


# Hills Showground Station Precinct

## URBAN DESIGN REPORT

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| REV | DATE | DETAILS |
|---|---|---|
| A | 07/10/2019 | First Draft for Internal Client Review |
| B | 16/10/2019 | Second Draft for Internal Client Review |
| C | 25/10/2019 | Third Draft for Client Review |
| E | 04/11/2019 | For Submission |
| F | 22/04/2020 | Draft Response to Submissions |
| G | 30/06/2020 | Response to Submissions |

| | NAME | DATE | SIGNATURE |
|---|---|---|---|
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# Executive Summary

## Metro Context

The Sydney Metro program of works includes:

1. Metro North West Line

Passenger services started in May 2019 between Tallawong and Chatswood, with a driverless metro train every four minutes in the peak. The project was delivered on time.

2. Sydney Metro City & Southwest

A new 30km line extending metro rail from Chatswood, under Sydney Harbour, through new CBD stations and southwest to Bankstown. It is due to open in 2024 with the ultimate capacity to run a metro train every two minutes each way through the centre of Sydney.

Sydney Metro City & Southwest will deliver new metro stations at Crows Nest, Victoria Cross, Barangaroo, Martin Place, Pitt Street, Waterloo and new underground metro platforms at Central Station. In addition it will upgrade and convert all 11 stations between Sydenham and Bankstown to metro standards.

3. Sydney Metro West

Sydney Metro West is a new underground railway between Greater Parramatta and Sydney. This once-in-a-century infrastructure investment will transform Sydney for generations to come, doubling rail capacity between these two areas, linking new communities to rail services and unlocking housing supply and employment growth between the two CBDs.

Sydney Metro West will service key precincts, with stations at Westmead, Parramatta, Sydney Olympic Park, North Strathfield, Burwood North, Five Dock, The Bays and the Sydney CBD. Potential stations at Pyrmont and Rydalmere are being investigated.

4. Sydney Metro Western Sydney Airport rail line

Metro rail will also service Greater Western Sydney and the new Western Sydney International (Nancy Bird Walton) Airport. The new railway line will become the transport spine for the Western Parkland City's growth for generations to come, connecting communities and travellers with the rest of Sydney's public transport system with a fast, safe and easy metro service. The Australian and NSW governments are jointly delivering this new railway, to open at the same time as the airport.

The Hills Showground Station sits within the Metro North West Line and forms part of the Hills Showground Station Precinct. The concept proposal for the masterplanning of the Hills Showground Station Precinct is the subject of this report.

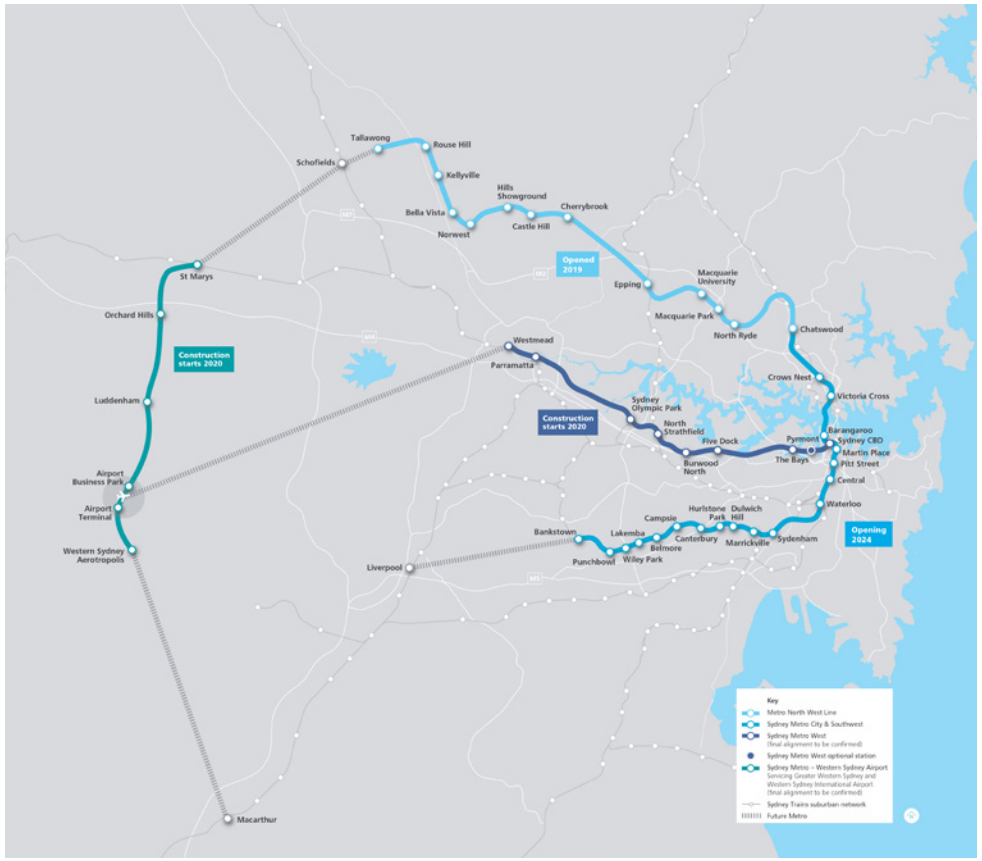



Figure 1: Metro North West Line in the context of existing and future Metro lines (Sydney Metro, 2020)





Figure 2: Existing Hills Showground Station

## Project Vision

*"The Hills Showground Station Precinct will be a thriving local mixed-use centre; a walkable, lively place enhanced by strong connections to world class transport and the cultural and recreational destination of Castle Hill Showground. The precinct will provide diverse housing for different generations and lifestyles, framed by green open spaces that encourage connectivity, and will celebrate its views over Cattai Creek and the wider Garden Shire"*

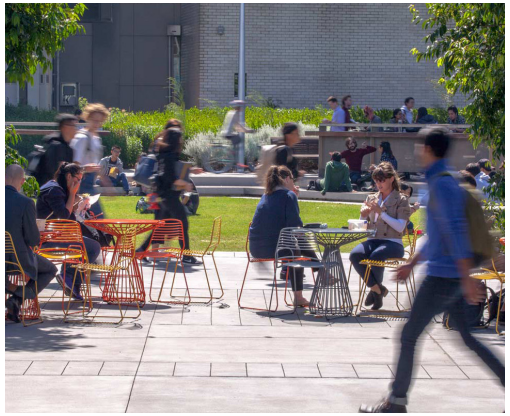
The Hills Showground Station Precinct (the Site) is located within an established community that is undergoing significant transformation in response to the enhanced levels of accessibility and amenity provided by the Metro North West Line project.

The Site sits atop a ridgeline that extends through to Castle Hill. At an elevation of approximately 100m above sea level, the Site is located on one of the highest points in north west Sydney, making it a prominent location with the opportunity to develop as a marker within its context via built form and landscape outcomes that demonstrate design excellence and facilitate key government-led place making priorities.

Leveraging the landscape characteristics of the Site and its surrounds, the Concept Masterplan (CMP) seeks to deliver a complementary and connected public realm that is anchored by a new civic heart that stitches together the regional recreation networks, local movement patterns and the transport interchange together in a place that will be active day and night, weekday and weekend, winter and summer.

In addition, a new park within will provide casual recreation opportunities and form part of a comprehensive network of green and blue spaces for The Hills in line with the vision of the broader Central River City.










## Project Objectives

The development objectives for Hills Showground Station Precinct support the NSW Government's strategic plan for the broader Showground Station Precinct as well as Sydney Metro's priorities for place making and the support of its infrastructure within the Metro Northwest corridor.

The objectives promote the positive attributes associated with transit-oriented development and facilitating a healthy and diverse community, as well as the high quality and unique outcomes that come from a rigorous design excellence process.

### PLACE

- Capture the unique opportunity of adjacency to the Castle Hill Showground event precinct
- Celebrate the water movement, aspect and topography of the Site
- Connect with and extend the green infrastructure
- Respect and evolve the history and local character of the area
- Centre the design aspiration around human experience and journey



### DIVERSITY

- Consider the changing needs of the community, supporting regional and local growth
- Ensure a suitable mix of uses for future needs
- Provide a mix of housing typologies to suit different household budgets and stages of life
- Provide a range of spaces within the public realm network to suit a variety of activities
- Plan for appropriate diversity in built form, articulation and materials in keeping with the desired quality and character



### VALUE

- Leverage and support the new Metro Station infrastructure
- Ensure quality design outcomes with public value alongside a commercially viable solution
- Promote design and operational efficiency
- Attract new investment and create jobs
- Promote investment in public art and public realm



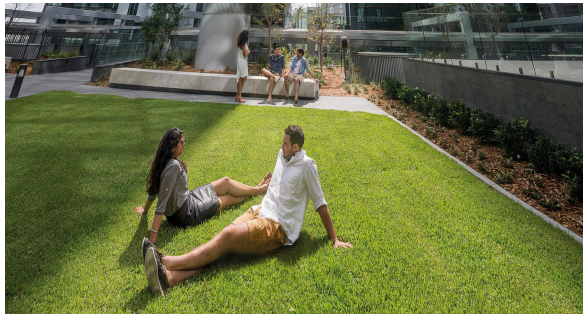
## ACTIVATION

- Provide a platform for various events and active place making initiatives
- Provide high quality, active and safe public realm and streets
- Provide strong vistas and views to support wayfinding and legibility



## SUSTAINABILITY

- Promote greater use of public and active transport modes
- Create social infrastructure to support the new community needs
- Ensure maximum and equitable amenity and living comfort with solar access to both public and private space
- Set aspirational benchmarks for future developers of the Site



## PROCESS

- Collaborate and engage effectively with our partners, stakeholders and communities
- Prepare robust design guidelines to shape desired future outcomes of the precinct and provide more certainty for stakeholders and the community
- Engage a highly capable and diverse team and facilitate setting up for success

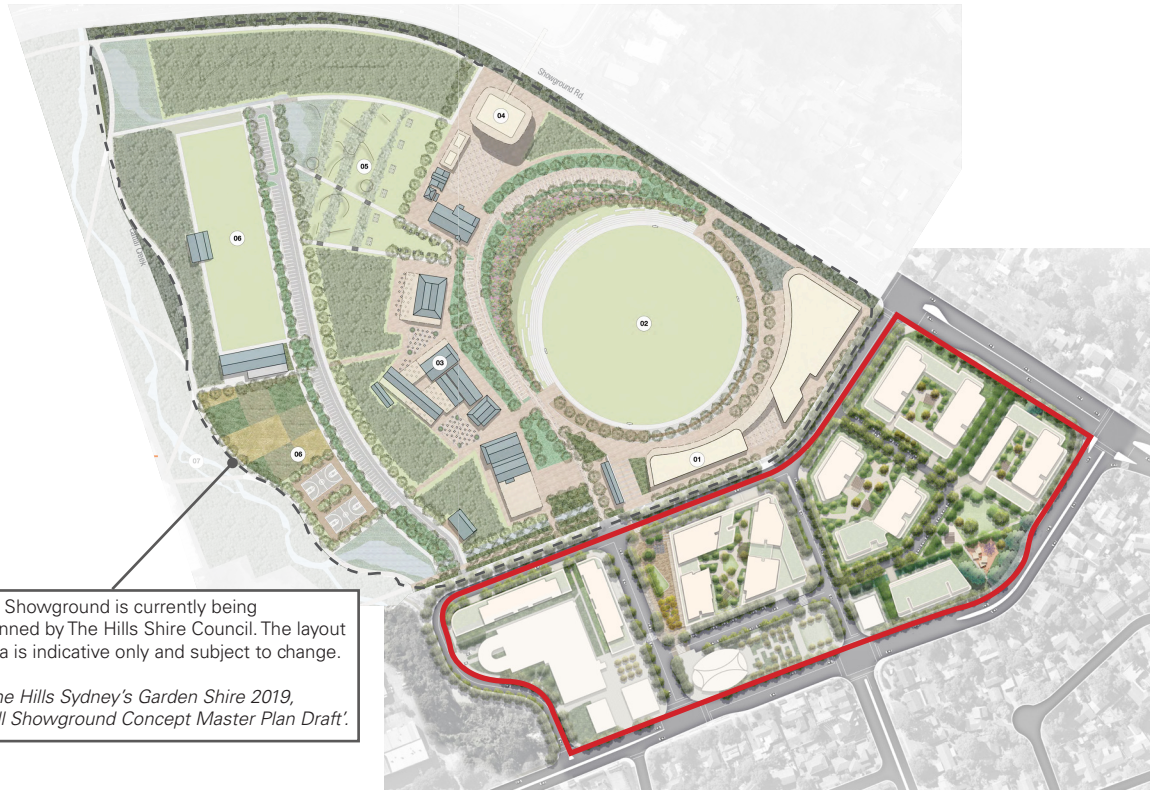


## Concept Masterplan

The CMP is drawn from the assessment of the local characteristics and opportunities of the Hills Showground Station Precinct site. The CMP responds to the vision and design principles in the Urban Design Framework, Guidelines and Building Envelopes.

The CMP provides two new public open spaces, retail and commercial opportunities, community spaces and a variety of housing typologies that suit a diverse population through all stages of life.

In summary, the CMP seeks to achieve outstanding placemaking, open space and public domain, pedestrian amenity and resident amenity outcomes for the Hills Showground Station Precinct.




Castle Hill Showground is currently being masterplanned by The Hills Shire Council. The layout of this area is indicative only and subject to change.

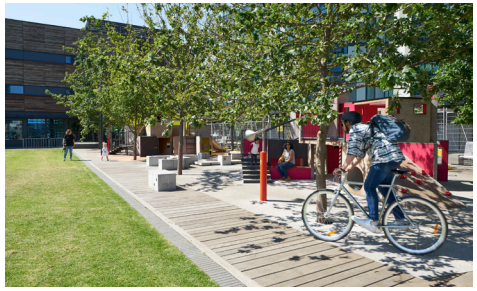
*Source: The Hills Sydney's Garden Shire 2019, 'Castle Hill Showground Concept Master Plan Draft'.*

Figure 3: The Site in the context of the Castle Hill Showground Concept Masterplan Draft



### Placemaking

The CMP has identified a geographical, economical and social heart for the Site. The primary civic space is located on Doran Drive Plaza. The element stitches together the Hills Showground Station and multi-modal transport interchange, primary retail spaces and the Castle Hill Showground.



### Open Space and Public Domain

The CMP provides significant new areas of publically accessible open space. The open space network is configured to facilitate a range of functions for the various users.



### Pedestrian amenity

Street wall heights and primary setbacks of the Guidelines and resultant CMP ensure the scale of buildings is an appropriate experience for pedestrians at the street level. Upper level setbacks to towers provide a sense of space and openness to the sky.



### Resident amenity

The CMP has carefully considered how to balance amenity, solar access and built form definition of the public domain with high levels of resident amenity.




Figure 4: Concept Masterplan

# 01

# INTRODUCTION

This chapter includes the intention of this report, the evolution of the concept masterplan and the historical context of the site and its surrounds.

# Introduction

## Purpose

The purpose of this report is to synthesise the body of urban design and spatial analysis carried out to date and develop guiding principles for the transformation of the precinct. It provides the supporting evidence for the suitability of the CMP.

A number of significant infrastructure elements and strategic proposals have been adopted by the NSW Government and The Hills Shire Council which have informed the future vision for the Site.

These include:

- the delivery and operation of a multi-modal transport network anchored by the Hills Showground Station
- the rezoning of the Hills Showground Station Precinct and its surrounds commensurate with the level of accessibility and amenity that the Site and the transport network affords
- the comprehensive masterplanning of the Castle Hill Showground as a regional social, cultural and recreational resource for the Hills and North West Sydney.

These initiatives have placed an increased strategic importance on the Site and its potential for urban transformation. The concept proposals have leveraged these initiatives to further support the vision for the area.

Urban Design Guidelines (UDG) have also been developed to act as a site specific Development Control Plan (DCP). The UDG sets out the specific objectives and controls that will guide the transformation of the Site to be in line with the findings of this Urban Design Report.

This will ensure a level of certainty that the desired quality of design outcomes will be achieved.

The principles and concept proposals outlined in this Urban Design Report have also been informed by advice in many technical study areas, including;

- statutory planning
- geotechnical
- biodiversity
- heritage
- soil and contamination
- ecologically sustainable development
- civil and infrastructure
- traffic and transport
- wind
- acoustic.

## Concept Masterplan Evolution

### 2014

- The Department of Planning and Environment consulted the community, businesses and The Hills Shire Council to change planning controls to rezone land around Hills Showground Station, which includes the Hills Showground Station Precinct.

### 2017 - 2018

- Hills Showground Station Precinct land rezoned
- Landcom requested Secretary Environmental Assessment Requirements (SEARs) from the Department of Planning, Industry and Environment (DPIE) for the preparation of the CMP as part of a State Significant Development Application (SSDA).
- An Expression of Interest was released for the divestment of Doran Drive Precinct.

### 2019

- Landcom prepared a SSDA for the Hills Showground Station Precinct in collaboration with stakeholders and through community engagement.
- Landcom lodged a SSDA in late 2019. The detailed plans and supporting technical studies were publicly exhibited by DPIE. Following exhibition, DPIE reviewed the submissions received and determined the key issues that required further information or clarification.

### 2020

- The CMP has been revised to address issues raised in submissions and the request by the DPIE for further information. This has been formally lodged as a Response to Submissions.

**WE ARE HERE**

### 2020 - Onward

- DPIE will assess the Response to Submissions package and will make a recommendation to the Minister for Planning and Public Spaces. The Minister (or delegate) will determine the SSDA.
- The divestment of Precinct West and Precinct East will occur at an appropriate time given market conditions and demand.
- The developer of the Doran Drive Precinct will lodge a detailed Development Application(s) (DA) with the consent authority for individual buildings and spaces in accordance with the principles, objectives and controls set out in the SSDA.
- The purchasers of Precinct West and Precinct East will lodge detailed DA(s) with the consent authority.
- The consent authority will review and assess the detailed DAs.

## Stakeholder Engagement

A project of this scale and with such complexity rightly requires a great degree of stakeholder engagement. Stakeholder Engagement is a critical component of the successful pathway to design excellence, and supports the objectives of the Design Excellence Strategy (Landcom, 2020).

The Hills Shire Council, DPIE and the NSW Government Architect's Office have a significant interest in this project as does, most importantly, the existing and future community of Showground, Hills Shire and the north west of Sydney.

The design review that has occurred as part of the stakeholder engagement process has tested the urban design principles and public benefit outcomes, playing an important role in achieving and informed and considered design approach.

It is important that there be ongoing engagement and review during the detailed design of buildings and spaces within the Hills Showground Station Precinct. This is to be done in accordance with the Design Excellence Strategy (Landcom 2020).

To date, the engagement process has involved the following key stakeholders;

- The Landcom Design Advisory Panel
- The State Design Review Panel including a member of the panel representing The Hills Shire Council
- The Hills Shire Council Planning team regarding the SSDA
- The Hills Shire Council regarding the coordination of the SSDA with the Castle Hill Showground Masterplan
- The Hills Shire Council Councillors and strategic planning team
- The Cox Challenge Team (a select group of impartial Cox Directors)
- The Community

The Stakeholder Engagement Outcomes Report, submitted as part of the SSDA, summarises the feedback and project responses up until lodgement. The RtS report will summarise feedback and the project responses from the submissions received from public exhibition.




Figure 5: Stakeholders engaged with during the SSDA process

## The Site

The Hills Showground Station Precinct (the Site) is located within an established community that is undergoing significant transformation in response to the enhanced levels of accessibility and amenity provided by the Metro North West Line.

The Site sits atop a ridgeline that extends through to Castle Hill. At an elevation of approximately 100m above sea level, the Site is located on one of the highest points in north west Sydney, making it a prominent location with the opportunity to develop as a marker within its context via built form and landscape outcomes that demonstrate design excellence and facilitate key government-led place making priorities.

The Site is surrounded by existing suburban residential communities to the north east and south east which have been rezoned to allow for future development opportunities.

Along the western boundary of the Site runs the headwaters of the Cattai Creek catchment, a riparian corridor that drains to the Hawkesbury River at Cattai in Sydney's north west.

The Cattai Creek corridor is presently a mixture of native and exotic trees and plants and is intended in the future to be a mix of Eucalyptus, including micrcorys, maculata and glomulifera as identified in the Sydney Metro Northwest Urban Design and Corridor Landscape Plan. Part of this Corridor, including the area immediately adjacent to this Site, is also the subject site of a new landscape masterplan led by The Hills Shire Council.

Further west of the Site (across Cattai Creek) is the Castle Hill Trading Zone, an employment area comprised of light industrial and bulky goods retailing uses, providing essential services and employment to the surrounding communities.

North of the site a broader recreational corridor includes the destinations and attractions of the Castle Hill Showground, Hills Basketball Stadium and the mixed active sports fields and passive recreation spaces within Fred Caterson Reserve.




Figure 6: Aerial View looking South in 2019. Note: Buildings on Precinct East have since been demolished




Figure 7: Hills Showground Station Precinct (foreground) and Castle Hill Showground (background) Aerial looking north west

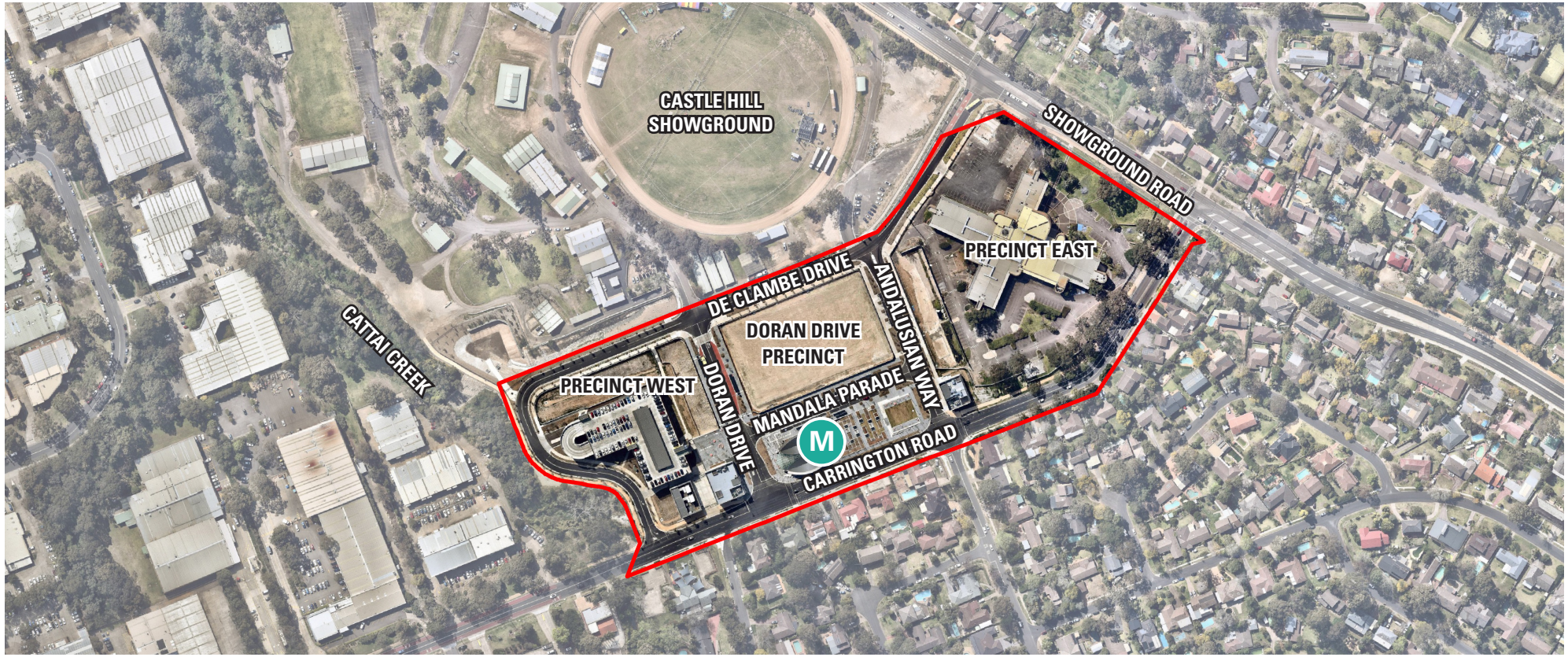



Figure 8: The Site

Site

0 50 100 150

# Historical Context of the Site and its Surrounds

The following is an appropriation of the heritage study that has been undertaken as part of the SSDA. This includes a review of the Heritage Impact Assessment (GML, 2019) and the historical site characteristics that may inform the design of the built form and landscape within the Hills Showground Station Precinct.

## Aboriginal History

There is evidence to support that Aboriginals have lived in and around the Site for at least 5,000 years.

The natural landscape of the Site would have been part of the broader Cumberland Plains woodland, comprised primarily of ironbark gums. Some are still located on the Site today within Precinct East, within the surrounding Cattai Creek corridor and the Castle Hill Showground.

Given the topography of the Site at an elevated position that looks over the north and west, the Site likely comprised part of the hinterland where "Aboriginal groups known as the 'woods tribes' lived, whose names were recorded as the Bediagal, Tugagal and Booroobirronggal" (GML, 2019).

The woods tribes lived off the local landscapes, potentially utilising the headwaters of the Cattai Creek catchment for fresh water and supported by a diet that comprised of small animals, insects, edible roots and fish that could be found, potentially, in the lower reaches of Cattai Creek.

With the arrival of the British, the land that had been so attractive to the woods tribes, also became attractive to the colonists looking to locate a large Government farm in the area.

The Bediagal people were impacted by disease and displaced from their traditional lands by the farming practices of the colonists. A resistance against the displacement began in the area surrounding the Site led by Pemulwuy, a Bediagal man.

This resistance included raids by the local Aboriginal people on the Government Farm within the area as early as 1793.

## European History

The Site and its surrounds were used as a vantage point for the European settlers from as early as April 1788. The elevated ridgeline from Castle Hill through to the Site is one of the highest points between the large colonial presence at Parramatta and the Blue Mountains and provided unobstructed views over the Cumberland Plain to the west and the Hawkesbury River flats to the north and north-west.

In 1802 the colony was expanded to Castle Hill with the establishment of a 35,000 acre farm to be cleared and farmed by 300 convicts. The farm land around the Site produced wheat, barley, oats and maize for the wider colony.

In 1804 there was a rebellion at the farm where 250 convicts left the farm for Rouse Hill where Government forces confronted and quashed the rebellion.

By 1810 the farm at Castle Hill was closed and parts of it converted to a mental asylum with a 200 acre reserve around the asylum which would become the Castle Hill Showground.

The remainder of the farm was given away in land grants from 1818 to 1819. Michael Hancey was the recipient of the grant that included the present day Site.

Hancey continued the agricultural use of the Site as the surrounding Castle Hill became a food bowl for the colony. It is likely that the rural cottage on 128-132 Showground Road was built during this agricultural period.

The agricultural use of the Site continued to the 1960s when a horse trainer, who was using the Castle Hill Showground as a training venue, consolidated the Site for the purpose of building stables adjacent to the Castle Hill Showground.

In 1971 the trainer sold the majority of his land to Council which then used part of the Site to establish The Hills Shire Council chambers and offices.

## Historical Design Opportunities

The potential retention and reforestation of the Site and its surrounds with native landscapes of the Cumberland Plain including ironbark gums should be considered through the preparation of the urban design and landscape proposals for the Site.

Similarly, the orchards and farming use of the Site from the early 1800s through to 1960s may present opportunities for interpretation of these uses in the landscaping within the public and private domains.



Figure 9: Pemulwuy (Source: National Museum of Australia)

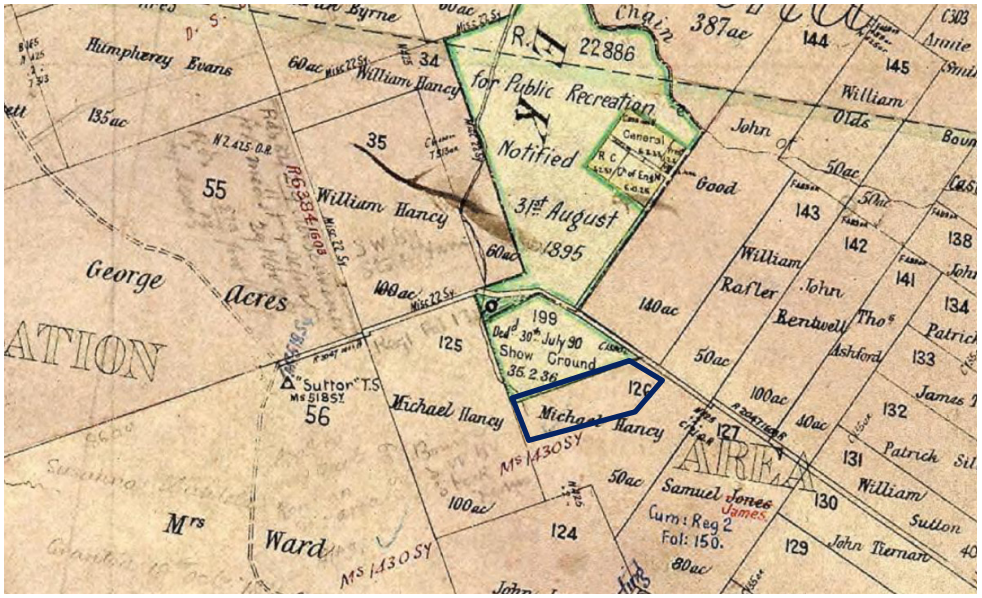



Figure 10: 1896 Parish Map with the approximate site location shown in blue as granted to Michael Hancy (Source: Department of Lands with GML overlay, 2019)

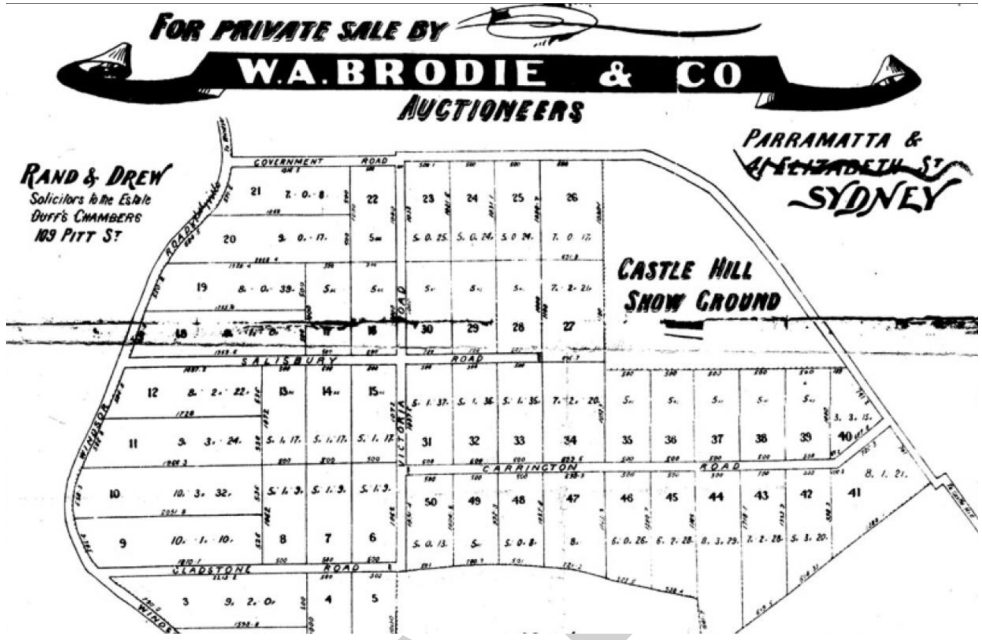



Figure 11: 1898 Suttor's Estate Subdivision. The Site covers Lots 35 to 40 on the plan (Source: The Hills Shire Council Local Studies)

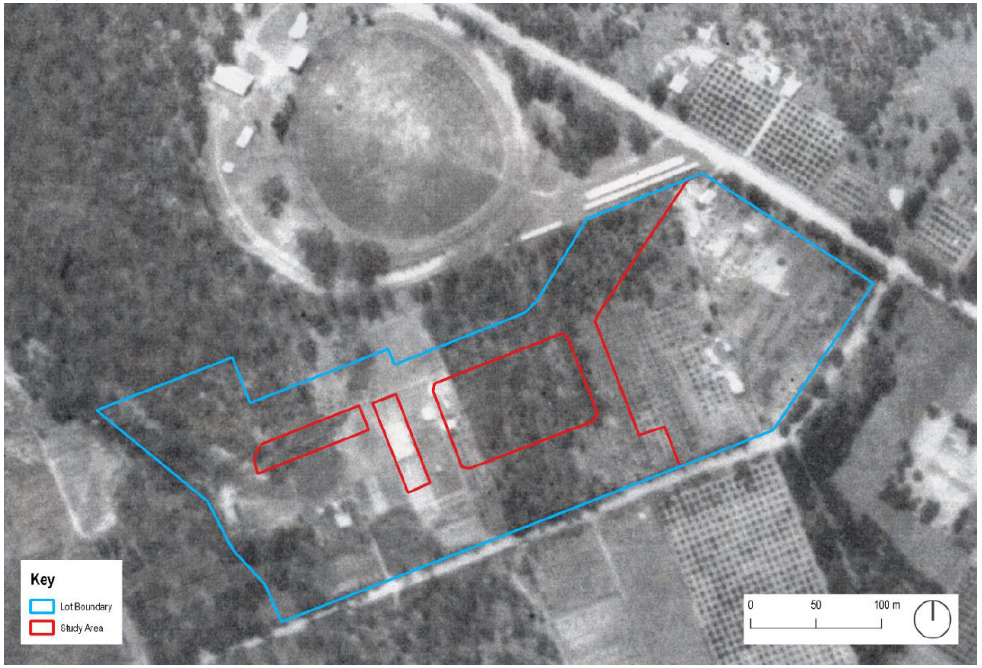



Figure 12: 1930 aerial showing the percentage of land cleared for subdivision for orcharding (Source: Department of Lands with GML overlay, 2019)

# 02

# PLANNING CONTEXT

This chapter outlines the relationship of the SSDA subject site to the Metro North West Line, the North West Metro Corridor Strategy and the Showground Station Precinct Plan

# Planning Context

## Sydney Metro Context

The Site is located on the completed Metro North West Line which runs from Tallawong to Chatswood. By 2024, the line will extend to Sydney's CBD and Bankstown via Sydenham.

The Site sits within the broader Central City District of Metropolitan Sydney with the Central River City, comprised of Parramatta and Westmead, at its heart.

## North West Rail Link Corridor Strategy

The Metro North West Line (formerly known as North West Rail Link) will deliver housing and employment opportunities.

In response to the State Government's overarching strategic objectives for the Metro North West Line, DPIE developed a Corridor Strategy aimed at maintaining and improving the lifestyle available in the local area while allowing for well-planned and sustainable future growth.

The Site was nominated as a future mixed use local centre by the Strategy.

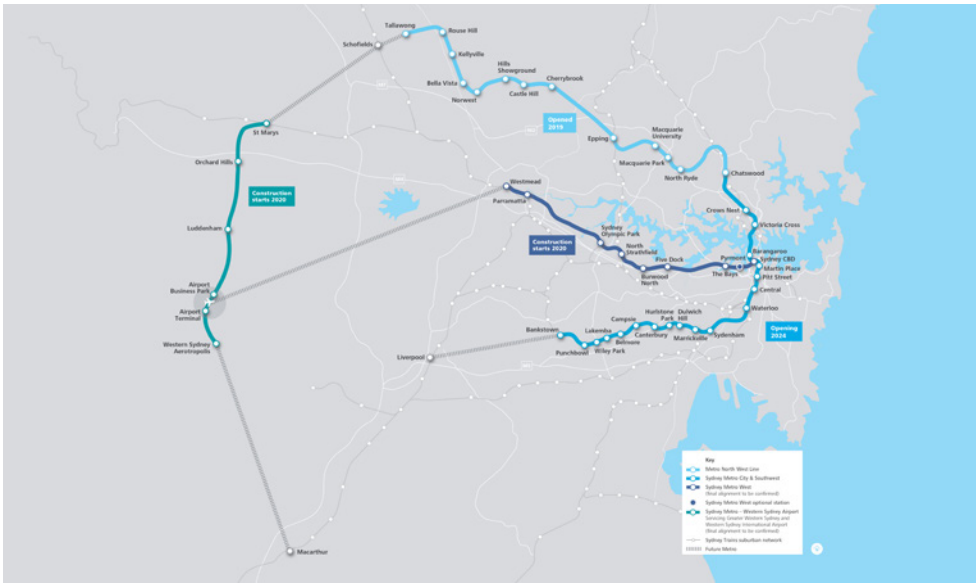



Figure 13: Sydney Cities, Centres and Existing and Future Rail Context. Source: Sydney Metro network (Sydney Metro, 2020)

Site
Three Metropolis Cities
Existing and Under Construction Metro
Centres
Existing Rail Network
Stations

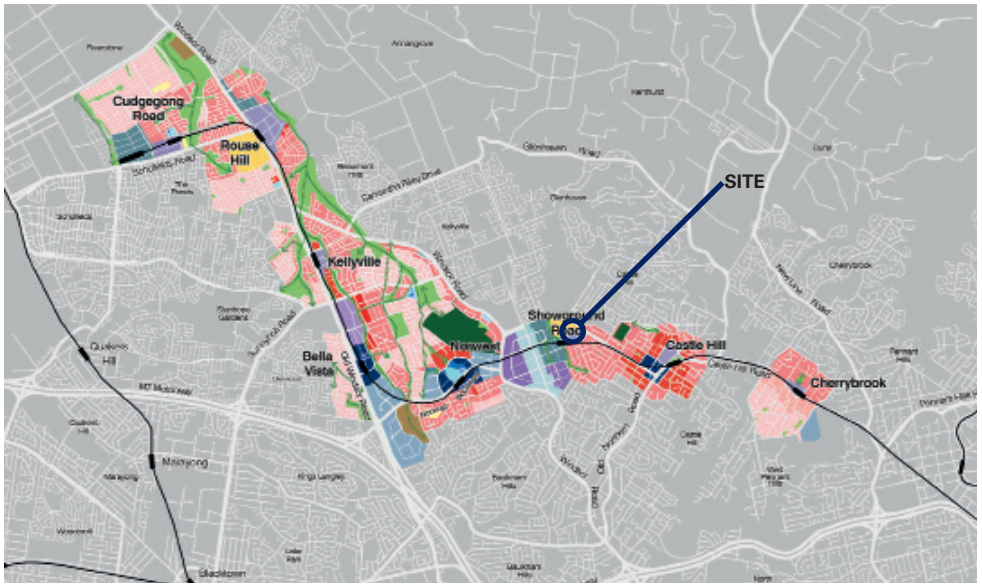



Figure 14: Corridor Structure Plan. Source: North West Rail Link Corridor Strategy September 2013

Site
Primary Road
Secondary Road
Commercial Core
Business Park
Bulky Goods
Station Platform
Potential Medium Density Residential (subject to further studies)
Low Density Residential
Low/Medium Density Residential
High Density Residential
Employment
Local Centre
Public Infrastructure
Special Use
Mixed Use
Light Industrial
Open Space
Heritage
Future Local Centre
New Link
Green Link
Private Recreation

## Showground Station Precinct Structure Plan

As part of the Corridor Strategy, DPIE developed precinct plans for each of the eight new metro stations. Key challenges and opportunities were considered, culminating in a collective vision and structure plan for the Station Precinct to guide the future character of the study area.

In December 2015, DPIE published the Showground Station Precinct Proposal which outlined the proposed land use and built form controls for the precinct.

On 15 December 2017, the then Minister for Planning approved State Environmental Planning Policy Amendment (Showground Station Precinct) 2017, instigating an amendment to the State Environmental Planning Policy (State and Regional Development) 2011 and The Hills Local Environmental Plan 2012 (THLEP).

The Showground Station Precinct Plan forecast to deliver approximately 5,000 new homes and 2,300 jobs over 20 years, transforming the area around the Hills Showground Station into a vibrant local centre.

## The State Significant Development Application

The SSDA will seek approval for a CMP that details urban design elements including:

- Landscape concept framework for the public domain areas
- Provision of appropriate uses and amenity to service the needs of the community
- Concepts for Doran Drive Plaza and Precinct East Park to be detailed in future DAs
- Building envelopes and Gross Floor Area (GFA) for residential and non-residential development on the three development lots referred to as Precinct West, Doran Drive Precinct and Precinct East (noting subdivision of Precinct East is planned with a road design)
- Urban Design Guidelines to ensure high quality design outcomes that provide detailed controls.

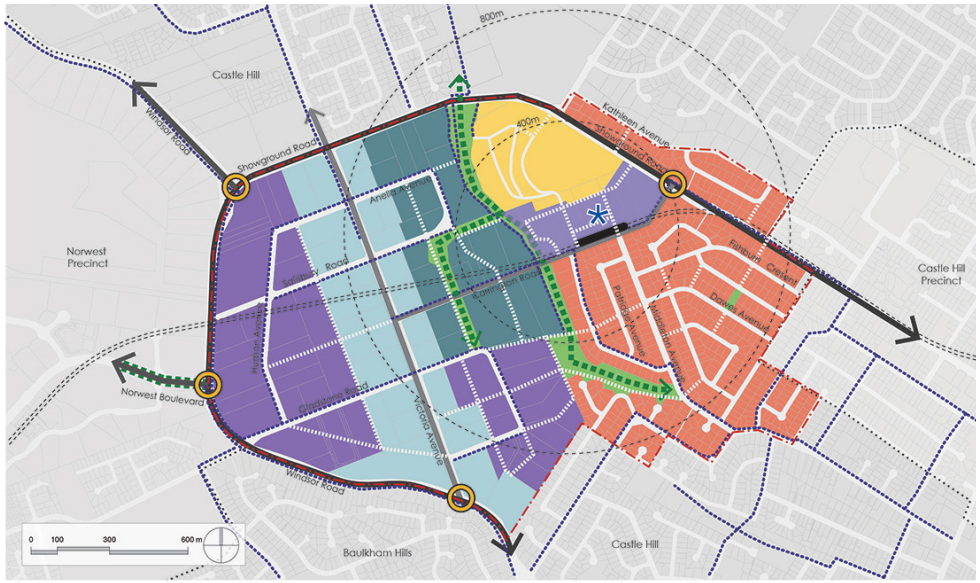



Figure 15: Structure Plan for the Showground Precinct. Source: North West Rail Link Corridor Strategy September 2013

- Study Area Boundary
- Primary Road
- Secondary Road
- Station
- Public Infrastructure
- Mixed Use
- Medium-High Density Residential 3-12 Storeys
- Bulky Goods
- Light Industrial
- Business Park
- Green Link
- Open Space
- Future Local Centre
- New Link

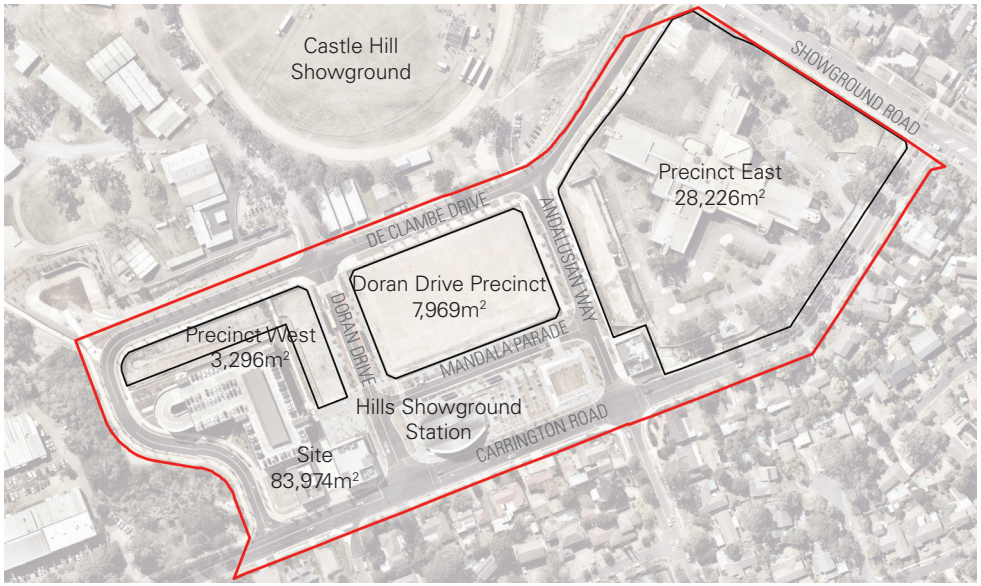



Figure 16: Hills Showground Station Precinct

- Site
- Development Lot

# 03

# LOCAL CHARACTER

This chapter is an appreciation of the local context of destinations and attractions, landscape, connectivity and community around and adjoining the Hills Showground Station Precinct.

