

160, 162 & 172 Lord Sheffield Circuit North Penrith, Darug Nation

SSDA Design Report

Prepared for
Urban Property Group

Issued
December 2024

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Australia

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SJB acknowledge the Traditional Custodians of the land on which we live, practice, and visit, and pay our respects to Elders past, present, and emerging. We recognise the continuous engagement and caring of the lands, waters, and skies by First Nations peoples for time immemorial.

We support the Uluru Statement from the Heart and accept its invitation to walk with Aboriginal and Torres Strait Islander people in a movement of the Australian people toward a better future.

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ISO 45001:2018 Occupational Health & Safety Management System
ISO 14001:2015 Environmental Management System

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Introduction

Affordable Housing Proposal

The NSW Government has recognised the need to build more homes for the State's growing population, boosting housing supply and improving affordability.

Under the National Housing Accord, NSW is tasked with delivering approximately 377,000 new well-located dwellings, including approximately 15,800 social and affordable dwellings by 2029.

In late 2023, the NSW Government finalised a policy initiative to incentivise and support the delivery of affordable housing under the Housing SEPP.

The In-fill Affordable Housing provisions under the Housing SEPP enable developers to obtain up to an additional 30% FSR and height when 15% of the total proposed FSR is provided as affordable housing for a period of 15 years.

The subject site and proposed mixed use development are eligible for the affordable housing bonus uplift.

Department of Planning, Housing and Infrastructure
dphi.nsw.gov.au



In-fill affordable housing

Practice note
December 2023



The illustration shows a street grid with existing houses on the left and new construction on the right. A crane and construction vehicles are visible on the site, indicating active development. The scene is set in a suburban environment with trees and a clear sky.

Summary

Our winning competition scheme, and approved DA, celebrates the scale of the site. The design principles of our scheme allow for amplification, with additional height and density, via the in-fill affordable housing bonus.

The Affordable Housing SEPP controls will allow for an additional 64 affordable housing dwellings.

The offer

- Approximately 76 affordable housing apartments, to be managed by a Community Housing Provider (CHP), for a period of 15 years

- 135 apartments as part of the Housing Australia Future Fund (HAFF) to CHP Evolve Housing to be used for social and affordable housing



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Site Analysis

Site Analysis

Site

The site comprises three lots of vacant land - 160, 162 and 172 Lord Sheffield Circuit, Penrith.

The site has a total area of approximately 8,280m² with approximately 170.44m of frontage to Lord Sheffield Circuit.

The site is immediately adjacent to the northern entrance of Penrith Station (the sites west boundary).

The eastern portion of the site (Lot 3011 DP1184498) accommodates the Thornton Community Garden and is adjacent a parcel of defence land.

The Southern boundary has a direct interface with the railway corridor.

The site has a unique opportunity to present a key gateway development into the North Penrith Town Centre as a destination site when arriving at Penrith via high frequency transit.

It has the opportunity to provide a true transit orientated development and contribute high amenity offerings to the locality including improved connectivity to the Penrith Railway Station and a highly active ground floor plane.



□ Site

Planning Context - LEP

The following Planning controls apply to the site that inform the built form and layout:

- Penrith Local Environmental Plan 2010 (PLEP 2010)

Summary of Key LEP 2010 Controls

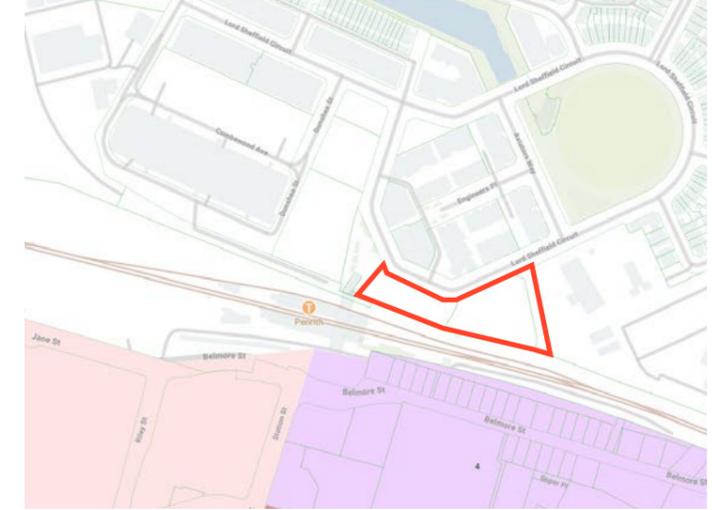
- B2 Local Centre Zoning
- No Maximum FSR Control prescribed by Controls
- Maximum building height of 35.2m (includes 10% design excellence height bonus. LEP control is 32m)
- Design Excellence - requiring design excellence competition



Site Location



LEP Zoning - E1 Local Centre



LEP FSR - N/A



LEP Height - 32m



LEP Heritage - Site not identified as a heritage item

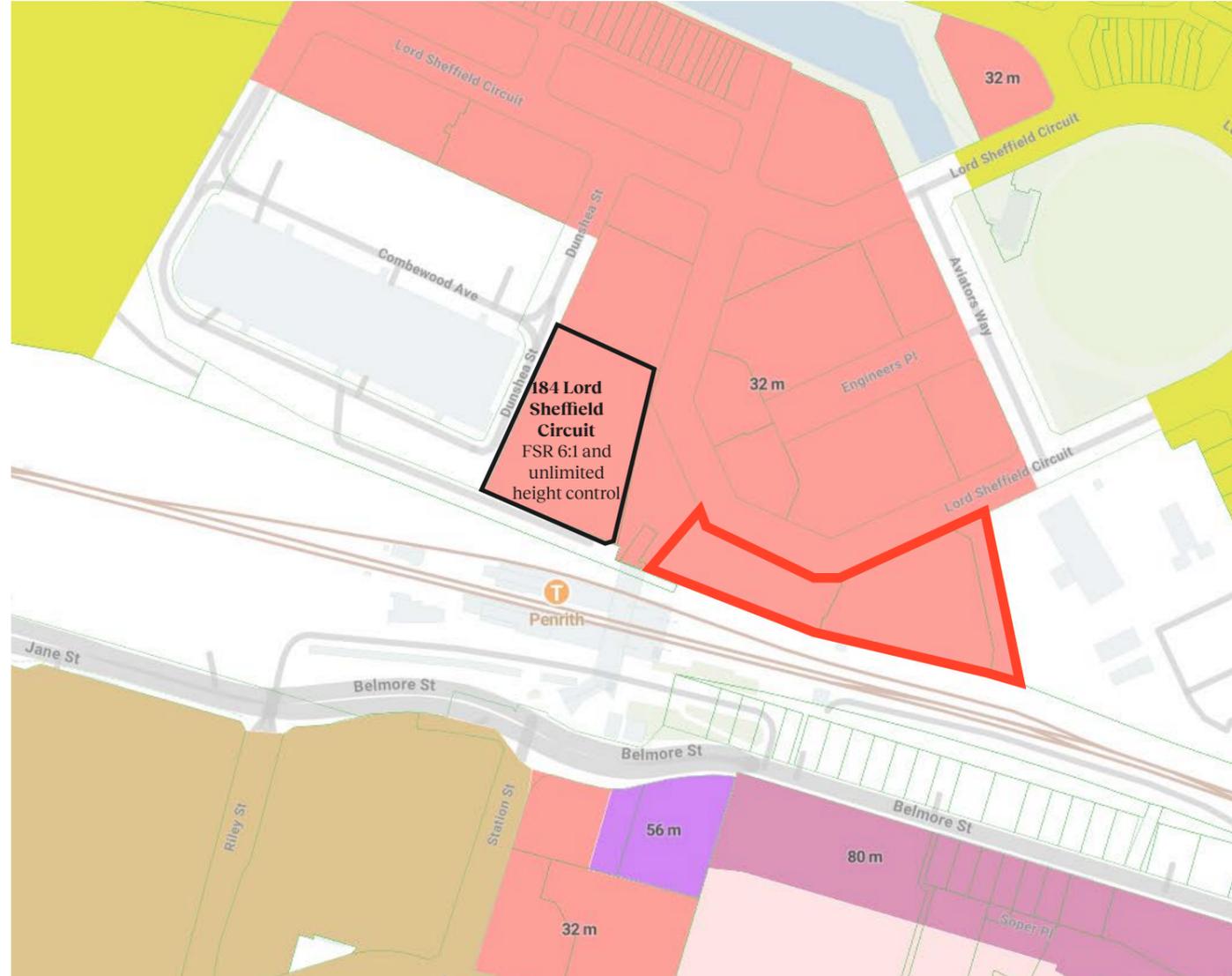


LEP Acid Sulfate Soils - Site not identified as affected
LEP Flooding - Site not identified as affected

Planning Context - LEP - Height

The LEP height controls increase towards the railway station, the increased density supported by the transport infrastructure and associated amenity.

The LEP heights adjacent the railway corridor, in proximity to the station are 56-80m. These heights mark the station. Contextually, the subject site marks the station and can support additional height.



LEP Height



Perspective: 184 Lord Sheffield Circuit proposed DA



Perspective: 184 Lord Sheffield Circuit proposed DA

Site Analysis

Site Analysis

Key attributes of the site include;

- A transit orientated development opportunity due to its location adjacent Penrith Train Station, with amenity due to its location in close proximity to Penrith Town Centre.
- The Western boundary addresses the forecourt of Penrith's train station entry, an important public interface.
- Adjacent the railway corridor introducing potential visual and acoustic privacy impacts.
- Adjacent Penrith Station platforms introducing potential visual and acoustic impacts.
- The site addresses Lord Sheffield Circuit which has a Northern aspect, providing an opportunity for high levels of building amenity.
- There is an opportunity for views to the Blue Mountains to the West.
- Development along Lord Sheffield Circuit ranges from 8-11 storeys.
- Potential development heights of 80m on the Southern side of the railway station.
- Heights of up to 30 stories on the 'St Hilliers' site to the West (currently under assessment/ review).
- The railway corridor provides substantial separation between development on the North and South sides of the station.

- Site
- Overlooking
- Noise
- Public Space
- Public Open Space
- Building Height



Context - North Penrith Height Transition

North Penrith increases in density and height towards the rail corridor and train station.

Along Thorton Drive the built form is 2 storeys, which then increases to 6 storeys at the intersection of Lord Sheffield Circuit. From 6 storeys it then increases to 9-11 storeys.

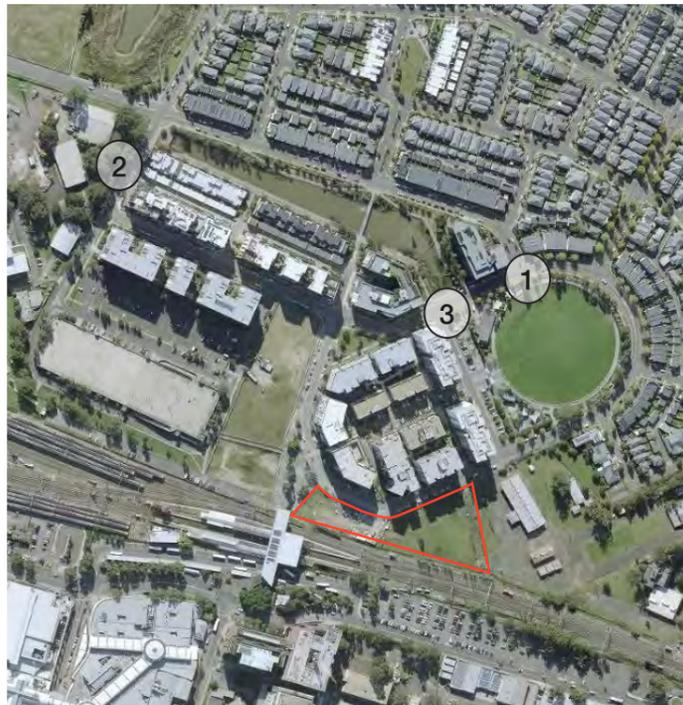
The increased height and density is supported by the amenity provided by the rail corridor and proximity to the town centre.



Image 1



Image 2



Aerial Key

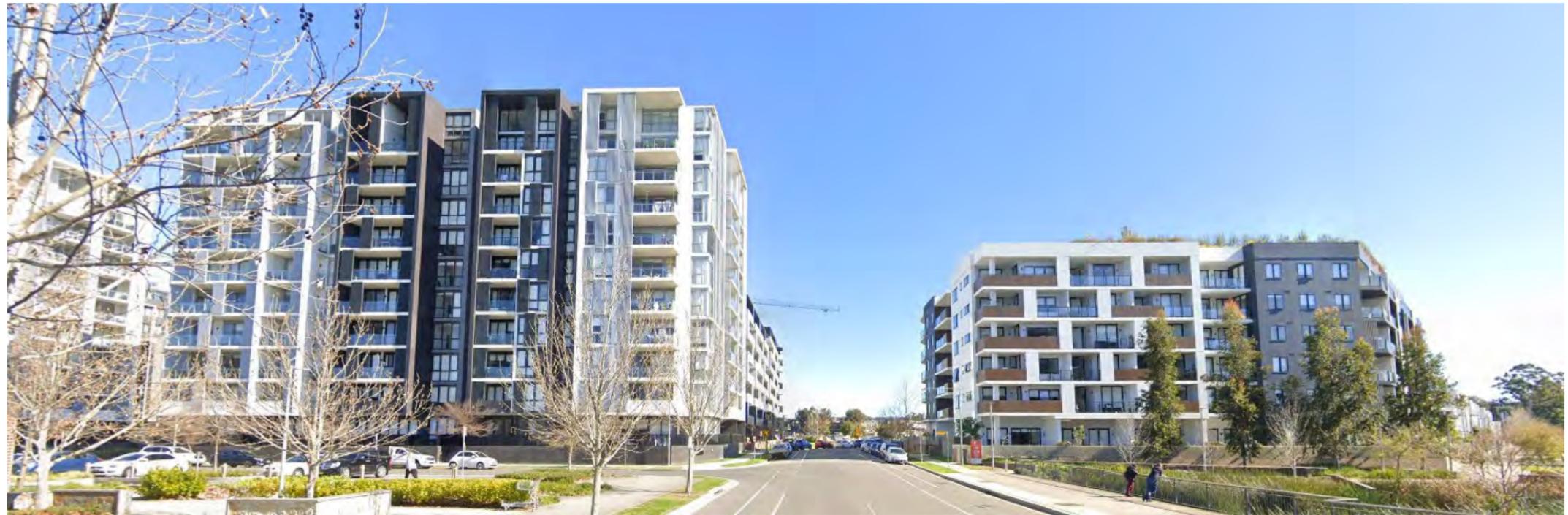


Image 3

Context - Site

Key attributes of the site context include:

- The railway corridor which connects the Blue Mountains to Sydney.
- Penrith Station, including the platforms which are adjacent the station.
- The station entry forecourt, which includes stairs and lift to the overpass.
- Lord Sheffield Circuit and associated development which ranges from 8-11 storeys.



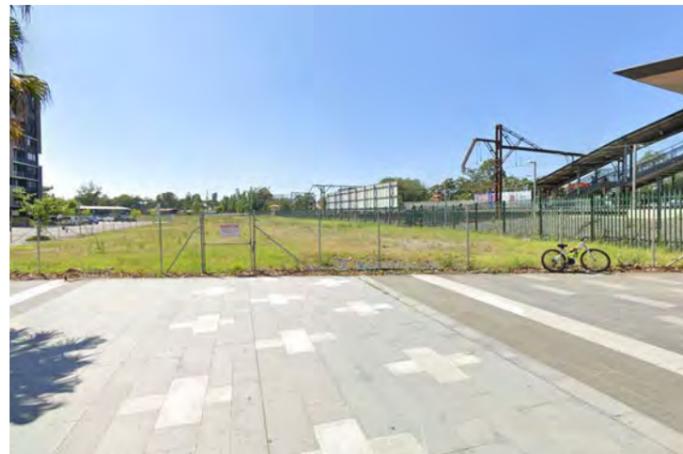
1-Station Platform and Rail Corridor (Southern Boundary)



2-Station Platform and Rail Corridor (Southern Boundary)



3-Stairs to Station Plaza (Western Boundary)



4-Station Plaza (Western Boundary)



5-Lord Sheffield Circuit looking South East to Station Plaza



6-Lord Sheffield Circuit looking South West from Ron Mulock Oval



Aerial Key



7-Lord Sheffield Circuit, Station Entry and adjacent built form



8-Lord Sheffield Circuit, Station Entry and adjacent built form

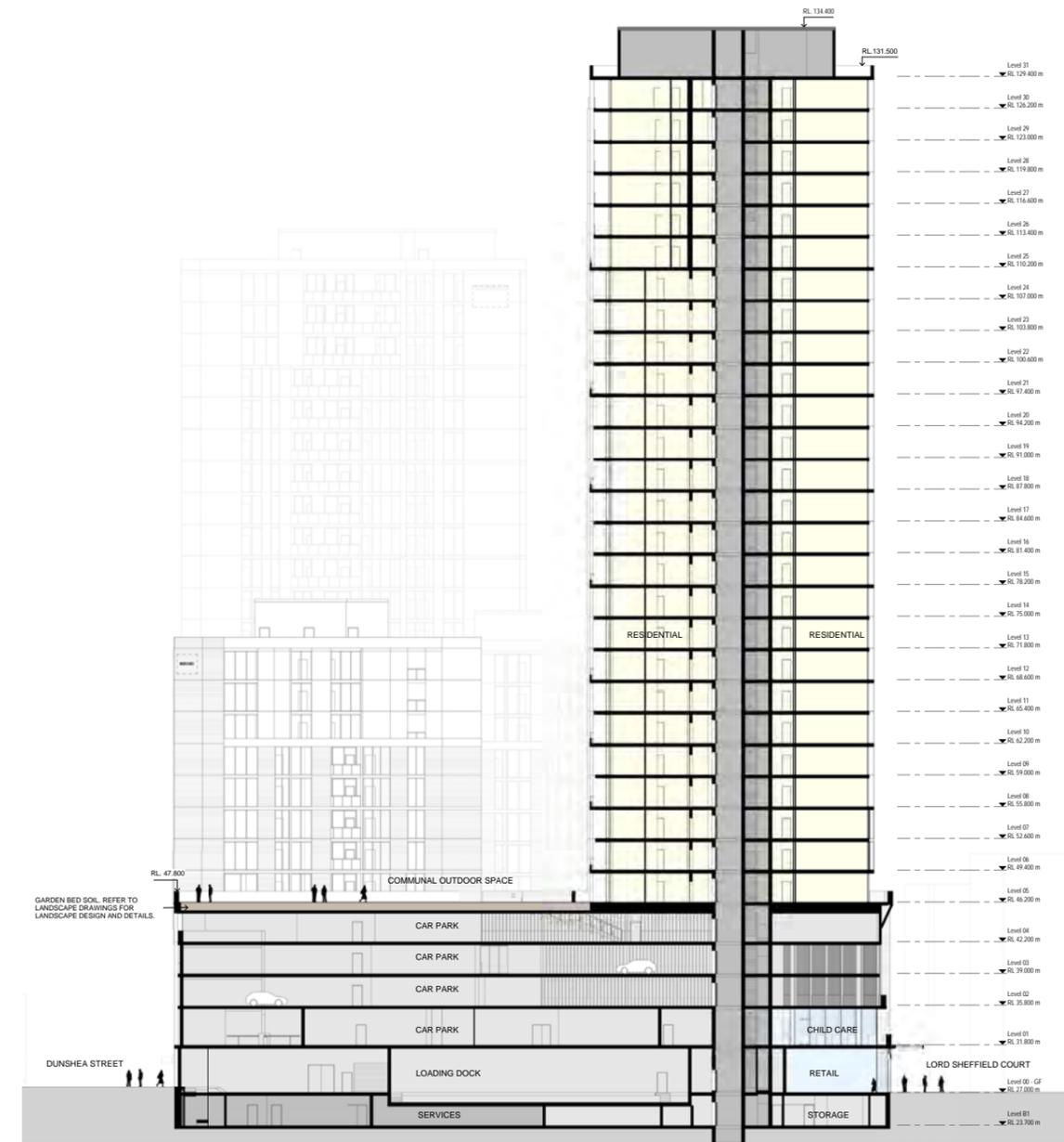
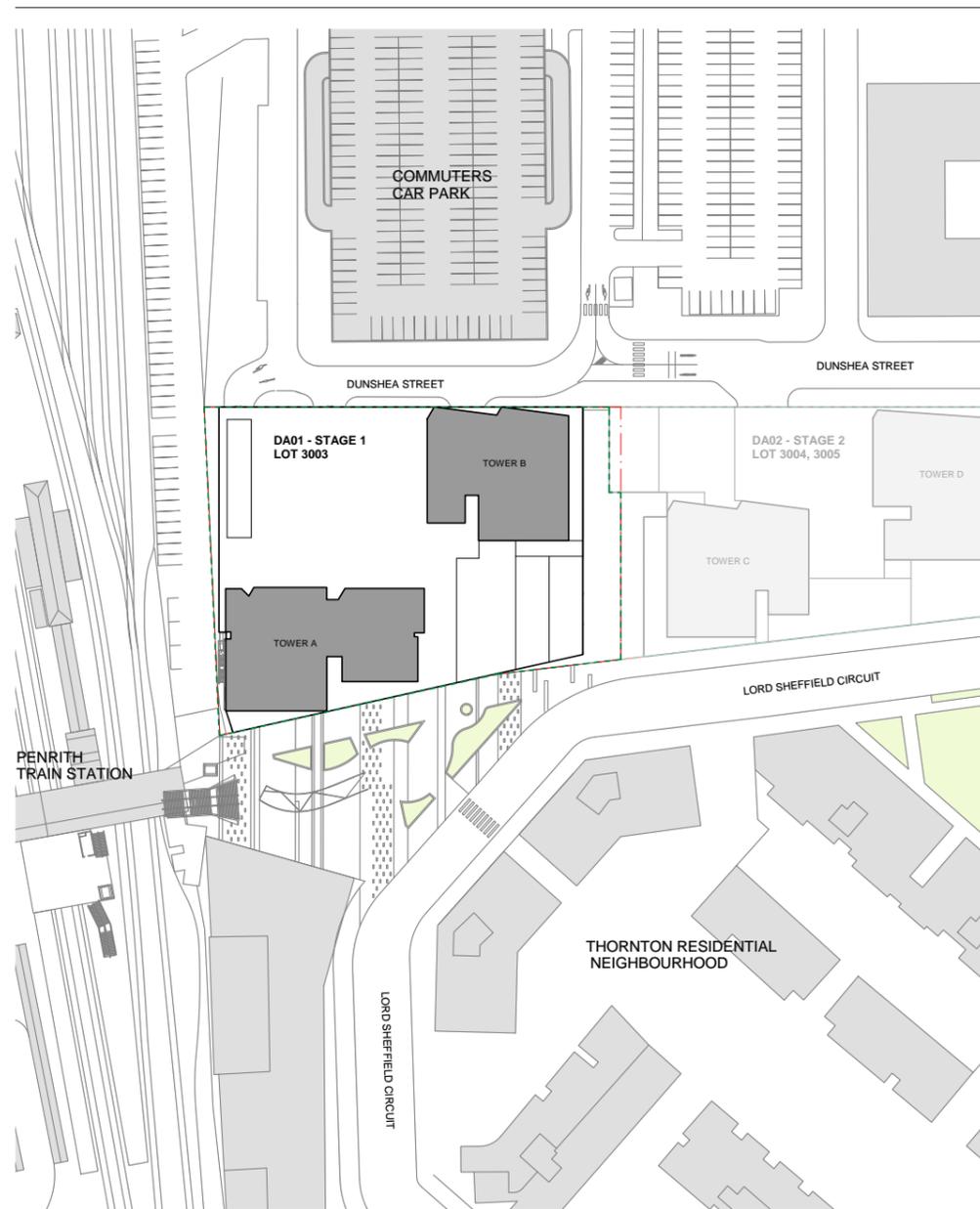


9-Lord Sheffield Circuit looking West towards station entry

Context - 184 Lord Sheffield Circuit, Penrith



Aerial Key



Context - 184 Lord Sheffield Circuit, Penrith (Proposed)



Aerial Key



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Approved Scheme & Design Principles

Competition Winning Scheme & Approved DA

Our role as Architects in this instance is not only to design a mixed-use building that will stand the test of time - to provide great housing for generations to come, but also to design a building that is worthy of its setting, worthy of its relationship with the public interface and indeed face of Penrith Station.

