SJB Architects

ESQ1818, Penrith
Urban Design Report

65-135 Mulgoa Road and 1 Retreat Drive, Penrith

08 April 2016 | Version 03

SJB Architects

Project
ESQ1818, Penrith, Urban Design Report
65 - 135 Mulgoa Road and 1 Retreat Drive,
Penrith NSW 2750

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In collaboration with

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Executive Summary

SJB have been appointed by ESQ1818 Panthers PTY LTD, to prepare an urban design study for the ESQ1818 Project, located at 65 to 135 Mulgoa Road and 1 Retreat Drive, Penrith (the site). The purpose of this urban design study is to test the appropriateness of additional height and urban form as proposed by the master plan scheme prepared by Turner Associates. This analysis of the scheme is undertaken within the context of the site, taking into consideration the consolidated impact on the surrounding context and the ability for the proposed envelopes to achieve the requirements of SEPP65 and the Apartment Design Guide (ADG).

The study is based on analysis of the site, its immediate and broader urban contexts, focusing specifically on the site's integration with the surrounding movement network, open spaces and landscape, and built form character.

Design principles and structure plans have been prepared that distil the findings of the analysis, key planning objectives, and our knowledge from working on similar projects in Western Sydney and throughout the Sydney Metropolitan Area. These principles provide the basis of the concept master plan.

The master plan concept proposes an appropriate up-lift in building heights and density on the site and has been tested in relation to its visual impact on the surrounding context, and its ability to achieve good amenity.

The ultimate objective of this study is to inform amendments to the Penrith LEP 2010, specifically the height controls, providing supporting urban design justification for the amendments. The current allowable height on the site under the Penrith LEP 2010 is 15 metres, 20 metres and 24 metres. The master plan proposes a range of heights from 15 of 50 metres, stepping down in height in response to the site's context.

The key findings from the urban analysis undertaken in this study indicate that the site has the ability to support the proposed additional height, in a way that still responds to the desired future character of the area, and without compromising the amenity of the site and surrounding areas.

Introduction

Overview of the regional, urban and local context to provide an initial understanding of the site.

1.1 Introduction

SJB has been engaged by ESQ1818 Panthers Pty Ltd to prepare an urban design study to support a Planning Proposal for the site located at 65-135 Mulgoa Road and 1 Retreat Drive, Penrith. The master plan, prepared by Turner Associates, proposes the following:

- New streets and open spaces;
- Mixed use development in the form of residential and commercial uses;
- Buildings that range in height from 15 meters to 50 metres;
- Maximum FSR of 1:1

The purpose of this urban design study is to support the master plan proposal as presented in the Planning Proposal, providing a justification for this increase in height through a process of careful analysis and review.

The current LEP height allowable under the Penrith LEP ranges from 15m to 25m metres. This Planning Proposal, as prepared by SJB Planning seeks the following:

- A range in height from 15 metres to 50 metres;

The report is divided into the following sections:

1. Introduction

Overview of the site's regional location and the current planning controls which apply to the site under the Penrith LEP 2010 and the Penrith Panthers Precinct DCP 2010.

2. Site and Context Analysis

Detailed analysis on the key parameters surrounding the site in relation to movement, open space, amenity, site landform and views and vistas.

This analysis includes a review and commentary on the current controls and testing of a concept master plan.

3. Design Principles and Structure Plans

Establishes design principles that underpin the proposed masterplan. These are supported by urban structure plans that explain particular parameters, including movement, spaces and heights.

4. Masterplan

Details of the proposed masterplan as prepared by Turner Studio and the landscape masterplan as prepared by Oculus

5. Masterplan Analysis

Analysis of the proposal in relation solar studies and view impacts, with a commentary on each of the aspects.

6. Conclusion

The final section provides a summary of the proposal and overall conclusions of the proposed additional height and the contribution that this will provide to the site and the surrounding area.

Artist Perspective of proposed open space

1.2 Regional Context

The site is located in the City of Penrith, which is an important regional hub located at the base of the Blue Mountains. Located 73km west of the Sydney CBD, and is linked via the M4 Western Motorway.

The M4 Motorway is a major arterial road that provides connection to the Blue Mountains, Western Sydney and the Sydney CBD. At a regional scale Penrith is located at the western edge of the Greater Metropolitan area and is identified in the 'Plan for Growing Sydney' as a regional city centre with a focus for housing and jobs growth, particularly in professional services, health and education.

The site is located along the western side of Mulgoa Road, Penrith, to the south-west of the Penrith City Centre. The site is bounded by an area zoned for high-density residential to the north, tourist and special activity development to the west and south, and recreation to the east.

The site is located within 1.5km from both the Penrith and Emu Plains train stations, which are served by the Blue Mountains Line and the T1 Western Line. The site is also within close proximity to regional facilities such as the Nepean Hospital, Penrith Showground, Westfield Penrith and Penrith City Library.

The site's broader urban context features a number of public parks, including Jamison Park, Weir Reserve and Parker Street Reserve, and various green spaces along the Nepean River foreshore to the west of the precinct.

Key

- Site Boundary
- Penrith City Centre
- Train Station
- Railway Corridor
- Arterial Route
- Primary Route
- Local Route

1.3 Site Context

The site is located in an urban renewal area within the Penrith Panthers Precinct, as identified in Penrith DCP 2014.

To the west of the site is Peach Tree Creek and a series of residential developments extending to the Nepean River. The Evan Theatre, Panthers World of Entertainment, Aqua Golf and numerous restaurants are located along the southern boundary of the site.

Immediately to the north and north-west of the site is the Penrith Mountain View Aged Care Facility zoned for future high-density residential, and a large expanse of vacant land owned by Penrith City Council.

Mulgoa Road is located along the eastern boundary of the precinct with the Penrith Showground, Pepper Stadium and Howell Oval located adjacent to this movement corridor.

Key

Site Boundary

1.4 The Site

The site has a total area of 66,696 m^2 and is made up of a number of lots with frontage to Mulgoa Road, Ransley Street and Retreat Drive.

The site features two car parks positioned along Ransley Street and Retreat Drive, a Marquee for functions and events, a storm water drain connecting to Peach Tree Creek and vacant land largely covered with low shrubbery and grasses. A single heritage building (LEP 2010 Item 815), referred to as “The Willows”cottage is located at the south-eastern boundary of the site.

Access to the site is provided off Mulgoa Road, Ransley Street and Retreat Drive. The existing road and footpath infrastructure requires maintenance and upgrades at a pedestrian level.

The site is relatively flat with key views to the lake, the surrounding vacant land and the Blue Mountains to the west.

1.3 Site Context

View from Retreat Drive to entrance of private road

Mulgoa Road and Ransley Street car park

Car park adjacent to function centre

View of car park along Retreat Drive looking towards neighbouring properties

View of function centre from car park

Open space buffer along western boundary

Proximity of function centre to neighbouring ‘Aqua Golf’

Car park along Mulgoa Road and Ransley Street

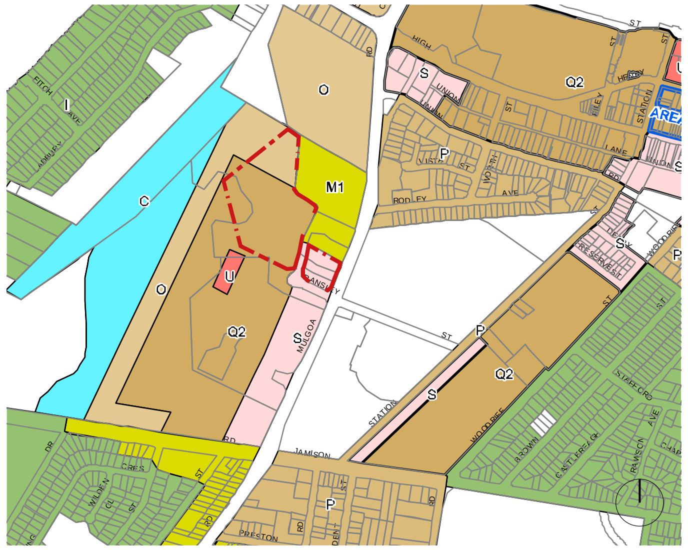
View of Ransley Street car park

Storm-water drain along the northern boundary of the site.

Existing condition of Ransley Street car park

Neighbouring open space and water views

1.5 Penrith LEP 2010



01 Height of Buildings Map

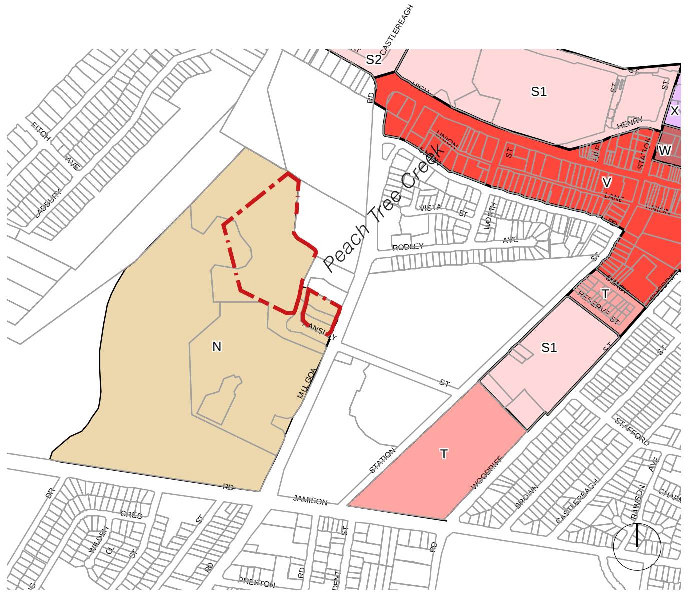
The site has varied height controls of 15m, 20m and 24m, as outlined in the Penrith LEP 2010. Areas to the west have 15m and 20m height controls, whilst the properties to the east have an allowable height limit of 24m.