# Local Character

## Local Destinations and Attractions

The Site is surrounded by existing suburban residential communities to the north east and south east which have been rezoned to allow for future development opportunities.

North of the site a broader recreational corridor includes the destinations and attractions of the Castle Hill Showground, Hills Basketball Stadium and the mixed active sports fields and passive recreation spaces within Fred Caterson Reserve.

To the west of the Site is the Castle Hill Trading Zone, an employment area comprised of light industrial and bulky goods retailing uses, providing essential services and employment to the surrounding communities.

The Museums Discovery Centre (MDC) is a collaboration between the Museum of Applied Arts and Sciences (MAAS), Australian Museum (AM) and Sydney Living Museums which adjoins another destination north west of the Site in the Tafe NSW Castle Hill campus.

Cockayne Reserve is a public open space to the south of the site that is characterised by a native bush landscape and creek corridor.




Figure 17: Local Context

## Local Landscapes

The headwaters of the Cattai Creek catchment, a riparian corridor that drains to the Hawkesbury River at Cattai in Sydney's north west, runs along the western boundary of the Site.

A ridgeline runs to the east of the Site broadly along Showground Road and the Site is located on one of the highest points in north west Sydney at approximately 100m above sea level.

Castle Hill Showground, located to the north of the Site, comprises a parade ring and a number of buildings related to a diverse range of community and recreational activities and forms a broader regional recreation precinct to the north including the Hills Basketball Stadium and Fred Caterson Reserve.

The Cattai Creek corridor is presently a mixture of native and exotic trees and plants and is intended in the future to be a mix of Eucalyptus, including micrcorys, maculata and glomulifera as identified in the Sydney Metro Northwest Urban Design and Corridor Landscape Plan.

The Castle Hill Showground contains a varied mix of native species with a significant proportion of Eucalyptus.

South of Carrington Road, trees are only located within the private realm and therefore vary significantly in species.

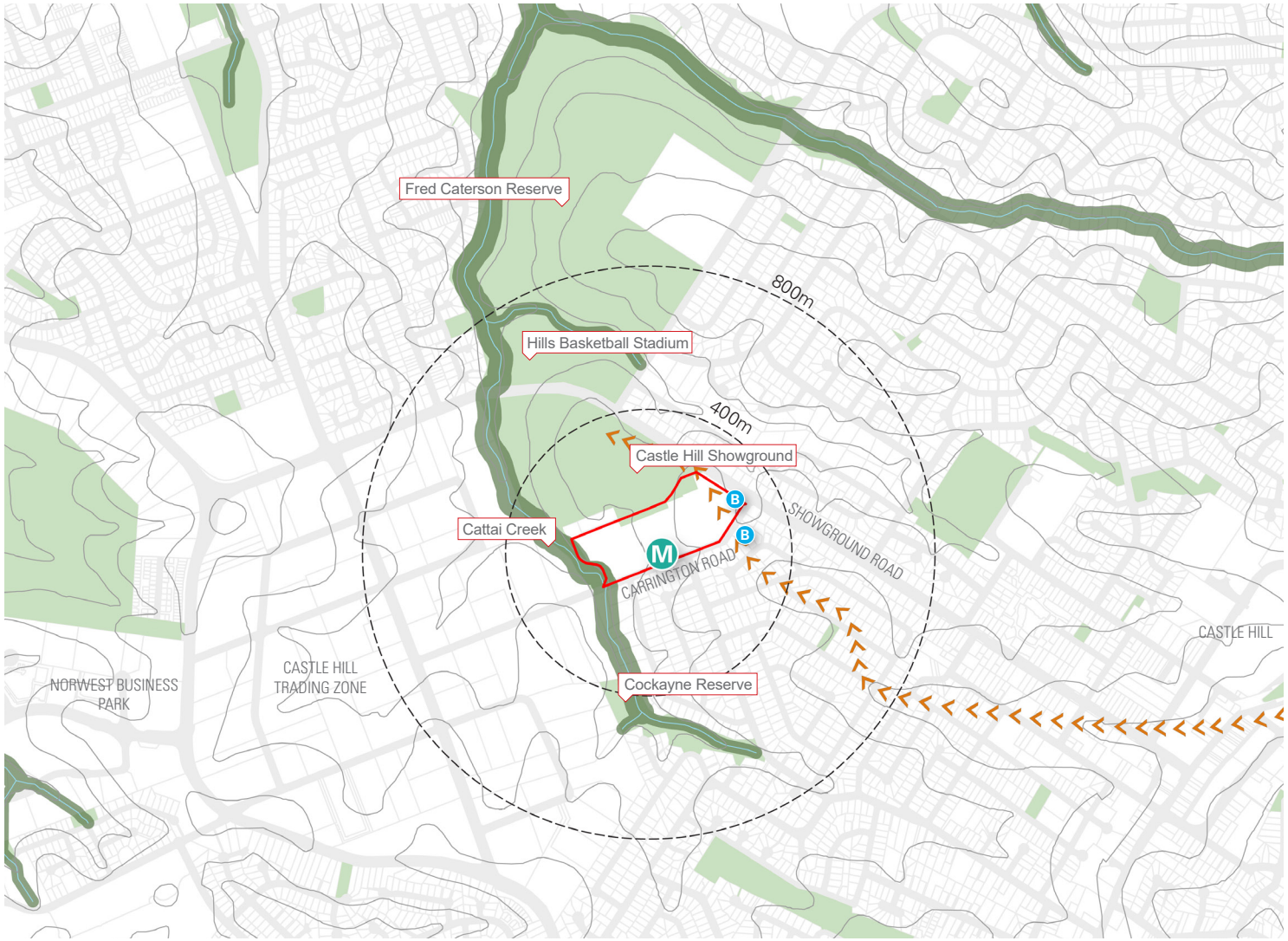



Figure 18: Landscape Context

## Local Connectivity

Metro North West Line provides frequent, driverless train services to Tallawong in the north west and Chatswood to the south east. The line provides for a number of interchanges with other modes of local, regional and metropolitan transport routes.

The Site is accessible from two regional transport routes – Showground Road to the north-east and Carrington Road to the south. Showground Road links the Site eastwards and westwards to Castle Hill and Norwest Business Park, respectively. Carrington Road provides access to the Castle Hill Trading Zone.

Local buses operate along both Showground Road and Carrington Road providing access to both the Site and the Hills Showground Station. On-demand buses also provide access from local residential areas to the Hills Showground Station.

An existing off-road, dedicated pedestrian and cycle path runs along the eastern bank of Cattai Creek to the west of the Site. An existing off-road shared path exists along Carrington Road. An existing on-road shared path extends south of the Site on Ashford Avenue.

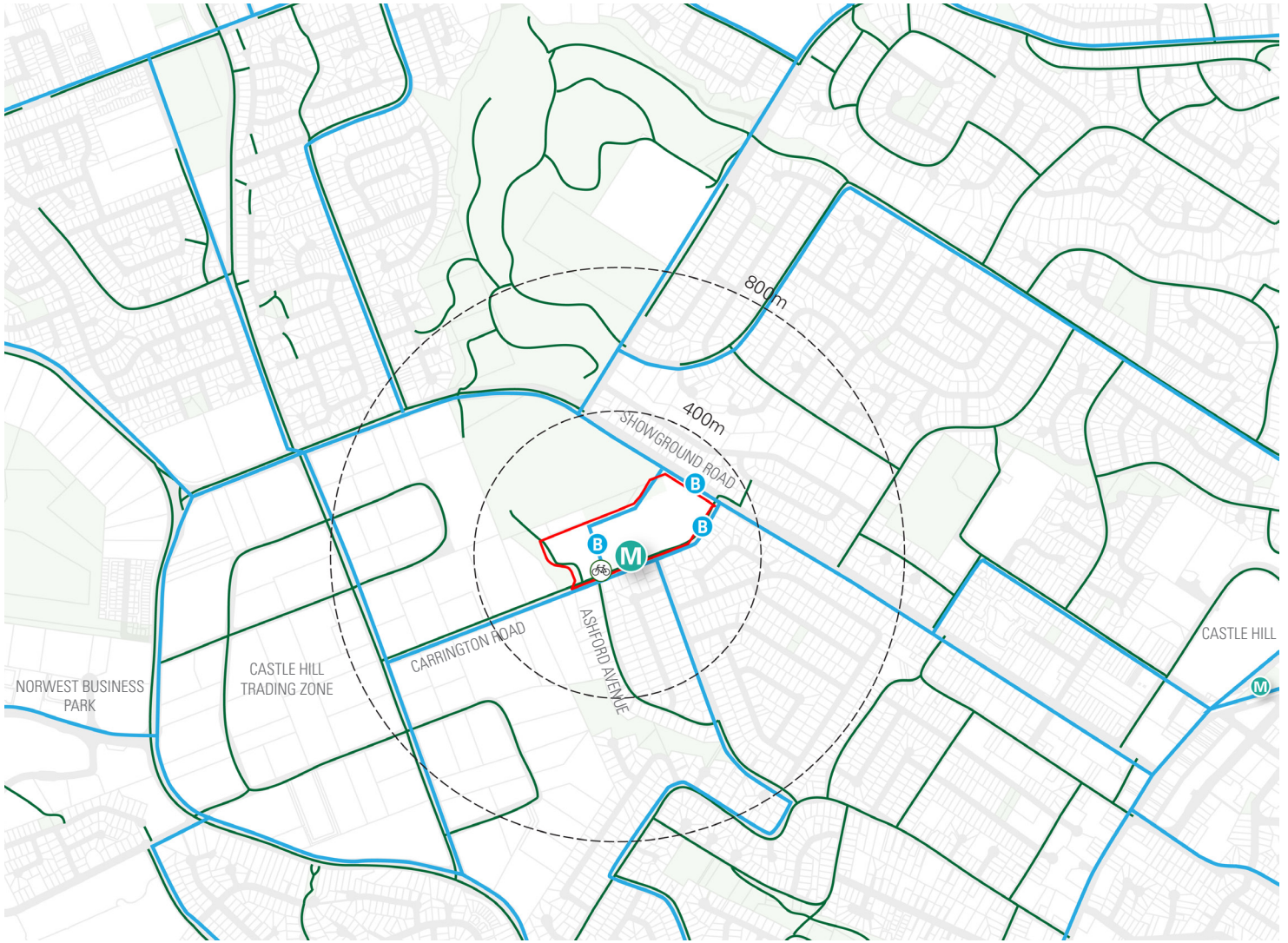



Figure 19: Connectivity Context



Cattai Creek corridor looking north



Existing trees within Castle Hill Showground



Activity on Castle Hill Showground




On Demand shuttle bus



Landscape north of De Clambe Dr looking west



Entrance to parking structure on De Clambe Drive



Cattai Creek active transport network

## Existing Context

The aerial photo adjacent captures the interface and connectivity with the existing environment, Cattai Creek, Castle Hill Showground and the Hills Showground Station.

The photo identifies the:

1. Primary connection between the Site and the existing residential community south of Carrington Road. This signalised intersection is the direct connection between Andalusian Way and Middleton Ave which connects pedestrians to the station, via the station plaza, which is located between Carrington Road, Andalusian Way, Mandala Parade and Doran Drive.
2. The connections to the Castle Hill Showground occur at grade at the intersection of Andalusian Way and Doran Drive, where vehicular and pedestrian access is provided to the broader destinations and attractions within the Castle Hill Showground itself.
3. Cattai Creek extends along the western edge of the Site with pedestrian and cycling paths on the eastern bank. Access to the creek itself is limited.
4. The Castle Hill Trading Zone is located west of the Site and the interface with the Site is the Cattai Creek corridor. Access to the Castle Hill Trading Zone is via Carrington Road.

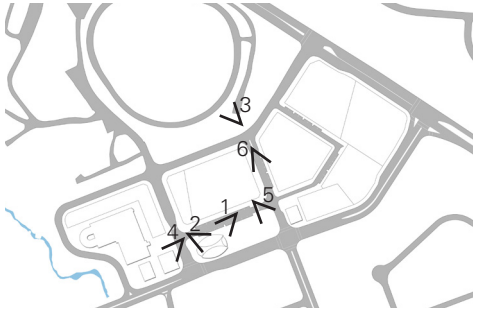


Aerial View looking South in 2019. Note: Building on Precinct East is currently being demolished

## Hills Showground Station Interface

The existing Metro North West Line station and supporting infrastructure are critical considerations in the preparation of the Urban Design Framework and Guidelines. Desire lines for movement to and from the station are critical to considering locations for retail, food and beverage and potential new open spaces.

The station forecourt on Doran Drive, the station plaza on Carrington Road and the commuter carpark plaza west of Doran Drive are existing public spaces.





1. Hills Showground station plaza


2. Corner of Doran Drive & Mandala Parade


3. Castle Hill Showground


4. Mandala Parade looking west towards retail


5. Mandala Parade looking east towards plaza


6. Andalusian Way looking south

## Castle Hill Showground Interface

The interface with the Castle Hill Showground is an important consideration through both the preparation of the SSDA for the Hills Showground Station Precinct by the NSW Government and the Draft Castle Hill Showground masterplan, which is being prepared by The Hills Shire Council.

Physical movement connections between the regional recreation, events and leisure destination of the Castle Hill Showground and the Hills Showground Station Precinct are planned for;

- Doran Drive as an activated spine, framed by retail and food and beverage uses (proposed in the SSDA)
- Andalusian Way as a green street with ample street tree planting and a potential shared pedestrian and cycle path between the Castle Hill Showground and the planned shared path on Middleton Avenue south of Carrington Road (Council led project)
- Cattai Creek shared path being extended north through the Cattai Creek corridor adjoining the Castle Hill Showground (Council led project).

Complementary uses are being considered by Council for the Castle Hill Showground in food and beverage uses north of Doran Drive sports community uses north of the Doran Drive and Showground Road intersection and a mixture of events, food and beverages, culture, entertainment, regional parklands dog training and community uses within the Castle Hill Showground.

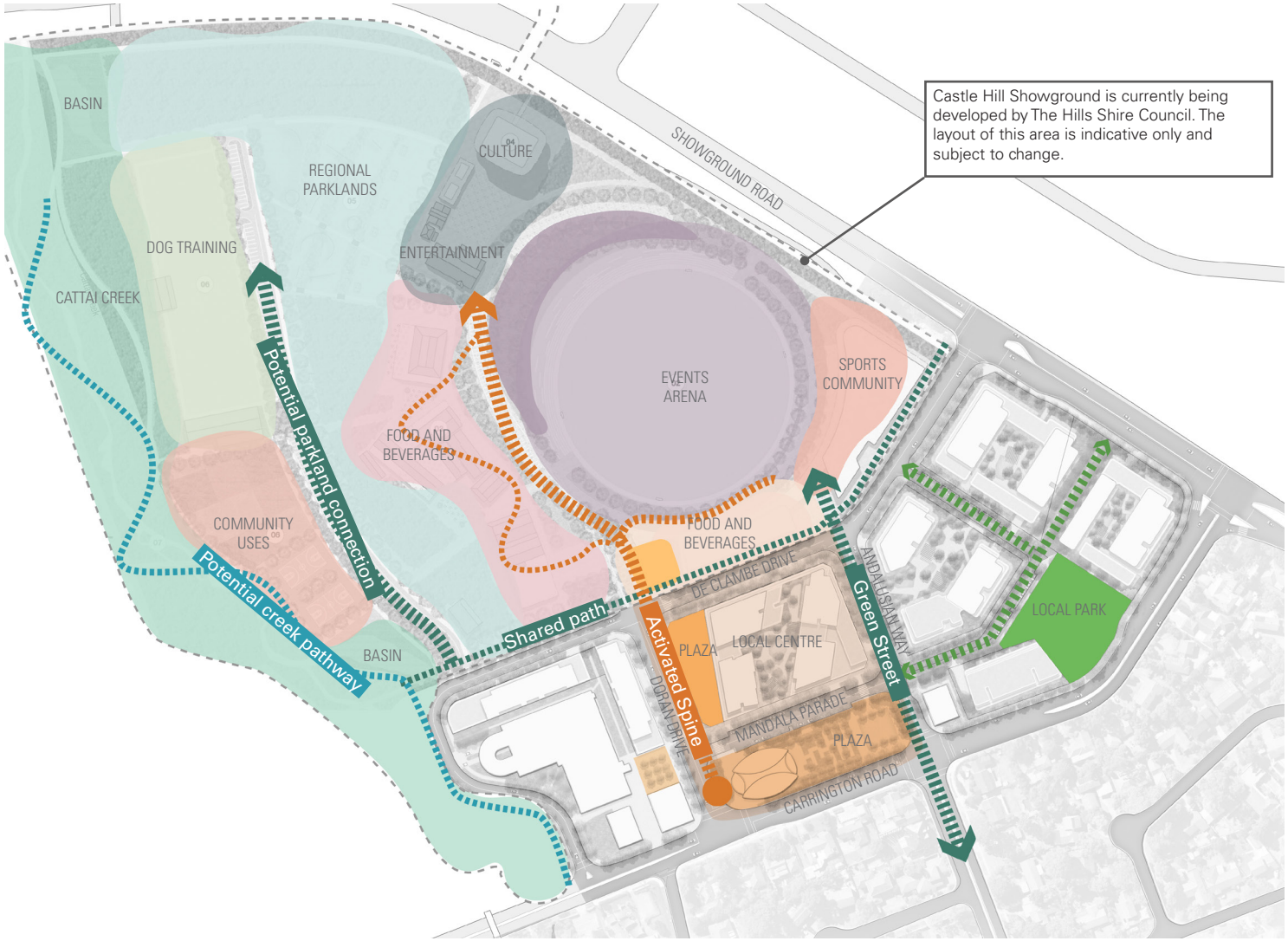



Figure 20: Connectivity Context

- Primary Green Street and Shared Path Connection
- Cattai Creek Shared Path
- Primary Activated Spine
- Castle Hill Showground is currently being masterplanned by The Hills Shire Council. The layout of this area is indicative only and subject to change.
- Local Street and Pedestrian Connection




Hills Showground Station Precinct (foreground) and Castle Hill Showground (background) Aerial looking north west

# 04

# SITE APPRECIATION

This chapter is an appreciation of the existing site conditions and the associated constraints and opportunities that have been considered through the development of the Concept Masterplan.

# Site Appreciation

## Site Structure

The Site is comprised of three development lots and surrounding streets and existing station infrastructure. The three development lots are referred to as:

### Hills Showground Precinct East

- Former two storey Council administration building and associated hardstand concrete/asphalt paved parking lots and landscaping. Demolition of the building, associated structures and some vegetation (as detailed in Section 1.4.4) has commenced.

### Doran Drive Precinct

- Freshly prepared vacant lot with no vegetation cover. Lot is secured by public art hoarding and security fencing, surrounded by newly constructed streets.

### Hills Showground Precinct West

- L shaped lot with no vegetation cover and with an existing stormwater drainage easement on the portion adjacent to De Clambe Drive
- The lot is characterised by sloping batters and levelled batter-toe areas retaining the two street reserves above the carpark ground floor levels. There is also a set of access stairs and level footpath for the carpark in the northern portion of the Site.




Figure 21: Site Plan

## Topography

The topography of the Site reflects its location at the north western end of a prominent ridgeline in Sydney's North West.

The topography of the Site has been significantly modified as part of the Metro North West Line project.

The Site falls approximately 20 metres from a high point (103m) on Precinct East at Carrington Road down to a low point (83m) on Precinct West at De Clambe Drive opposite the stormwater detention basin north west of Precinct West.

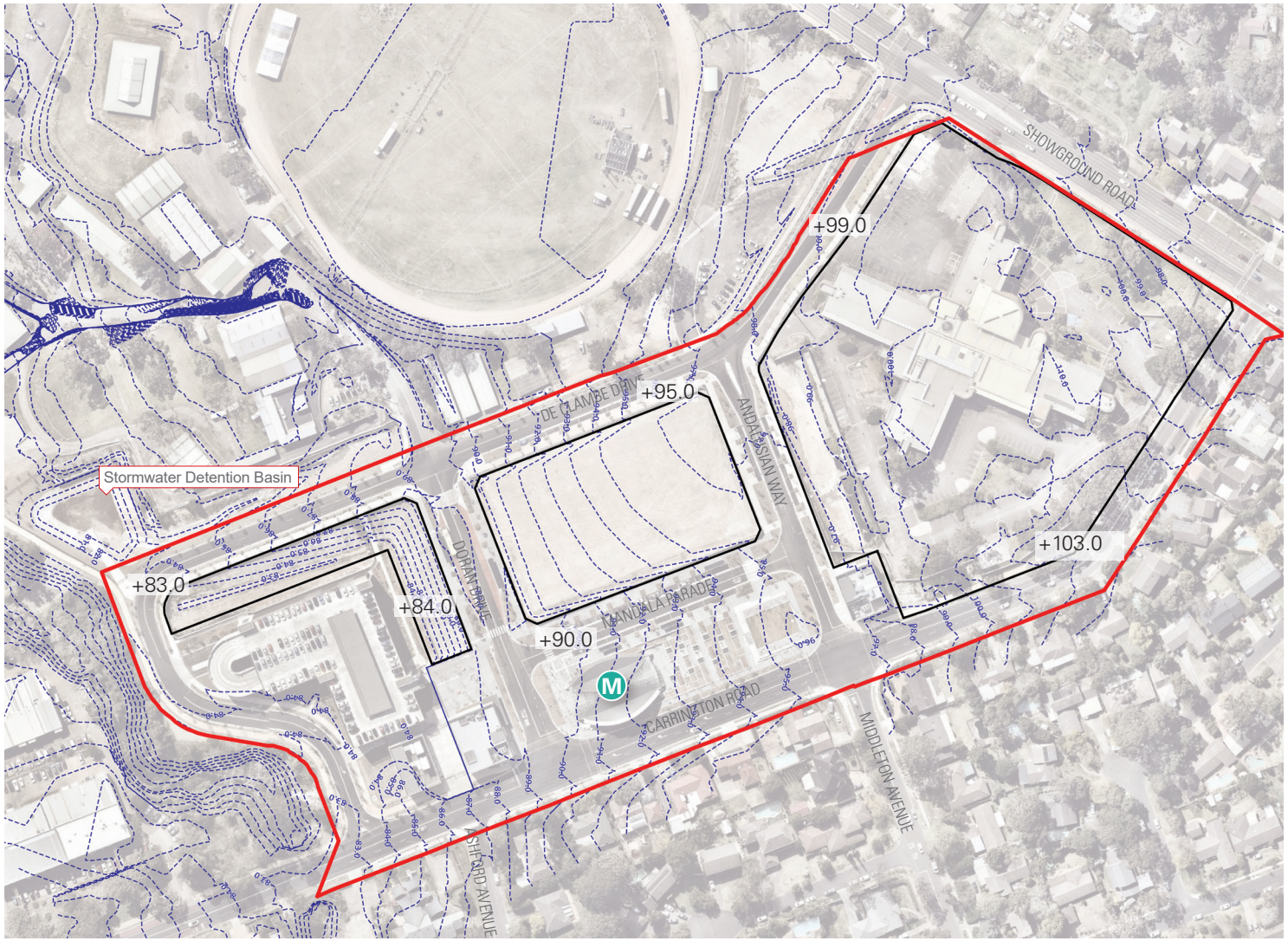



Figure 22: Topography

## Existing Trees

Precinct East is the only development lot that contains existing trees within the development lot.

A total of 100 existing trees are found within the Precinct East development lot boundaries and five trees within the Council verge on Carrington Road.

The existing trees to be retained post-demolition within Precinct East are shown on the adjacent plan within the black boundary of the Precinct East development lot. The maturity, species and canopy cover of these retained trees have been considered throughout the preparation of the Urban Design Framework, Guidelines and CMP.

The station plaza, station entry forecourt and carpark plaza are planted with deciduous "public art trees" (Sapium sebiferum) that are intended to define the station entry, provide shade and amenity to the entry and maintain sight lines.

Street trees are two different species of Eucalyptus microcorys along Carrington Road and Eucalyptus crebra within De Clambe Drive, Doran Drive, Mandala Parade and Andalusian Way.

There is a mixture of trees within the Cattai Creek interface.

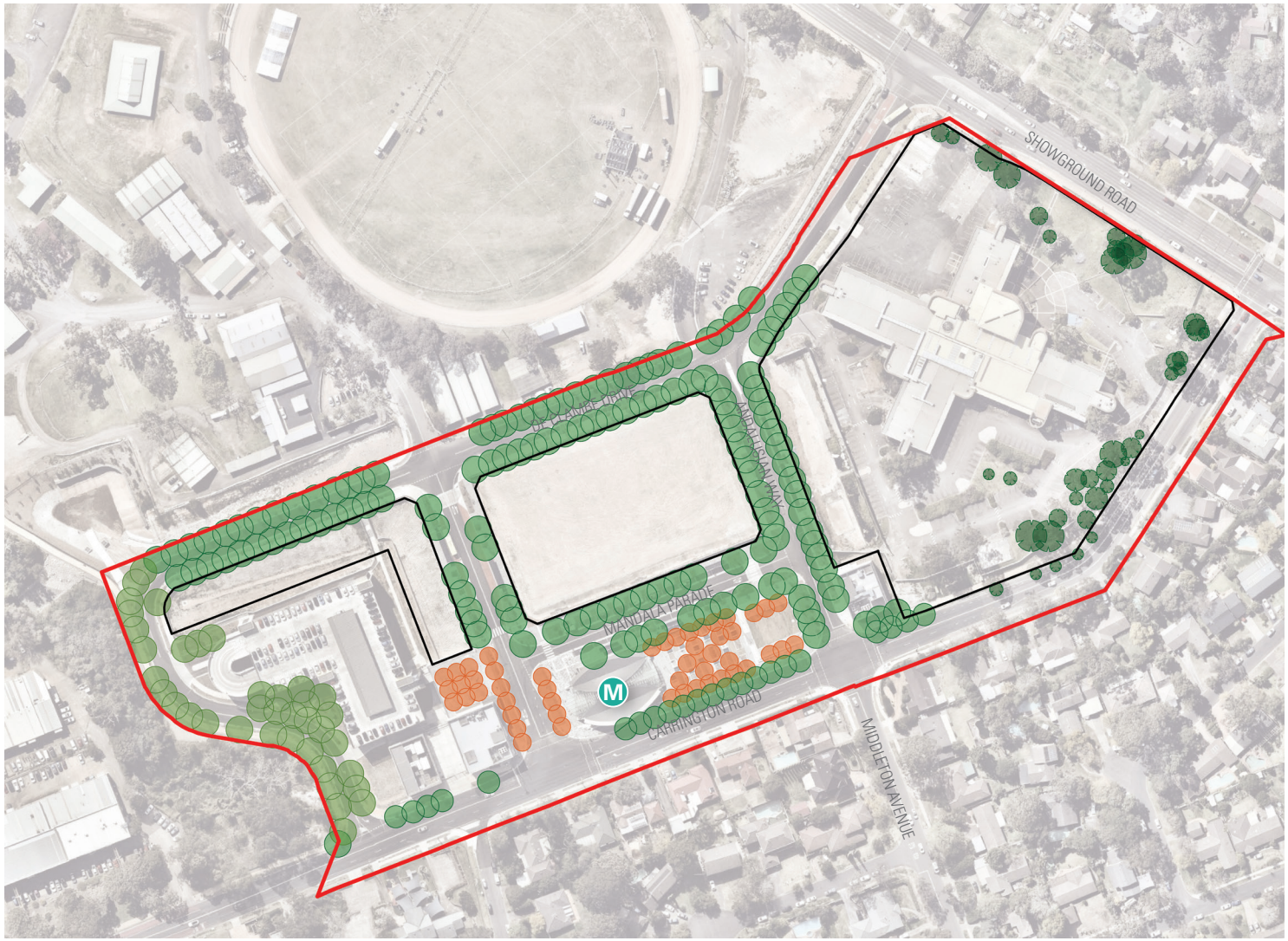



Figure 23: Existing Trees

## Transport Movement

The existing street network within the Site provides a variety of movement functions and a road hierarchy to provide both public transport and vehicular access to the broader North West Sydney transport network.

Showground Road is a major arterial road that provides vehicular, public transport and active transport links between Old Northern Road at Castle Hill and Windsor Road at Norwest.

Carrington Road is an arterial road that provides vehicular, public transport and active transport links between Showground Road and Victoria Avenue within the Castle Hill Trading Zone.

Signalised intersections on Showground Road at De Clambe Drive and on Carrington Road at Doran Drive and Andalusian Way provide controlled vehicular and pedestrian access to the Site. A left in, left out access point on Carrington Road at De Clambe Drive provides access to the commuter carpark from the west, or exiting to the east.

Doran Drive provides local transport interchange services.

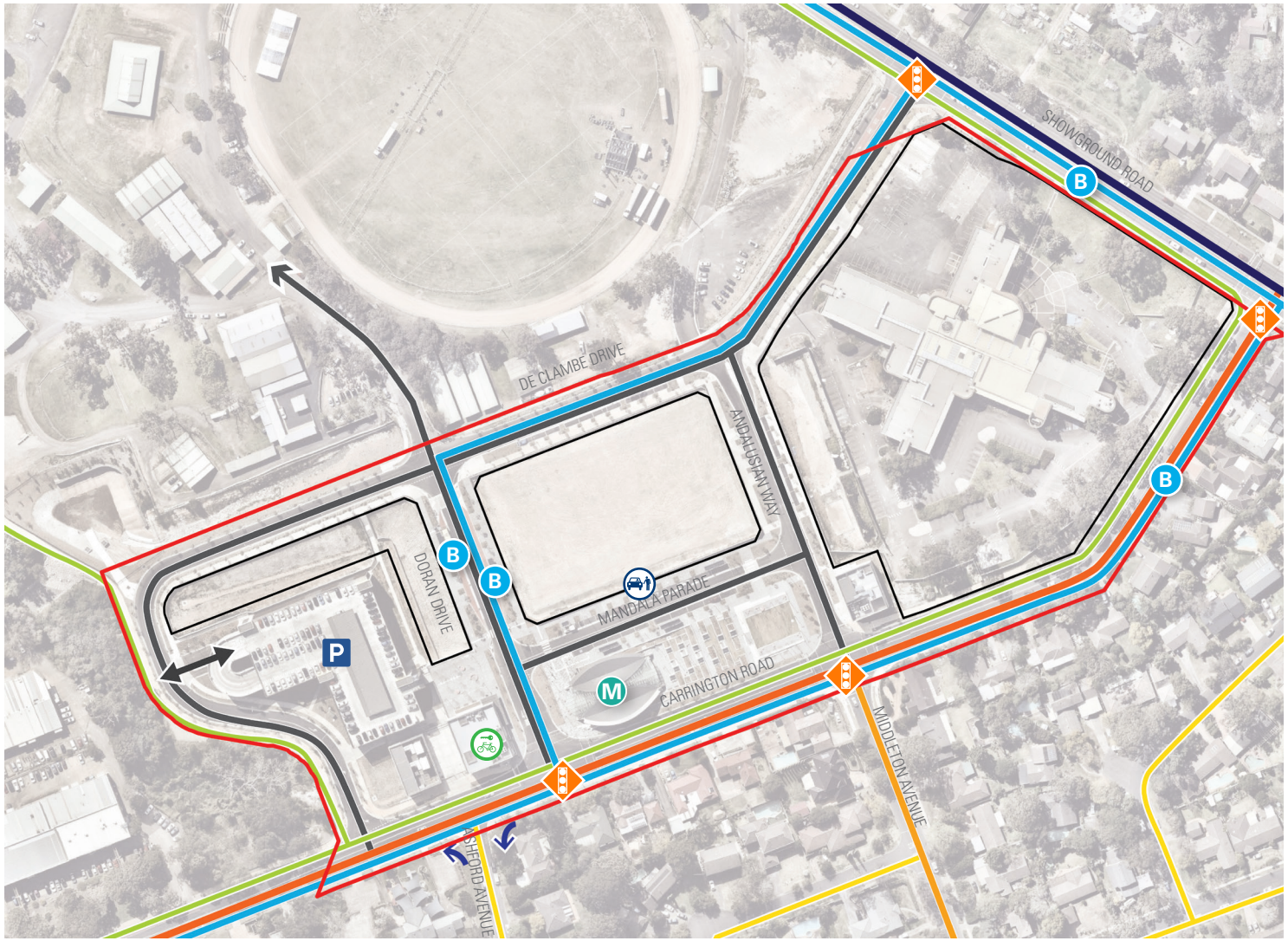



Figure 24: Transport Movement

## Site Streets

The Site includes a number of streets that have been delivered as part of the Metro North West Line project and dedicated to Council.

These existing streets include;

- De Clambe Drive
- Doran Drive
- Mandala Parade
- Andalusian Way

The streets are generally single-lane in each direction, with some additional lanes to allow for queueing at the signalised intersection of Doran Drive and Carrington Road and for a bus only lane at De Clambe Drive and Showground Road. Indented bus bays have also been delivered at the transport interchange on Doran Drive.

The nature of the streets is to generally cater for local traffic to, from and within the Site. On-street parking has been provided;

- on the southern side of De Clambe Drive along the northern Doran Drive Precinct interface
- on both sides of the street on Andalusian Way along the Doran Drive Precinct and Precinct East interface
- on both sides of the street on Mandala Parade along the southern edge of the Doran Drive precinct interface.

The Hills Showground Station Precinct SSDA does not propose any physical works to these existing streets.



Mandala Parade looking east - on street parking and kiss & ride zone



Mandala Parade looking east - shelter



Doran Drive looking north - bus stop



Doran Drive and De Clambe Drive looking south - bus zone



De Clambe Drive and Andalusian Way looking east




Andalusian Way looking north - on street parking

## Existing Development Lots

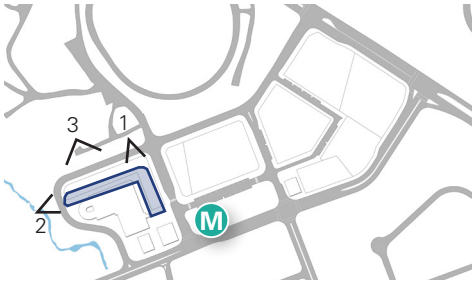
### Precinct West

Precinct West is defined by Doran Drive to the east, and wrapped by De Clambe Drive to the north and west. The commuter carpark sits behind the development lot.

The existing commuter carpark is a 5-level structured carpark with access off De Clambe Drive as shown in Photo 2.

The development lot is also subject to a significant fall of approximately 6m from Doran Drive down to the ground floor of the commuter carpark. In addition, there is an access easement through the development lot from De Clambe Drive to the station infrastructure west of the station entry.

The existing structure and function of the carpark and access easement is a critical consideration in the future built form, uses and interface with the carpark within Precinct West and will require mitigation measures through design to provide appropriate visual privacy and amenity to future buildings.






1. De Clambe Drive - View from De Clambe, looking south, showing grade change from Doran Drive towards the perimeter of the site and the commuter carpark.



2. De Clambe Drive - Precinct West from the western boundary looking east



3. Precinct West - Looking south

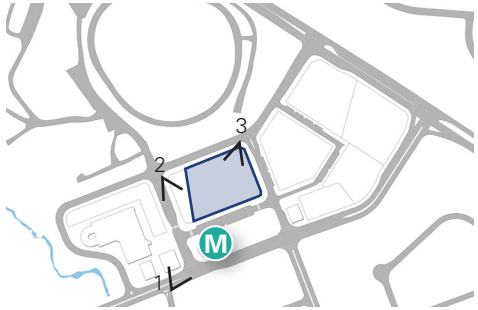
## Doran Drive Precinct

The Doran Drive Precinct is centrally located within the precinct. It is a regular shaped block bounded by Doran Drive to the west,De Clambe Drive to the north, Andalusian Way to the east and Mandala Parade to the south.

The development lot slopes gently from east to west from Andalusian Way down to Doran Drive.

The southern interface of the Doran Drive Precinct is to the Hills Showground Station and the station plaza. The provision of further activation along this interface and the need to ensure appropriate solar gain to the plaza are key considerations for the SSDA.

The northern interface for Doran Drive Precinct is the Castle Hill Showground, a regional recreation destination for Sydney's north west. As the precinct lies between the Metro and the Castle Hill Showground, it will be a crucial movement corridor between these assets, requiring appropriate circulation space and footpath widths.





1. Doran Drive Precinct - Looking north east


2. Doran Drive - Looking south


3. De Clambe Drive - Looking south-west

## Precinct East

Precinct East is defined by Carrington Road to the south, Showground Road to the north, De Clambe Drive to the north and Andalusian Way to the west.

Precinct East includes a number of mature trees on the Carrington and Showground Road interfaces and is the highest point of the three development lots at approximately 103m above sea level in the foreground of Photo 3 adjacent.

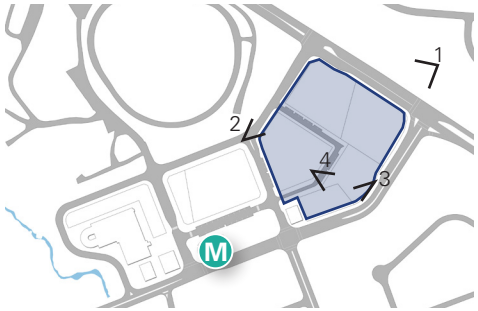
The potential retention of some of the existing trees on the development lot and the interface with Showground Road and Carrington Road as busy arterial roads has been considered in the CMP.



1. Precinct East - Looking west




2. De Clambe Drive - Looking south-east






3. Carrington Road - Looking south-west



4. Carrington Road - Looking east

## Site Challenges

From analysis of the Site, its features and surrounding context, the following opportunities and challenges are identified. These have been considered in the development of the CMP for the Precinct and will remain relevant through the design of the individual sub precincts as they are developed over time, to ensure they are adequately considered and opportunities are leveraged.

Key challenges include:

- future road widening requirements along part of Carrington Road
- noise and pollution mitigation for future buildings along the arterial roads (Showground and Carrington Road)
- easements for infrastructure, drainage and services and managing the design interface with the Hills Showground Station infrastructure, including the commuter carpark
- building over the metro tunnel and excavating for basement carparking
- level changes across the site and the resulting limitations on efficient basement entry locations.

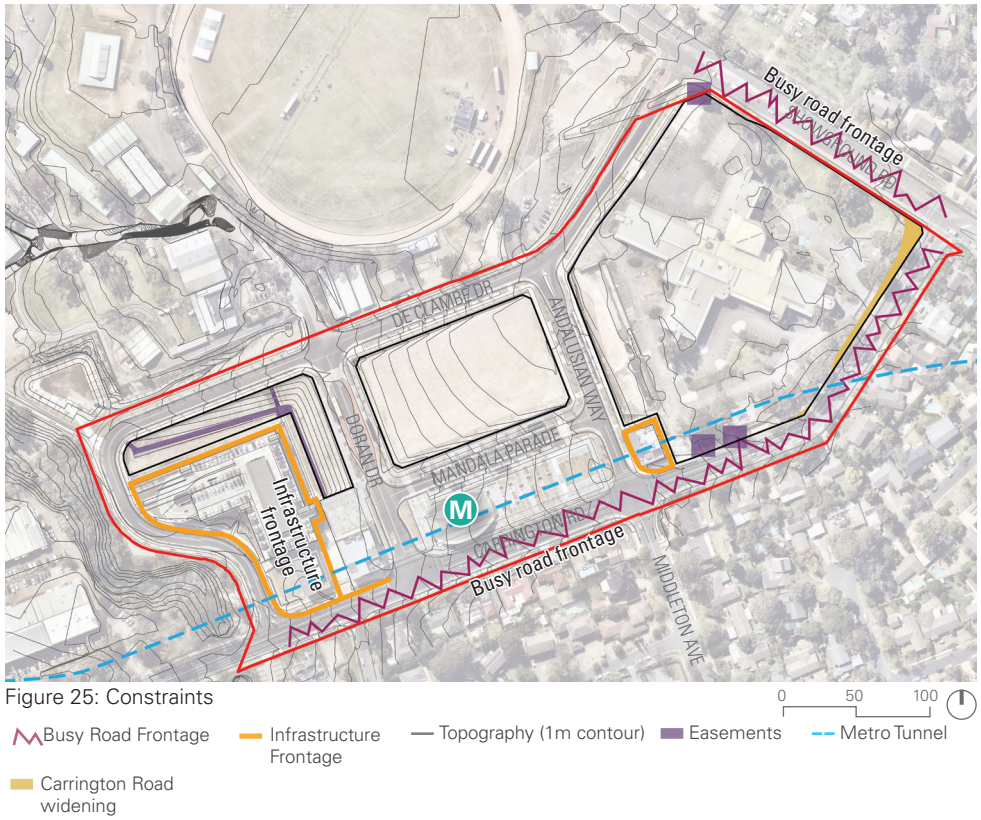



Figure 25: Constraints

## Site Opportunities

Opportunities to be leveraged include:

- new public spaces with differing natures and uses, complementing existing station plazas to form a diverse open space network
- retention of existing mature trees to support tree canopy coverage and help mitigate noise and visual impacts
- the extension of Cattai Creek's landscape character through selection of planting species across the site
- use and appreciation of the Site's most significant adjacent assets - Cattai Creek and Castle Hill Showground – by promoting pedestrian movement and views to and from these areas
- extension of the existing active transport network to improve access from external areas to the Site
- new street and pedestrian connections through Precinct East to increase permeability and support pedestrian access towards the metro station
- activation along pedestrian desire lines to/from the metro station and fronting public spaces, with retail and commercial uses that service the local community and reinforce the importance and role of the existing station plaza
- orientation of buildings to share views across the district and towards open spaces
- positive response to the site's topography by terracing podium levels along streets, enhancing local character
- ongoing collaboration and coordination with the Hills Shire Council on their adjacent development proposals for the Castle Hill Showground and the Cattai Creek Corridor to ensure a united approach to important urban design principles – those relating in particular to interface and linkages.

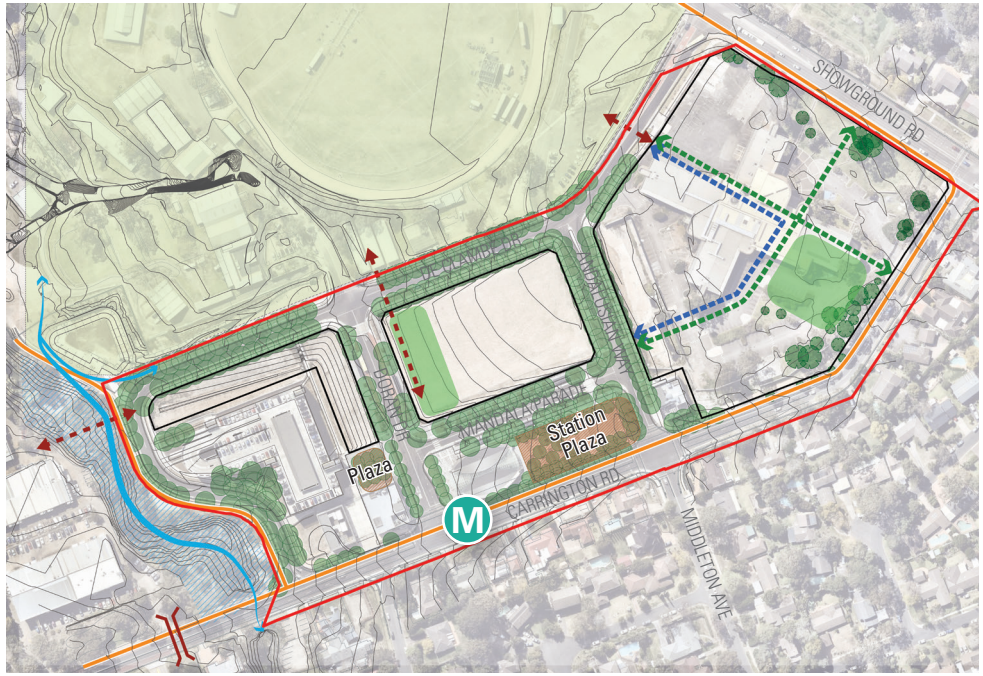



Figure 26: Opportunities

# 05

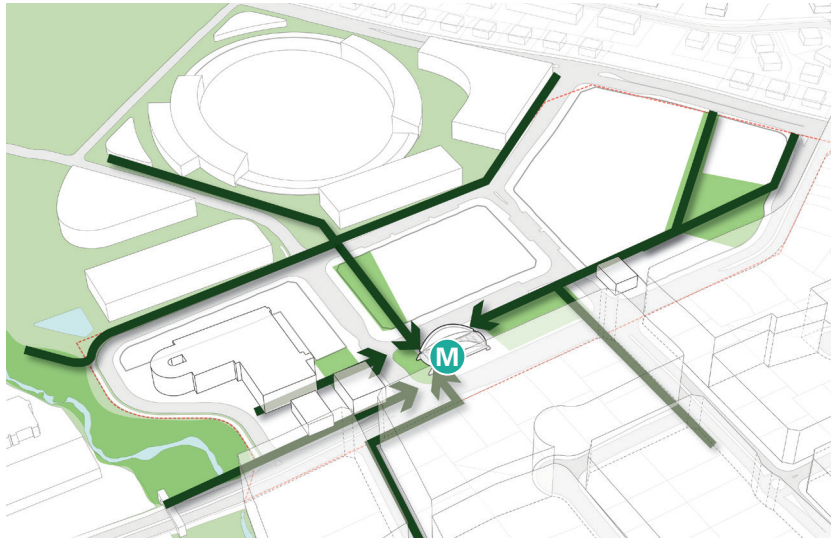
# URBAN DESIGN PRINCIPLES

This chapter describes the site-specific urban design principles that reflect an understanding of the local character and leverage the Site's unique opportunities.

