controls for the Site are:

- Land Use Zoning B4 Mixed Use
- Minimum Non-Residential FSR 0.5:1
- Height of Buildings 10 metres

The FSR control is a minimum requirement for non-residential floor space, rather than a limitation. There are no other FSR controls that apply to the site

The site is not within a conservation area and does not contain any heritage listed items, however it is in close proximity to the following:

- The conservation area know as 'Holtermann Estate C', located directly to the south of the site
- 14 Hayberry Street, Crows Nest (I0144) , located directly to the south west corner of the site
- 69 Falcon Street, Crows Nest (I0143), located to the east of the site.



LAND ZONING



MINIMUM NON-RESIDENTIAL FLOOR SPACE RATIO (FSR)

KEY

LAND ZONING

| | | |
|-----|-----|----|
| B1 | B3 | B4 |
| R2 | R3 | R4 |
| RE1 | SP2 | |

MINIMUM NON-RESIDENTIAL FLOOR SPACE RATIO (FSR)

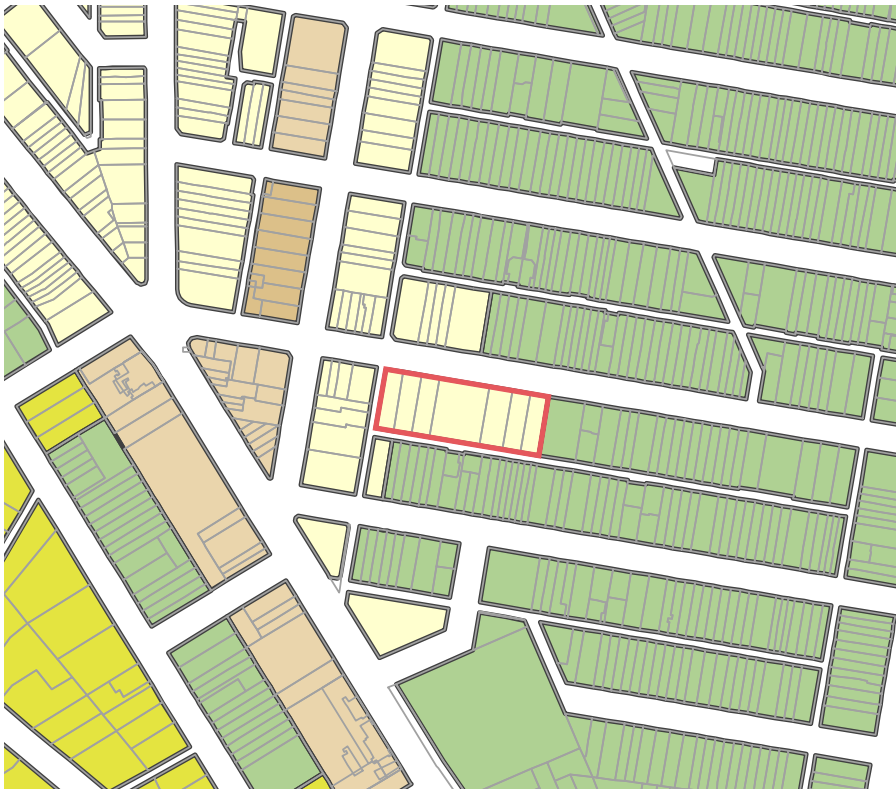
| | |
|--------|--------|
| A 0.24 | D 0.50 |
|--------|--------|

HEIGHT OF BUILDINGS

| | | |
|-------|-------|------|
| I 8.5 | K 10 | M 12 |
| O2 16 | Q2 20 | |

HERITAGE

| | |
|----------------|-----------------------------|
| Item - General | Conservation Area - General |
|----------------|-----------------------------|



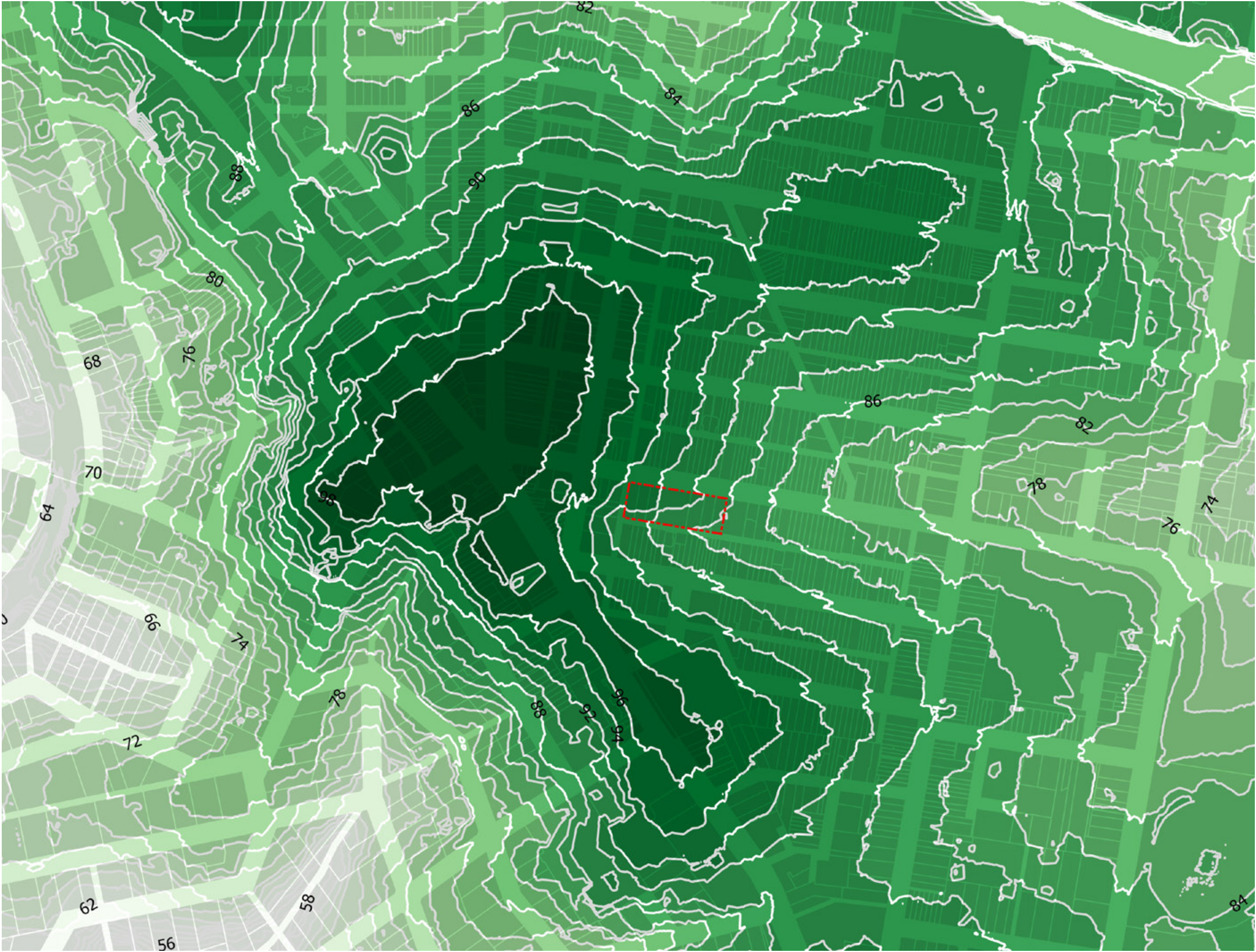
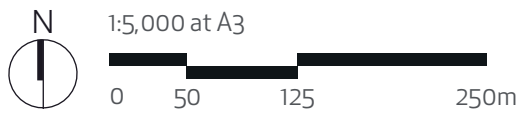
HEIGHT OF BUILDINGS



HERITAGE

1.4 DISTRICT CONTEXT: TOPOGRAPHY

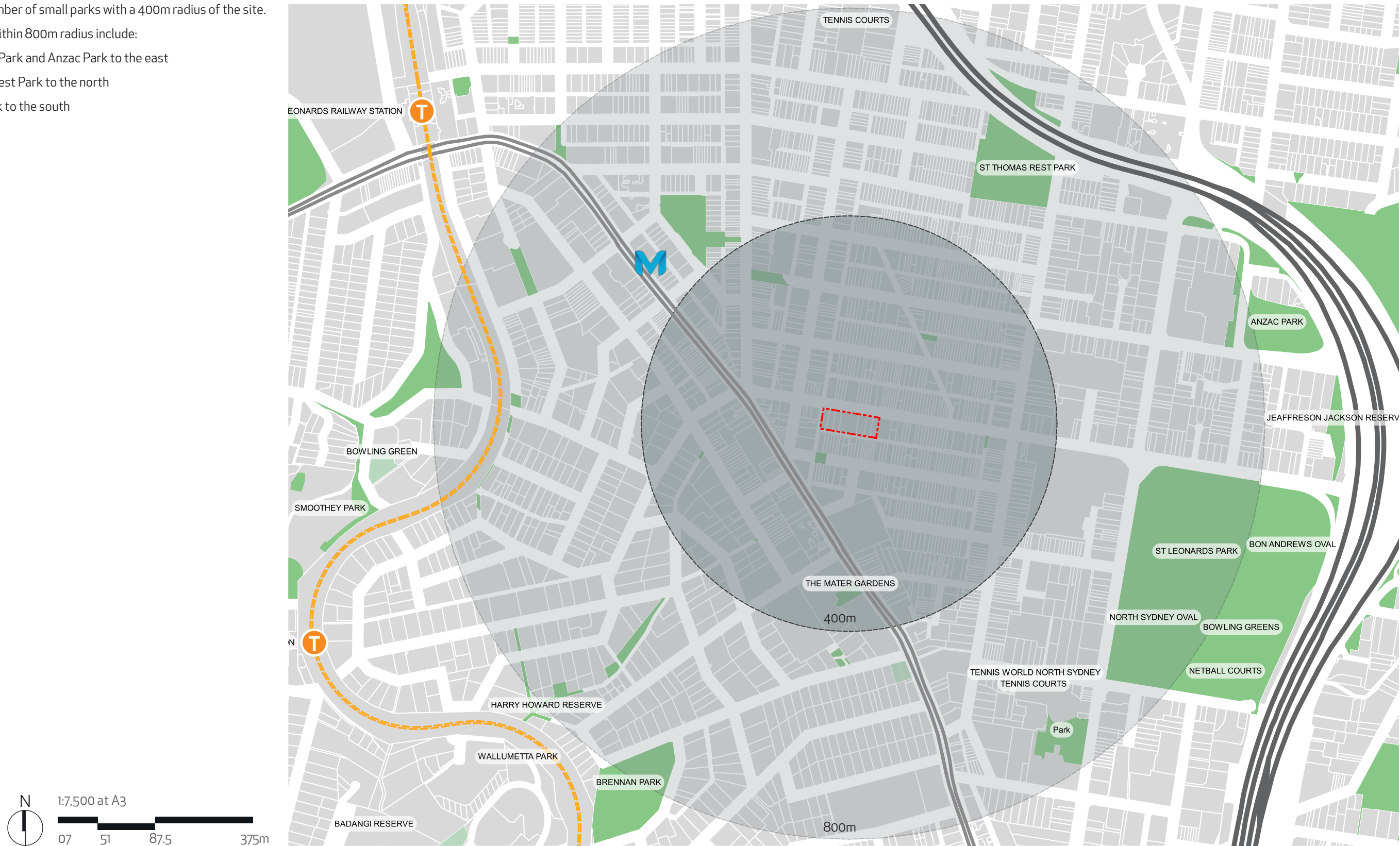
The site is located just east of a high point where Pacific Highway, Willoughby Road, Falcon Street and Shirley Road converge. This five way intersection is an important vantage point and offers significant vistas in all directions.



1.5 DISTRICT CONTEXT: OPEN SPACE

There are a number of small parks with a 400m radius of the site.
Larger parks within 800m radius include:

- St Leonards Park and Anzac Park to the east
- St Thomas Rest Park to the north
- Brennan Park to the south



1.6 DISTRICT CONTEXT: ACCESS AND TRANSPORT

The site is within close proximity to many transport options including the following:

- Multiple bus stops serving routes to a number of destinations around Sydney
- Approx 440m from the future metro station at Crows Nest
- Approx 1km from the future metro station at North Sydney
- Approx 1km from the existing St Leonards Train Station



1.7 DISTRICT CONTEXT: ROAD NETWORK

The site is located on the southern side of Falcon Street, the arterial connecting Pacific Highway to Military Road.

The site sits approximately 150m to the east of the intersection where Pacific Highway, Willoughby Road, Falcon Street and Shirley Road converge.

Approximately 1km to the east is the Warringah Freeway, part of the Sydney Orbital Network.



1.8 LOCAL CONTEXT: EXISTING BUILDINGS AND HERITAGE ITEMS

While the site is not heritage listed or of heritage significance, it sits in the proximity of the *Holtermann Estate C Heritage Conservation Area* - located to the south east of the site and the *Holtermann Estate B Heritage Conservation Area* to the northern side of Falcon St.



1.9 LOCAL CONTEXT: BUILDING COVERAGE

The adjacent crows nest centre zoned B3 and B4 zone is characterised by close to 100% building coverage, while the R2 and R3 zones are characterised typically by a lesser amount of site coverage.

The site respects the prevailing site coverages, with the western half continuing the site coverage characteristic of the B3 and B4 zone, and the eastern half resembling the site coverage typical of the R2 and R3 zones.



KEY

- EXISTING BUILDINGS
- SUBJECT SITE
- PROPOSED FOOTPRINT

1.10 LOCAL CONTEXT: EXISTING SOCIAL INFRASTRUCTURE

The site has access to many social infrastructure facilities. The following are within a 400m catchment of the site;

- Education
- North Sydney Girls High School
 - North Sydney Boys High School
 - Cammeraygal High School
 - Crows Nest TAFE College
- Health
- Mater Hospital
 - Crows Nest Community Health Centre

KEY

EXISTING BUILDINGS

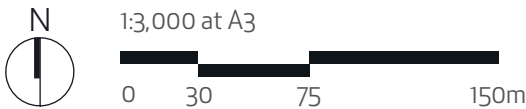
SUBJECT SITE

HEALTH SITES

EDUCATION SITES

PLACES OF WORSHIP

OPEN SPACE



1.11 SITE ANALYSIS: PHOTOGRAPHY

The following site photographs identify the existing context within and around the site. The western end of the site is currently vacant, fenced off and poorly defined.

Hayberry Lane is mainly utilised as a service lane, with garages fronting the laneway, with the exception of a few properties which have been subdivided to front onto the laneway.

On the eastern end of the site the existing buildings are built right to the boundary and do not consider transition to the single residence houses on Falcon St.



Key

 Photograph Views



01. Looking West along Falcon St



02. Existing building conditions on the site - No 47 Falcon St



03. View from Falcon St of the vacant eastern end of the site



04. View from the corner of Alexander Lane and Falcon St looking West



05. View from the corner of Alexander St and Falcon St looking East



06. View down Alexander Lane looking South



07. View of a gated entrance to the site off Alexander Lane



08. View from Alexander Lane looking North



09. View of Hayberry Lane looking East



10. View from Hayberry Lane of the rear of No 43-45 Falcon St,



11. From 43-45 Falcon St looking West into the site



12. View from Hayberry lane looking West



Panoramic View from above 27-57 Falcon St

1.12 SITE ANALYSIS: EXISTING CONDITIONS

An analysis of the site identifies the following:

- Northerly aspect to the Falcon Street frontage
- The high point of the site is located in the north west corner of the site with the low point at the south east corner
- Existing street planting along the Falcon Street footpath
- Relatively narrow widths to Alexander and Hayberry Lanes



1.13 SITE ANALYSIS: BUILDING FRONTAGES

Retail frontage occurs along the eastern end of Falcon Street extending from Pacific Highway and Alexander Street. The site spans two areas of different character, with residential frontages transitioning to commercial.

There is significant blank frontage from adjacent development to the south and west due to the service lanes.

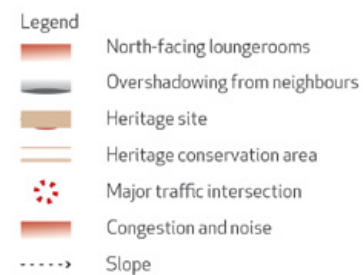
The site is only half occupied, with vacant commercial/industrial frontages occupying half of the site. The existing buildings are largely built to 0m setbacks from Falcon Street, Hayberry Lane and side boundaries



1.14 SITE ANALYSIS: SITE CONSTRAINTS

The following constraints have been identified on and around the site:

- The site falls approximately 7m west to east
- There is a steep embankment on the south west side of the site
- The site is surrounded by low density residential to the east and south
- The single dwelling developments located directly to the south of the site contain north facing lounge rooms which require their solar amenity protected
- There is a conservation area located directly to the south of the site
- 14 Hayberry Street, located directly to the south west corner of the site is a heritage item
- Hayberry Lane is not directly or easily accessed from Falcon Street
- High traffic movement on Falcon Street



1.15 SITE ANALYSIS: SITE OPPORTUNITIES

The following opportunities have been identified on and around the site:

- The site is connected to and in close proximity to a retail/business centre with a wide range of retail, employment and community offerings
- The site is located close to multiple transport options including the future Crows Nest Metro Station
- The site's proximity to the future metro station connects it to Sydney's CBD and other local and regional centres
- Potential to utilise site fall to locate servicing and parking access at the southern boundary to minimise visual impact
- Development will benefit from the highly visible frontage along Falcon Street
- Due to the orientation of the site development will enjoy a northerly aspect and high solar amenity.



2.0

ANALYSIS OF
COMPLYING
DEVELOPMENT

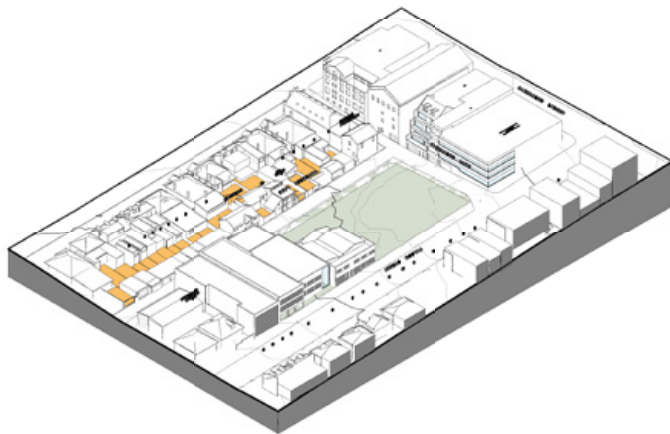
2.1 SUMMARY OF COMPLYING DEVELOPMENT

Before initiating our design process, we explored what is possible under existing LEP and DCP controls.