As you move closer to the station the role of the built form is to 'build' the city, to build the sense of anticipation, to elevate the importance of the station within the fabric of the city. This civic building, the train station, plays a pivotal role in the daily lives of the people of Penrith. It is the building that wakes them up in the morning and sends them home to their families at night. There is a heightened sense of 'civicness' around the station, and the buildings abutting the station proper have a role to play in elevating the every day experience.

Our proposal celebrates the scale of the site, taking the opportunity to deliver a truly civic building. Borrowing from the great colonnades of the world, the ground level hugs the street edge, while providing refuge and protection. Much like the base of the Sydney GPO, or the buildings at East Circular Quay, our building delivers a double height colonnade with retail at the ground level and commercial office space to level 1. The colonnade is enlivened by the energy of the activity captured, provides protection for pedestrians from rain and sun, while delivering a physical separation to the residential dwellings above - helping to manage potential acoustic conflicts.

The proposed building form offers significant public and private amenity benefits. The continuous northern edge to the rail corridor will eliminate existing acoustic impacts to neighbours to the north of the site - by delivering a physical separation.



Civic Scale

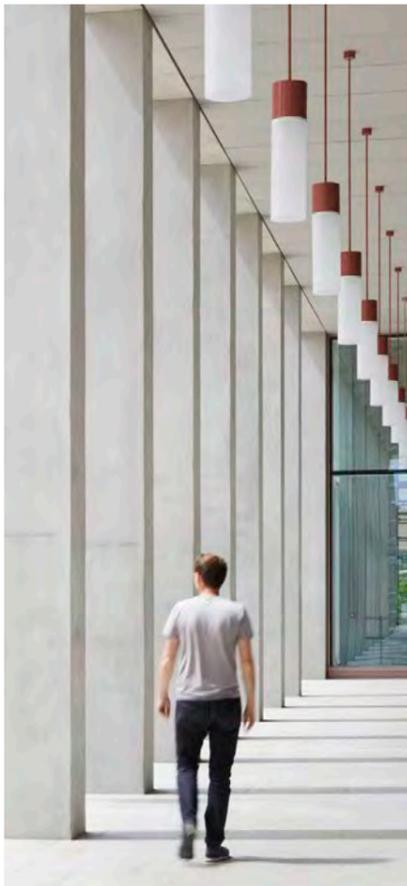
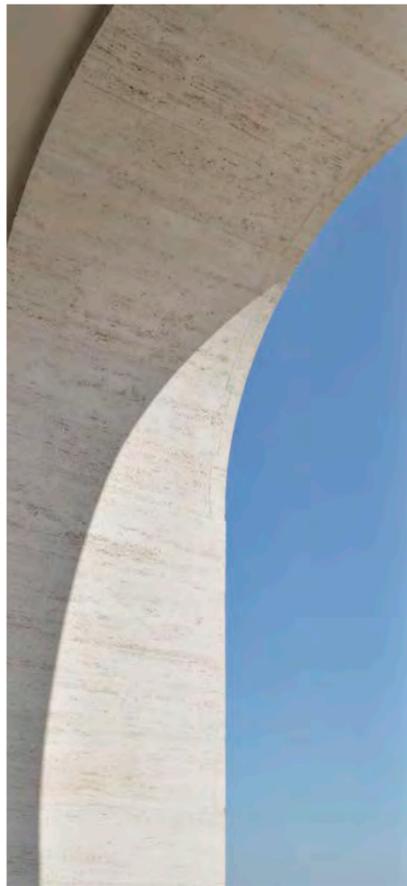
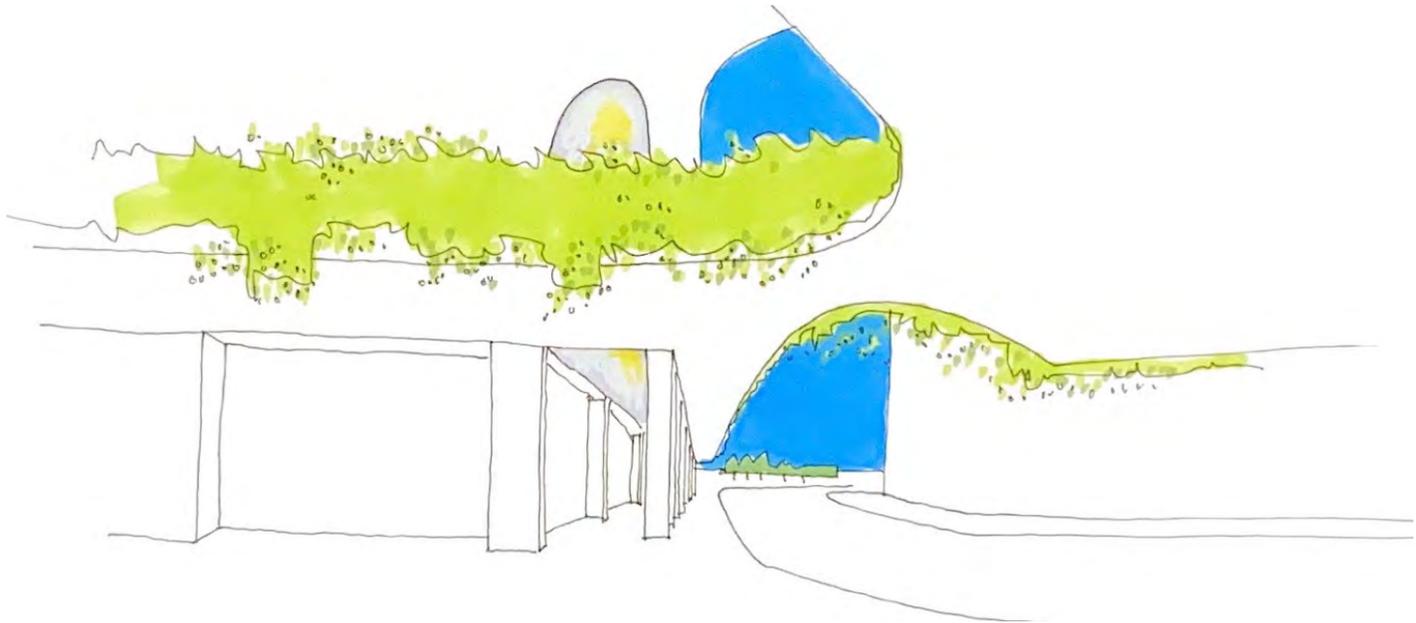
Our proposal celebrates the scale of the site, taking the opportunity to deliver a truly civic building next to the station.

Proximity to the railway has historically manifested in scale, be it factories, silos or the scale of the workshops - such as Everleigh.

We see this scale transferring to this building and its residential context. It will become a marker for the station, and it's civic significance to Penrith.

At the public domain interface a grand colonnade marks the approach to the station. The double height space, with an active retail edge at ground level and commercial office space above, defines the site edge and provides protection along its length.

The activity is amplified within the space as people move to and from the station on their daily ritual.

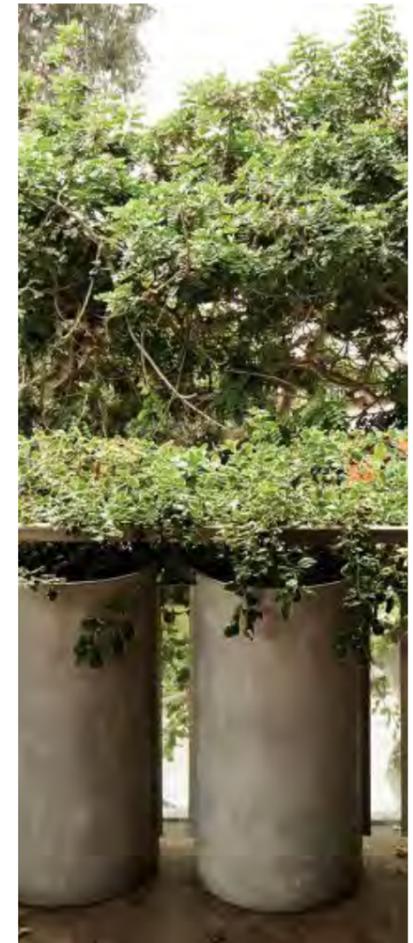
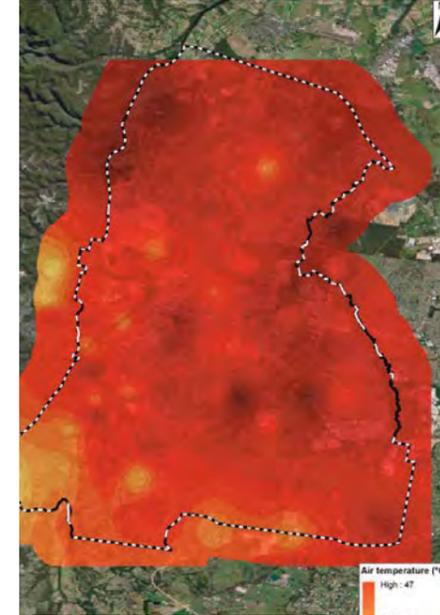


Protective Edge

Penrith gets hot. The trains are noisy. The station is busy. This building requires solidity and depth, to be robust - to provide a protected edge.

The use of a solid material to the external envelope of the building creates a threshold between the protected interior environment of the home, and the busier environment of the outside world. The depth creates shadow - articulating the building mass from the public domain (without fussy or 'added' details), while from a residents' perspective creating a protected interior - from noise, the busyness of the station, the burning heat of the summer sun, from prying eyes on the commute home.

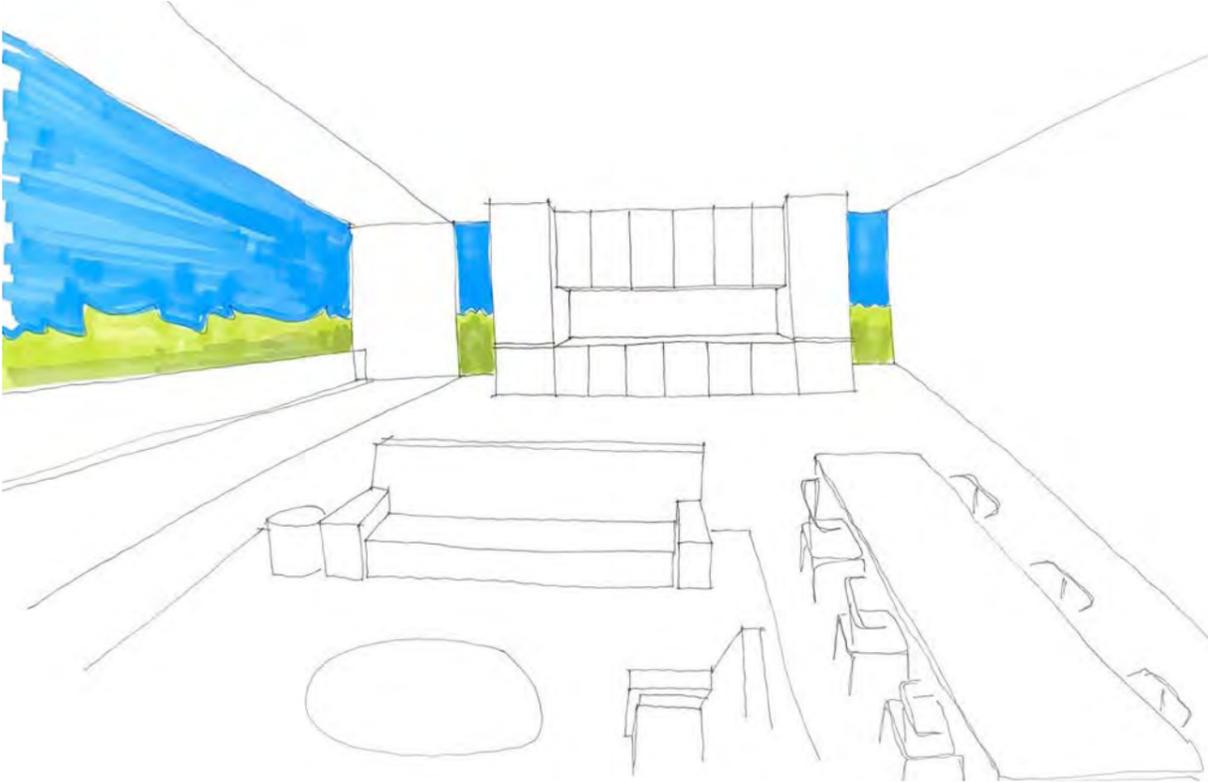
The protective edge celebrates the connection between the interior and the exterior, while concurrently employing passive design principles for internal thermal and acoustic comfort. The aggressive railway noise is a nuisance - to combat this we need to proactively address the envelope of the building to design out the impacts.



Simplicity and repetition

We believe the that the best residential apartment plans are simple. Straight forward rectilinear geometry helps deliver spaces that are easy to furnish, are flexible over time and are easy to use.

A repeated module creates clarity in plan, construction and detail. This building has 287 apartments, 5 similar cores, a handful of apartment types. This allows us to focus maximum effort on each type and deliver spaces with fantastic amenity. 287 apartments, 70% North or East facing, the majority protected from the railway - not one, single aspect South facing apartment.



Rooftop Plateau

A great benefit in having a series of connected buildings with a long narrow footprint is that there is a commensurate roof area – a long, narrow, north facing plateau.

Sydney and the Blue Mountains landscape is characterised by rocky outcrops and shelves that create opportunities for plants to establish themselves on horizontal surfaces. The extensive rooftop plateau creates the same opportunity for this building.

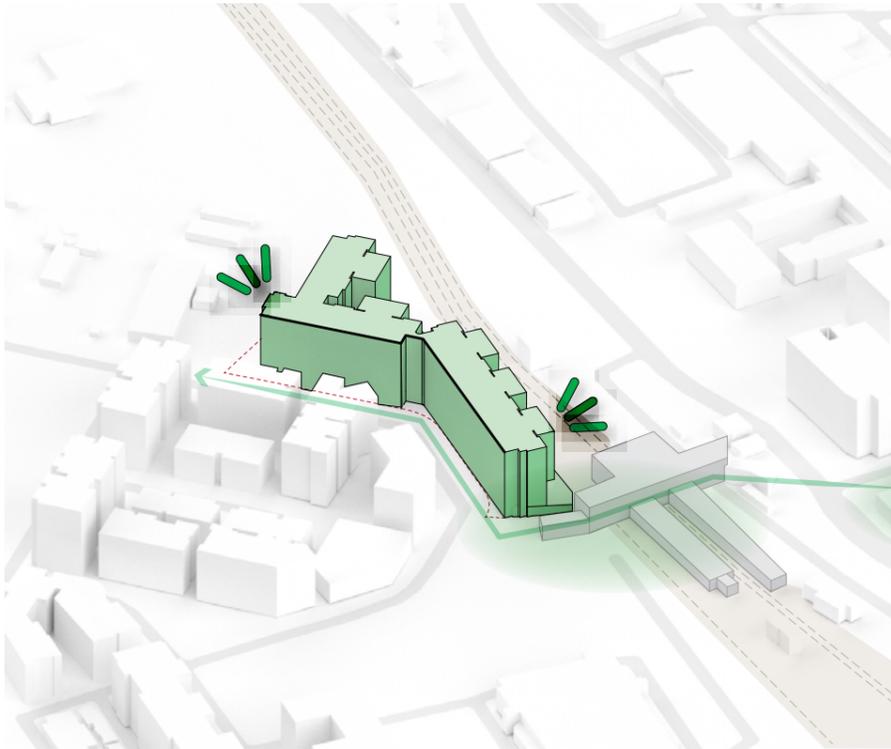
We see an amazing opportunity to create a remarkable communal rooftop. A variety of places for social interaction at small and large scales. A plateau a top the building to rest, relax, meet, exercise and enjoy. A place set within landscape to drink your morning coffee or do some yoga as the sun appears, to escape the summer heat with a splash in the pool, or a place to watch the sun set over the blue mountains.



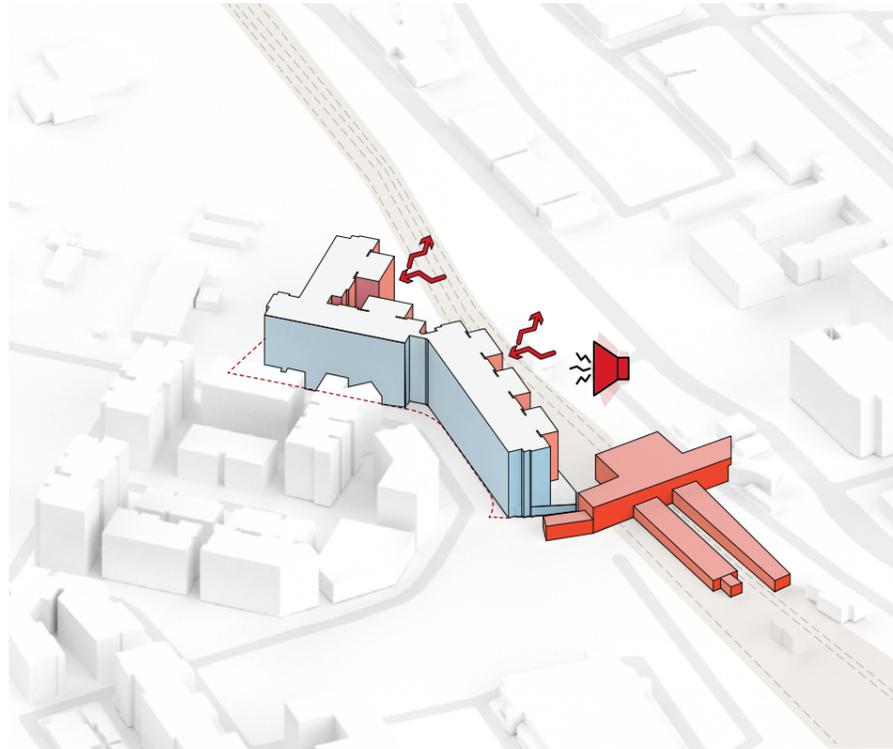
Design Competition Scheme Principles



Small to big
A civic presence at the entry to the station with a commensurate building scale. Moving away the site building scale decreases with less density and smaller lots/ built form.



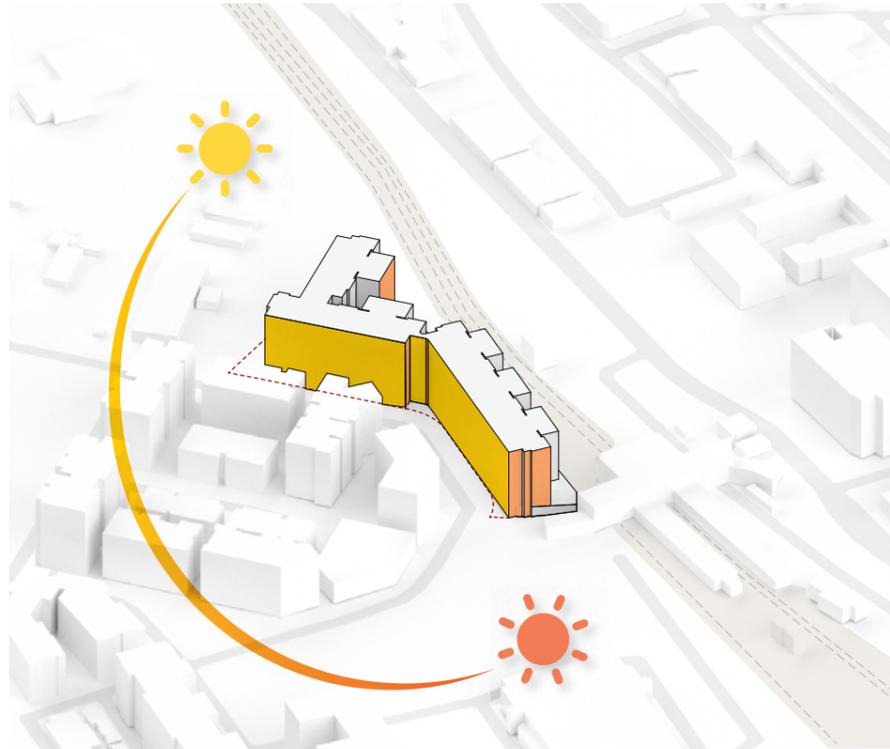
Civic marker
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Acoustic shield
A long North facing facade, addressing the primary street provides many benefits. In the context of this site, and its proximity to the rail corridor, it means that the majority of the living spaces can completely removed from the noise of the railway.

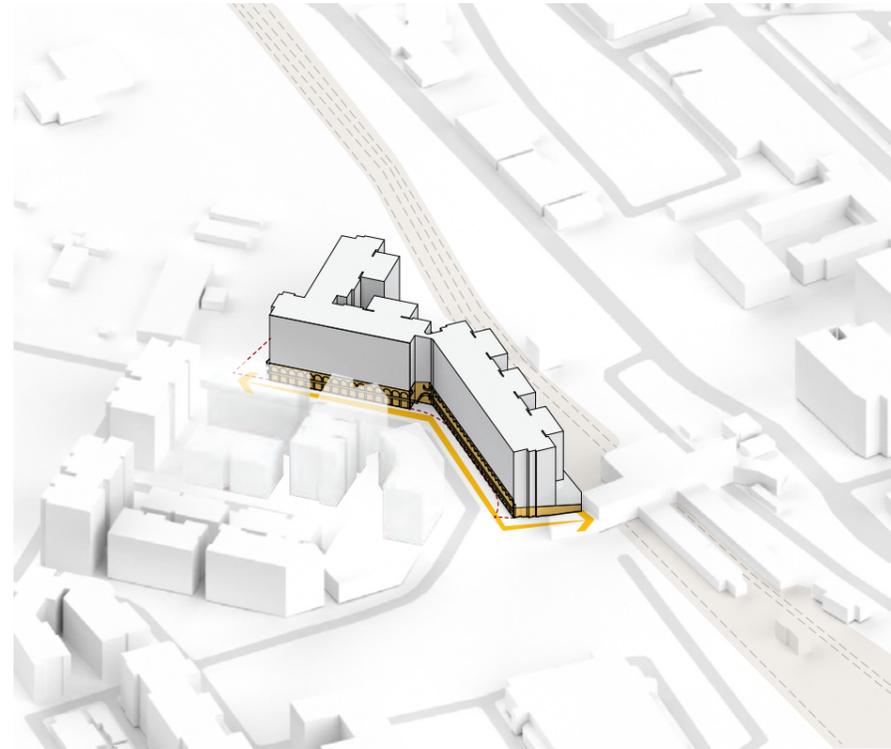
In addition to benefiting the subject site, the building acts as a shield for neighbouring buildings, improving the quality of life for both residents and neighbours.