Key

A	0
C	5
I	8.5
J	9
K	10
M1	12
M2	12.5
O	15
P	18
Q1	19
Q2	20
R	21
S	24
T	27
U	32
Z	56
AB	80

Refer to Clause 7.16, 8.2 and 8.4

Source: Penrith Local Environmental Plan 2010 - Height of Buildings Map - Sheet HOB - 006



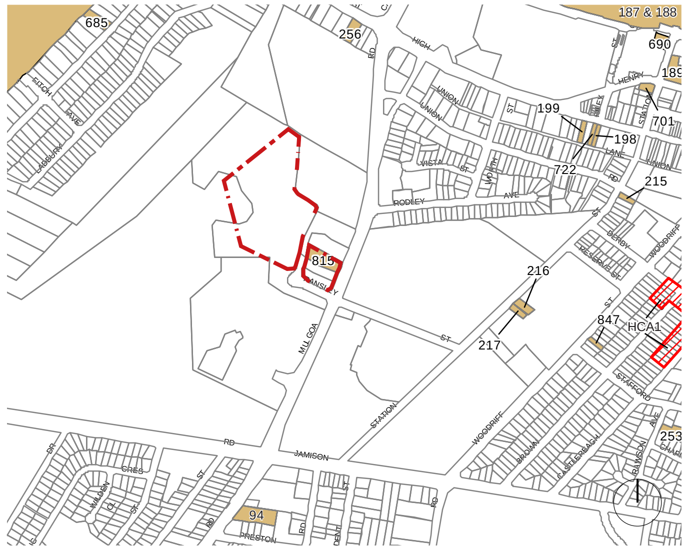
02 Floor Space Ratio Map

FSR control of 1:1.

Key

A	0
B	0.4
D	0.5
H	0.7
I	0.75
N	1
0	1.1
S1	1.5
S2	1.6
T	2
U	2.5
V	3
W	3.5
X	4

Source: Penrith Local Environmental Plan 2010 - Floor Space Ratio Map - Sheet FSR - 006



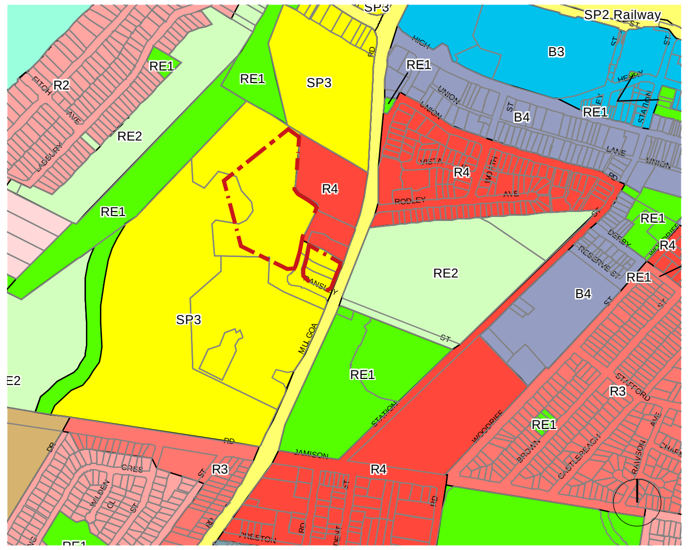
03 Heritage Map

Lot 1021 DP812335, known as 65 Mulgoa Road is idenified as a local heritage item, being The Willows (Item 815).

Key

Item - General

Source: Penrith Local Environmental Plan 2010 - Heritage Map - Sheet HER - 006



04 Land Zoning Map

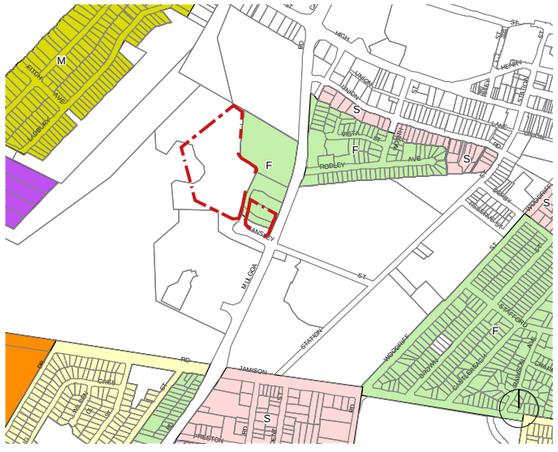
SP3 Tourist (SP3) zoning.

Key

B1	Neighbourhood Centre
B2	Local Centre
B3	Commercial Core
B4	Mixed Use
B5	Business development
B6	Enterprise Corridor
B7	Business Park
E1	National Parks and Nature Reserves
E2	Environmental Conservation
E3	Environmental Management
E4	Environmental Living
IN1	General Industrial
IN2	Light Industrial
R1	General Residential
R2	Low Density Residential
R3	Medium Density Residential
R4	High Density Residential
R5	Large Lot Residential
RE1	Public Recreation
RE2	Private Recreation
RU1	Primary Production
RU2	Rural Landscape
RU4	Primary Production Small Lots
RU5	Village
SP1	Special Activities
SP2	Infrastructure
SP3	Tourist
W1	Natural Waterways
W2	Recreational Waterways
DM	Deferred Matter
WSEA	SEPP (Western Sydney Employmen
SM	SREP No. 30 - St Marys

Source: Penrith Local Environmental Plan 2010 - Land Zoning Map - Sheet LZN - 006

1.4 Penrith LEP 2010



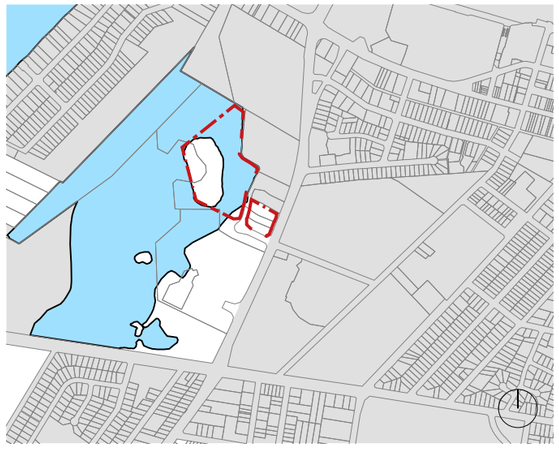
05 Lot Size Map

A minimum lot size control of 400m² applies to part of the site.

Key

F	400	W	4000
G	450	X	6000
K1	550	Y1	10000 (1 ha)
K2	560	Y2	12500 (1.25 ha)
M	600	Z	20000 (2 ha)
R	750	AB1	100000 (10 ha)
S	800	AB2	200000 (20 ha)
U1	1000	AB3	400000 (40 ha)
U2	1200	AI	10000000 (1000 ha+)
V	2000		Refer to Clause 7.16, 7.19 & 7.21

Source: Penrith Local Environmental Plan 2010 - Lot Size Map - Sheet LSZ - 006



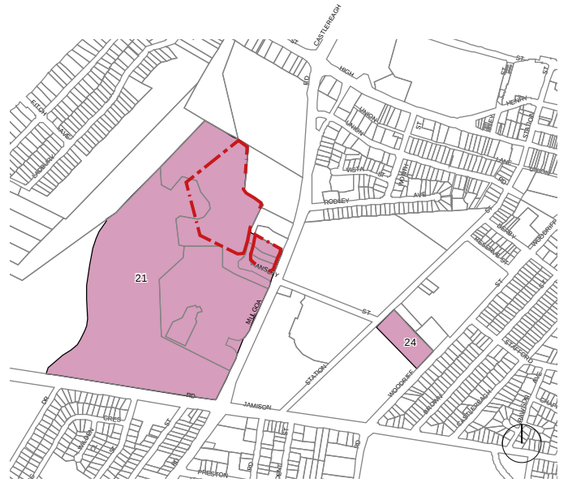
06 Flood Planning Map

Part of the site and land to the west is identified as being flood prone land.

Key

Flood Planning Area

Source: Penrith Local Environmental Plan 2010 - Flood Planning Map - Sheet FLD - 006



07 Additional Permitted Uses

Additional uses are permitted on the following land:

- 63 Mulgoa Road, being Lot 1021, DP 812335
- 73 Mulgoa Road, being Lot 1, DP 1043008
- 83 and 109 Mulgoa Road, being Lots 151 and 152, DP 863625
- 123-135 Mulgoa Road, being Lot 12 and Part Lot 13, DP 710086
- Lot 1 Retreat Road, being Lot 1, DP 1064526

Additional Permitted Use for development of these sites include that of; multi dwelling housing, office premises, residential flat buildings, retail premises and seniors housing (permitted with development consent).

Key

Refer to Schedule 1

Source: Penrith Local Environmental Plan 2010 - Additional Permitted Uses Map - Sheet APU - 006

1.4 Penrith DCP 2014

01 Riverlink Precinct Plan

The site is located within the Panthers Precinct that forms part of the Penrith Riverlink Precinct Plan (adopted by Council 5 May 2008)

