Hills Showground Station Precinct

URBAN DESIGN GUIDELINES

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Contents

01

INTRODUCTION

1.1. Foreword

The Hills Showground Station Precinct (the Site) is located in the Metro North West Line corridor, which sits within the broader Central City District of Metropolitan Sydney with the Central River City, comprised of Greater Parramatta, at its heart.

The completed Metro North West Line forms part of a longer-term metro project that will connect Tallawong in the north west to Bankstown in the south west via Chatswood, Sydney CBD and Sydenham.

To meet overarching State Government strategic objectives, the Department of Planning, Infrastructure & Environment (DPIE) developed a Corridor Strategy to maintain and improve the lifestyle available in the local area while allowing for well-planned and sustainable future growth.

As part of the Corridor Strategy, DPIE developed precinct structure plans for each of the eight new Metro Northwest stations. The plans outlined the challenges and opportunities present, culminating in a collective vision and structure plan for the Station precincts to guide the future character of the study area.

The 2017 Showground Station Precinct Plan is forecast to deliver approximately 5,000 new homes and 2,300 jobs over the next 20 years, transforming the area around Hills Showground Station and contributing to Castle Hill as a strategic centre.

The development proposals for the Hills Showground Station Precinct site – the site to which these Urban Design Guidelines apply – play a key role as the centrepiece in the transformation of the wider Showground Station Precinct, and brings to fruition the active heart of a vibrant and cultural local centre.

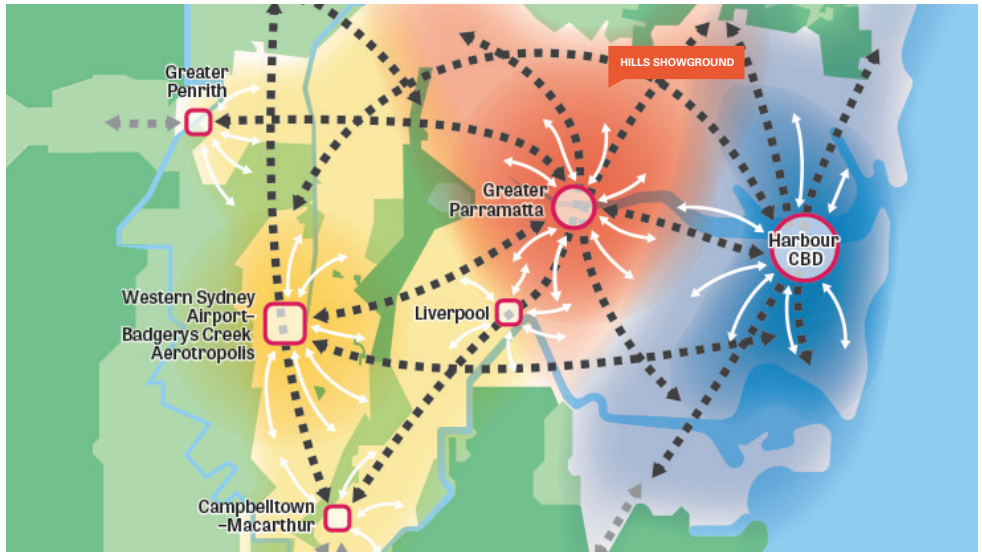

Figure 1: The Site within the Context of the Central City District and the Central River City anchored by Greater Parramatta. Source: A Metropolis of Three Cities - The Greater Sydney Region Plan 2018.

Figure 2: The Site within the context of Sydney Metro Northwest Places Program. Source: Landcom 2019.

Figure 3: The Site within the broader Showground Station Precinct. Source: COX 2020.

1.2. The Urban Design Guidelines

Purpose of the Urban Design Guidelines

The Urban Design Guidelines (UDG) apply specifically to the Development Lots within the Hills Showground Station Precinct. The UDG has been established to ensure the delivery of high quality built form and landscape outcomes via the area's transformation over time, and provide a framework for meeting the intended vision and objectives for the Precinct. The surrounding areas are not subject to the UDG, however the UDG is considerate of the immediate context and responds to the conditions, challenges and opportunities presented in this regard.

How to use the Urban Design Guidelines

The Hills Showground Station Precinct Urban Design Guidelines (The UDG) is a comprehensive document that provides guidance on the key urban design elements that will help guide the successful redevelopment of the development lots surrounding the Hills Showground Station.

The UDG acts as a site-specific Development Control Plan that will influence the content of future development applications and facilitate their assessment. The document distils the urban design principles and framework unique to this site into Objectives and Controls that are complemented with additional Design Guidance where relevant, to assist in the interpretation of the Controls.

In summary, the UDG includes the following:

- Objectives that describe the desired design outcomes
- Design Controls that provide measurable requirements for how an objective can be achieved
- Design Guidance that provides advice on how the objectives and design controls can be achieved through appropriate design responses, or in cases where design criteria cannot be met.

Development applications need to demonstrate how the objectives and design controls are met. If it is not possible to satisfy an aspect of the prescriptive criteria within the controls, applications must clearly outline the alternative criteria proposed and how this continues to achieve the objectives.

Structure of the Urban Design Guidelines

The UDG is structured in the following parts:

Part 1 – Introduction

This part describes the intent and purpose of the UDG and provides initial information on the site, the opportunities and challenges it presents, and the role and importance of design excellence as a fundamental driver for these guidelines.

Part 2 – Site Wide Guidelines

The first section of this part outlines the overarching aspirations for the Hills Showground Station Precinct (the Precinct), including development objectives, urban design approach, vision and the desired character of the site and its individual sub precincts within the existing surrounding context.

The following section of this part provides the Objectives, Controls and Design Guidance that relate to site wide Urban Design and Place elements.