# Urban Design Principles

### 1. Arrive at the precinct via a variety of public spaces

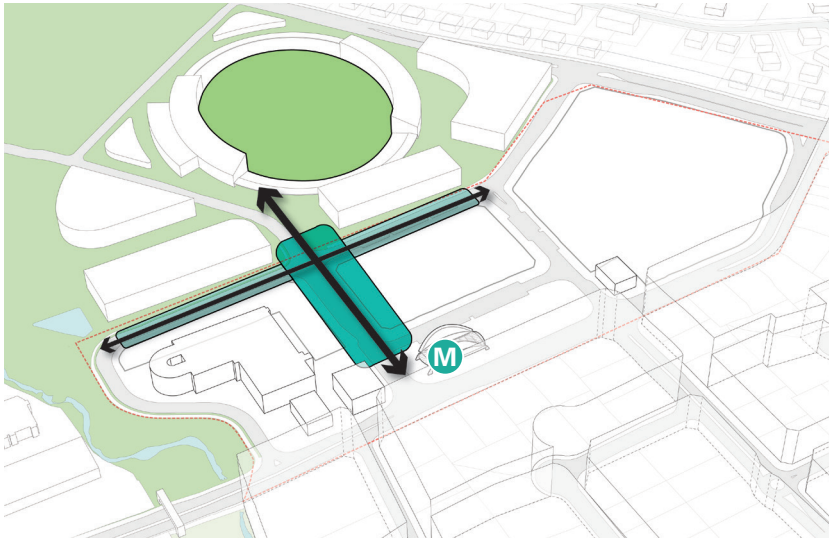
Ensure that arrival to the precinct is via a publicly accessible open space. This includes the Cattai Creek corridor, the Castle Hill Showground, Doran Drive Plaza, the carpark plaza, Hills Showground Station forecourt, station plaza and the new open space and through site links within Precinct East.






### 2. Create a strong heart connecting the public assets

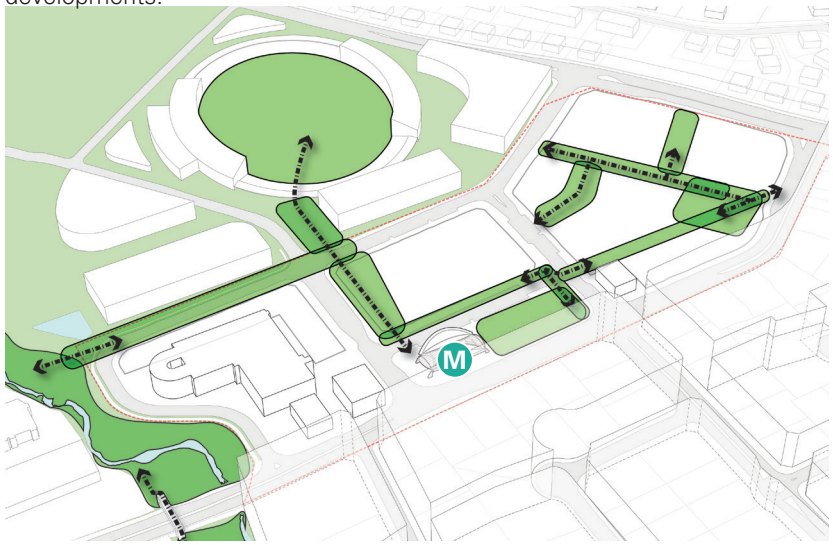
Create a new civic heart at the geographic and active centre of the broader precinct stitching together the Cattai Creek Corridor, the Castle Hill Showground, the station forecourt, station plaza and carpark plaza with the multi-modal transport interchange and active retail node on the Doran Drive Precinct.






### 3. Establish a network of connected landscapes for cohesion between public and private domain

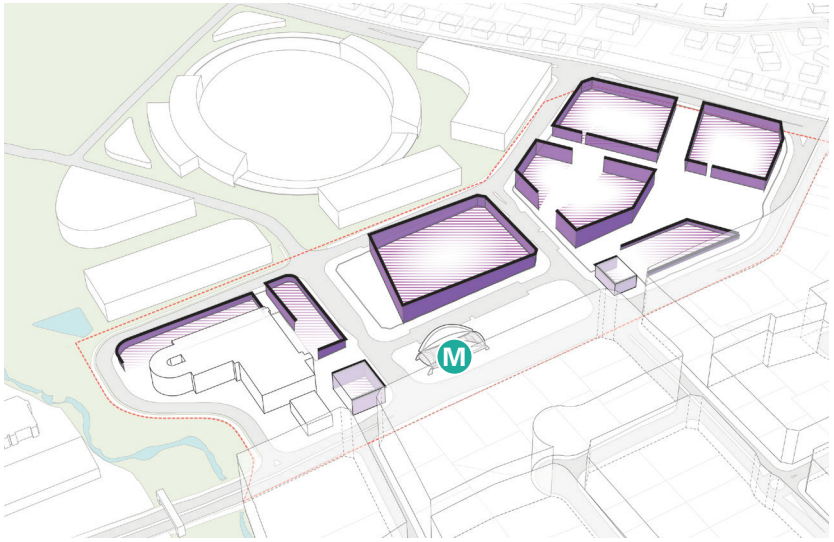
Deliver a cohesive and connected landscape for the broader Hills Showground Station Precinct that weaves together existing and future public spaces and the private domain within the mixed use and residential developments.





### 4. Frame the public domain with a built form edge

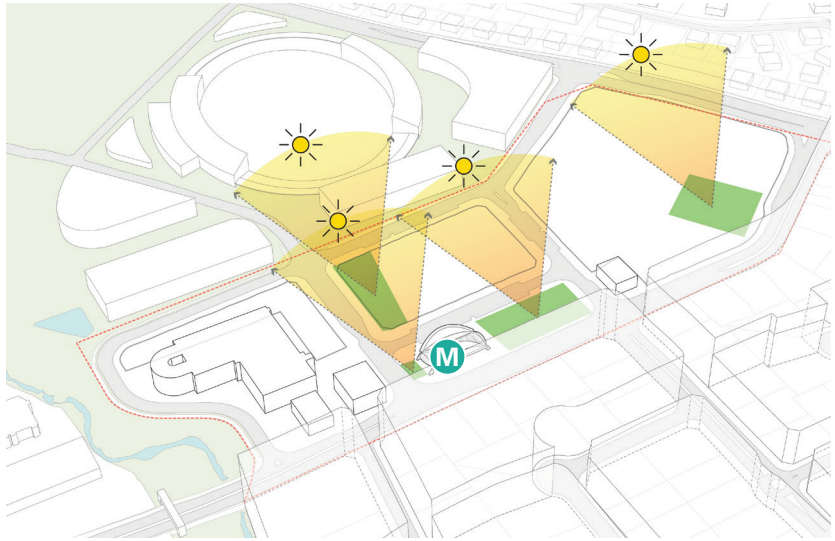
Ensure the public domain is defined by a pedestrian scale built form with active edges and/or frontages.





## 5. Maximise solar access to public space

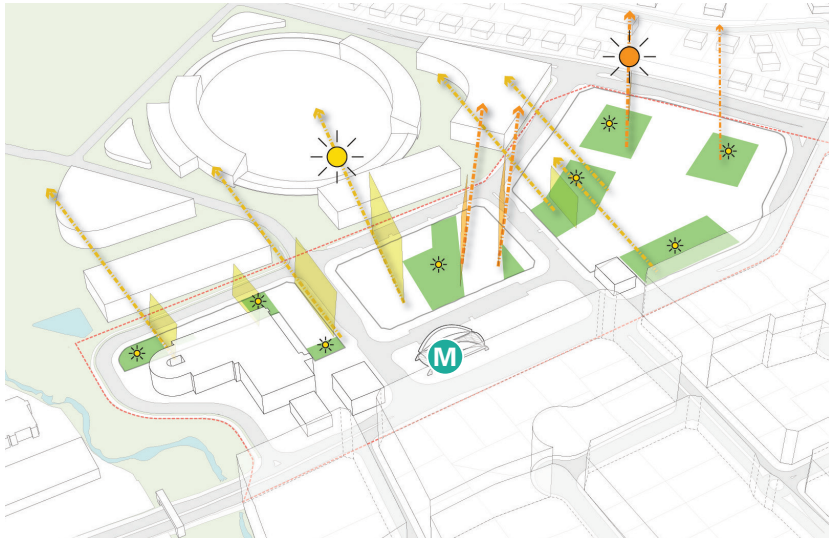
Ensure buildings are oriented and designed to maximise solar access to existing and future public open spaces.





## 6. Maximise amenity for residents

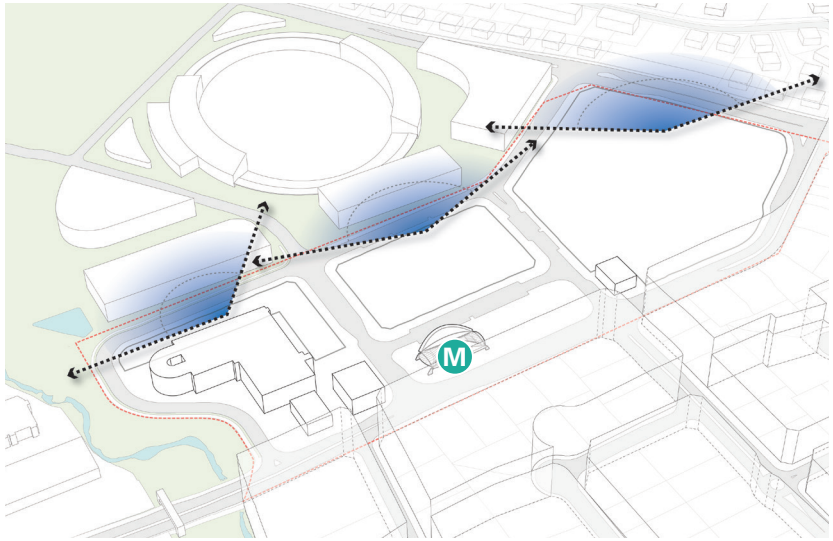
Ensure residential towers are oriented and designed to encourage cross ventilation and optimise sunlight to living areas and communal open spaces within each precinct.





## 7. Optimise views, visual interest and legibility

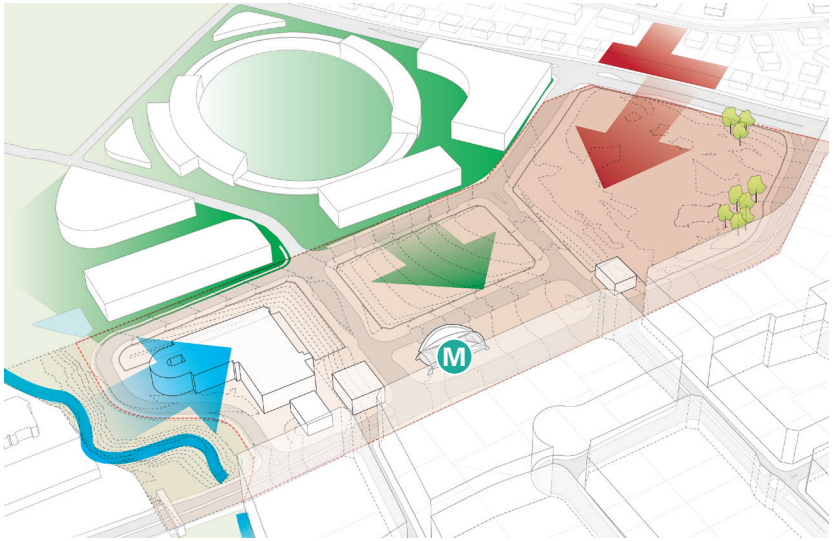
Deliver a built form composition that celebrates key vistas to the Site from district vantage points and thresholds, and orientates communal open spaces and towers towards sweeping regional views over the Castle Hill Showground and broader The Hills Garden Shire.






## 8. Celebrate the Site's unique values

Consider the transition between new and existing built form in the creation of new public spaces, the design celebrates the built and natural heritage of the site and its surroundings. This includes the foundational elements of Cattai Creek, Castle Hill Showground, the heritage of the site and surrounding area, and existing vegetation within Precinct East.






# 06

# URBAN DESIGN FRAMEWORK

The urban design framework is intended to capture the contextual and site appreciation and document how the urban design principles can be realised through the public domain and built form of the State Significant Development Application

# Urban Design Framework

## Overarching Strategies

The Urban Design Framework collates the overarching principles and strategies that have provided a roadmap for the development of the concept proposals for the SSDA. The purpose of the Urban Design Framework is promote outcomes that support the Development Objectives.

### Site Structure

The structure of the Site has been considered in response to its role at the heart of the wider Showground Precinct. It considers the existing urban fabric and natural elements of the Site's setting as well as the existing and future character of the communities, employment areas and recreation facilities surrounding the Site.

The movement corridors that define the structure consider the pedestrian desire lines between these elements, movement beyond these elements to adjacent uses and public open spaces, and the localised block configuration for suitable filtration of the Precinct.

Heights conform with the uses and height controls stipulated in THLEP 2019. Employment use and active frontages support the community and a vibrant and well-used public domain. Residential area and configuration promotes diversity in typology and size.

The open space provision goes beyond that shown in the Showground Precinct Structure Plan to include a significant new public local park within the residential Precinct East.




Figure 27: Site Structure Overview

## Proposed Uses

The proposed uses reflect the vision to deliver a mixed-use, transit oriented, local centre with a diversity of uses, users and activities.

The Hills Showground Station and the pedestrian desire lines to and from act as contributors to the activation of the streets, ground floor non-residential uses at key interfaces to the station and major desire lines for movement.

Mixed use areas are located around the areas of greatest amenity and accessibility, within the sites located between the station and the Castle Hill Showground. Mixed use active edge is focused on key frontages to ensure a concentrated hub of activity and improve both short term viability and long run sustainability.

A general residential use in Precinct East serves as a transition between the future mixed use local centre and the existing and future residential communities to the north-east and south-east of the Site.

The homes within the three precincts and the surrounding existing and future residential and employment communities will provide the critical mass of residents to activate the station and surrounding mixed use active frontage areas.

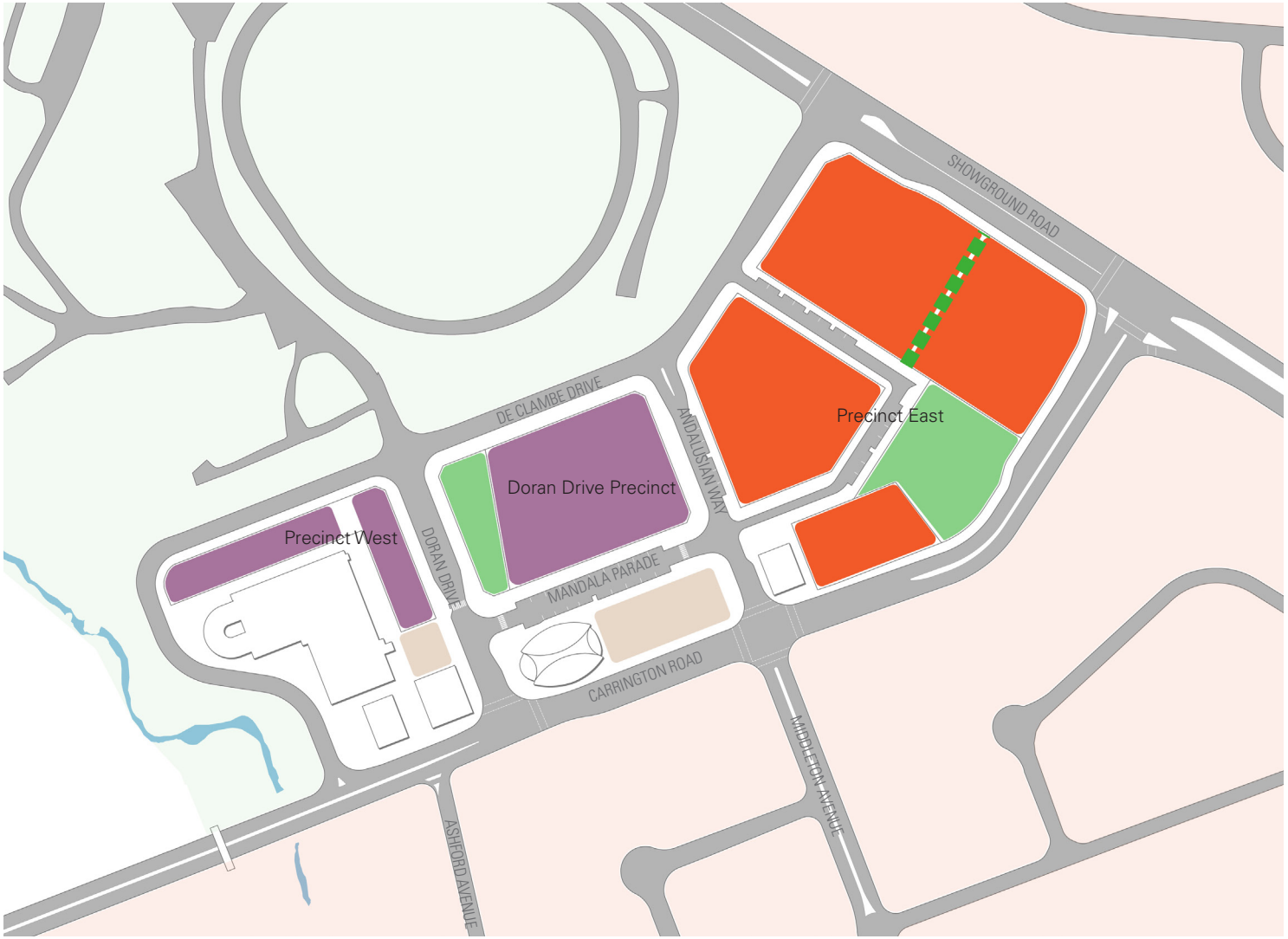



Figure 28: Proposed Uses

## Future Precinct Character

### Precinct East

***The residential village***

Primarily characterised by:

- the new local park which retains existing mature trees and is embellished with locally found and native plant species together with exotic accents
- the residential outlook both to this green open space and the showground opposite
- the transition from the TOD centre to the lower density residential areas, with a mix of high medium and low rise residential development
- the large street setbacks and pedestrian link providing significant landscaped areas for a green residential village environment

### Doran Drive Precinct

***The TOD's active heart***

Primarily characterised by:

- significant employment area as a new local centre providing business and services required by the community, with direct connection to the station
- the main plaza acting as the active heart connecting the station to Castle Hill Showground, lined with fine grain retail and dining experiences
- its buildings with dense, urban character and active urban edges, with residential towers above promoting weekend and evening activity

### Precinct West

***The natural setting***

Primarily characterised by:

- the Creek interface and views of the Cattai Creek Corridor
- the benefit and amenity from the natural setting, and future embellishment of this open space and green corridor.
- the interface with the vegetated and green open spaces within Castle Hill Showground
- the narrow nature of the sites promoting a unique single loaded dwelling typology, with small office home office interfacing with the Showground at ground level

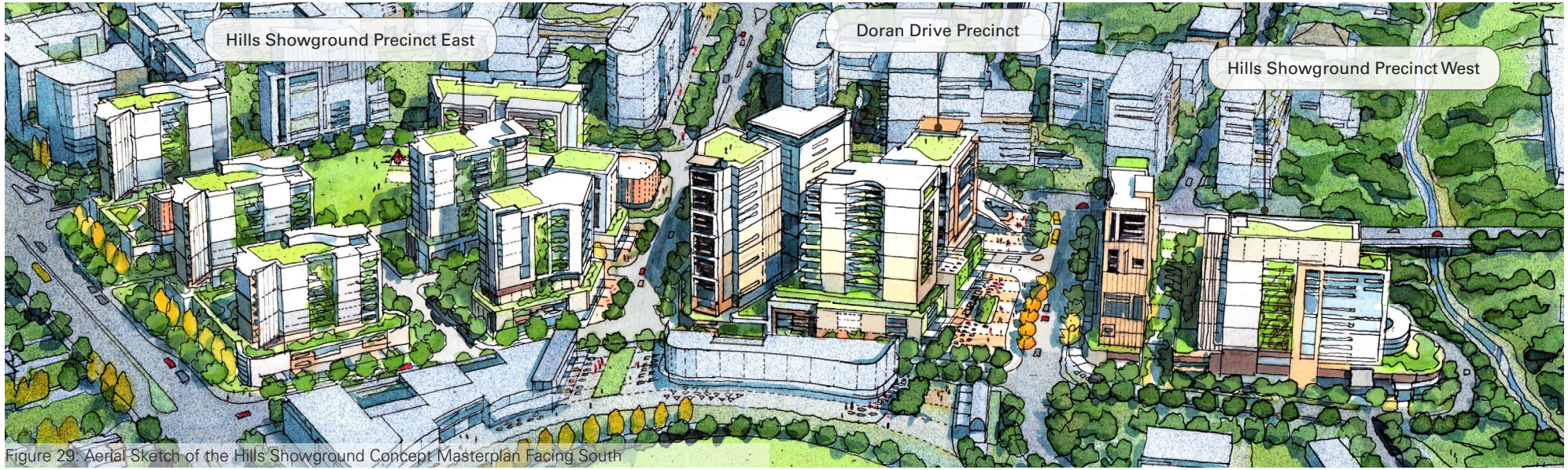



Figure 29: Aerial Sketch of the Hills Showground Concept Masterplan Facing South

## Connectivity

### Road Hierarchy

The roads within the broader precinct already exist, a function of providing public transport and vehicular access to and from the Hills Showground Station and commuter carpark on De Clambe Drive, the transport interchange on Doran Drive, and future development on the Hills Showground Station Precinct.

To deliver a fine-grain, permeable site in the future a new local street should be planned within Precinct East that will provide local access to the residential buildings and the local park within the Precinct.

The Hills Shire Council LEP proposes a new street between De Clambe Drive and Carrington Road through Precinct East, at approximately the location oft the new local street. However, the proposed new street delivers the desired finer grain street network, without connecting to Carrington Road to preserve the local function of the street and avoid through-site traffic accessing the Showground Road intersection.

It is intended that this new street is two-way to provide access to the residential basements and then one way from the park to Andalusian Way. This is to provide a calmer interface with the local park and reduce the amount of traffic using Andalusian Way to access Precinct East, given it's role to provide broader connectivity to Middleton Avenue via signalised intersection on Carrington Road.

### On-street Parking Configuration

In addition to the existing on-street parking within the broader Site the Framework suggests that new on-street parking is to be considered for the new street within Precinct East to provide access to;

- the new local park
- the residential buildings for visitors (in addition to the visitor parking provided by each development).




Figure 30: Road Hierarchy

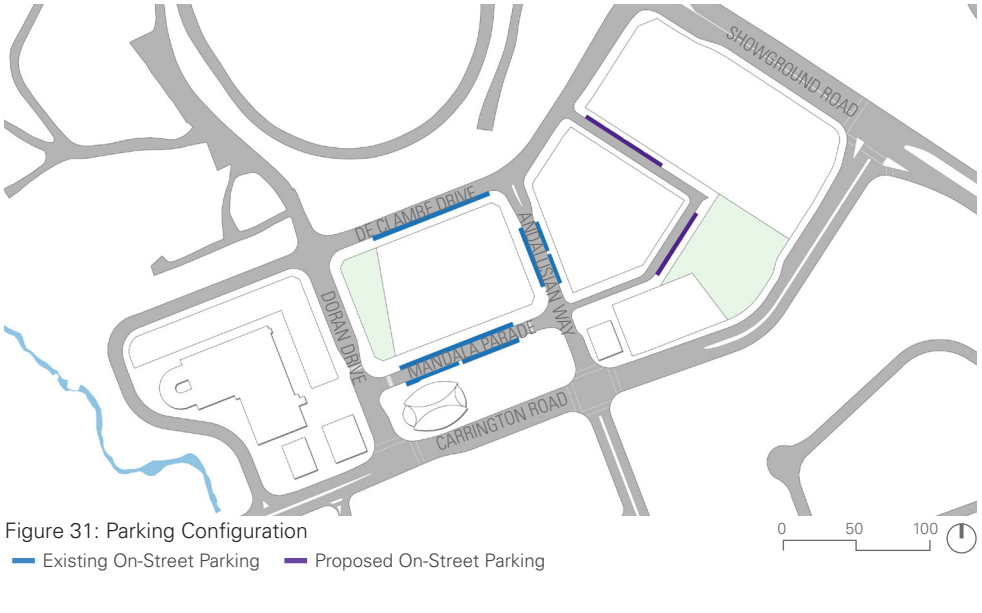



Figure 31: Parking Configuration

## Parking and Access

Parking and service vehicle access to the sites and future buildings are to be located away from the major pedestrian movement corridors, activity nodes and active frontages within the precincts. Entry to the Precincts is via existing streets.

The Framework recommends that;

- vehicle access to Precinct West from De Clambe Drive is limited to two points and that access from Doran Drive is prohibited
- vehicle access to Doran Drive Precinct is limited to the eastern end of the De Clambe Drive interface and on Andalusian Way and that access via Doran Drive and Mandala Parade is prohibited
- vehicle access to Precinct East is via the proposed new local street, access from De Clambe Drive and Andalusian Way is prohibited.

## Active Transport Movement

Pedestrian and cycle movement within the development lots will be comprised of a comprehensive pedestrian and bicycle network which includes a mixture of dedicated off-road routes, pedestrian and bicycle priority shareways and supported by end of trip facilities and parking.

The primary pedestrian movement is completed across the precinct through the provision of a new local street with footpaths in Precinct East and a mid-block connection through to Showground Road.

The primary bicycle network draws from the existing and future bicycle paths on Carrington Road and Cattai Creek linking to the bicycle parking at the station on Doran Drive. A potential off-road dedicated path may be located in the Showground on the northern side of De Clambe Drive.

A potential shareway may be located on the local street between the Precinct East park and Andalusian Way.

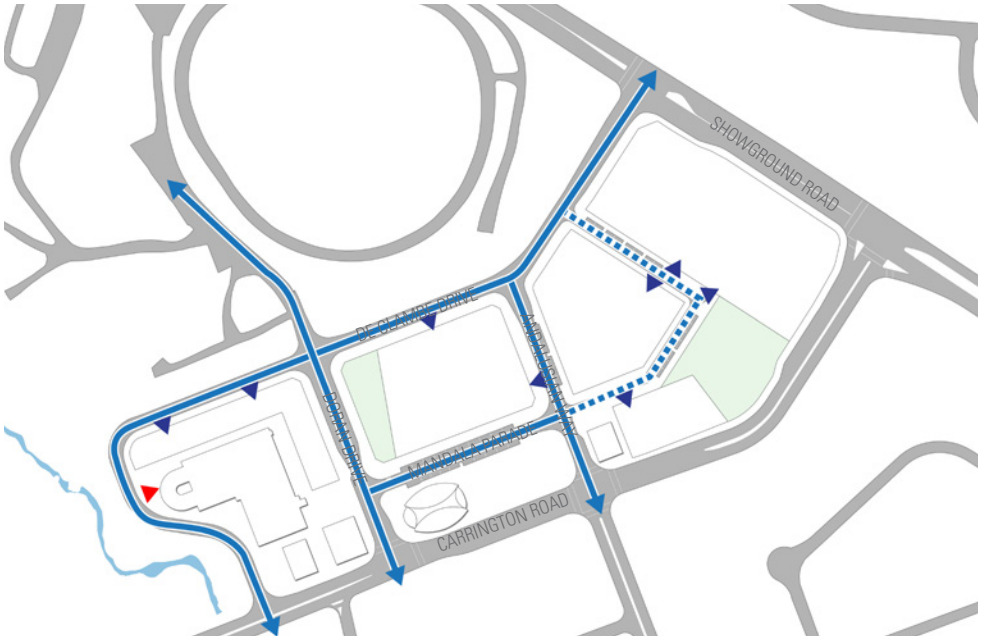



Figure 32: Vehicle Movement and Access

Vehicle Movement
Proposed Vehicle Movement
Parking Entry/Egress
Commuter Carpark Entry/Egress

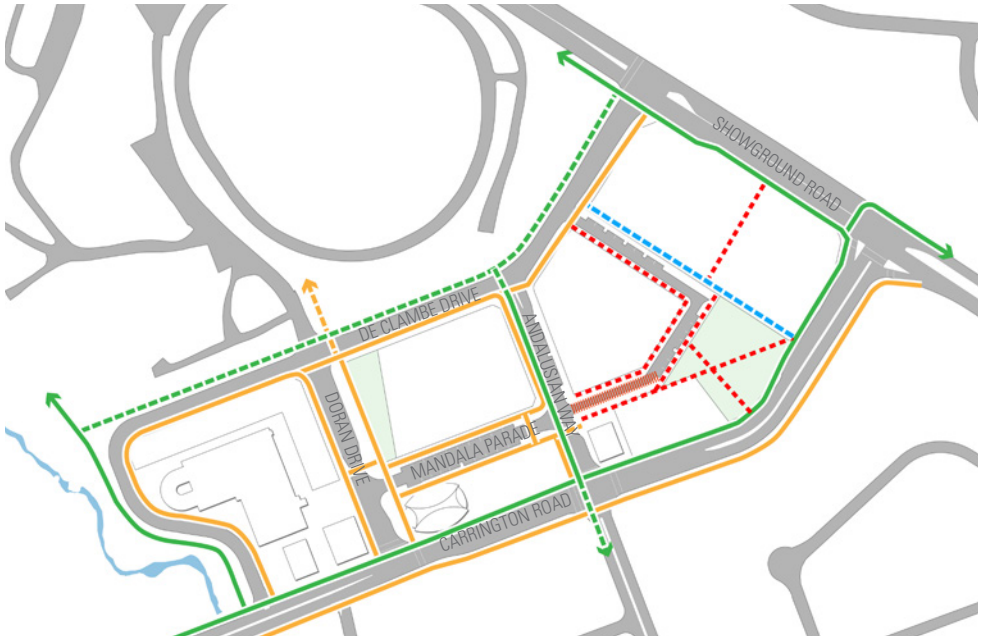



Figure 33: Active Transport Movement and Access

Existing Off-Road Shared Path
Potential Off-Road Shared Path
Existing Pedestrian Connection
Potential Pedestrian Connection
Proposed Pedestrian Connection
Proposed Shareway
Proposed Off-Road Shared Path

## Public Domain Strategy

The Hills Showground Station Precinct will deliver a vibrant and active public domain that reinforces the precinct as a place to work and live, while reflecting and integrating with the local context.

The public domain strategy is focused on achieving the following key outcomes for the precinct:

- A well connected, accessible, high quality, diverse, multifunctional and flexible open space network
- An active community heart focused around a new plaza on Doran Drive
- A green node within Precinct East including a new local park
- Clear, legible and safe pedestrian and cycle connections, including links to the regional cycle network
- An environmentally and socially sensitive and responsive design
- An emphasis on local character and a continuity of landscape.

These outcomes will be achieved through strategies for open space, planting, water, materials and elements, public art and interpretation, and the public domain character, as outlined within this section of this report.



Strong local character



An activated community heart



A well connected, high quality, diverse, multifunctional and flexible public open space network

## Public Open Space Strategy

The Hills Showground Station Precinct will provide two new significant public open spaces - Doran Drive Plaza and Precinct East Park.

These new spaces will form part of the wider open space network including future regional recreational opportunities established through the Castle Hill Showground masterplan and the open space connection provided by the Cattai Creek Corridor.

The Doran Drive Plaza will provide a minimum 1,400m² open space connection between the Hills Showground Station and Castle Hill Showground, linking these two destinations through a generous pedestrian boulevard. The plaza will act as an activated heart to the wider precinct with places to sit and gather adjacent to the retail offering of the Doran Drive Precinct.

The minimum 3,500m² Precinct East Park will have more of a local character to the highly active plaza spaces and cater to local residents and families in a relaxed and green setting. While the Castle Hill Showground will still provide recreational opportunities to the new population, this local park complements the overall network by creating a green node directly accessible to the residents of Precinct East.

In addition to the plaza and park, a minimum 8m wide publicly accessible space will be provided as part of the SSDA.

Private communal and rooftop gardens across the Site will also support the public open space network and provide additional amenity to the residents and workers within each of the buildings.




Figure 34: Open Space and Public Domain Strategy

## Street Functions and Interfaces

The diagram adjacent shows the existing and new streets that interface with the development lots within the SSDA.

With the exception of the new local street within Precinct East, the SSDA does not require changing the configuration of any of the existing streets. However, the uses and travel patterns new workers, residents and visitors to the precinct as a result of the SSDA will amend the way that people and vehicles may use the existing streets.

Doran Drive will continue its function as the multi-modal transport interchange. Pedestrian activity in this area is likely to be high driven by the transport functions and the location of local centre retail uses within Doran Drive Precinct and active edges on both sides of the street. Vehicles using Doran Drive will continue to access it via a signalised intersection with Carrington Road and include private vehicles, public buses, service vehicles and through traffic accessing Castle Hill Showground.

Mandala Parade will continue its role as a local street that caters for kiss'n'ride, taxi and on-demand shuttle bus services. On street parking is retained on both side. The SSDA will drive further activation of Mandala Parade with non-residential uses located along its northern interface with Doran Drive Precinct and the desire line along Mandala Parade to/from the station and transport interchange for residents within Precinct East.

De Clambe Drive will continue its role as a local street that provides signalised vehicle access from Showground Road in to the precinct. Non-residential uses on both sides of the street drive activity and pedestrian movement for the length of its interface with Doran Drive Precinct and the Castle Hill Showground. Precinct West will afford a weather protected pedestrian link between the precinct Heart, Doran Drive Plaza, the transport interchange and Cattai Creek and any future connections across Cattai Creek. The interface with Precinct East is for ground floor flexible uses and residential which are set back 5m from the road reserve to allow for ample landscaping along this interface.

Andalusian Way will continue its role as a local street with on-street parking on both sides and a signalised intersection with Carrington Road. Andalusian Way is planned to provide north-south connectivity as part of a Council-led active transport network linking to Middleton Avenue south of Carrington Road. Potential ground floor activation of the street will be afforded on its western interface with Doran Drive Plaza and The interface with Precinct East is for ground floor flexible uses and residential which are set back 5m from the road reserve to allow for ample landscaping along this interface.

The Precinct East local street will be primarily for local residents accessing their dwellings via walking, cycling and driving and for other community members to access the local park. The street will be activated by ensuring that all ground floor dwellings that address the street are accessed from the public domain. The interface within Precinct East is for ground floor flexible uses and residential which are set back 5m from both sides the road reserve to allow for ample landscaping along this interface.

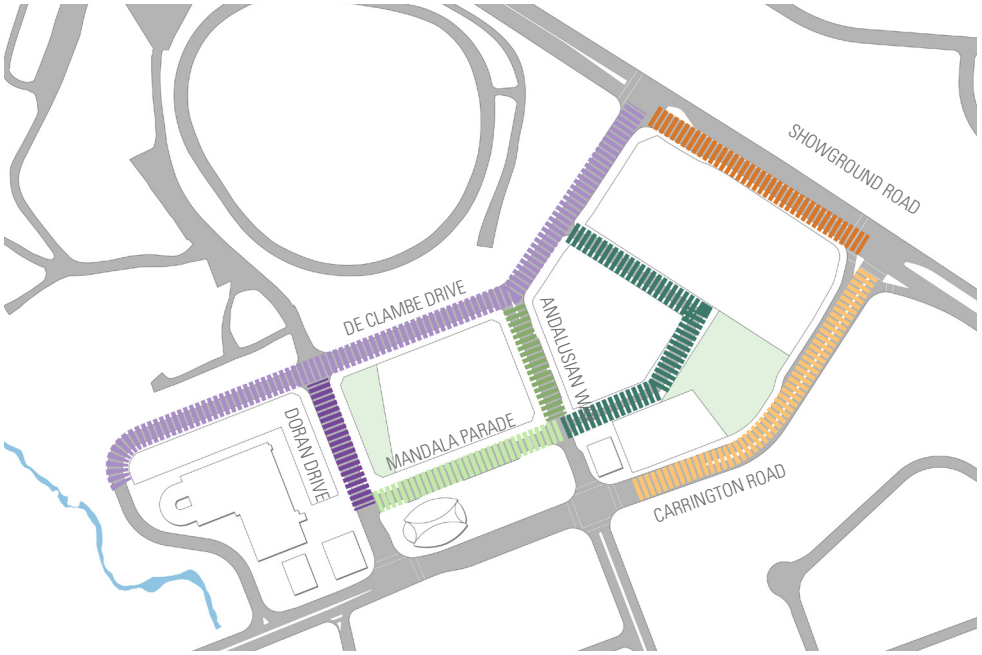



Figure 35: Existing and New streets that Interface with the Proposals

Showground Road and Carrington Road will continue their role as major roads, providing regional vehicular and public transport access to/from the Precinct.

The Showground Road interface will comprise of ground floor flexible uses/ residential that are set back a minimum 10m from the road reserve to provide for ample landscaping to the street edge.

The Carrington Road interface will comprise of ground floor flexible uses/residential that are set back a minimum 5m from the road reserve to provide for adequate landscaping to the street edge.

## Water Strategy

The water strategy for the precinct promotes the sustainable use and treatment of water within the public domain, while visually emphasising the flow of water through the Site and the relationship to Cattai Creek.

Water treatment is to be integrated across Precinct East through attractive raingardens and swales that will locally treat stormwater before it makes its way to Cattai Creek.

In the Doran Drive Plaza, a water feature will provide an interpretive connection to water on site, between the more natural raingardens of the Precinct East Park and the existing swale and basin to the north of De Clambe Drive. This feature is to have a low water usage and provide a visual focal point to the Doran Drive Plaza as well as provide a cooling effect and play opportunity. Note that the inclusion of a water feature in the plaza will be in consultation with The Hills Shire Council.

These interventions in the public domain are to form part of the wider water management strategy for the Site that includes water capture and reuse within development sites, drought tolerant plant species and water efficient buildings and fixtures.

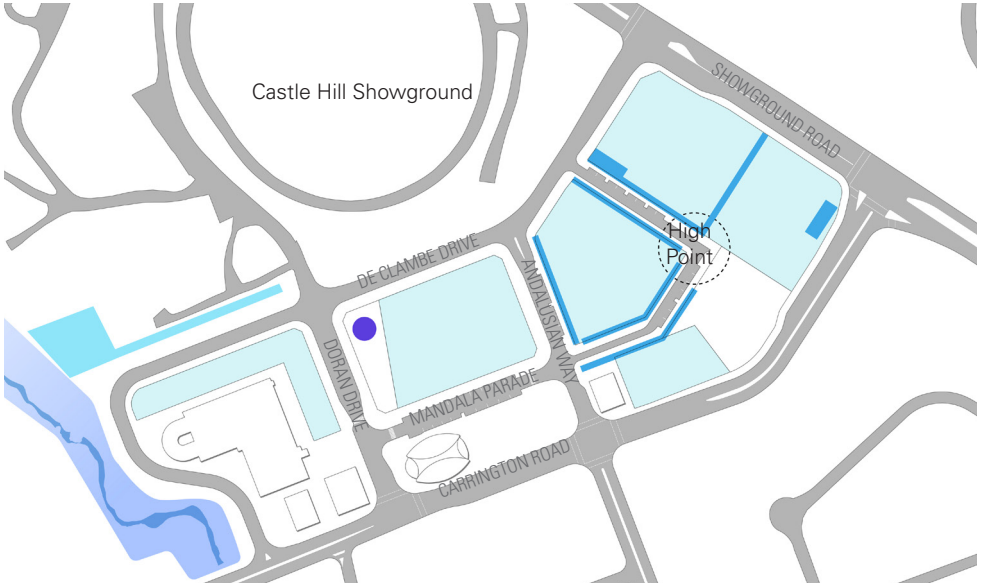
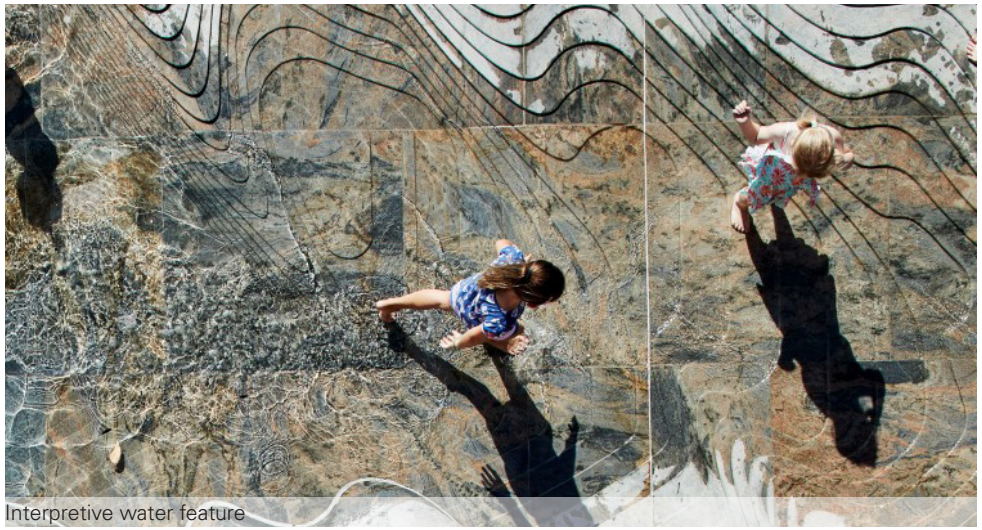



Figure 36: Water Strategy



Interpretive water feature



Rain Gardens / Water Sensitive Urban Design

## Planting Strategy

The local character will be clearly expressed through the planting strategy for the precinct.

As the main focus of the precinct, Doran Drive Plaza will have a combination of native and exotic species suited to it's urban character, with opportunity for a grove of deciduous trees reflecting the area's history.

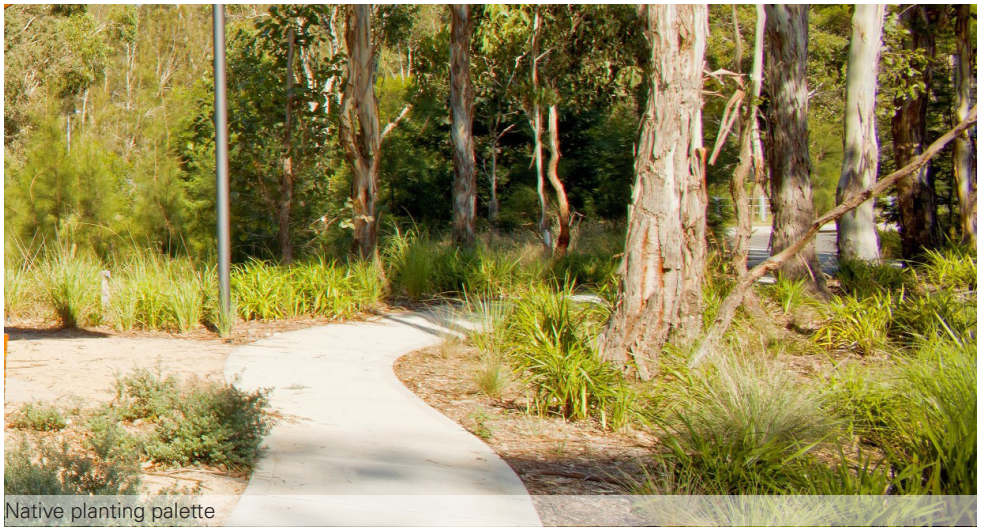
The Precinct East Park, is to have a predominantly native palette including large native trees for scale and shade.