Design Competition Scheme Principles



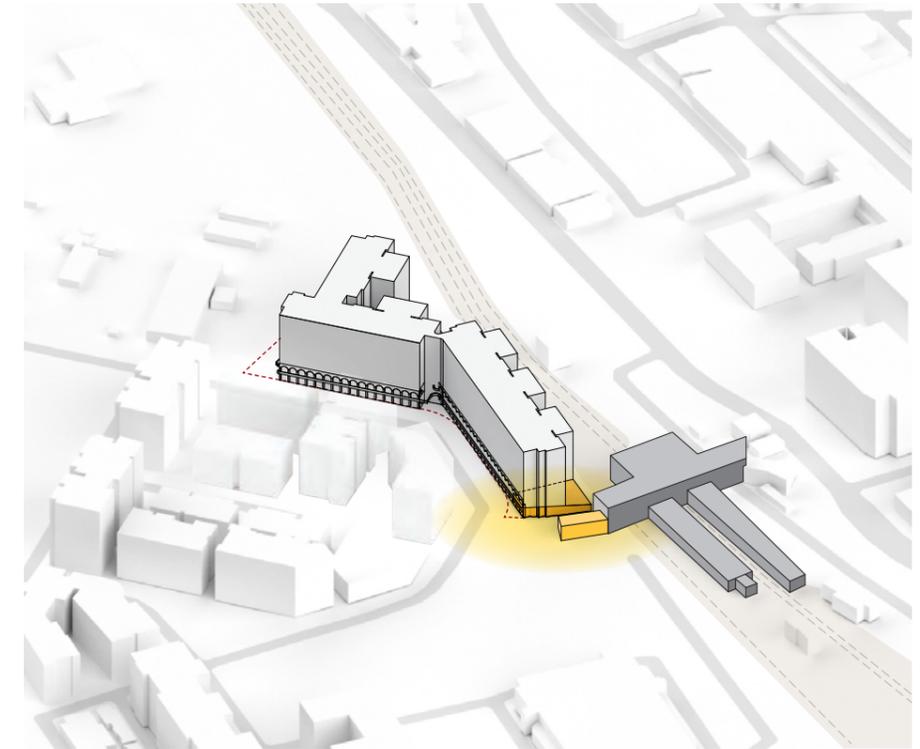
Northern light

Addressing Lord Sheffield Circuit creates a long Northern facade. This means that 70% of apartments face North / North-East. Living rooms and balconies that can be enjoyed throughout the year - all day, every day.



Activated ground

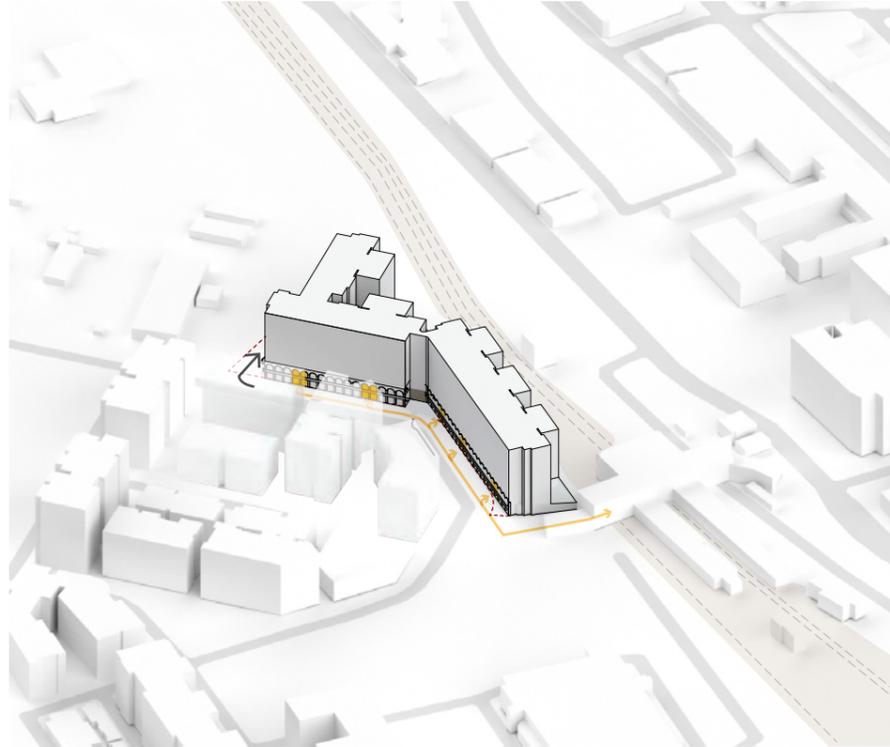
The length of Lord Sheffield Avenue is activated for its length. At the public domain interface a grand colonnade marks the approach to the station. The double height space, with an active retail edge at ground level and commercial office space above, defines the site edge and provides protection along its length.



Public interface

The Western edge of the site is an important public interface. The station entry and the associated forecourt should be celebrated as a public space - activated and civic. The proposal elevates this interface.

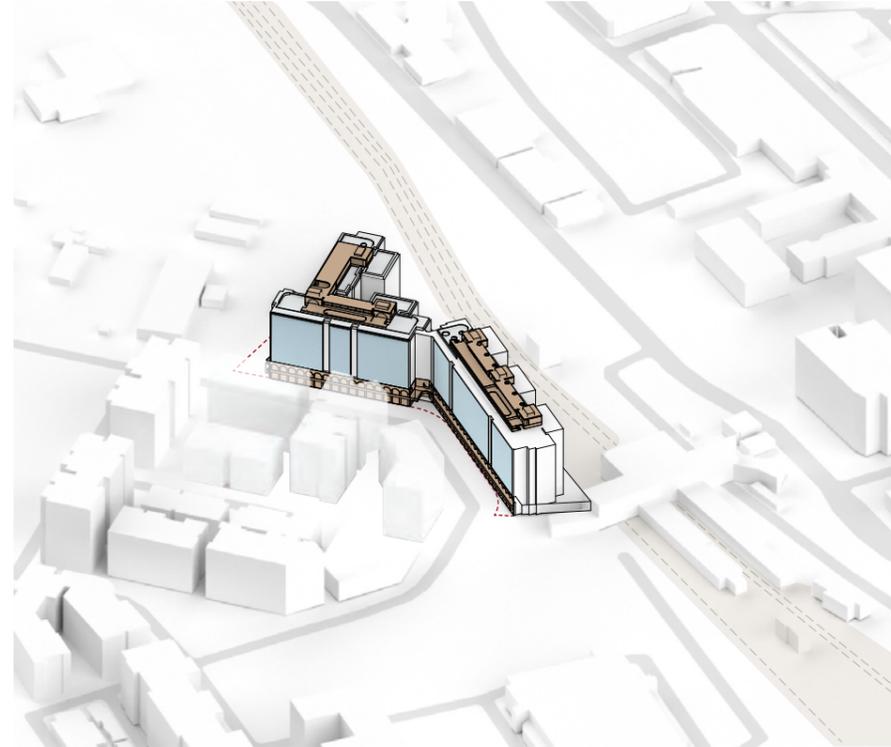
Design Competition Scheme Principles



Entry

Residential entries address the street. The building is split into 5 modules with multiple residential entries along the length of the building, accessed from the grand colonnade along Lord Sheffield Circuit.

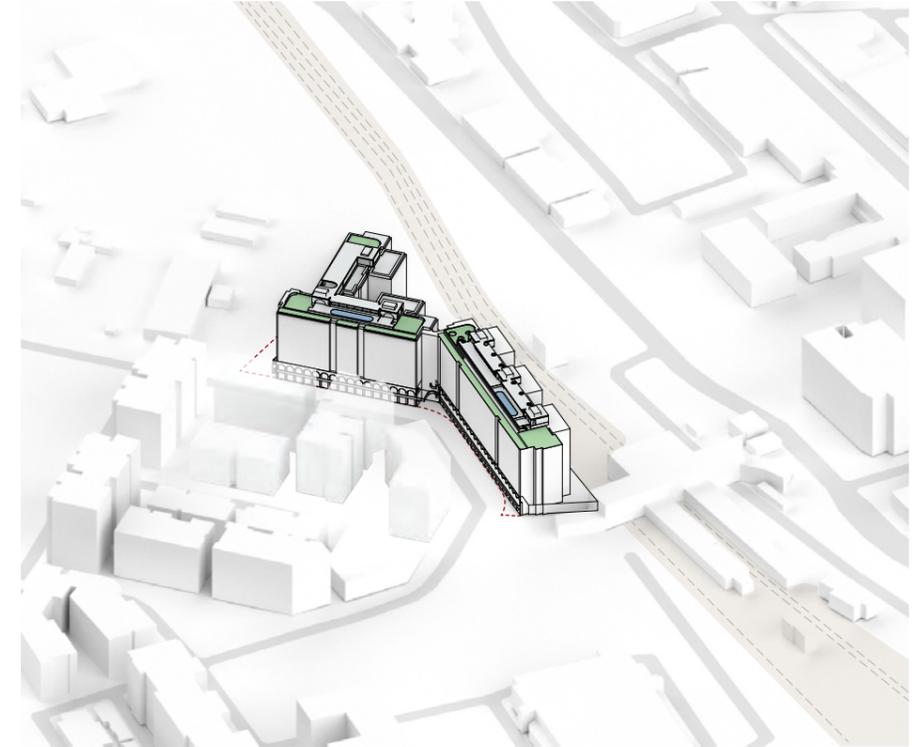
Vehicular entry is located along the Eastern boundary reducing potential conflict between vehicle and pedestrians.



Architectural expression

At ground we propose to hug the boundary and provide a strong civic presence with a 2 storey expression. The building aligns above with a simple elegant façade that uses light and shadow, casting the diurnal patterns of the day.

At the top a rooftop plateau is provided, the built from set back from the edge, not visible from the public domain.



Rooftop plateau

The extensive rooftop plateau creates the opportunity for this building to have a remarkable communal rooftop. A variety of places for social interaction at small and large scales. A plateau at the top of the building to rest, relax, meet, exercise and enjoy.

Ground Floor Plan - DA Approval

The ground floor consists of the following:

1_Retail + Colonnade

An active retail edge that addresses Lord Sheffield Circuit protected under a grand two storey colonnade.

An active retail frontage addressing the station forecourt.

2_Residential Lobbies

5 x residential lobbies that are accessed from the colonnade along Lord Sheffield Circuit.

3_Commercial Lobbies

2 x commercial lobbies that are accessed from the colonnade along Lord Sheffield Circuit.

4>Loading Dock + Services

The loading dock accessed along the Eastern boundary. Associated services predominantly located with the loading dock and along the Southern boundary.

5_Vehicle Access

Vehicle access is located along the Eastern boundary to reduce potential conflict between vehicles and pedestrians along the public colonnade.

6_The Community Garden

Community garden to provide a landscaped interface with the eastern boundary.

7_Landscape

An integrated landscape and architectural design including public and private domain works - Refer to Arcadia design report.



Source: Arcadia



Typical Residential Plan (L3-L9)- DA Approval

The typical floor consists of the following;

1_Residential Lobbies

5 x residential lobbies that provide access to the basement and colonnade along Lord Sheffield Circuit.

2_Residential Apartments

The typical level includes 36 apartments accessed from 5 residential lift cores

The typical residential module (of which there are 4) includes five or six apartments of the core (each core includes a scissor stair, waste chute and 2 lifts).

The Eastern residential module includes 13 apartments and the core has 3 lifts, 2 stairs and waste chutes.

The apartments are designed to maximise solar access, cross ventilation, whilst dealing with the acoustic and privacy implications of the railway corridor.



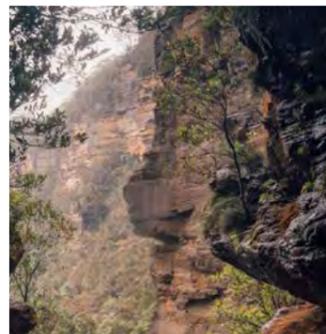
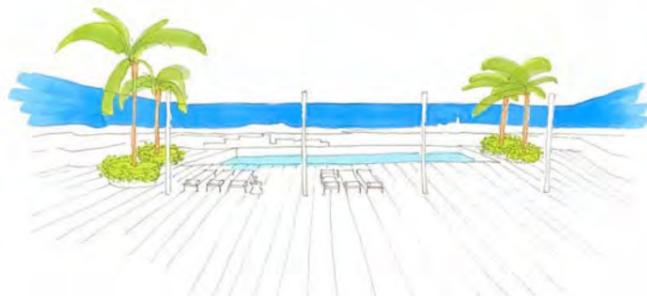
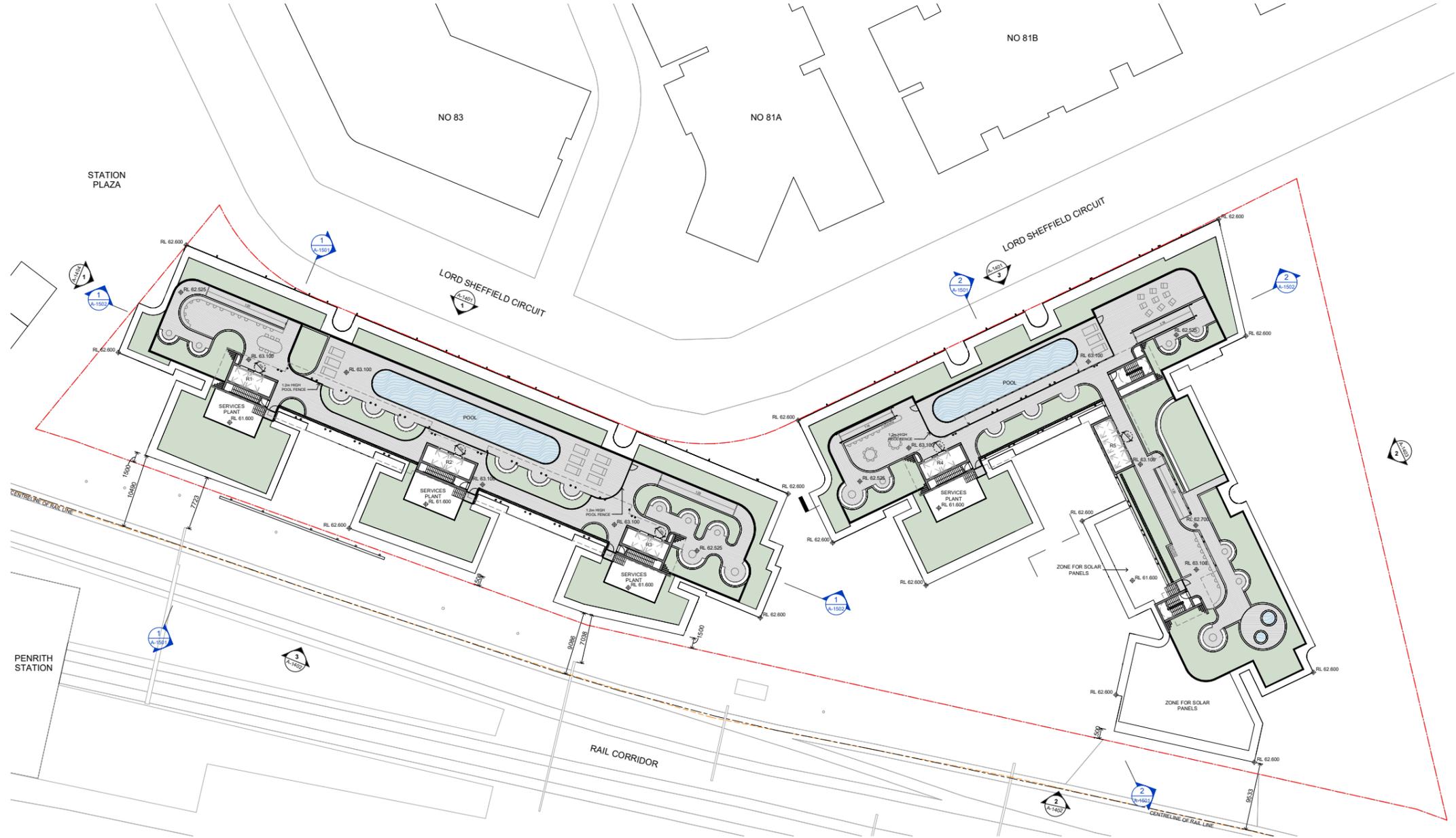