Parts 3 to 5 - Precinct Guidelines

These three parts provide the Objectives, Controls and Design Guidance that relate to the individual sub precincts – Precinct West, Doran Drive Precinct, and Precinct East. These three sub precincts each have their own character and this structure allows for the provision of unique controls where suitable. This also allows a future designer, developer or assessor to be able to refer to the relevant part that is specific to their site, minimising the need to navigate superfluous information where possible.

Relationship to other applications

The State Significant Development Application SSD-9653 (the SSDA) establishes building envelopes for the future built form and landscape outcomes of the Development Lots adjacent to the metro station, identified on the diagram opposite. The SSDA includes detailed technical reports and impact assessment for the proposal. The UDG supplements the SSDA and provides further guidance on the desired design and amenity outcomes for the Hills Showground Station Precinct.

In the subsequent detailed design stages, further Development Applications will be prepared and must respond to the UDG and the building envelopes approved under SSD-9653.

Who should use the Urban Design Guidelines

The UDG contains useful information for numerous project stakeholders, and is intended to:

- Be a tool for developers, planners, urban designers, architects, landscape architects, builders and other professionals when developing the detailed design of both built form and landscape elements, and preparing associated development applications
- Assist planning professionals in local and state government in the assessment of development proposals
- Inform the community on the requirements for good design practice and the expectations the planning authorities will have when receiving development proposals.

Relationship to The Hills Development Control Plan 2012

The Hills Showground Station Precinct Urban Design Guidelines acts as a site-specific Development Control Plan and supersedes certain provisions of The Hills Development Control Plan 2012 (the DCP):

Applicable DCP Parts

The Urban Design Guidelines should be read in conjunction with the following provisions of The Hills Development Control Plan 2012 where relevant:

- Part A – Introduction
- Part C – General Development
  - Part C Section 1 – Parking
  - Part C Section 2 - Signage
  - Part C Section 3 - Landscaping
  - Part C Section 4 - Heritage
  - Part C Section 5 - Telecommunication Facilities
  - Part C Section 6 - Flood Controlled Land.

Figure 4: THSC DCP

Superseded DCP Parts

The Urban Design Guidelines supersede the following provisions of The Hills Development Control Plan 2012:

- Part B – Land Use / Zones
  - Part B Section 5 - Residential Flat Building with the exception of waste controls
  - Part B Section 6 – Business with the exception of waste controls
  - Part B Section 8 – Shop Top Housing and Mixed Use Development
- Part D Section 19 – Site Specific. The UDG supersedes this section of the DCP in its entirety for the Hills Showground Station Precinct site.

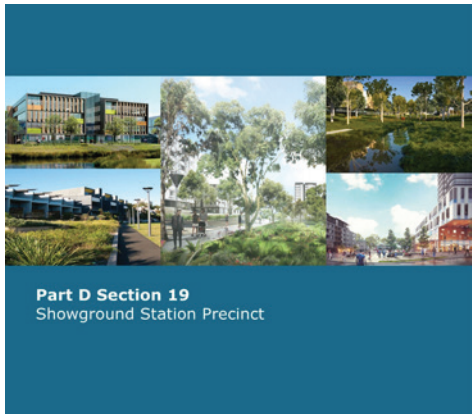

Figure 5: Superseded THSC DCP - Part D Section 19

Non-applicable DCP Parts

All other provisions of Hills Development Control Plan 2012 are not relevant and should not be applied to development at the site.

In the event of an inconsistency between the UDG and The Hills Development Control Plan 2012, the UDG prevails to the extent of the inconsistency.

Relationship to the SEPP 65/ Apartment Design Guide

The Urban Design Guidelines are to be read in conjunction with the following:

- Environmental Planning and Assessment Act, 1979 and Environmental Planning and Assessment Regulation 2000
- Relevant State Environmental Planning Policies (SEPPs) and deemed SEPPs in particular State Environmental Planning Policy (SEPP) 65 Design Quality of Residential Apartment Development and the associated Apartment Design Guide
- The Hills Local Environmental Plan (LEP) 2019
- The Hills Development Control Plan 2012 as specified
- Disability Discrimination Act 1992
- Local Government Act 1993
- Building Code of Australia (BCA)
- Relevant Australian Standards
- Any other policy or document identified for consideration throughout this UDG.

Note: It is advised to check www.legislation.nsw.gov.au or the most current list and version of applicable SEPPs.

As part of the lodgement of any future development applications, the Applicant shall prepare and submit documentation compliant with the Sydney Metro Underground Corridor Protection Technical Guidelines and Sydney Metro At Grade and Elevated Sections Corridor Protection Guidelines (available from www.sydneymetro.info).

Variations

Where variations are proposed, development is to demonstrate how the vision, development principles, key elements for the Precinct and relevant specific objectives are to be achieved.

Figure 6: Apartment Design Guide

1.3. 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 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.

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 7: Hills Showground Station Precinct (foreground) and Castle Hill Showground (background) Aerial looking north west. Source: Sydney Metro 2019.

Figure 8: Aerial View looking South in 2019. Note: Buildings on Precinct East have since been demolished. Source: Sydney Metro 2019.

Figure 9: Local Context

1.4. Opportunities and Challenges

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 concept masterplan 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 existing metro 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.