Native species are to be used for the Water Sensitive Urban Design (WSUD) rain garden areas and the majority of other low level and shrub planting as they are suited to the local microclimate, create habitat for birds and micro fauna and enhance the ecology of the area.

The existing streets of the precinct, including Doran Drive, De Clambe Drive, Mandala Parade and Andalusian Way have been planted with large eucalyptus species that will provide character, scale and screening to the new built form. Corymbia maculata street tree planting for the new local street will complement this existing palette.



Deciduous tree grove



Native planting palette

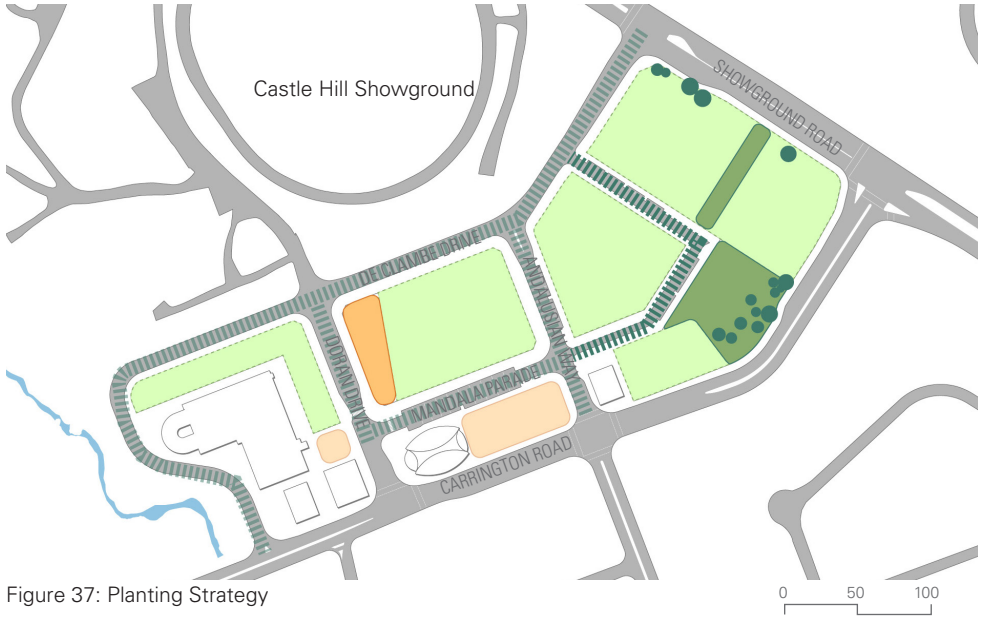



Figure 37: Planting Strategy

## Public Art and Interpretation Strategy

A Heritage Interpretation Strategy (GML, 2019) has been prepared for the Site that considers the European and Aboriginal heritage and suggests a number of Interpretive Themes and Stories, including:

- Theme 1 - Aboriginal Cultural Heritage
- Theme 2 - Resistance and Rebellion
- Theme 3 - Agriculture and Orcharding
- Theme 4 - Pride in the Hills.

These themes are to be expressed across the public domain through a number of devices as suggested in the Strategy:

- Device 1 - Surface inlays
- Device 2 - Lighting
- Device 3 - Public Art / Murals
- Device 4 - Branding and Naming.

Refer to the Heritage Interpretation Strategy (GML, 2019) for more information.

Key plans that have been referenced include the Sydney Metro Northwest Places (SMNWP) Public Art Guidelines, Landcom's Reconciliation Action Plan (Draft) and in the interim, the Arts Council of Australia "Protocols for Producing Indigenous Visual Arts".



Figure 38: Stone Jewels by Fiona Currey-Billyard. Stone tools reimagined. (Source: Fiona Currey-Billyard)



Figure 40: Sculptures by Barangaroo. (Source: Sculptures by the Sea)



Figure 39: Ngaarr by Lucy Simpson. A story of presence and strength, derived from the patterning of the inner bark of a gulabaa (eucalypt tree). These designs by Yuwaalaraay artist Lucy Simpson highlight the conversation about care of Country. (Source: City of Sydney)

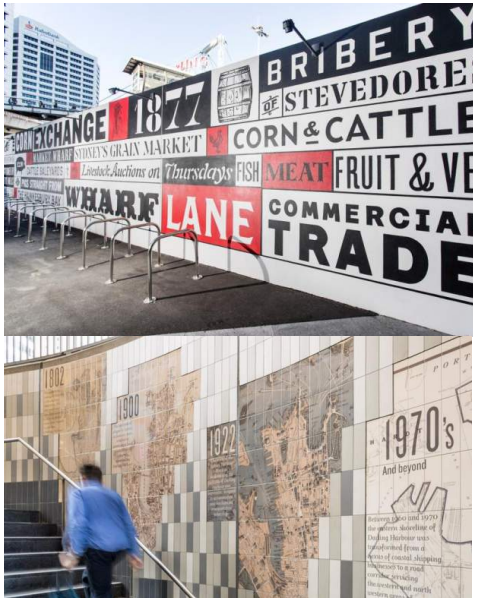



Figure 41: Interpretive hoarding murals at 161 Sussex Street integrating historic typographic, text and historical maps. (Source: Deuce Design)

# Built Form Drivers

The following considerations underpin the urban design principles and inform the SSDA building envelopes.

## Solar Access and Overshadowing of Public Spaces

The Framework seeks to achieve a minimum amount of solar access for the existing and future public open spaces within the development lots and the broader Hills Showground Precinct to ensure that the areas of highest pedestrian activity are amenable and attractive year round. The minimum proportions of the open space to achieve 2 hours of sunlight between 9am and 3pm during the winter solstice are identified below.

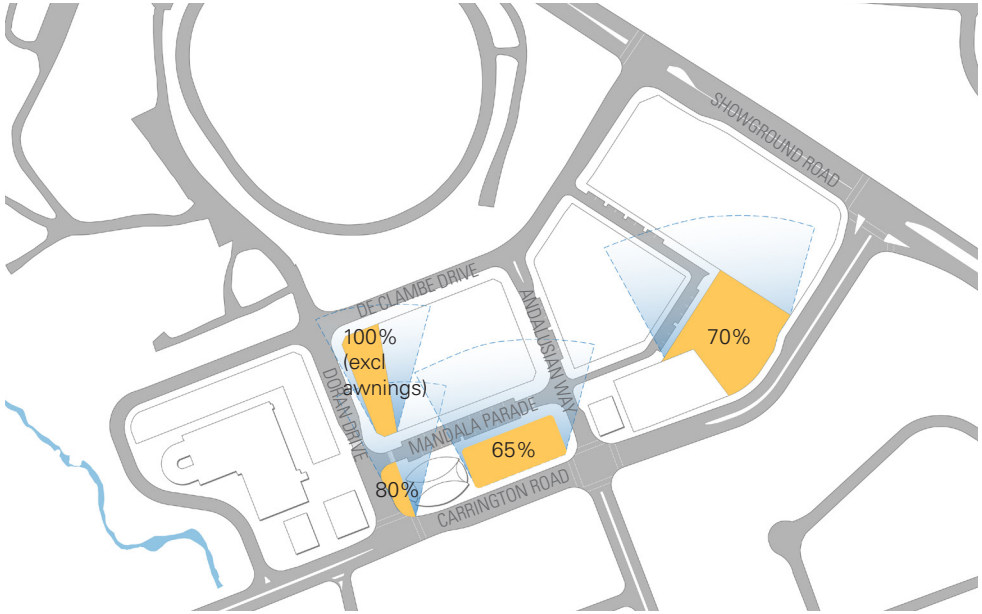



Figure 42: Solar Analysis

Primary Open Space  Solar Access Considerations

## Activity Nodes and Active Frontages

The way in which a building addresses a street creates an important transition between public and private space. The careful design of this zone contributes to the liveliness, interest, comfort and safety of the street for those who use it.

### Active Frontage

Frontages have been identified to reinforce complementary uses or desired street character that should accommodate local retail, community, cultural uses and to reinforce their role as a focus for pedestrians.

### Activity Node

An Activity Node is focused on the Doran Drive plaza with retail/commercial frontages on both sides of Doran Drive and extending along the pedestrian desire lines on Mandala Parade and De Clambe Drive.

### Flexible Ground Floor Uses

Flexible ground floor space and floor to ceiling heights in buildings within the Precinct West interface to De Clambe Drive and Precinct East can accommodate a range of uses to respond to changes in demand for non-residential uses in the future.

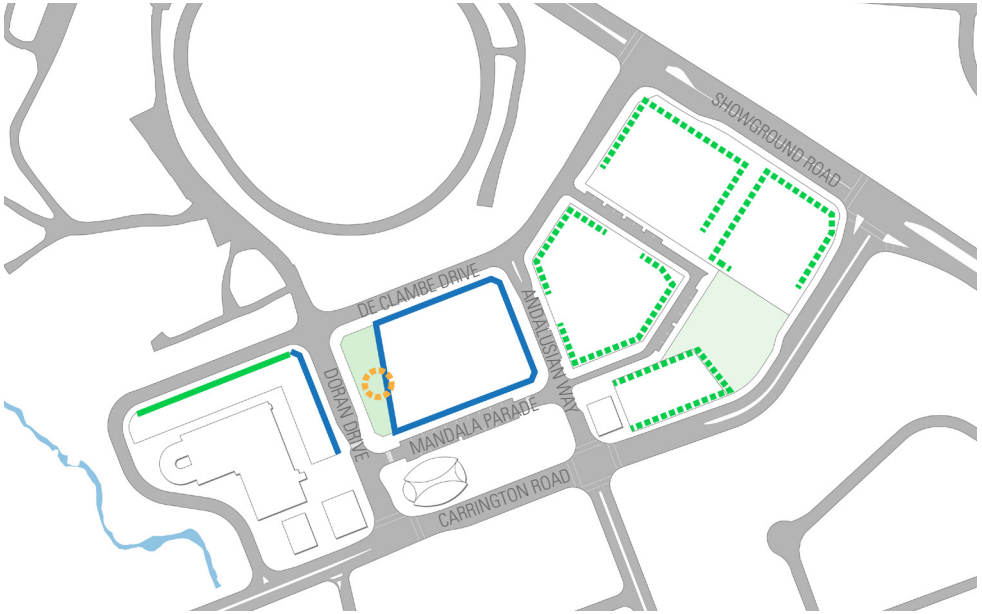



Figure 43: Activity Notes and Frontages

Active/Non-residential Frontage  Flexible Ground Floor Uses  Active Node

Potential Flexible Ground Floor Uses

## Street Wall Heights

The height of the street walls make a significant contribution to the experience of place and can add uniformity of character along particular streetscapes, or provide variations in areas where so desired.

A 4-storey street wall (varying between 14m and 19m depending upon uses) is intended for the majority of the Site to define the streets and public open spaces with an appropriately scaled built form.

The northern, southern and eastern edges of the Doran Drive precinct may be lower (to a minimum of 2-storeys or 13.6m) depending upon the total floor space required in the podium and the topographical change across the Site.

The townhouse typology prescribed along the northern interface with the Precinct East Local Street may comprise of a built form that is no higher than 3-storeys to a height of approximately 12m.

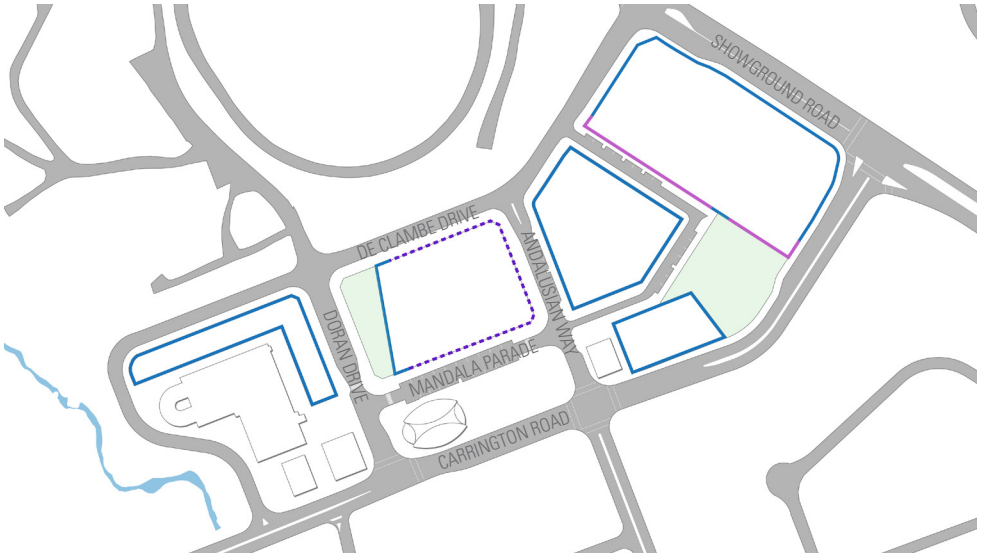



Figure 44: Street Wall Height



## Setbacks

Buildings with no setback at the ground level can provide an intimate urban experience where activity can be easily viewed and 'spill out' into the street.

Primary setbacks at ground level can contribute to the experience of the street, provide space for landscaping and courtyards that weave the public and private domain together and influence the way that pedestrians interpret built form.

Secondary upper level setbacks also impact the pedestrian experience through visual enclosure and the scale of the street and provide protection from weather or access to sunlight.

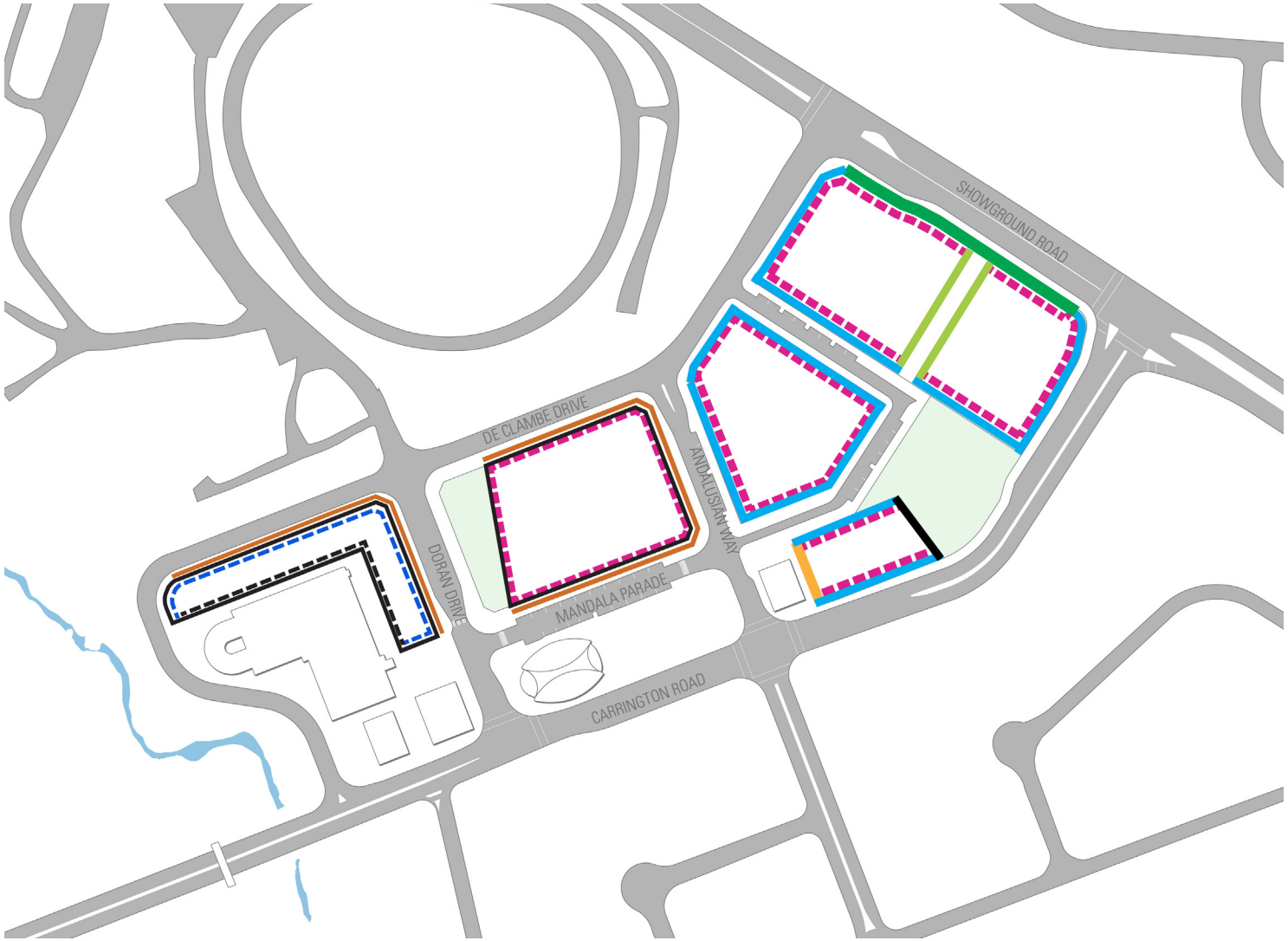



Figure 45: Setbacks

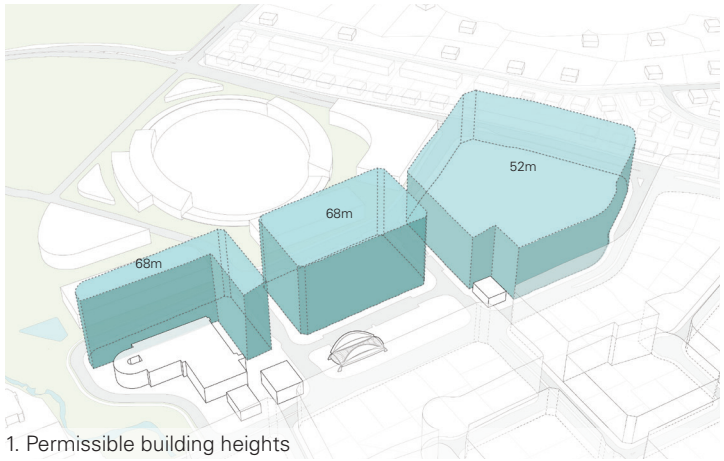
## Built Form Composition Strategy

The Built Form Composition Strategy has been formulated through a series of known constraints, transition considerations and urban design principles.

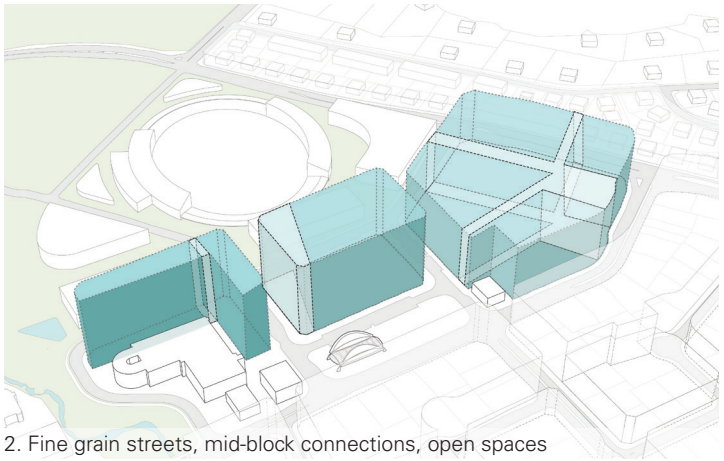
The adjoining diagrams capture the considerations of the composition strategy for the Site;

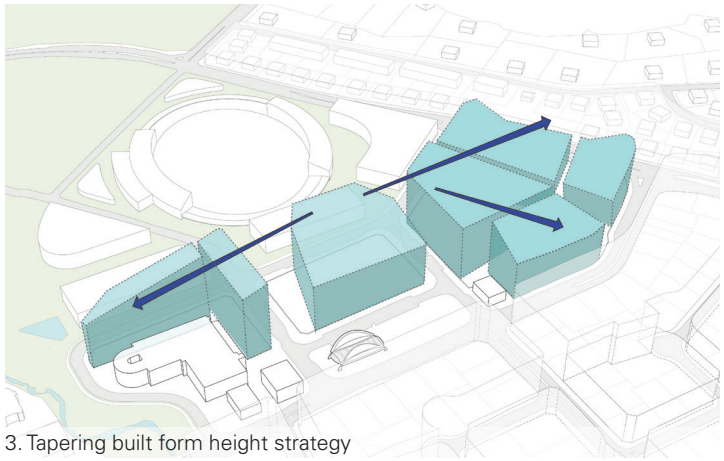
1. The permissible building heights
2. The fine grain approach to deliver new streets, mid-block connections and new public open spaces
3. The strategy is to generally locate height in the centre of the site adjacent the station with a gradual transition to the surrounding areas
4. The desired built form transition to adjoining public spaces (station and carpark plaza, Cattai Creek Corridor), future residential development (12 storeys south of Carrington Road, 3 storeys east of Showground Road) and the existing local heritage item located at 128-132 Showground Road.

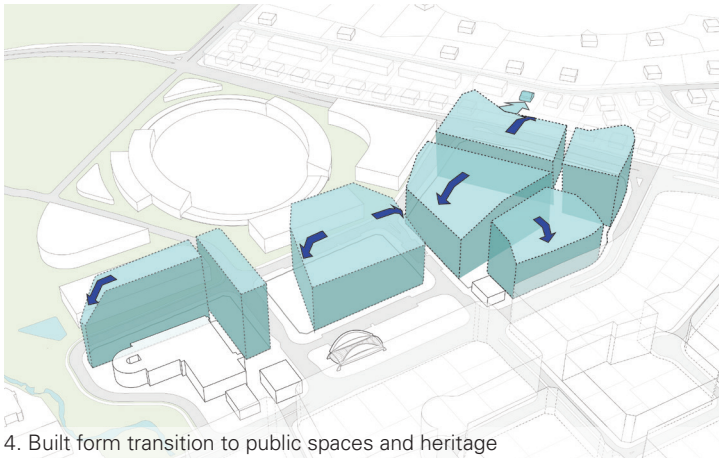
The resulting composition strategy is one which will deliver a modulated and diverse built form within the development lots that sympathetically responds to adjoining areas and existing developments, and reinforces the vision of high levels of amenity and solar access within the primary open spaces. The principles within this strategy have driven the resulting site specific building envelopes.



1. Permissible building heights


2. Fine grain streets, mid-block connections, open spaces


3. Tapering built form height strategy


4. Built form transition to public spaces and heritage

## Building Envelope Heights

The translation of the permissible building heights and the Built Form Composition Strategy to desired building heights is reflected in the diagram adjacent.

A maximum height of 68m is desired on Precinct West with 20-storeys and 21-storeys on Doran Drive Precinct.

Precinct East is comprised of a maximum 52m (16-storeys) within the northern, eastern and western development lots while a maximum height of 40m (12-storeys) is desired within the southern lot to complement the future building heights south of Carrington Road.

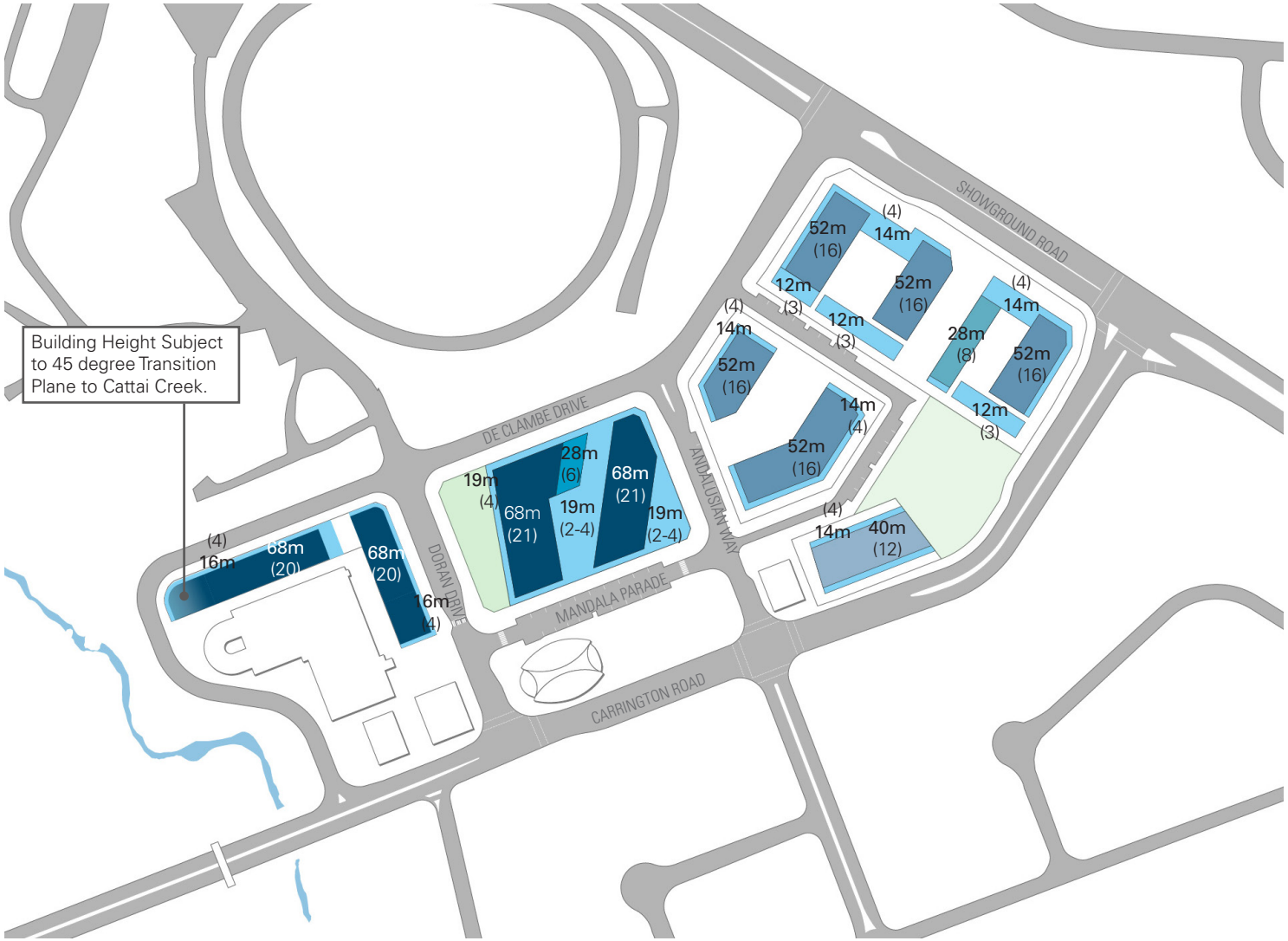



Figure 46: Building Height
**Note:** Maximum storeys shown in brackets.

## Building Envelopes

The translation of the Urban Design Framework to building envelopes is demonstrated in the diagram adjacent.

The building envelopes represent a desired outcome for the precinct as a whole and individual sites that deliver a level of certainty to Council and the community and retain a level of flexibility for innovation and diverse design outcomes in the future.

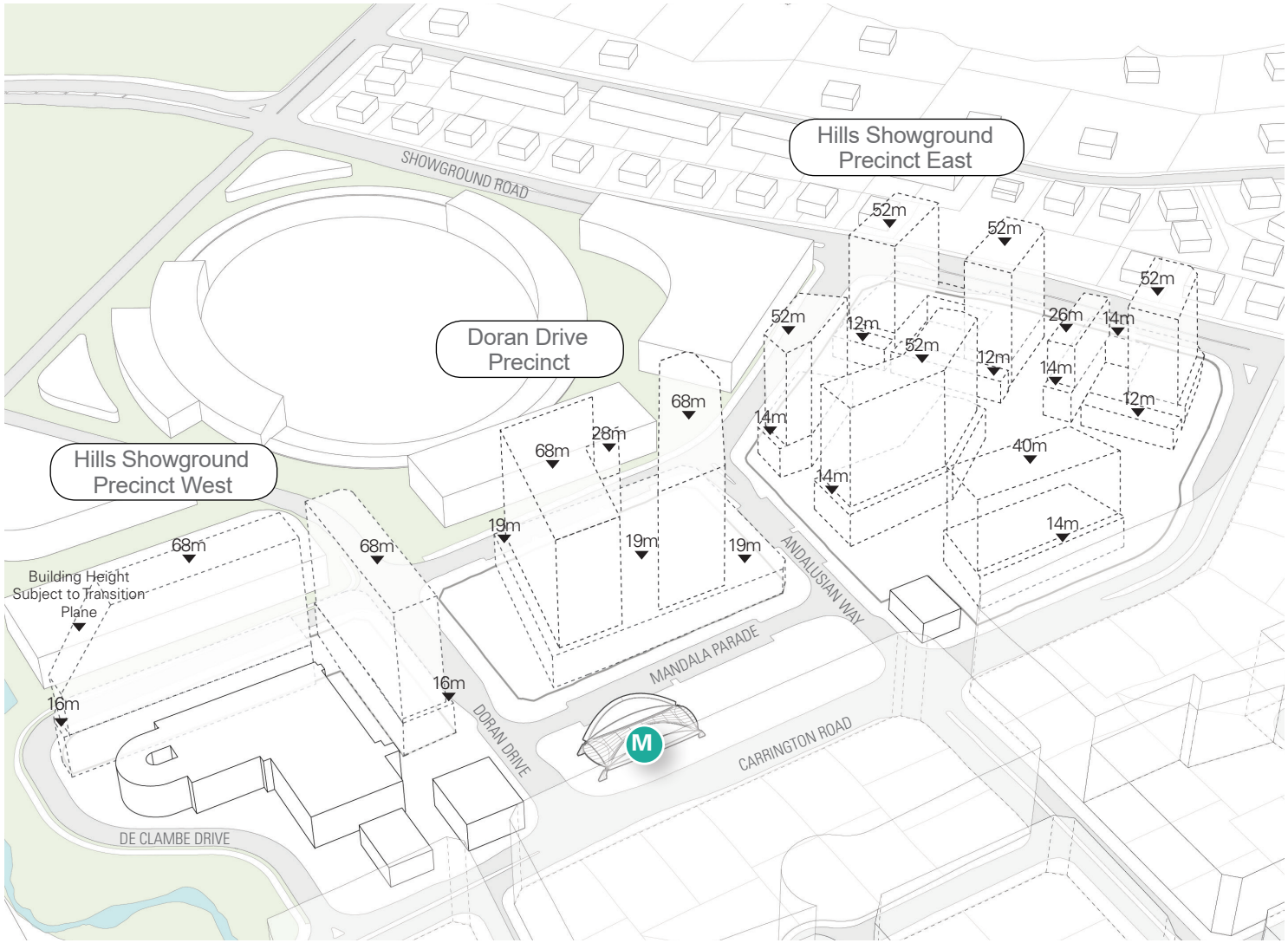



Figure 47: Hills Showground Station Precinct Building Envelopes

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# 07

# PRECINCT CHARACTER AREAS

The Precinct Character Areas define areas within the Site that share, or will share, similar characteristics in terms of built form, landscape, materials and elements.

## Precinct East

Precinct East is defined by Carrington Road to the south, Showground Road to the north-east, De Clambe Drive to the north and Andalusian Way to the west.

Precinct East adjoins Doran Drive Precinct and serves as a transition in both uses and scale between the high-density residential area next to the Hills Showground Station, and the lower density residential areas to the north-east of Showground Road and south of Carrington Road. The site has been rezoned to R1 General Residential and allows for development up to 52m in height and a Floor Space Ratio of 3:1 – deemed appropriate given the Precinct's proximity to the transport node, and it's role in the transition between mixed use and residential areas noted above.

Precinct East will be anchored by a new minimum 3,500m² public park that provides for local, passive recreational needs and children's play areas that complement the civic and active uses of Doran Drive Plaza and the regional recreational resource of the Castle Hill Showground.

Precinct East will be a green, leafy residential community that caters for a broad demographic through a diverse range of housing choices and built form typologies. Housing typologies will include townhouses and garden apartments which will be accessed via the public domain and internal courtyards to the developments. A range of apartment types and sizes will be located in podiums, mid-rise buildings and towers that are generously separated for open views, visibility of sky and solar access.




Figure 48: Aerial Sketch of the Hills Showground Concept Masterplan Facing South

## Built Form Character

Precinct East will be characterised by a variety of residential dwelling choices supported by a new, permeable, and complementary public realm.

The Precinct will imbue the Garden Shire character of The Hills through a carefully considered built form response that provides setbacks and transition controls to the major regional recreational resource of the Castle Hill Showground, surrounding streets and residential areas and to the new internal public domain.

The site is located on top of the ridgeline that extends from Castle Hill to the site along Showground Road. The built form will consider this highly visible position within the district to ensure appropriate setbacks for podiums and towers to the views along Showground Road. The composition of this precinct will transition the height down from the heart of the TOD development and to a predominantly four storey edge along Showground Road with slimmer tower ends set back above, and a scale along Carrington Road that will mirror the developable heights to the south of this road.

Built form will comprise of a pedestrian-scale street edge via a podium with towers set back above. Ground floor interfaces to the streets, pedestrian link and Precinct East Park will be activated by low-scale townhouses and garden apartments that are accessed via courtyards. The orientation and separation of the tower elements will promote views to the sky and good solar access both for the residences within the built form and for the open space in the public domain.

The site coverage and floor space ratio of the Precinct is significantly less than the adjoining Doran Drive Precinct and serves as a transition from the high activity precinct heart around the metro station and interchange and a transition to a community feel with a solely residential function. This reduced site coverage and height allows for trees to mature and landscapes to define the character of the Precinct.

Communal open space within the site will be framed by garden apartments so that residents and visitors experience the Garden Shire character.

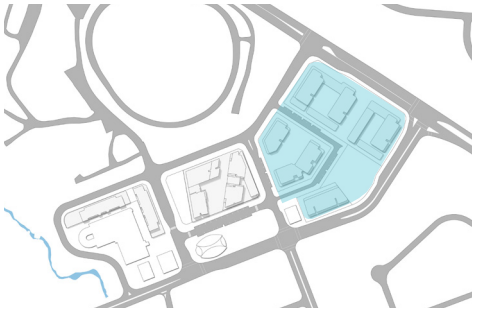




Figure 49: Cohesion between the public and private domain



Figure 50: Townhouses that are accessed from the public domain



Figure 51: Garden Apartments



Figure 52: Through site links



Figure 53: Garden apartments and midrise residential

## Public Domain and Landscape Character

The public domain of Precinct East will provide a family friendly, pedestrian oriented landscape, including the Precinct East Local Park, a new local street and a publicly accessible link that extends the pedestrian journey from station plaza through to Showground Road. Setbacks to the street will be substantial with layers of generous planting of differing scales that will make a significant contribution to both streetscape and private domain amenity and assist the achievement of sustainable design measures.

The Precinct East Local Park will provide a minimum 3,500m² of local open space for the new residential catchment. The park will be highly visible with frontages to Carrington Road and the Precinct East internal street. Many large existing eucalypt trees will be retained to provide a mature native setting and immediate shade. New trees and plantings that take cues from the surrounding context will supplement the native canvas to bolster this desired character and provide a natural setting for the enjoyment of the community.

The local park will contain picnic and play spaces as well as a large open lawn area for recreation. A network of paths will enable safe and direct pedestrian movement throughout the park. Street furniture and lighting elements will be robust and complement the natural environment. Accent features within the park and the inclusion of public art and interpretation elements will stimulate visual interest.

The new local street will extend the native planting palette with large gum trees characteristic of the area. The street itself will promote a slow speed environment through paved thresholds that will also differentiate the local street from the busier surrounding street network. The bend in the road further reduces traffic speeds and will reduce the road's use as a vehicular through connection.

The public pedestrian connection between the local road and Showground Road will support the street and path network. This will continue the planting character of the Precinct East public domain and provide a comfortable and safe connection for pedestrians moving through the Precinct.

A significant existing contextual element that influences the desired character of the Hills Showground Station Precinct is the surrounding landscape and outlook, including unimpeded views over the Shire towards the national parks and Hawkesbury River. This along with the immediate outlook over Castle Hill Showground and the Precinct East Park will make a significant contribution to Precinct East's character and the amenity for its residents. The characteristics of the vegetation of these surrounding open spaces will be reflected in the design of the Precinct's communal landscape elements.

The communal open spaces are to comprise of green, leafy passive areas with generous planting. Plants will include natives and orchard species that celebrate the heritage and existing characteristics of the area - supplemented with exotic plants for colour and variation, and edible species as part of vegetable or herb gardens.

Species will also contribute to sustainable design targets for the Precinct.

These open spaces for the residents will provide day-to-day amenity and cater for a range of uses. Key elements will include seating, picnic facilities, play spaces, productive urban gardens, BBQ areas and shade structures.



Figure 54: Play elements adjacent seating



Figure 55: Open lawn and concrete footpaths

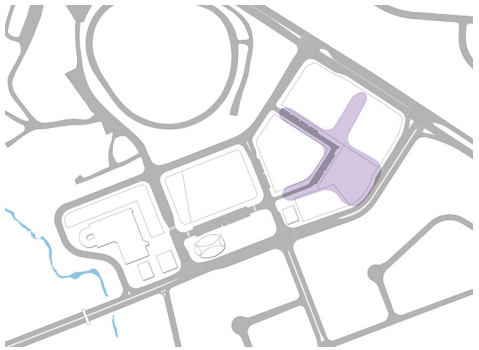


Figure 56: Precinct East Public Domain



Figure 57: Picnic shelters and tables

## Material Character

The configuration of Precinct East affords elongated interfaces with the public domain that provide opportunities for extensive expressions of local character through material and finishes. Buildings will comprise of materials that celebrate the heritage of the area such as brick and timber and complement the natural planting strategy. Given the prominence of the Precinct on a ridge line and its interface with the significant adjacent open space areas, buildings will be finished and embellished with quality materials and refined detailing that visibly demonstrates a rationalised and well considered approach.

Podium finishes will be durable and consider their location within a residential village area. Their textural and tonal quality will take cues from the adjoining natural landscape of Cattai Creek. Careful modulation of materials will contribute to the textural quality and break down the scale of the podium for a human scale experience, and to provide clarity of residential address.

Authentic materials including formed and precast concrete, brick and timber will reinforce the desired character of the precinct. This durability of this material pallet and ability for it to weather well will provide better lasting quality over time.

Modulated cladding finishes such as metal panel and high-quality board and are to be organised into panels that reflect horizontal and vertical articulation elements within the facade.

The material finishes to the upper levels will be more subdued with simplified architectural expression and refined articulation, to ensure the tower elements do not dominate the aspects from the Castle Hill Showground and other key views to the Precinct. Colour will be lighter hues and natural tones, and materials selected for a 'softer' look and feel to ensure a recessive nature.

Green walls and rooftop will provide additional depth to the material character of the precinct.

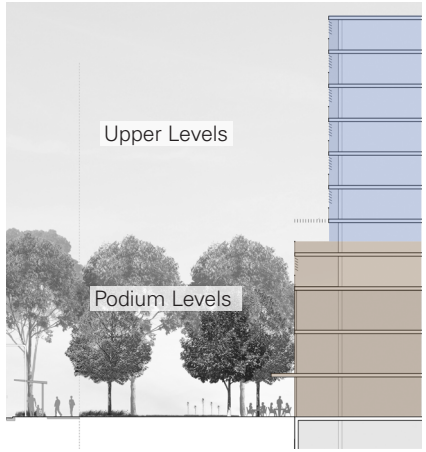


Figure 58: Building configuration


Figure 59: Upper Level Materials & Finishes

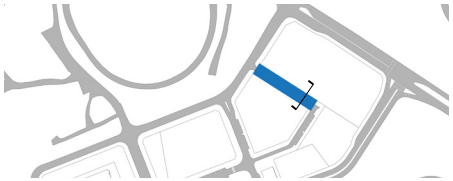

Figure 60: Ground Podium Level Materials & Finishes

## New Street

The proposed new street within Precinct East is intended to be a local street to provide vehicular access to and from the residential buildings, the local park within Precinct East and will provide a connection between De Clambe Drive and join Mandala Parade at Andalusian Way.

### Desired Character

- The new street will have insitu concrete paths as per the existing surrounding streets, with shared paths differentiated using coloured concrete as per Council's standard approach.
- The road carriageway through the Precinct East may be paved with concrete or stone cobblestones at thresholds and key points to emphasise a slow speed and pedestrian environment.
- Two lanes of general traffic from De Clambe Drive to the Precinct East Park. One way (west only) from the park to Andalusian Way.
- On-street parking on the northern side from De Clambe Drive and the southern side adjoining the park.
- Minimum 2m wide footpath on the southern side of the street and 2.5m shared path on the northern side to provide access to the park.
- Minimum 5m primary setback to both sides of the street.
- 3m secondary setback above 4-storeys.



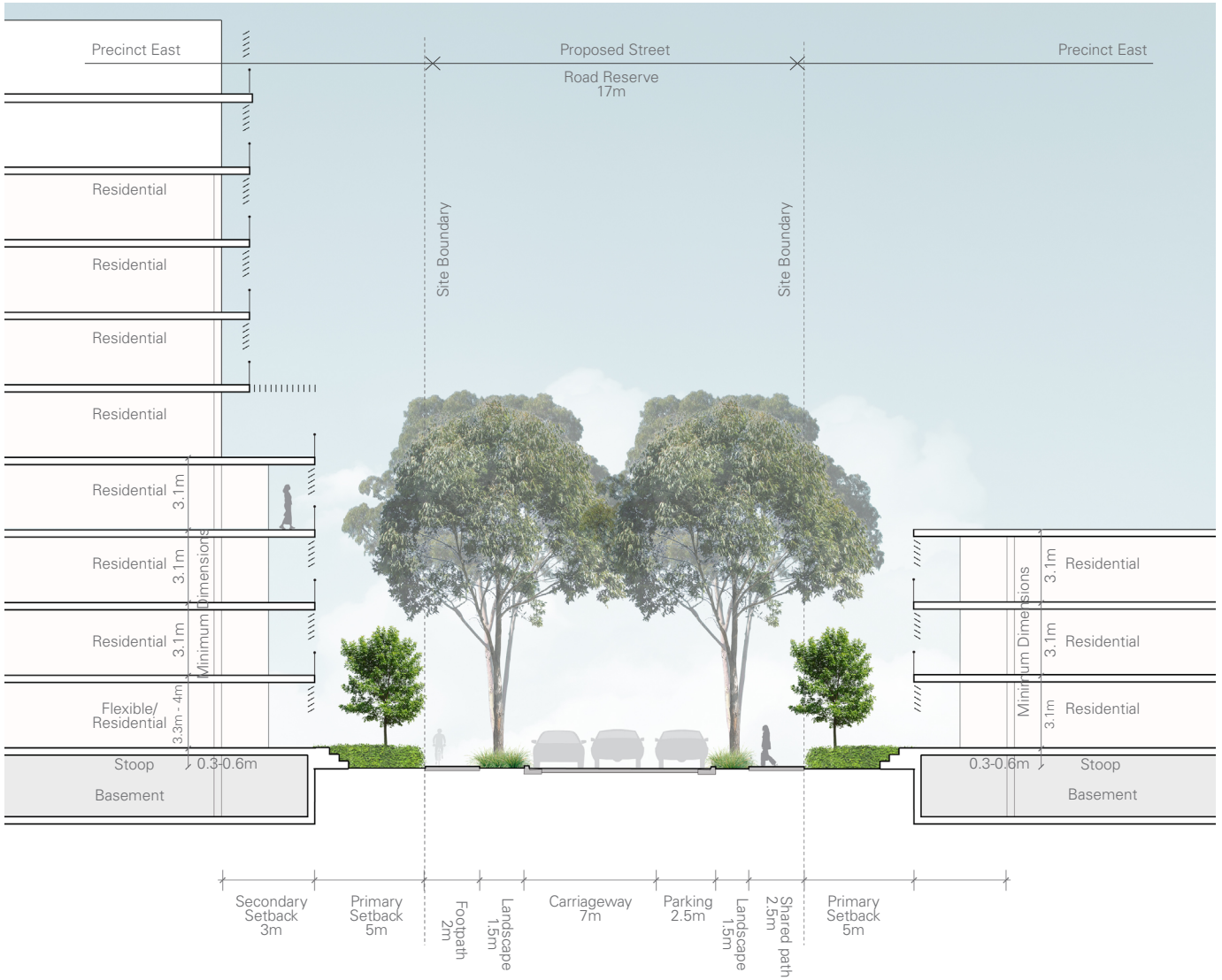



Figure 61: New Local Street Interface

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## Doran Drive Precinct

Doran Drive Precinct is centrally located within Hills Showground Station Precinct. It is a regular shaped block bounded by Doran Drive to the west, De Clambe Drive to the north, Andalusian Way to the east and Mandala Parade to the south.