Source: Penrith Development Control Plan 2014 - Part E13 Riverlink Precinct

2

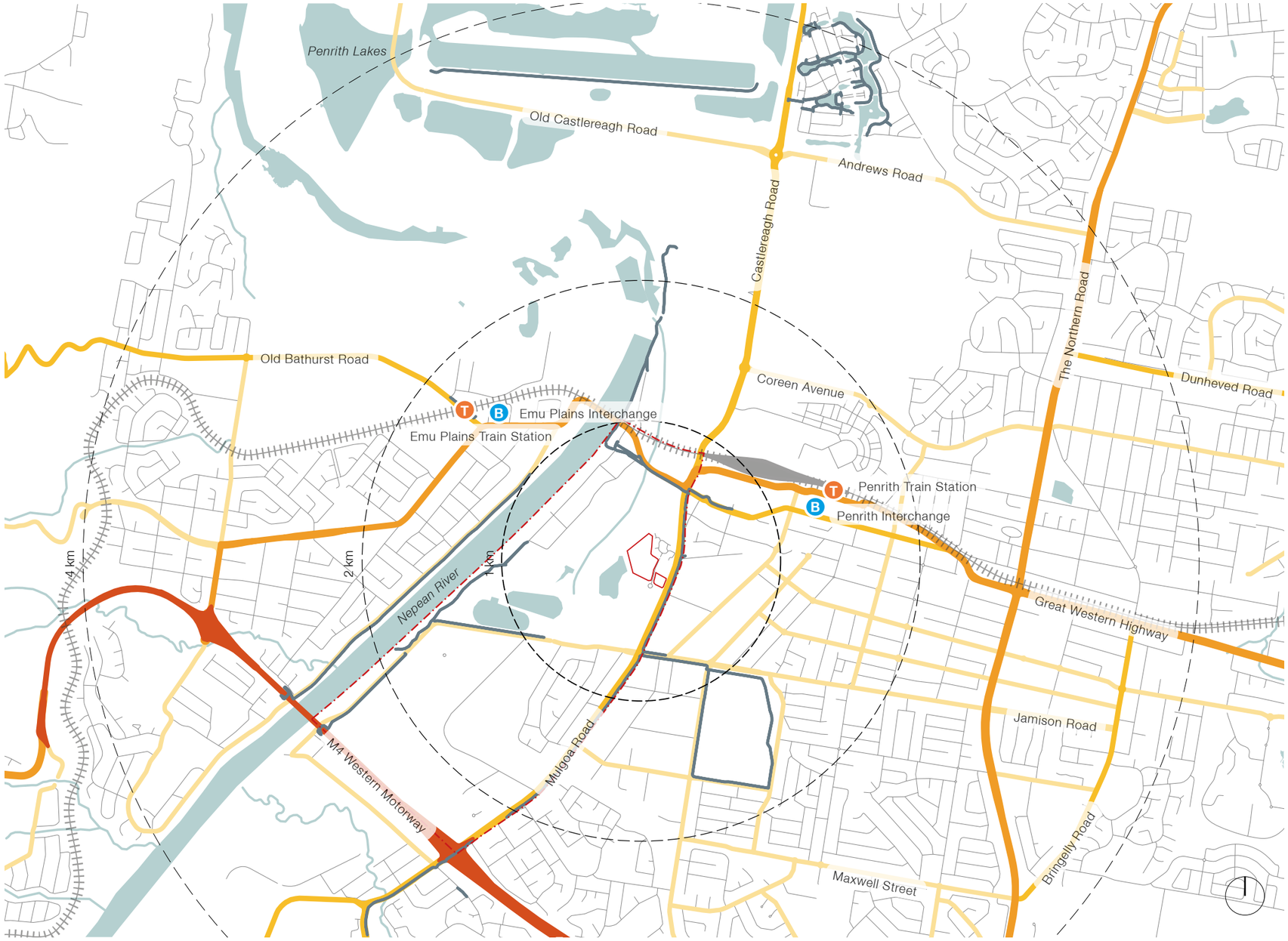
Site and Context Analysis

A study into the existing urban context and site conditions.

2.1 Movement

Penrith is serviced by a number of major arterial corridors providing key regional transport connections, including the M4 Western Motorway and Great Western Highway, which access Western Sydney, Parramatta and the Blue Mountains.

The area is well serviced by buses, with express routes connecting to surrounding centres which include St Mary's Blacktown, Katoomba and Parramatta. Emu Plains Train Station and also Penrith Train Station are located approximately 1.5 km from the site, providing connections to other local centres along the T1 Western Line and Blue Mountains Line.



Key

- Site Boundary
- Riverlink Precinct Boundary
- Train Station
- Arterial Route
- Primary Route
- Secondary Route
- Railway Corridor
- Bicycle Path

2.2 Public Open Space and Destinations

The following features are located within close proximity to the site:

Parks and Recreation:

1 Penrith Showground
2 Pepper Stadium
3 Aqua Golf
4 Regatta Park
5 Weir Reserve
6 Jamison Park

Other Destinations

7 Westfield Penrith
8 Penrith City Library
9 TAFE Western Sydney Institute
10 Penrith Panthers
11 Penrith Hospital
12 Penrith High School
13 Nepean High School
14 Penrith Railway Station
15 Emu Plains Railway Station
16 Penrith Lakes Regatta White Water Rafting.
17 Western Sydney University, Kingswood

Key

- Site Boundary
- Roads
- Railway Corridor
- Public Open Space
- Private Open Space
- Train Station
- Key Features

2.3 Site Views and Vistas

The site's visibility from the public domain was assessed from a number of key vantage points and will form part of a view analysis of the master plan.

The following eight vantage points have been selected for the view analysis as they will showcase the built form relationship of the site with the surrounding context. View 4 has been identified as a key view in the DCP.

Key

- Riverlink Precinct Boundary
- Site Boundary
- Long Distance View Corridor
- Visual Corridor within Precinct

2.5 Views and Vistas

View from High Street across the Carpenter's site towards to the northern boundary of the site

View from Mulgoa Road towards eastern section of precinct and Blue Mountains

View along Mulgoa Road looking south

View west from the Mulgoa Road and Ransley Street intersection

View along Ransley Street

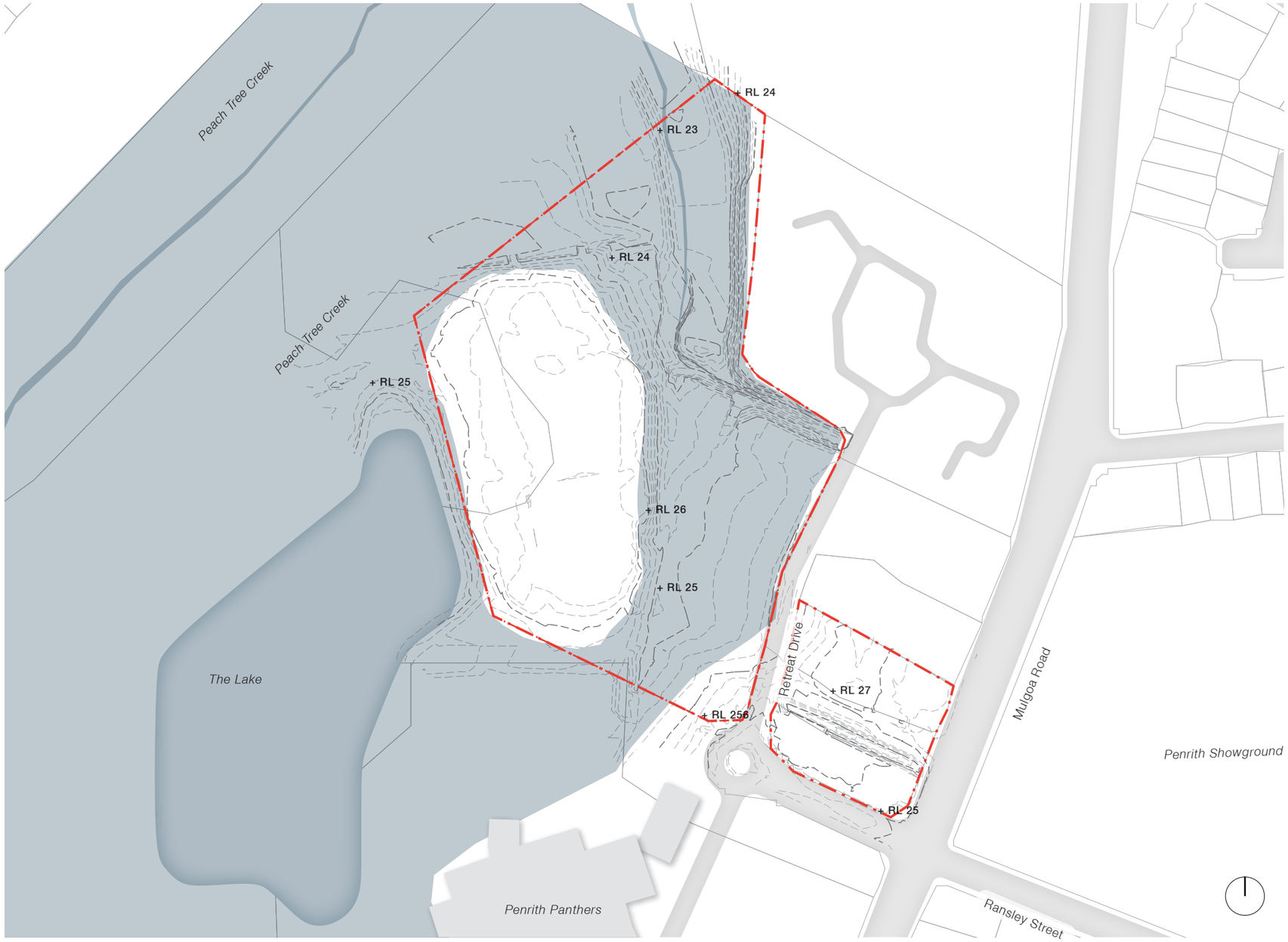
View from Jamison Road pedestrian path

View looking east across Peach Tree Creek toward the site

View looking east from Ladbury Avenue

2.4 Site Landform

The topography of the site is relatively flat with a slight fall in a north-western direction towards Peach Tree Creek. The land to the west of the precinct has been identified as being subjected to flooding.



Key

- Site Boundary
- Flood Planning Land
- Contours

2.5 Site Movement

Vehicular access to the site is gained via Mulgoa Road, Ransley Street and Retreat Drive, which becomes a private road north of 65 Mulgoa Road. Ransley Street is one of two access points for the Panthers Club providing access to the existing parking. An extension to Ransley Street towards the lake, has been approved along the southern boundary of the site.

Local bus services operating along Ransley Street, Mulgoa Road, and Retreat Drive provide access to Penrith City Centre and Penrith Railway Station. A shared pedestrian and cycle path runs parallel to Mulgoa Road connecting to the CBD. Access to the site from this path is gained from Ransley Street.

The DCP has identified a future road that runs parallel to Peachtree Creek to the west of the lake, and a pedestrian promenade to the east. These two routes will create a pedestrian circuit around the lake connecting the various areas of the Panthers Precinct.