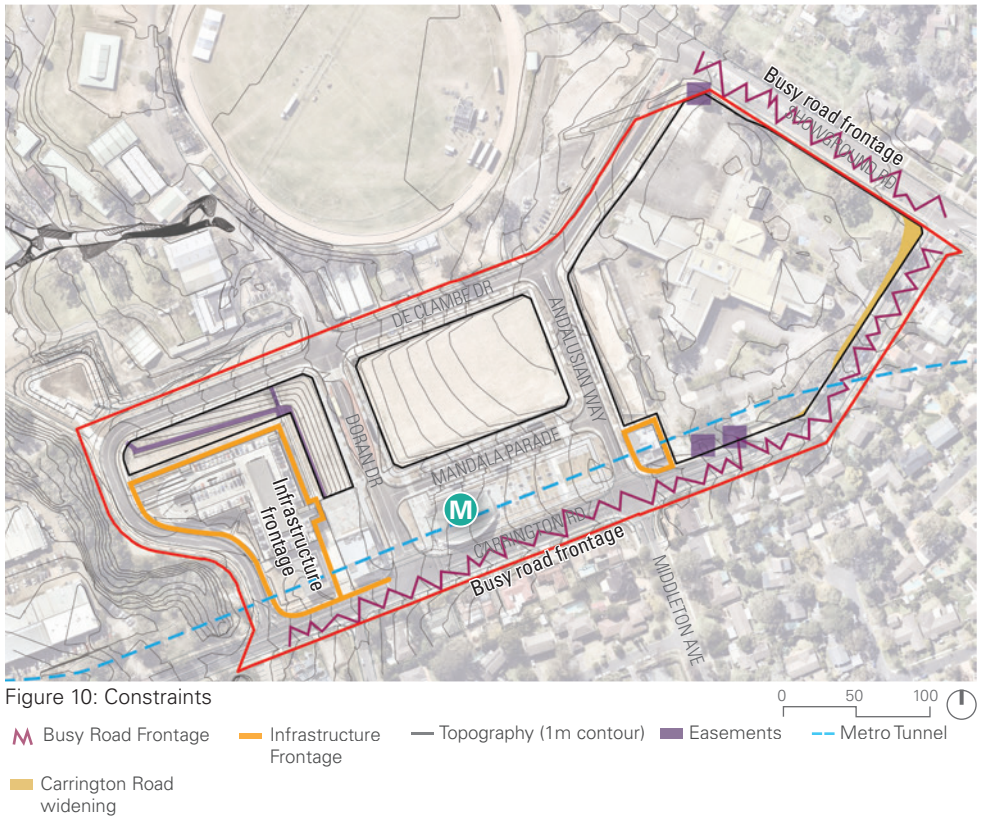

Figure 10: Constraints

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.

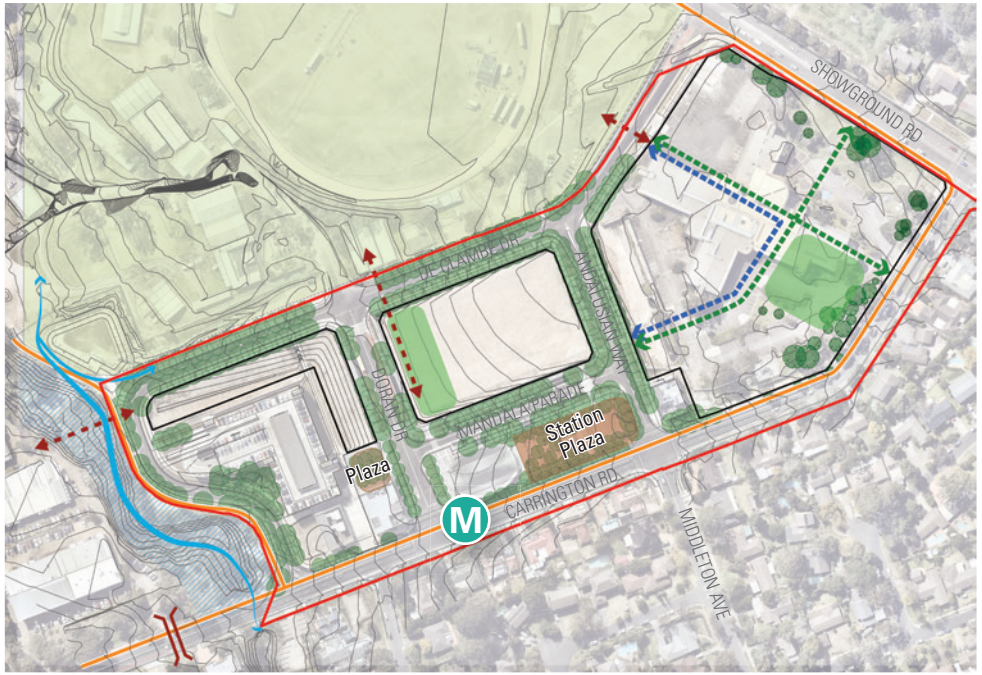

Figure 11: Opportunities

02

SITE WIDE GUIDELINES

2.1. Site Wide Guidelines

This section is structured to:

1. describe the considerations that have influenced the approved concept masterplan for The Hills Showground Station Precinct and emphasise the ongoing importance of these considerations as detailed design work for the area progresses over time. The considerations include key elements such as:
   - Development Objectives
   - Design Principles
   - Precinct Vision
   - Site Character
   - Site Structure
   - Design Excellence
   - Diversity and Inclusion
2. detail the objectives and controls for urban design elements that are site wide - relating to the whole of the Hills Showground Station Precinct. All development applications for proposals within the Hills Showground Station Precinct will be assessed against how they meet the objectives and conform to these controls.

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2.2. Development 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.

Ongoing Objective

Detailed development proposals for The Hills Showground Station Precinct are to demonstrate they meet the development objectives.

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

2.3. Design Principles

The following design approaches respond to the opportunities and uniqueness of the site and its surrounding context and have steered the urban design of the Hills Showground Station Precinct concept plan.

- **Public domain is prioritised** with arrival to the precinct via public open space, green links and the enhanced active transport network.
- **Existing and new landscapes are connected** creating a cohesive network of green public domain that extends through the site and beyond its boundaries.
- **A strong and active heart is created** by stitching together the Cattai Creek Corridor, Castle Hill Showground and the station plazas with the transport interchange and mixed use core enhancing the civic nature of the site adjacent to the Metro.