Doran Drive Precinct is located directly adjacent to the Hills Showground Station Precinct transport interchange and is the active mixed-use core of the broader Precinct. The site has been rezoned to B2 Local Centre and allows for development up to 68m in height and a Floor Space Ratio of 4:1 - deemed appropriate given the Precinct's proximity to multiple modes of transport and high levels of amenity afforded by the future Doran Drive Plaza, the Castle Hill Showground and the station plaza.

Doran Drive Precinct will be a vibrant, mixed use destination that will provide retailing, dining and recreation uses, as well services that support the local community. Above a ground floor of fine grain uses, a mixture of employment-generating commercial space and residential will be delivered.

The Precinct will incorporate Doran Drive Plaza – a new Civic space located at the junction of major pedestrian desire lines from the metro station and transport interchange to the Castle Hill Showground and Cattai Creek corridor. The Doran Drive Plaza will be lined to its east with fine grain retail and dining experiences, with this activity also wrapping around at the north onto Doran Drive and relating to the future uses that the Hills Showground Masterplan will provide. To the south the Doran Drive Plaza meets Mandala Parade which is envisaged to house the type of 'high street' functions that service the community given its role as a key connector to the significant residential population in the Precinct, and provide an important and active interface with the station plaza.

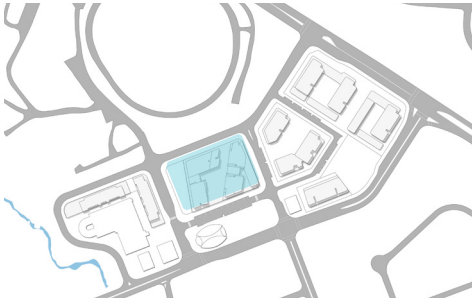


Figure 62: Aerial Sketch of the Hills Showground Concept Masterplan Facing South

### Built Form Character

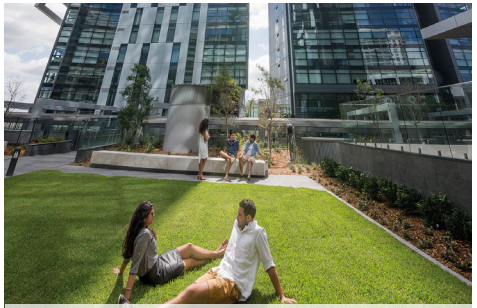
Doran Drive Precinct will be characterised by a mixed-use pedestrian-scale podium that defines the public domain on four sides, with residential tower forms set back above. The towers will be oriented in a way that maximises amenity both for the residents and workers within the buildings as well as for the users of the public domain experiencing the street views and skyline.

The retail frontages will include fine grain tenancies sleeving a larger floor plate tenancy that is set back within the podium and suitable for accommodating a supermarket. The resulting mix of tenants will provide the services and requirements of the Precinct's residents, workers and visitors, to support the fundamentals of this transit-oriented development.



The Precinct will have a direct interface with Doran Drive Plaza and the transport interchange, the station plaza, and the residential uses within Precinct East. The activated frontages wrapping the Precinct will have awnings and carefully considered corner treatments and building entries to contribute to the streetscape character and pedestrian amenity.

The land falls from east to west, affording the opportunity to articulate the interface of the podium with the streetscape on De Clambe Drive and Mandala Parade. Visual interest will be enhanced via the modulation and stepping of the built form, and universal access provided to ground floor uses and the Doran Drive Plaza. The podiums will incorporate vertical and horizontal articulation of the facade aligned with transitions between the level changes and tower elements above.


Podium communal open space accessed via adjoining residences and tenancies



Fine grain, dual frontage retail sleeving larger retail tenancies behind


Pedestrian scale podiums addressing the public domain. Source: THSC DCP


A variety of uses and users within and adjoining the future plaza


Pedestrian scale podiums addressing the public domain Source THSC DCP

## Material Character

The configuration of the Precinct affords elongated interfaces with the public domain that provide opportunities for extensive expressions of local character through material and finishes.

Given the prominence of the Precinct on a ridge line and its interface with the significant adjacent open space areas, buildings will be finished and embellished with quality materials and refined detailing that visibly demonstrates a rationalised and well considered approach.

Podium finishes will be durable and consider their location within an active mixed-use Precinct. Their textural and tonal quality will have an urban feel suited to a retail and commercial environment yet be sympathetic to the natural surroundings. Authentic materials including formed and precast concrete, stone, timber, and metal will reinforce the desired character of the precinct. The durability of this material pallet and ability for it to weather well will provide better lasting quality over time.

Modulated cladding finishes such as metal panel and high-quality board and are to be organised into panels that reflect horizontal and vertical articulation elements within the facade.

The material finishes to the upper levels will be more subdued with simplified architectural expression and refined articulation, to ensure the tower elements do not dominate the aspects from the Castle Hill Showground and other key views to the Precinct. Colour will be lighter hues and natural tones, and materials selected for a 'softer' look and feel to ensure a recessive nature.

Green walls and rooftop will provide additional depth to the material character of the precinct.

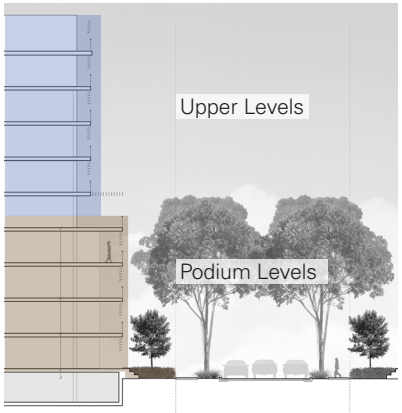



Figure 63: Building configuration



Figure 64: Upper Level Materials & Finishes

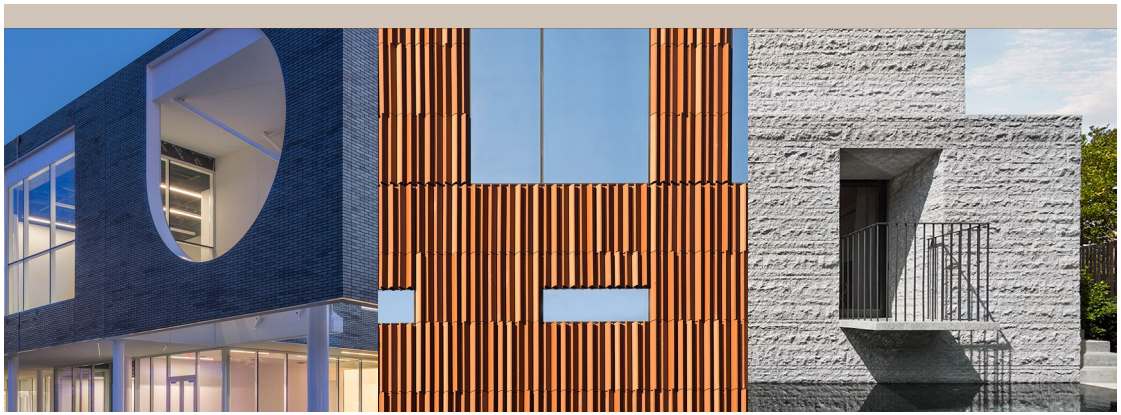


Figure 65: Ground Podium Level Materials & Finishes



Active Frontage Finishes. Source: THSC DCP



Active Frontage Finishes. Source THSC DCP



Upper Level Podium and Tower Green Elements. Source: THSC DCP.

## Public Domain and Landscape Character

Doran Drive Precinct contains the 'active heart' of the Hills Showground Station Precinct. The active heart will include the Doran Drive streetscape and Doran Drive Plaza as a highly activated, urban focal point for the Precinct. This public domain will connect Castle Hill Showground with the Showground Station and provide a continuity of high-quality public space, activation, and amenity.

Doran Drive Plaza will form the key piece of open space within the active heart. The Plaza is to be a high quality, flexible urban open space that functions both as a permeable connection between the adjacent uses and functions, as well as provide an activated and comfortable space for people to use and inhabit day to day. It will be the multi-function heart of the broader Precinct – a place to meet, eat within, or pass through – through the day and into the evening.

The Plaza will contain generous pedestrian footpaths to allow for movement and gathering, defined landscape areas and informal seating spaces, an activated retail edge with outdoor dining, and opportunities for public art, interpretation and play elements.

The Plaza will be urban in nature yet will include landscape elements that soften the space and provide shade, spatial organisation and framing, and visual interest. The planting palette will be predominantly native, with the inclusion of mature tree planting that reflects the existing landscape character and complements the existing streetscape vegetation, and a collection of orchard trees close to the southern end to reflect the heritage of the area.

A significant existing contextual element that influences the desired character of the Hills Showground Station Precinct is the surrounding landscape and outlook, including unimpeded views over the Shire towards the national parks and Hawkesbury River. This along with the immediate outlook over Castle Hill Showground and the Precinct East Park will make a significant contribution to Doran Drive Precinct's character and the amenity its residents. The characteristics of the vegetation of these surrounding open spaces will be reflected in the design of the Precinct's communal landscape elements.

The communal open spaces are to comprise of green, leafy passive areas with generous planting. Plants will include natives and orchard species that celebrate the heritage and existing characteristics of the area - supplemented with exotic plants for colour and variation, and edible species as part of vegetable or herb gardens. Species will also contribute to sustainable design targets for the Precinct.

These open spaces for the residents will provide day-to-day amenity and cater for a range of uses. Key elements will include seating, picnic facilities, play spaces, productive urban gardens, BBQ areas and shade structures.



Figure 66: Lawn and seating areas



Figure 67: Paved plaza with seating and water feature



Figure 68: The 'Active Heart'

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## Precinct West

Precinct West is located between Doran Drive and the Cattai Creek Corridor, with De Clambe Drive and Castle Hill Showground to the north and the existing commuter carpark to the south.

A significant existing contextual element that influences the desired character of the Hills Showground Station Precinct is the surrounding landscape and outlook, including unimpeded views over the Shire towards the national parks and Hawkesbury River. The adjacency of Precinct West to valuable assets such as the Cattai Creek Corridor, Castle Hill Showground and the active transport routes to the open space network beyond makes it unique.

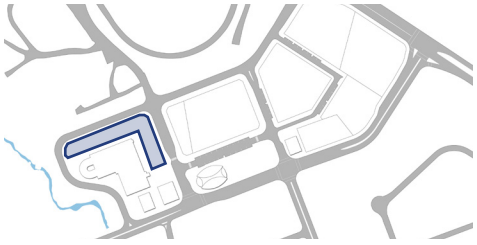
Precinct West is also located directly adjacent to the Hills Showground Station Precinct transport interchange and its eastern edge forms part of the active mixed-use heart along Doran Drive. The Precinct has been rezoned to B2 Local Centre and allows for development up to 68m in height and an Floor Space Ratio of 5:1 – deemed appropriate given the Precinct's proximity to multiple modes of transport and high levels of amenity afforded by the future Doran Drive Plaza, the Castle Hill Showground and Cattai Creek.

Precinct West will be a vibrant, mixed use destination that will provide retailing, dining and commercial uses along Doran Drive. Along De Clambe Drive the active edge will transition to typologies that are less reliant upon heavy pedestrian traffic but will benefit from the amenity provided by the Creek Corridor and Castle Hill Showground interface such as Small Office / Home office (SoHo) units.

Above the ground floor fine grain uses, a mixture of employment-generating commercial space and residential will be delivered. The narrow nature of the sites provides an opportunity to for unique single loaded apartment typologies.



Figure 69: Aerial Sketch of the Hills Showground Concept Masterplan Facing South



## Built Form Character

The built form of Precinct West will be sympathetic to its context with transition controls to surrounding green and blue elements of Cattai Creek and an orientation that takes advantage of the significant views over the major regional recreational resource of the Castle Hill Showground and the long views of the natural creek corridor.

Built form within the Precinct will be comprised of a pedestrian-scale podium with a setback above podium for the residential towers above. The podium will have fine grain and active edges to the streets, and a direct interface to recreation precinct of Castle Hill Showground as well as the active heart of the precinct at and around Doran Drive Plaza and the transport interchange. Awnings over these active frontages and careful consideration of corner treatments and building entries will contribute to the streetscape character.

The topographical change along De Clambe drive presents an opportunity for a unique streetscape character with uses such as bespoke SoHo stepping down to Cattai Creek. The podiums will incorporate vertical and horizontal articulation of the facade aligned with transitions between the level changes and tower elements above.



Pedestrian scale podiums addressing the public domain. Source: THSC DCP



Pedestrian scale podiums addressing the public domain. Source: THSC DCP





Precinct East interface to Cattai Creek and the Showground



Setbacks and transitions to green and blue elements

## Material Character

The configuration of Precinct West affords elongated interfaces with the public domain that provide opportunities for extensive expressions of local character through material and finishes. Buildings will comprise of materials that celebrate the heritage of the area such as brick and timber and complement the natural planting strategy. Given the prominence of the Precinct on a ridge line and its interface with the significant adjacent open space areas, buildings will be finished and embellished with quality materials and refined detailing that visibly demonstrates a rationalised and well considered approach.

Podium finishes will be durable and consider their location within an active mixed-use Precinct. Their textural and tonal quality will take cues from the adjoining natural landscape of Cattai Creek. Careful modulation of materials will contribute to the textural quality.

Authentic materials including formed and precast concrete, brick and timber will reinforce the desired character of the precinct. This durability of this material pallet and ability for it to weather well will provide better lasting quality over time.

Modulated cladding finishes such as metal panel and high-quality board and are to be organised into panels that reflect horizontal and vertical articulation elements within the facade.

The material finishes to the upper levels will be more subdued with simplified architectural expression and refined articulation, to ensure the tower elements do not dominate the aspects from the Castle Hill Showground and other key views to the Precinct. Colour will be lighter hues and natural tones, and materials selected for a 'softer' look and feel to ensure a recessive nature.

Green walls and rooftop will provide additional depth to the material character of the precinct.

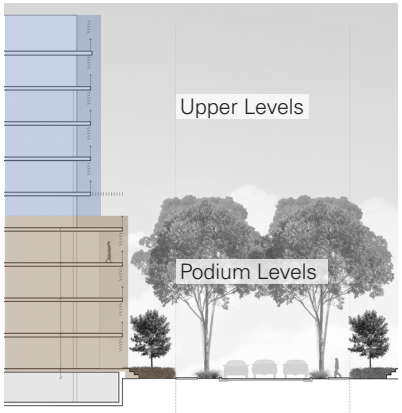



Figure 70: Building configuration

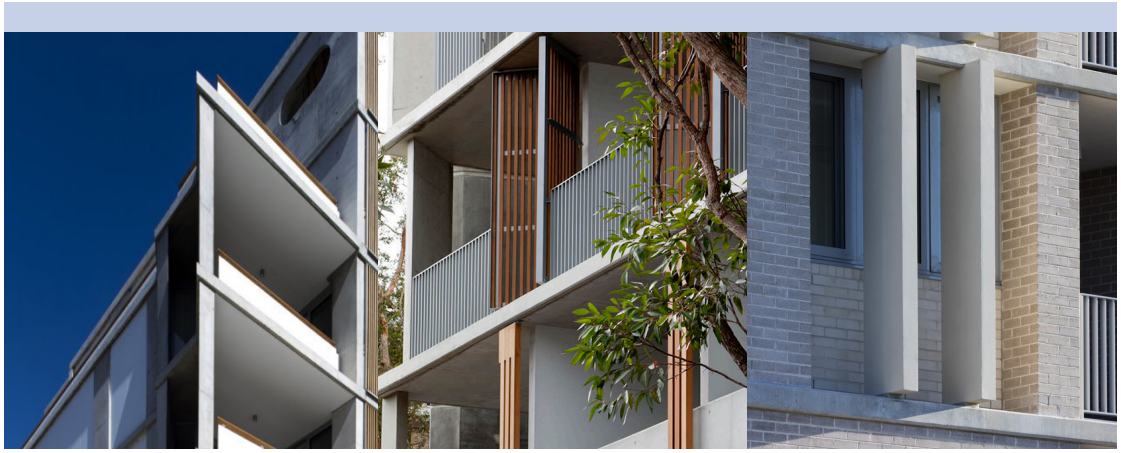


Figure 71: Upper Level Materials & Finishes

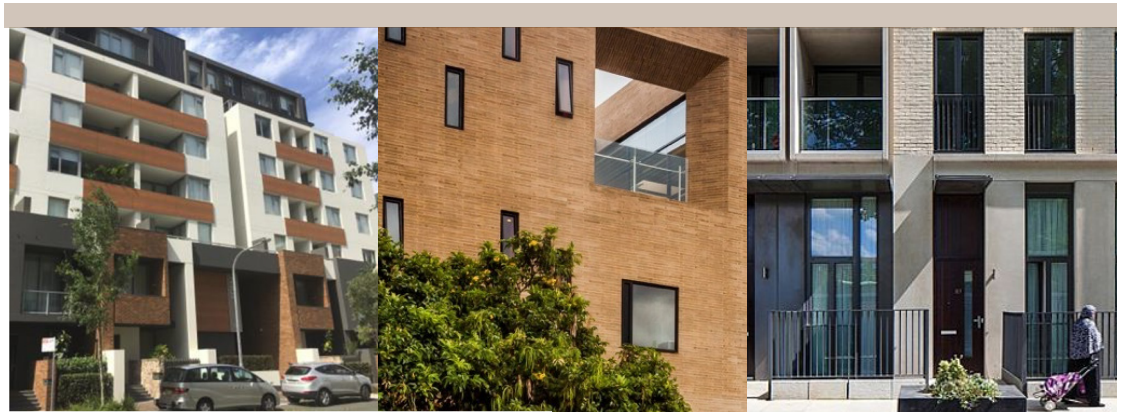
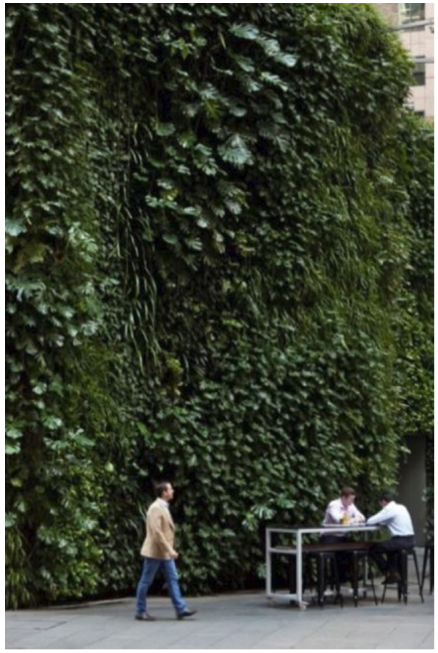
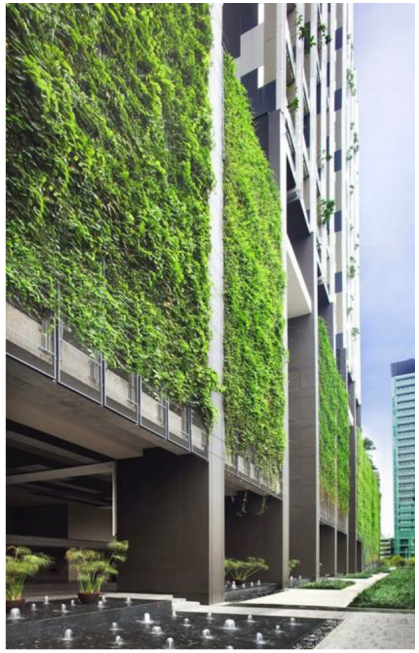


Figure 72: Ground Podium Level Materials & Finishes



Potential green building elements. Source: THSC DCP





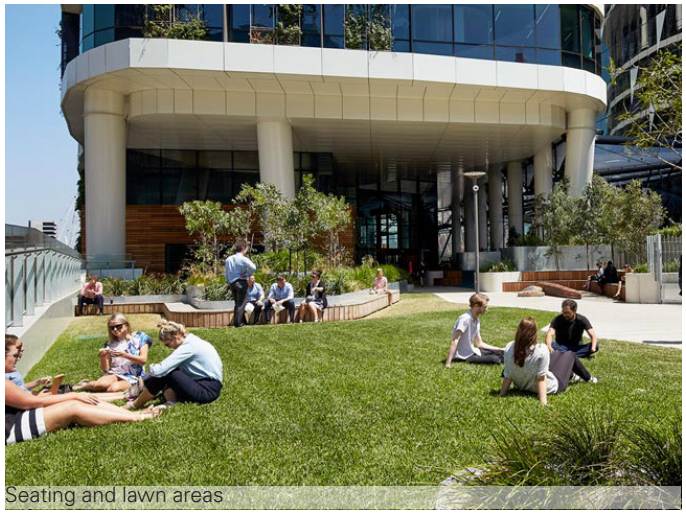


## Open Space and Landscape Character

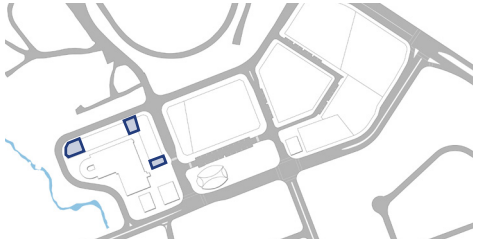
The open space and landscape character of Precinct West will celebrate the Garden Shire context of the Precinct, and the significant recreational spaces surrounding the Precinct, such as Cattai Creek and the Castle Hill Showground. The outlook over these open spaces and beyond will make a significant contribution to the amenity of this Precinct's residents, and the characteristics of the vegetation of the Corridor will be reflected in the design of the Precinct's landscape elements.

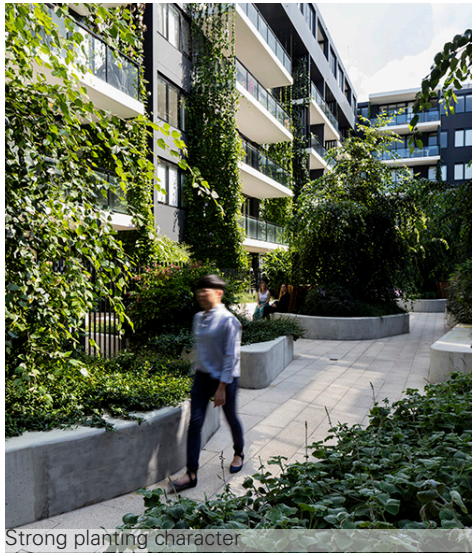
Communal open spaces will include a range of uses including seating, picnic facilities, play spaces, productive urban gardens, BBQ areas, gazebos and lawn areas amongst generous planting.

These spaces are to comprise of green, leafy passive areas and be planted with natives and orchard species that celebrate the heritage and existing characteristics of the area - supplemented with exotic plants for colour and variation, and edible species as part of vegetable or herb gardens. Species will also contribute to sustainable design targets for the Precinct.


Seating and lawn areas


Seating and picnic facilities


Figure 73: Communal Open Space areas


Strong planting character


Vegetable gardens

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# 08

# CONCEPT MASTERPLAN

The concept masterplan has been developed in line with the project vision, and objectives, the urban design principles and framework, and the urban design guidelines.

# Concept Masterplan

## Overview

The CMP seeks to achieve outstanding outcomes for the Hills Showground Station Precinct in the areas of placemaking, open space and public domain, pedestrian amenity, and resident amenity as outlined below:

### Placemaking

- The CMP has identified a geographical, economical and social heart for the Site
- The primary civic space is located on Doran Drive Plaza as the element that stitches together the Hills Showground Station and the multi-modal transport interchange, primary retail spaces and the Castle Hill Showground. It is intended to vibrant and active space all-day and the active heart of Showground
- Doran Drive Plaza is geographically centred within the broader station catchment to enable the greatest passive activation of the space via people walking to and from the station, the regional recreation and cultural attractions within Castle Hill Showground, the retail within Doran Drive Precinct and the employment lands within the Castle Hill Trading Zone
- The CMP also ensures that arrival to/ from the Precinct is within a publicly accessible, open space.

### Open Space and Public Domain

- The CMP provides significant new areas of publically accessible open space. The open space network is configured to facilitate a range of functions for the various users
- The CMP ensures that no resident is more than a 100m walk from open space within the development lots and adjoining open spaces
- The majority of existing trees (post-demolition of the old Council building) and street trees, that define the character of the The Hills Shire Council - Sydney's Garden Shire - have been retained in publicly accessible open spaces or parks, tree reserves and communal open spaces, widened street setbacks or internal courtyards to ensure that the landscape legacy of the broader Hills Showground Station Precinct continues and that from the first day of opening, the residents and visitors have a lush and verdant landscape to recreate within.

### Pedestrian amenity

- The vast majority of trips to, through and within the Site will be taken on foot and the experience of the pedestrian is a critical consideration in the development of the CMP
- Within the network of streets, a finer grain of mid-block connections has been proposed to ensure permeability and activity within all blocks of the Hills Showground Station Precinct
- Street wall heights and primary setbacks defined in the Guidelines are adhered to by the CMP to ensure the scale of buildings is an appropriate experience for pedestrians at the street level
- Upper level, secondary setbacks to towers provide a sense of space and openness to the sky and the podiums shield pedestrians from down-drafts
- Footpaths throughout the Site are a minimum of 2m to ensure capacity to cater for a high number of walking trips and all major circulation spaces will be provided with shelter from the weather.

### Resident amenity

- The CMP has carefully considered how to balance amenity, solar access and built form definition of the public domain with high levels of resident amenity. This has been achieved through:
  - alignment with the Urban Design Guidelines in defining the public realm with appropriate built form to a maximum 4-storey street wall
  - activating public open spaces with non-residential uses and access to private residences via courtyards that open on to the Precinct East Park and public domain
  - locating residential towers so that solar access, natural ventilation and building separation can exceed ADG requirements
  - orientating and articulating buildings so that views from the Site are shared across the Garden Shire.




Figure 63: View towards the Hills Showground Station Precinct demonstrating the modulated skyline as a result of the Guidelines and CMP



Figure 64: View from the new street across the Precinct East Park to Showground Road




Figure 65: Hills Showground Station Precinct Concept Master Plan

## Ground Floor and First Floor Uses

The CMP achieves the desired mixture of uses within the ground floor of each of the development lots to deliver a complementary and vibrant precinct day and night, weekday and weekend, winter and summer.

Precinct West provides an active ground floor use to address the transport interchange and Doran Drive Plaza. Access to lobbies for the towers above is also located off Doran Drive to provide further pedestrian activation of the space. A variety of residential typologies are located on the ground floor and first floor (shown) of the western building that includes Small Office/ Home Office properties that address De Clambe Drive.

Doran Drive Precinct includes a variety Fine grain retail sleeves a larger retail tenancy/ supermarket. Additional retail/commercial provides an active interface to De Clambe Drive and Mandala Parade and reflects the intentions of the Castle Hill Showground masterplan to provide for an eat-street with food and beverage offerings on the northern and southern side of De Clambe Drive. Pedestrian entries to foyers for commercial and community uses in the podium and residential dwellings in the towers above are from De Clambe Drive and Mandala Parade. Carpark access is off De Clambe Drive and Andalusian Way.

Precinct East is comprised of garden apartments that are accessed via courtyards from the public domain. Residential tower foyers are located adjoining the new street and Precinct East Park.




Figure 66: Hills Showground Station Precinct CMP Indicative Ground/First Floor Plan

## Hierarchy and Function of Open Space

The open space strategy aims to create a well connected, high quality, diverse, multifunctional and flexible network of public open space. The open space responds strongly to the built form typology, land uses, local context and connections.

The aim is to promote a high level of activation of the public domain and built form edges. Different activities have been located so as to separate incompatible uses and collocate complementary uses to maximise the potential for synergies.

The open space has been considered as a holistic network across both the Hills Showground Station Precinct and the Castle Hill Showground. A diverse range of recreational activities, both active and passive, are provided for across the precinct.

The private communal open space will complement the public open space in terms of the activities and facilities provided.

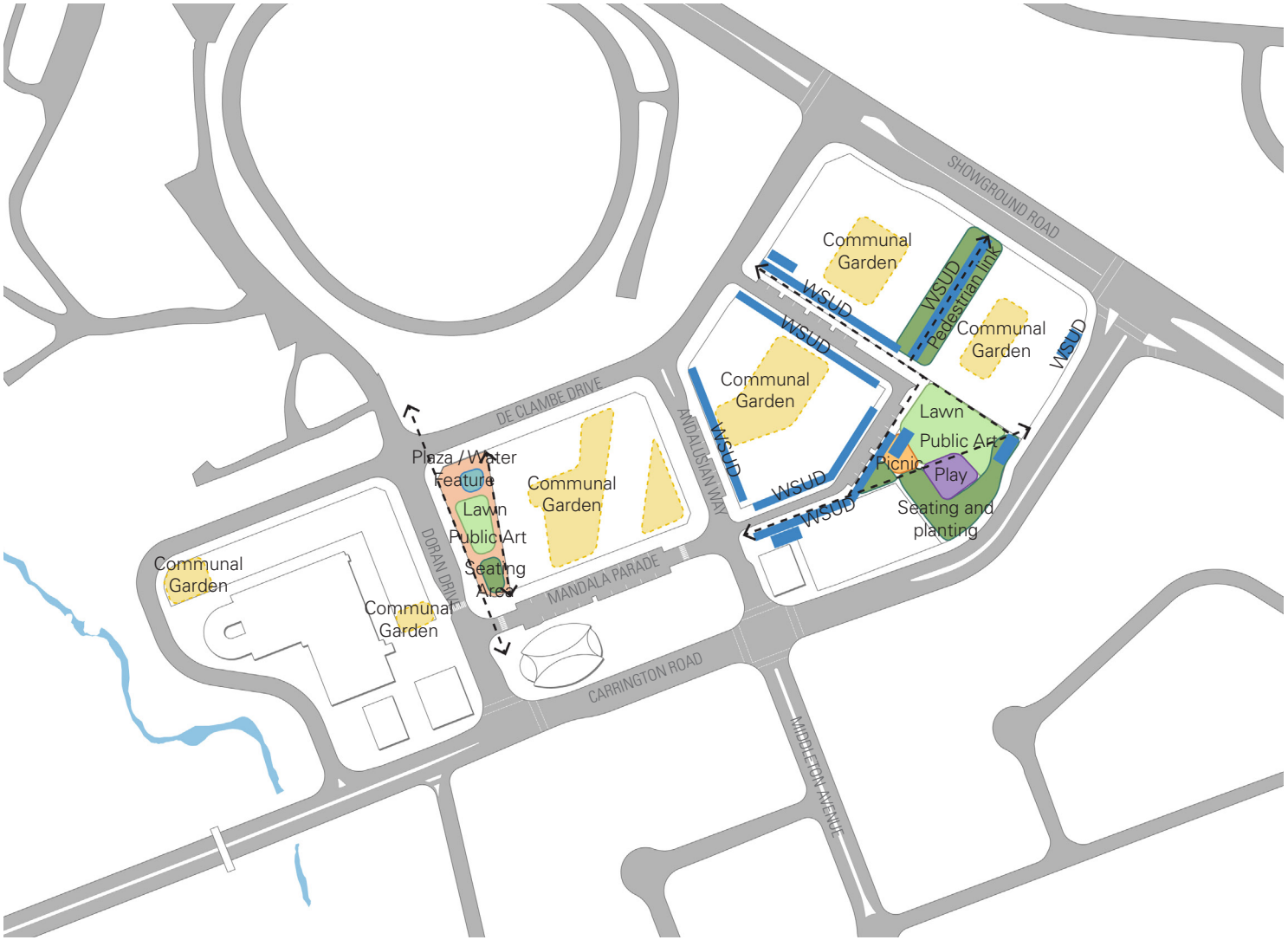



Figure 67: Hills Showground Station Precinct Hierarchy of Open Space

--- Key pedestrian links through open space

## Doran Drive Plaza

Doran Drive Plaza forms a key piece of open space between Showground Station and Castle Hill Showground. The plaza space at a minimum of 1,400m$^2$ is bounded by Doran Drive to the west, De Clambe Drive to the north, Mandala Parade to the south and built form to the east.

Doran Drive Plaza is intended to be a high quality, flexible urban open space that functions both as a permeable connection between the station, buses, retail and the Castle Hill Showground, as well as providing an activated and comfortable space for people to use and inhabit day to day.

Doran Drive Plaza is intended to include the key elements demonstrated in the adjacent plan such as:

- Central open lawn area to cater for informal recreation and small events
- Active retail edge to the east with opportunities for outdoor dining
- Shade trees and low level planting
- Water feature / play element
- Public seating
- Lighting
- Paved circulation spaces including a wide footpath adjacent Doran Drive and a pedestrian connection along the eastern edge. Grade changes to be made up at the edges of the Site to provide minimal grading across the majority of Doran Drive Plaza
- Opportunities for public art and interpretation.

Plaza / water play



Central lawn



Bus Stop

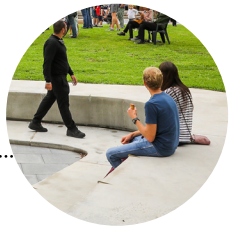
Generous footpaths



Pedestrian crossing to station



Terraced seating steps



Retail and outdoor dining



Seating Grove

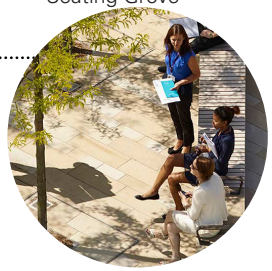


Figure 68: Doran Drive Plaza Concept Plan
The detailed design of Doran Drive Plaza will be subject to consultation with the determining authority at detailed DA stage, along with The Hills Shire Council to ensure coordination with the Showground master plan.




Doran Drive Plaza looking south towards the Hills Showground Station

## Precinct East Park

The Precinct East Park provides a minimum 3,500m$^2$ local open space for the new residential catchment. The park will be highly visible with frontages to Carrington Road and the new Precinct East street.

Existing trees and new trees and planting will provide a green and family friendly setting.

The park will include:

- Shaded seating and picnic tables
- Open lawn
- Children's play space
- Shade trees and low level planting
- Lighting
- Pedestrian pathways
- Bike parking
- Opportunities for public art and interpretation.




Figure 69: Precinct East Park concept plan



Precinct East Park looking north towards the Castle Hill Showground

## Building Heights and Separation within the Envelopes

The CMP's proposed heights sit comfortably within the building envelopes prescribed by the Urban Design Guidelines. The CMP proposals show even greater modulation within these envelopes for additional height and form diversity.



Figure 70: Heights within the building envelopes

## CMP Building Heights

The proposed building heights within the CMP have been developed in line with the vision, guidelines and controls of the Urban Design Guidelines.

The height strategy identified appropriate locations for towers adjacent the areas of highest amenity and activity, and areas where transition to sensitive uses may be required.

The resulting layout is one with a cohesion and continuity of street wall heights, and a variety of taller residential elements above the podium.




Figure 71: Building Heights plan (Storeys)

## Solar Access

The CMP building heights have also considered the minimum solar access provisions to key public open spaces to determine the optimal location for lower scale buildings and a transition in built form.

This has been achieved through both the orientation of buildings and the tempering of heights to the north of public open space, particularly within Precinct East.

The diagram adjacent identifies the solar access that the CMP achieves in terms of proportions of the public open space and publicly accessible open space that achieve a minimum of 2 hours direct sunlight between 9am and 3pm on 21st June (mid winter).

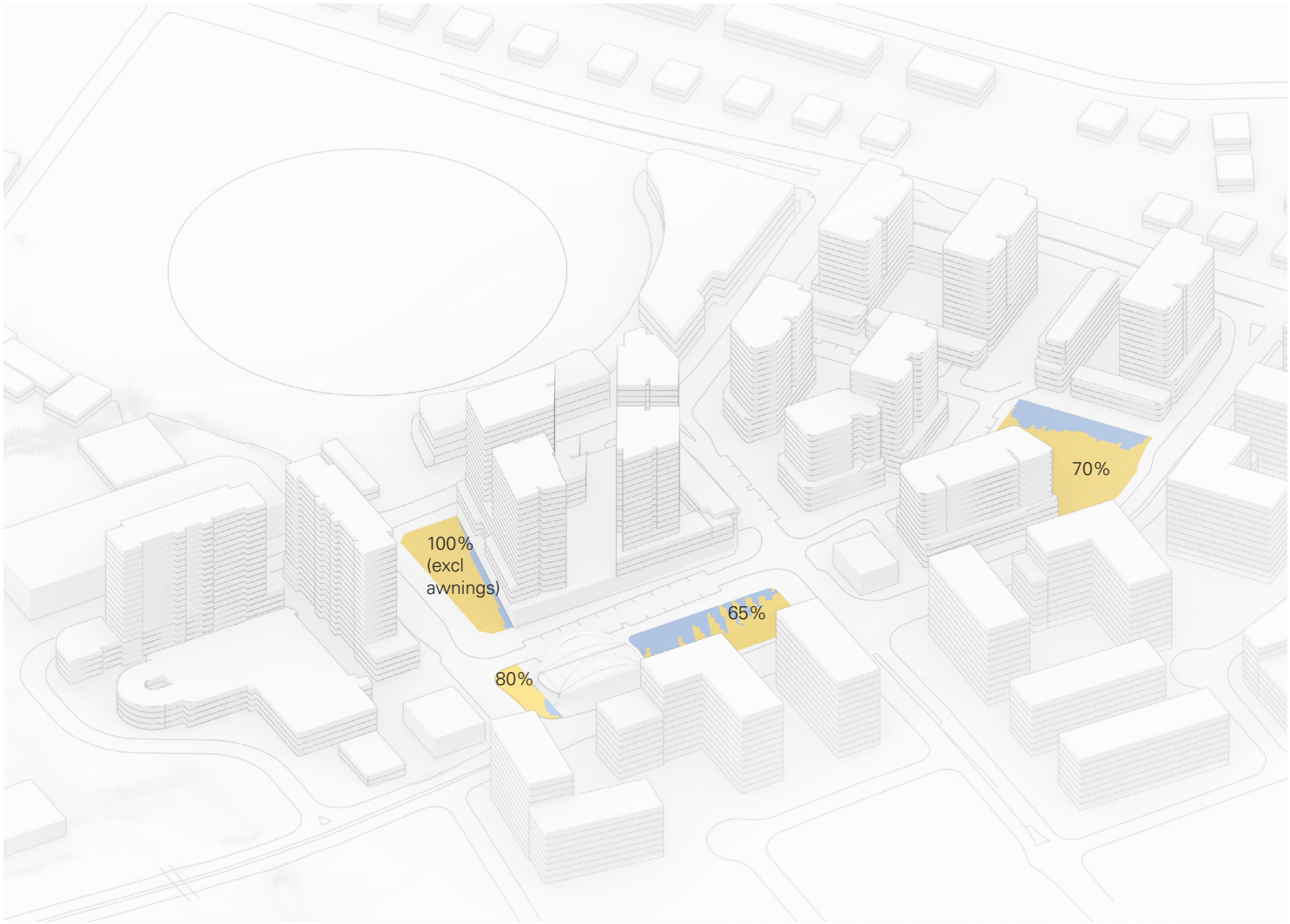



Figure 72: Solar access

## Building Separation

The CMP achieves building separation that in all instances achieves or exceeds ADG requirements. Measures such as terraced building forms and the location and orientation of habitable rooms above the podium further contribute to achieving compliance.

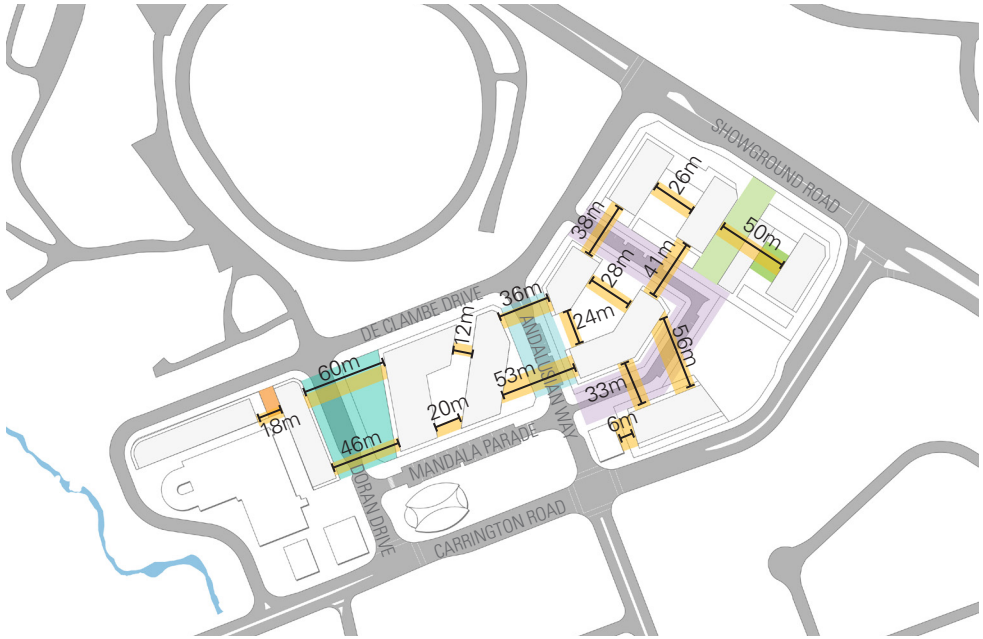



Figure 73: Building tower separation

Minimum 41m
Minimum 30m
Minimum 27m
Tower distances
Minimum 27m
Minimum 18m
Minimum 10m

## Building Entrances

The CMP has identified building entries that seek to:

- Separate residential entries from retail, commercial and community
- Prioritise pedestrian entries over vehicular access
- Activate the public domain through locating lower level garden apartment and SoHo entries directly off public open space or streets.




Figure 74: Building entrances

Lobby Entry
Garden Apartment / Townhouse Entries
Ground Floor Retail / Commercial / SoHo Entries

## Safety in Design/CPTED Assessment Summary

Considered urban design must address community safety as part of a holistic approach. Community crime prevention incorporates social, environmental and community development strategies.

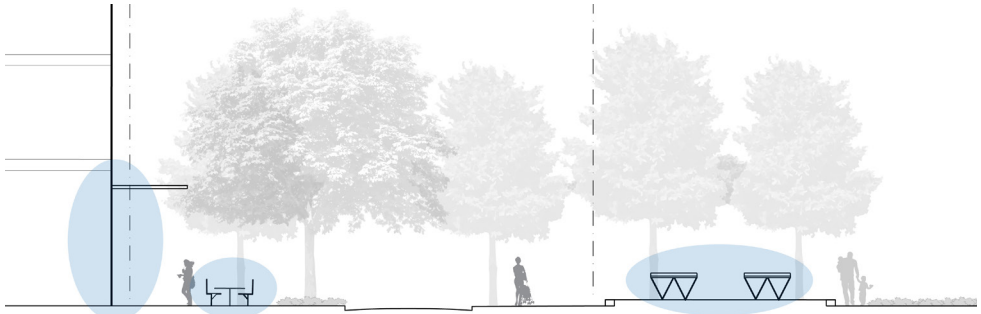
Crime Prevention Through Environmental Design (CPTED) seeks to influence the design of buildings and places by:

- Reducing opportunities for crime or antisocial behaviour by increasing the possibility of detection, challenge and capture, therefore risk of perpetrators;
- Increasing the effort required to commit crime by increasing the time, energy or resources which need to be expended;
- Reducing the potential rewards of crime by minimising, removing or concealing 'crime benefits or targets; and
- Defining acceptable public community behaviour.

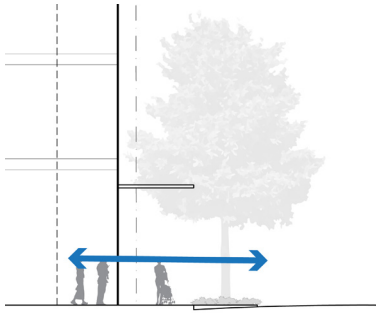
CPTED is based on four design concepts. They are:

- Surveillance
- Access control
- Territorial reinforcement
- Space management/maintenance.