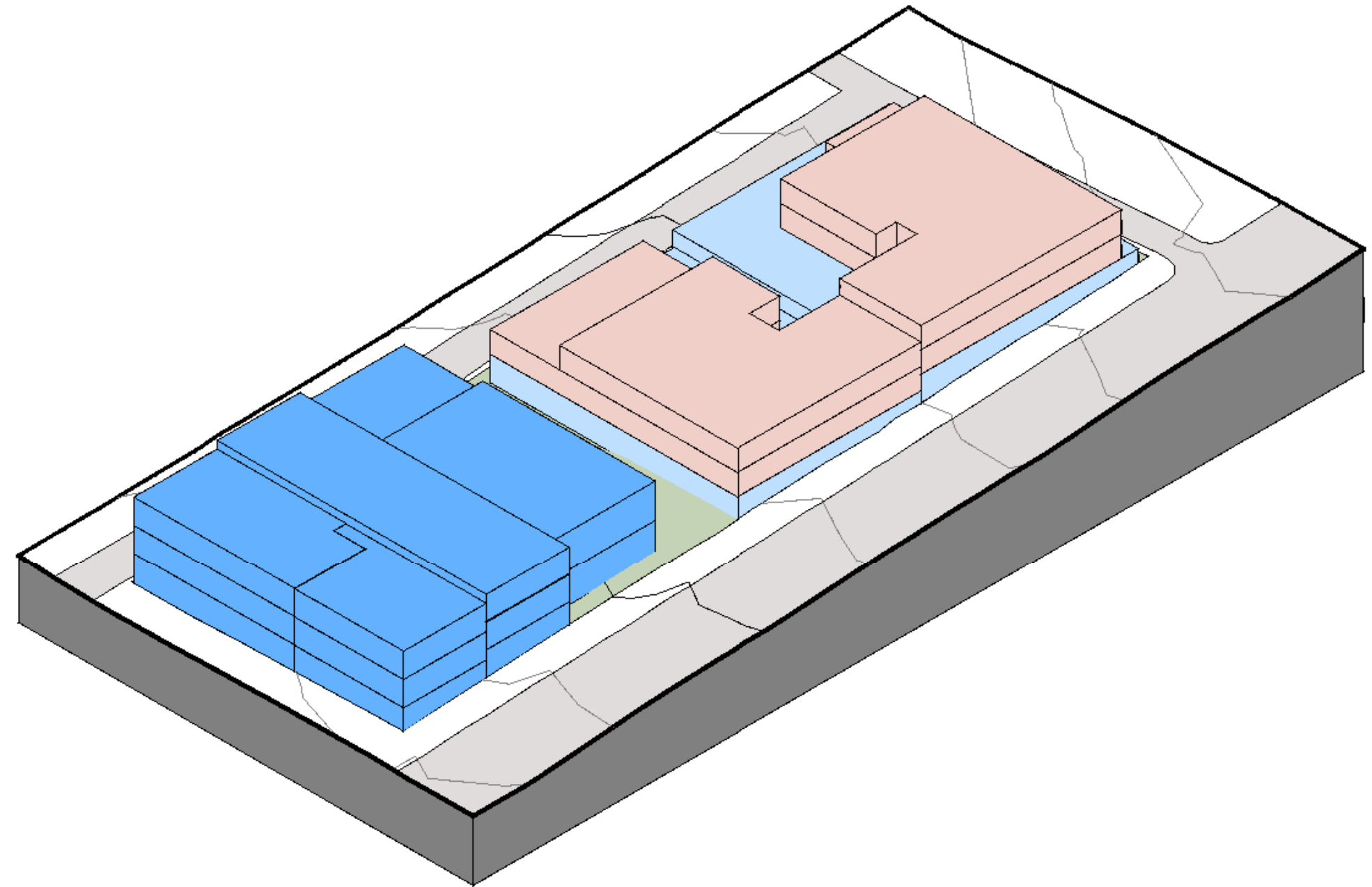
Our analysis indicated that the best use of the site under the existing controls would be to retain the existing commercial building shells, and then add an additional mixed use building on the western edge.

Ultimately, this outcome was not considered appropriate, as the existing building reduces the quality of the rear lane and impacts the properties to the south. Vehicular access to the site is constrained, which would impact servicing to the commercial premises, ultimately limiting financial viability.

KEY:
EXISTING COMMERCIAL
RESIDENTIAL
COMMERCIAL



EXISTING AXONOMETRIC



Site Area: 4342m²

Deep Soil Zone: 113m² (2.6% of site)

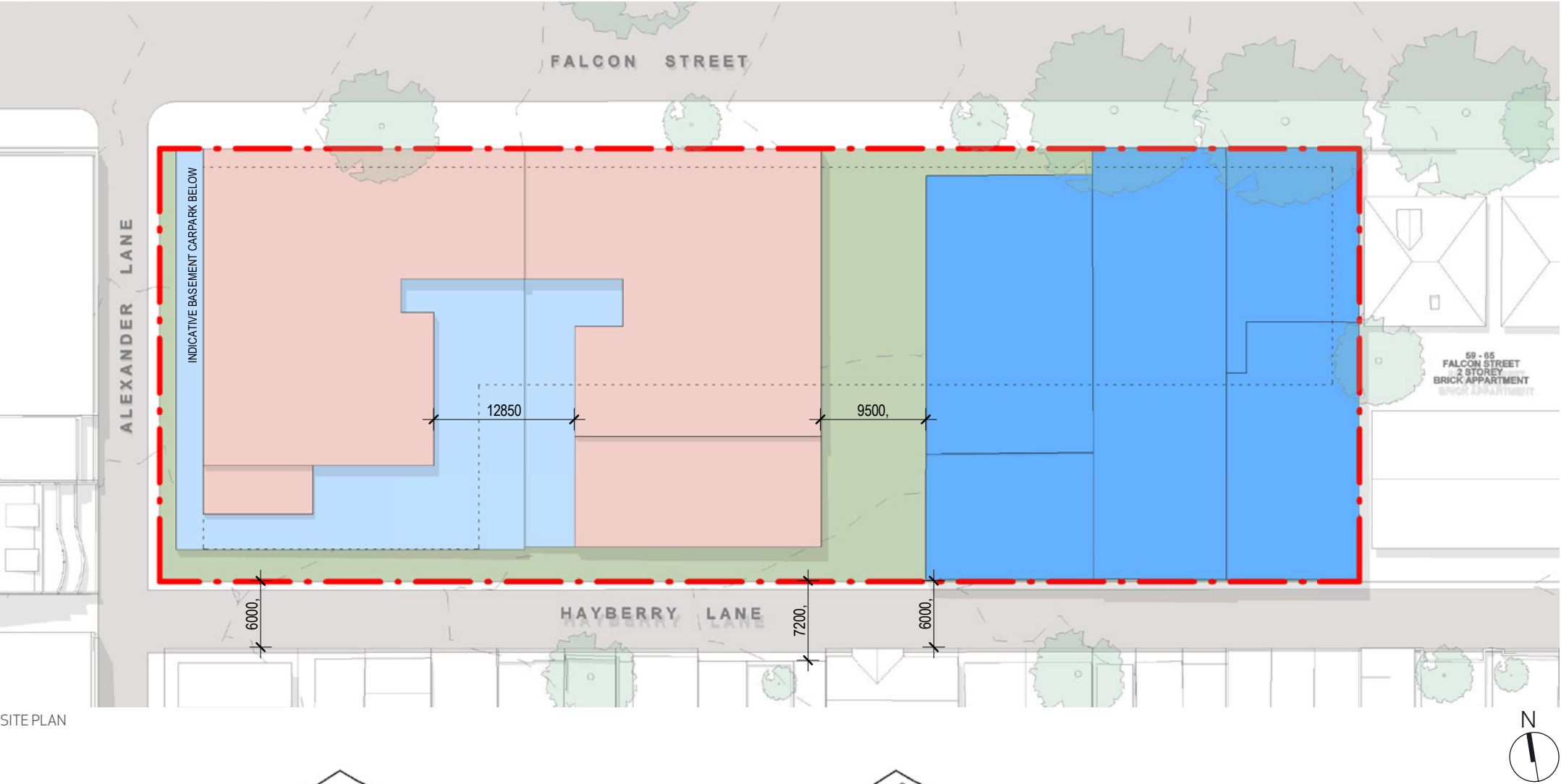
Site Coverage: 3780m² (87% of site)

Existing Buildings: 1531m²

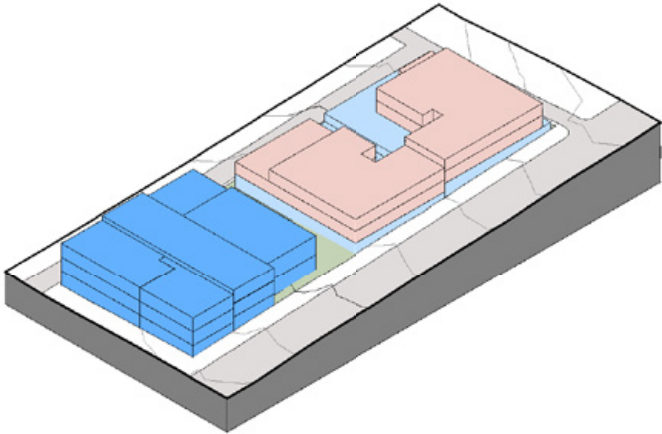
| Residential Yield | | |
|-------------------|---------------------|---------------------|
| Level | Area (GBA) | Area (GFA) |
| Upper Ground | 1479 m ² | 1331 m ² |
| Level 2 | 1445 m ² | 1300 m ² |
| Total | 2924 m ² | 2631 m ² |

| Commercial Yield (West) | | |
|-------------------------|---------------------|---------------------|
| Level | Area (GBA) | Area (GFA) |
| Lower Ground | 985 m ² | 886 m ² |
| Upper Ground | 1168 m ² | 1051 m ² |
| Total | 2153 m ² | 1938 m ² |

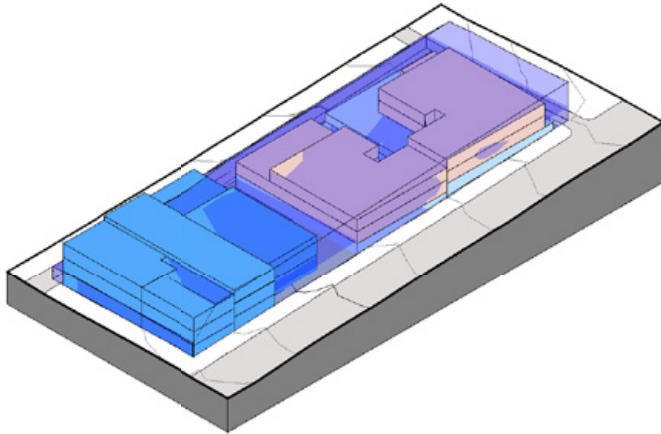
| Commercial Yield (East) | | |
|-------------------------|---------------------|---------------------|
| Level | Area (GBA) | Area (GFA) |
| Lower Ground | 1523 m ² | 1371 m ² |
| Upper Ground | 1139 m ² | 1025 m ² |
| Level 2 | 1523 m ² | 1371 m ² |
| Total | 4185 m ² | 3767 m ² |



SITE PLAN



AXONOMETRIC



AXONOMETRIC WITH PLANE

KEY:

- EXISTING COMMERCIAL
- RESIDENTIAL
- COMMERCIAL

2.1.1 COMPLYING OPTION - SOLAR ANALYSIS

Complying Option



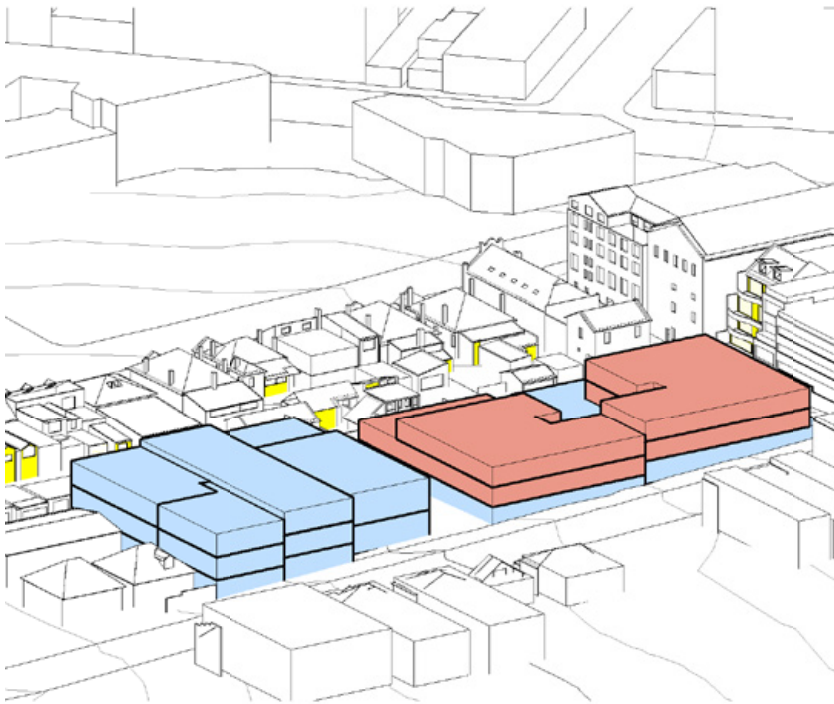
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12 NOON - 21st JUNE



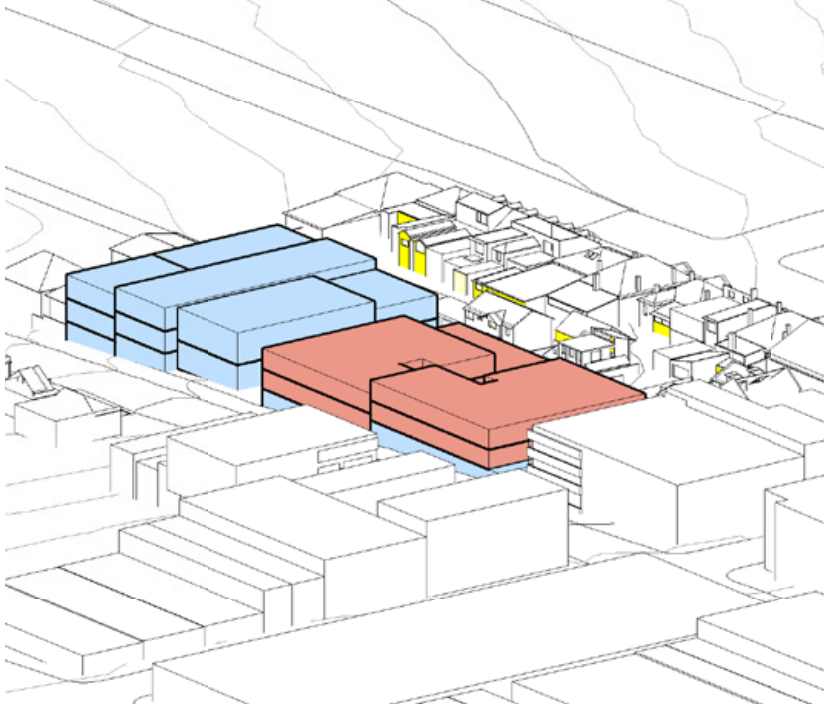
3 PM - 21st JUNE



9 AM - 20th JUNE



12 NOON - 20th JUNE



3 PM - 20th JUNE

RESIDENTIAL COMMERCIAL NEIGHBOURING PRIMARY LIVING SPACES

3.0

DESIGN PROPOSAL

3.1 DESIGN PRINCIPLES

Based on our analysis of the local context and a complying development option, four key design principles were defined to enable us to explore an alternative outcome for the site.