Key

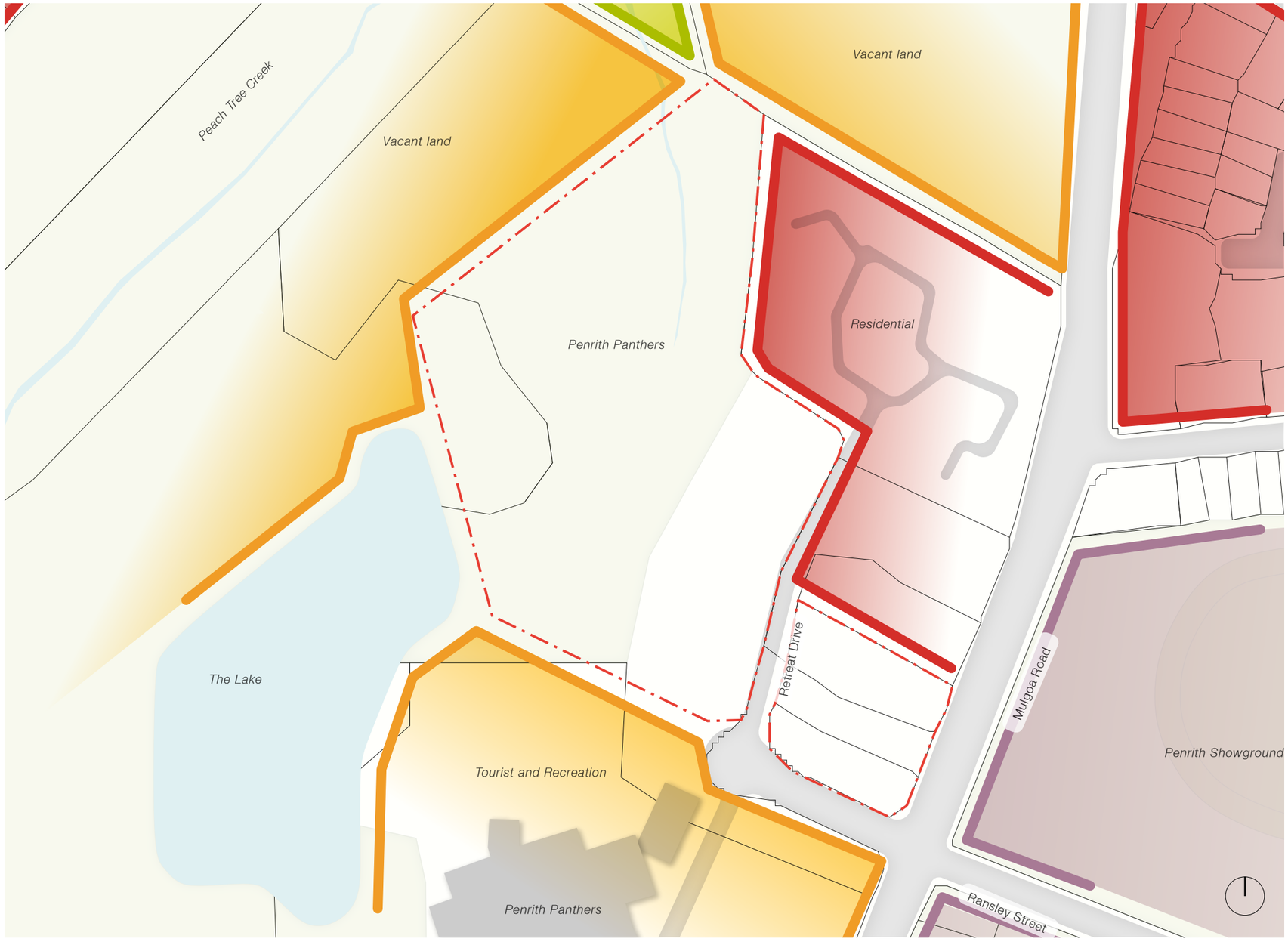
- Site Boundary
- Primary Route
- Secondary Route
- Approved Ransley Street Extension
- Private Road
- Bus Route
- Bus Stop
- Cycle Path
- Car Park
- Peachtree Creek Edge & Riverlink Road (Penrith DCP)
- Pedestrian Promenade (Penrith DCP)
- Site Access

2.6 Site Land Uses

The site interfaces with a variety of land uses at varying scales of development. These include;

- Northern Boundary: two storey aged care facility;
- Western Boundary: vacant land, which includes Peach Tree Creek;
- Southern Boundary: Penrith Panthers Club and an approved 8 Storey serviced apartments, still to be constructed, and
- Eastern Boundary: Mulgoa Road and the Penrith Showground.

Each edge condition presents a unique characteristic that the master plan will need to consider, including the existing conditions and the future desired character outlined for the Riverlink Precinct within the DCP.



Key

- Site Boundary
- Residential
- Showground
- Open Space
- Tourist

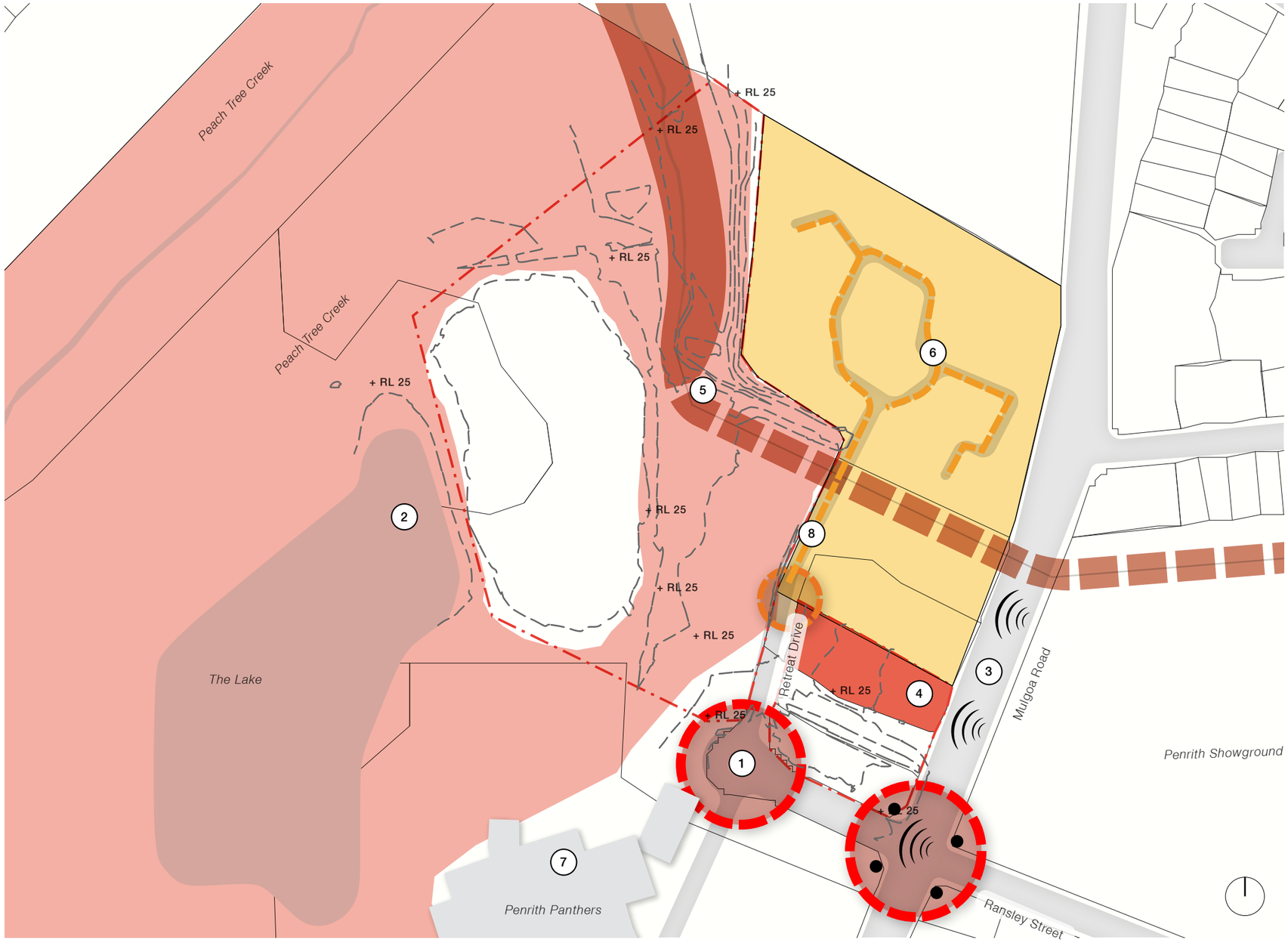
2.7 Constraints

The following constraints have been identified as part of the urban and context analysis. These include:

1. Precinct Access: limited entry points and access routes. Retreat Drive is a private road north of 65 Mulgoa Road.
2. Flooding: within a flood prone area, adjacent to the Peach Tree Creek, and is therefore subject of specific flood planning and management controls, which impact the design of the ground floor, basements and site access points;
3. Traffic Noise: heavy traffic along Mulgoa Road will impact the eastern frontage of the site, affecting the layout and orientation of buildings along this road.
4. Heritage: further investigation on the heritage significance of the “The Willows” (65 Mulgoa Road) will need to be undertaken;
5. Drainage: development will need to be setback from the north edge of the site due to the drainage course connecting to Peach Tree Creek;
6. Residential Development: development along the northern boundary of the site will need to be considered to ensure an appropriate interface with the existing retirement village and nursing home. Note: These lots are zoned R4 high density residential under Penrith LEP 2010.
7. Existing Club: 24 hour licence venue with entertainment, parking, traffic and noise;
8. Private Roads: Retreat Drive is private north of 65 Mulgoa Road.