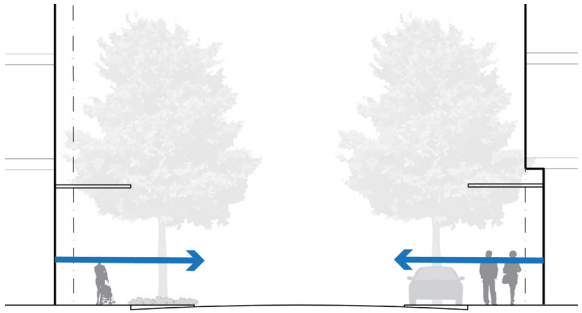
The aim of applying the CPTED principles and framework is to design and build safer, more productive and user-friendly environments. These principles have been embedded in the Hills Showground Station Precinct Concept Masterplan.



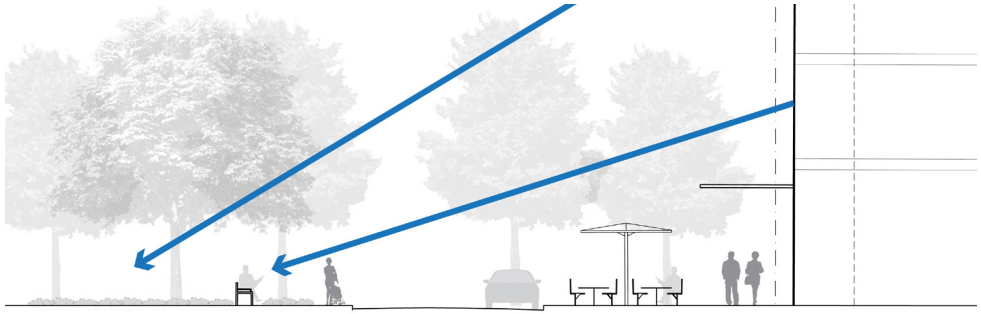
Active street frontages, streetscapes and open space with activities to encourage surveillance.



Active Frontages provide street level activation for ongoing passive surveillance

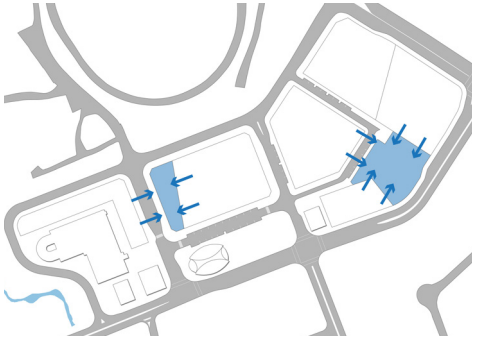


Low lying planting to public space for visual amenity and continuous sight lines

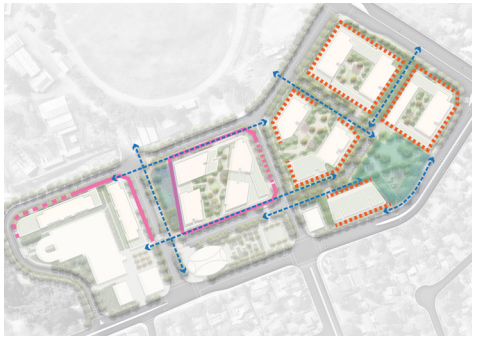


Public open space is overlooked from above, providing ongoing passive surveillance

Figure 75: CPTED Principles



Reducing opportunity for crime or antisocial behaviour through siting and location of actives/ gathering spaces in prominent areas



Visual links maintain clear sight lines across the urban landscapes and sense of connection and safety

## Area & Parking Schedule

The diagram and table below document the anticipated areas and quantums of car parking required within the Concept Master Plan aligned with the associated assumptions of apartment mixes and the provision of affordable housing. The affordable housing component is an indicative mix split and final location and configuration to be resolved at detailed DA stage.

The parking quantums in the table below and within Chapter 9 - Proof of Concept represents just one option of how the development of the Precinct may occur.

Please refer to the Traffic and Transport Report submitted as part of this SSDA for further information and Sections 3.2.13, 4.2.12 and 5.2.16 of the Urban Design Guidelines.

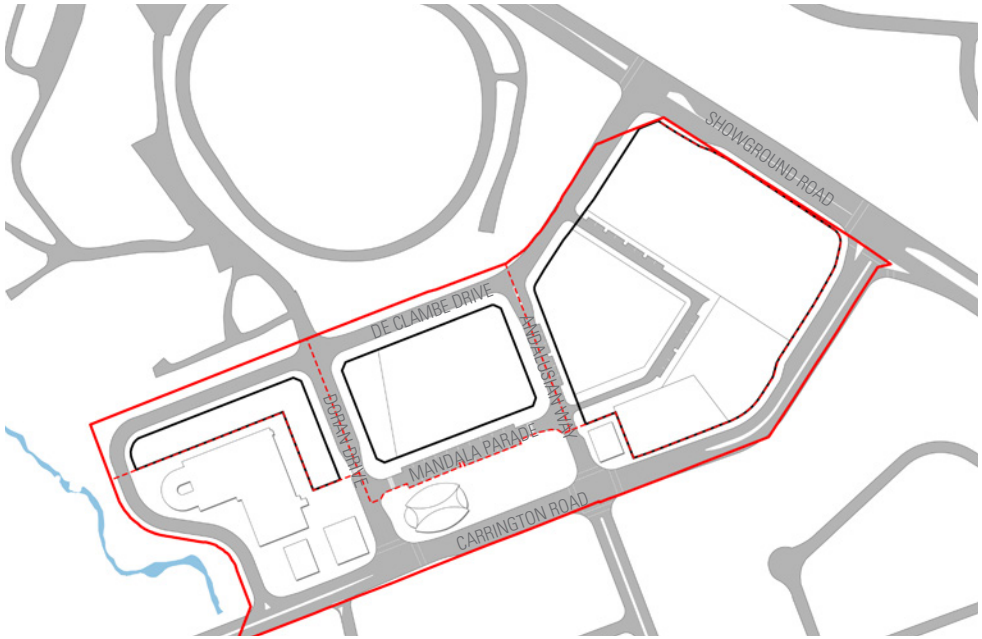



Figure 76: Plan with boundaries

Site — Development Lot -- FSR Boundary

| HILLS SHOWGROUND STATION PRECINCT | |
|---|---|
| GBA ($m^2$) | 207,178$m^2$ |
| GFA ($m^2$) | 166,486$m^2$ |
| FSR *calculated on FSR Boundary | 3.0:1 |

| RESIDENTIAL | |
|---|---|
| GBA ($m^2$) | 190,778$m^2$ |
| GFA ($m^2$) | 152,546$m^2$ |
| Market Housing | 1,539 dwellings |
| Affordable Housing | 81 dwellings |
| Total Minimum Resident includes Affordable Housing & Visitor Parking | 1,254* spaces |
| Total Maximum Resident includes Affordable Housing & Visitor Parking* | 1,743* spaces |

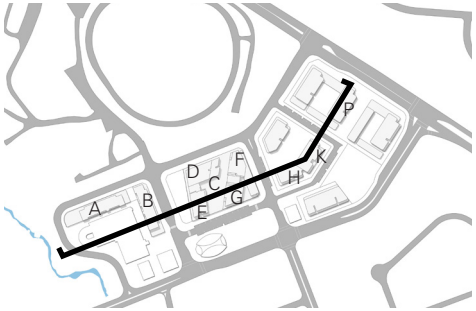
*numbers have been rounded to whole numbers at a development lot level within the Proof of Concept

| NON-RESIDENTIAL | |
|---|---|
| GBA ($m^2$) | 16,400$m^2$ |
| GFA ($m^2$) | 13,940$m^2$ |
| Total Minimum Parking | 104 spaces |
| Total Maximum Parking | 203 spaces |

| TOTAL PARKING | |
|---|---|
| Shared Vehicles Spaces | 10-14 spaces |
| Offsetting of Normal Parking Spaces | *minus 30-42 spaces* |
| Total Minimum Parking | 1,338 spaces |
| Total Maximum Parking | 1,918 spaces |

## Site Section

The sections in the following pages show the modulation and articulation of the skyline of Showground as it reinforces the station and heart of the precinct on Doran Drive Plaza, defines streets with appropriate street wall heights, provides upper level setbacks to towers, steps down across the Site in response to topography, and transitions to heritage items and the creek corridor.



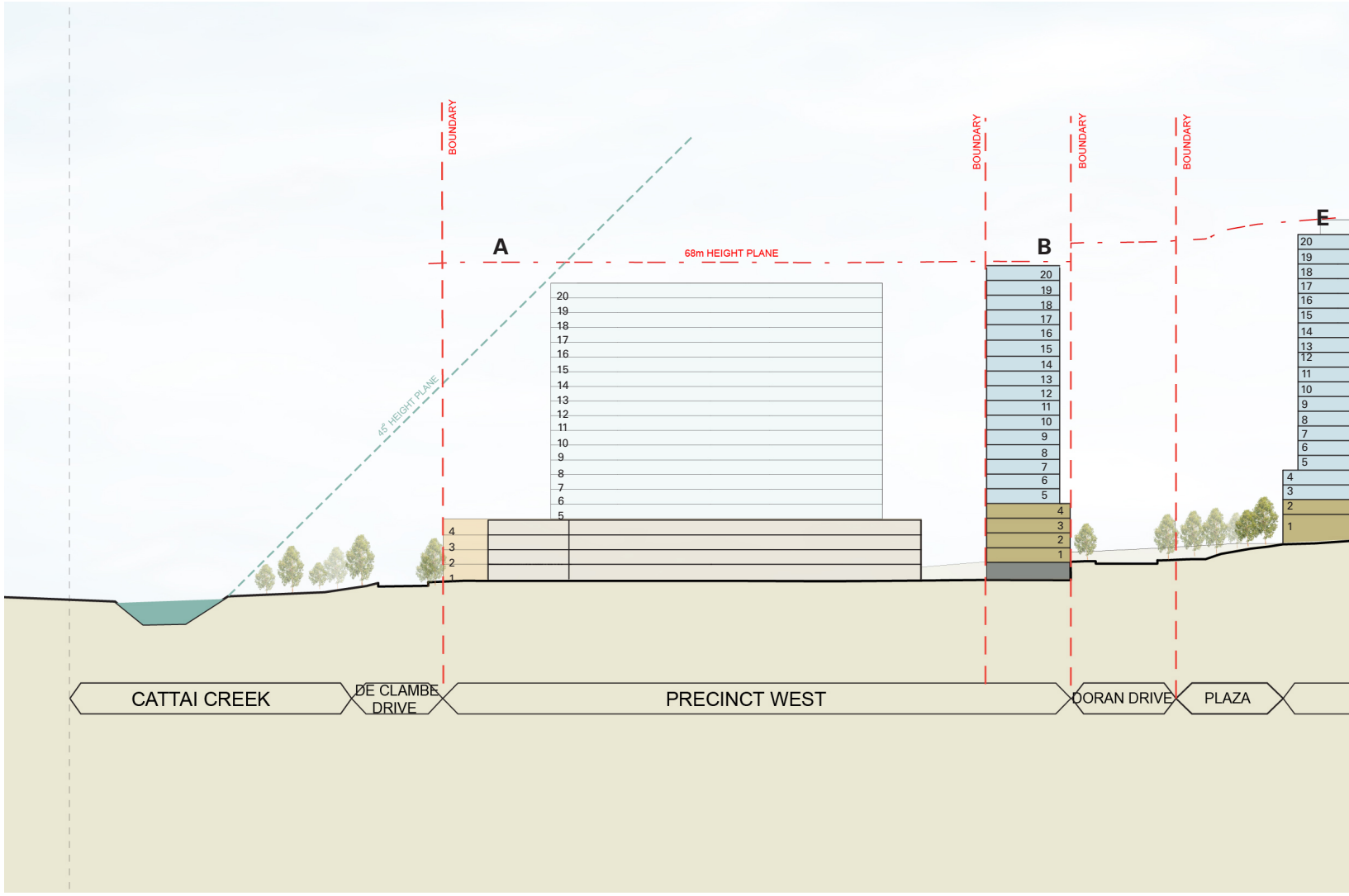
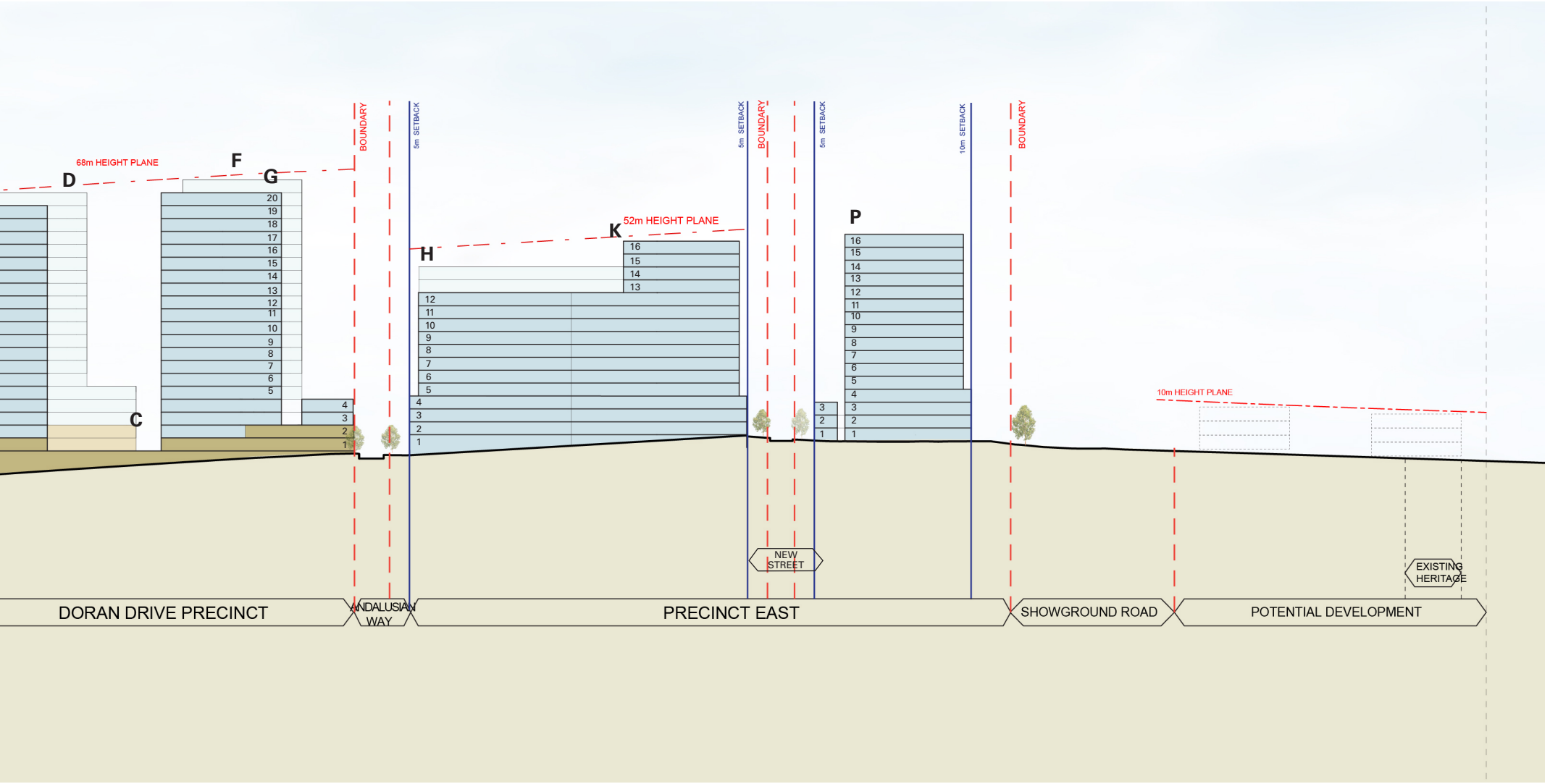
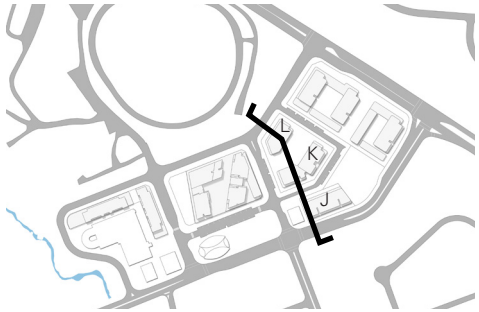




Figure 77: Site Section 01


68m HEIGHT PLANE
D
F
G
C
H
K
52m HEIGHT PLANE
P
10m HEIGHT PLANE
BOUNDARY
5m SETBACK
BOUNDARY
5m SETBACK
10m SETBACK
BOUNDARY
NEW STREET
EXISTING HERITAGE
DORAN DRIVE PRECINCT
ANDALUSIAN WAY
PRECINCT EAST
SHOWGROUND ROAD
POTENTIAL DEVELOPMENT



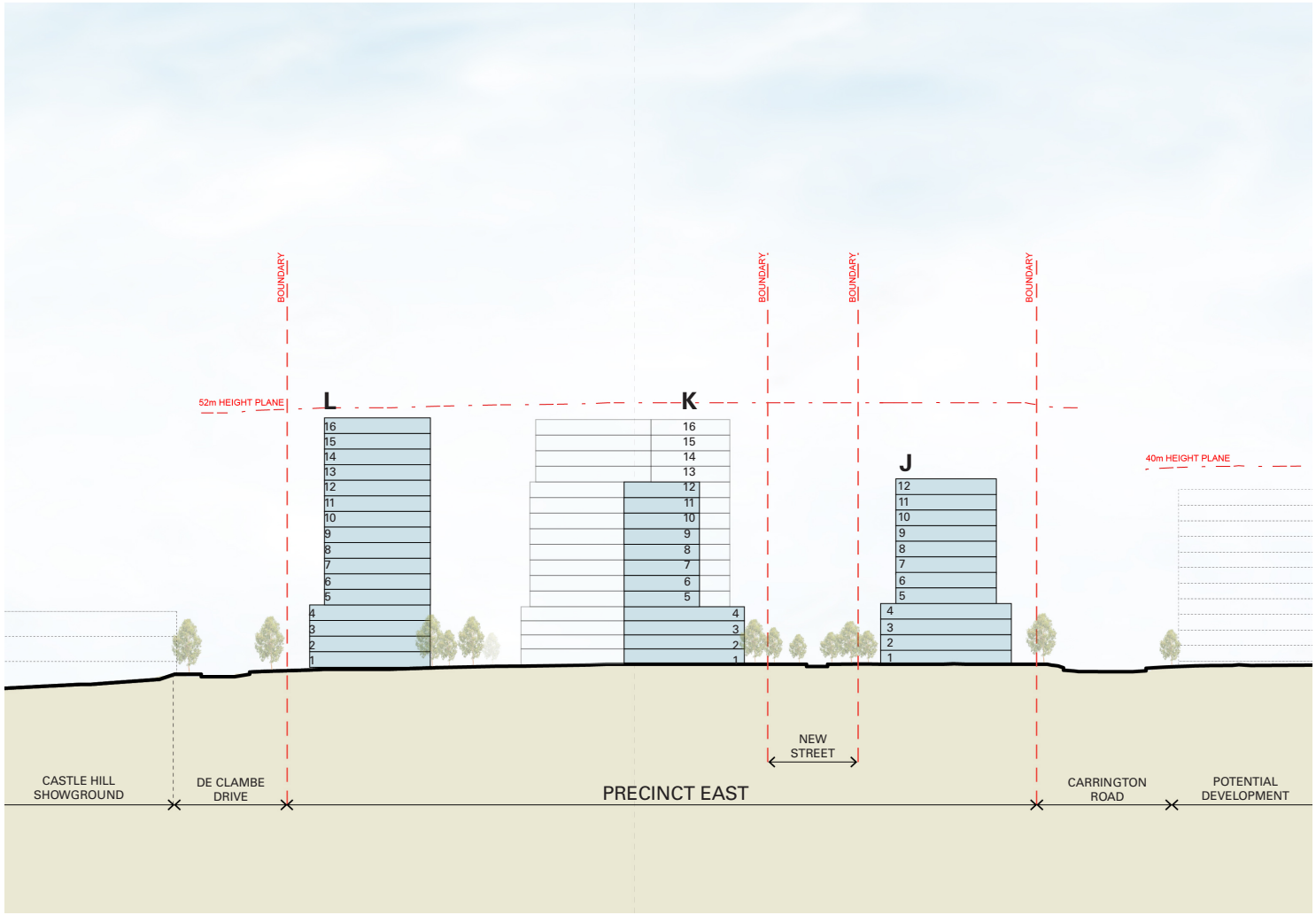




Figure 78: Site Section 02

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# 08

# PROOF OF CONCEPT

This chapter includes typical floor plans, sections, yield tables and ADG assessment to demonstrate that the CMP can achieve the vision and design principles of the Urban Design Framework and conform to the objectives and controls of the Urban Design Guidelines

# Proof of Concept

The Proof of Concept demonstrates one way in which built form can be configured and designed to meet the intent and aspiration outlined in this Report.

The following pages contain detailed information for each sub precinct (Precinct West, Doran Drive Precinct and Precinct East) that demonstrates the CMP can conform with the planning controls set out in the SSDA, the objectives and controls in the Urban Design Guidelines and the requirements of the Apartment Design Guide. This includes:

- Typical floor plans for lower and upper levels
- Building entrance plans
- Mix of apartments by typology
- The affordable housing component is an indicative mix split and final location and configuration to be resolved at detailed DA stage.
- ADG assessment for solar access and cross ventilation
- Area, yield and parking schedule
- Site section.

The Apartment Design Guide and Urban Design Guidelines will continue to assist the developers and designers of the individual spaces and buildings to progress the finer grain detail required for key elements such as articulation, materiality, landscape design and the like. This will ensure the continued commitment to character, place and design excellence.

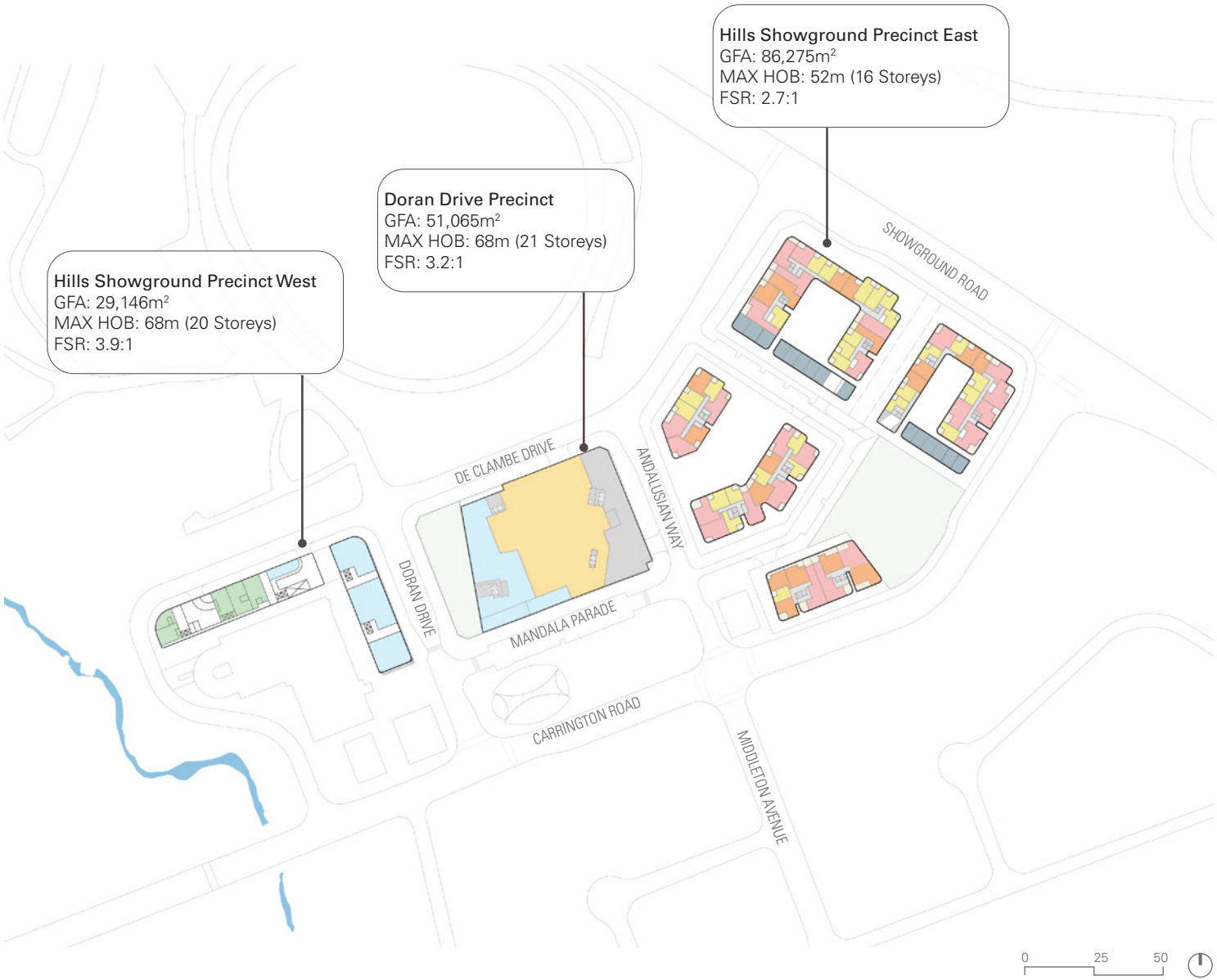



Figure 79: Hills Showground Station Precinct CMP Indicative Ground Floor Plan

## Precinct West

Typical Ground Floor West / Basement East

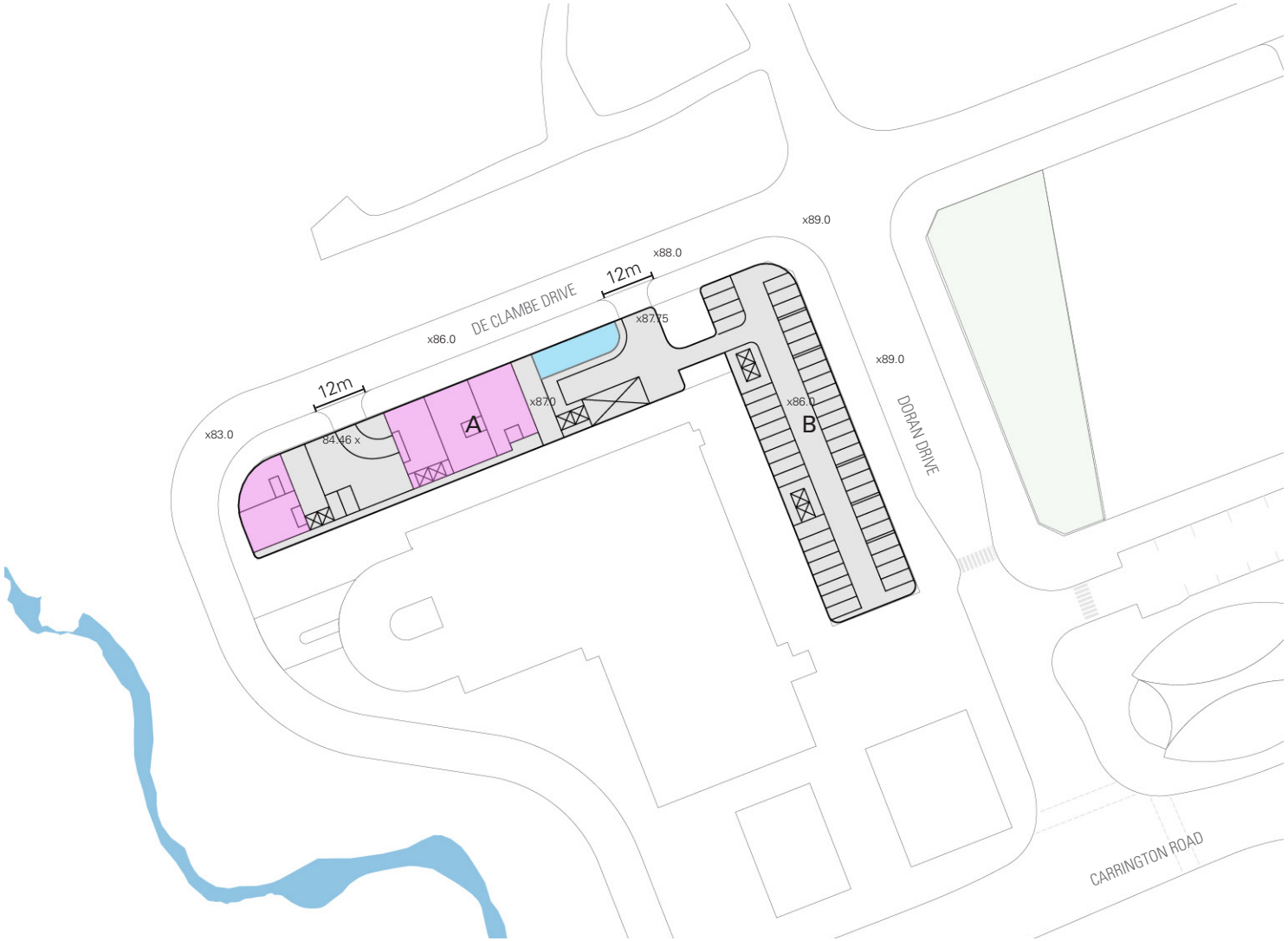
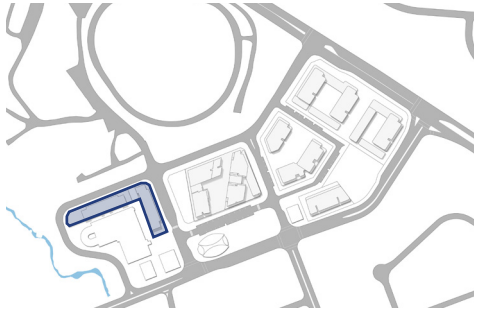



Figure 80: Precinct West Ground Floor West/Basement East - Uses

Commercial (SoHo) Retail/Commercial

## Precinct West Concept Plan
## Typical Level 1 West /
## Ground Floor East



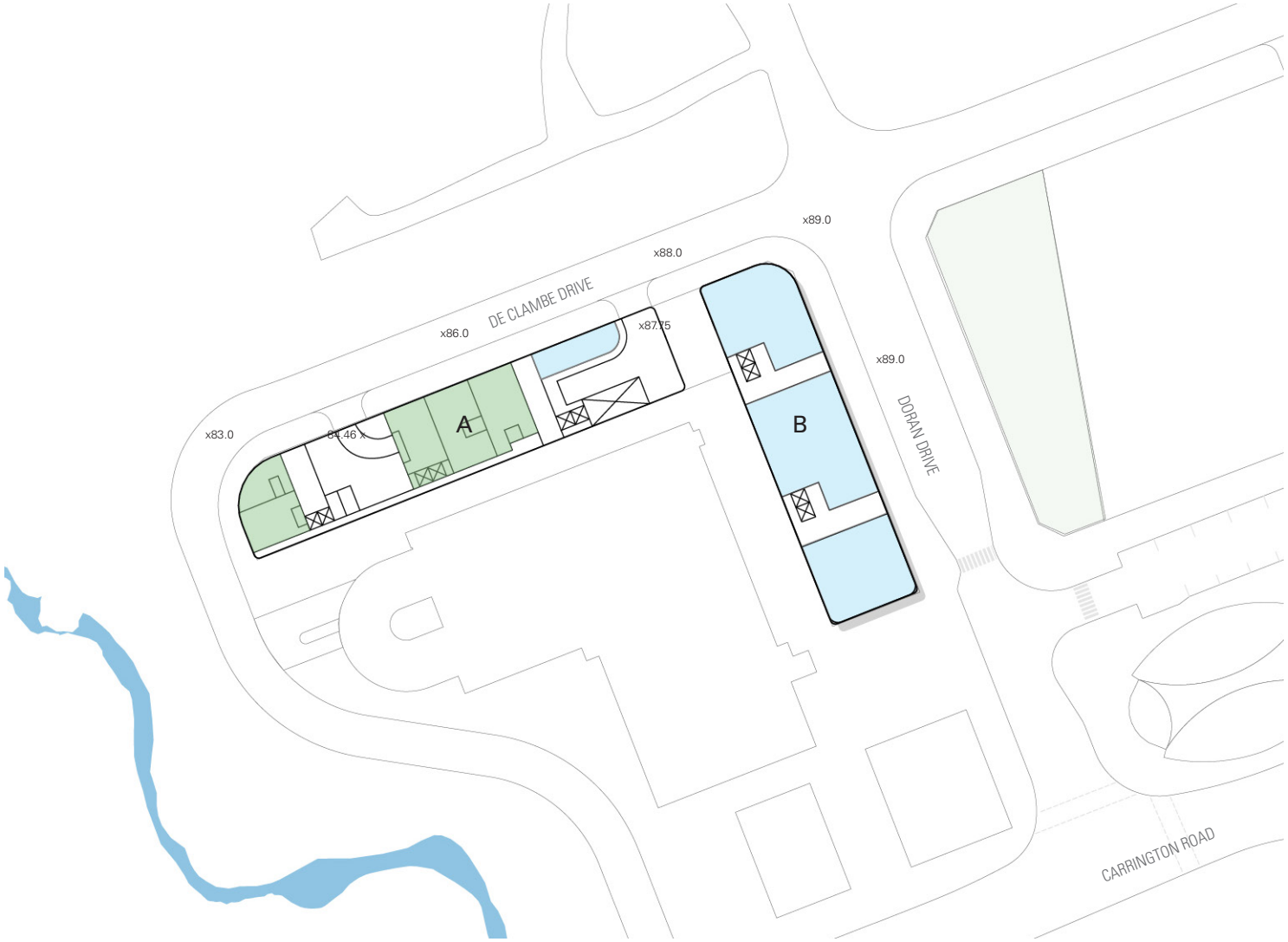
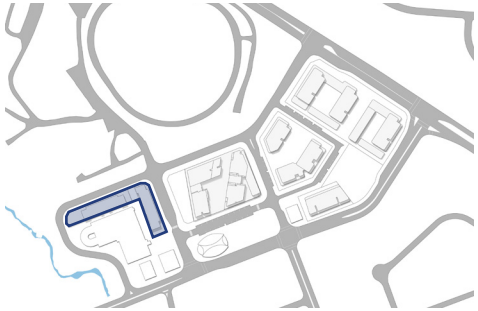



Figure 81: Precinct West Level 1 West / Ground East Uses

SoHo
Building entries/carparks/circulation
Retail

Precinct West Concept Plan
Typical Level 2 West / Level 1 East



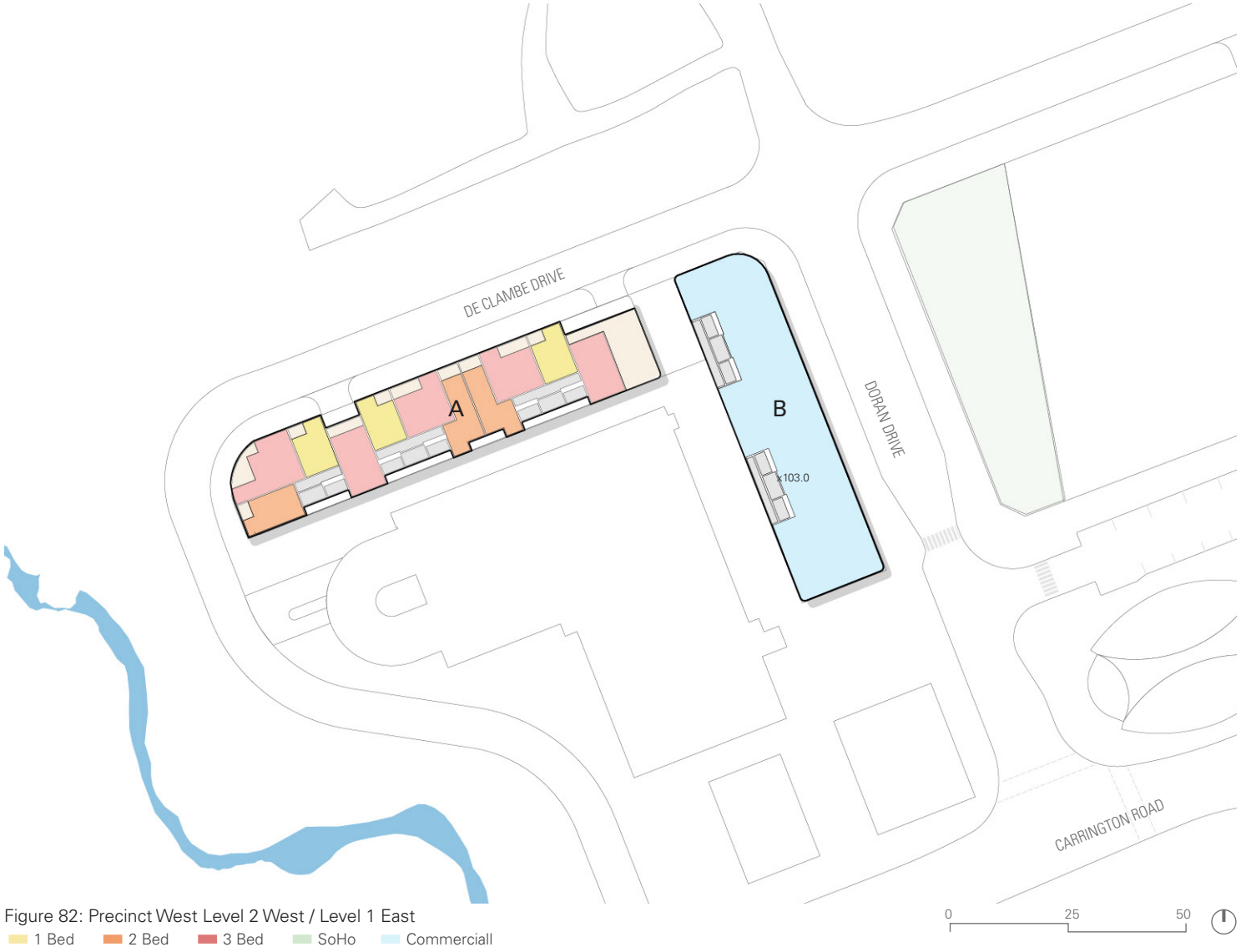



Figure 82: Precinct West Level 2 West / Level 1 East



Figure 83: Precinct West Typical Level 01 - Solar Analysis
> 2 Hours Sunlight

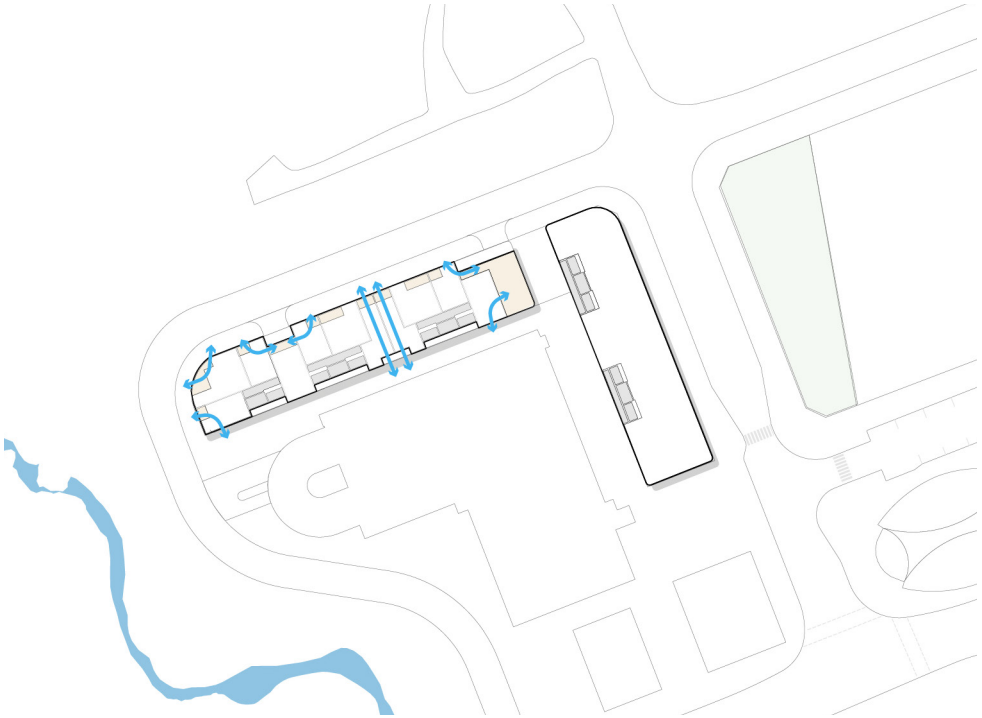


Figure 84: Precinct West Typical Level 01 - Ventilation Analysis
Cross Ventilation




Figure 85: Precinct West Typical Podium Levels

1 Bed 2 Bed 3 Bed



Figure 86: Precinct West Typical Level 02 - Solar Analysis
> 2 Hours Sunlight

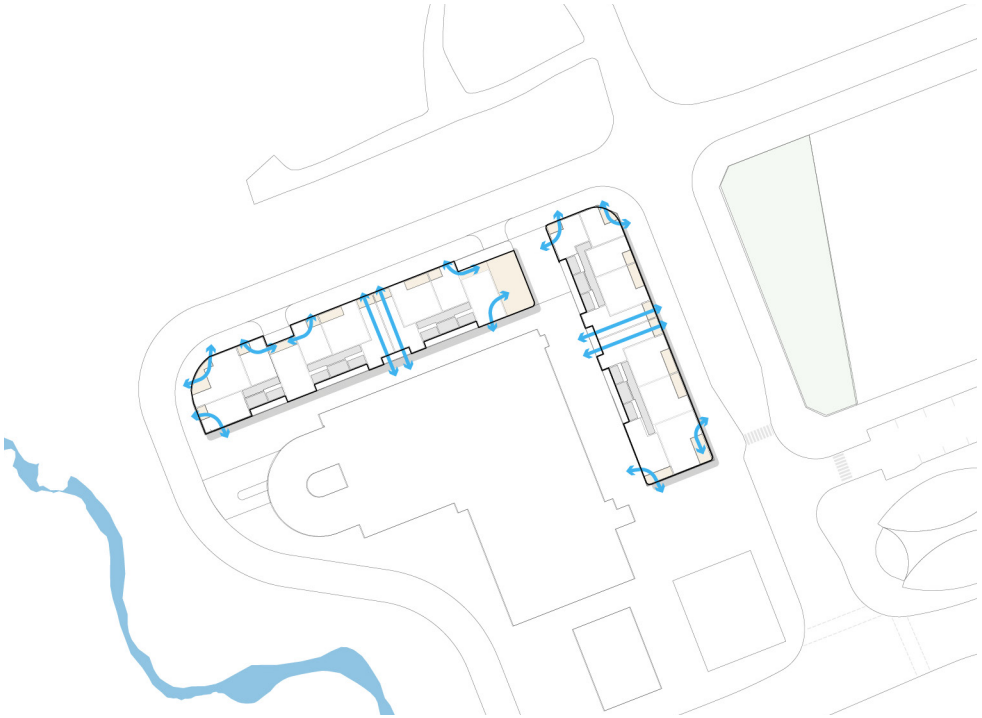


Figure 87: Precinct West Typical Level 02 - Ventilation Analysis
Cross Ventilation