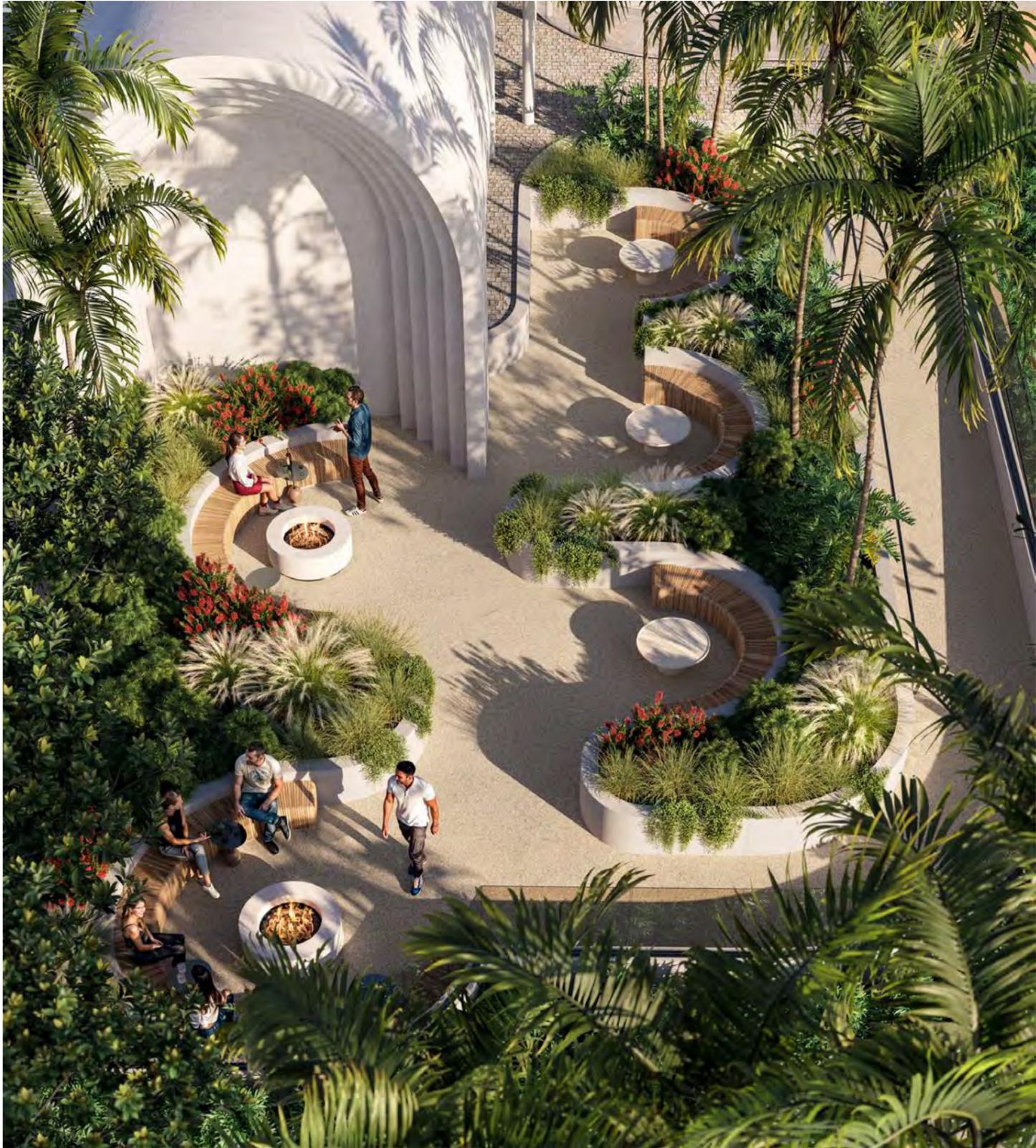
Rooftop Plan- DA Approval

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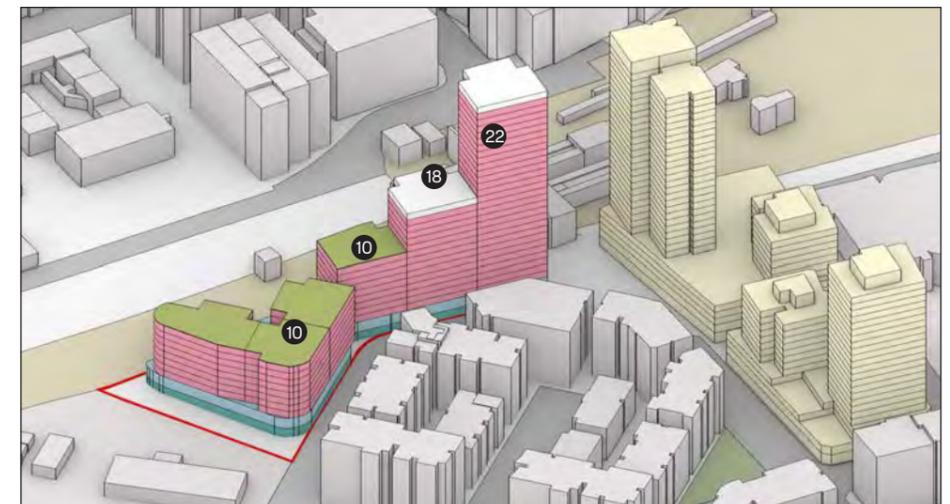
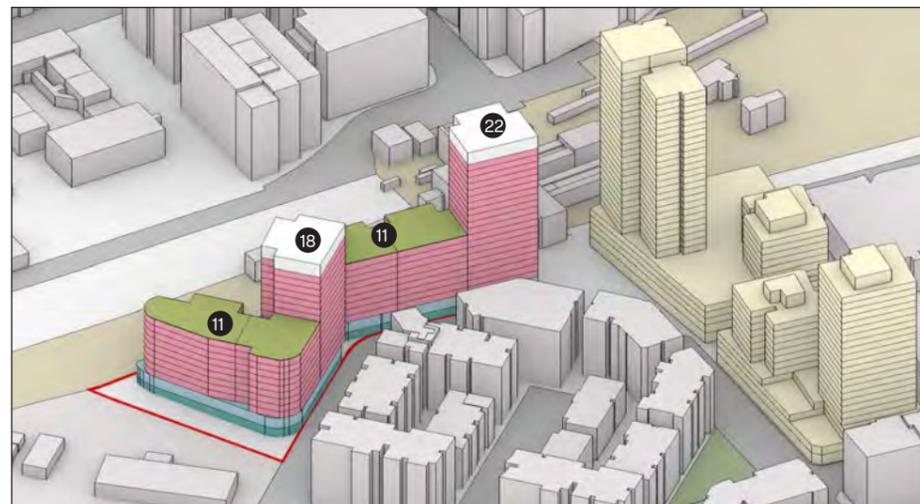
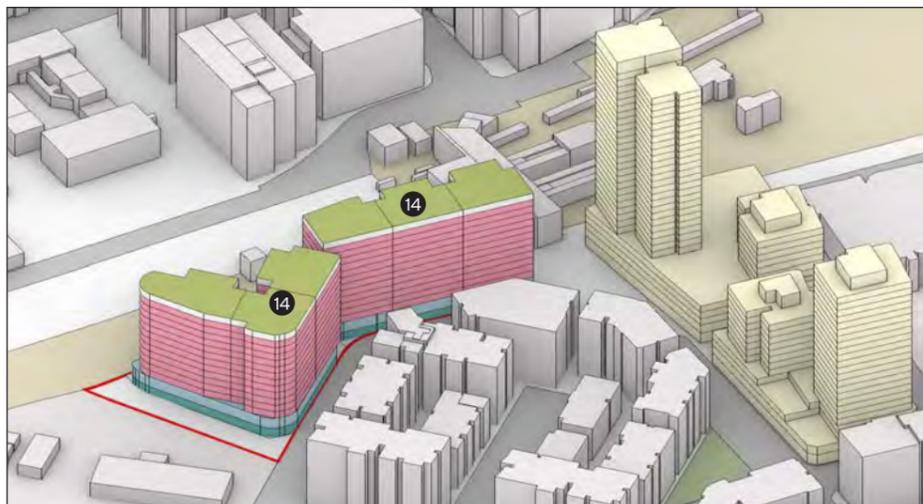
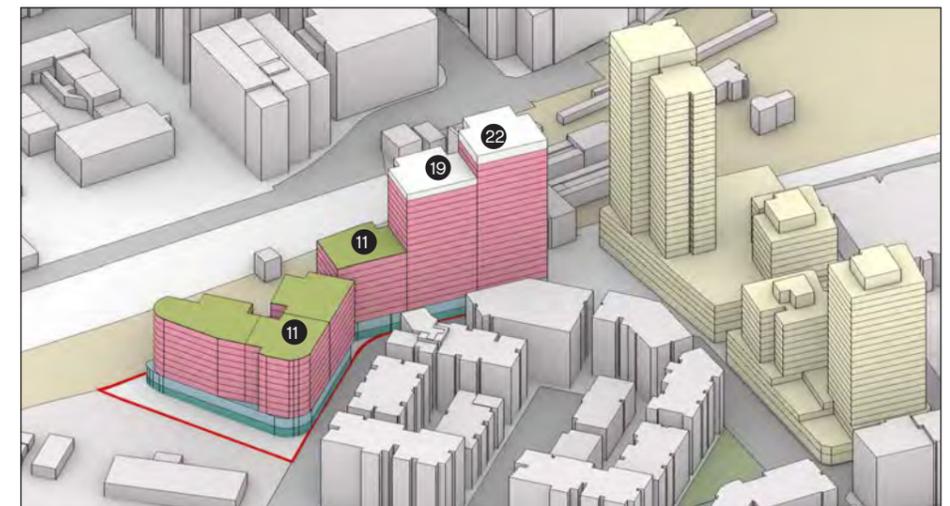
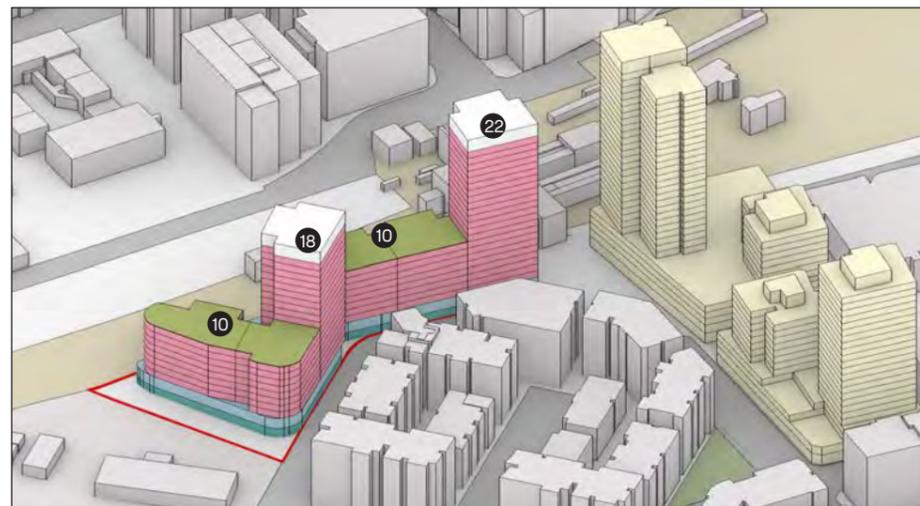
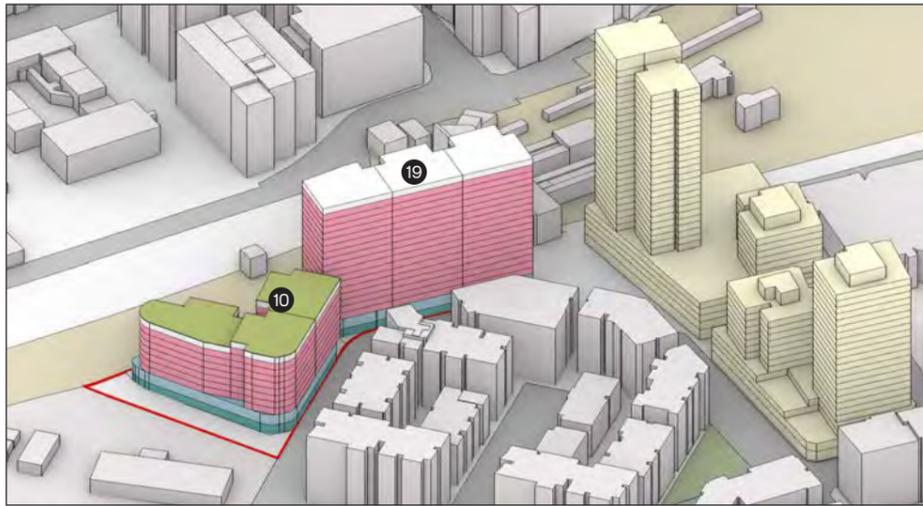
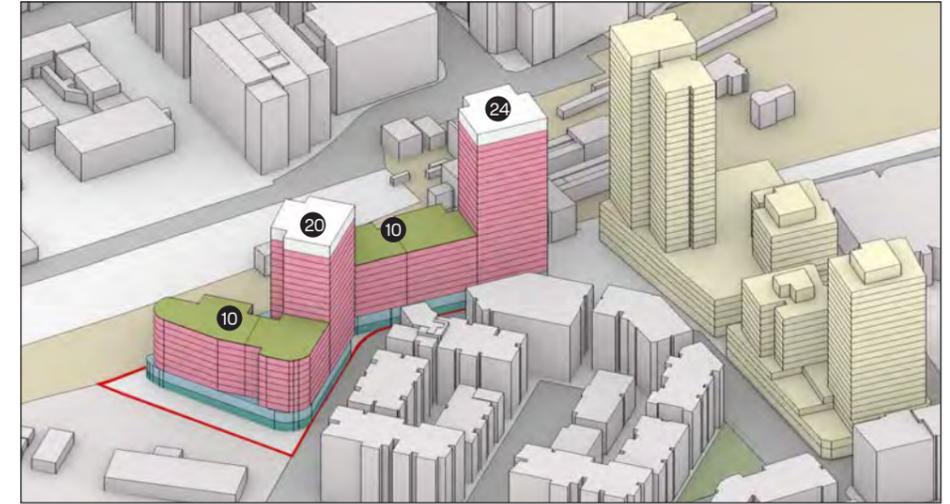
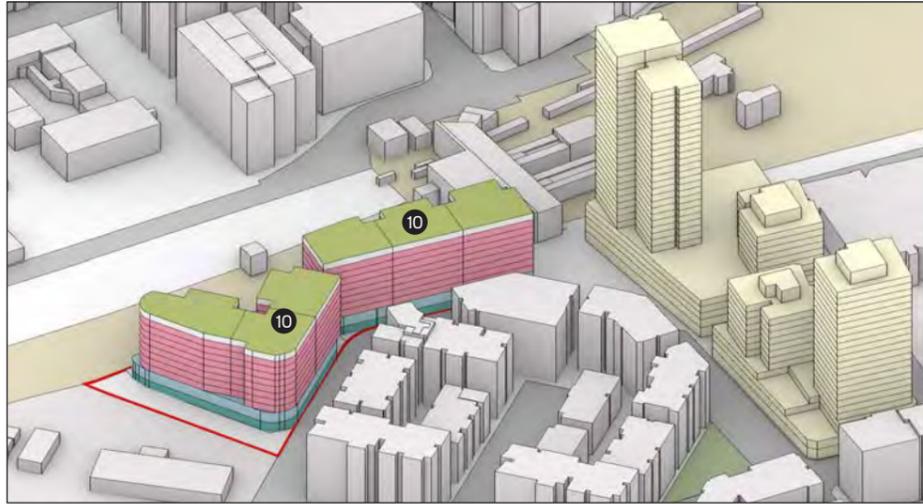




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Testing & Process

Built form testing of bonus (selection of options considered)



Preferred direction

The final option selected seeks reflects the intent of the State Affordable Housing Policy and reflects the lower scale of the precinct, provides a transition from the Key Site 11 and respects the principles of the approved competition winning scheme and the key elements which ensured the original scheme achieved design excellence.

The scheme also reflected a general consistency with the intent of the planning controls in this location, ensuring a scheme which has the potential to be approved with acceptable planning risk and impacts.

The challenge with incorporating the additional storeys to achieve affordable housing is embraced through architectural exploration and development of the scheme on the following pages.

Proposed Development

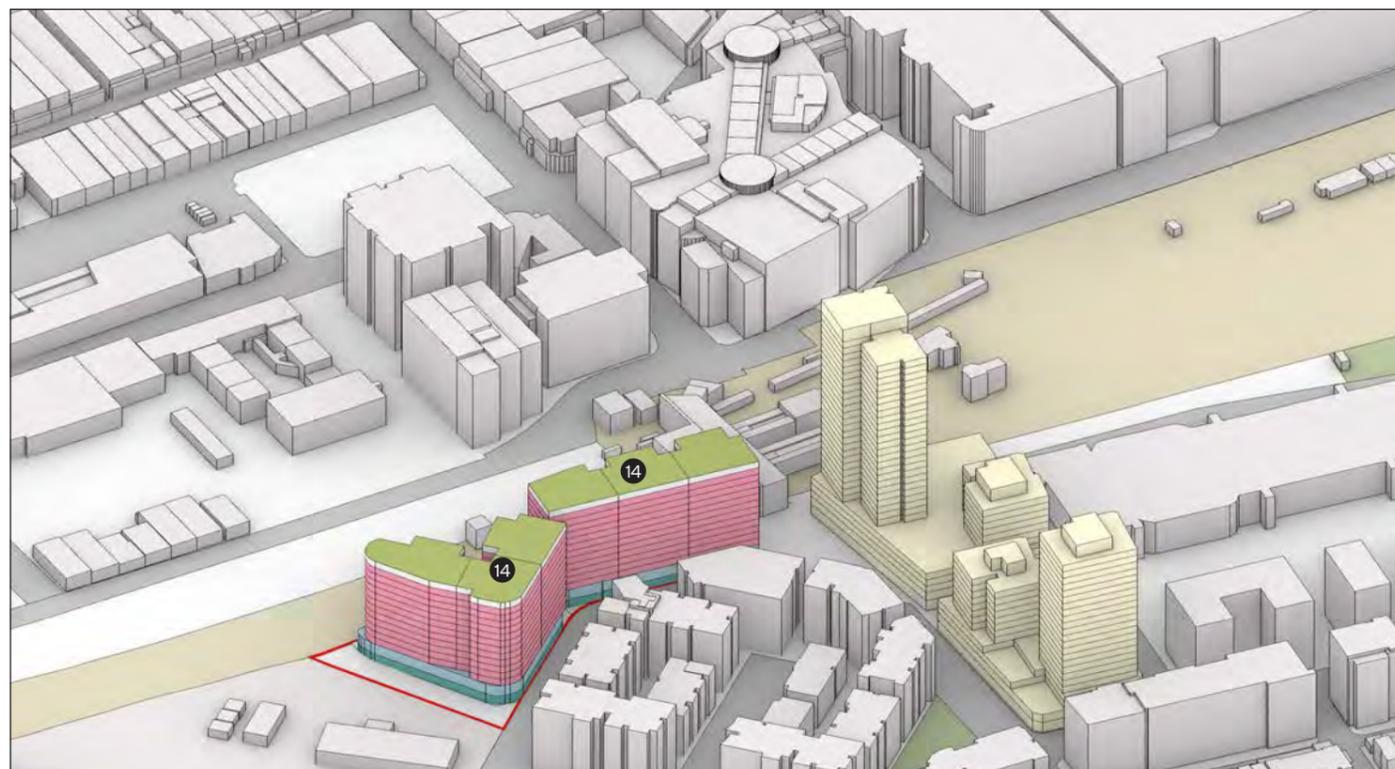
This proposal seeks to make amendments to the approved scheme to utilise the Infill Affordable Housing provisions of the Housing SEPP.

It is proposed to maintain the base consent as approved under DA22/1086, as modified. It is anticipated that this consent will be commenced for the purposes of constructing the lower portions of the development.

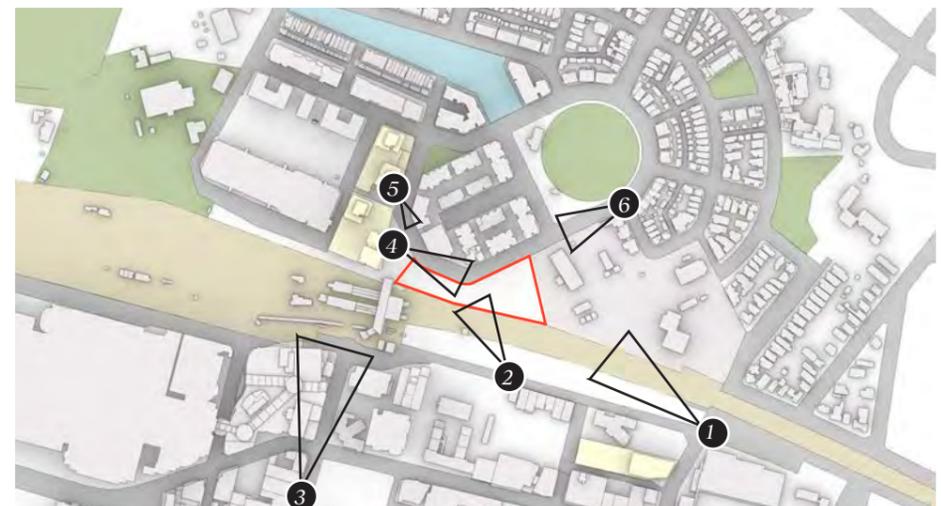
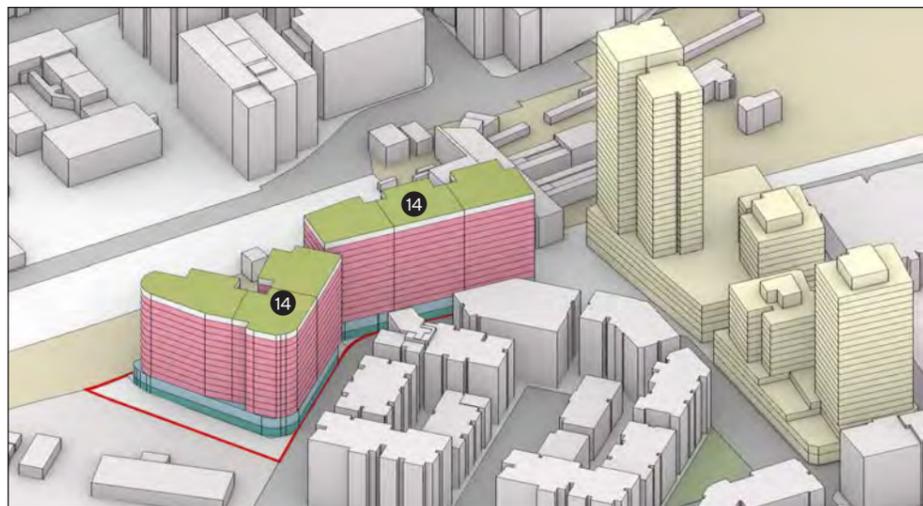
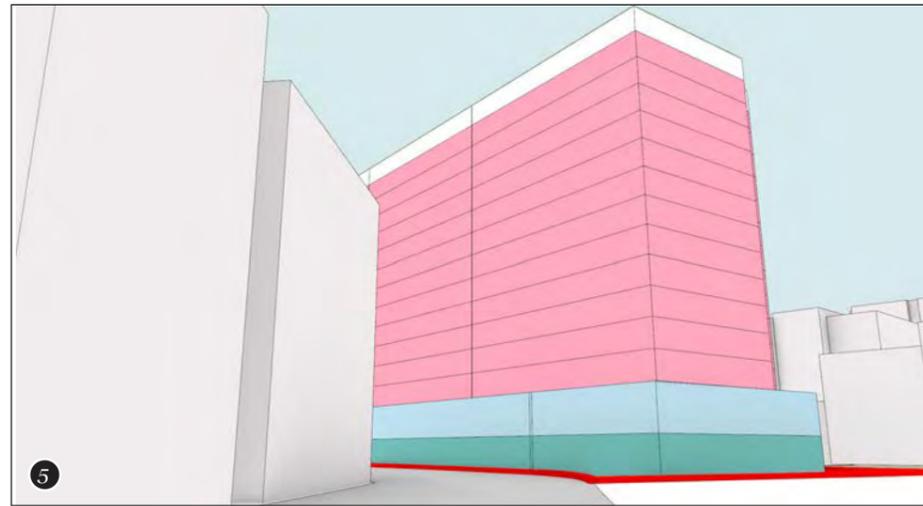
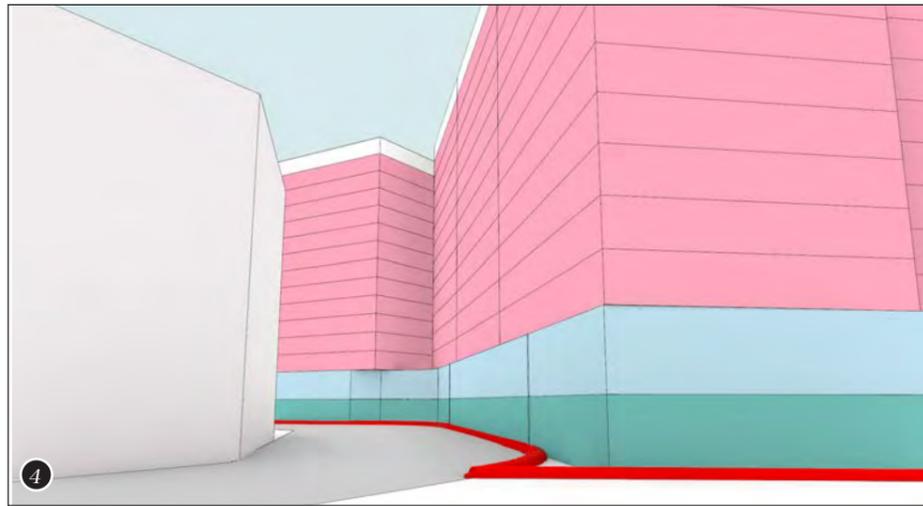
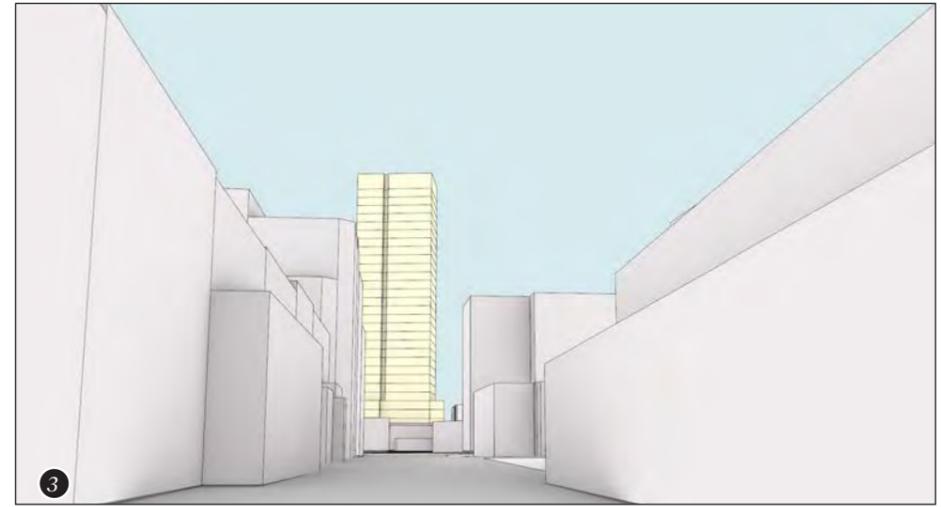
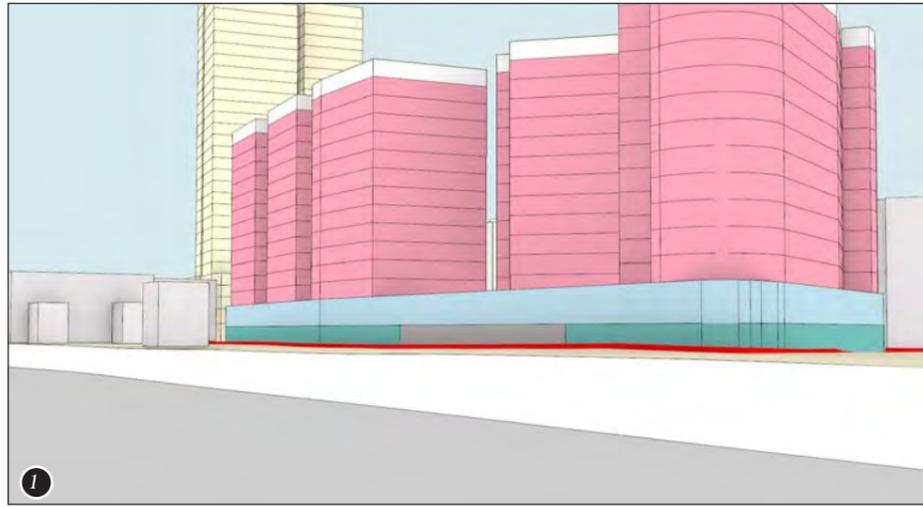
This proposal will be seeking consent for an additional four residential storeys, modification to the layout of the basement, modification to the layout of the approved Level 10 to accommodate additional residential yield, including affordable housing, and some design modifications.

However, the following portions of the base consent will be maintained and will be outside of the scope of the SSDA:

- Remediation of the site and site preparation,
- Extent of excavation and footprint of basement,
- Retail and non-residential land uses and layouts, and
- Layout of residential floor plates within Levels 1-9.



Proposal - Views



3. DESIGN REVIEW PANEL – AREAS FOR DEVELOPMENT

The following table reflects the DRP’s feedback based on the presentation by the Design Team on the 22 September 2024.

All Panel comments and feedback reflect the unanimous position of the DRP session.

Table 1 – Design Review Panel Comments

Focus Area	Panel Comment
Urban design and building Height	<ul style="list-style-type: none"> The Panel agrees that the inclusion of four additional residential levels above the approved scheme with the same floor plate and setbacks as approved is an appropriate urban design solution to include the in-fill affordable housing additional density within the scheme. This approach builds upon and maintains the design excellence principles adopted in the original design competition. In forming this view, the panel has had regard to, and appreciates, the matrix of urban design options tested by the proponent, noting in particular that a number of the alternate options proposed significant heights well in excess of the control height, with little benefit. The proposed height and form is appropriate having regard to its context, and the approach is considered to retain the integrity of past decisions, and the simplicity of form has numerous benefits, including minimal impacts such as overshadowing. An additional upper-level setback is not supported, with the proposed built form supported by the Panel. This ‘extrusion’ of the built form is appropriate as it enables the maintenance of the consolidated communal rooftop space. Further, this approach is considered to add to the verticality and elegance of the composition of the building and is supported.
Facade treatment	<p><u>Northern façade (Lord Sheffield Circuit)</u></p> <ul style="list-style-type: none"> The proposed approach to the building’s northern façade is supported by the Panel. In particular, the two storey modular composition of this façade is successful in creating a pleasing visual proportion to the building in its taller form. The slight asymmetry of vertical elements is supported, with these elements creating ‘movement’ in the façade and softening the appearance of the building. <p><u>Western façade (station plaza)</u></p> <ul style="list-style-type: none"> The Panel notes that the proposed amendments to the western façade read as a different building compared to the northern façade, with the successful horizontal unity of all facades associated with original design eroded as a result. The addition of the northern balconies and change in curvature at this point has detracted from the scalloped appearance of the façade. The Panel recommends that the treatment of the western facade requires reconsideration by the Design Team. This may involve returning to a more simplified western façade. Further design work is required to marry the western façade with the northern façade, with a treatment which is more unified and connected. The approved western façade of the western building with the simplified and elegant form also has a relationship to the western façade of the eastern building . As such the Panel recommends this relationship be considered in any revision to the proposed western façade. <p><u>Eastern facade</u></p> <ul style="list-style-type: none"> The eastern facade of the building also needs to be reviewed in light of the proposed changes to the northern facade. The approved northeastern corner treatment included banding that ‘turned the corner’ and successfully unified the elevations. However, the retained eastern façade is no longer united with the northern façade. As such, the eastern façade should be revised to moderate its perceived scale, which may involve introducing ‘two storey’ treatments into this façade. Any two-storey treatments should be achieved through depth of façade elements and not simply through colour alteration. <p><u>Summary</u></p> <ul style="list-style-type: none"> In summary, the Panel notes that the proposed two storey treatment and the depth of the articulation on northern facade reduces the appearance of the number of total storeys in the building and is supported. However, this treatment needs to be reviewed at the eastern and western ends of the building, so the elevations are better integrated.