Figure 12: Concept Masterplan

- A rational figure ground is planned with public domain and streets framed by a built form edge that's appropriately scaled, articulated and activated **creating a legible, safe and enjoyable pedestrian experience.**
- **Amenity is maximised** with solar gain, quality landscape and significant views via well planned site design and built form composition.
- **The Site's unique values are celebrated** by strengthening physical and visual connection to the significant adjacent assets including Cattai Creek and Castle Hill Showground, and reflecting the character and heritage of the site and its surrounds.

Ongoing Objective

Detailed development proposals for The Hills Showground Station Precinct are to demonstrate they have followed the design principles.

Figure 13: Precinct East Park

2.4. 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".

Ongoing Objective

Detailed development proposals for The Hills Showground Station Precinct are to demonstrate alignment with the project vision.

Figure 14: Aerial sketch of the Hills Showground Concept Masterplan looking south. Source: Tim Throsby 2020.

Figure 15: Artists Illustration of the future Doran Drive Plaza

Figure 16: Potential future character of the Cattai Creek corridor (by others)

What is Local Character?

Character is what makes a neighbourhood distinctive and is the identity of the place. It encompasses the way a place looks and feels. It is created by a combination of land, people, built environment, history, culture and tradition, both Aboriginal and non-Aboriginal, and it looks at how they interact to create an area's distinctive character.

Local character is distinctive, it differentiates one area apart from another. It includes the sense of belonging a person feels to that place, the way people respond to the atmosphere, how it impacts their mood, what their emotional response is to that place and the stories that come out of peoples' relationship with that place.

What is Place?

Place is the layout, division and form of environments – its patterns, landscape, density, development, land use and mix - these aspects set the groundwork for places to flourish. Places are multi-layered and diverse environments within the broader context of society. Individual places can be described or understood by people in different ways and at different scales. This is because they are made up of many interrelated layers and elements which are generally understood through the physical form and activity occurring in the location. Places have a clear and strong identity and character.

Ongoing Objective

Detailed development proposals for The Hills Showground Station Precinct are to demonstrate consistency with this desired future character.

Control

A local character response statement is to be submitted with any development application associated with the Hills Showground Station Precinct.

Definitions from NSW Government's 'Local Character and Place Guideline – February 2019'

2.5. Site Character and Place

The urban design framework for the Hills Showground Station Precinct (the Site) supports the NSW Government's commitment to ensuring 'strategic planning recognises and enhances the local character of an area, and that communities share what they value about their area to inform planning and decision making', and responds to Section 3.2 Desired Future Character in The Hills DCP 2012 (Part D Section 19 - Showground Station Precinct). Articulation of the existing and desired future local character of the area is important to demonstrate a deeper awareness and understanding of its valued characteristics and future aspirations. During development of the Concept Masterplan for the Site, various elements that help identify an area's character were studied. The Local Character Wheel below provides a useful snapshot of the relevant elements.

Figure 17: Local Character Wheel – character assessment tool. Source: NSW Government Local Character and Place Guideline, 2019.

The vision for the broader Showground Station Precinct is to see the area transform into a transit oriented, mixed use area in response to the enhanced levels of accessibility and amenity provided by Metro North West Line.

The Hills Showground Station Precinct, the subject of these Guidelines, sits at the core of this area. It forms the high density, active urban heart of the broader precinct, anchored by the multi-modal transport interchange at the Hills Showground Station. The uses of the surrounding area will continue to be primarily residential, although over time the densities will increase to include more diverse housing typologies ranging from 3-storey townhouse apartments north east of the site to 12-storey apartment buildings south of the Site. The employment lands to the west of the site are also planned to undergo transformation in terms of higher order uses and employment densities.

A significant existing element within the Site's context that influences the desired character of the Hills Showground Station Precinct is the surrounding landscape and outlook. The urban design framework considers the proximity to valuable assets such as Cattai Creek Corridor, Castle Hill Showground and the connections to these and the open space network beyond. It is envisaged that characteristics of the vegetation of the Corridor will extend through the new development sites to blend the existing natural environment with the new landscape and open space features proposed.