Figure 88: Precinct West Typical Tower - Uses and Apartment Mix

1 Bed 2 Bed 3 Bed

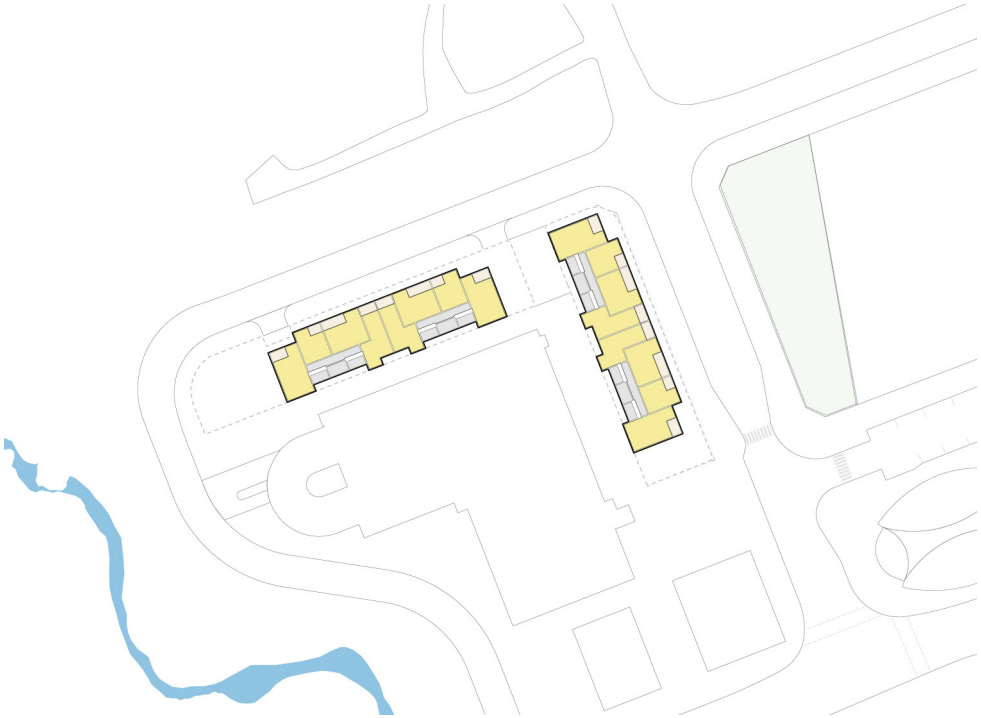


Figure 89: Precinct West Typical Tower - Solar Analysis
> 2 Hours Sunlight

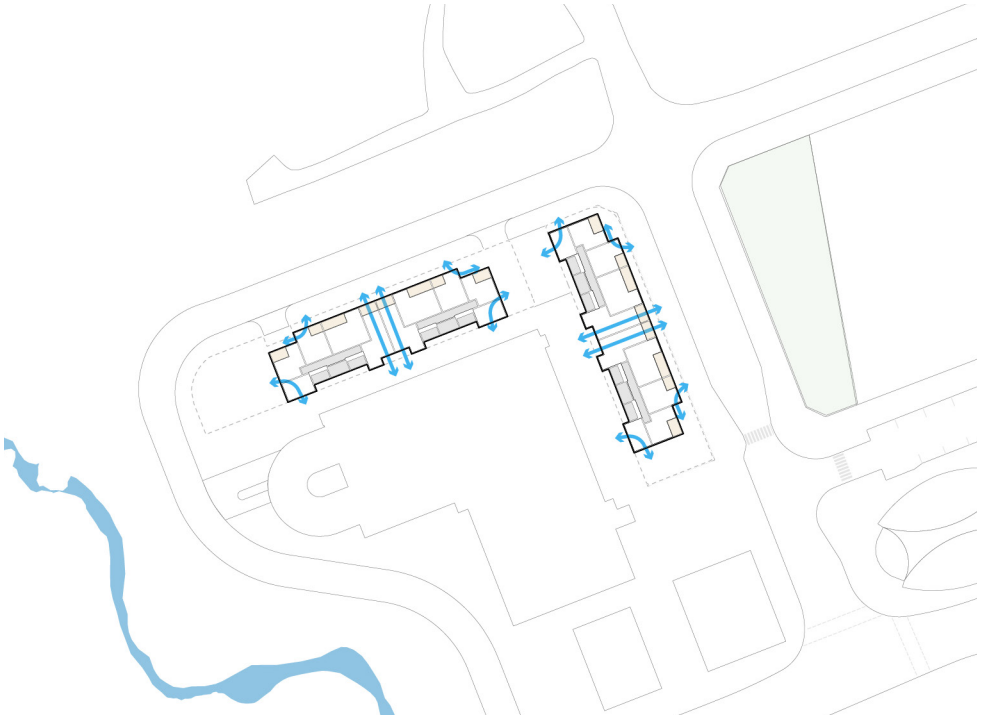


Figure 90: Precinct West Typical Tower - Ventilation Analysis
Cross Ventilation




Figure 91: Precinct West Typical Ground Floor - Entries

Non-Residential Entry  Residential Entry  SoHo Entry  Parking Entry




Figure 92: Precinct West Typical Upper Ground Floor - Entries

## ADG Calculations

### Building A

Solar: 158/161 - 98%

Cross Ventilation: 54/71 - 76%

### Building B

Solar: 142/146 - 97%

Cross Ventilation: 37/54 - 69%

### Precinct Totals

Solar: 300/307 - 98%

Cross Ventilation: 91/125 - 73%

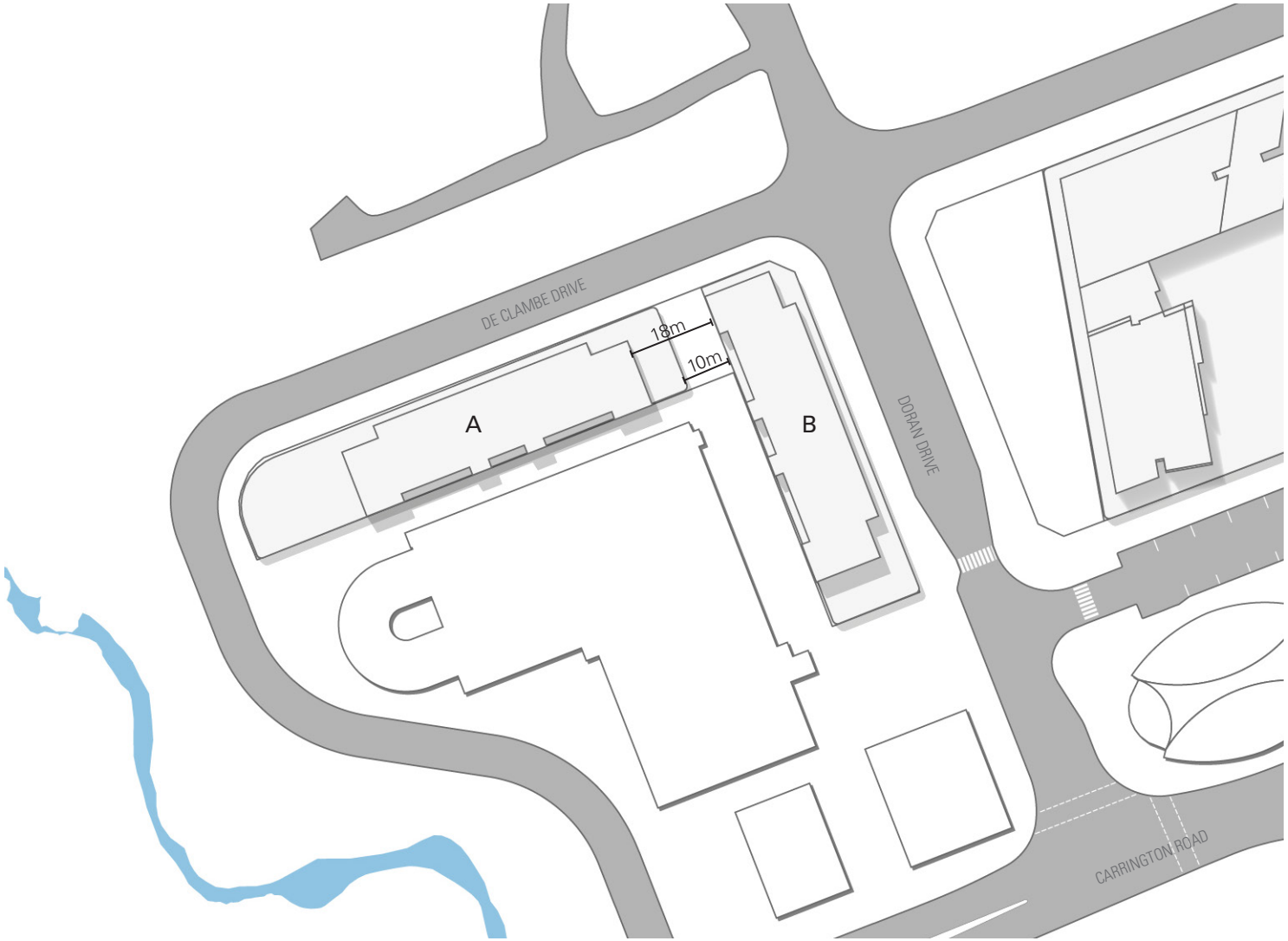



Figure 93: Precinct West Built Form Separation

| Description | Level | Uses | GBA (m²) | GFA (m²) | Apartments (@85m²/apt) | Min. Carpark Requirements | Max. Carpark Requirements | Total GFA (m²) Resi+ Non-Resi | FSR Boundary Area (m²) | Development Lot Boundary Area (m²) | FSR |
|---|---|---|---|---|---|---|---|---|---|---|---|
| RtS Scheme | Podium and Tower Levels | Residential | 32,693 | 26,141 | 307 | 240 | 331 | 29,146 | 7,396 | 3,293 | 3.94:1 |
| | Podium | Non-Residential | 3.535 | 3,005 | | 22 | 38 | | | | |
| | | **Total** | **36,228** | **29,146** | **307** | **262** | **369** | | | | |

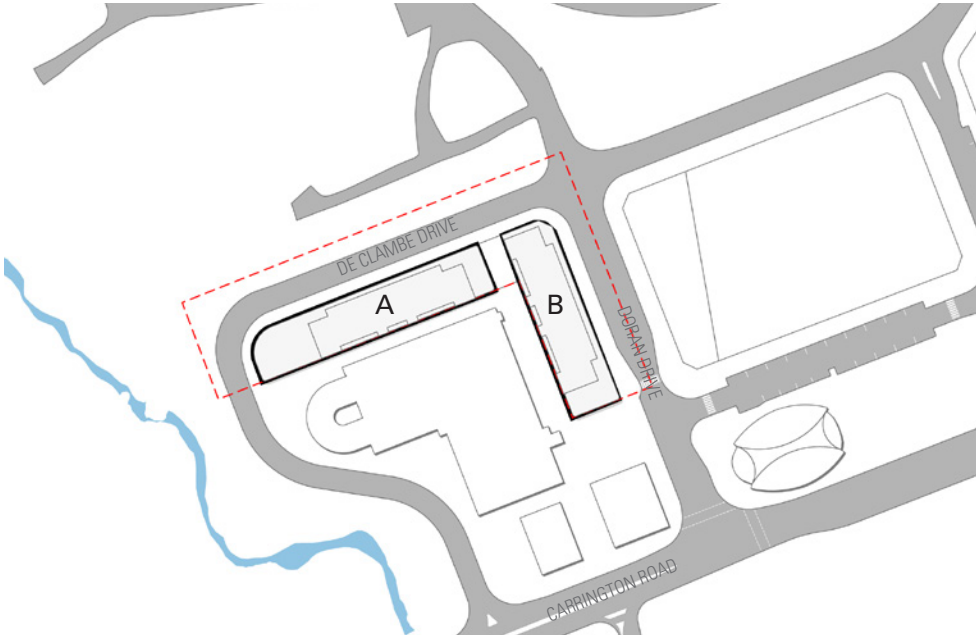


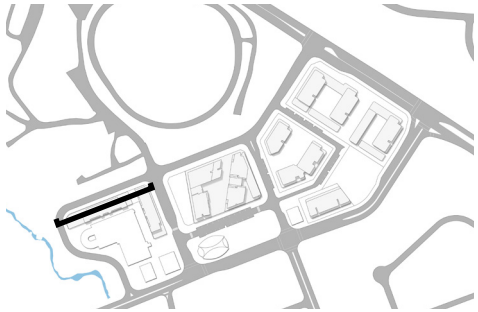

Figure 94: Precinct West FSR boundary and proposed built form

-- FSR Boundary — Development Lot Boundary

| Residential | Visitor | 1B | 2B | 3 | Total |
|---|---|---|---|---|---|
| GFA (m²) | - | - | - | - | 26,141m² |
| Market Apartment Yield | | 74 | 151 | 67 | 292 |
| Minimum Market Car Space allocation | 29 | 30 | 106 | 67 | 231 |
| Maximum Market Car Space allocation | 29 | 74 | 151 | 67 | 321 |
| Affordable Apartment Yield | | 4 | 8 | 3 | 15 |
| Minimum Affordable Car Space allocation | | 1.6 | 4.0 | 3.5 | 9 |
| Maximum Affordable Car Space allocation | 0.9 | 1.6 | 4.0 | 3.5 | 10 |
| Total Minimum Car Space allocation* | | | | | 240 |
| Total Maximum Car Space allocation* | | | | | 331 |

| Non-Residential | Number of Levels | Retail | Commercial | Total |
|---|---|---|---|---|
| GFA (m²) | 2 | 1,092 | 1,913 | 3,005m² |
| Minimum Car Spaces Required* | | | | 22 |
| Maximum Car Spaces Required* | | | | 38 |

*numbers do not include the provision of car-share parking spaces and the offsetting of normal parking spaces which is to be resolved at the detailed design stage



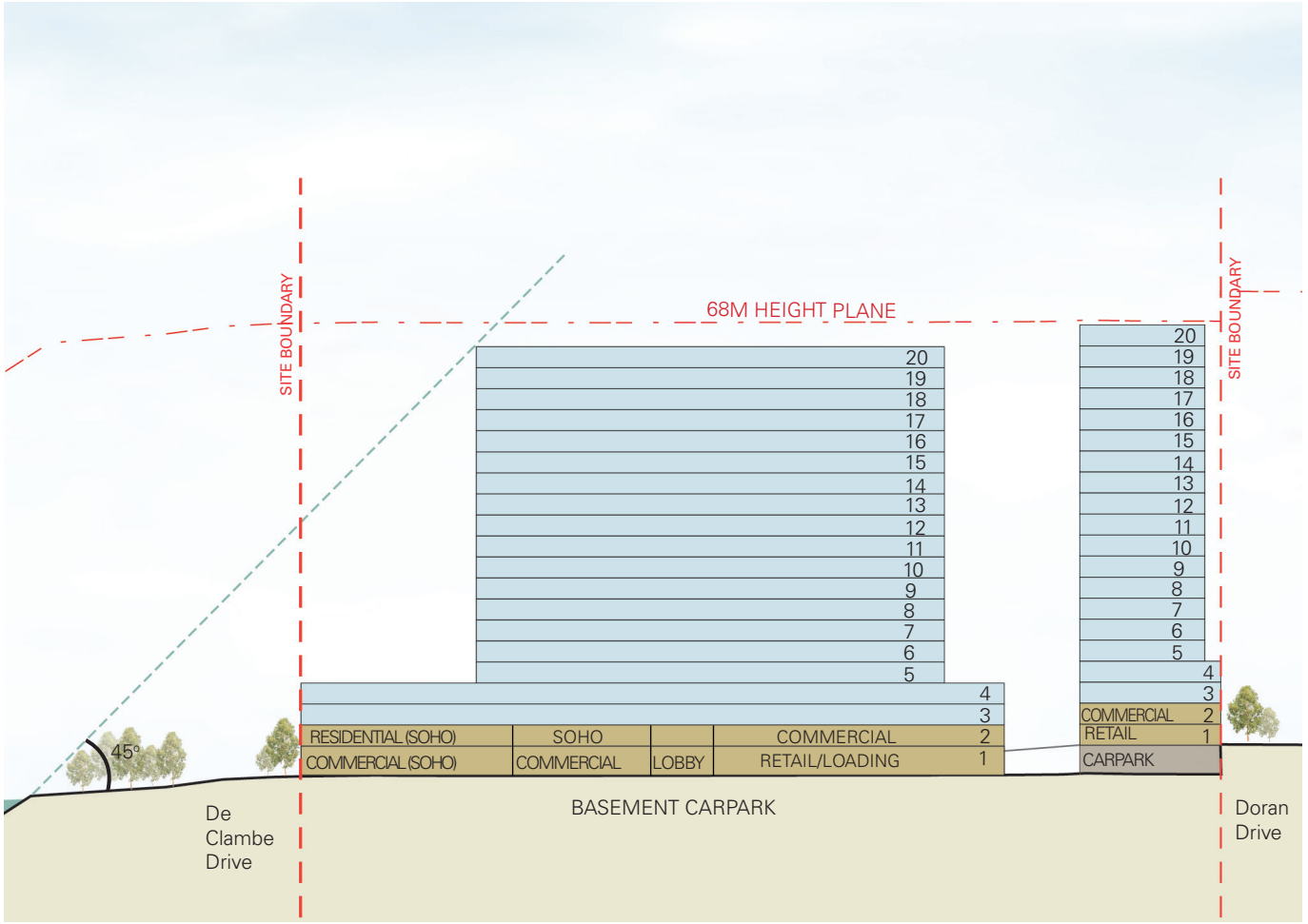
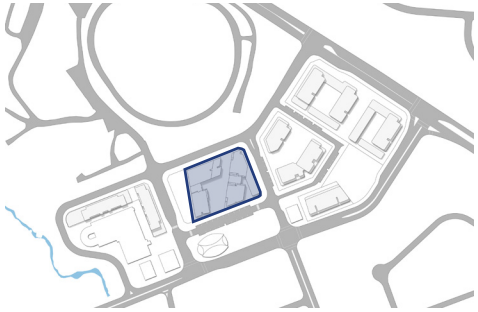



Figure 95: Precinct West Section

## Doran Drive Precinct



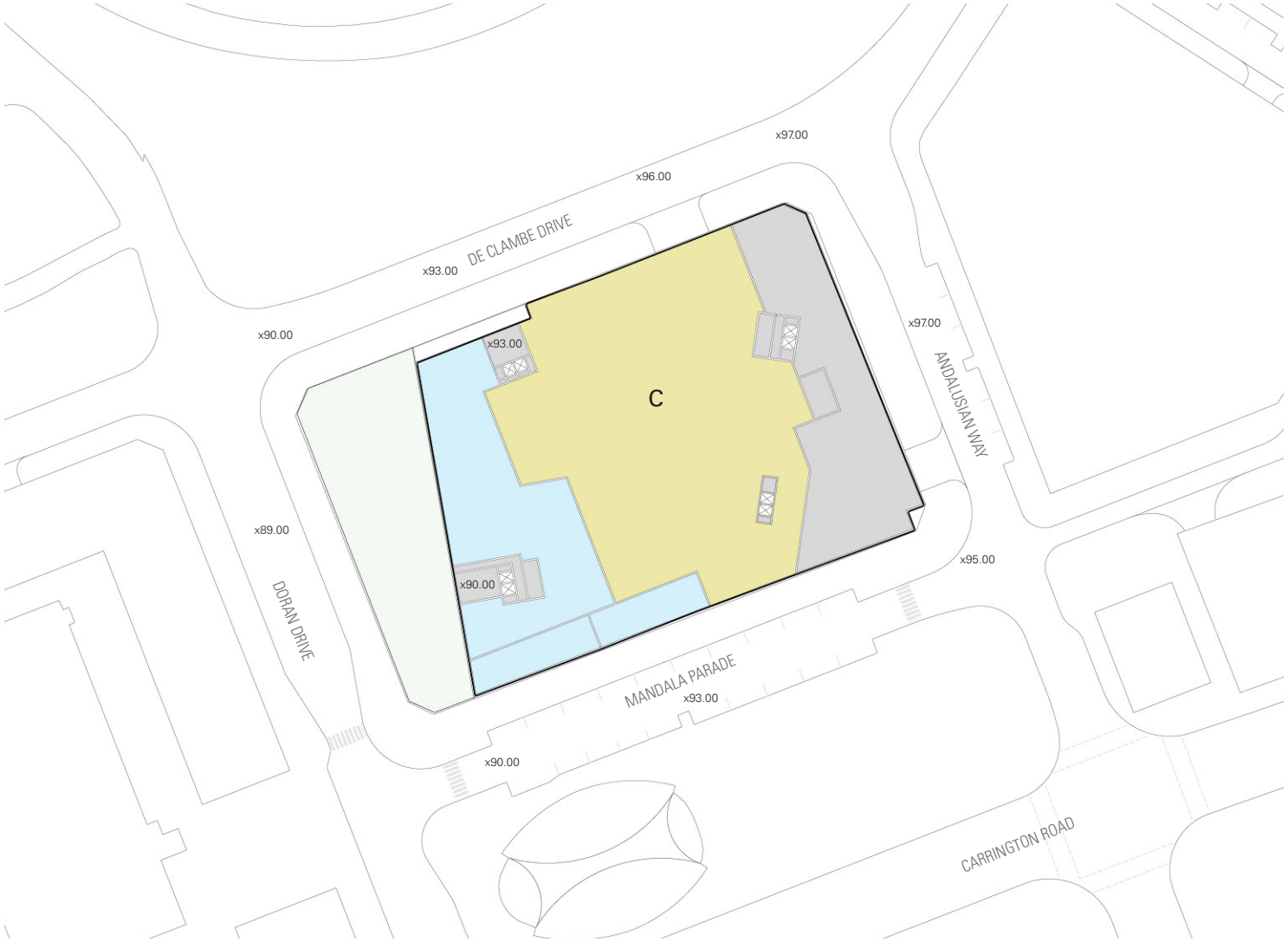



Figure 96: Doran Drive Precinct Typical Podium Ground/01 - Uses

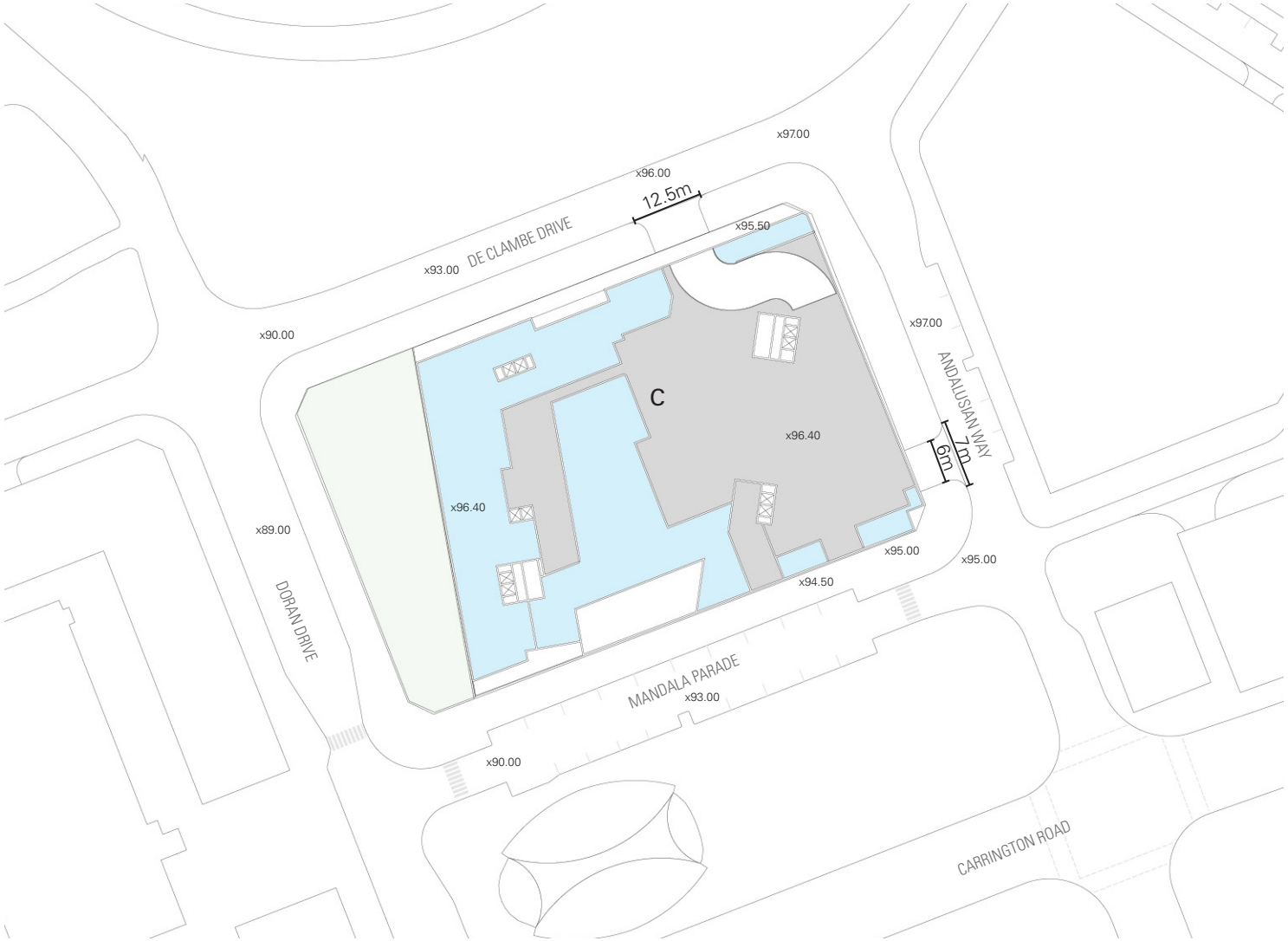



Figure 97: Doran Drive Precinct Typical Podium Level 01/02 - Uses

Retail  Building entries/carparks/circulation

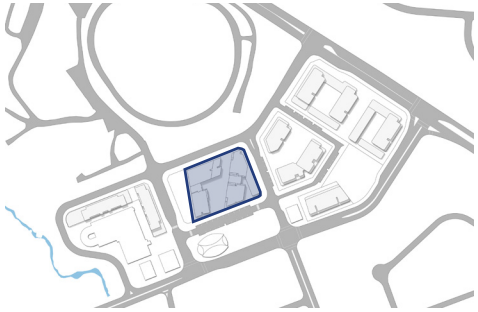





Figure 98: Doran Drive Precinct Typical Podium Level 02 - Uses & Apartment Mix

1 Bed 2 Bed 3 Bed Retail

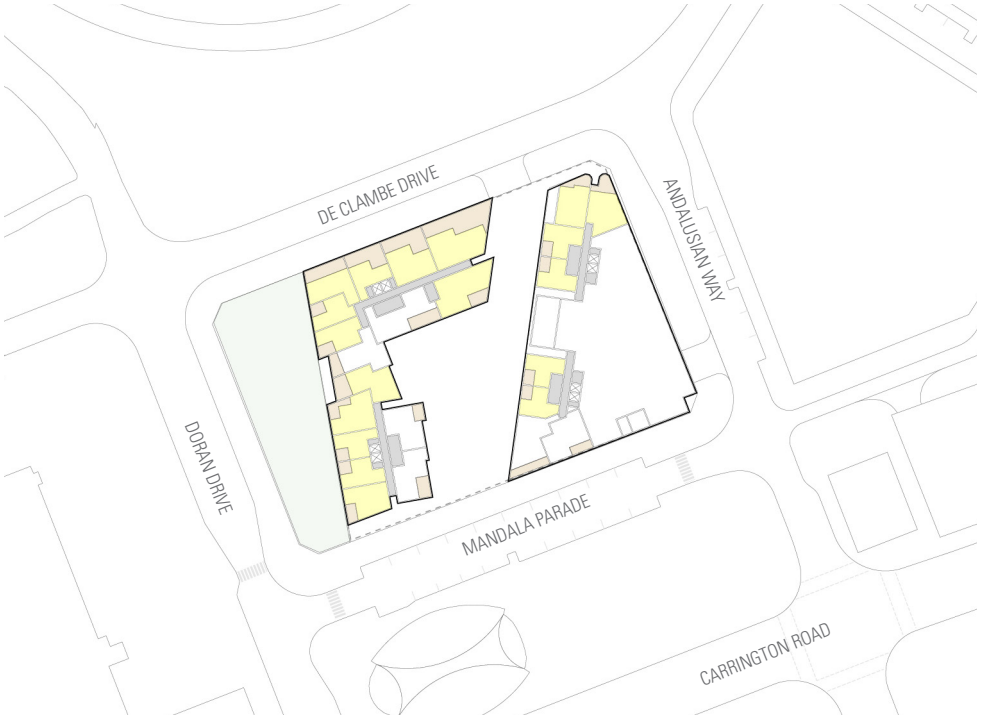



Figure 99: Doran Drive Precinct Typical Podium 02 Level - Solar Analysis
> 2 Hours Sunlight

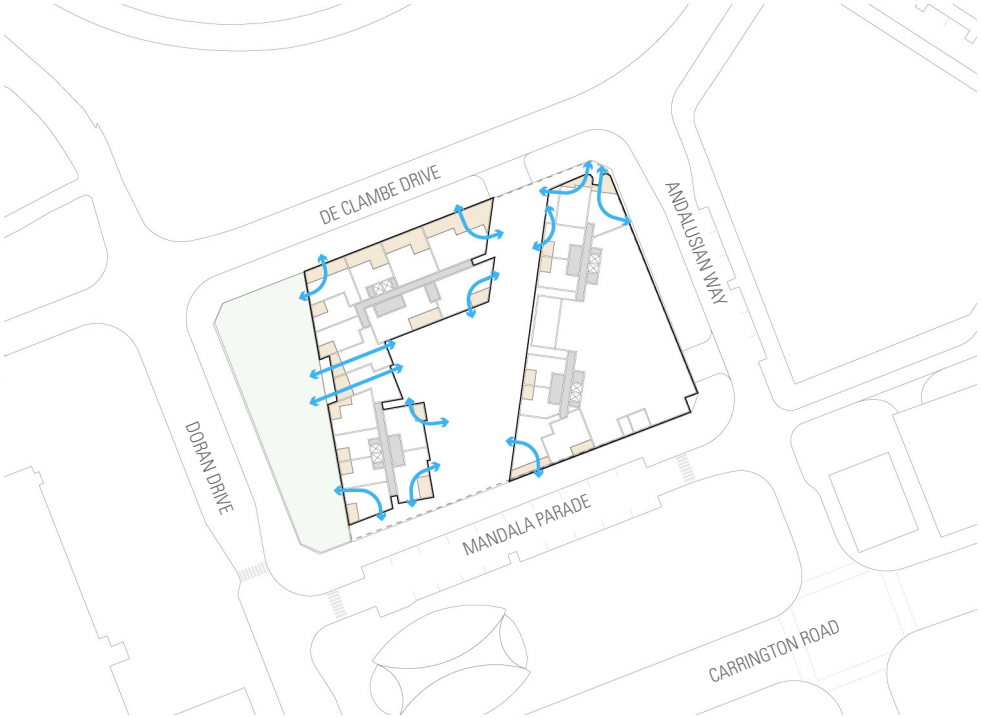



Figure 100: Doran Drive Precinct Typical Podium 02 Level - Ventilation Analysis
Cross Ventilation

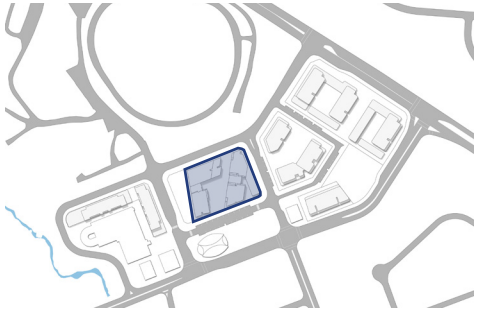





Figure 101: Doran Drive Precinct Typical Podium Level 03 - Uses & Apartment Mix

1 Bed 2 Bed 3 Bed

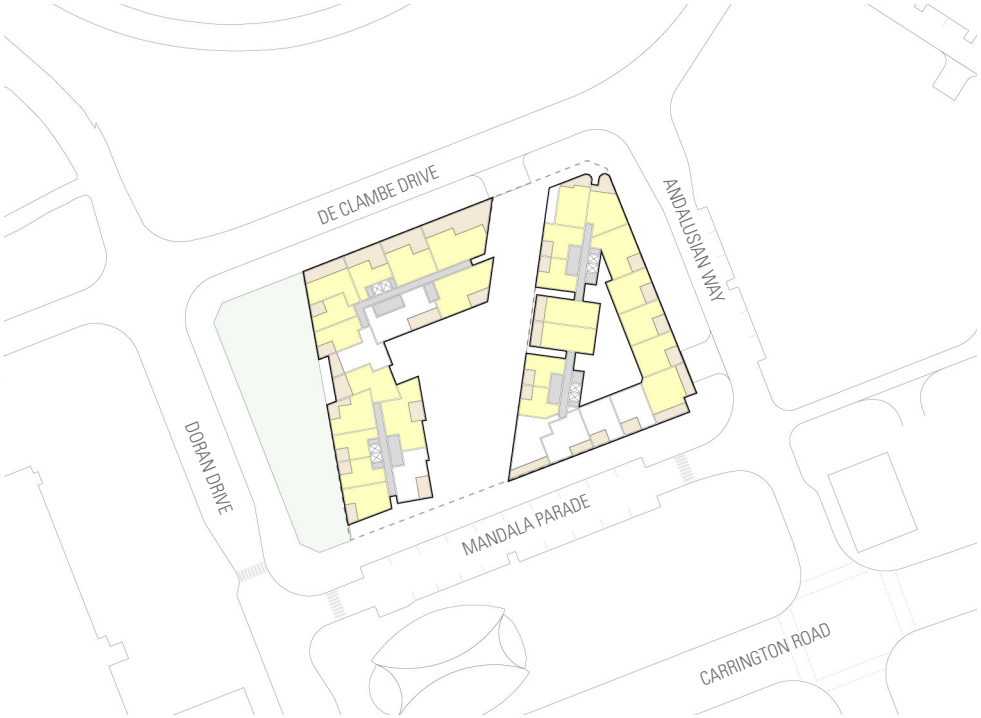



Figure 102: Doran Drive Precinct Typical Tower Level 03 - Solar Analysis
> 2 Hours Sunlight

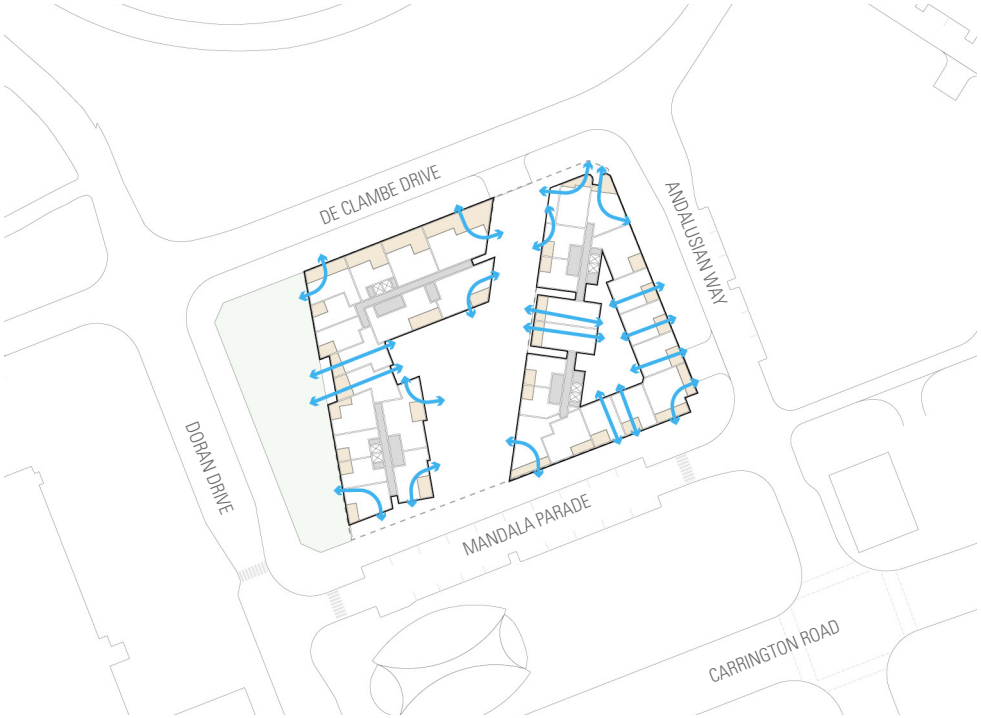



Figure 103: Doran Drive Precinct Typical Tower Level 03 - Ventilation Analysis
Cross Ventilation

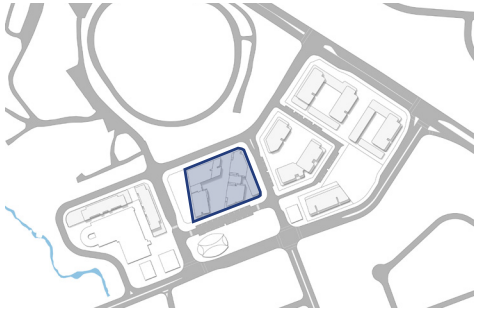





Figure 104: Doran Drive Precinct Typical Tower Level 05 - Apartment Mix

1 Bed 2 Bed 3 Bed

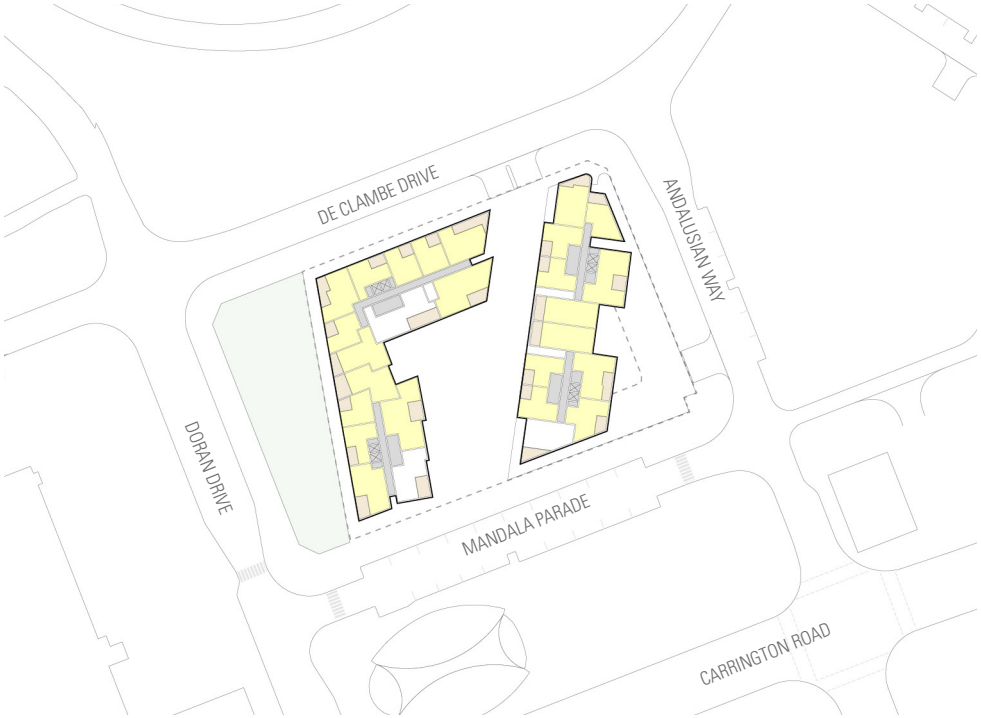



Figure 105: Doran Drive Precinct Typical Tower Level 05 - Solar Analysis
> 2 Hours Sunlight




Figure 106: Doran Drive Precinct Typical Tower Level 05 - Ventilation Analysis
Cross Ventilation

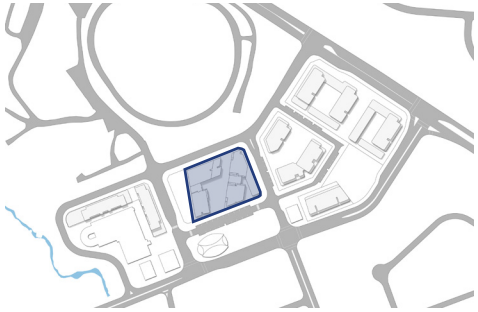





Figure 107: Doran Drive Precinct Typical Tower Level 08 - Apartment Mix

1 Bed 2 Bed 3 Bed




Figure 108: Doran Drive Precinct Typical Tower Level 08- Solar Analysis

> 2 Hours Sunlight




Figure 109: Doran Drive Precinct Typical Tower Level 08- Cross Ventilation

Cross Ventilation

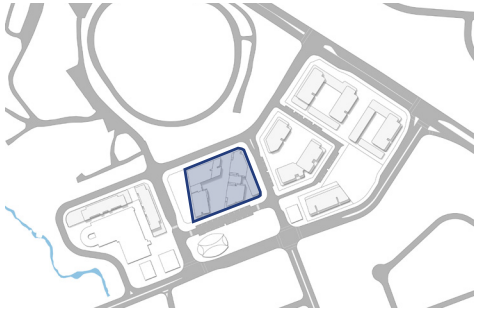





Figure 110: Doran Drive Precinct Typical Tower 19 Level - Apartment Mix

2 Bed 3 Bed




Figure 111: Doran Drive Precinct Typical Tower 19 Level- Solar Analysis
> 2 Hours Sunlight

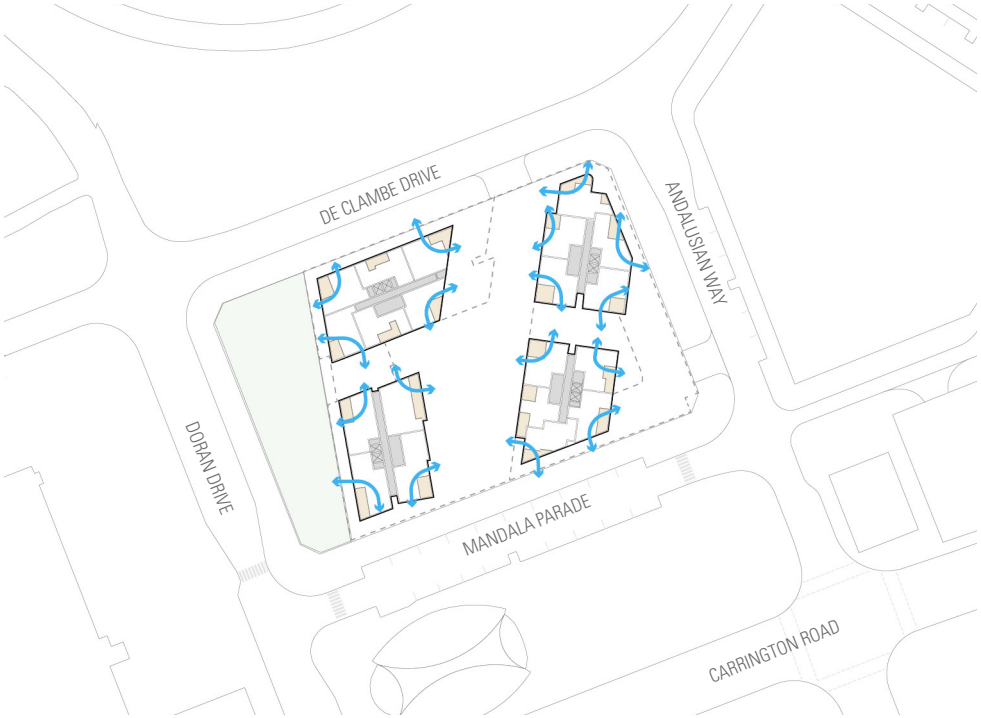



Figure 112: Doran Drive Precinct Typical Tower 19 Level - Ventilation Analysis
Cross Ventilation