Focus Area	Panel Comment
Materiality	<ul style="list-style-type: none"> The Panel noted that the upper part of the colonnade had been changed from a grey to a darker pink concrete. The change in colour from the competition scheme was not considered a desirable outcome, with mention made of the potential for a perception of greater heat impacts; the colour was not supported by the Panel. The Panel recommended the retention of a lighter colour on the upper portion of the colonnade, as approved.
Wintergardens	<ul style="list-style-type: none"> The approach of removing the mesh on balconies and replacing with wintergardens on the southern elevation was supported by the Panel.
Amenity	<ul style="list-style-type: none"> The Panel recommended that a full solar access study quantifying the impacts of the additional height on solar access to public spaces in front of 2-6 Station Street and Belmore Street be provided within the SSDA. The solar access study will enable a thorough assessment of the proposal against the provisions of clause 8.2 Sun Access of Penrith LEP 2010 which operates to protect public spaces from overshadowing.

4. PANEL RESPONSES

The DRP considerations set out in Table 2 relate to the matters discussed at the SSDA DRP Session 1.

Table 2 – Summary of DRP Responses to Design Development

Status	Panel Feedback
Design development the Panel Supports	<ul style="list-style-type: none"> The Panel supports the provision of additional height and the manner in which the additional density is proposed to be accommodated. The Panel believes the scheme can achieve design excellence subject to further design development.
Design development requiring further refinement/ resolution	<ul style="list-style-type: none"> The Panel recommends a further desktop review of revised western and eastern façade treatments to ensure the elevations are visually and compositionally unified, particularly at the northwestern and north eastern corners of the building, and that the easterly presentation of the building is moderated to address scale and integrate with the broader presentation of the development to the north and west. The Panel considers that the colour of the colonnade in the competition scheme was more successful and appropriate for the climate than the proposed darker terracotta shade; and that the approved colour scheme be retained. The Panel recommend a solar access study be provided within the SSDA package to enable a thorough assessment of solar access impacts of the increased height to the public spaces in front of 2-6 Station Street and Belmore Street.

5. PANEL ENDORSEMENT

The DRP Chair confirms that this letter is an accurate record of the DRP feedback and that the DRP endorses the observations and clarifications by consensus.

This letter is to be used to guide further detailed design refinement of the scheme.

The DRP recommends that a further desktop review be held prior to the lodgement of the SSDA to resolve the matters described above.

Design Review Panel (DRP) Endorsement

Name	Signature	Date
Rory Toomey - GANSW (Chair)		22.10.2024



SDRP Summary & Response

Focus Area	Panel Comment	Architect's response	Drawing Reference
Western Facade (station plaza)	<p>The Panel recommends that the treatment of the western facade requires reconsideration by the Design Team. This may involve returning to a more simplified western façade. Further design work is required to marry the western façade with the northern façade, with a treatment which is more unified and connected.</p> <p>The approved western façade of the western building with the simplified and elegant form also has a relationship to the western façade of the eastern building. As such the Panel recommends this relationship be considered in any revision to the proposed western façade.</p>	This has been reverted to the original design as recommended by the panel. The northern corners of the building are now unified in expression.	6626-SSDA-1404 6626-SSDA-2501
Eastern Facade	The eastern facade of the building also needs to be reviewed in light of the proposed changes to the northern facade. The approved northeastern corner treatment included banding that 'turned the corner' and successfully unified the elevations. However, the retained eastern façade is no longer united with the northern façade. As such, the eastern façade should be revised to moderate its perceived scale, which may involve introducing 'two storey' treatments into this façade. Any two-storey treatments should be achieved through depth of façade elements and not simply through colour alteration.	The eastern facade has been updated with 2 storey articulation and increased depth to the facade fins.	6626-SSDA-1403
Materiality	The Panel recommended the retention of a lighter colour on the upper portion of the colonnade, as approved.	Pink concrete removed as requested	6626-SSDA-1401 6626-SSDA-1402 6626-SSDA-1403 6626-SSDA-1404
Wintergardens	The approach of removing the mesh on balconies and replacing with wintergardens on the southern elevation was supported by the Panel.	The wintergardens have been included in the design.	6626-SSDA-1402 6626-SSDA-2502
Solar Impacts	The Panel recommended that a full solar access study quantifying the impacts of the additional height on solar access to public spaces in front of 2-6 Station Street and Belmore Street be provided within the SSDA. The solar access study will enable a thorough assessment of the proposal against the provisions of clause 8.2 Sun Access of Penrith LEP 2010 which operates to protect public spaces from overshadowing.	Provided in additional elevational and plan shadow diagrams from 9am to 10am.	6626-SSDA-6011 6626-SSDA-6012 6626-SSDA-6013 6626-SSDA-6031 6626-SSDA-6032 6626-SSDA-6033

5

Proposal

Ground Floor Plan

The ground floor consists of the following:

1_Retail + Colonnade

An active retail edge that addresses Lord Sheffield Circuit protected under a grand two storey colonnade.

An active retail frontage addressing the station forecourt that includes a large building awning above that acts as a public canopy.

2_Residential Lobbies

5 x residential lobbies that are accessed from the colonnade along Lord Sheffield Circuit.

3_Commercial Lobbies

2 x commercial lobbies that are accessed from the colonnade along Lord Sheffield Circuit.

4>Loading Dock + Services

The loading dock accessed along the Eastern boundary. Associated services predominantly located with the loading dock and along the Southern boundary.

5_Vehicle Access

Vehicle access is located along the Eastern boundary to reduce potential conflict between vehicles and pedestrians along the public colonnade.

6_The Community Garden

Community garden to provide a landscaped interface with the eastern boundary.

7_Landscape

An integrated landscape and architectural design including public and private domain works - Refer to Arcadia design report.



Source: Arcadia

Ground Floor Plan - Access and Retail

Retail

The retail space provides future flexibility and can accommodate a variety of tenancy sizes. They have been designed in conjunction with a retail consultant.

The western space addressing the station forecourt provides a primary retail space.

The East and West buildings are connected at ground level with continuous retail frontage.

The width of the colonnade is approximately 4.5m to allow for retail exposure, seating and space for pedestrian movement.

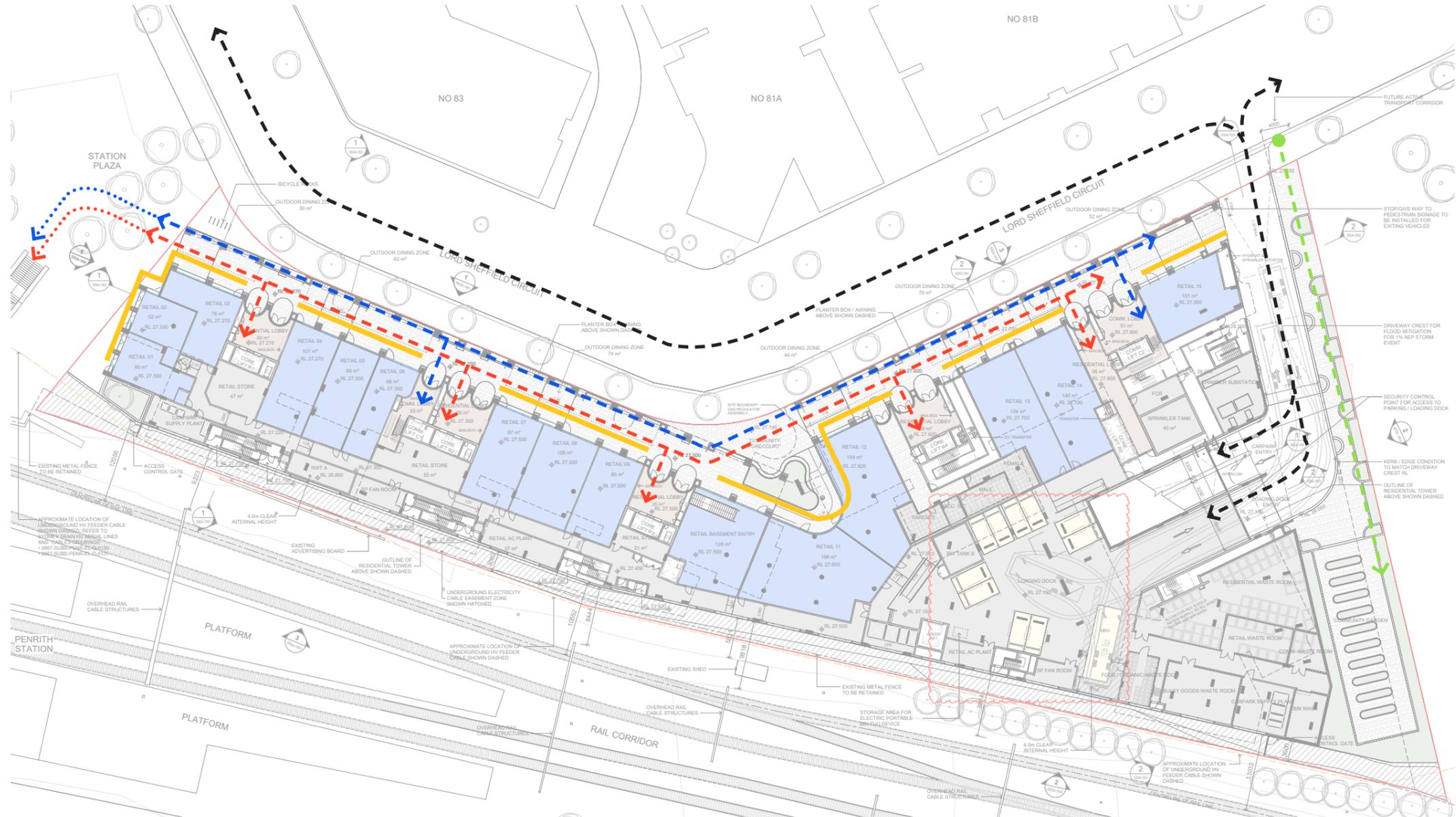
Width and set out of the arches allow for retail exposure, seating and space for pedestrian movement.

Commercial

Dedicated commercial lobby / lift access has been provided from the colonnade along Lord Sheffield Circuit.

Residential

All residential lobbies are accessed from the colonnade along Lord Sheffield Circuit.



- > Vehicle
- > Commercial Access
- > Residential Access
- > Community Garden Access
- Retail Frontage

Ground Floor Plan - Landscaping / Public Domain

1. Colonnade

The proposed public domain seeks to reference the high quality public domain palette of the evolving area. Our proposal acknowledges the recent public domain upgrades along Lord Sheffield Circuit and seeks to complement this palette.

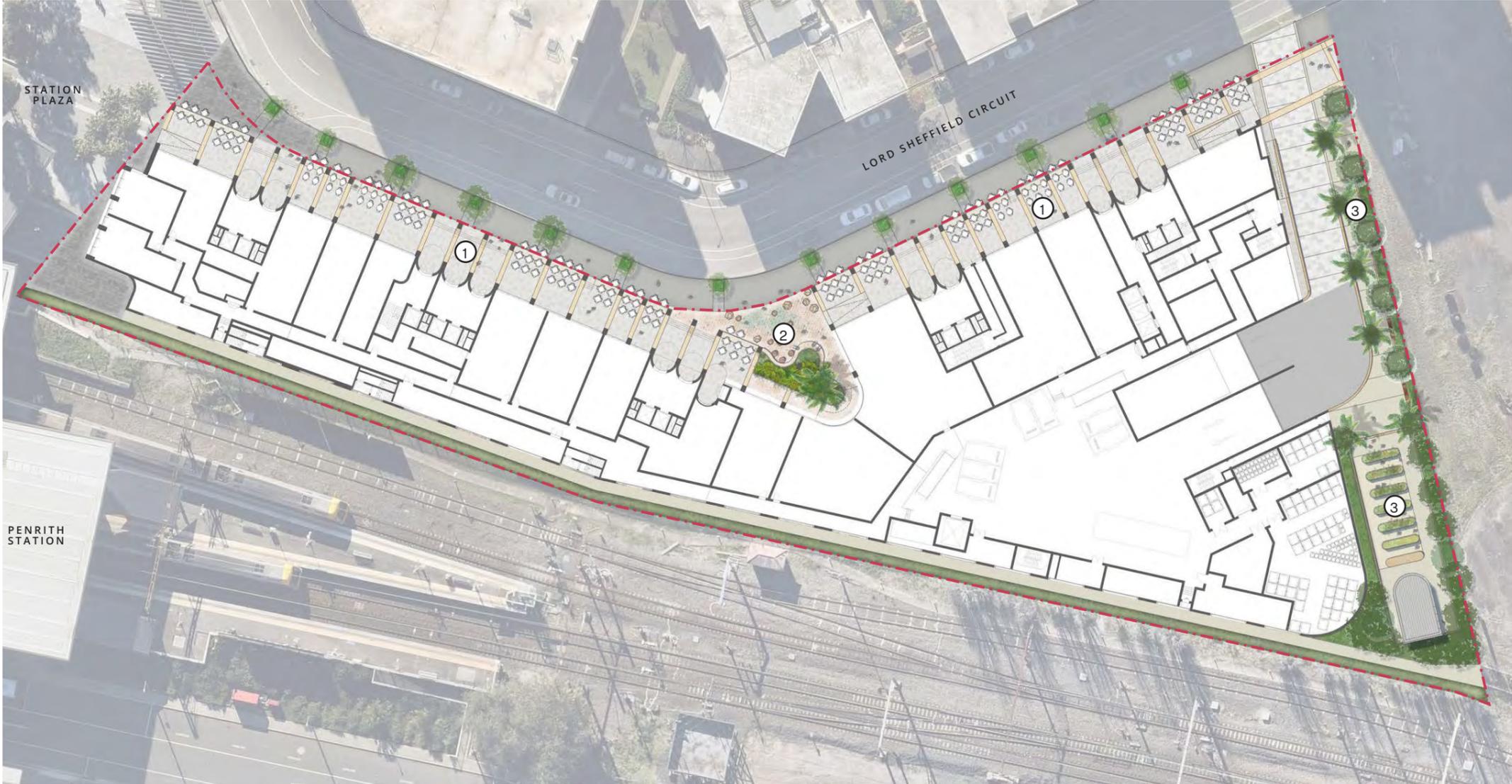
2. Community Forecourt

A welcoming forecourt of Lord Sheffield Circuit that is grounded by a central water feature and bespoke seating, marking the main arrival to the development. Strong visual connections to the forecourt is maintained from the Station Plaza to the west, and access from the eastern boundary. The planted awning along the colonnade frames the arrival into the forecourt, in conjunction with lighting to the soft to draw people into the space.

3. Bush Tucker Walk & Community Garden

A new paved threshold causes friction; vital in a shared street environment. The shared zone paving (consistent with the new public domain) will visually extend the new landscape beyond Lord Sheffield Circuit and flip the focus to the pedestrian. A public space at all times, planters along the eastern edge form a dual purpose; a place to sit and relax, as well as part of the educational loop connecting back to Country. The introduction of bush tucker planting provides interest and draws people towards the Community Garden. The Community Garden will be the new public offering to replace the current Thornton Community Garden. It will be a place for people to come together and grow food, relax and learn.

Source: Arcadia



Source: Arcadia

Level 2 Plan

The typical floor consists of the following;

1. Residential Lobbies

5 x residential lobbies that provide access to the basement and colonnade along Lord Sheffield Circuit.

2. Residential Apartments

70 apartments accessed from 5 residential lift cores

The typical residential module (of which there are 5) includes six apartments and core (each core with scissor stair, waste chute and 2 lifts).

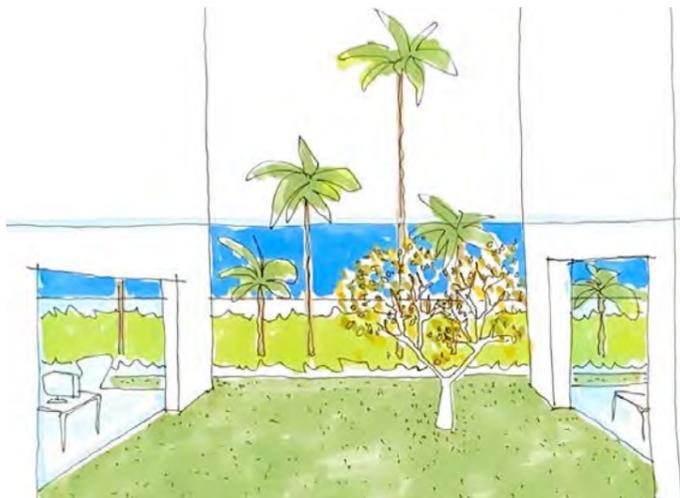
The Eastern residential module includes 13 apartments, 3 lifts, 2 stairs and waste chutes.

The apartments are designed to maximise solar access, cross ventilation, whilst dealing with the acoustic and privacy implications of the railway corridor.

3. Podium Landscape

The podium roof is proposed as a passive space which provides outlook to the residential apartments and acts as a landscaped buffer to the railway corridor. It also aids in the reduction of the urban heat island effect

Refer Arcadia Design report



Typical Residential Plan (L3-L13)

The typical floor consists of the following;

1_ Residential Lobbies

5 x residential lobbies that provide access to the basement and colonnade along Lord Sheffield Circuit.

2_ Residential Apartments

70 apartments accessed from 5 residential lift cores

The typical residential module (of which there are 5) includes six apartments and core (each core with scissor stair, waste chute and 2 lifts).

The Eastern residential module includes 13 apartments, 3 lifts, 2 stairs and waste chutes.

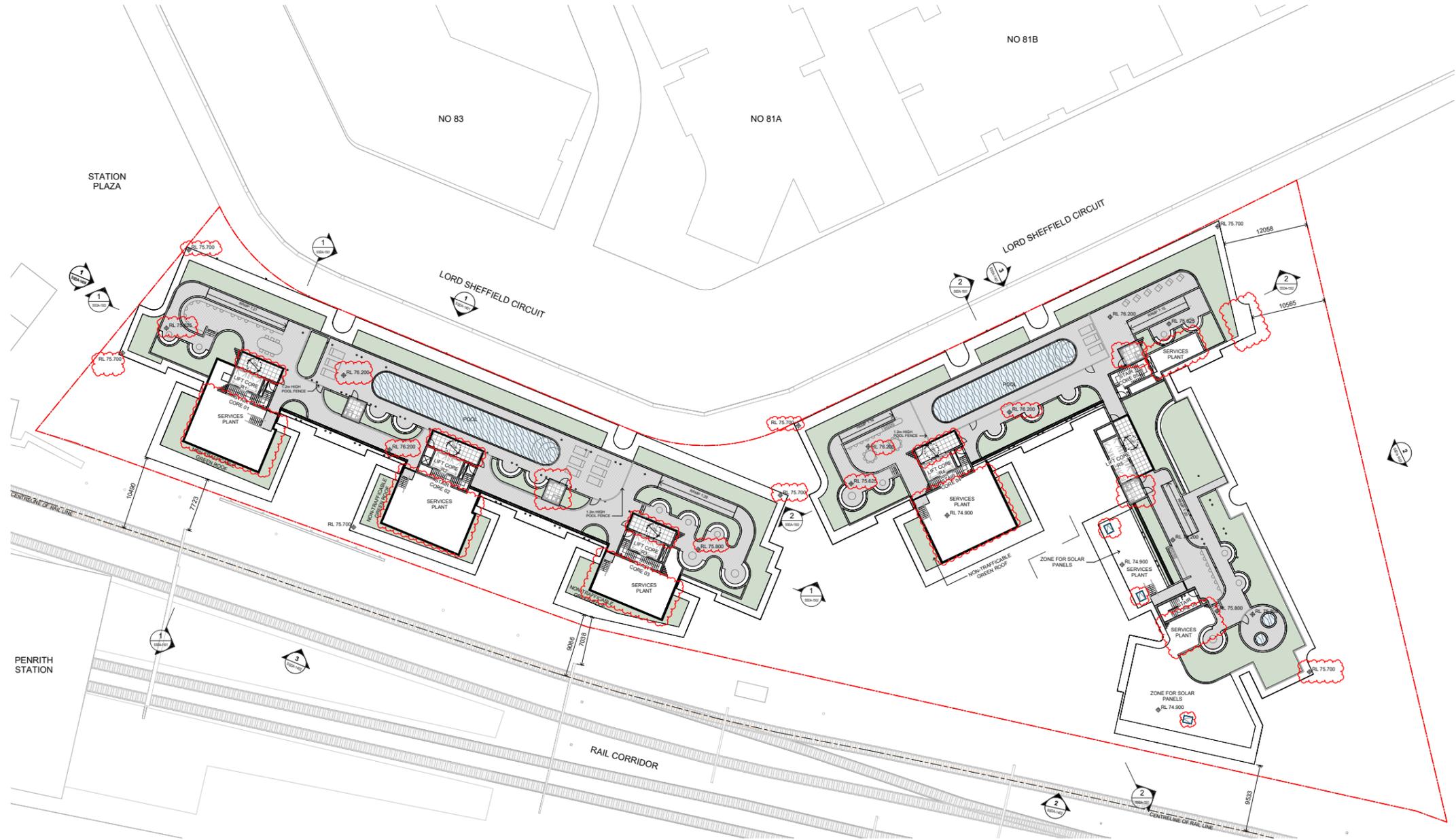
The apartments are designed to maximise solar access, cross ventilation, whilst dealing with the acoustic and privacy implications of the railway corridor.



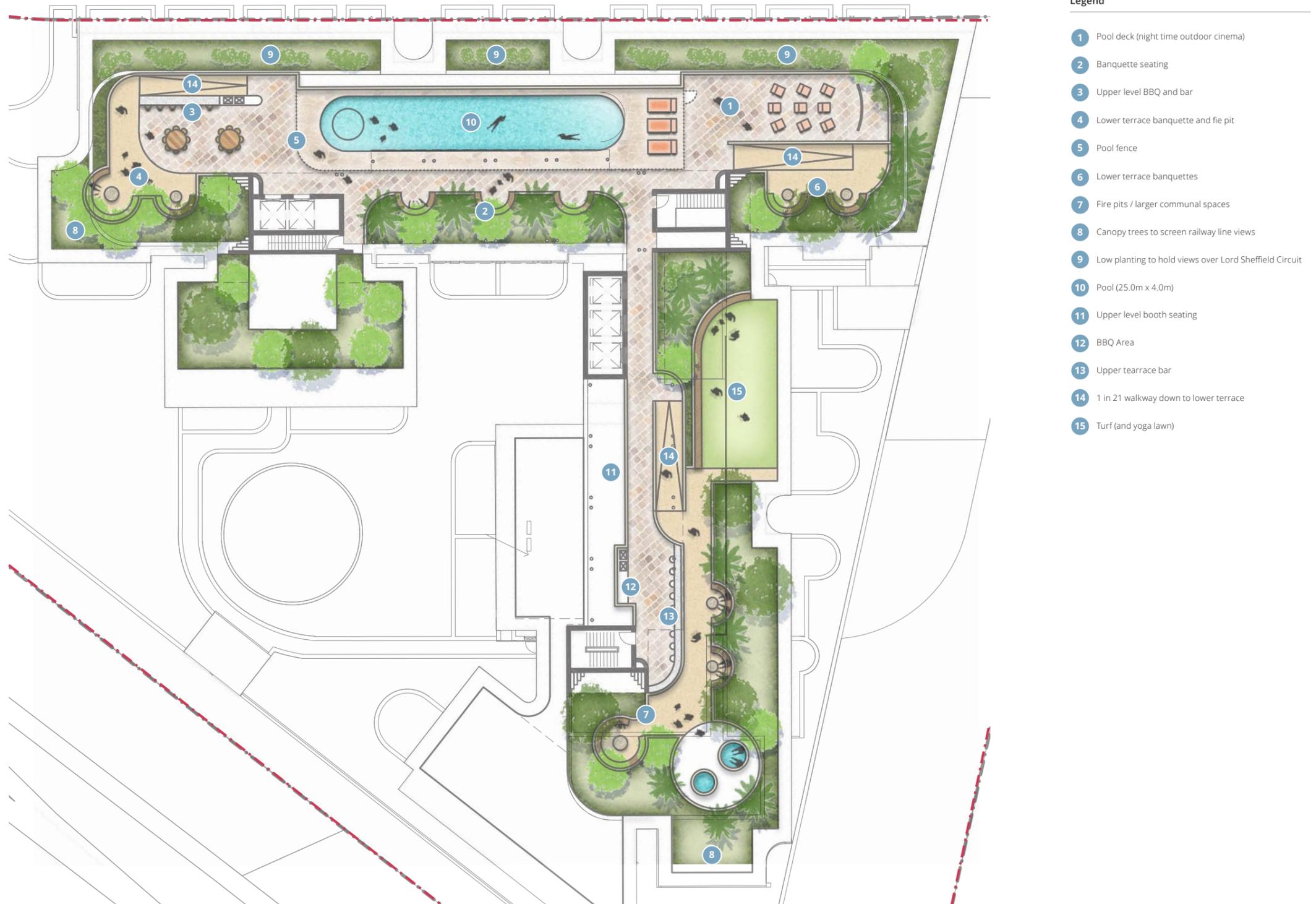
Rooftop Plan

A great benefit in having a series of connected buildings with a long narrow footprint is that there is a commensurate roof area - a long, narrow, north facing plateau. Sydney and the Blue Mountains landscape is characterised by rocky outcrops and shelves that create opportunities for plants to establish themselves on horizontal surfaces.