Key

- Site Boundary
- Access Routes
- Flood Prone Land
- Heritage Item
- Residential
- Private Road Entrance
- Primary Intersection
- Noise
- Drainage Course
- Concrete Storm water Drain



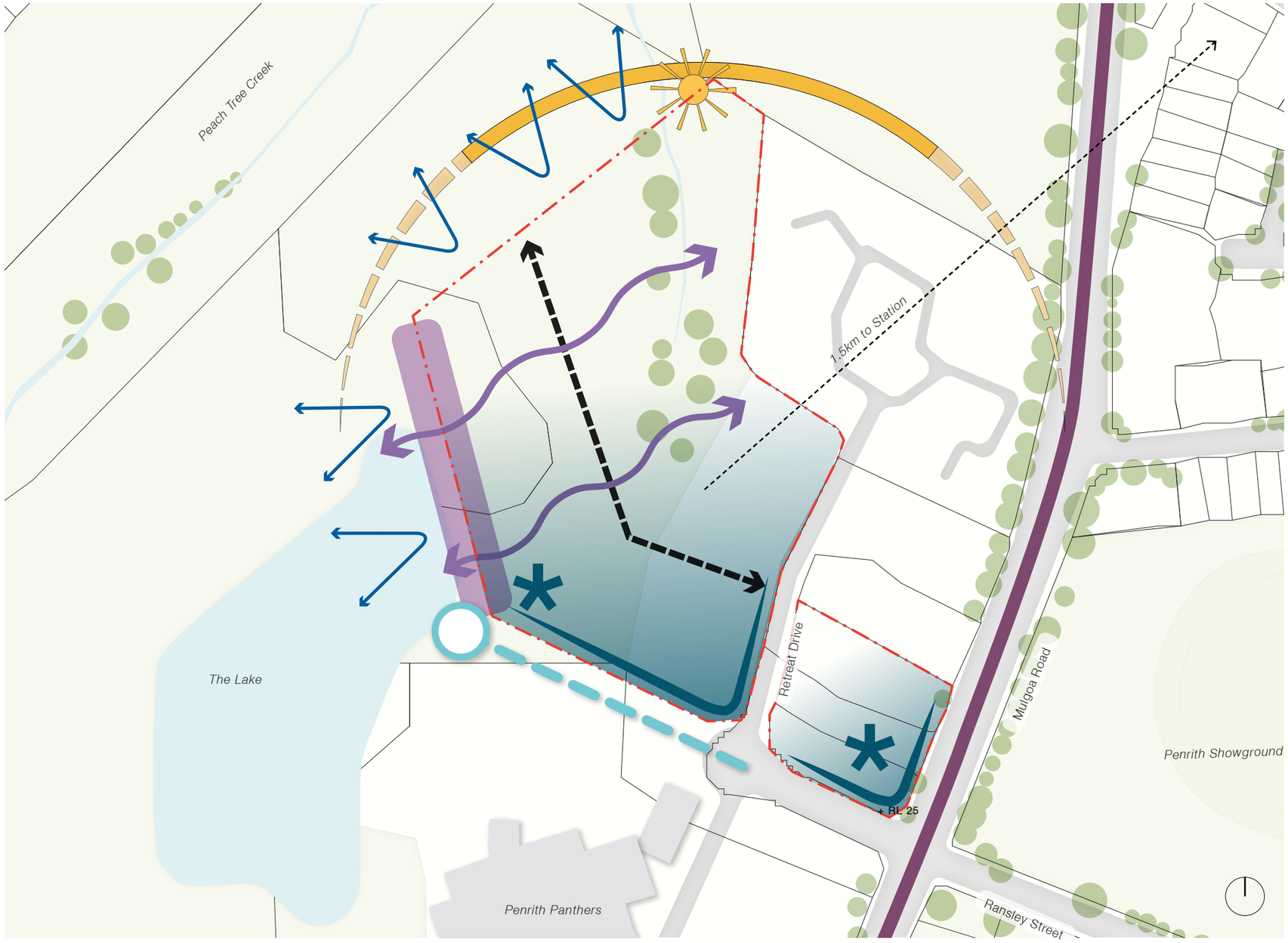
2.8 Opportunities

Furthering the site analysis, several key opportunities have been identified and will also inform the urban design response. These include:

1. Public Transport: Penrith Railway Station and Bus Interchange are located approximately 1.5 km to the north of the precinct, providing access to the T1 Western Line and Blue Mountains Lines. Local bus stops are located in and around the site;
2. Arterial Connections: the site is accessed off Mulgoa Road, which links into Penrith Town Centre and the M4;
3. Open Space & Recreation: The site is in close proximity to several open spaces with Penrith Showground and Penrith Park to the east of the site and recreational facilities associate with Penrith Panthers to the south;
4. Key Views: the subject site offers views of the Blue Mountains and the lake adjacent to the site;
5. Solar: the large site area allows for buildings to be orientated in order to achieve solar access;
6. Access Roads: the site is accessed off Ransley Street and Retreat Drive, which are quiet local roads The approved extension of Ransley Street will increase connectivity to the site;
7. Active Frontage: opportunity to provide retail activity along the western boundary of the site fronting the pedestrian promenade;
8. Water Link: Connections through the site will provide permeability, connecting to the natural features at the sites edges;
9. Urban Markers: Taller building elements located at key intersections provide the opportunity to create a presence to Mulgoa Road and enhance the character of Penrith.

Key

- Site Boundary
- Active Frontage
- Key Views
- Urban Marker
- Prominent Corners
- Secure Road
- Pedestrian link
- Approved Extension of Ransley Street

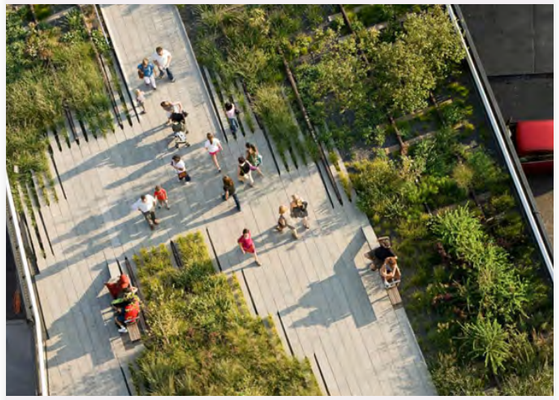


3

Design Principles

Design principles and concepts that respond to the site’s unique characteristics and opportunities.

3.1 Urban Design Principles



Movement + Access

Pedestrian access is a key priority along the boundaries of the site. Taking advantage of its close proximity to the lake directly west and Peach Tree Creek to the north of the site, both providing an opportunity for pedestrians to enjoy and activate the natural landscape. Pedestrian permeability across the site should be considered to create a direct link from the lake to the creek, and at the same time, provide passive surveillance.

Vehicular access into the site will be accessed off Retreat Drive and the extension to Ransley Street.

Sustainability

The redevelopment of the precinct will embody principles of sustainability, through the provision of connections to public transport, open spaces, access to the CBD, new retail and provision of housing choice.

It is important for the site to provide attractive streetscapes and public open spaces in order to encourage pedestrian activity and encourage use of public transport.

The development should embody best practice built form strategies to allow for natural ventilation and access to natural light.

Density

The density of development within the site is an important contributor to activating the various spaces around the site, ensuring they are lively and vibrant.

There is a high level of amenity in the surrounding area with Penrith Westfield to the north east, as well as regional services and recreational facilities within close proximity. Increase in density is well supported by the existing density and can also contribute to the utilisation of these services.

While a higher density brings positive outcomes, it is also important that the proposal responds to its context in terms of traffic, access and overshadowing.

Amenity

A key component of any successful residential precinct is active, quality and accessible public open spaces, where residents can build relationships with neighbours. This is even more important in higher-density communities where private spaces are limited.

Landscaping and attractive pathways will create a pleasant environment to enjoy the pathways to surrounding natural landscape.

The orientation of buildings should carefully consider passive surveillance, over-shadowing of spaces and the solar access and natural ventilation to individual dwellings.

3.1 Urban Design Principles

Built Form

It's important to consider the scale and bulk of the built form in relation to pedestrians. Areas of open space should not feel intimidating or closed-off by the heights of adjacent buildings.

Height should consider the existing and future developments ensuring that a transition in built form is achieved. The built form should consider its orientation to the street network to create a defined street walls.

Separation of buildings can be used to break up the bulk of the built form and create opportunities for open space.

Diversity

The variation in lot sizes, ownership and the influences of varying urban conditions throughout the precinct should be embraced, as they will ensure a variation in built form, scale and housing typologies. Common urban design principles should not manifest into common architecture. A range of materials, design approaches and styles should be encouraged to create interest in the street scape and character.

Character

Development will make a positive contribution to the character of Penrith and create an active precinct to the neighbouring sporting facilities, building on and enhancing the local sense of identity.

The character of the lake, Peach Tree Creek and the Nepean River should be enhanced and celebrated through the built form and activation.

Design responses to particular urban conditions, including capturing views to the Blue Mountains and Nepean River, as well as active frontages and passive surveillance to the various walks within the site, should be allowed to manifest in unique design outcomes.

Safety

'Safer-by-Design' principles will be implemented into the design of the built form, and within both the public and private realms of the development.

Setback of built form, adequate lighting, elimination of blind spots, ground level entries and passive surveillance are strategies that will be taken into consideration throughout the design process.

3.2 Key Concepts

Movement

The proposed movement network will need to integrate with the existing and future planned roads to provide permeability through the site whilst breaking down the size of development parcels. The new road network will provide opportunity to create street addresses for individual buildings within the development, and also provide opportunity for basement access.

There is an opportunity to create pedestrian through-site links that connect the site with the pedestrian promenade and adjoining natural features. The new road has the potential to connect to the proposed Peachtree Creek edge and Riverlink Road.

Key

- Site Boundary
- Primary Road
- Secondary Road
- Private Road
- Pedestrian Through-site Links
- Proposed DCP Road

Spaces

A network of spaces will be created that integrates and enhances the surrounding natural features, providing amenity to future residence and tourists alike. The spaces include:

1. Active Retail Frontage: create an active retail experience along the edge of the lake that provides day and night-time entertainment with food and beverage opportunities.
2. Communal Open Space: That communal open space will be located between the proposed buildings providing amenity to the residence. These spaces are located on a north south axis ensuring solar access is gained throughout the day.
3. Pedestrian Links: through-site links are pedestrian prioritised connections with passive surveillance from the surrounding residential developments.
4. New Road: the new street provides vehicle and pedestrian movement through the precinct and will be the primary address to the residential buildings located within site.