MAXIMISE SOLAR ACCESS

- Establish a building envelope to provide solar access to neighbouring properties



GREEN THE SITE

- Creation of deep soil planting areas and planted setbacks
- Provide green roofs where possible



CREATE A SENSE OF TRANSITION

- Step up height from lower scale development to Crows Nest centre
- Increase setbacks from Crows Nest centre to residential development



IMPROVE THE STREET NETWORK

- Enhance Hayberry Lane and Alexander Lane as a pedestrian route to the Crows Nest centre
- Establish engaging street frontages

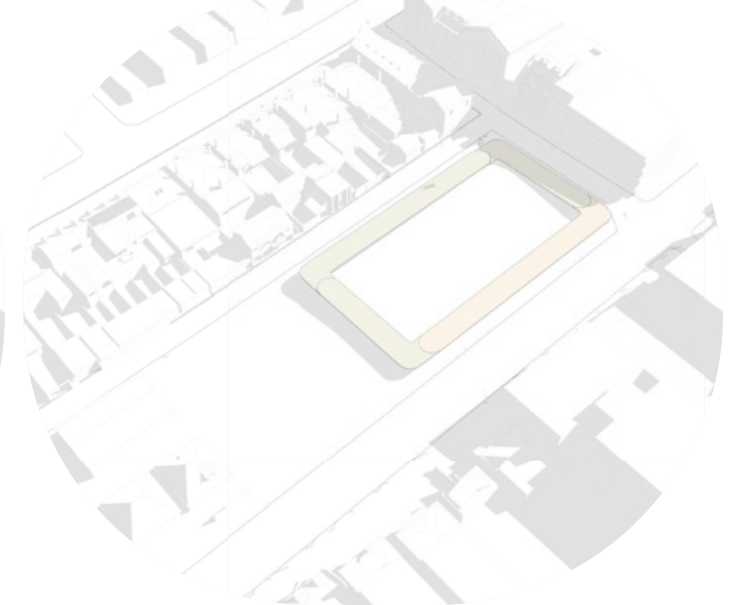
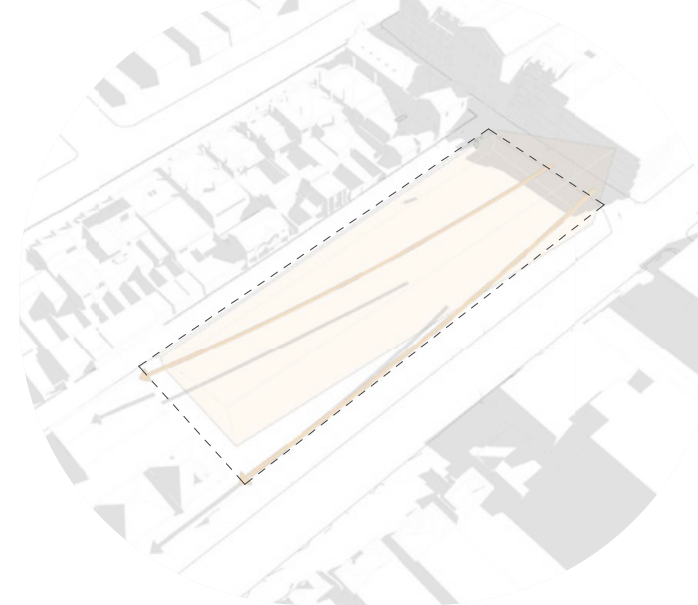
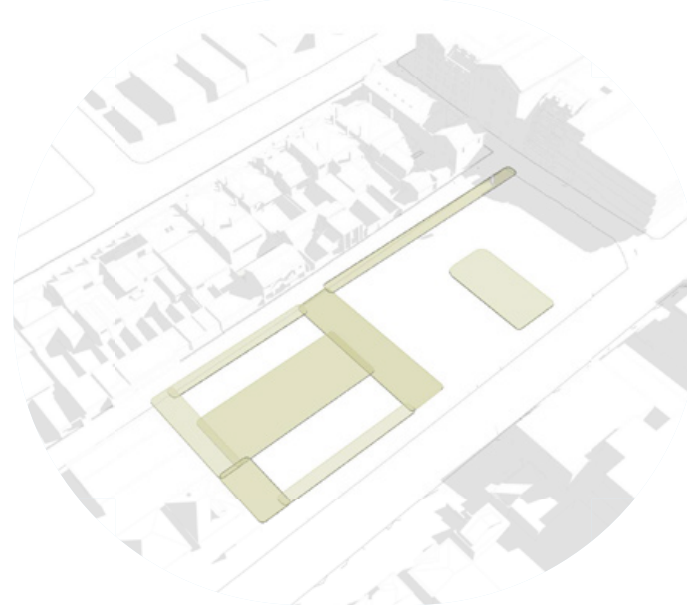
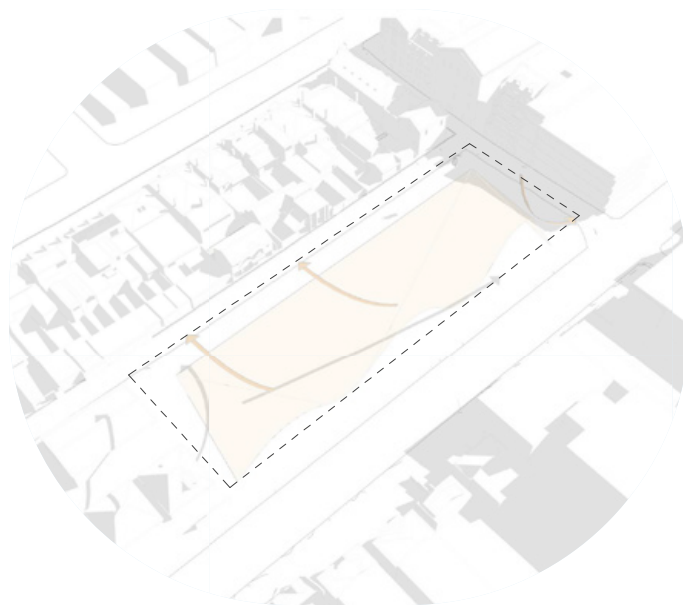
3.2 APPLICATION OF DESIGN PRINCIPLES TO THE SITE

The design principles have guided and informed the preferred site layout and building typologies.

Feedback from Council over two Pre-DA meetings (11th of March and 16th of May 2019) informed the design principles and the design outcome.

The design process has also been informed by feedback from the previous 2015 Planning Proposal which received conditional Council support for the following:

- Rezoning of the site to R4 High Density Residential
- Amending of the building heights by applying a stepped building height limit across the site
- Removal the non-residential floor space ratio requirements
- Maximum floor space ratio of 1.9:1
- Minimum side setback of 1.5m at the first three storeys. Above the first three storeys, minimum side setback of 5m
- Break the development into separate buildings creating through site links



MAXIMISE SOLAR ACCESS

- Provide solar access to neighbouring properties
- Provide solar access to apartments
- Provide solar access to communal open space

GREEN THE SITE

- Create a landscape setting for the eastern blocks that continues the leafy character of Falcon Street while the western blocks have a more urban nature, being built up to the street alignment.
- Establish courtyards to provide breaks in Falcon Street elevation, of approximately 109m.
- Provide a green link connecting Falcon Street and Hayberry Lane
- Communal outdoor space, separated from the street
- Opportunities for landscaping and deep soil planting and green roofs

CREATE A SENSE OF TRANSITION

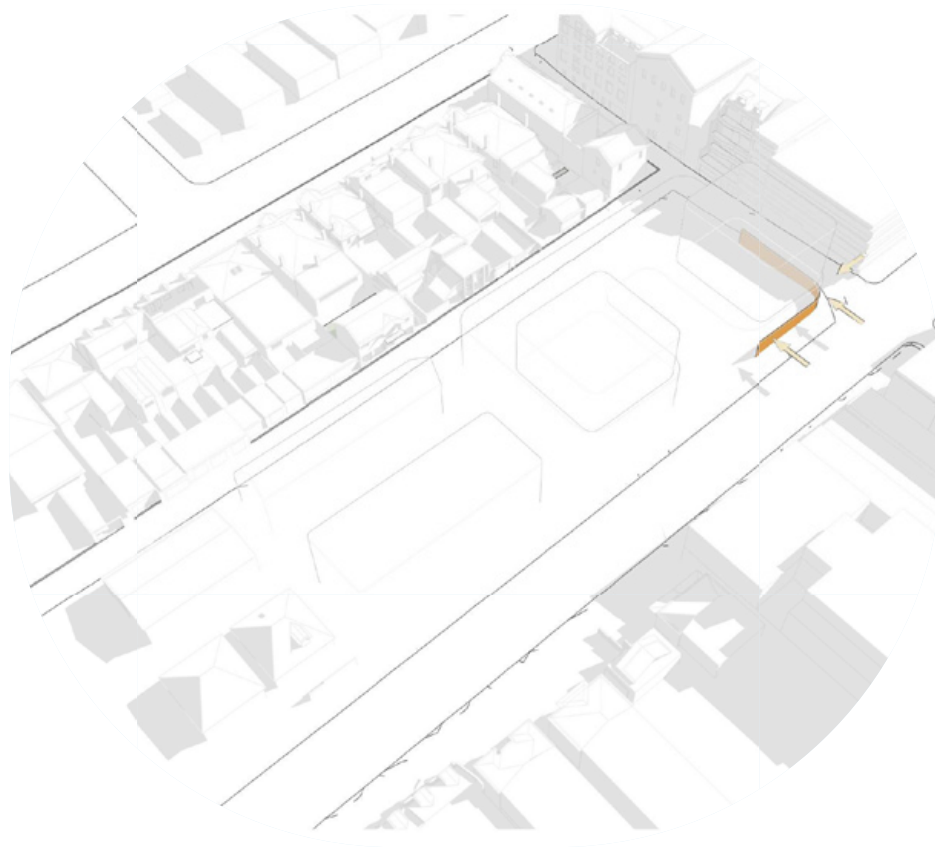
- Appropriate scale transition between existing residential development to the south and east and mixed-use character of Crows Nest centre to the north and west
- Setback transition to Falcon Street from 0m at the western end of the site where commercial use is proposed to 3m elsewhere
- Min 4.5m setback zone to the east adjacent to existing one and two storey neighbours

IMPROVE THE STREET NETWORK

- Positive street address including clearly defined street entries
- Defined and coherent street edges
- Min 2m setback zone to Hayberry Lane to provide opportunity for wider footpaths, planting and appropriate separations to neighbours
- Adjusted site boundary to Alexander Lane to permit street widening which will allow two-way vehicle traffic and provide appropriate separations to neighbours

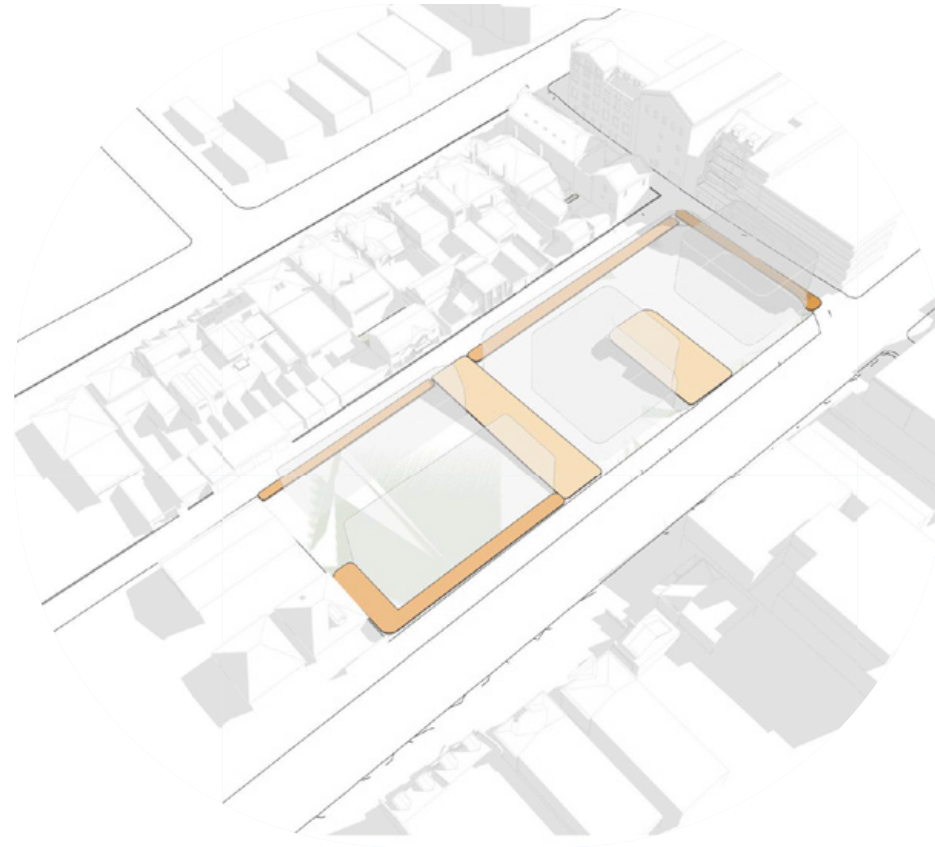
3.3 BASIS OF DESIGN PROPOSAL

After the general site plan was established, an overall built form and massing strategy was developed through an iterative design process.



Establish ground floor retail to provide:

- An activated street frontage on Falcon St and Alexander Lane
- An articulated street address to Falcon St and improved street amenity



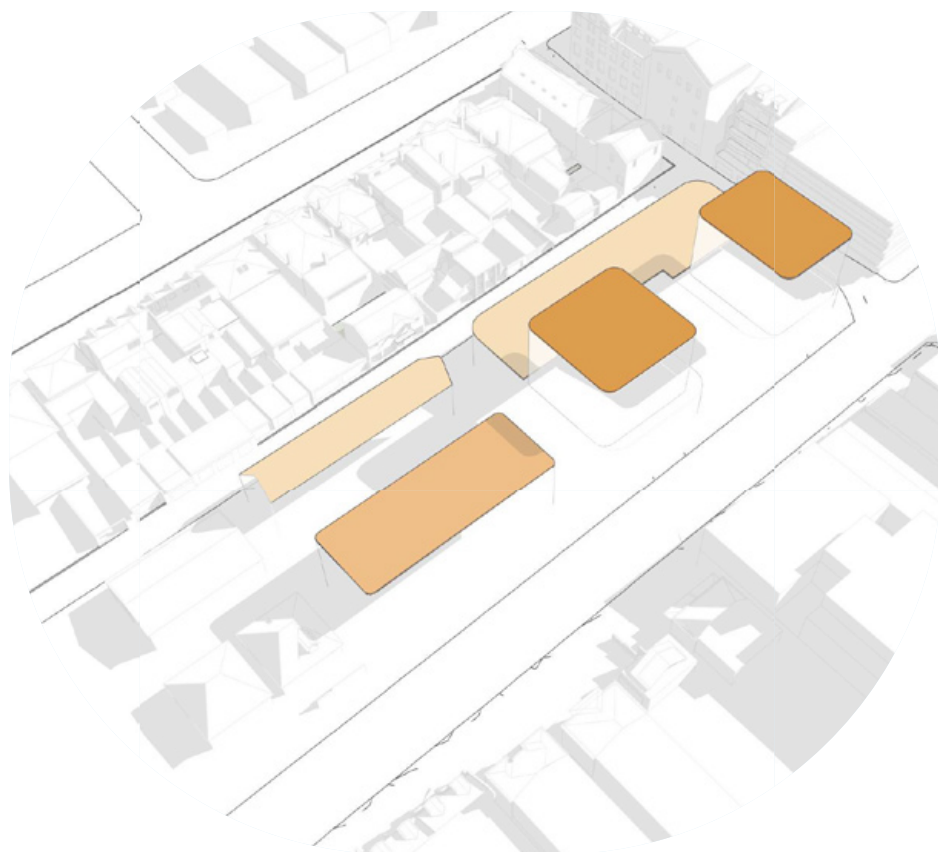
Establish setback zones to provide:

- Street widening of Alexander Lane, allowing the lane to be utilised for two-way traffic
- 3m additional setback zone to Hayberry Lane to increase activation of the laneways around the site and soften the transition to single dwelling neighbouring residences
- Deep soil planting on Falcon St to improve amenity and enhance the presentation of the development
- Additional 2m setback to Hayberry Lane, creating a positive street address
- Appropriate transition between public and private domain to Falcon St



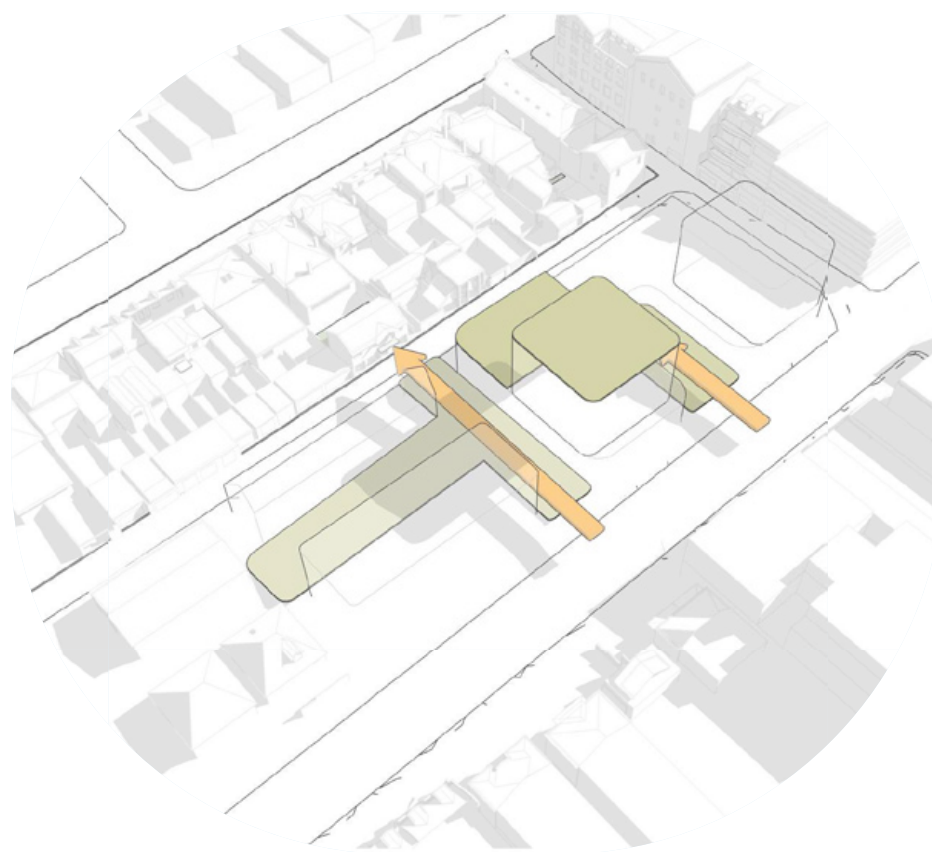
Establish a podium form to provide:

- Coherence with existing surrounding context with defined communal open spaces within the site
- An appropriate scale on Falcon St and Alexander Lane to improve pedestrian experience
- Landscape opportunities on top of the podium



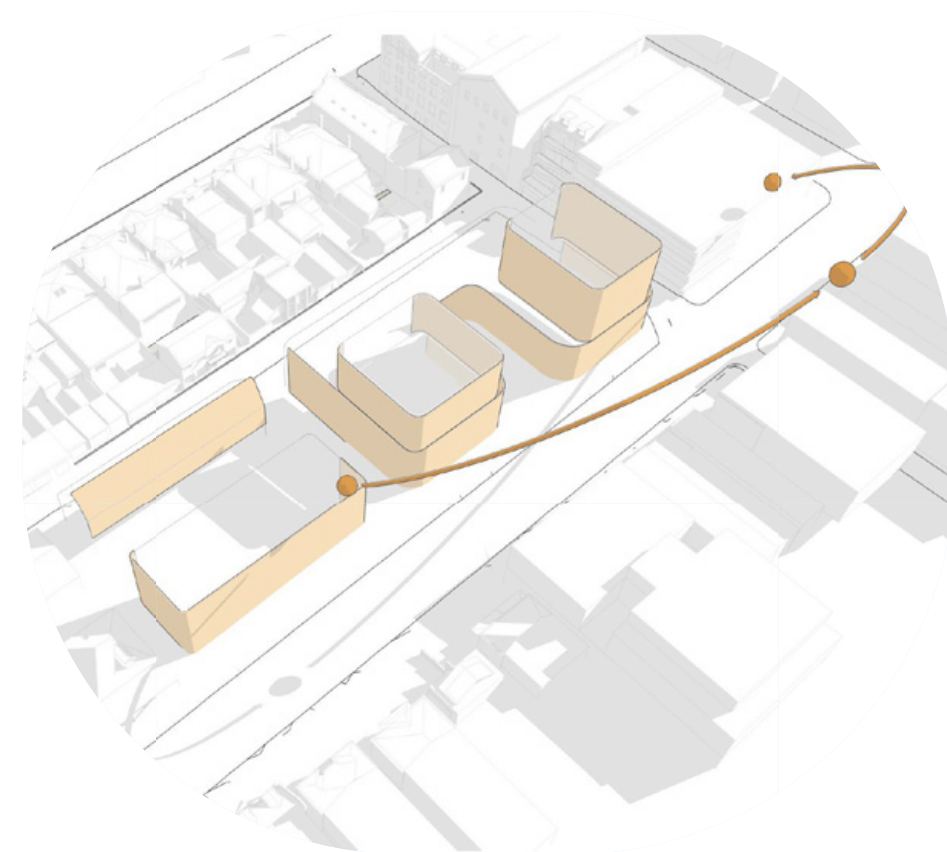
Establish varied building heights and typologies throughout the site to provide:

- A fine grain response to the existing surrounding context
- Articulation of facade and building entries, including a positive street address
- Minimise impact of overshadowing on neighbouring properties



Establish Green space zones to provide:

- Deep soil zones with frontage to the street, minimising noise pollution for dwellings
- A break in the building mass, improving building articulation and enhancing the presentation of the site
- A communal through site link and visual break in the street wall on both Hayberry Lane and Falcon St
- Continuation of the existing neighbouring 'backyards' through a centrally located communal landscaped area
- Rooftop amenity



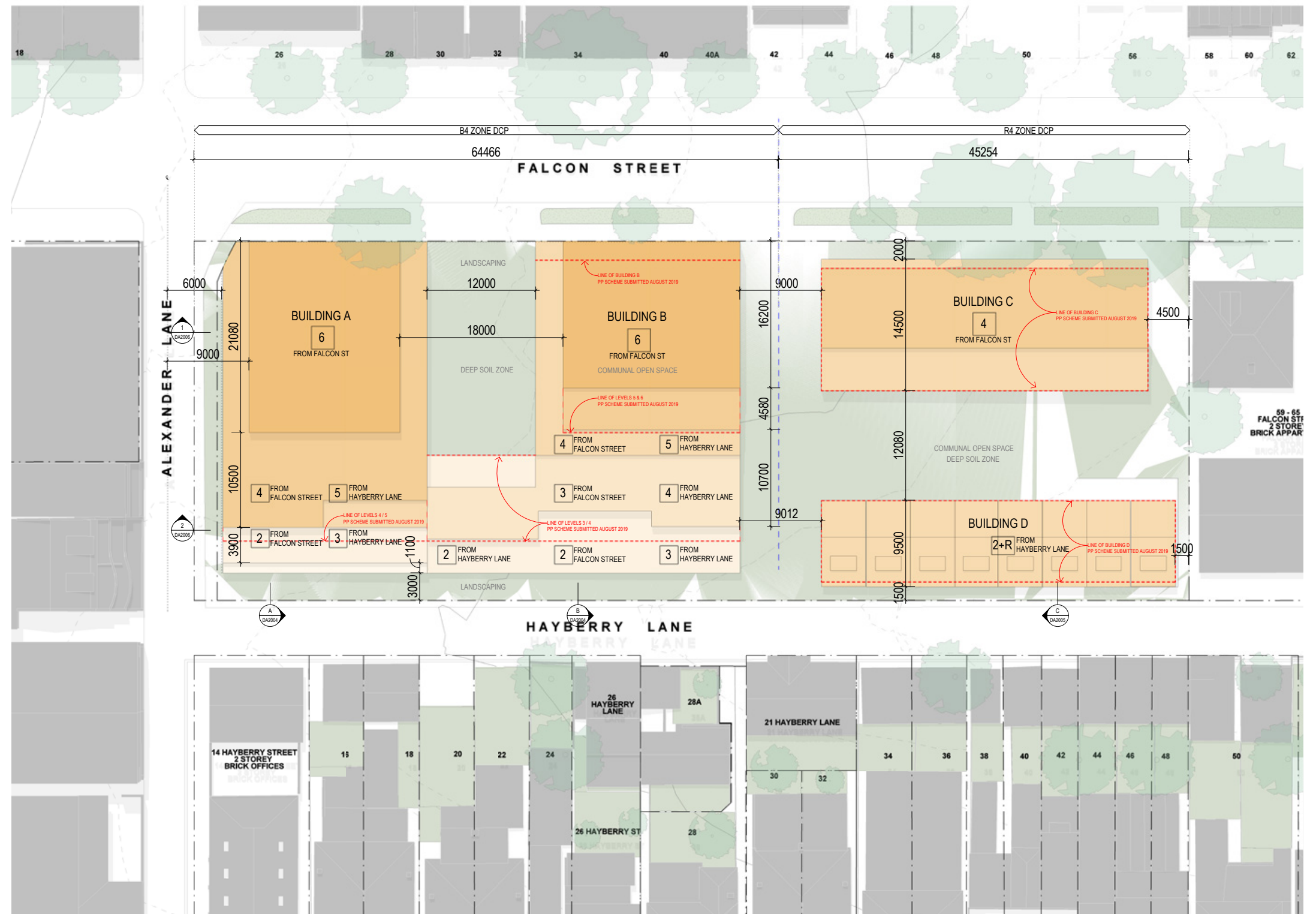
Establish internal courtyard space and articulation zone to provide:

- Optimal internal solar access to the development
- Internal setbacks between buildings relative to height
- Articulation of buildings along the street wall

3.4 DESIGN PROPOSAL

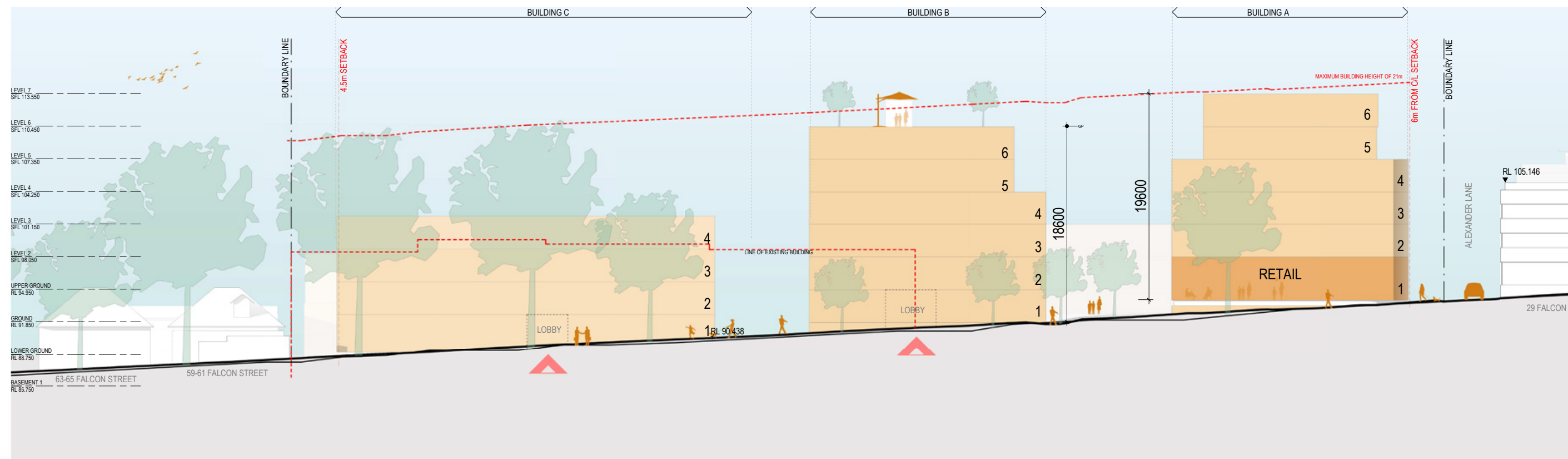
The following pages describe the resulting design proposal. This is shown here as a building envelope, in order to establish base controls used as the basis of the main Planning Proposal document.

Appendix 2 provides a Reference Design, identifying how the envelope could be distributed into particular building uses. The Reference Design shows that the proposed controls can produce an outcome that complies with SEPP65 and the ADG.

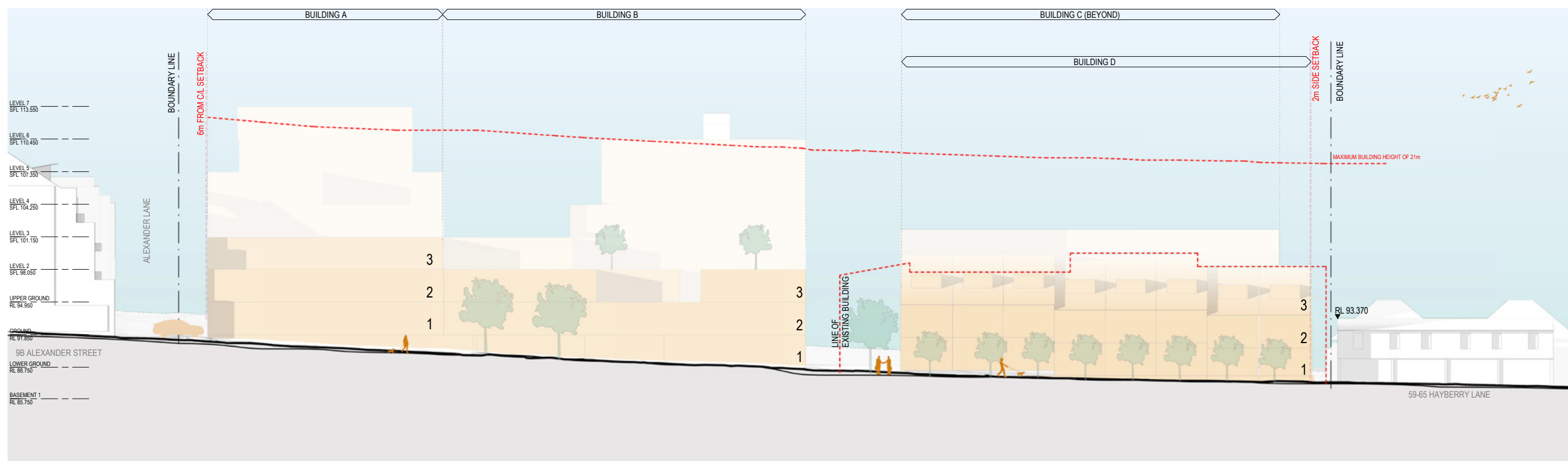


Site Plan
1:500 @ A3

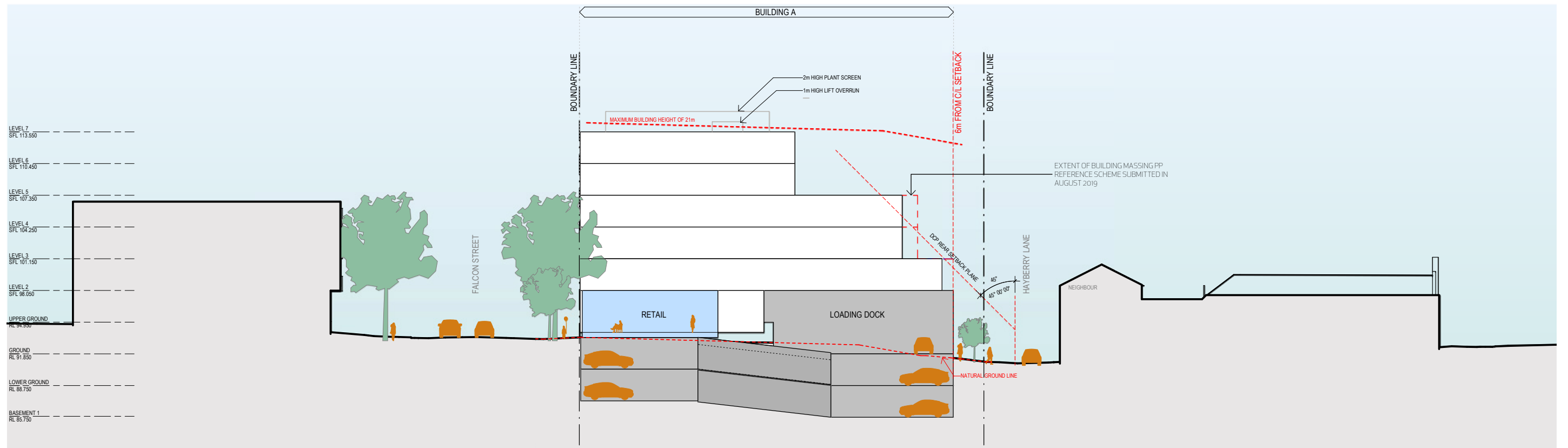




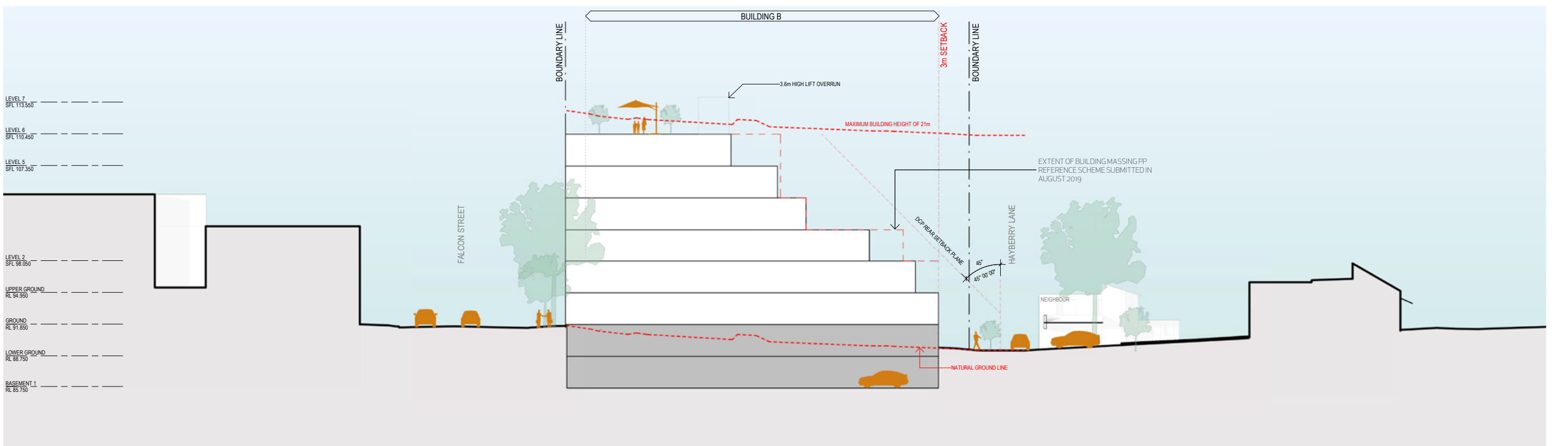
North Elevation - Falcon Street
1:400 @ A3



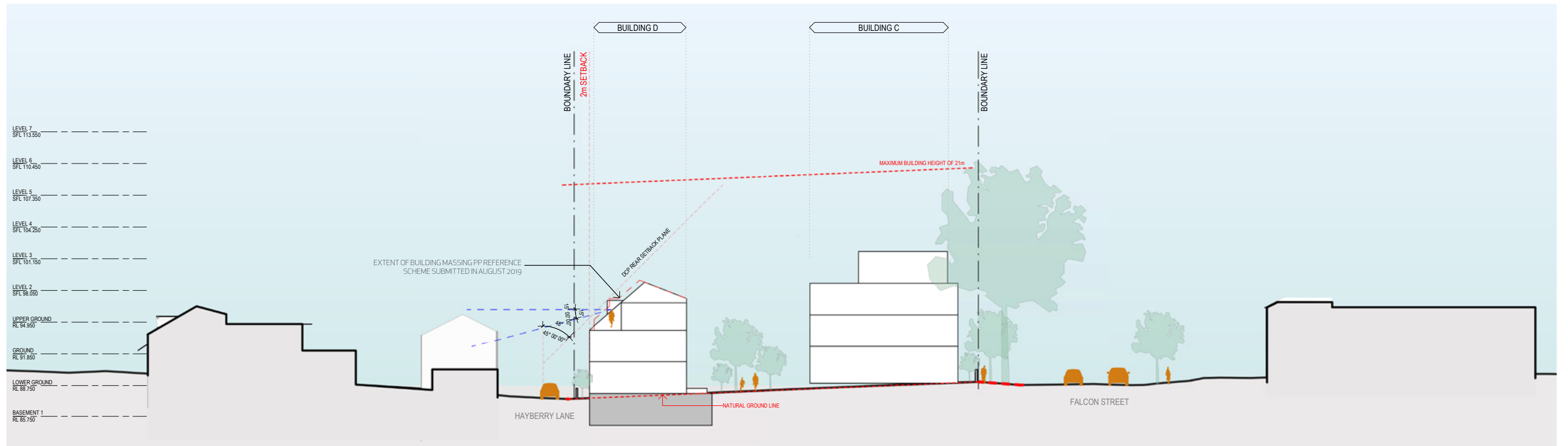
South Elevation - Hayberry Lane
1:400 @ A3