The extensive rooftop plateau creates the same opportunity for this building. We see an amazing opportunity to create a remarkable communal rooftop. A variety of places for social interaction at small and large scales. A plateau a top the building to rest, relax, meet, exercise and enjoy. A place set within landscape to drink your morning coffee or do some yoga as the sun appears, to escape the summer heat with a splash in the pool, or a place to watch the sun set over the blue mountains.

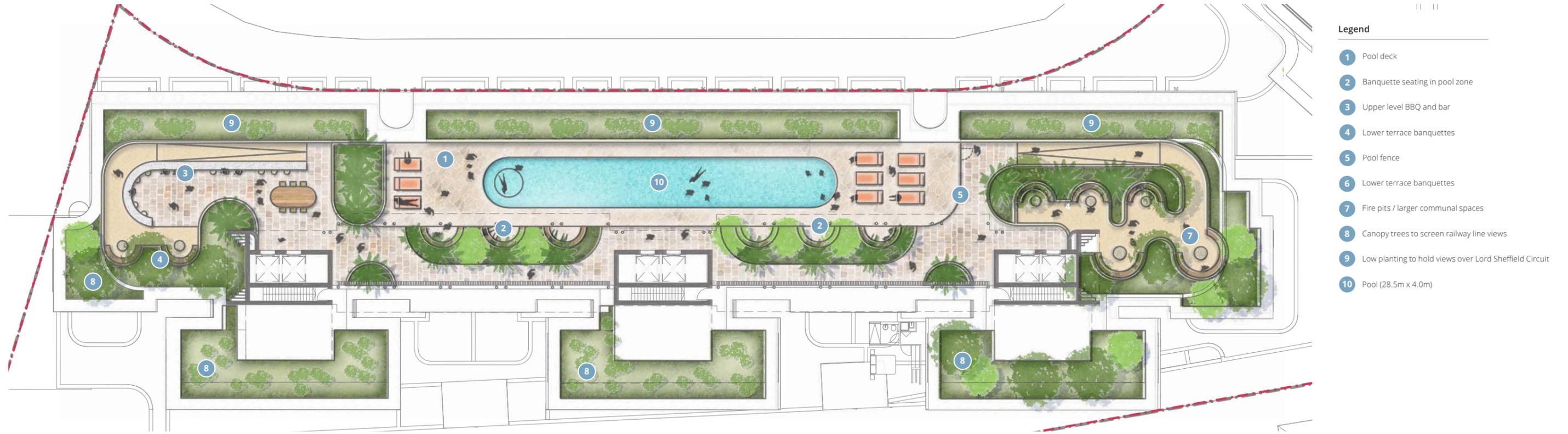


Rooftop Landscape - East Wing



Source: Arcadia

Rooftop Landscape - West Wing



Legend

- 1 Pool deck
- 2 Banquette seating in pool zone
- 3 Upper level BBQ and bar
- 4 Lower terrace banquettes
- 5 Pool fence
- 6 Lower terrace banquettes
- 7 Fire pits / larger communal spaces
- 8 Canopy trees to screen railway line views
- 9 Low planting to hold views over Lord Sheffield Circuit
- 10 Pool (28.5m x 4.0m)

Source: Arcadia



Source: Arcadia

Basement Levels

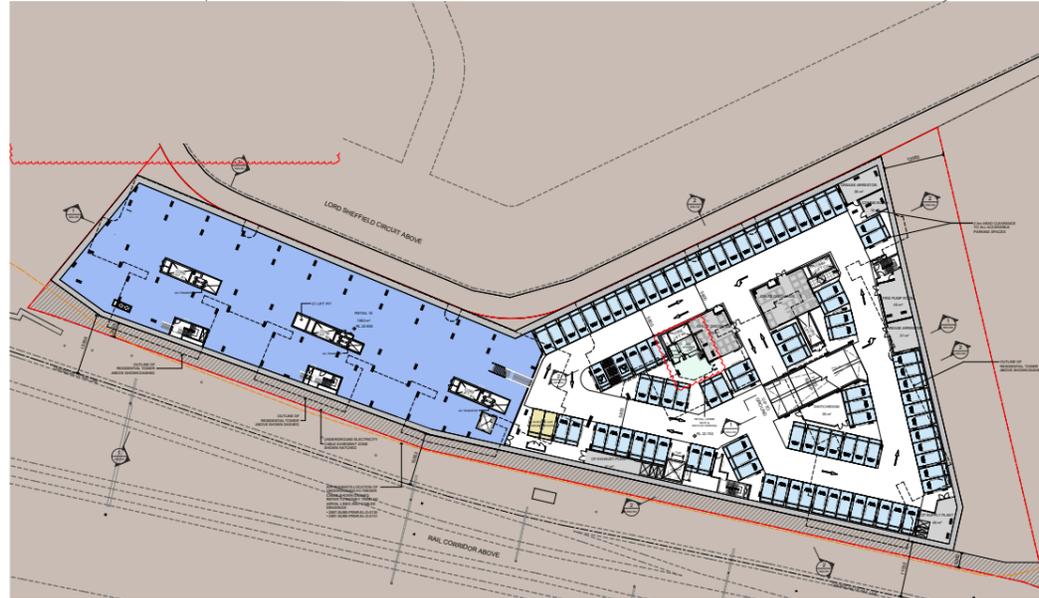
The basement floors consists of the following:

591 car spaces

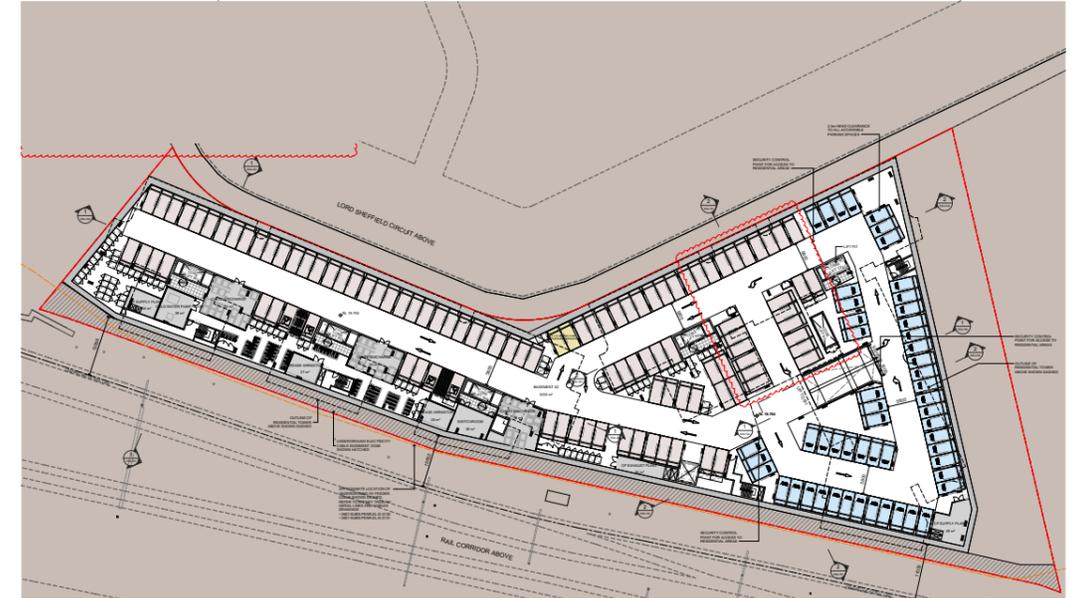
4 car wash bays

134 bicycle spaces

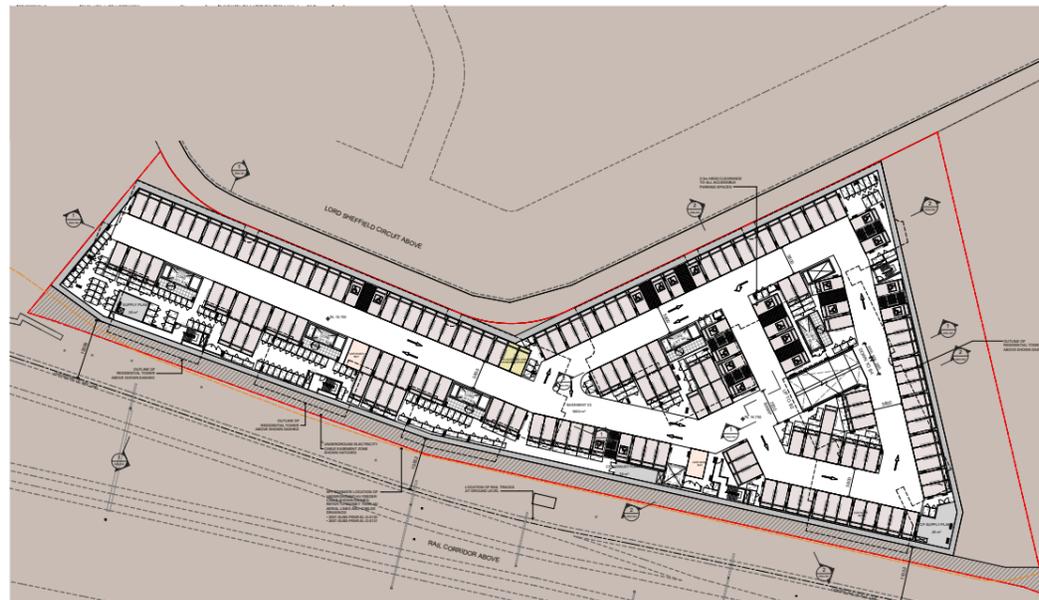
Associated services



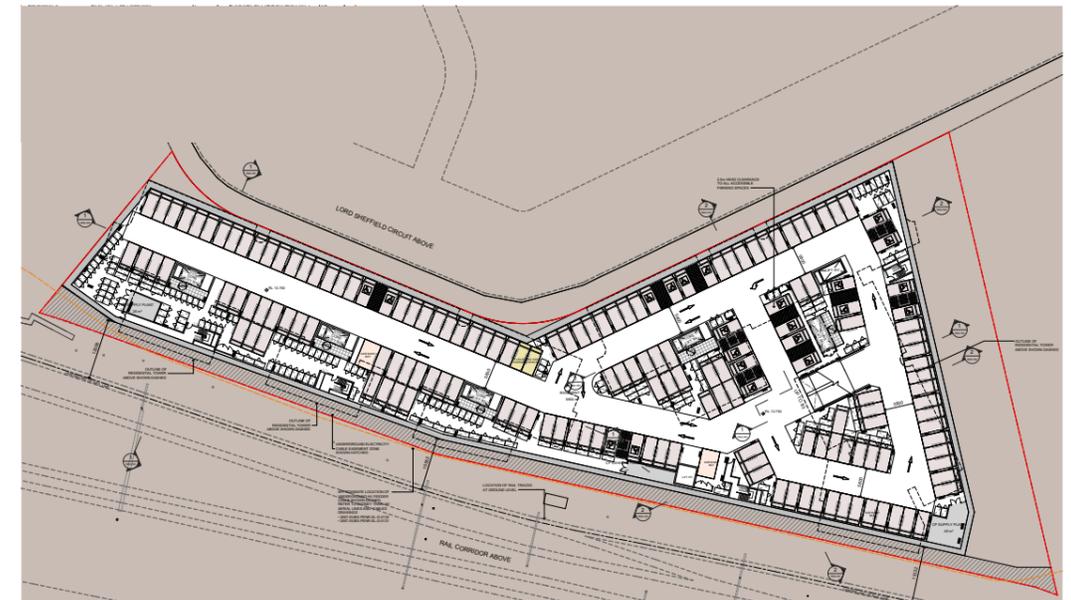
Basement Level 1



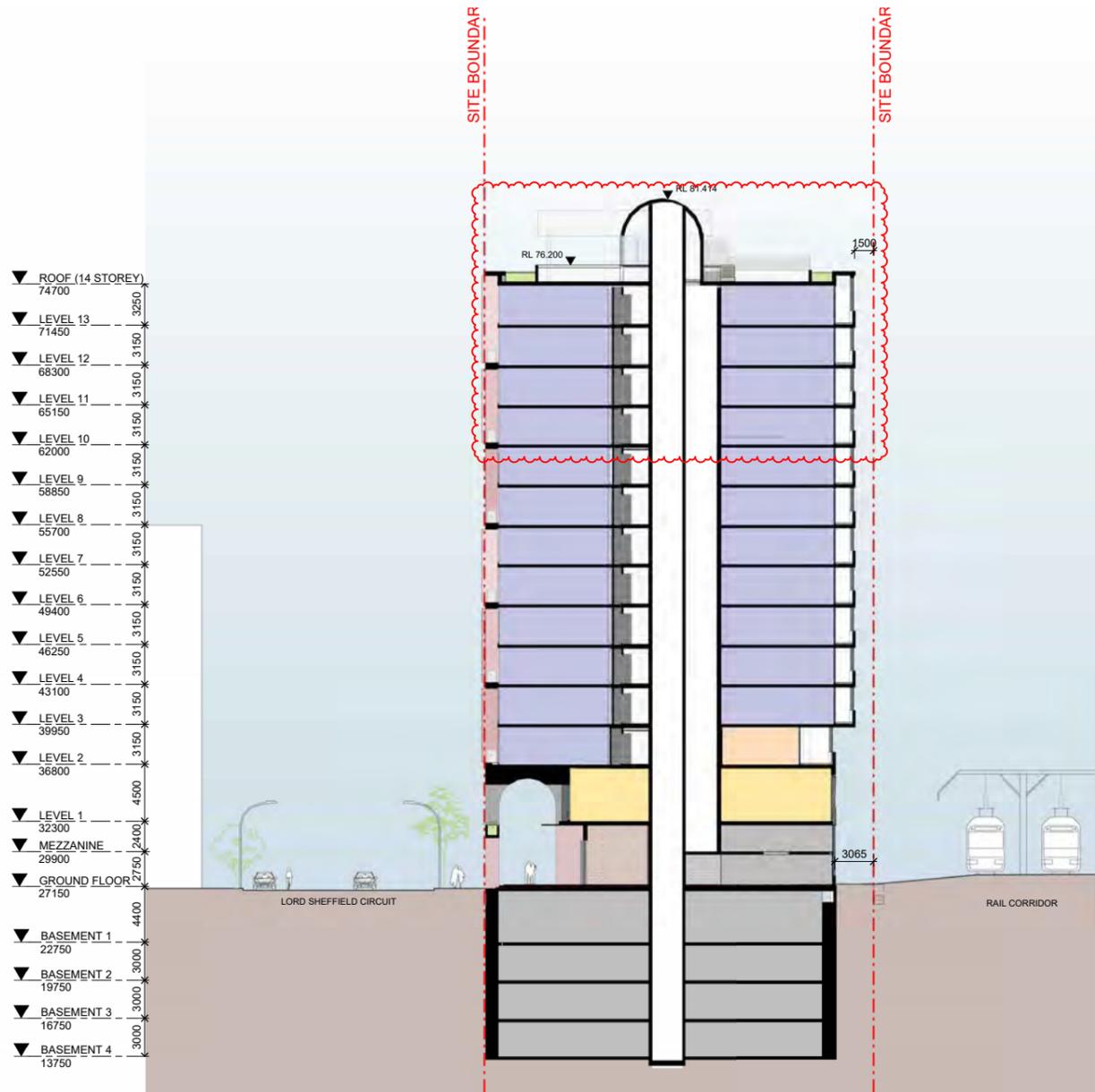
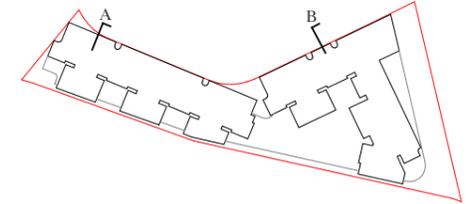
Basement Level 2



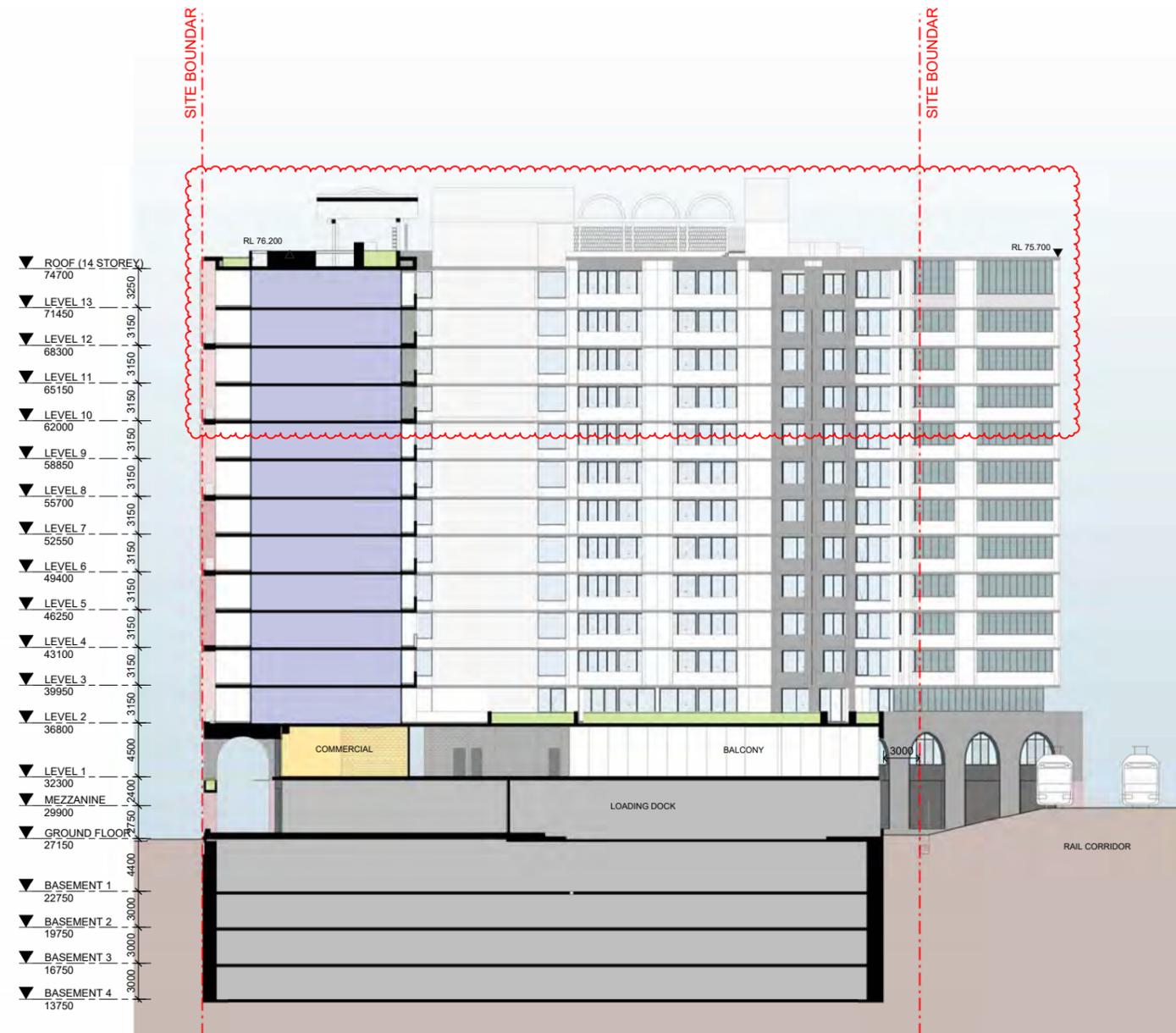
Basement Level 3



Basement Level 4



Section A



Section B

Visualisation

In addition to responding to its site and environmental context, the proposed built form enhances the public domain and maximises internal amenity.

The proposal for the SSDA is to add a further 4 storeys to the 10 storeys approved, meaning a total building of 14 storeys. This is a scale of built form that is commensurate with its context, buildings along Lord Sheffield Circuit range between 8 to 11 storeys with larger towers proposed on the Western side of the station forecourt.

A 2 storey podium is provided, which delivers a double height colonnade to Lord Sheffield Circuit. This defines the Lord Sheffield Circuit interface and contributes to the public domain by providing protection for pedestrians, while delivering a physical separation to the residential dwellings above - helping to manage potential acoustic and visual privacy conflicts.

The retail activation at ground level, both along Lord Sheffield Circuit and the station forecourt will enliven the public domain of North Penrith.

The residential component sits directly above the podium, responding to and defining Lord Sheffield Circuit. At the inflection point of the site along Lord Sheffield Circuit the residential component opens in order to articulate the built form.

Secondary vertical cuts are included in the East and West residential forms to further articulate the building - establishing a relationship with the articulation along the Northern side of Lord Sheffield Circuit.

The additional four storeys are purposefully added to the building without any additional setbacks to retain the built form clarity as approved in the DA, and supported by the Government Architect in the SDRP.



Our winning competition scheme, and approved DA, celebrates the scale of the site. The design principles of our scheme allow for amplification, with additional height sitting comfortably on the grand 2 storey colonnade.