Key

- Site Boundary
- Communal Open Space
- Active Retail
- New Road
- Pedestrian Links

Heights

Height of built form across the site should acknowledge the various edge conditions to ensure an appropriate transition is achieved. Height should step up towards the south to create transition of height from the lower scale development along the northern boundary.

Urban markers are located adjacent to key intersections and features to identify the site from the Mulgoa Road and the surrounding area. The urban markers will help with navigation and orientation through the broader area by creating focal points and landmarks within the site.

Key

- Site Boundary
- Height Transition
- Direction of Height Transition
- Urban Marker

4

Master Plan

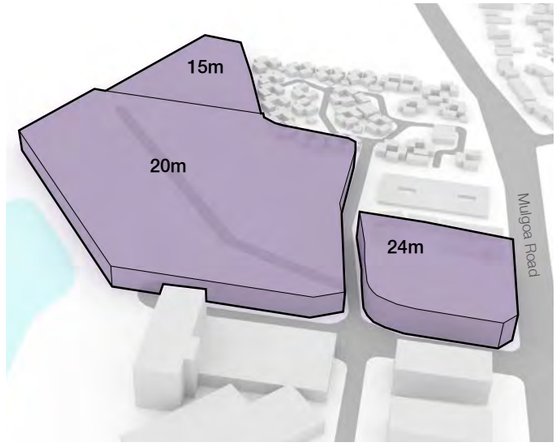
A master plan for the site that responds to the design principles.

4.1 Master Plan Response

The master plan has been prepared to inform future development on site and are underpinned by the site analysis and design principles identified in this report. The primary built form responses are outlined below and in the following diagrams:

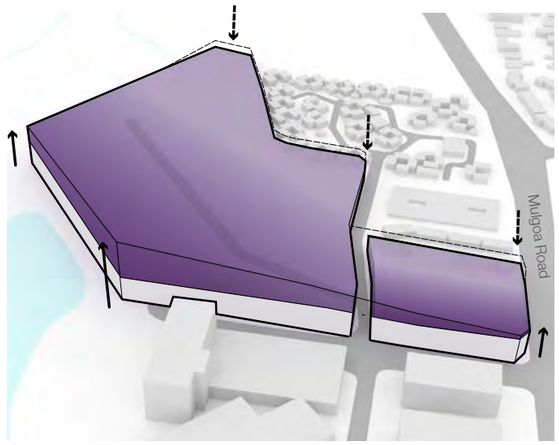
1. Transition to Context: height transitions from 4 storeys to 14 storeys
2. Create Urban Markers: taller buildings will be used to define the site within broader context. Provide height in locations that will not impact the amenity of surrounding properties whilst improving legibility and streetscape character;
3. Creating better separation between buildings and reducing the overall bulk and scale of the development: The DCP's illustrative concept plan identifies the site as an outlet centre, which would result in a large building footprint that does not engage with its edges. The response here is to provide built form that is broken up into a number of smaller footprints that address the surrounding context and provides a series of active spaces, improving the overall amenity for the site;
4. To deliver diversity in dwelling choice: a range of dwelling types are able to be offered including apartments and town house style dwellings;
5. Amenity: the amenity of the residential areas, proposed streetscapes and areas of open space is appropriate for the site and precinct

Based on the key strategies above, the built form response allows for an uplift in height. The diagrams on the following pages will illustrate this in further detail.



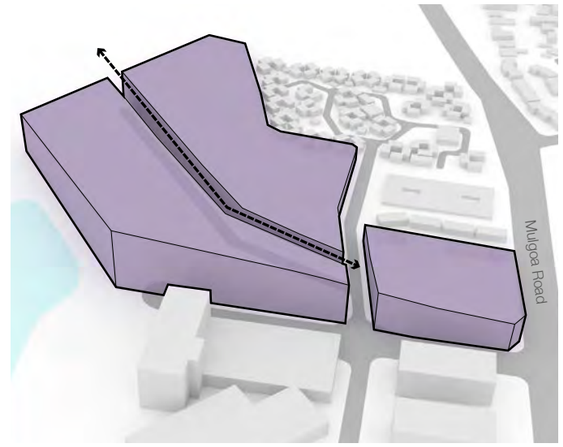
1 Allowable Envelope

The existing heights define a developable envelope with minimal transition to the periphery. DCP promotes large scale retail outlet centre.



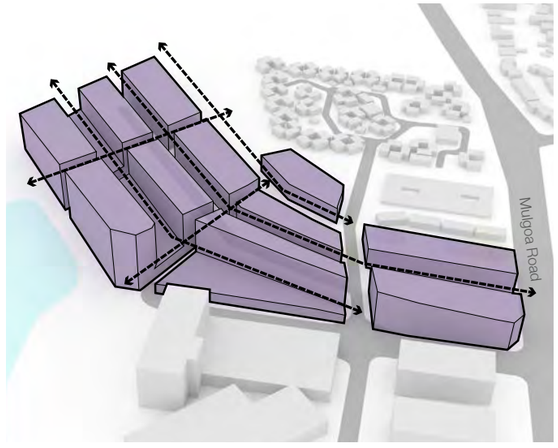
2 Transition of Height

Height is decreased along the north boundary and increased to the south transitioning on a north-south access.



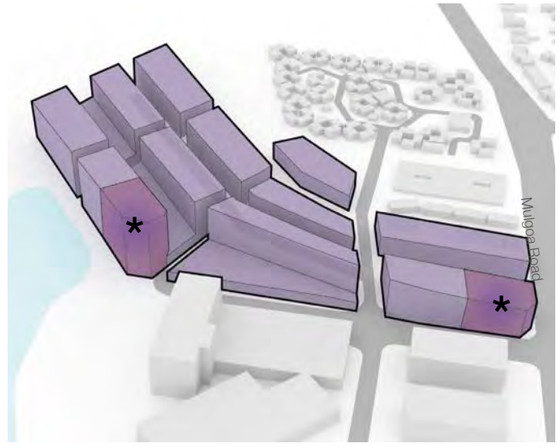
3 Provision of New Road

A new road off Retreat Drive is introduced to break up the developable area into smaller land parcel, providing access in and east-west direction.



4 Create Through-Site Links and Open Space

Through site links and communal open spaces have been introduced to the site to provide generous setbacks and separation between buildings.



5 Urban Markers

Urban markers in the form of taller building elements are created to allow the site to be identified within the broader context

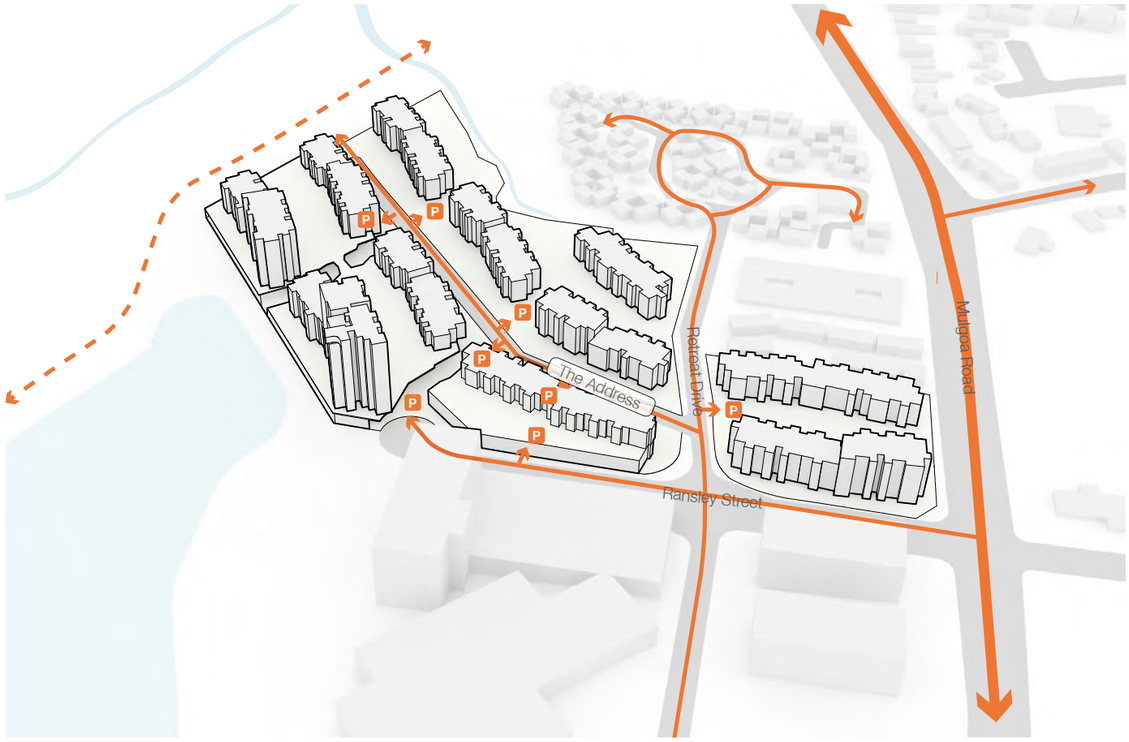
4.2 Site Layout Plan

A concept master plan has been prepared by Turner Associates, and is underpinned by the following principles:

1. **Scale of Development:** height of built form across precinct steps up towards the western and eastern boundaries of the site to create urban markers that identify the site within its context
2. **Orientation + Separation:** buildings orientated as best as possible on a north-south axis to optimise solar access and view sharing
3. **Active Frontages:** developments address and respond to primary access routes such as Ransley Street and Mulgoa Road. The open space corridor and body of water positioned adjacent to the site are opportunities for active frontages also.
4. **Site Access Points:** access points located along Ransley Street and Retreat Drive allow direct connectivity to the primary route of Mulgoa Road
5. **Vehicular Connectivity:** potential through-site connections that link up to existing road network in and around site
6. **Pedestrian Connectivity:** links through the precinct are informed by building separation, existing road networks and areas of open space, and are lined with appropriate landscaping
7. **View Sharing:** view sharing is optimised through the stepping of building heights, setbacks and areas of open space and circulation.
8. **Planting Strategy:** landscaped areas are positioned along planned and existing vehicular and pedestrian access routes in order to create vibrant streetscapes. Vegetation can be used as passive screening devices to obscure neighbouring locality features (i.e, Mulgoa Road, residential housing and car parking facilities).