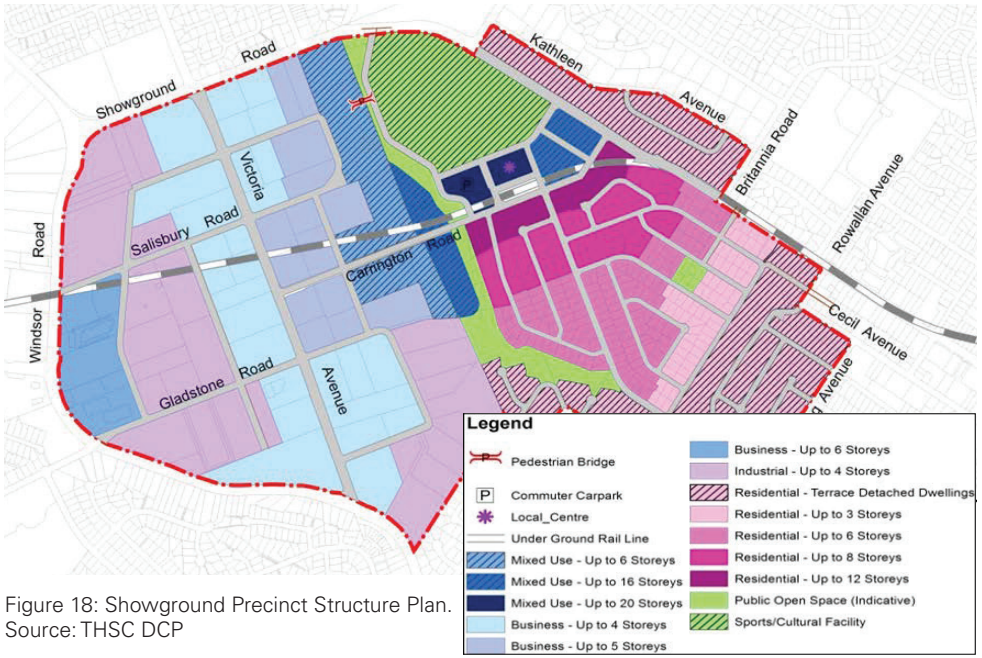

Figure 18: Showground Precinct Structure Plan. Source: THSC DCP

The location of the Site along a ridgeline lends itself well to taking advantage of broad views over the surrounding Garden Shire, contributing to the amenity of the residents and workers within the proposed tower elements. As well as benefiting from the surrounding outlook, the development proposals themselves will create scenic prominence for the Site, creating new and significant views from surrounding areas.

The site structure ensures integration with the surrounding urban fabric and a breaking down of development lots to provide appropriate block sizes. The topographic fall across the site will be addressed with terracing for suitable street edge filtration and activation. It is essential that key linkages to the surrounding assets described above are maintained and strengthened through the ongoing treatment of streetscape and landscape elements to contribute to important character elements like access, interface, and comfort.

An important part of the creation of this place is the breaking down of the concept plan into differentiated character areas that have their own unique local strategies. There are three different sub precincts within the Hills Showground Station Precinct Site. These are described in more detail in Part 3 of this UDG, however the drawing and key points overleaf summarise the key character elements that differentiate these precincts to give them their own unique point of difference.

Figure 19: Aerial Sketch of the Hills Showground Concept Masterplan Facing South. Source: Tim Throsby 2020.

Precinct Character

These elements describe the character aspiration for the Hills Showground Station Precinct from a use, site structure and context perspective. Further character elements that influence the localised, street level character are described in Part 3 of the UDG, which provides individual objectives and controls for each of the three precincts – Precinct West, Doran Drive Precinct and Precinct East.

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

Figure 20: Townhouse apartments that are accessed from the public domain

Figure 21: Garden apartments and midrise residential

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

Figure 22: Pedestrian scale podiums addressing the public domain. Source: THSC DCP

Figure 23: Future Doran Drive Plaza as the active heart of the Precinct

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 24: Slender towers that mitigate undesirable interfaces

Figure 25: Small Office/Home Office/Retail with residential podium and towers set back above

2.6. 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 structure responds to The Hills Shire Council's relevant objectives for the Showground Precinct Structure Plan and Key Elements as outlined in The Hills DCP 2012 (Part D Section 19 - Showground Station Precinct):

- To ensure that development occurs in a coordinated manner consistent with the Precinct vision and the development principles of housing diversity, employment opportunities, transit oriented development, quality infrastructure and open space and place making.
- To provide a mix of housing, retail, employment, and services in appropriate and logical locations within the Precinct.
- To locate higher scale residential apartments and commercial uses closest to the station, the Castle Hill Showground and Cattai Creek corridor to optimise access to station facilities as well as outlook and natural amenity.
- To develop a local centre and main plaza in the area immediately surrounding the station to provide local shopping, employment opportunities and other services to support the incoming population and establish a vibrant and well-used public domain.

The structure is anchored by four major public infrastructure elements - the existing Hills Showground Station and transport interchange, the Castle Hill Showground and the proposed Doran Drive Plaza and Precinct East Park. 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. The new street within Precinct East provides a fine grain urban fabric of walkable blocks of a scale consistent with the existing Precinct West and Doran Drive Precinct blocks.

Heights conform with the uses and height controls stipulated in The Hills Local Environment Plan 2019 (THLEP). The built form is at its most dense immediately adjacent to the station and reduces towards the periphery of the Precinct to provide a suitable transition to the adjacent residential areas. 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 Precinct East.

Ongoing Objective

Detailed development proposals for The Hills Showground Station Precinct are to maintain the objectives of the Showground Precinct Structure Plan and align with the structure plan as approved in State Significant Development Application SSD-9653.