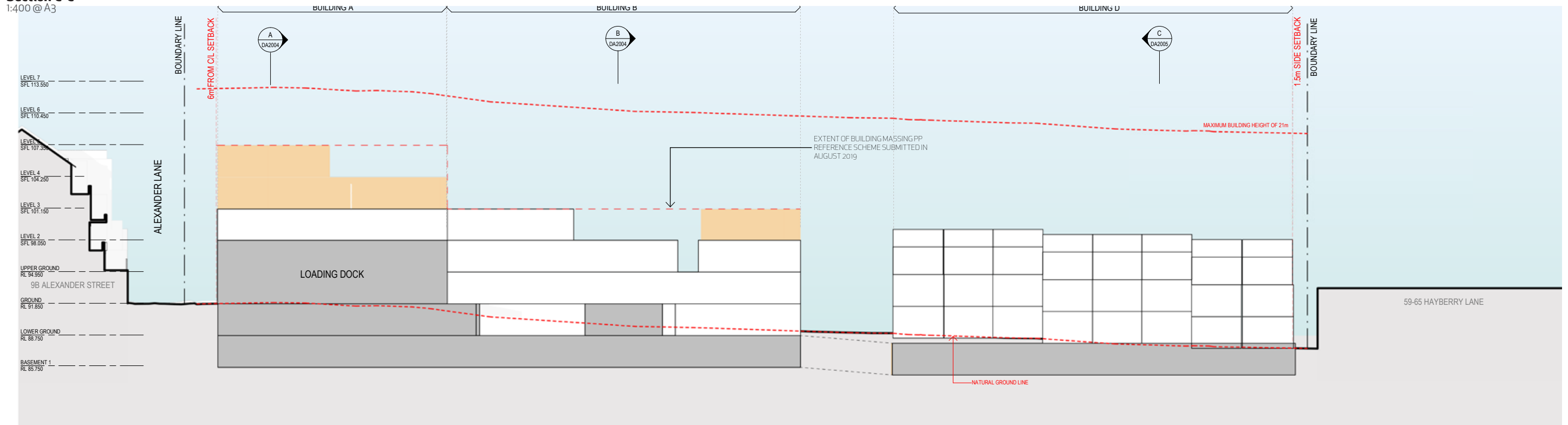
Section A-A
1:400 @ A3



Section B-B
1:400 @ A3



Section C-C 1:400 @ A3



Long Section 1:400 @ A3

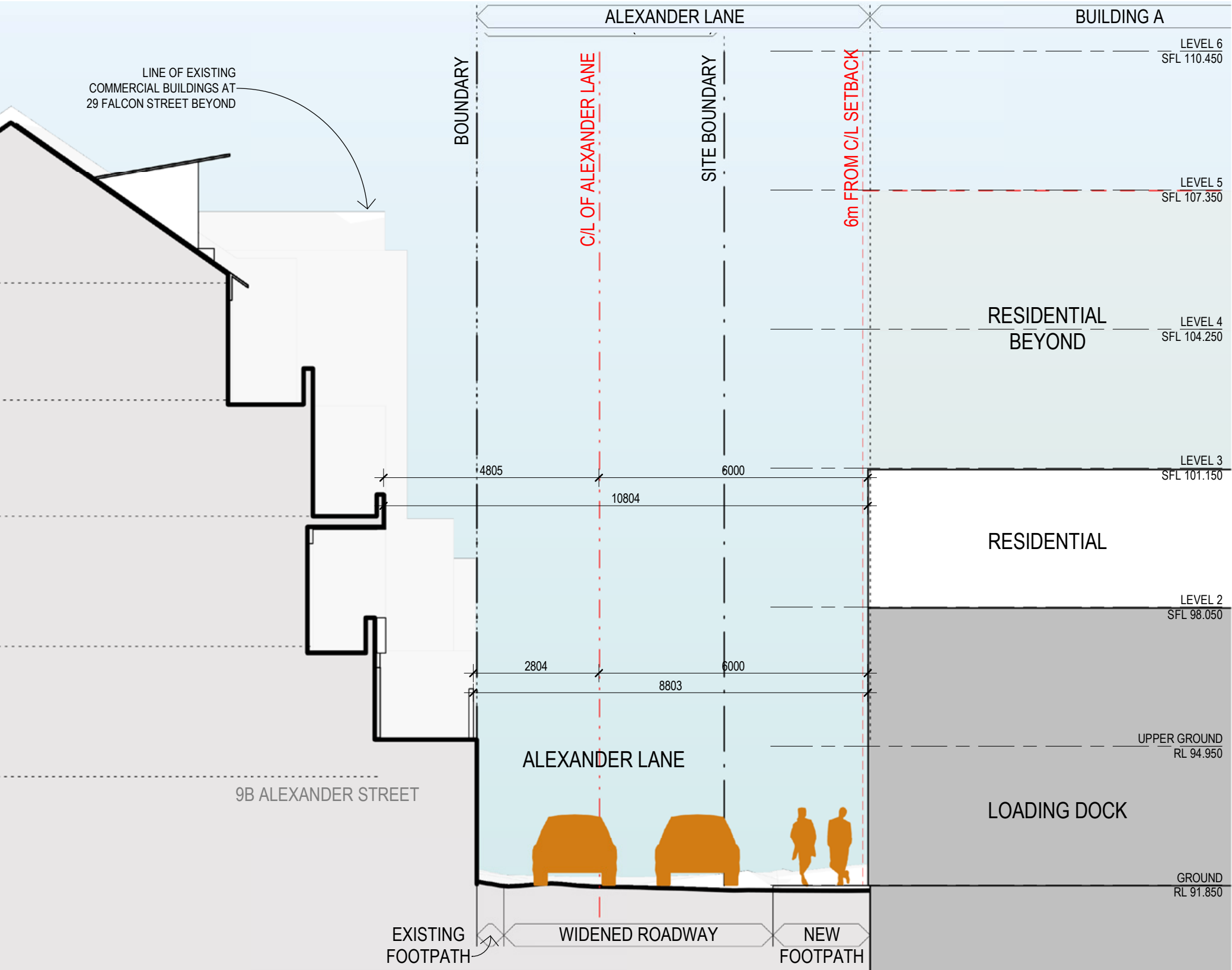
ALEXANDER LANE SECTION

As part of the indicative design, we have proposed increasing the width of Alexander Lane to allow two-way traffic and add a wider footpath to the eastern side of the lane to facilitate safe pedestrian access to and from the Crows Nest Centre.

The setback to the western face of Block A is therefore increased to 6m from the centreline of Alexander Lane, which is an equal share of the required ADG setback of 12m between habitable rooms up to 4 storeys.

The Residential Flat Building at 9 Alexander Street appears to have been built before SEPP65 came in to effect and is in part built to the street boundary on Alexander Lane.

The neighbouring zone is similar in density to the subject site so additional setbacks across zone boundaries do not apply



4.0

PROPOSED PLANNING
CONTROLS

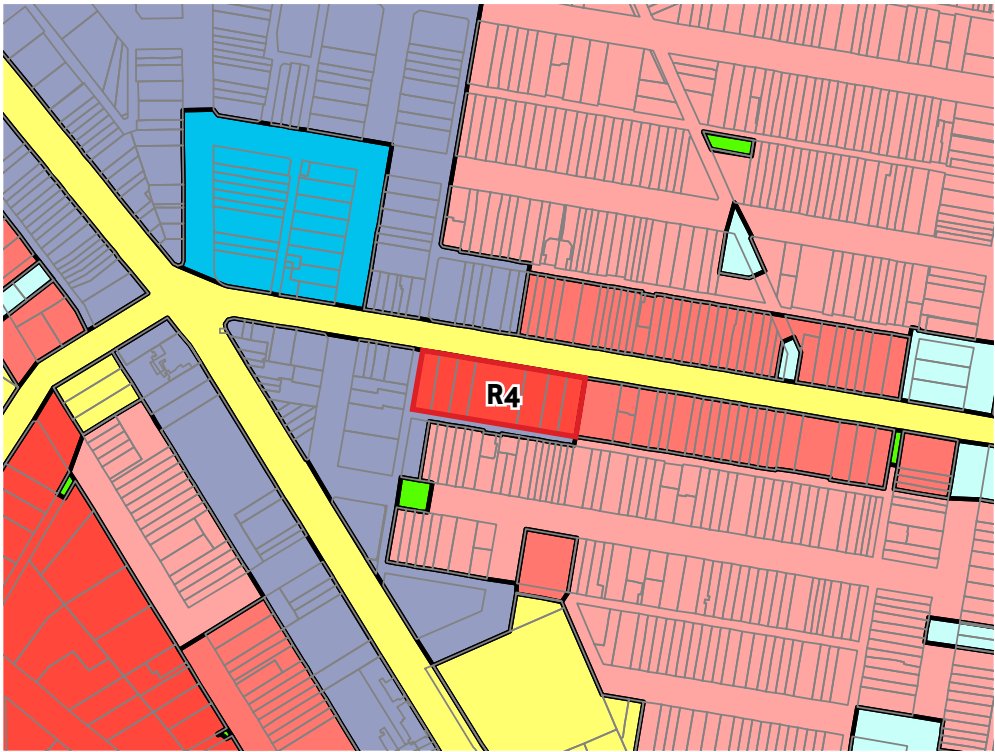
4.1 PROPOSED PLANNING CONTROLS

In order to support the building envelope described in the previous section, the following changes to the North Sydney LEP are proposed:

- Land zoning: change from B4 (Mixed Use) to R4 (High Density Residential).*
- Height of Building: 21m (R) HOB to the west and 14.5m (N2) HOB, increased from the existing site-wide 10m.
- FSR: Include FSR control of 1.85:1
- Minimum Non-Residential FSR: remove control.

*To allow for the proposed retail premises the zoning framework should include retail land uses as permitted development.

Note: detailed controls for future building envelopes, including building height limits measured in storeys, are provided in the draft Site-Specific DCP, prepared by EthosUrban and provided as a separate appendix.



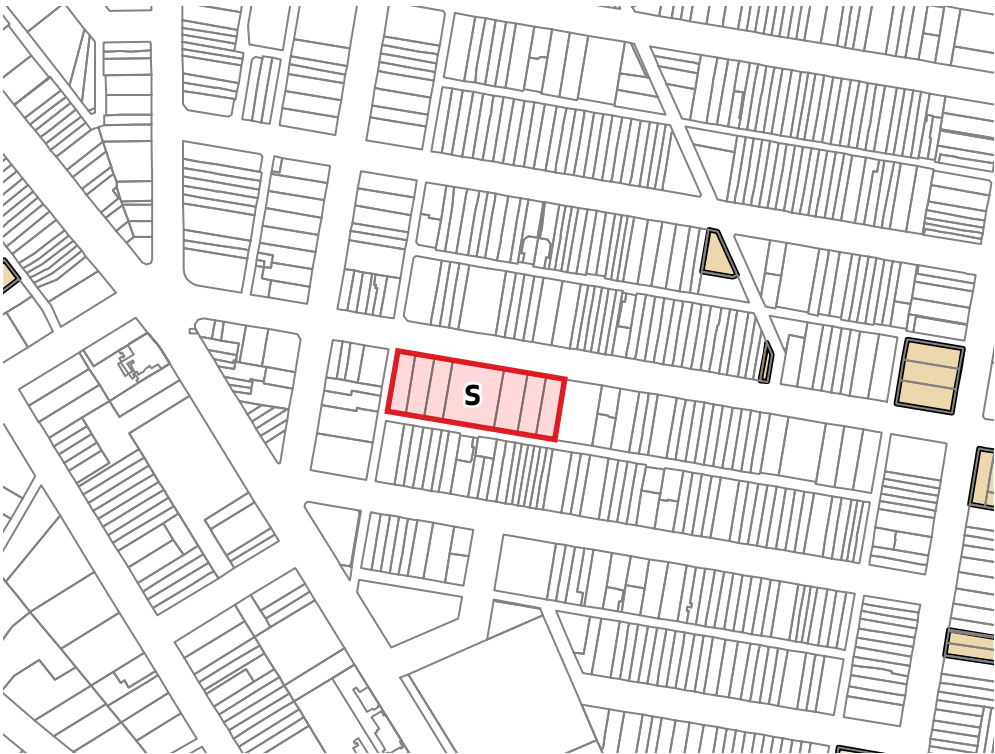
LAND ZONING, PROPOSED



HEIGHT OF BUILDING, PROPOSED

KEY

| | | |
|---|---------------|-----------|
| LAND ZONING | | |
| B1 | B3 | B4 |
| R2 | R3 | R4 |
| RE1 | SP2 | |
| HEIGHT OF BUILDINGS (m) | | |
| I 8.5 | K 10 | M 12 |
| N2 14.5 | O2 16 | Q1 20 |
| R 21 | | |
| FLOOR SPACE RATIO (FSR) | | |
| N 1 | S 1.85 | |
| MINIMUM NON-RESIDENTIAL FLOOR SPACE RATIO (FSR) | | |
| A 0.24 | D 0.50 | - |



FSR, PROPOSED

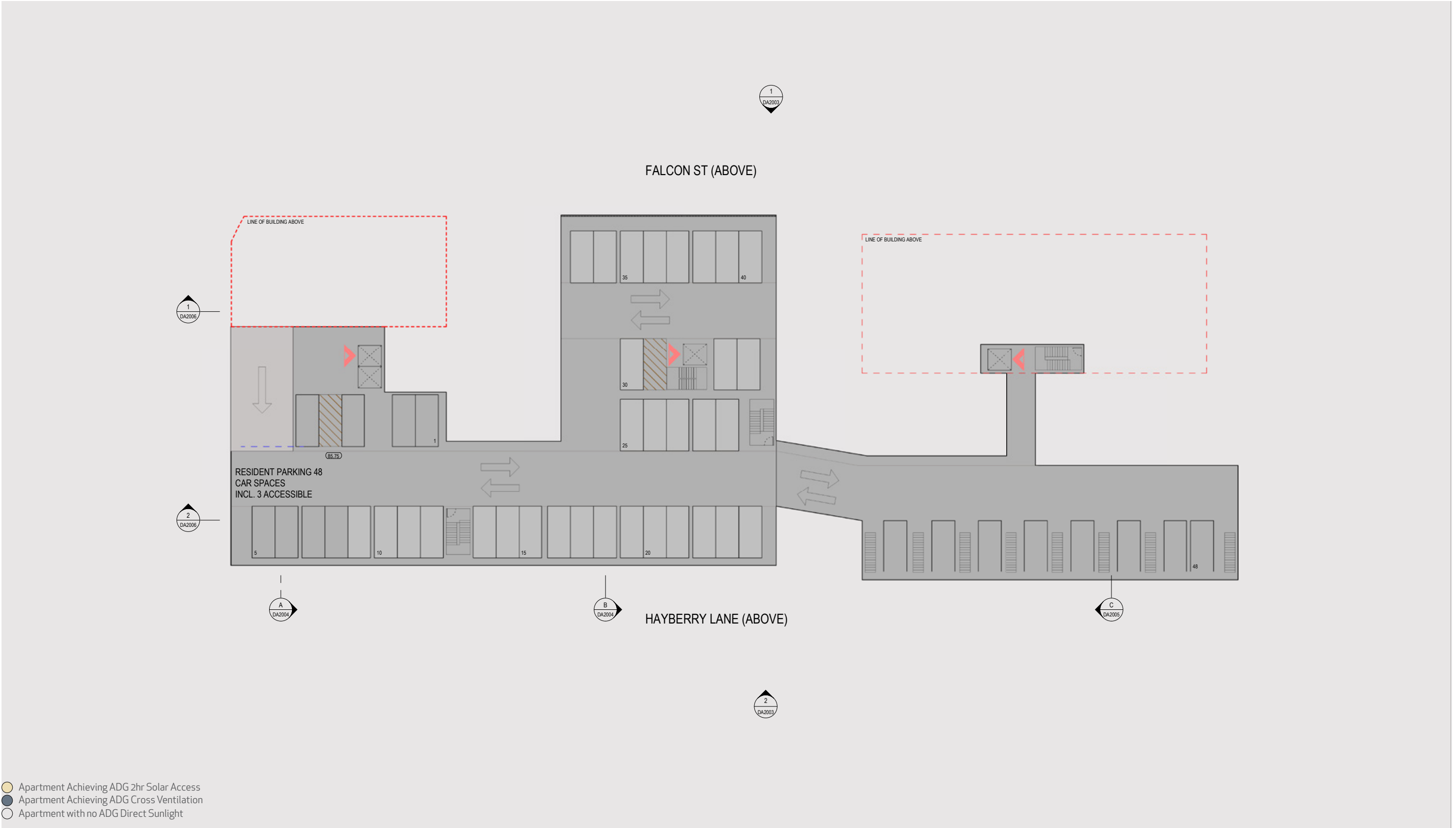


MINIMUM NON-RESIDENTIAL FSR, PROPOSED

5.0

APPENDIX ONE: REFERENCE DESIGN

5.1 BASEMENT PLAN



5.2 LOWER GROUND PLAN



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

KEY:

RETAIL

STUDIO
1 BED

2 BED
3 BED



**59-65 FALCON STREET
2 STOREY
BRICK APARTMENT**

FALCON STREET

ALEXANDER LANE

HAYBERRY LANE

26 HAYBERRY LANE

21 HAYBERRY LANE

28A

2 DA2003

1 DA2005

2 DA2006

A DA2004

B DA2005

C DA2006

RETAIL PARKING
4 CAR SPACES
INCL. 1 ACCESSIBLE
VISITOR PARKING
5 SPACES

LANDSCAPING

DEEP SOIL PLANTING

LOADING DOCK

**RESIDENTIAL AND
COMMERCIAL CARPARK ENTRY**

0 BED (STUDIO)
62 m²

0 BED (STUDIO)
46 m²

1 BED
58 m²

3 BED
92 m²

3 BED
45 m²

2 BED
90 m²

3 BED
94 m²

1 BED
72 m²

2 BED
71 m²

0 BED (STUDIO)
44 m²

0 BED (STUDIO)
45 m²

2 BED
81 m²

1 BED
58 m²

1 BED
58 m²

2 BED
81 m²

10 m²

8 m²

8 m²

10 m²

5 m²

42 m²

32 m²

32 m²

32 m²

32 m²

32 m²

32 m²

42 m²

13 m²

20 m²

4 m²

4 m²

8 m²

12 m²

15 m²

5 m²

11 m²

91.300

92.499

92.004

91.85

91.80

91.75

1 DA2003

2 DA2003

1 DA2005

2 DA2006

A DA2004

B DA2005

C DA2006

26

28

30

32

34

40

40A

42

44

46

48

50

56

58

60

62

64

- 

5.4 UPPER GROUND PLAN



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

KEY:

RETAIL

STUDIO
1 BED

2 BED
3 BED



5.5 LEVEL2 TYPICAL PLAN



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

KEY:

RETAIL

STUDIO
1 BED

2 BED
3 BED



5.6 LEVEL3 TYPICAL PLAN



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

KEY:

RETAIL

STUDIO
1 BED

2 BED
3 BED



5.7 LEVEL 4 TYPICAL PLAN



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

KEY:

RETAIL

STUDIO

1BED

2 BED

3 BED

5.8 LEVEL 5 TYPICAL PLAN



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

KEY:

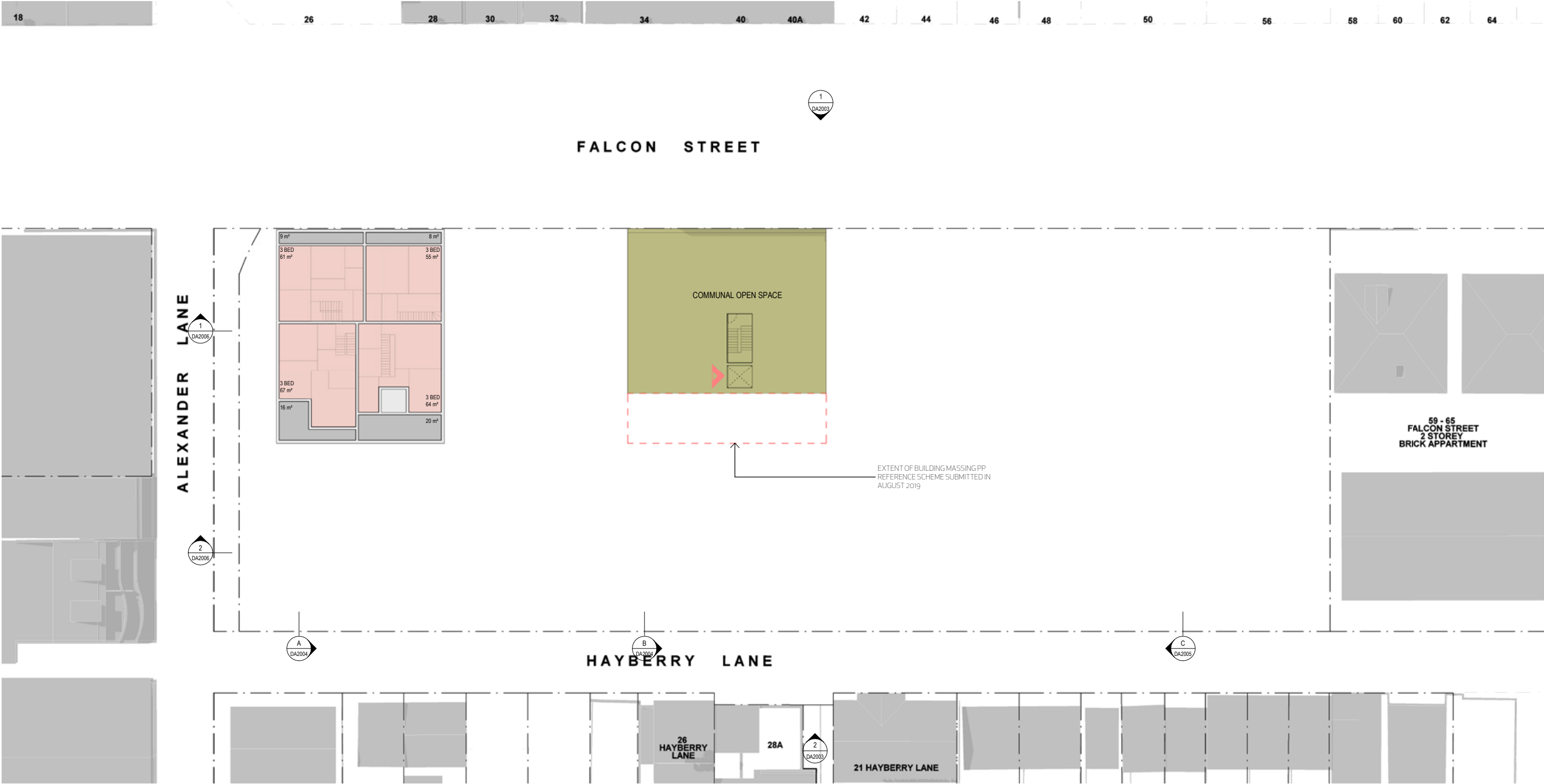
RETAIL

STUDIO
1 BED

2 BED
3 BED



5.9 LEVEL 6 TYPICAL PLAN



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

KEY:

RETAIL

STUDIO

1 BED

2 BED

3 BED



5.10 CONCEPTUAL RENDERS

Note: rendered views are indicative only, provided to indicate future neighbourhood character.



Falcon St, Facing East

Note: rendered views are indicative only, provided to indicate future neighbourhood character.



Falcon Street, Facing West

Note: rendered views are indicative only, provided to indicate future neighbourhood character.



Alexander Lane, Facing North

Note: rendered views are indicative only, provided to indicate future neighbourhood character.



Hayberry Lane, Facing East

5.11 SCHEDULES

5.11.1 AREA SCHEDULE (INDICATIVE, BASIS OF REFERENCE SCHEME ONLY)

Residential Areas

| Site-Building | Storeys | NSA | GFA | GBA | NSA/GFA |
|---------------|---------|-------|-------|--------|---------|
| A | 6 | 2,023 | 2,190 | 3,059 | 92% |
| B | 7 | 2,727 | 3,084 | 4,309 | 88% |
| C | 4 | 1,171 | 1,399 | 1,834 | 84% |
| D | 3 | 810 | 903 | 1,112 | 90% |
| | | 6,731 | 7,576 | 10,314 | |

Non Residential Areas

| Building | Use | NSA | GFA | NSA/GFA |
|----------|--------|-----|-----|---------|
| A | Retail | 319 | 340 | 94% |
| Total | | 319 | 340 | |

5.11.2 APARTMENT MIX

Residential numbers and mix

| Building | Unit Type | Studio | 1B | 1B+Study | 2B_1Bth | 2B_2Bth | 3B | Total |
|----------|-------------|--------|-----|----------|---------|---------|-----|-------|
| | Mix | 12% | 11% | 9% | 14% | 39% | 15% | 100% |
| | Average NSA | 40 | 50 | 58 | 75 | 85 | 95 | 74 |
| A | | 3 | 0 | 4 | 4 | 10 | 4 | 25 |
| B | | 3 | 6 | 4 | 4 | 15 | 4 | 36 |
| C | | 4 | 3 | 0 | 4 | 0 | 5 | 16 |
| D | | 0 | 0 | 0 | 0 | 8 | 0 | 8 |
| | | 10 | 9 | 8 | 12 | 33 | 13 | 85 |

5.11.3 ADG COMPLIANCE TABLE

| NSA Requirements | Bedroom 1 | | | Bedroom 2 | | | Bedroom 3 | | | Bedroom 4 | | |
|-------------------------|-----------|-----|-----|-----------|-----|-----|-----------|-----|-----|-----------|-----|-----|
| | Min | Max | Min | Max | Min | Max | Min | Max | Min | Max | Min | Max |
| Bedroom 1 | | | | | | | | | | | | |
| Bedroom 2 | | | | 0 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 1 |
| Bedroom 3 | | | | 7 | 8 | 0 | 1 | 0 | 0 | 1 | | |
| Bedroom 4 | | | | 7 | 8 | 0 | 1 | 0 | 0 | 1 | | |
| 1 | 7 | 4 | 1 | 0 | 0 | 0 | 1 | | | | | |
| 2 | 7 | 4 | 0 | 4 | 1 | 0 | 0 | | | | | |
| 3 | 7 | 4 | 0 | 4 | 1 | 0 | 0 | | | | | |
| 4 | 4 | 4 | 0 | 3 | 0 | 0 | 0 | | | | | |
| 5 | | | | | | | | | | | | |
| 6 | | | | | | | | | | | | |
| Compliance requirements | 20 | 36 | 1 | 10 | 36 | 0 | 4 | 10 | 10 | 3 | 7 | 0 |
| Total requirements | 20 | 36 | 1 | 10 | 36 | 0 | 4 | 10 | 10 | 3 | 7 | 0 |
| % | 92% | 64% | 4% | 92% | 73% | 0% | 11% | 81% | 81% | 12% | 88% | 0% |

Unimplemented for lower ground floor

Definitions

GBA for the purpose of these calculations is measured to the outside face of all external walls and includes lift and service shafts and external areas such as balconies and courtyards.

GFA The sum of the floor area of each storey of a building measured from the internal face of external walls, or from the internal face of walls separating the building from any other building, measured at a height of 1.4 metres above the floor, and includes: the area of a mezzanine within the storey, and habitable rooms in a basement, and any shop, auditorium, cinema, and the like, in a basement or attic but excludes: any area for common vertical circulation, such as lifts and stairs, and any basement: storage, vehicular access, loading areas, garbage and services, and plant rooms, lift towers and other areas used exclusively for mechanical services or ducting, and car parking to meet any requirements of the consent authority (including access to that car parking), any space used for the loading or unloading of goods (including access to it),and terraces and balconies with outer walls less than 1.4 metres high, and voids above a floor at the level of a storey or storey above.

NSA The sum of all fully enclosed covered areas within an apartment or commercial type building, measured from the internal finished surfaces of permanent bounding walls including the area occupied by structural columns and engaged perimeter columns

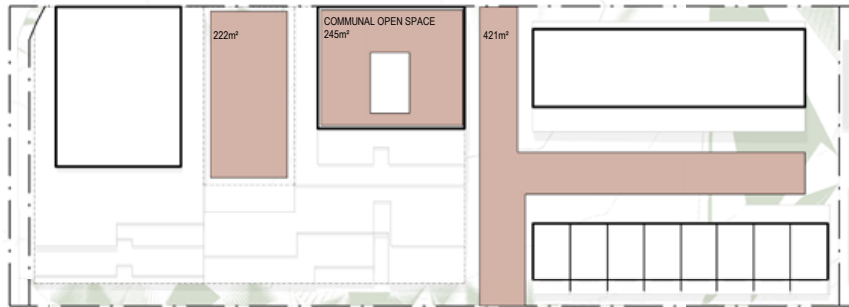
5.11.4 ADG COMPLIANCE - DEEP SOIL



PP - ADG DEEP SOIL

| | | TOTAL |
|-------------------------------|-------|--------|
| DEEP SOIL >6m | 920m² | 21% |
| DEEP SOIL >3m | 247m² | 5.7% |
| DEEP SOIL <3m | 168m² | 3.9% |
| | | 4342m² |
| % of 4342m² SITE AREA > 6m | | 21% |

5.11.5 ADG COMPLIANCE - COMMON OPEN SPACE



PP - ADG DEEP SOIL

| | | TOTAL |
|-------------------------------|-------|-------|
| COMMON OPEN SPACE - ON GROUND | 643m² | |
| COMMON OPEN SPACE - ROOFTOP | 245m² | |
| | | 888m² |
| % of 4342m² SITE AREA | | 20.5% |

6.0

APPENDIX TWO: SOLAR ANALYSIS

6.1 SOLAR ANALYSIS METHODOLOGY

SUN EYE VIEWS

The following analysis indicates the view from the sun between the hours of 9am to 3pm on June 21 (Mid-Winter) and March 21 (Equinox). The Sun eye views indicate both the existing conditions and the proposed development.

Shadow diagrams indicate the existing and proposed conditions between the hours of 9am to 3pm, June 21 and March 21.

The study indicates that the proposed development reduces the shadowing impact at the eastern end of the site to the neighbouring properties on Hayberry Street and Hayberry Lane – due to reduced mass and additional setbacks to Hayberry Lane.

METHODOLOGY

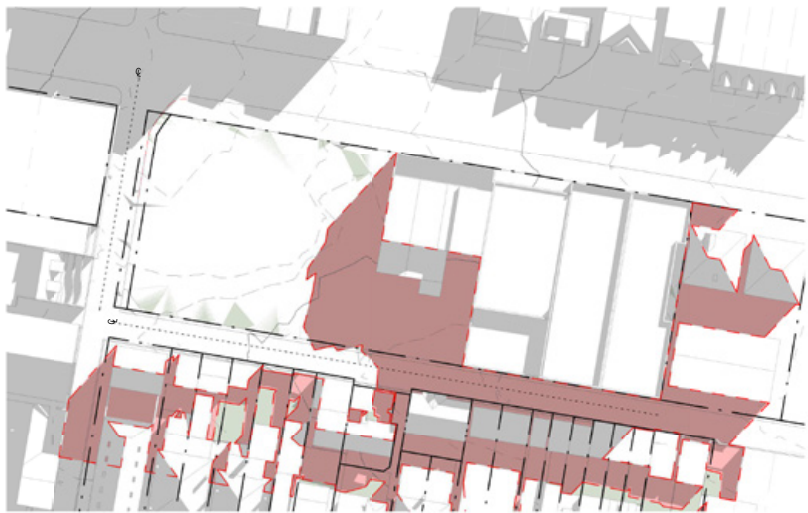
Maintaining solar access to the private open spaces of the dwellings located on Hayberry Street and Hayberry Lane were the main drivers in the sculpting of building massing in the design proposal.

Based on the advice of the urban planner on this project, Ethos Urban, the building massing was designed so that each of the impacted single residential dwellings still maintain a minimum 4m² of area receiving 3-hours of sunlight in mid-Winter.

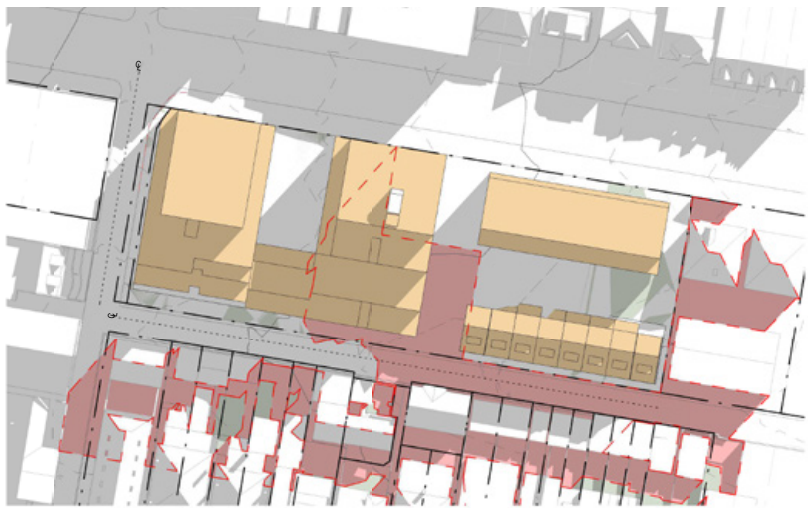
Using parametric modelling in Rhino and Grasshopper, each private open space was analysed in existing conditions and after the proposed development. Sun Eye views have been analysed to demonstrate the impacts – both positive and negative on surrounding buildings and private open space. The views show the proposed development in context every 1 hour between 9am and 3pm on the winter solstice (June 21) and every 3 hours on the March Equinox (March 21).

Impacts on single detached dwellings located on Hayberry Lane and Hayberry St and the apartment building on Alexander lane have been assessed. The solar analysis studies do not include the impacts of existing trees.

6.2 WINTER SOLSTICE 9.00AM



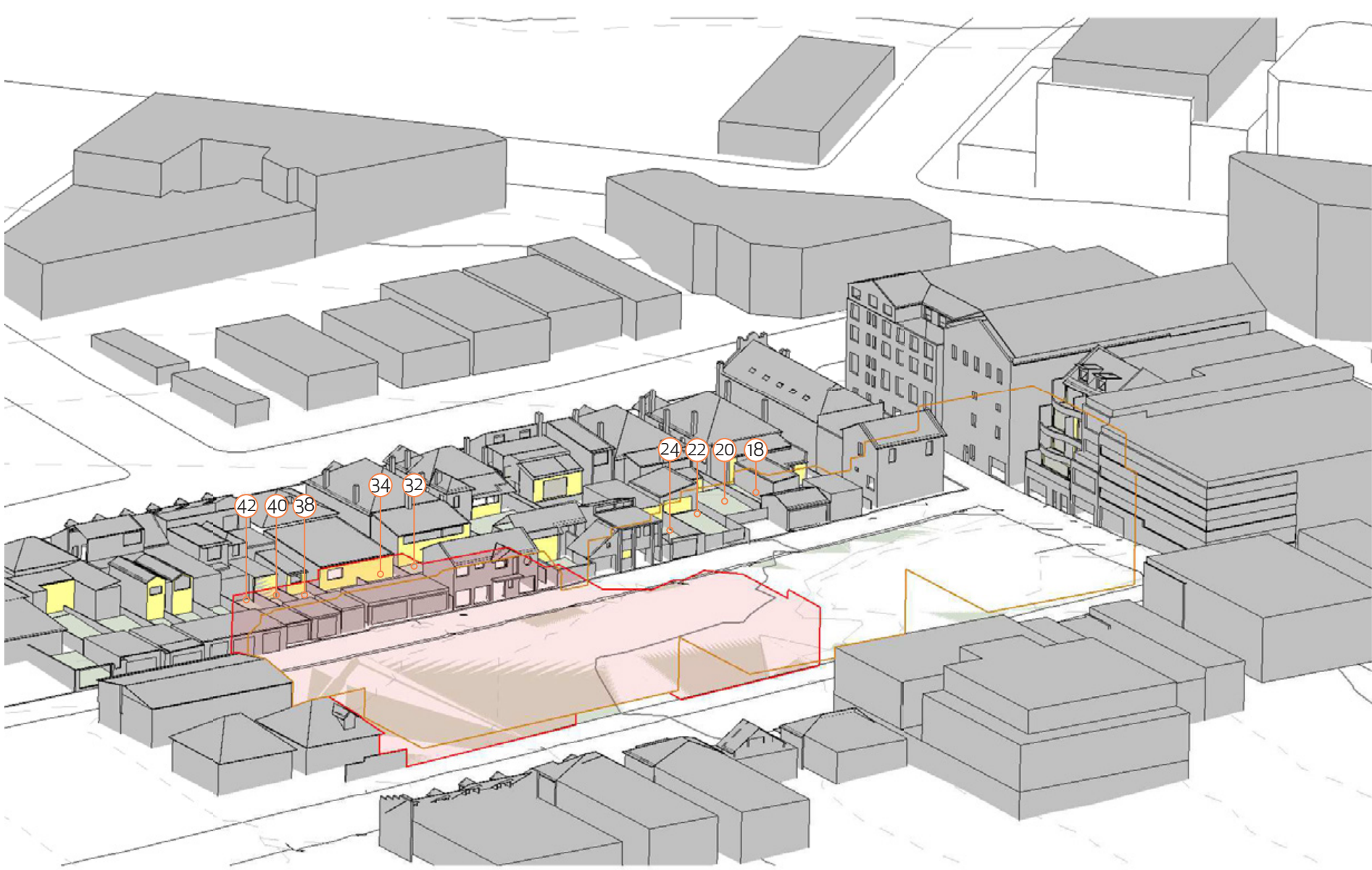
June 21 - Existing Shadows



June 21 - Proposed Shadows

KEY:

- PROPOSED ENVELOPE
- EXISTING SHADOW



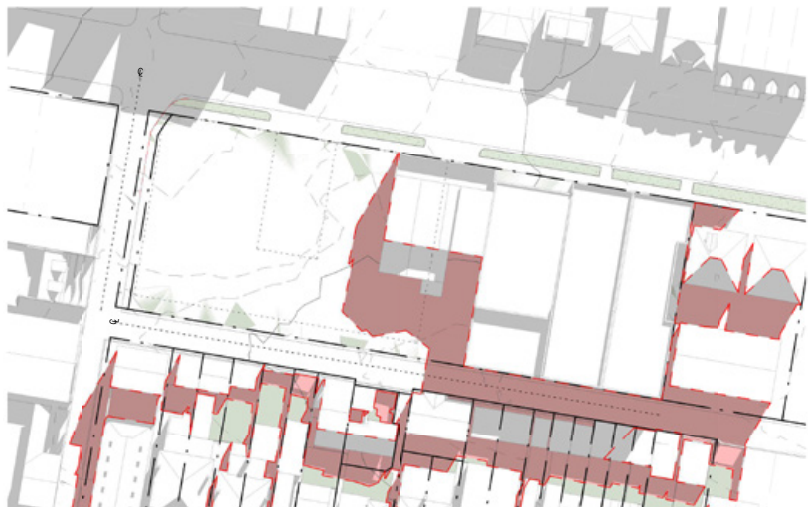
June 21 - Sun Eye View

- PROPOSED DEVELOPMENT OUTLINE
- EXISTING BUILDING OUTLINE

- NEIGHBOURING PRIVATE OPEN SPACE
- EXISTING SHADOW

- LIVING ROOMS IN NEIGHBOURING DWELLINGS IN ACCORDANCE WITH NS DCP SOLAR ACCESS REQUIREMENTS

6.3 WINTER SOLSTICE 10.00AM



June 21 - Existing Shadows



June 21 - Proposed Shadows

KEY:

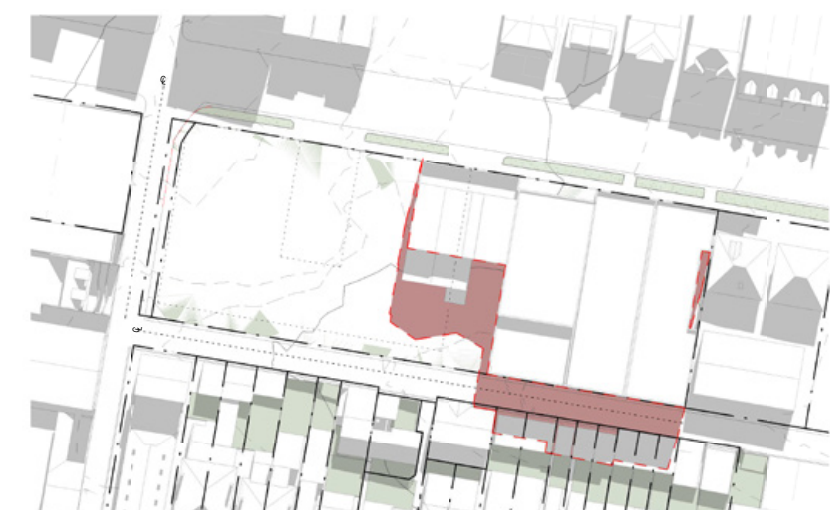
- PROPOSED ENVELOPE
- EXISTING SHADOW



June 21 - Sun Eye View

- PROPOSED DEVELOPMENT OUTLINE
- EXISTING BUILDING OUTLINE
- NEIGHBOURING PRIVATE OPEN SPACE
- EXISTING SHADOW
- LIVING ROOMS IN NEIGHBOURING DWELLINGS IN ACCORDANCE WITH NS DCP SOLAR ACCESS REQUIREMENTS

6.4 WINTER SOLSTICE 11.00AM



June 21 - Existing Shadows



June 21 - Proposed Shadows



June 21 - Sun Eye View

KEY:

- PROPOSED ENVELOPE
- EXISTING SHADOW

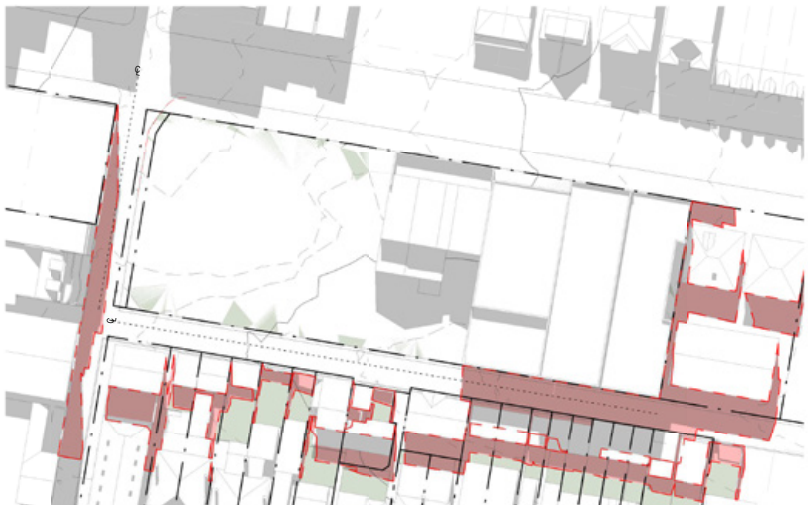


- PROPOSED DEVELOPMENT OUTLINE
- EXISTING BUILDING OUTLINE

- NEIGHBOURING PRIVATE OPEN SPACE
- EXISTING SHADOW

- LIVING ROOMS IN NEIGHBOURING DWELLINGS IN ACCORDANCE WITH NS DCP SOLAR ACCESS REQUIREMENTS

6.5 WINTER SOLSTICE 12.00PM



June 21 - Existing Shadows



June 21 - Proposed Shadows



June - Sun Eye View

KEY:

- PROPOSED ENVELOPE
- EXISTING SHADOW

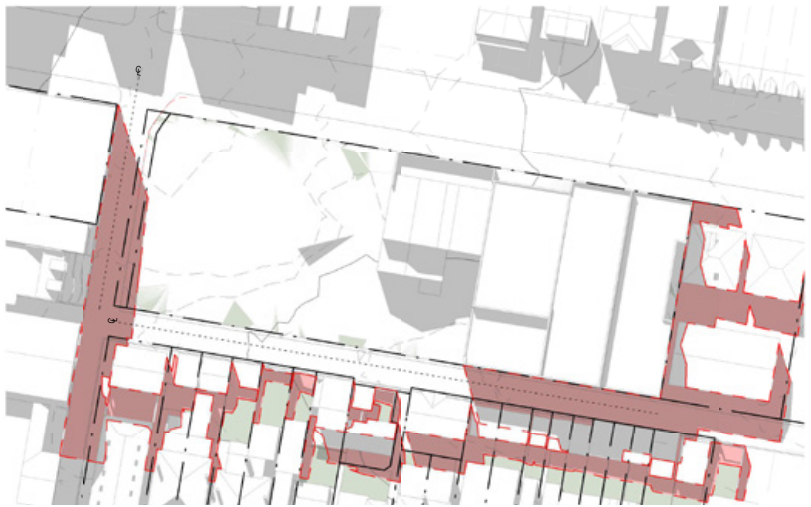


- PROPOSED DEVELOPMENT OUTLINE
- EXISTING BUILDING OUTLINE

- NEIGHBOURING PRIVATE OPEN SPACE
- EXISTING SHADOW

- LIVING ROOMS IN NEIGHBOURING DWELLINGS IN ACCORDANCE WITH NS DCP SOLAR ACCESS REQUIREMENTS

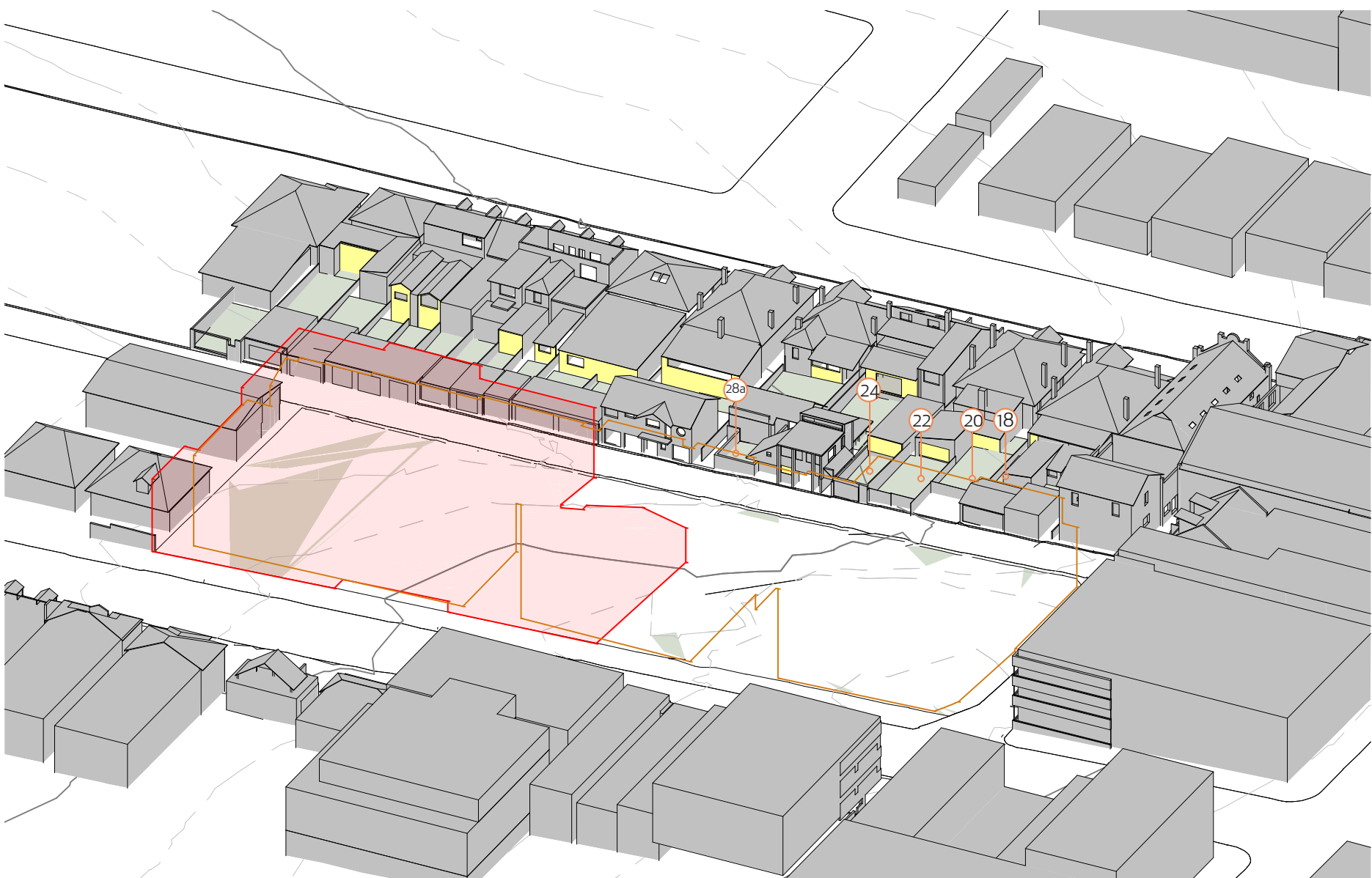
6.6 WINTER SOLSTICE 1.00PM



June 21 - Existing Shadows



June 21 - Proposed Shadows



June 21 - SunEye View

KEY:

- PROPOSED ENVELOPE
- EXISTING SHADOW

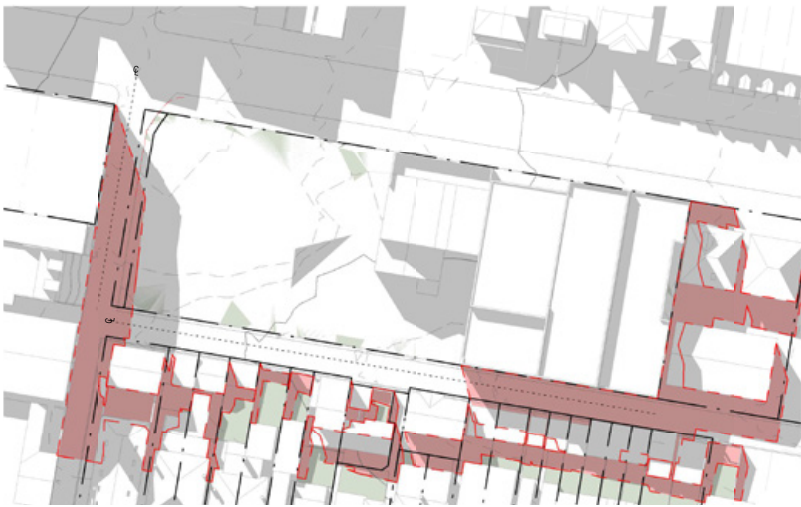


- PROPOSED DEVELOPMENT OUTLINE
- EXISTING BUILDING OUTLINE

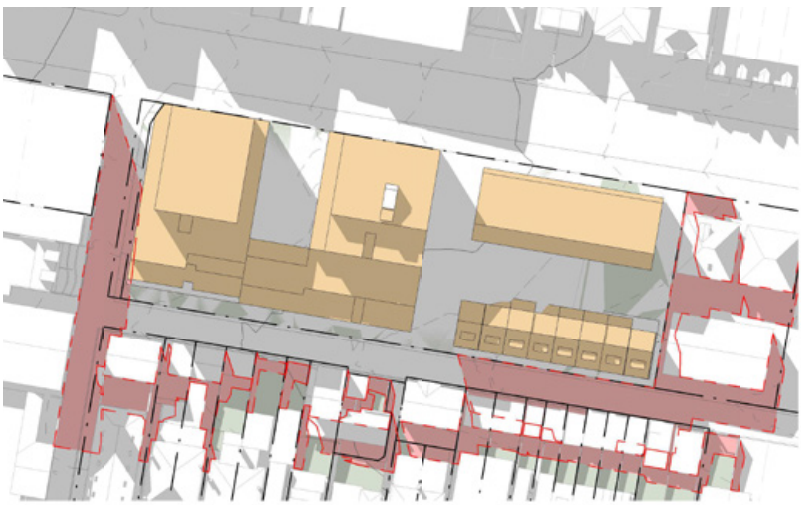
- NEIGHBOURING PRIVATE OPEN SPACE
- EXISTING SHADOW

- LIVING ROOMS IN NEIGHBOURING DWELLINGS IN ACCORDANCE WITH NS DCP SOLAR ACCESS REQUIREMENTS

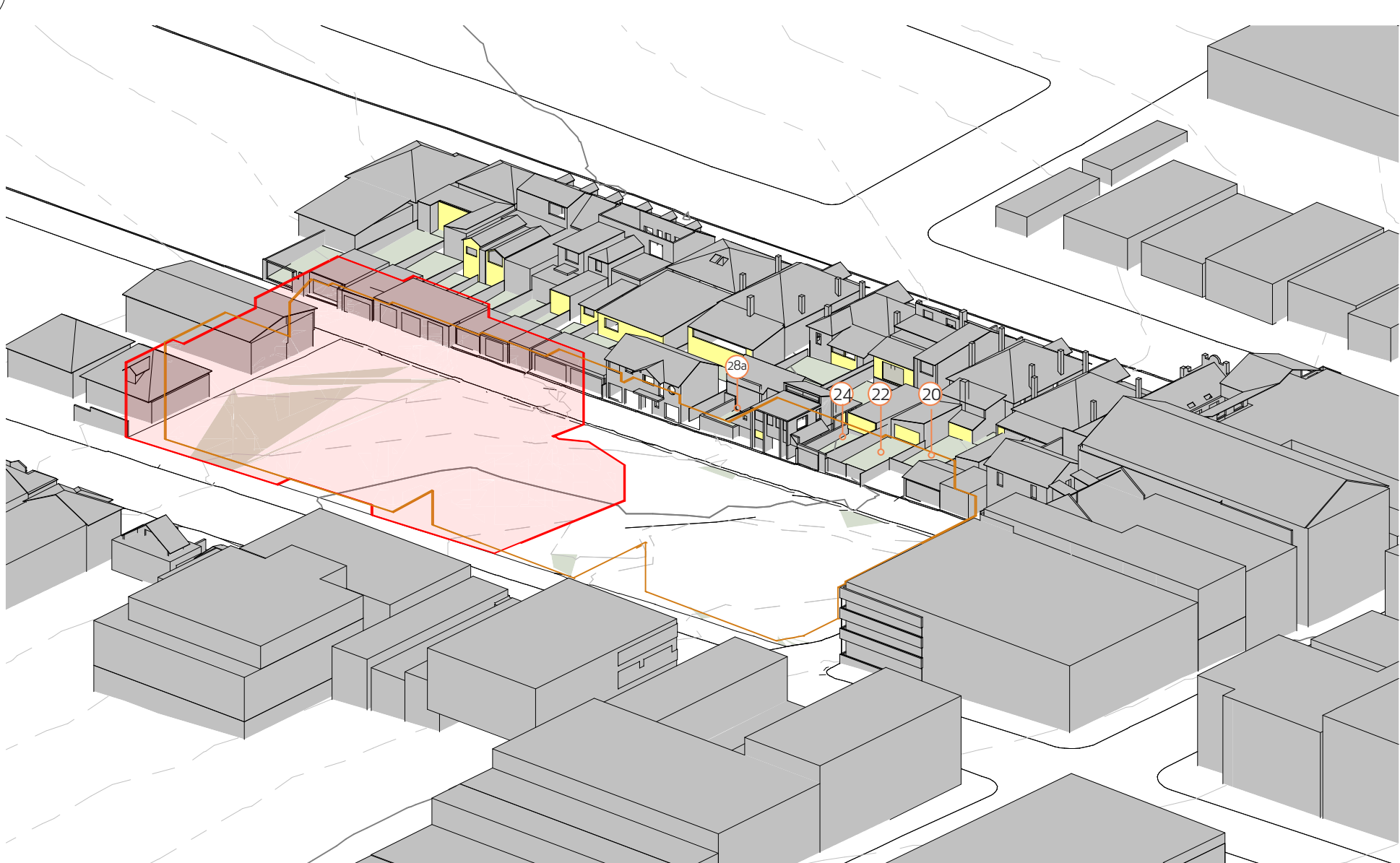
6.7 WINTER SOLSTICE 2.00PM



June 21 - Existing Shadows



June 21 - Proposed Shadows



June 21 - Sun Eye View

KEY:

- PROPOSED ENVELOPE
- EXISTING SHADOW

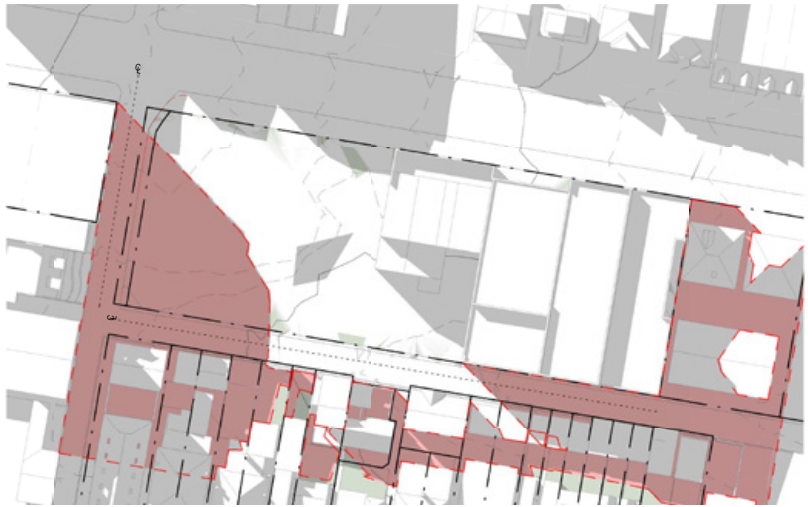


- PROPOSED DEVELOPMENT OUTLINE
- EXISTING BUILDING OUTLINE

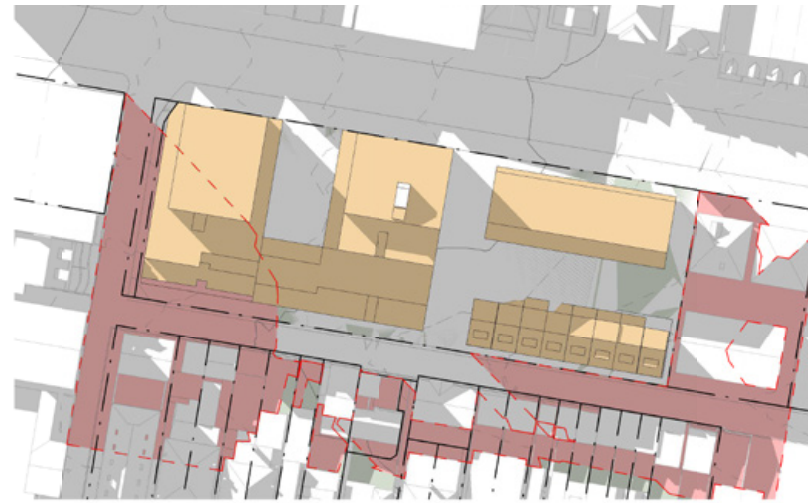
- NEIGHBOURING PRIVATE OPEN SPACE
- EXISTING SHADOW

- LIVING ROOMS IN NEIGHBOURING DWELLINGS IN ACCORDANCE WITH NS DCP SOLAR ACCESS REQUIREMENTS

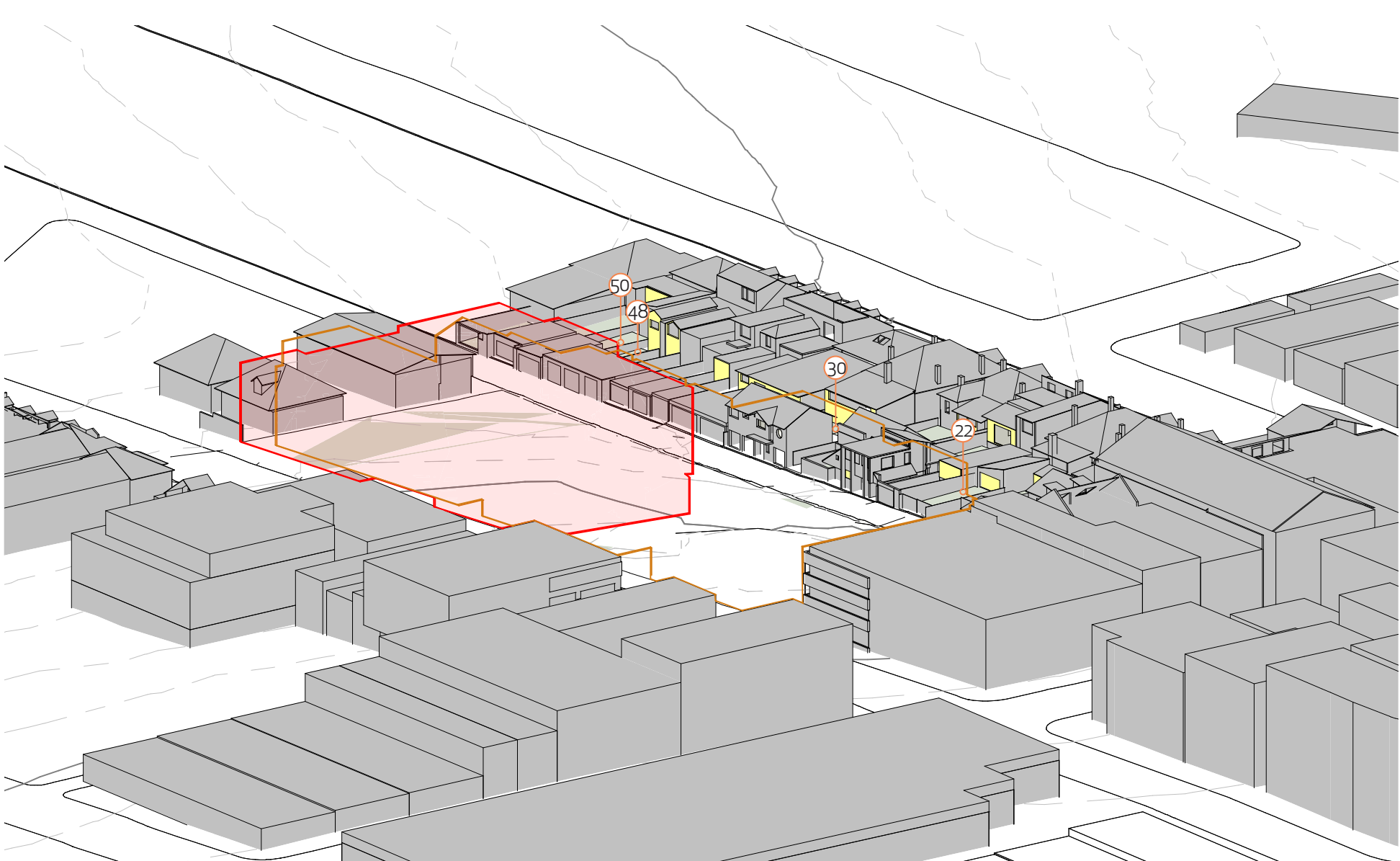
6.8 WINTER SOLSTICE 3.00PM



June 21 - Existing Shadows



June 21 - Proposed Shadows



June 21 - Sun Eye View

KEY:

- PROPOSED ENVELOPE
- EXISTING SHADOW

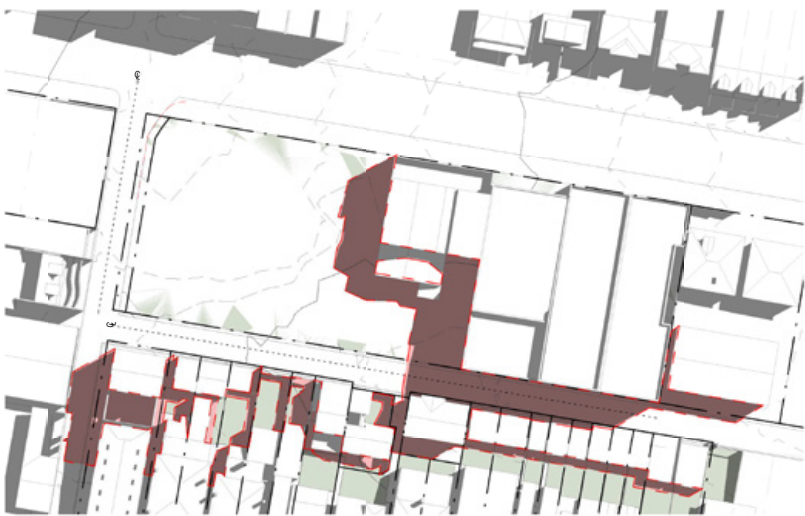


- PROPOSED DEVELOPMENT OUTLINE
- EXISTING BUILDING OUTLINE

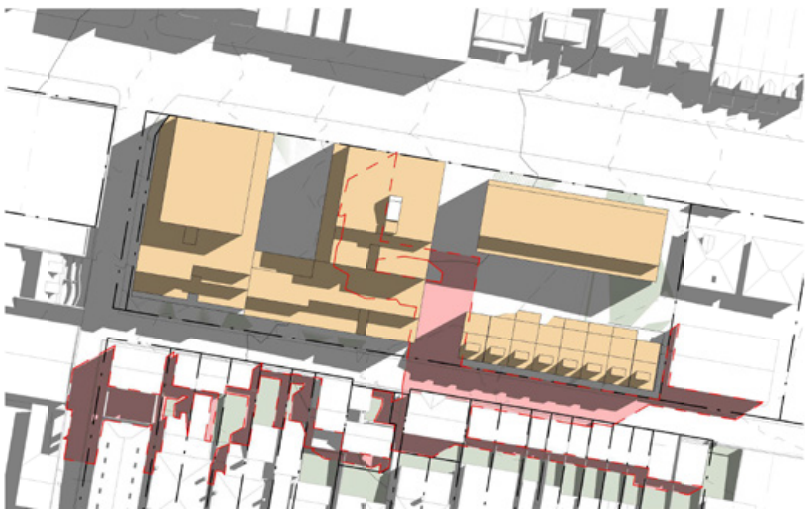
- NEIGHBOURING PRIVATE OPEN SPACE
- EXISTING SHADOW

- LIVING ROOMS IN NEIGHBOURING DWELLINGS IN ACCORDANCE WITH NS DCP SOLAR ACCESS REQUIREMENTS

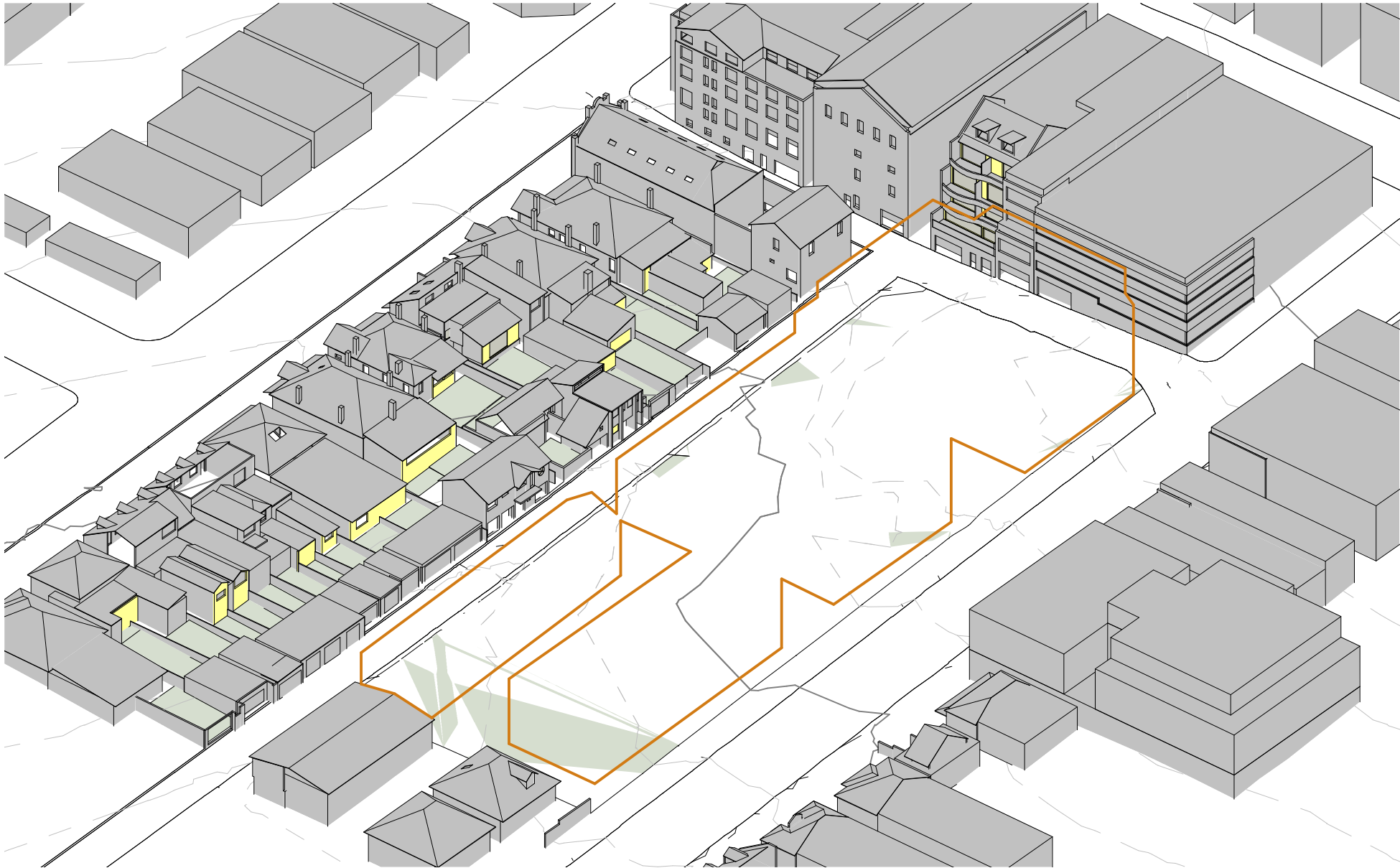
6.9 MARCH EQUINOX 9.00AM



March 21 - Existing Shadows



March 21 - Proposed Shadows



March 21 - Sun Eye View

KEY:

- PROPOSED ENVELOPE
- EXISTING SHADOW

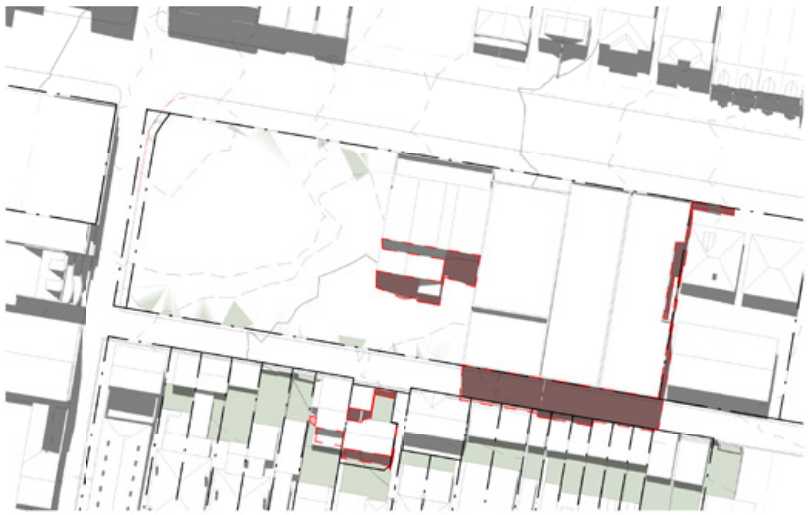


- PROPOSED DEVELOPMENT OUTLINE
- EXISTING BUILDING OUTLINE

- NEIGHBOURING PRIVATE OPEN SPACE
- EXISTING SHADOW

- LIVING ROOMS IN NEIGHBOURING DWELLINGS IN ACCORDANCE WITH NS DCP SOLAR ACCESS REQUIREMENTS

6.10 MARCH EQUINOX 12.00PM



March 21 - Existing Shadows



March 21 - Proposed Shadows



March 21 - Sun Eye View

KEY:

- PROPOSED ENVELOPE
- EXISTING SHADOW

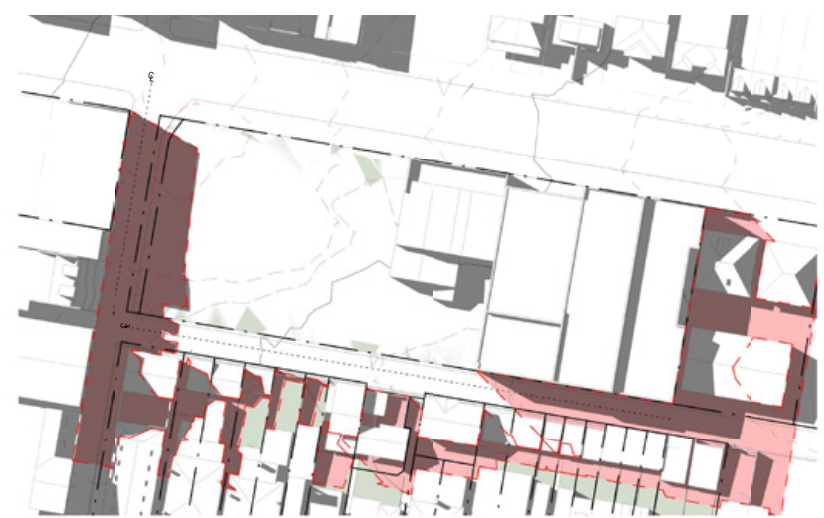


- PROPOSED DEVELOPMENT OUTLINE
- EXISTING BUILDING OUTLINE

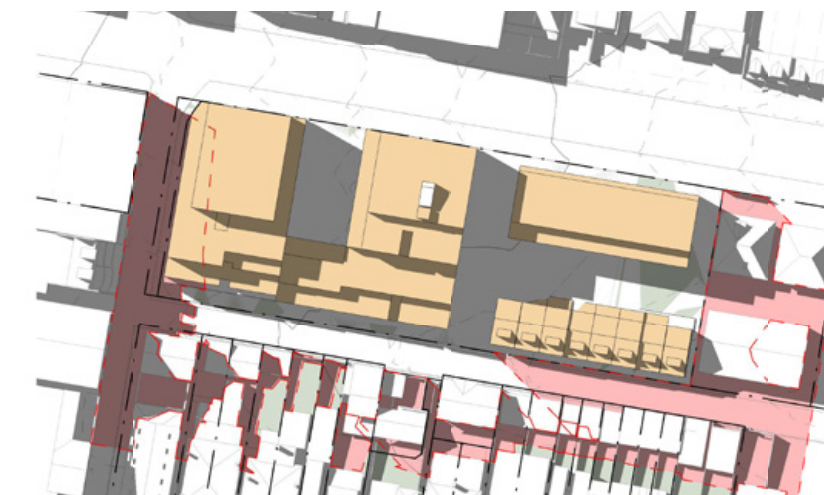
- NEIGHBOURING PRIVATE OPEN SPACE
- EXISTING SHADOW

- LIVING ROOMS IN NEIGHBOURING DWELLINGS IN ACCORDANCE WITH NS DCP SOLAR ACCESS REQUIREMENTS

6.11 MARCH EQUINOX 3.00 PM



March 21 - Existing Shadows



Mar 21 - Proposed Shadows



June 21 - SunEye View

KEY:

- PROPOSED ENVELOPE
- EXISTING SHADOW



- PROPOSED DEVELOPMENT OUTLINE
- EXISTING BUILDING OUTLINE

- NEIGHBOURING PRIVATE OPEN SPACE
- EXISTING SHADOW

- LIVING ROOMS IN NEIGHBOURING DWELLINGS IN ACCORDANCE WITH NS DCP SOLAR ACCESS REQUIREMENTS