Source: ASPIRE Mixed Use Development Site Strategy Diagrams, Site Plan, Turner Studio.

4.3 Movement Concepts

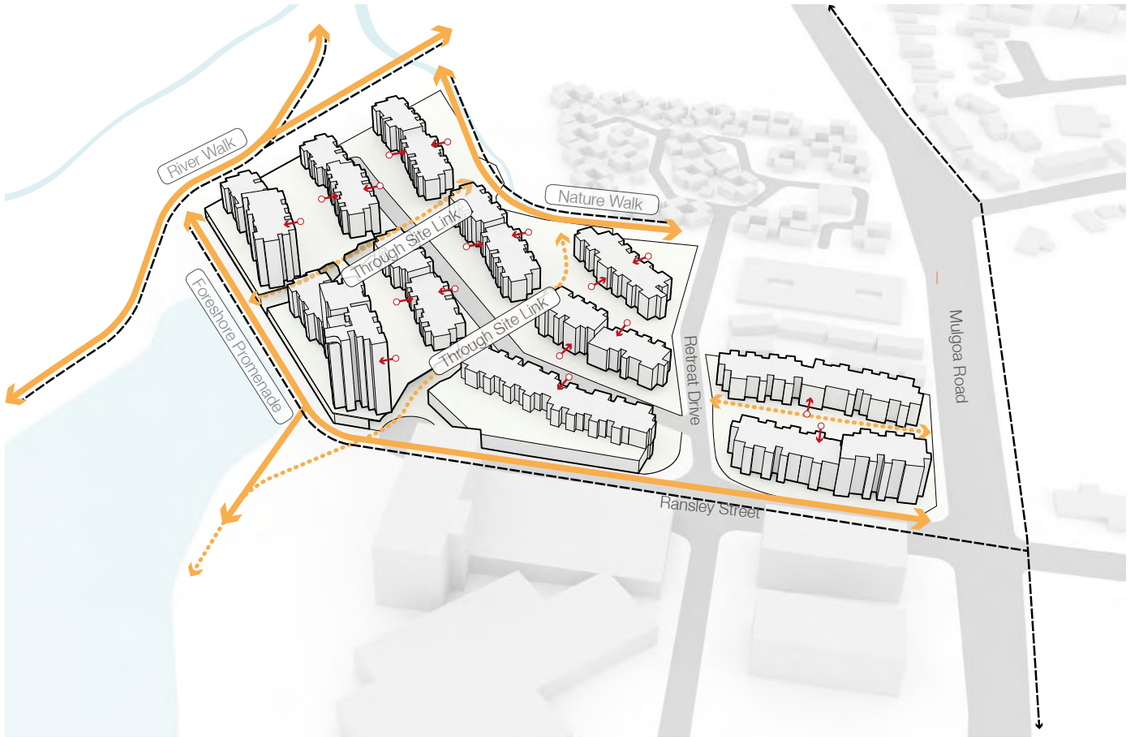


Vehicular Movement

The site is accessed off Ransley Street and Retreat Drive with a new road that provides vehicular access to the west of the site. Basement access is restricted to the approved extension of Ransley Street, Retreat Drive and the proposed new road.

Key

- Vehicular paths
- Parking access



Pedestrian Movement

The provision of pedestrian and cycle paths are a key priority for the site, presenting an opportunity for the surrounding parklands and water bodies to be celebrated and activated. A River Walk edges the northern boundary of the site, the Foreshore Walk edges the western boundary fronting the lake, and the Nature Walk edges the eastern boundary fronting Peach Tree Creek. The two through site links oriented on an east-west axis provides a link between the two water bodies.

Site permeability and pedestrian safety through passive surveillance is promoted by orienting the proposed built form towards these routes.

Key

- Shared cycle paths
- Primary pedestrian paths
- Secondary pedestrian paths
- Residential access

3.3 Built Form and Character Concepts

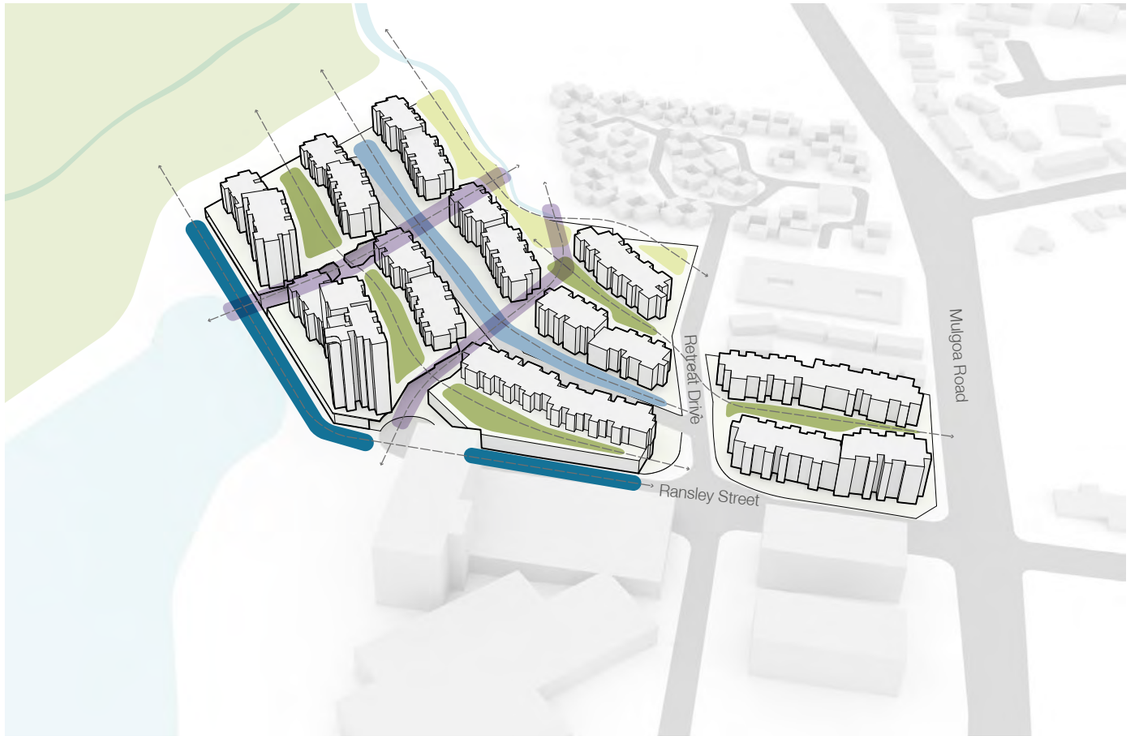
Building Separation + Height

The built form transition from 4 storeys to 14 storeys on a north-south axis with the creation of urban markers at either end of Ransley Street. The separation between buildings reflect SEPP 65 requirements for privacy, solar access and also allows for the provision of public and private open space.

Key

* Urban Markers

→ Transition of height



Precinct Character

The site layout offers opportunities to establish a variety distinct character areas along the north-south and east-west axis. An active foreshore area is proposed adjacent to the lake and the Foreshore Walk. Natural edges front the storm water drain along the northern boundary. A series of private open space and a passive street environment is proposed between the built form. The two pedestrian links along the east-west axis provides opportunities various characters across the site and is a dedicated pedestrian friendly zone.

Key

- Natural Edge
- Private open space
- Passive street area
- Active foreshore
- Pedestrian link

4.4 Landscape Plan

The site is designed to be highly permeable for pedestrians with the new road, foreshore promenade and nature walk connecting to the open recreational space to the north of the site. The drawing to the right shows the proposed public spaces that form part of this master plan. Please see the public domains report prepared by Oculus for additional information.

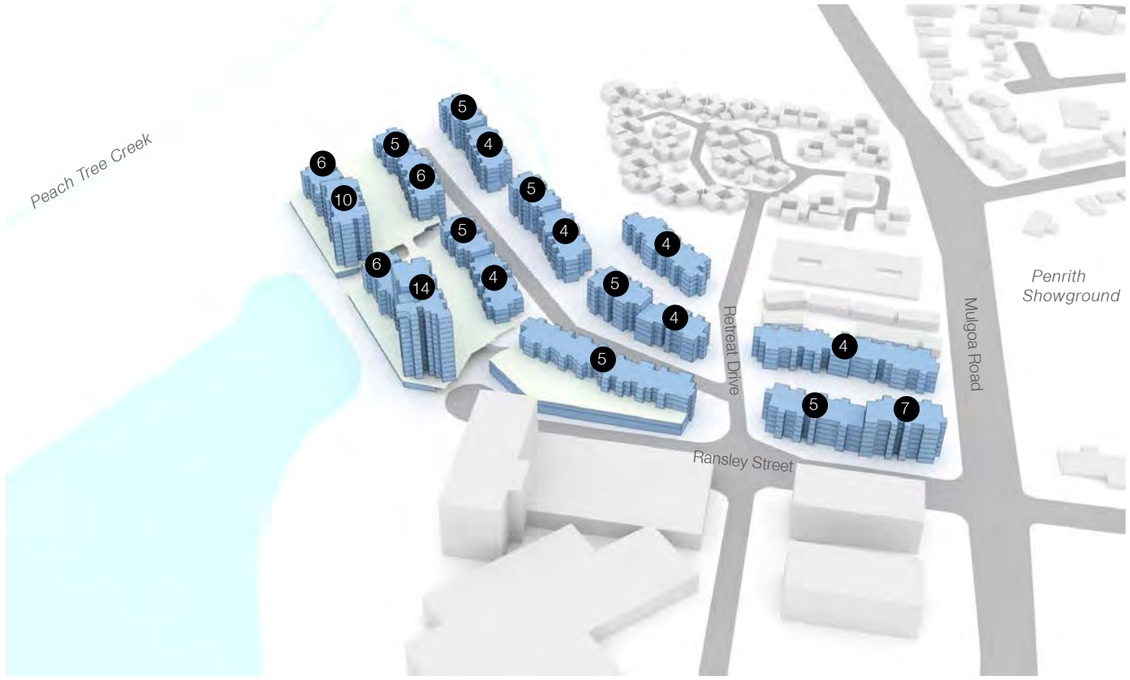
The design concept for the master plan is to weave the natural environment through the site and continue the surrounding green space into the development. The site layout allows visual permeability to the surrounding area and the mountains beyond.