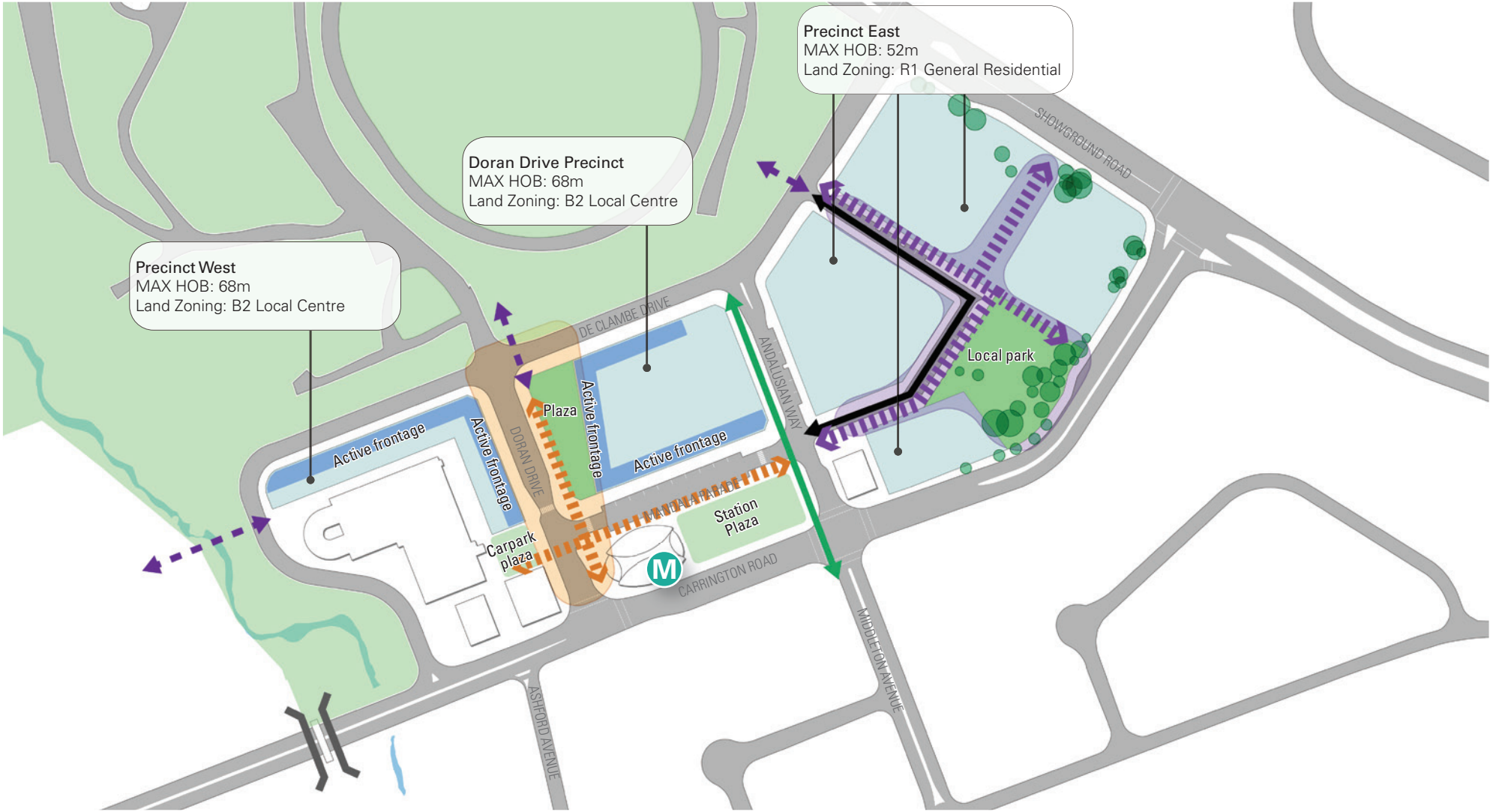

Figure 26: Site Structure Overview

2.7. External Interfaces

The careful consideration of interfaces between development sites will have a significant impact on the success of the wider Showground Precinct. It is acknowledged that the area will be undergoing great change over the course of many years, and the continued focus on how sites in different ownerships will contribute to a sense of cohesion and successfully deliver to aligned urban design principles will be critical.

Development proposals must demonstrate a rigorous approach to the ongoing coordination of design between development sites to ensure overarching objectives and principles important for the success of the precinct are integrated into plans and ultimately delivered.

Objectives

a. To ensure the delivery of a consistent, cohesive and complementary broader Showground Precinct in terms of;
   - uses and activities
   - built form
   - public and private domain
   - movement and access
   - finishes and materials

Controls

1. Any development application within the Precinct East, Doran Drive Precinct and Precinct West must demonstrate that its proposals have considered the relationship between its subject site and the sites external to the Hills Showground Station Precinct where adjacent. This includes:
   - Plans for Castle Hill Showground as at the time of the DA. It is noted that at the time of publication of these Urban Design Guidelines the Castle Hill Showground Masterplan was at Draft status but may be further progressed when this control is enforced.
   - Plans for Cattai Creek Corridor as at the time of the DA. It is noted that at the time of publication of this UDG, the Cattai Creek Corridor Revitalisation Project was in its infancy. A Draft Master Plan had not yet been published.
   - Development Applications within the rezoned residential areas along the south of Carrington Road and north-east of Showground Road
2. These relationship considerations must include the following elements:
   a. the quantum, location and operations of non-residential uses located along pedestrian desire lines, street interfaces, public open space interfaces and within podiums
   b. the location, programme and function of public open spaces, the collective public and private domain character, finishes and materials, street furniture and fixtures, public art and interpretation
   c. the relationships between the built form, site coverage, podiums, primary and secondary setbacks, building height, transition, separation, articulation, facades, finishes and materials
   d. precinct-wide requirements for vehicular circulation, access, car parking, service vehicles and waste collection, pedestrian and cyclist connectivity
   e. precinct-wide landform, cut and fill, topography, integrated water management, wind impacts and micro-climates

This control is to be demonstrated via the inclusion of key material within the development application that specifically describes these relationship matters, including:

- a coordination diagram/plan and key section(s) where appropriate
- associated commentary to effectively describe how the above matters are considered and the objectives achieved
- summary of the consultation that has occurred with those in control of the design of the adjacent areas and how this has underpinned the resulting design approach