Figure 113: Doran Drive Precinct Typical Podium Ground/01 - Entries

Residential Entry  Retail Entry  Parking Entry

## ADG Calculations

### Building D
Solar: 108/129 - 84%

Cross Ventilation: 28/59 - 48%

### Building E
Solar: 87/101 - 86%

Cross Ventilation: 24/39 - 61%

### Building F
Solar: 102/102 - 100%

Cross Ventilation : 36/49 - 73%

### Building G
Solar: 83/108 - 77%

Cross Ventilation: 43/54 - 80%

### Development Lot Totals
Solar: 380/440 - 86%

Cross Ventilation: 131/201 - 65%

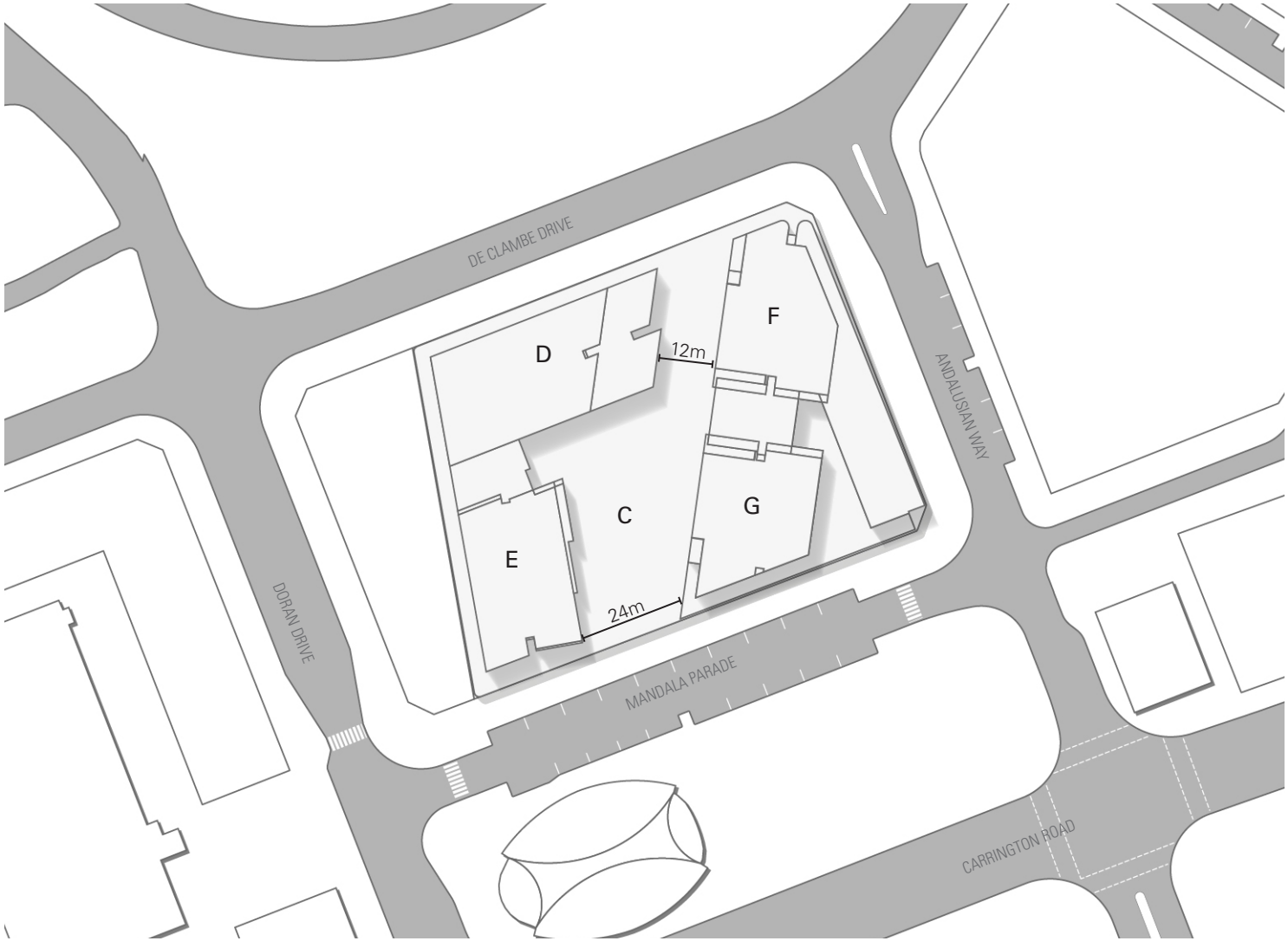



Figure 114: Doran Drive Precinct Built form Separation

| Description | Level | Uses | GBA (m²) | GFA (m²) | Apartments (@91m²/apt) | Min. Carpark Requirements | Max. Carpark Requirements | Total GFA (m²) Resi+ Non-Resi | FSR Boundary Area (m²) | Development Lot Boundary Area (m²) | FSR |
|---|---|---|---|---|---|---|---|---|---|---|---|
| RtS Scheme | Podium and Tower Levels | Residential | 50,188 | 40,130 | 440 | 331 | 473 | | | | |
| | Podium | Non-Residential | 12,865 | 10,935 | | 83 | 165 | 51,065 | 15,856 | 7,969 | 3.2:1 |
| | | **Total** | **63,052** | **51,065** | **440** | **414** | **638** | | | | |

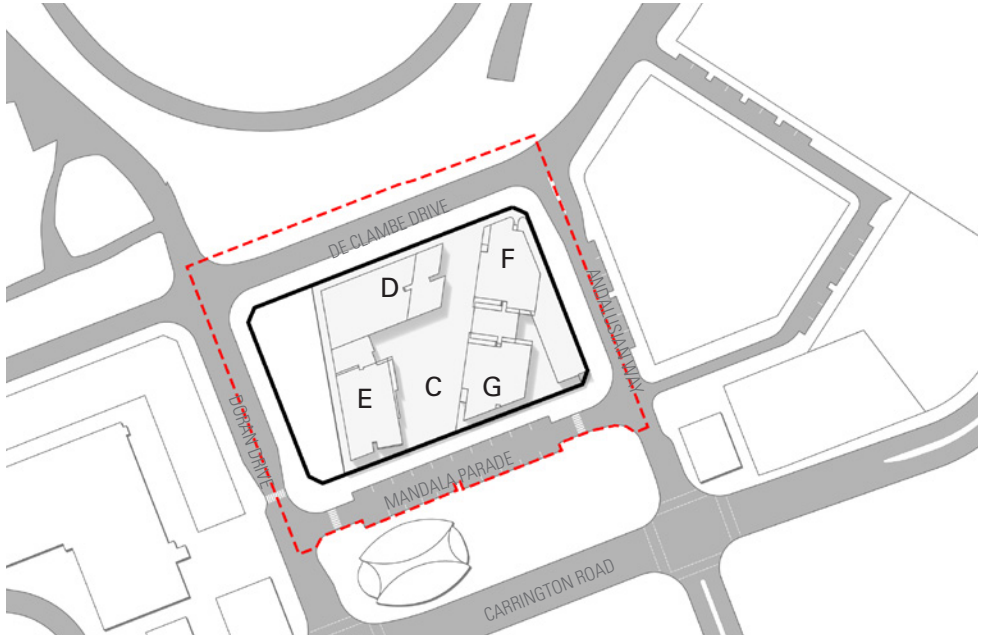


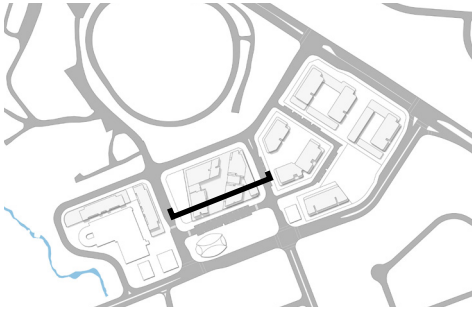

Figure 115: Doran Drive Precinct FSR boundary and proposed built form

-- FSR Boundary — Development Lot Boundary

| Residential | Visitor | 1B | 2B | 3B | Total |
|---|---|---|---|---|---|
| GFA (m²) | | | | - | 40,130m² |
| Market Apartment Yield | | 97 | 278 | 43 | 418 |
| Minimum Market Car Space allocation | 42 | 39 | 195 | 51 | 318 |
| Maximum Market Car Space allocation | 42 | 97 | 278 | 43 | 460 |
| Affordable Apartment Yield | | 5 | 15 | 2 | 22 |
| Minimum Affordable Car Space allocation | | 2.0 | 7.3 | 2.3 | 11.6 |
| Maximum Affordable Car Space allocation | 1.2 | 2.0 | 7.3 | 2.3 | 12.8 |
| Total Minimum Car Space allocation* | | | | | 331 |
| Total Maximum Car Space allocation* | | | | | 473 |

| Non-Residential | Total |
|---|---|
| Total Retail GFA | 8,000m² |
| Total Community/Commercial GFA | 2,935m² |
| Minimum Car Spaces Required* | 83 |
| Maximum Car Spaces Required* | 165 |

*numbers do not include the provision of car-share parking spaces and the offsetting of normal parking spaces which is to be resolved at the detailed design stage



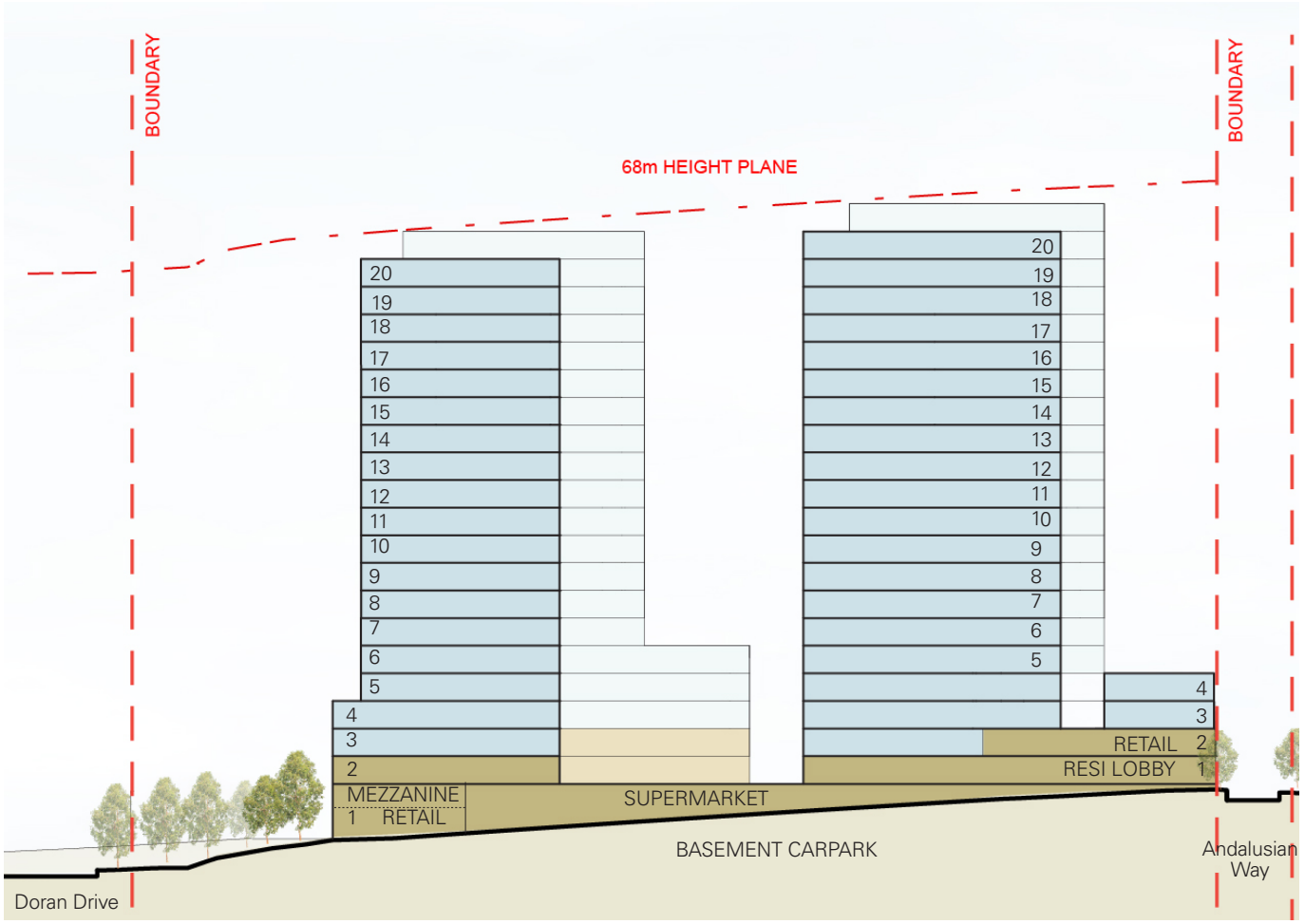



Figure 116: Doran Drive Precinct Section

## Precinct East

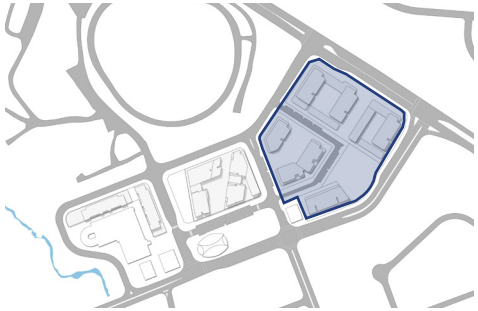





Figure 117: Precinct East Typical Ground Level - Apartment Mix

1 Bed 2 Bed 3 Bed
Town House




Figure 118: Precinct East Typical Ground Level - Solar Analysis
> 2 Hours Sunlight




Figure 119: Precinct East Typical Ground Level - Ventilation Analysis
Cross Ventilation

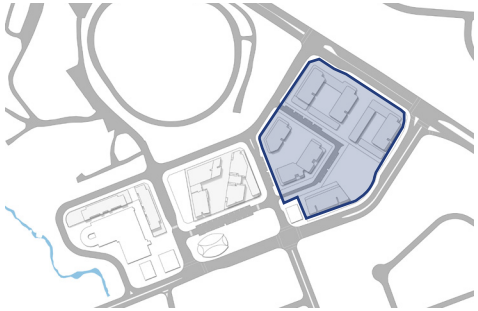





Figure 120: Precinct East Typical Middle Level - Apartment Mix

1 Bed 2 Bed 3 Bed




Figure 121: Precinct East Typical Middle Level - Solar Analysis
> 2 Hours Sunlight




Figure 122: Precinct East Typical Middle Level - Ventilation Analysis
Cross Ventilation

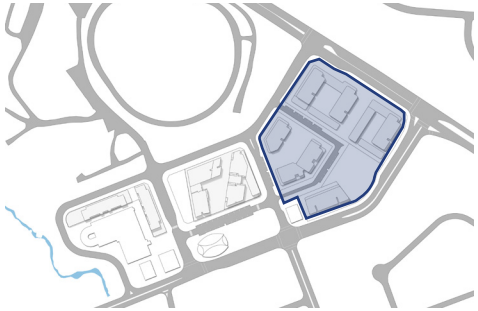





Figure 123: Precinct East Typical Upper Level - Apartment Mix

1 Bed 2 Bed 3 Bed




Figure 124: Precinct East Typical Upper Level - Solar Analysis
> 2 Hours Sunlight




Figure 125: Precinct East Typical Upper Level - Ventilation Analysis
Cross Ventilation

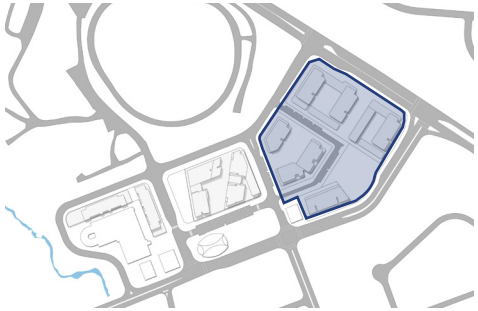





Figure 126: Precinct East Typical Podium Level - Entries

Townhouse/Garden Apartment Entry

Residential Entry

Parking Entry

## ADG Calculations

Building J
- Solar: 105/112 - 94%
- Cross Ventilation: 54/85 - 63%

Building H and K

- Solar: 156/180 - 83%
- Cross Ventilation: 72/116 - 62%

Building L
- Solar: 101/116 - 87%
- Cross Ventilation: 45/67 - 67%

Building M
- Solar: 99/123 - 80%
- Cross Ventilation: 54/83 - 65%

Building P
- Solar: 114/147 - 77%
- Cross Ventilation: 69/91 - 76%

Building Q (including town houses)
- Solar: 60/63 - 95%
- Cross Ventilation: 64/64 - 100%

Building R
- Solar: 100/132 - 76%
- Cross Ventilation: 51/82 - 62%




Figure 127: Precinct East Built form Separation

| Description | Level | Uses | GBA (m²) | GFA (m²) | Apartments (@99m²/apt) | Min. Carpark Requirements | Max. Carpark Requirements | Total GFA (m²) Resi+ Non-Resi | FSR Boundary Area (m²) | Development Lot Boundary Area (m²) | FSR |
|---|---|---|---|---|---|---|---|---|---|---|---|
| RtS Scheme | Podium and Tower Levels | Residential | 107,898 | 86,275 | 873 | 725 | 893 | 86,275 | 31,886 | 28,226 | 2.7:1 |

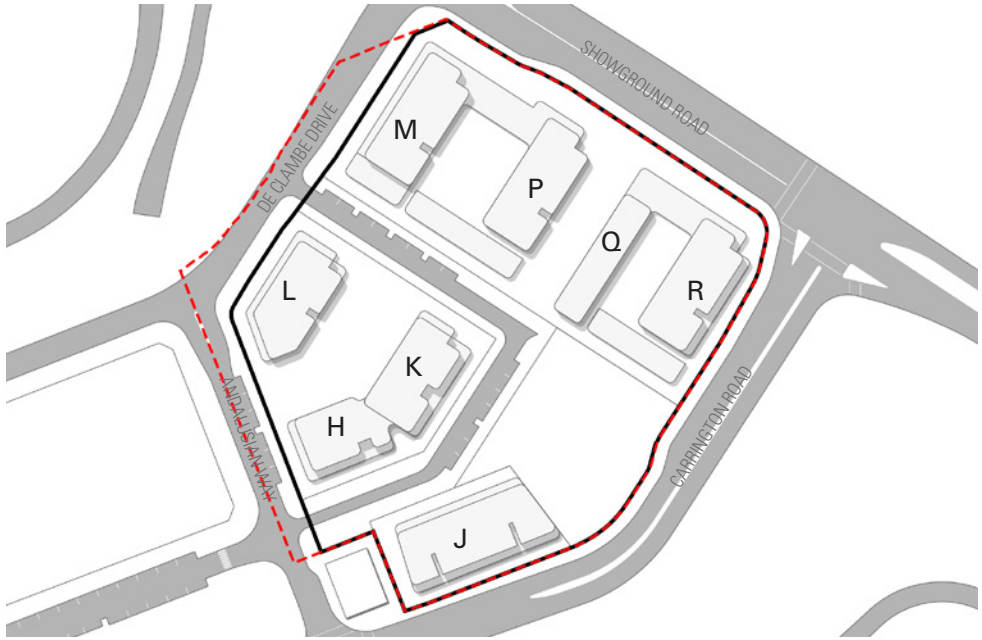



Figure 128: Precinct East FSR boundary and proposed built form

FSR Boundary — Development Lot Boundary

| Building J | Visitor | 1B | 2B | 3B | Total |
|---|---|---|---|---|---|
| GFA (m²) | - | - | - | - | 10,871m² |
| Market Apartment Yield | | 29 | 54 | 22 | 105 |
| Minimum Market Car Space allocation | 10 | 11 | 39 | 26 | 82 (3 levels) |
| Maximum Market Car Space allocation | 10 | 17 | 50 | 31 | 115 (3 levels) |
| Affordable Apartment Yield | | 1.5 | 1.5 | 1.5 | 4.5 |
| Min. Affordable Car Space allocation | | 0.6 | 0.8 | 1.5 | 3.9 |
| Max. Affordable Car Space allocation | 0.3 | 0.6 | 0.8 | 1.5 | 4.1 |
| Total Minimum Car Space allocation* | | | | | 85 |
| Total Maximum Car Space allocation* | | | | | 119 |

*numbers do not include the provision of car-share parking spaces and the offsetting of normal parking spaces which is to be resolved at the detailed design stage

| Building H-K-L | Visitor | 1B | 2B | 3B | Total |
|---|---|---|---|---|---|
| GFA (m²) | - | - | - | - | 29,252m² |
| Market Apartment Yield | | 81 | 123 | 77 | 281 |
| Minimum Market Car Space allocation | 28 | 32 | 86 | 77 | 223 (2 levels) |
| Maximum Market Car Space allocation | 28 | 81 | 123 | 77 | 308 (3 levels) |
| Affordable Apartment Yield | | 4.3 | 6.5 | 4.1 | 14.8 |
| Min. Affordable Car Space allocation | | 1.7 | 3.3 | 4.1 | 9.0 |
| Max. Affordable Car Space allocation | 0.9 | 1.7 | 3.3 | 4.1 | 9.9 |
| Total Minimum Car Space allocation* | | | | | 232 |
| Total Maximum Car Space allocation* | | | | | 317 |

| Building M-P | Visitor | 1B | 2B | 3B/TH | Total |
|---|---|---|---|---|---|
| GFA (m²) | - | - | - | - | 26,881m² |
| Market Apartment Yield | | 56 | 146 | 56 | 258 |
| Minimum Market Car Space allocation | 26 | 22 | 102 | 56 | 207 (2 levels) |
| Maximum Market Car Space allocation | 26 | 56 | 146 | 56 | 284 (3 levels) |
| Affordable Apartment Yield | | 3.0 | 7.7 | 3.0 | 13.6 |
| Min. Affordable Car Space allocation | | 1.2 | 3.9 | 3.0 | 8.0 |
| Max. Affordable Car Space allocation | 0.8 | 1.2 | 3.9 | 3.0 | 8.8 |
| Total Minimum Car Space allocation* | | | | | 214 |
| Total Maximum Car Space allocation* | | | | | 292 |

| Building Q-R | Visitor | 1B | 2B | 3B/TH | Total |
|---|---|---|---|---|---|
| GFA (m²) | - | - | - | - | 19,271m² |
| Market Apartment Yield | | 46 | 94 | 46 | 185 |
| Minimum Market Car Space allocation | 19 | 18 | 66 | 46 | 148 (2 levels) |
| Maximum Market Car Space allocation | 19 | 46 | 94 | 46 | 204 (2 levels) |
| Affordable Apartment Yield | | 2.4 | 5.0 | 2.4 | 9.8 |
| Min. Affordable Car Space allocation | | 1.0 | 2.5 | 2.4 | 5.8 |
| Max. Affordable Car Space allocation | 0.6 | 1.0 | 2.5 | 2.4 | 6.4 |
| Total Minimum Car Space allocation* | | | | | 153 |
| Total Maximum Car Space allocation* | | | | | 211 |

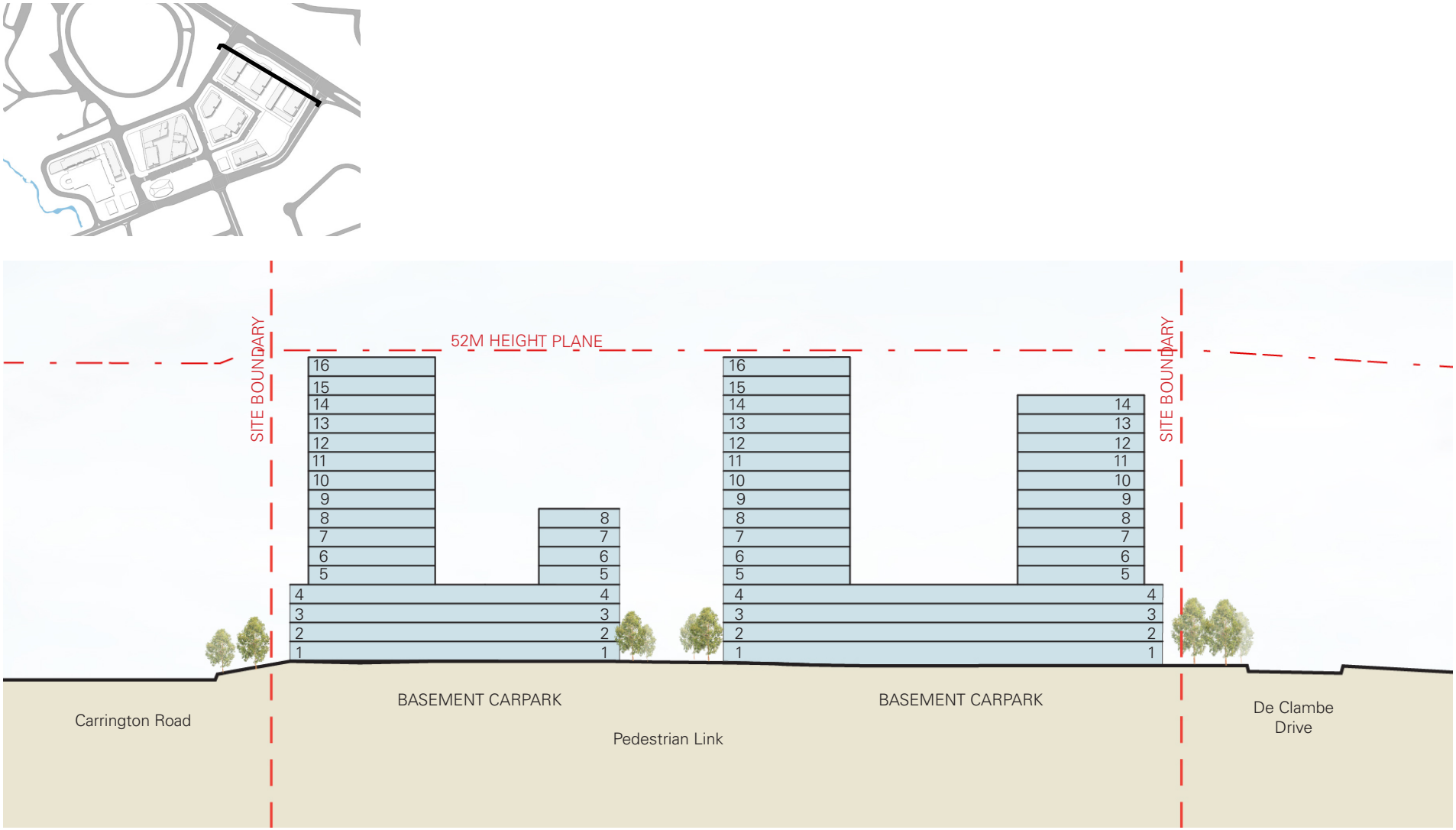



Figure 129: Precinct East Section

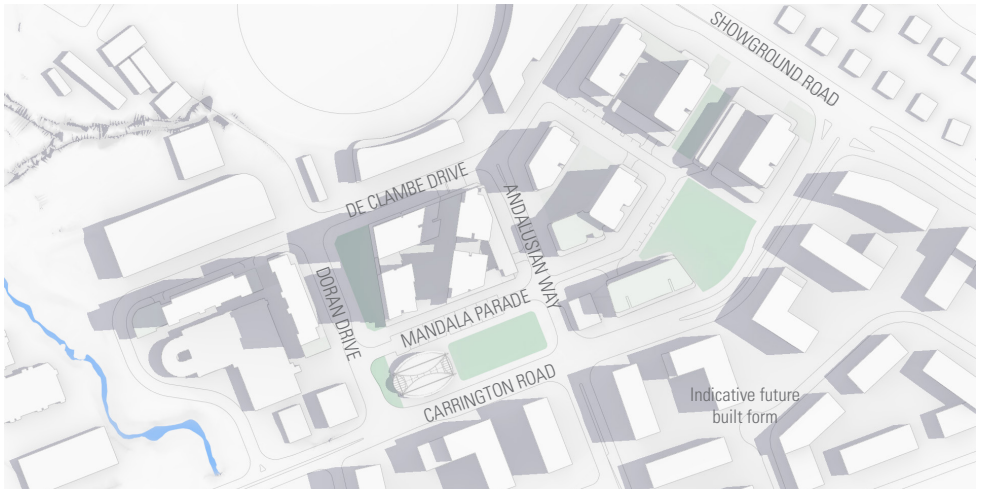
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## Shadow Studies

The shadow studies include an assessment of the CMP built form and an analysis of potential impacts upon the future residential development to the south of Carrington Road as per the current LEP controls.

This demonstrates that the combined Proof of Concept complies with the over shadowing of public open spaces and solar access to private dwellings as per ADG requirements.

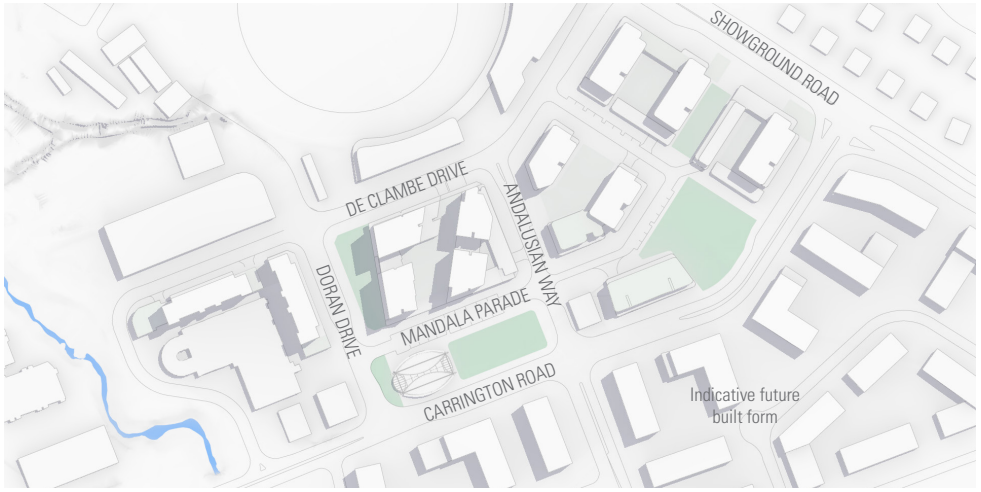
December 22nd




December 22nd - 9am




December 22nd - 10am




December 22nd - 11am



December 22nd - 12pm



December 22nd - 1pm

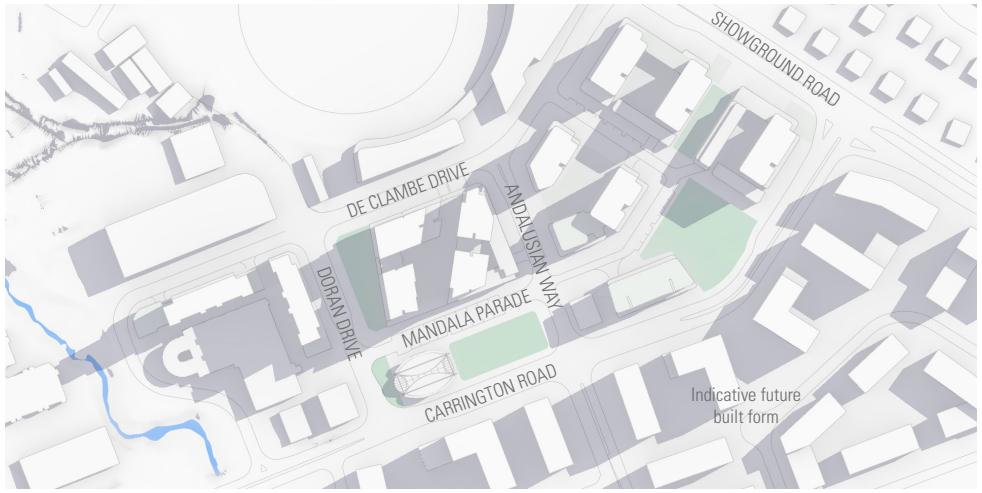


December 22nd - 2pm



December 22nd - 3pm

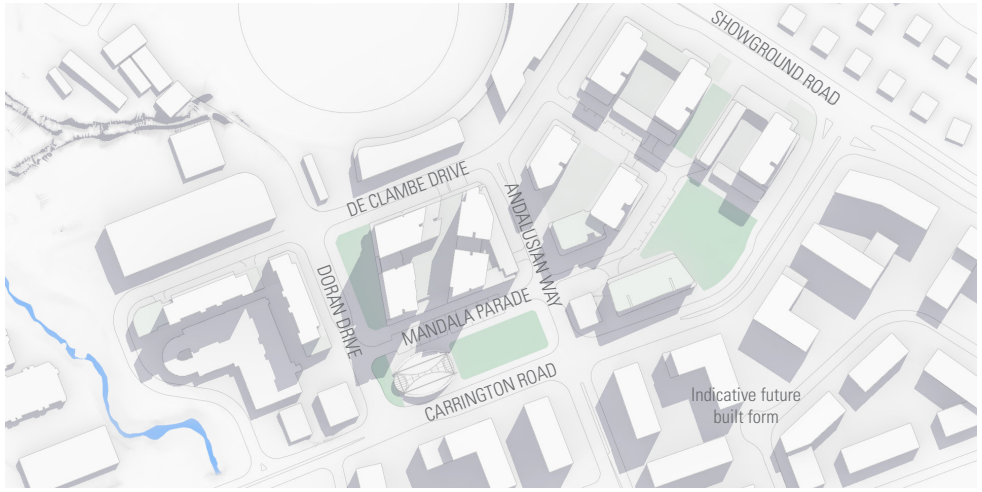
## March 20th




March 20th - 9am




March 20th - 10am




March 20th - 11am



March 20th - 12pm



March 20th - 1pm



March 20th - 2pm



March 20th - 3pm

June 21st



June 21st - 9am



June 21st - 10am



June 21st - 11am



June 21st - 12pm



June 21st - 1pm



June 21st - 2pm



June 21st - 3pm

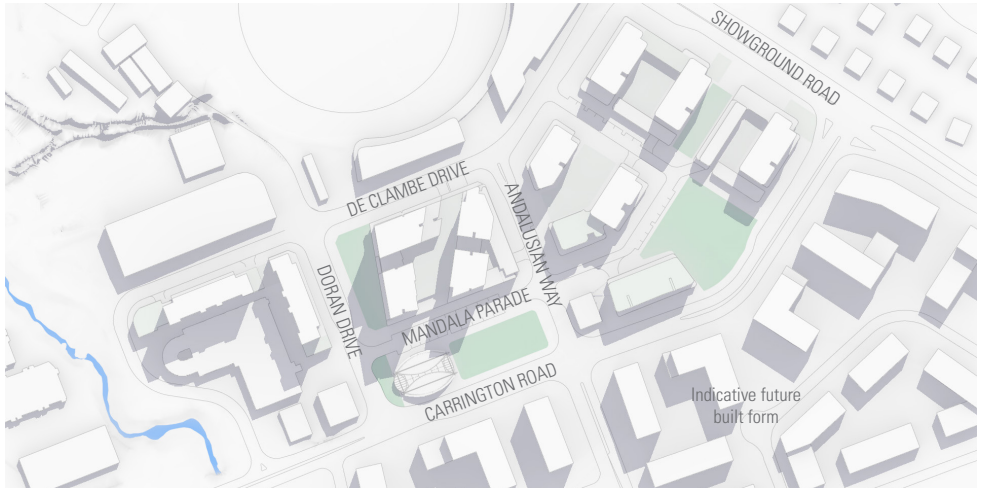
## September 23rd




September 23rd - 9am




September 23rd - 10am




September 23rd - 11am



September 23rd - 12pm



September 23rd - 1pm



September 23rd - 2pm



September 23rd - 3pm

# A

# APPENDICES

The Appendices includes the SSDA design excellence process and supplementary background studies, analysis, proposals that are not within the remit of the SSDA, urban design guidelines, SSDA drawing set and CPTED assessment.

# Appendices

## Permissible Planning Controls

### Zoning

The current Land Use Zones reflect the future desired character of the Site and the broader precinct.

A B2 Local Centre zone covers the two sites adjoining the Hills Showground Station and framing the existing commuter car park. The intention of this zone is to deliver a range of retail, business, entertainment and community uses that serve the needs of people who live in, work in and visit the local area.

An R1 General Residential zone covers the eastern site and seeks to provide for a variety of housing types and densities and to enable other land uses that provide facilities or services to meet the day to day needs of residents.

Surrounding zones reflect the desired medium (R3) and high density (R4) residential to the north east and south east of the Site and preserving the regional recreational function (RE1) of the Showground to the north.




Figure 130: Zoning Plan

RE1 - Public Recreation
B2 - Local Centre
R1 - General Residential
SP2 - Special Use
R4 - High Density Residential
R3 - Medium Density Residential

### Floor Space Ratios

The Floor Space Ratios (FSRs) applicable to the sites reflect the desired future density of the precinct in consideration of the level of accessibility and amenity afforded by the multi-modal transport network and the employment, community and recreational opportunities within close proximity of the Site.

The Site is subject to FSR controls that permit a 3:1, 4:1 and 5:1 FSR across the sites from east to west respectively.

The residential precinct south of Carrington Road and the Castle Hill Trading Zone to the west of Cattai Creek are controlled by a 2:1 and 1:1 Floor Space Ratio respectively.

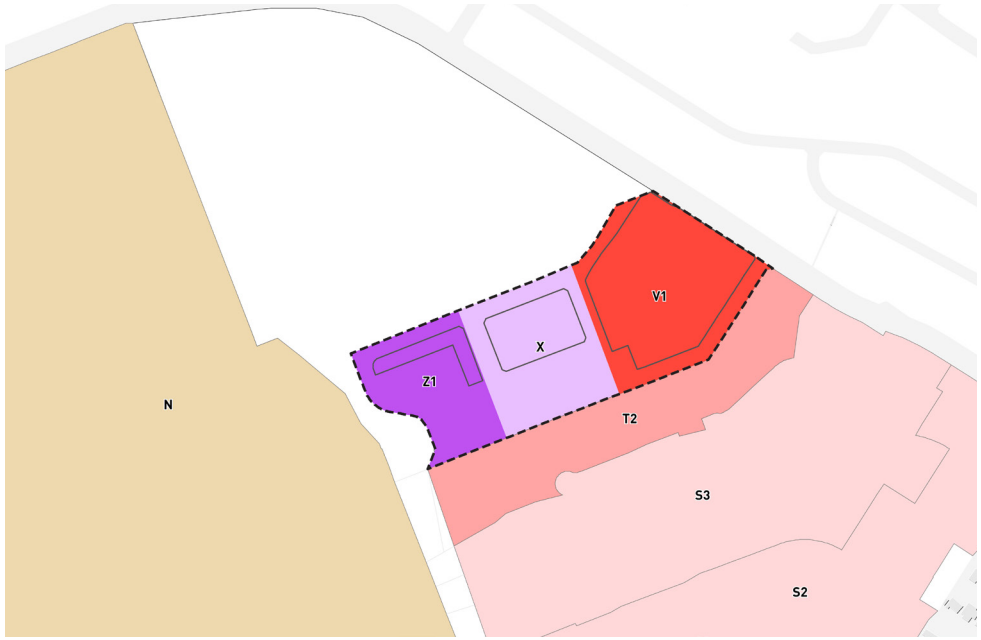



Figure 131: FSR Plan

N - 1:1
S2 - 1.5:1
S3 - 1.9:1
T2 - 2.1:1
V1 - 3:1
X - 4:1
Z1 - 5:1

## Building Height

The Height of Building (HOB) controls applicable to the Site range from 52m on the eastern part of the Site to 68m for the central and western development lots.

The surrounding context includes height controls that are commensurate with the desired future built form outcomes reflected in the Land Use Zoning and FSR controls applicable to them. A 40m height limit applies to the lots immediately south of Carrington Road, transitioning to a 27m height limit further south.

North east of Showground Road a 10m height limit is applicable and within the Castle Hill Trading Zone west of Cattai Creek a 20m height limit is applicable.

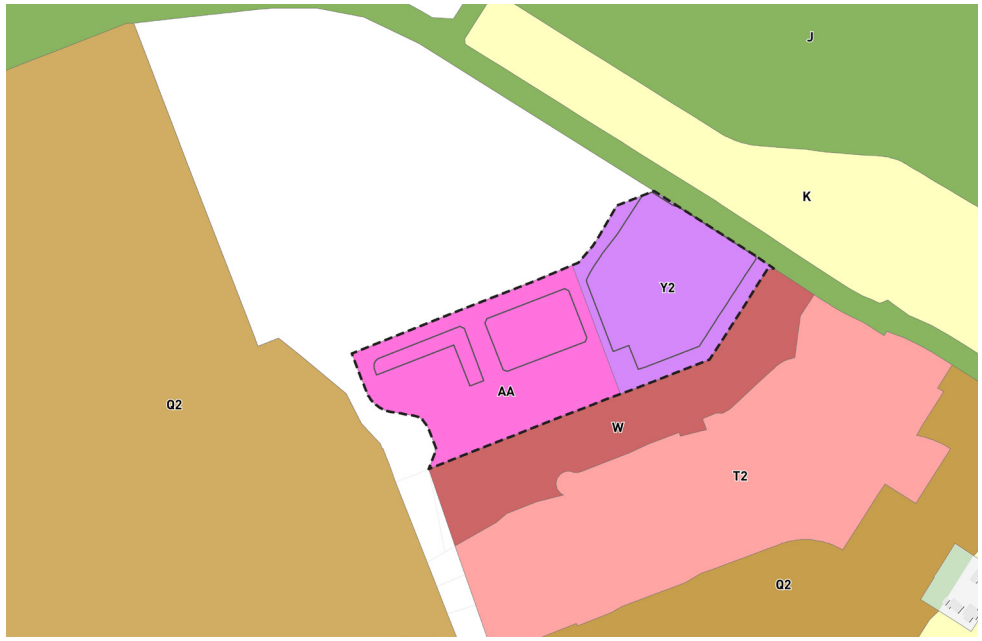



Figure 132: Building Height Plan

J - 9m
K - 10m
Q2 - 20m
T2 - 25m
W - 40m
Y2 - 52m
AA - 68m

## Combined Planning Controls

The combination of the current controls result in the building envelopes adjacent.

### Precinct West;

Land Use Zone - B2 Local Centre

Height of Building: 68m

Floor Space Ratio: 5:1

### Doran Drive Precinct

Land Use Zone - B2 Local Centre

Height of Building: 68m

Floor Space Ratio: 4:1

### Precinct East

Land Use Zone - R1 General Residential

Height of Building: 52m

Floor Space Ratio: 3:1

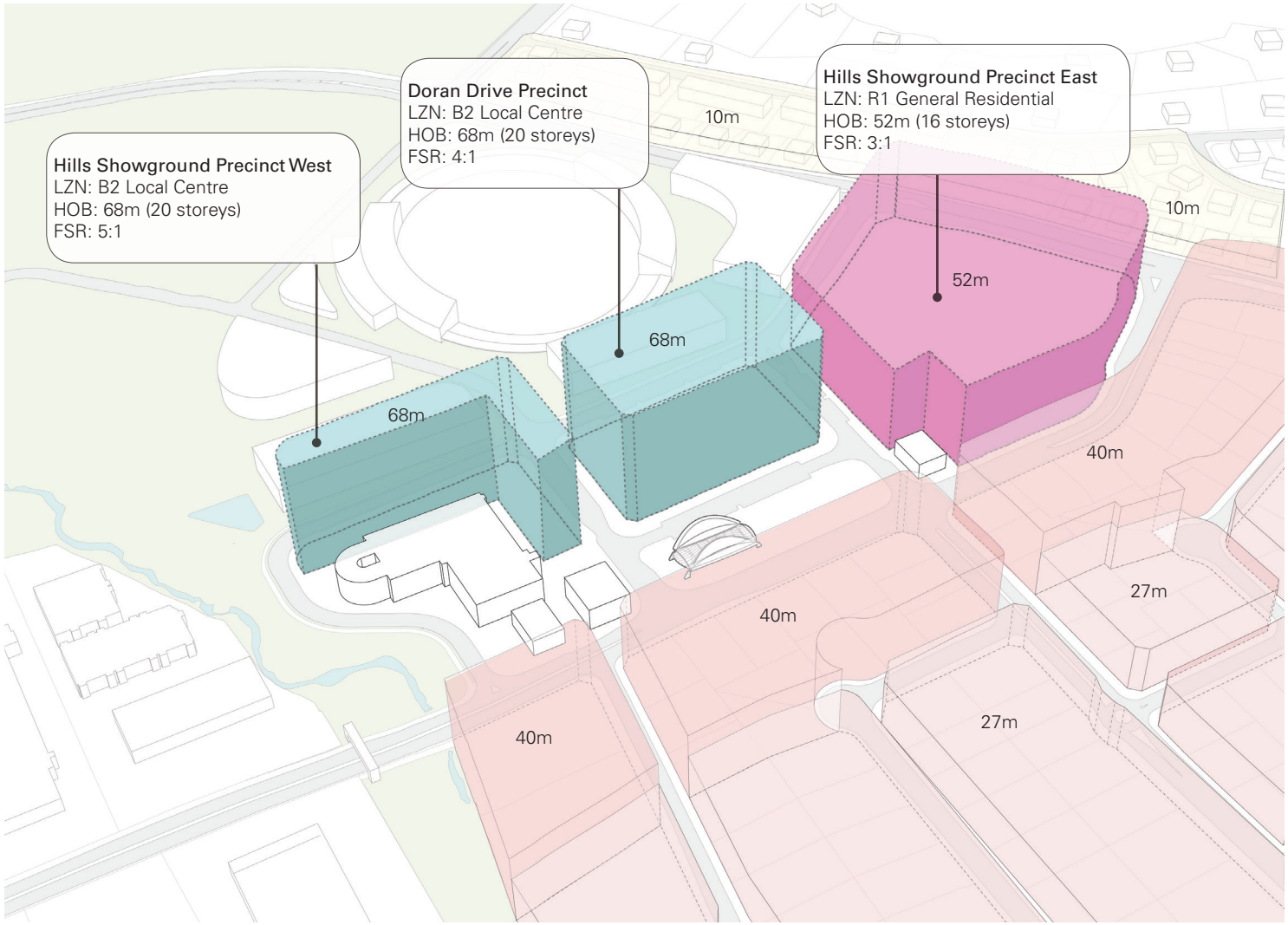



Figure 133: Combined planning controls