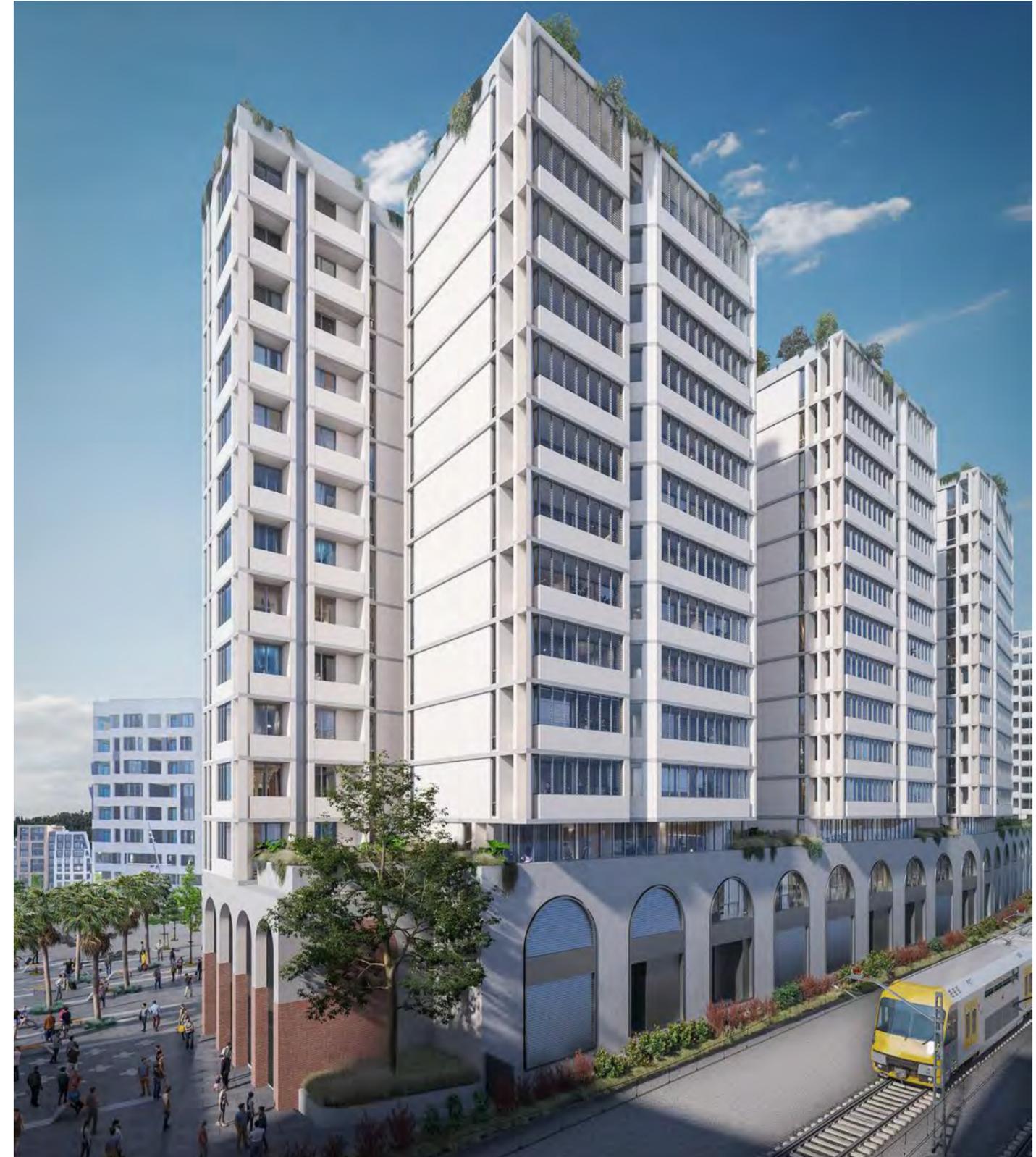
The additional 4 storeys has been carefully considered to ensure a well proportioned building with a balanced composition.

The facade along Lord Sheffield Circuit has been refined with a 2 storey expression to residential floors in order to reduce the perceived height of the street wall.

The material choices are responsive to its location with a brick base, and a concrete frame above. Along Lord Sheffield Circuit the vertical fins have a subtle colour gradient fading to white as the building ascends to further reduce the perceived height.

Massing and detailing is designed to respond to both the character of the area and the environment adjacent the station. The following principles have been observed in the design process:

- Detail and texture is focused on the lower floors, associated with the podium, where it is most visible.
- Careful articulation of the building form has been adopted to reduce the perceived bulk of the building and respond to the context.
- The building has an honest tectonic - expressing and celebrating the typology and construction.
- Glazing is recessive, which both protects the apartments from the summer sun, and also allows a play of light and shadow on the solid elements of the facade.
- The use of 'natural' materials require minimal maintenance.
- Selection of robust materials, which are long lasting and weather naturally.
- Proposed colours are those which are found naturally rather than primary colours, ensuring that the building sits comfortably within the urban scape.
- Extensive use of landscaping elements as an architectural overlay to the building. An integrated architectural and landscape response.



Northern Elevation



Metalwork Balustrade



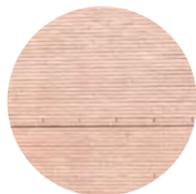
Cementitious Render - Grey



Cementitious Render - Off White



Glazing



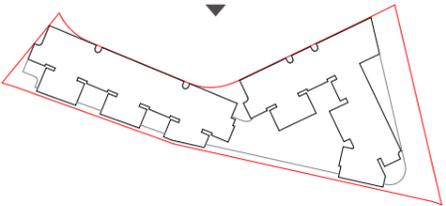
Brickwork



Cementitious Render - Brick colour



Pigmented Cementitious Render- Brick colour



Northern Elevation

Eastern Elevation



Metalwork Balustrade



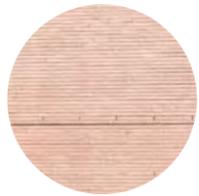
Cementitious Render - Grey



Cementitious Render - Off White



Glazing



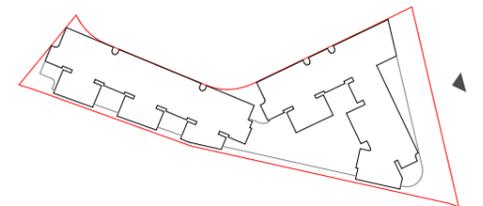
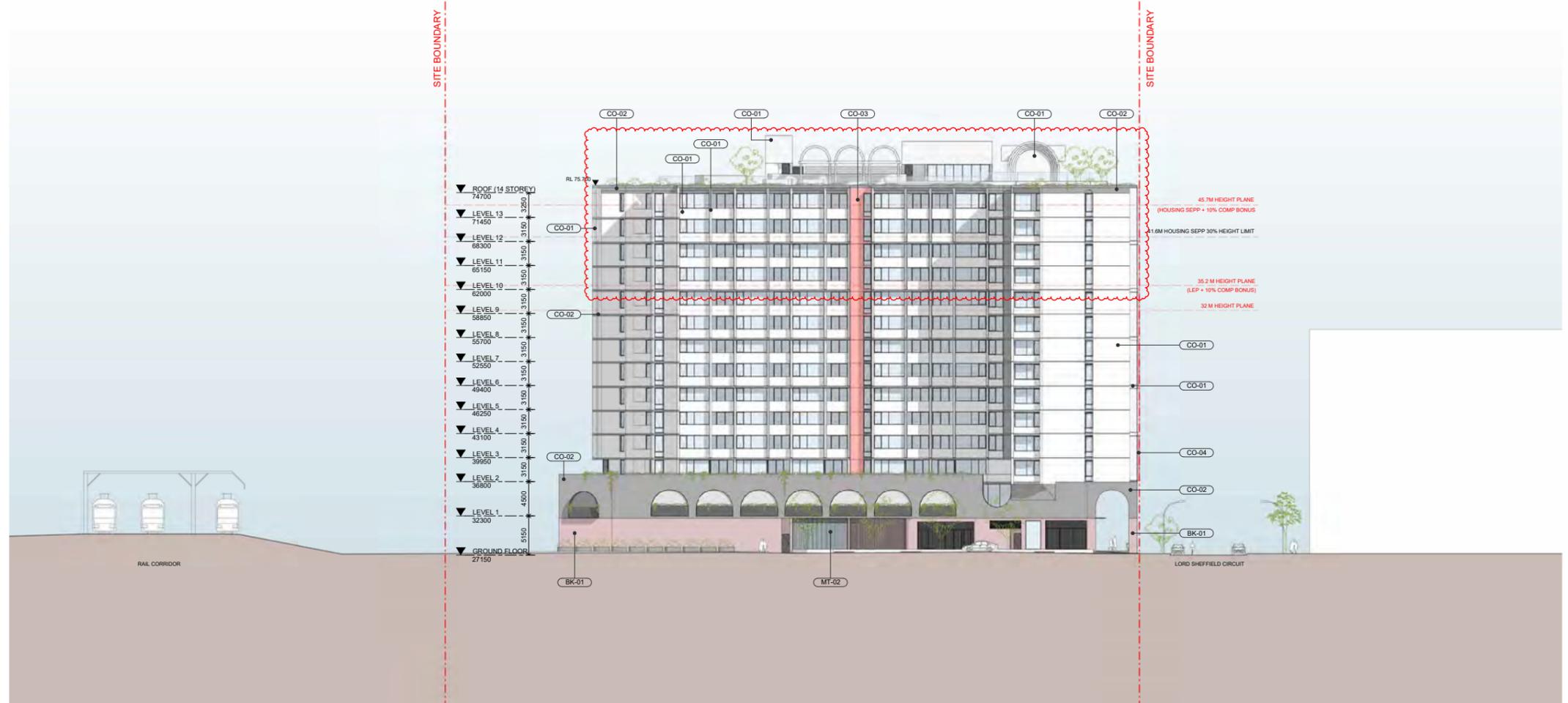
Brickwork



Cementitious Render - Brick colour



Pigmented Cementitious Render- Brick colour



Eastern Elevation

160, 162 & 172 Lord Sheffield Circuit

Western Elevation



Metalwork Balustrade



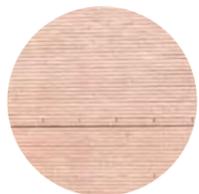
Cementitious Render - Grey



Cementitious Render - Off White



Glazing



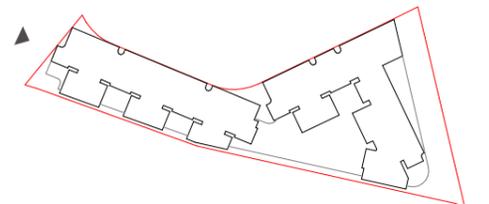
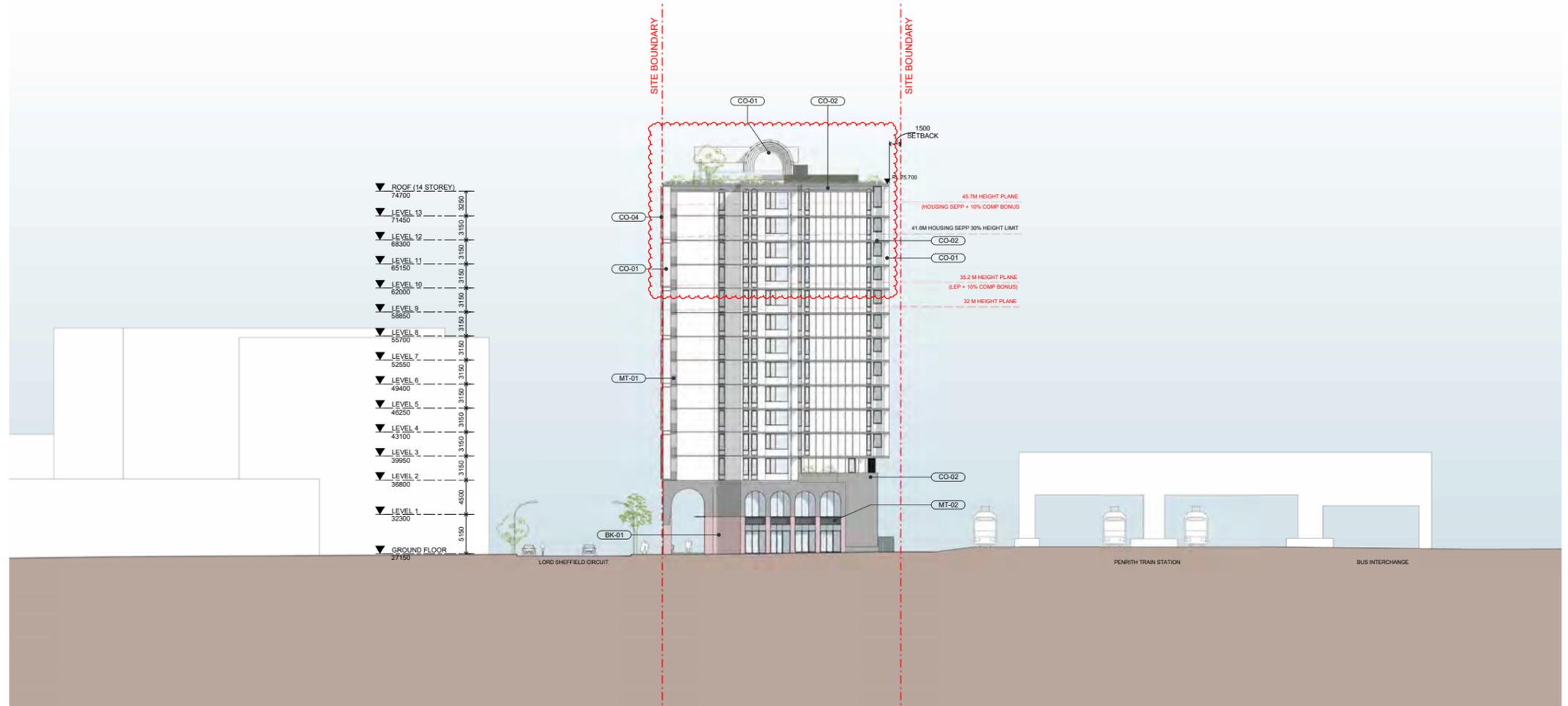
Brickwork



Cementitious Render - Brick colour



Pigmented Cementitious Render- Brick colour



Western Elevation

160, 162 & 172 Lord Sheffield Circuit

Southern Elevation



Metalwork Balustrade



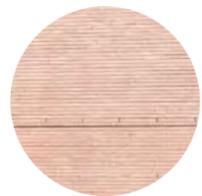
Cementitious Render - Grey



Cementitious Render - Off White



Glazing



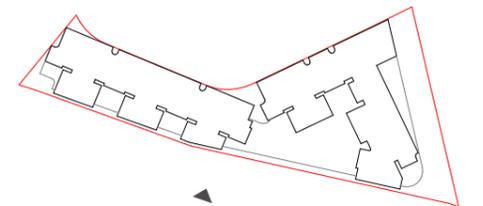
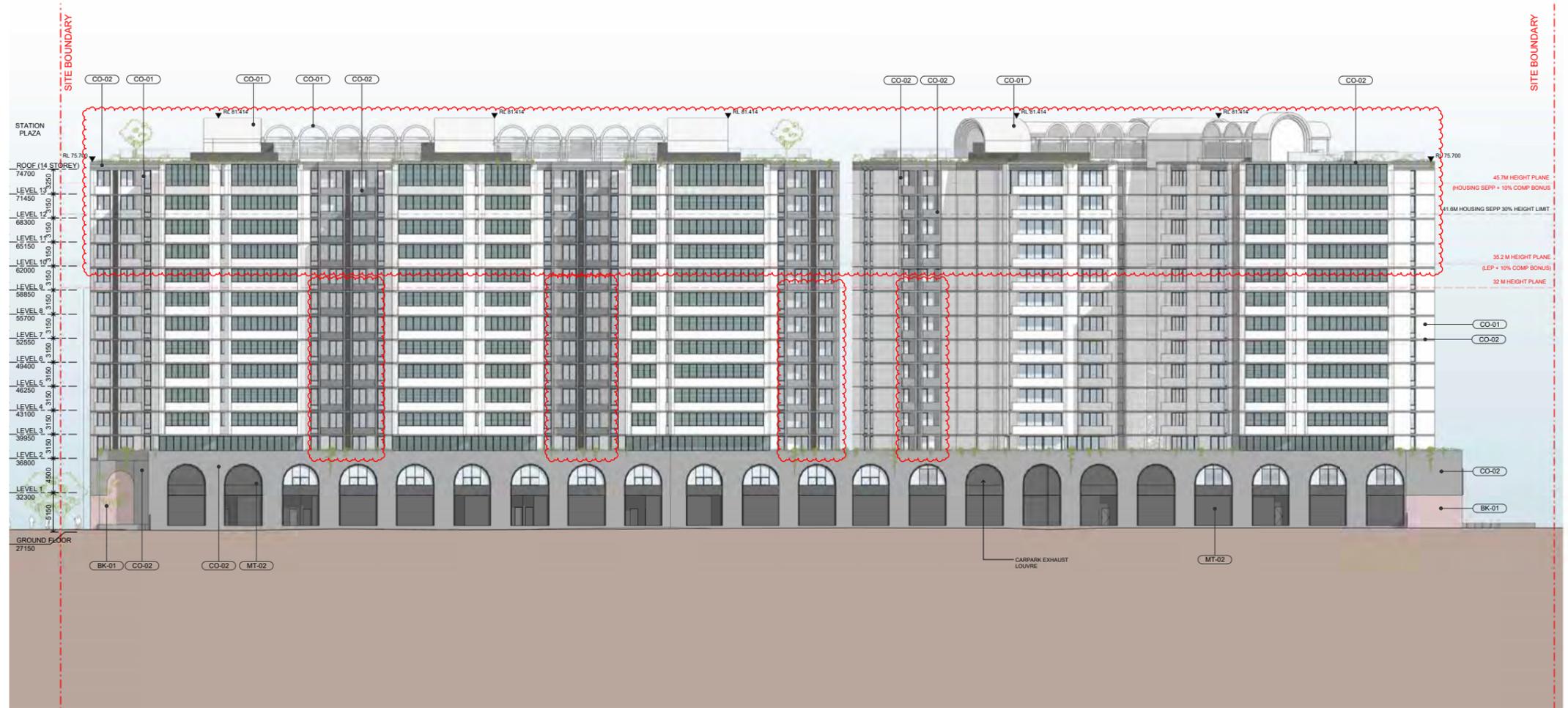
Brickwork



Cementitious Render - Brick colour



Pigmented Cementitious Render- Brick colour



Western Elevation

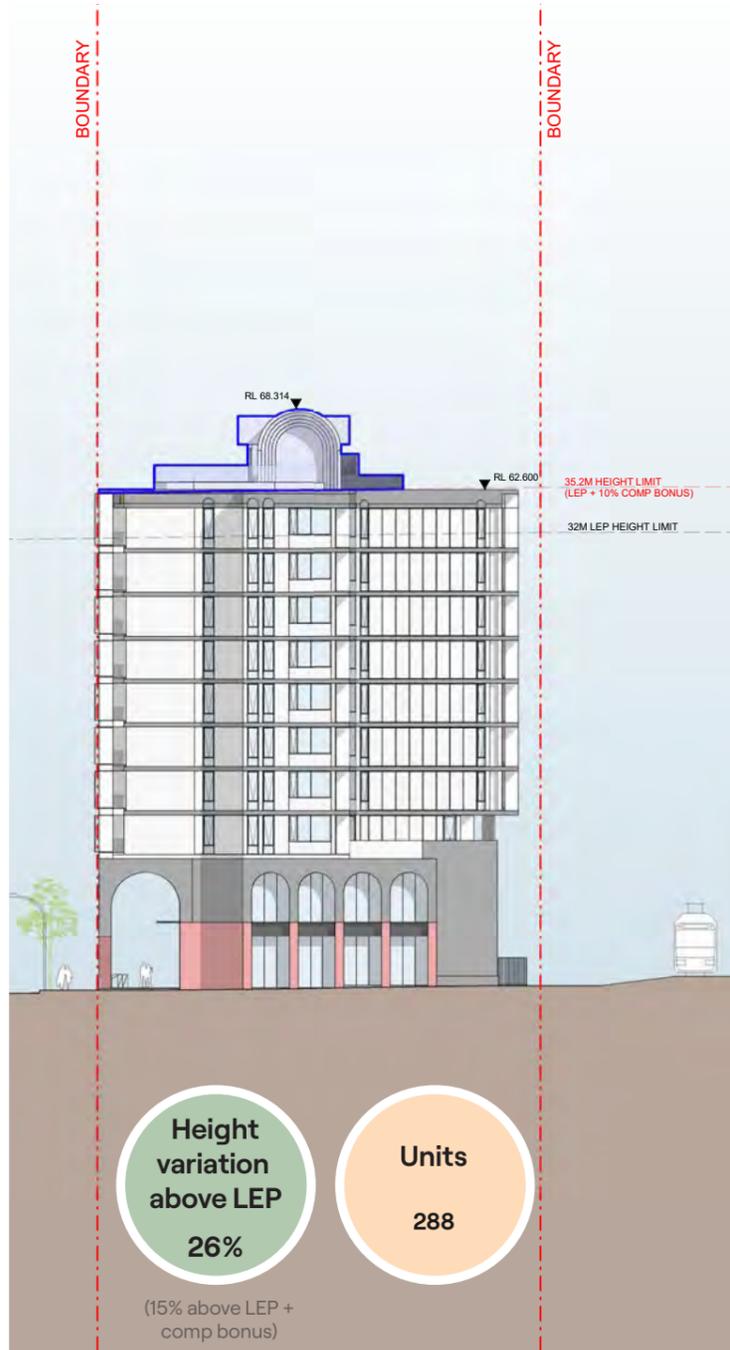
160, 162 & 172 Lord Sheffield Circuit

6

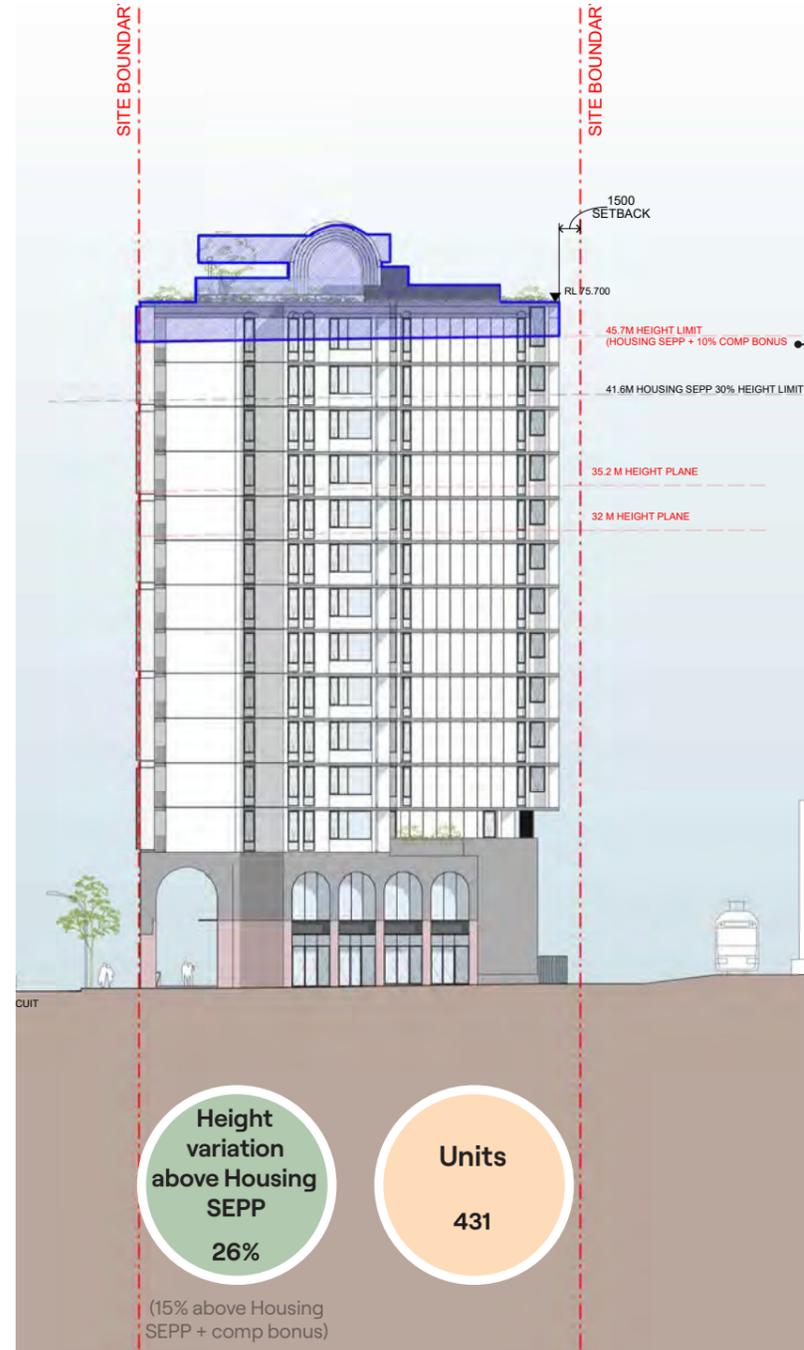
Analysis

Height Control and Variation Summary

DA Approved Scheme



Amending SSDA



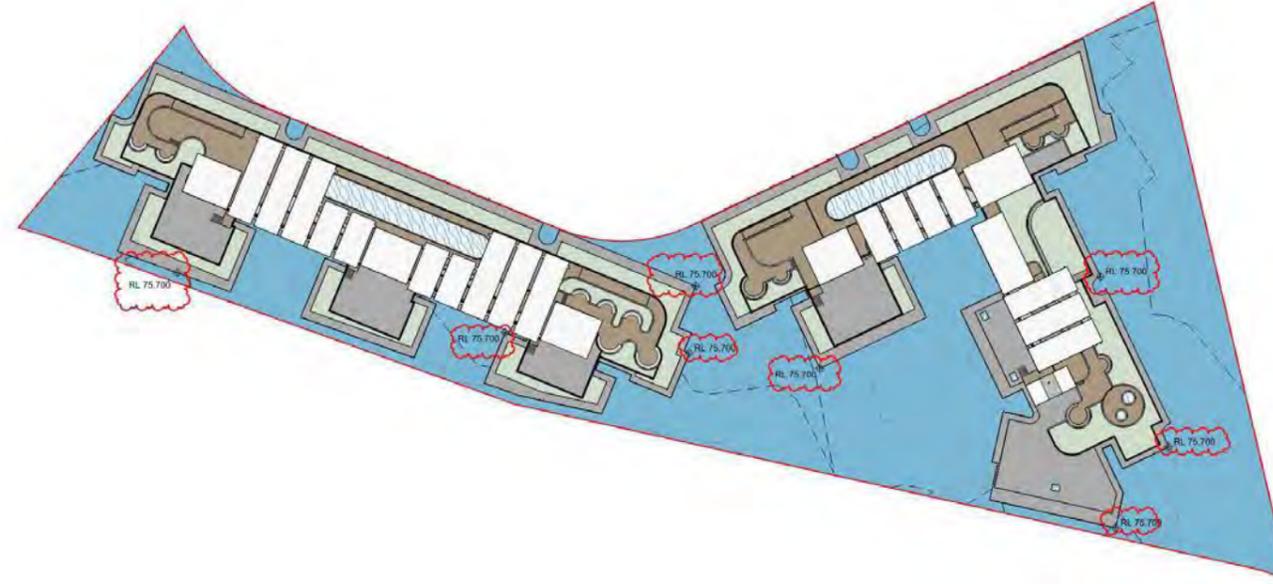
Maximum permissible height including 10% design competition bonus (where design competition is undertaken)