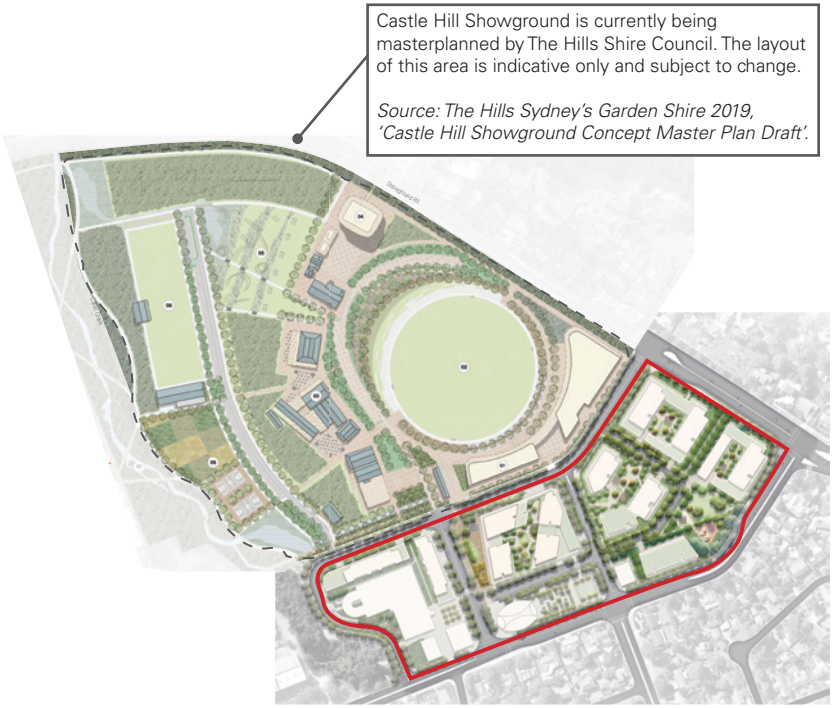

Figure 27: The Site in the context of the Castle Hill Showground Concept Masterplan Draft

Figure 28: The extent of the Cattai Creek Corridor - Revitalisation Project currently being undertaken by THSC Source: THSC

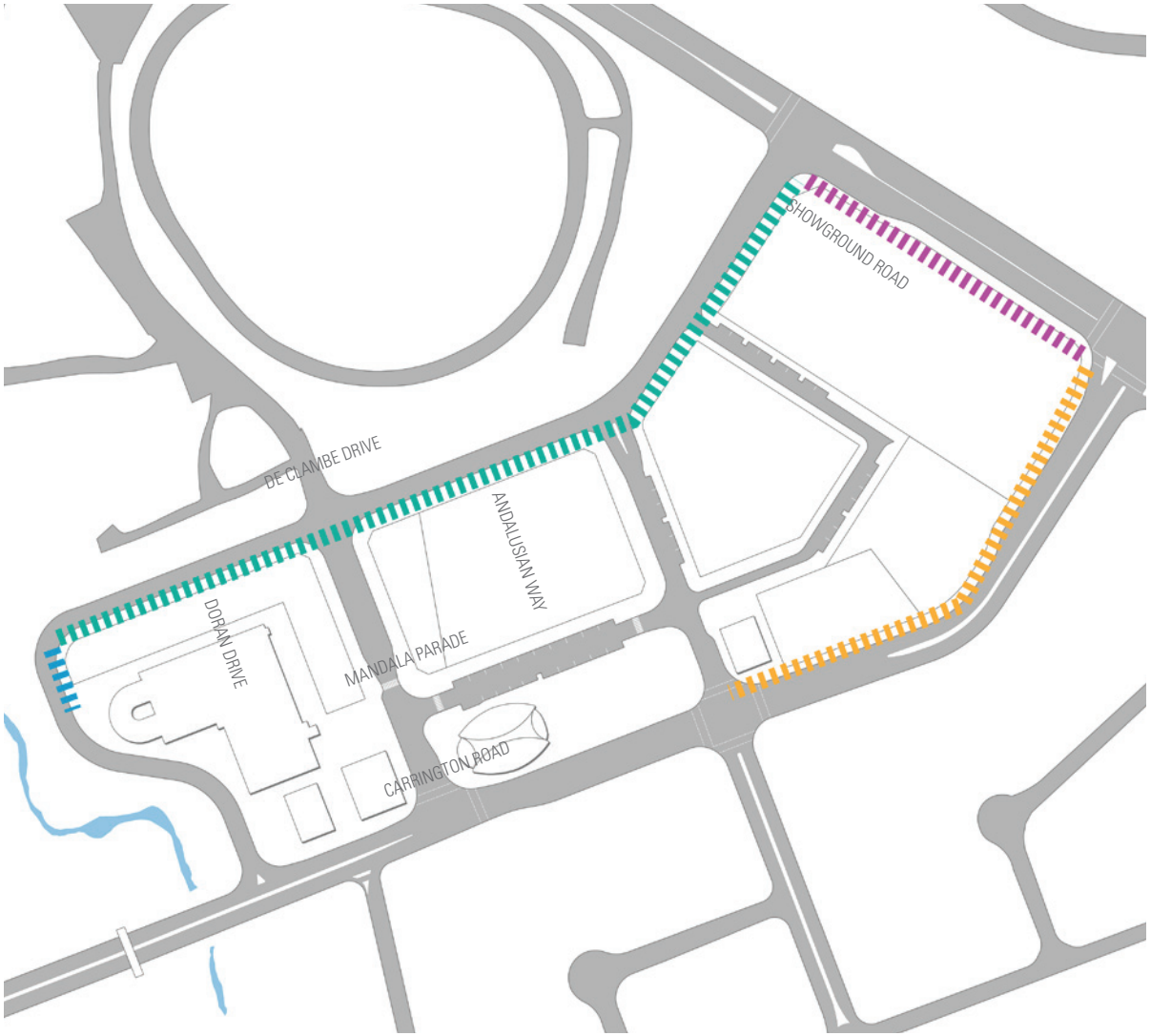

Figure 29: External Interfaces

2.8. Design Excellence

Achieving design excellence is of paramount importance for The Hills Showground Station Precinct and is a fundamental reason for the production of the Urban Design Guidelines.

This section is to be read in conjunction with the Design Excellence Strategy (Landcom, 2020). It proposes a framework and process for achieving design excellence in the Hills Showground Station Precinct throughout the stages of the project lifecycle.

The Design Excellence Strategy outlines the roles and responsibilities of key stakeholders involved in the development and design review process of the future detailed design.

Clause 9.5, subclause 4 in The Hills Local Environmental Plan 2019 (THLEP 2019) addresses design excellence requirements within the Precinct that must be satisfied prior to approval.