The green spines that run through the site provide a variety of public and communal landscaped spaces, each with a unique character and programme.

The landscape design provides high levels of amenity to support the proposed built form.

Source: Edited Landscape Plan, Oculus.

4.5 Massing



Massing View 01

View from southern boundary looking in a northern direction, towards surrounding residential development.

Massing View 02

View from eastern boundary looking in a western direction towards the Blue Mountains, emphasising proximity to adjacent areas of open space.

Massing View 01

Dwellings	Retail GFA	Residential GFA	Total GFA
859	3,305m²	76,735m²	80,040m²

4.6 Visualisation

Source: ‘DA-900-002 C_Perspective Image 02’, Turner Studio

4.6 Visualisation

Source: ‘DA-900-004 C_Perspective Image 04’, Turner Studio

5

Master Plan Analysis

Detailed analysis of the proposed Master plan.

5.1 Shadow Analysis

The following diagrams show the extent of shadow cast by the proposed massing, The built form will cast long shadows that move east to west. The orientation, heights and setbacks of the buildings allow for the living rooms and private open spaces of at least 70% of the apartments to receive a minimum of 3 hours direct sunlight between 9am and 3pm during mid winter.


21st June - 9am


21st June - 10am


21st June - 11am


21st June - 12pm


21st June - 1pm


21st June - 2pm


21st June - 3pm

Source: Shadow Analysis, Turner Studio

5.2 Solar Access & Cross Flow

The solar access diagram demonstrates the amount of hours received by each apartment, in accordance with the solar requirements of the Apartment Design Guide (ADG). The ADG sets out that apartments must receive at least two hours of solar access between 9am - 3pm (21st of June).

The proposal achieves the following:
- 71.8% Apartments receive 2 hours of solar access between 9am - 3pm
- 82.4% Apartments receive 2 hours of solar access between 9am - 4pm
- 13.2% Apartments receive no direct solar access

Source: Level 03 Solar Access Diagram, Turner Studio

5.3 Visual Assessment

View 01

View from High Street looking south towards the northern boundary of the site. The 5 storey built form is obscured by the existing height of the tree line. The 14 storey tower is an urban marker and helps to identify the precinct within the Penrith locale.

View 02

View from Mulgoa Road looking towards the northern boundary of the site. Existing landscaping along the street scape visually masks the development.

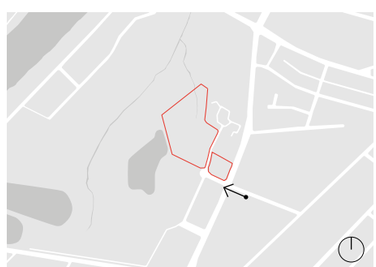
5.3 Visual Assessment

View 03

View from Mulgoa Road looking towards the north-eastern boundary of the site. The height of the proposed built form responds to the existing tree line.

View 04

View from Ransley Street looking west towards the site. The 7 storey building is highly visible from the street creating a marker for the precinct. The 14 storey tower is also visible from this intersection marking the location of the lake.



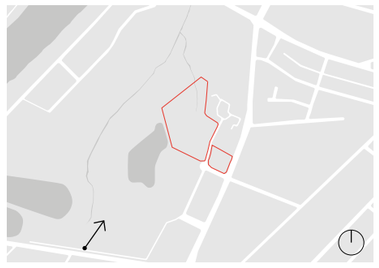
5.3 Visual Assessment

View 05

View from Ransley Street looking west towards the site. The 5 storey built form responds to existing neighbouring properties, and the 14 storey urban marker helps to define the site.

View 06

View from Jamison Road looking towards the southern boundary of the site. 14 storey building is visible from this location whilst the existing vegetation screens the smaller scale buildings.



5.3 Visual Assessment

View 07

View from the open space along Ladbury Avenue looking towards the south-western boundary of the site. The taller elements of the site are visible from this location with the existing topography screening the lower levels of the development.

View 08

View from the end of Ladbury Avenue looking west towards the site. The taller elements are visible from this vantage point, with the lower levels screened by the existing topography and vegetation.

Conclusion

6.1 Conclusions

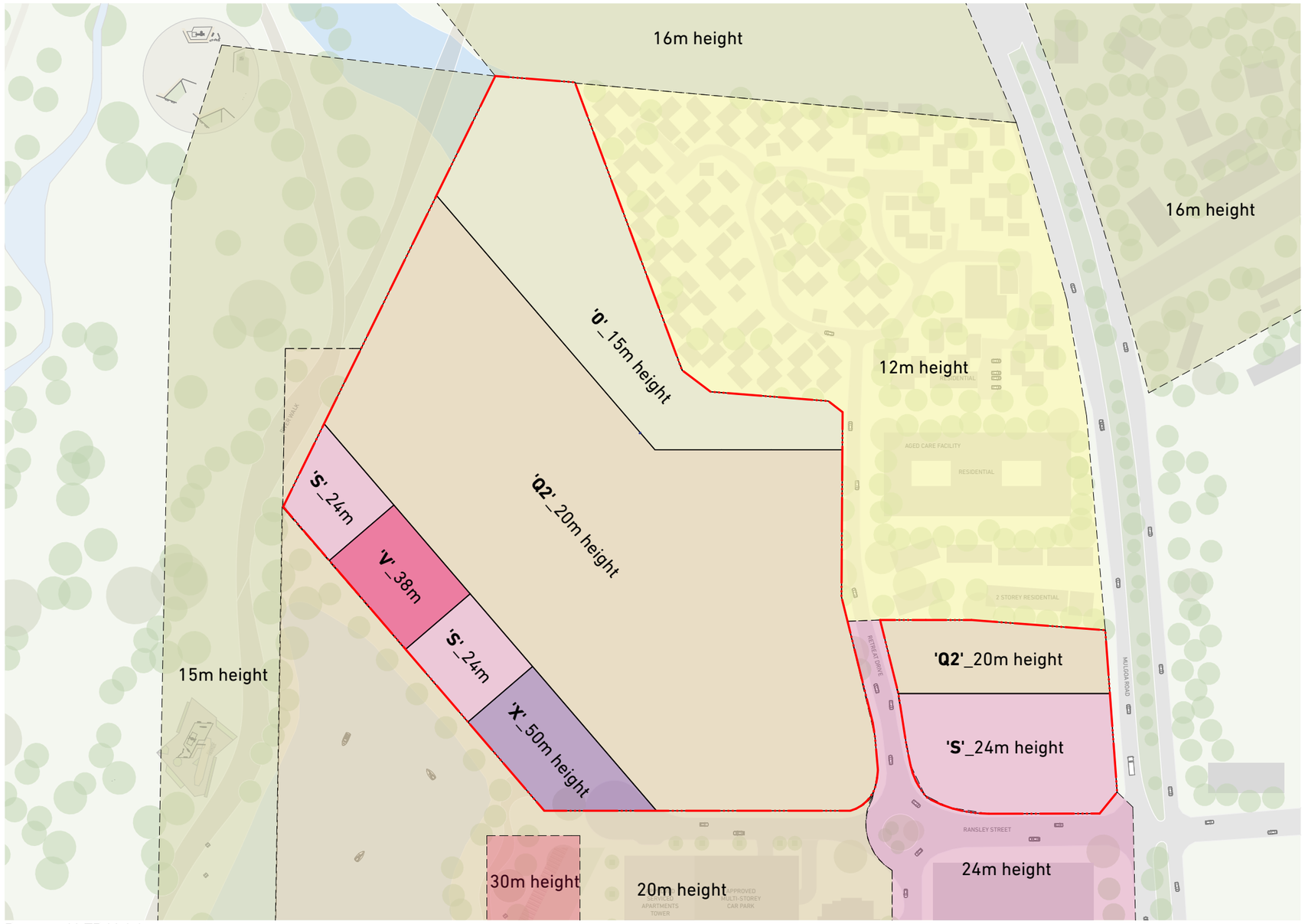
The Urban Design Study for 65 to 135 Mulgoa Road and 1 Retreat Drive, outlines the site's capacity to accommodate additional height, which allows for a better presentation of built form that enhances the site's unique characteristics and natural features.

The proposed concept enables the rehabilitation of the concrete storm water drain in the north and the land surrounding the lake, increasing public access and providing amenity to the foreshore.

As demonstrated in the master plan concept, the precinct as a whole has the capacity to increase in height as it is able to achieve the following:

1. Transition to Context: height transitions from 4 storeys to 14 storeys
2. Create Urban Markers: taller buildings will be used to define the site within broader context. Provide height in locations that will not impact the amenity of surrounding properties whilst improving legibility and streetscape character;
3. Creating better separation between buildings and reducing the overall bulk and scale of the development: The DCP's illustrative concept plan identifies the site as an outlet centre, which would result in a large building footprint that does not engage with its edges. The response here is to provide built form that is broken up into a number of smaller footprints that address the surrounding context and provides a series of active spaces, improving the overall amenity for the site;
4. To deliver diversity in dwelling choice: a range of dwelling types and sizes are able to be offered;
5. Amenity: the amenity of the residential areas, proposed streetscapes and areas of open space is appropriate for the site and precinct

To this end we recommend that the appropriate heights for this site are between 15m to 50m



Proposed LEP Heights

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