Clause 4.6 variation height for amending SSDA (as design competition is proposed to be waived and to facilitate equivalent variation for top of building compared to current approval)

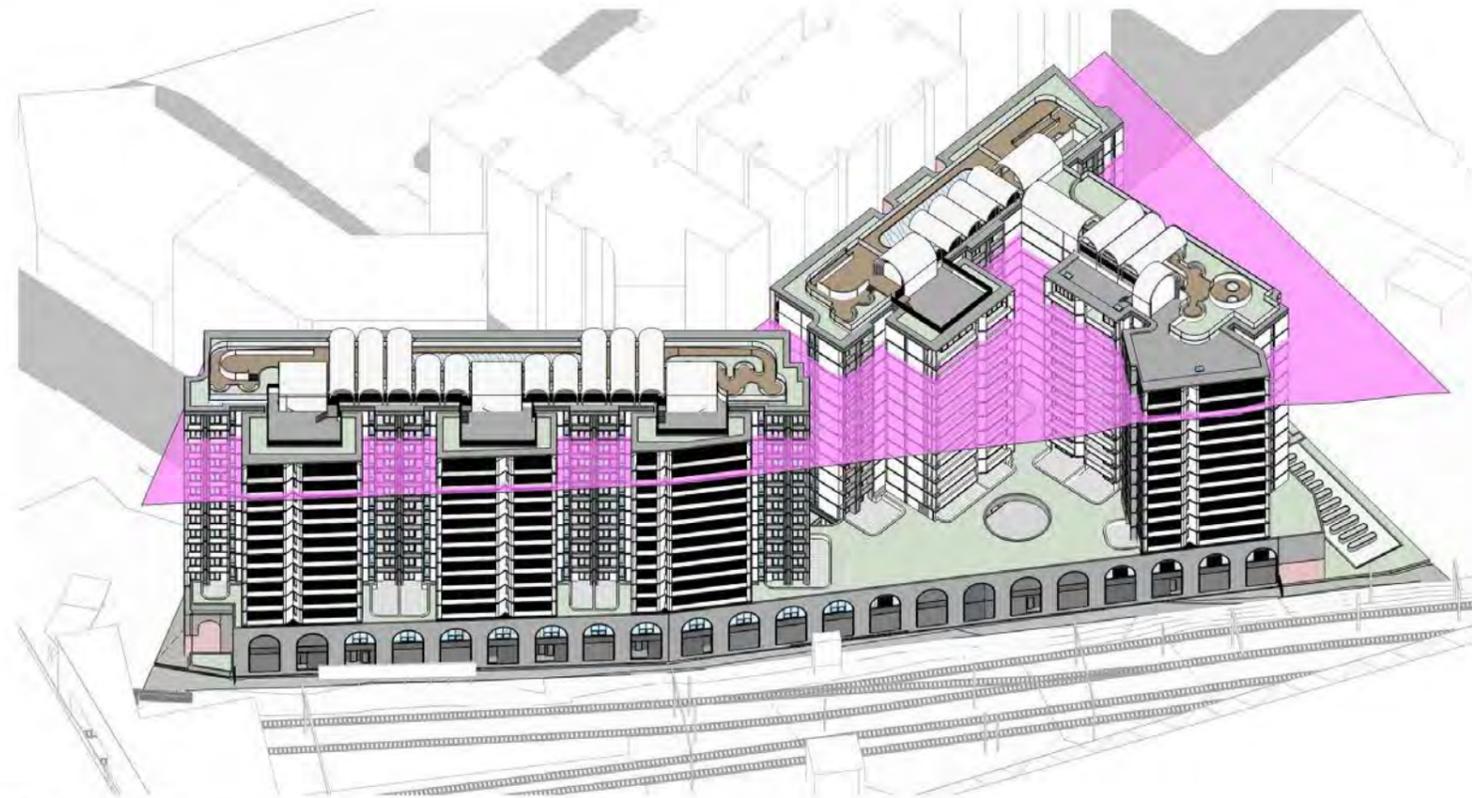
The amended scheme accommodates the additional floor space whilst maintaining a minor and commensurate height variation as approved with the original comp scheme and DA. The height variation is the least of all options considered in previous studies.

As demonstrated in the following pages, overshadowing impacts are negligible, with the majority of shadow occurring over the railway line.

Compliant Envelope Diagram - 41.6m Height Plane

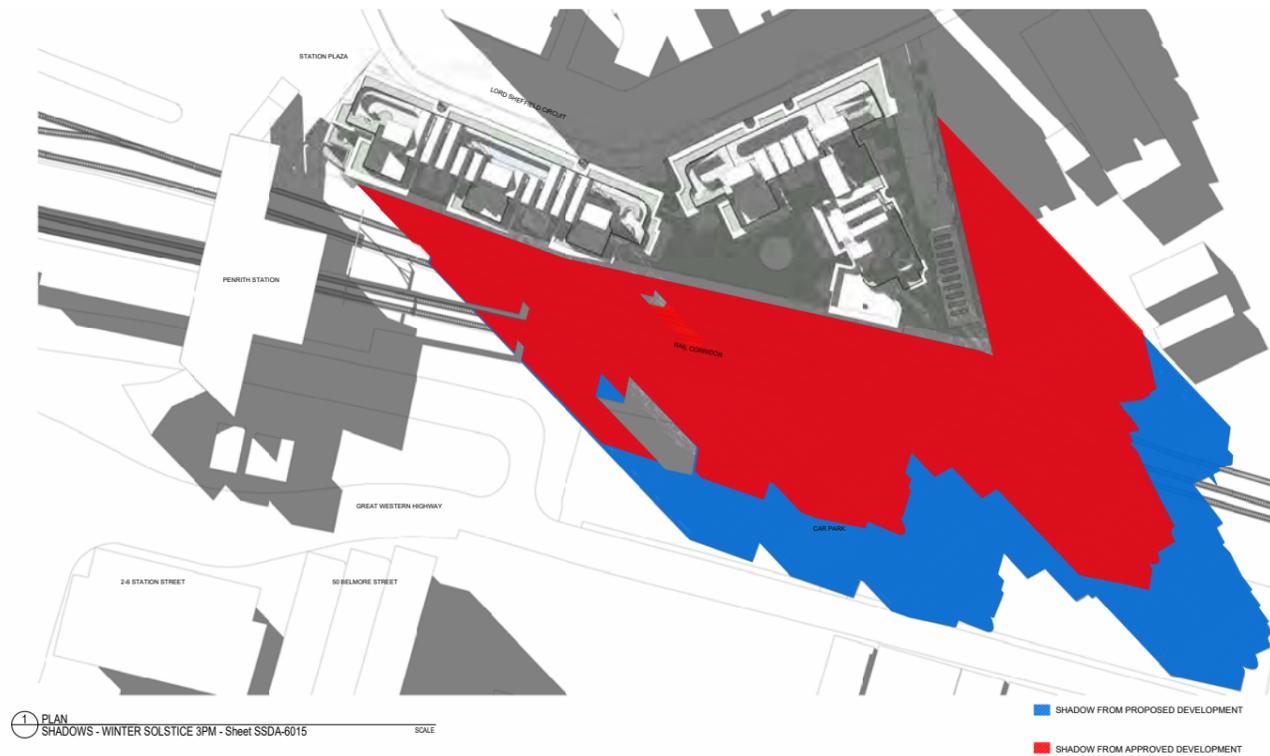
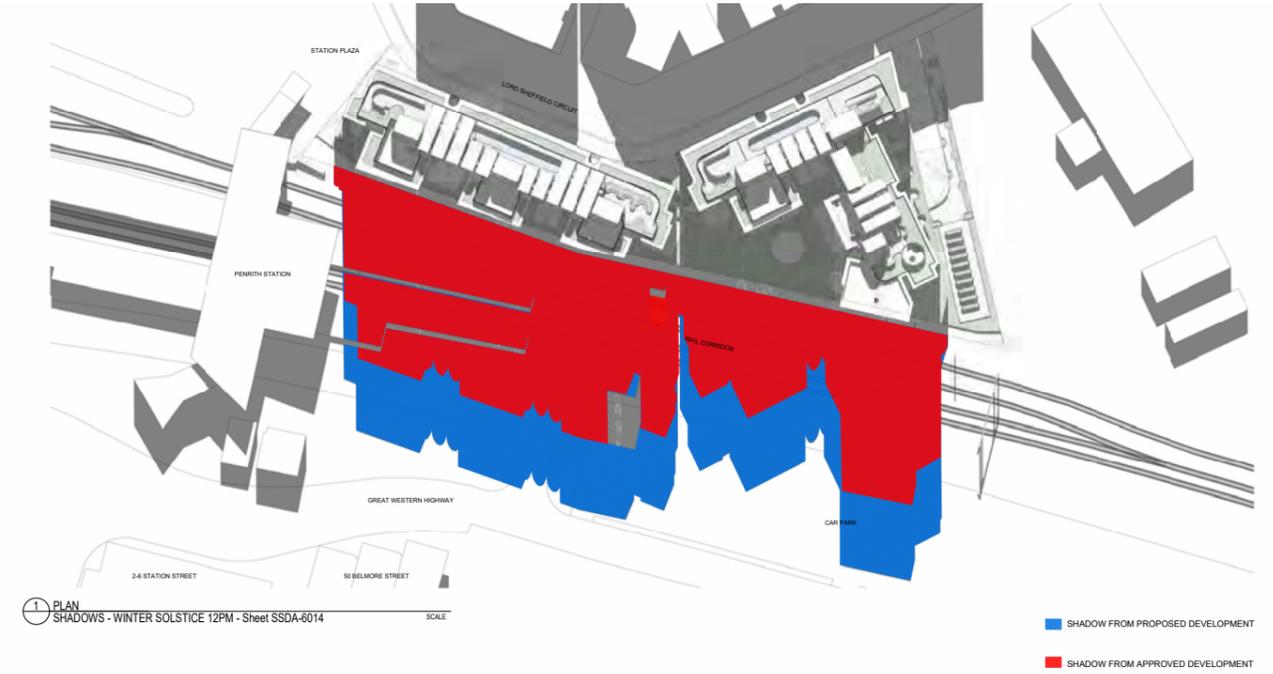
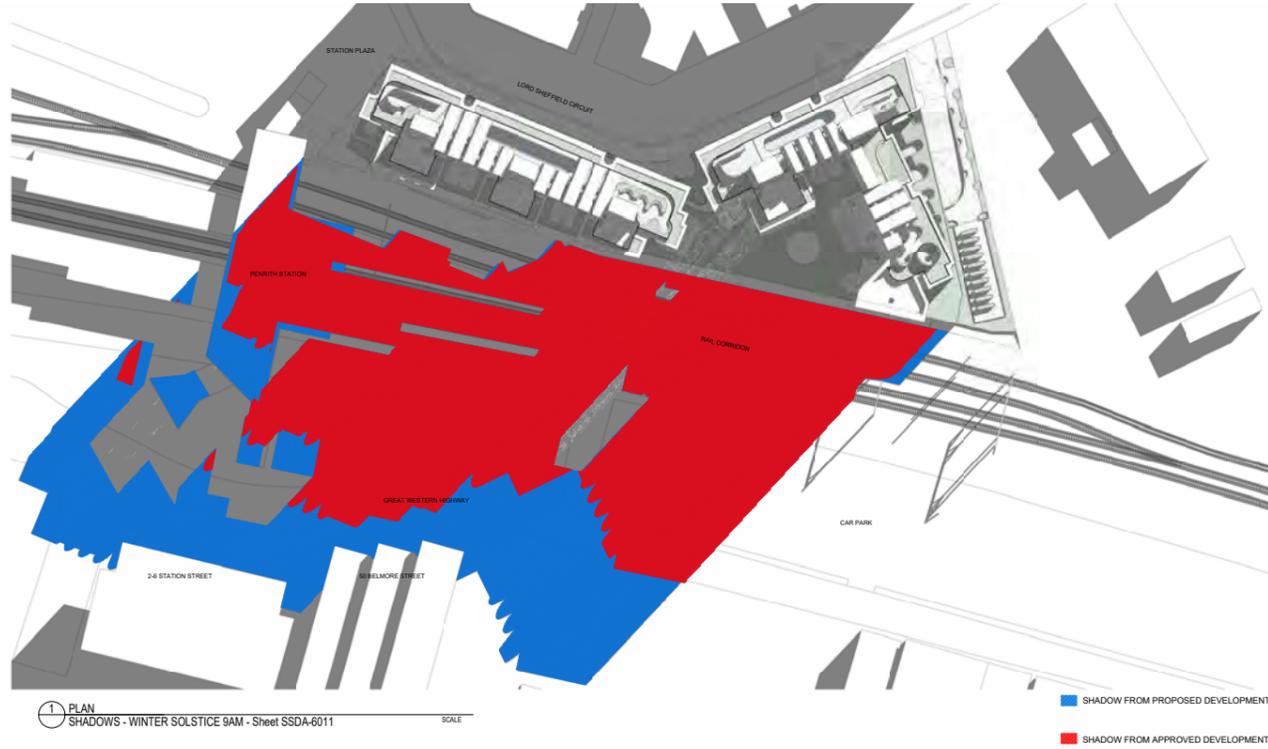


1 41.6M HEIGHT PLANE - SSSA
SCALE 1:500



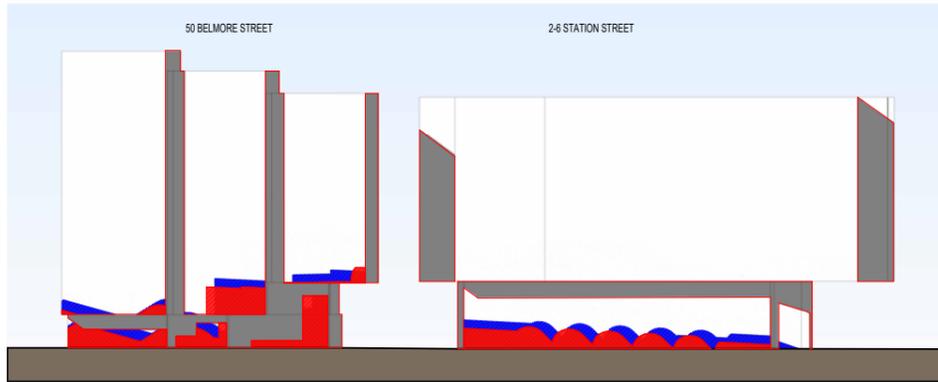
2 AXONOMETRIC
41.6M HEIGHT PLANE - SSSA

Overshadowing - 9am, 12pm & 3pm



Elevational Shadow Diagrams

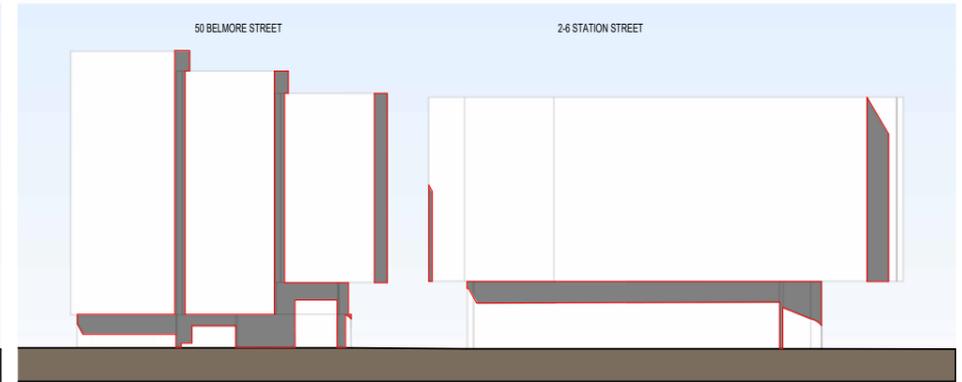
9am Shadow - Elevation



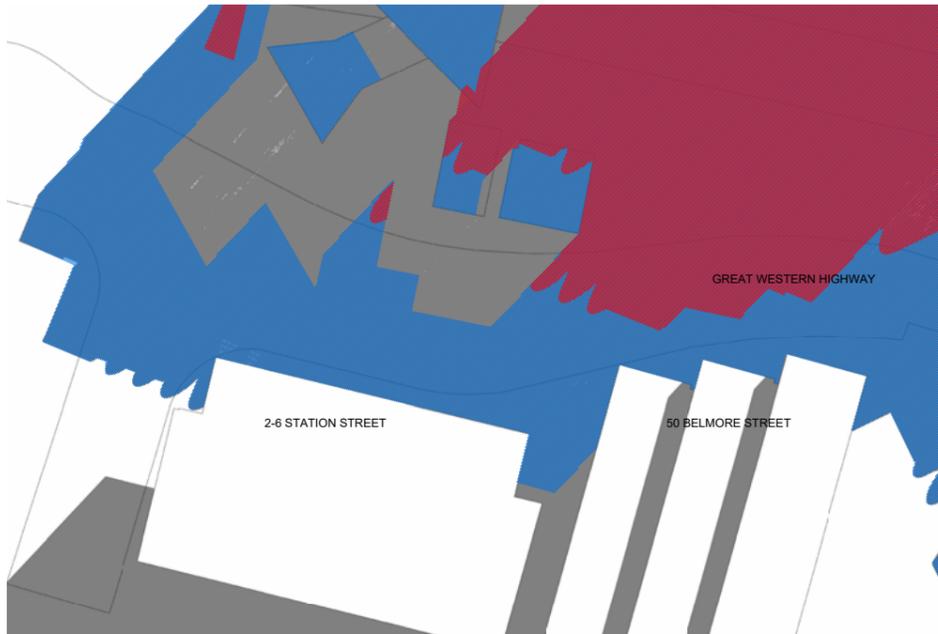
9:30am Shadow- Elevation



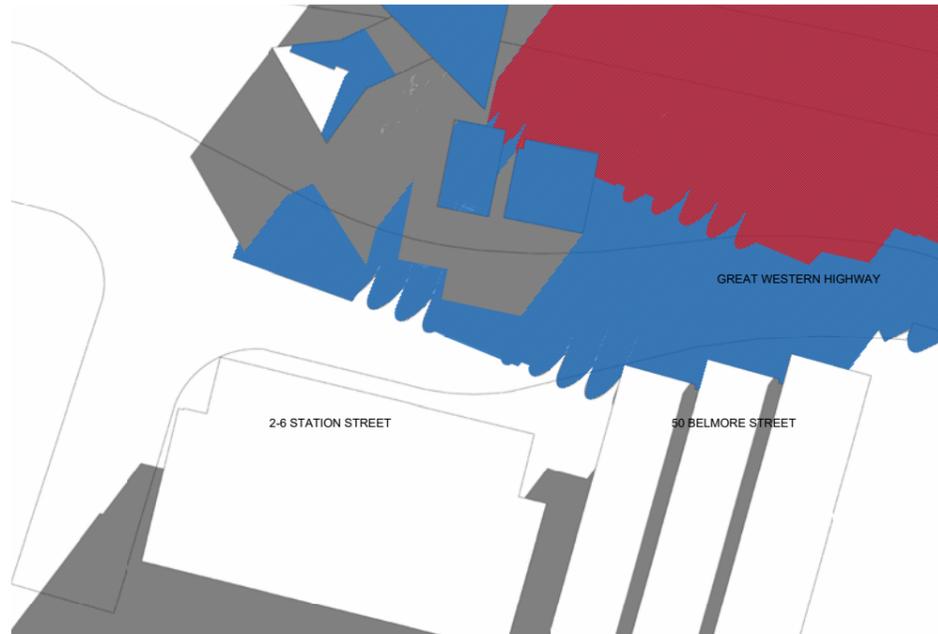
10am Shadow- Elevation



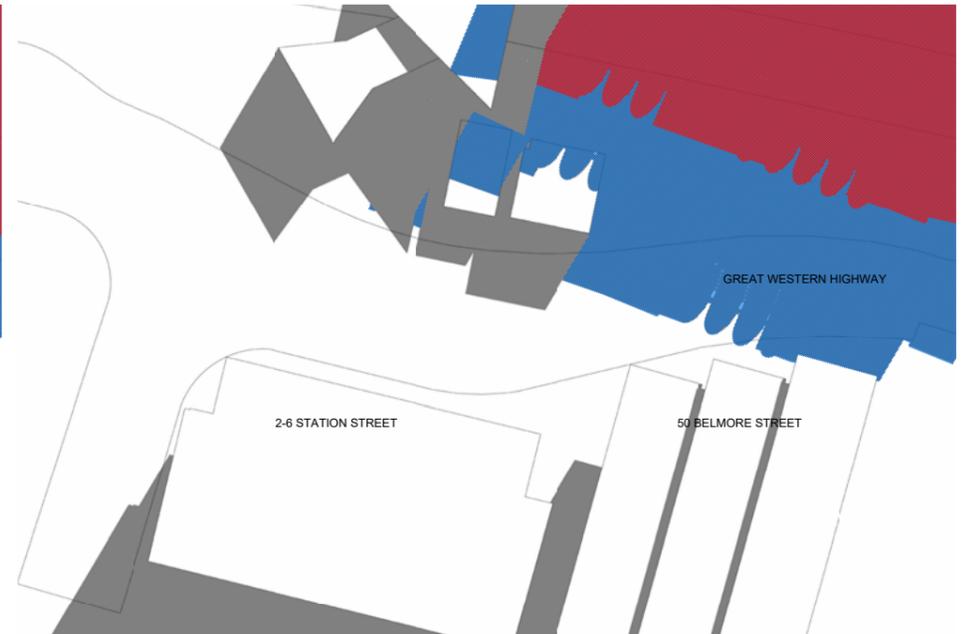
9am Shadow - Detail Plan



9:30am Shadow- Detail Plan



10am Shadow- Detail Plan



SHADOW FROM APPROVED DEVELOPMENT
EXTENT OF EXISTING SHADOW
ADDITIONAL SHADOW FROM PROPOSED