The Consent Authority will be required to facilitate the formation of a design review panel (DRP) of either NSW Government Architect's – State Design Review Panel (SDRP) or Council's DRP. Where possible, SDRP members that formed part of the review panel during the Concept Proposal stage should be retained to form part of the DRP for future detailed DAs.

Further, the design review process requirement is outlined in Clause 9.5, subclause 5 in THLEP 2019.

Objectives

a. To support the Design Excellence Strategy in outlining how design excellence will be achieved through the roles and responsibilities of each stakeholder, at each stage of the project lifecycle in which design can be controlled to maintain design integrity and achieve design excellence.

b. To support the project vision, objectives and design excellence benchmarks during detailed design development.

Controls

1. Urban design and landscape architects are to be selected from the NSW Government Architect's 'Prequalification Scheme for Strategy and Design Excellence' or to collaborate with a pre-qualified architect.
2. All built form development across more than one lot is required to demonstrate architectural diversity in development outcomes. The use of multiple architects, which includes both established and emerging architectural firms, is encouraged.
3. All residential and non-residential development is to adhere to the Urban Design Guidelines.
4. Development is to address the principles of Crime Prevention Through Environmental Design (CPTED). Note: Consideration shall also be given to The Hills Shire Council's Policy Designing Safer Communities, Safer by Design Guidelines (June 2002).
5. All future detailed SSDAs are required to submit a CPTED Assessment
6. All development is to comply with the sustainability mandatory targets and use best endeavours to achieve the stretch goals as outlined in the ESD report and ESD Requirements Tool.
7. Residential flat buildings are to meet the requirements for adaptable housing within Part B Section 5 Residential Flat Buildings of The Hills DCP 2012.
8. All types of residential accommodation are to consider flexibility in the design to allow adaptation to meet the changing needs of residents due to ageing or disability.

2.9. Diversity and Inclusion

Providing for diversity and inclusion in the planning and design of The Hills Showground Station Precinct is of paramount importance to ensure housing choice for different demographics, living needs and household affordability levels, supporting the objectives outlined in clause 7.11 of the The Hills Local Environmental Plan 2019 (THLEP).

Affordable Housing

Affordable Housing is defined as housing for 'very low income households, low income households and moderate income households' under section 1.4 (1) of the EP&A Act.

Objectives

a. To ensure that the development promotes social and economic integration while providing households on lower incomes access to housing opportunities.

b. To ensure consistency in the material treatment of affordable and market dwellings.

Controls

1. A minimum of 5% of the number of dwellings delivered must be Affordable Housing. The location(s) and configuration(s) of affordable housing within the Hills Showground Station Precinct is flexible as long as the 5% minimum is met, and may occur on any or all of the associated development lots.
2. Affordable Housing must be integrated into the overall development with no discernible difference in quality when compared to market housing.
3. The provision of Affordable Housing must conform with the State Environmental Planning Policy (Affordable Rental Housing), 2009 (ARHSEPP).
4. Car parking for affordable housing is to be in accordance with Sections 3.2.13, 4.2.12, and 5.2.16 Car Parking and Access of this document consistent with State Environmental Planning Policy (Affordable Rental Housing) 2009.

Table 1: Hills Showground Precinct Apartment Mix

	Precinct West	Doran Drive	Precinct East
1 bedroom dwellings	No more than **25%** of the total number of dwellings (to the nearest whole number of dwellings) contained in the development are to be studio or 1-bedroom dwellings, or both.		
3 bedroom dwellings	At least **23%** of the total number of dwellings (to the nearest whole number of dwellings) contained in the development are to be 3 or more-bedroom dwellings.	At least **10%** of the total number of dwellings (to the nearest whole number of dwellings) contained in the development are to be 3 or more-bedroom dwellings.	At least **24%** of the total number of dwellings (to the nearest whole number of dwellings) contained in the development are to be 3 or more-bedroom dwellings.

Liveable and Adaptable Housing

Objectives

a. To encourage flexibility in design to allow people to adapt their home as their needs change.

b. To ensure the provision of homes that are easier to access, navigate and live in, and more cost effective to adapt when life's circumstances change.

c. To ensure a sufficient proportion of dwellings include accessible layouts and features to accommodate changing requirements of residents due to ageing or disability.

Controls

1. A minimum of 20% of apartments are to achieve a 'Design and As-Built' Livable Housing Australia accreditation at silver level or above.
2. Residential flat buildings and multi-dwelling housing are to meet the requirements for adaptable housing within part B Section 5 Residential Flat Buildings of The Hills DCP 2012.
3. Residential flat buildings and multi dwelling housing are to comply with the standards under the Disability Discrimination Act and Building Code of Australia.

Ongoing Objective

Refer to the Proof of Concept submitted with SSD-9653 for an example of how the above mix can be achieved.

Dwelling Typologies & Mix

Objectives

a. To provide housing choice to suit different demographics, living needs and household budgets.

b. To guide appropriate locations for differential typologies given their proximity to infrastructure and mixed-use areas, as well as adjacent residential areas and open space.

Controls

1. Apartment mix is to be provided in accordance with Table 1 below. The approach below achieves an overarching mix across the Hills Showground Station Precinct of:
   a. No more than 25% studio or 1-bedroom dwellings or both
   b. At least 20% 3 (or more)-bedroom dwellings.
2. Any variation to the apartment mix controls must be supported by a market demand assessment prepared by a suitably qualified professional.
3. Townhouse apartments are to be provided at a minimum along the new internal street to Precinct East where 12m high (3 storey) envelopes are stipulated.

2.10. Connectivity

2.10.1. Road Hierarchy

Objectives

a. To respond to the role and function of existing roads within the broader Showground Station Precinct.

b. To provide appropriate local access and services to the residential buildings and park.

Controls

1. A new local street with a 17m road reserve is to be provided within Precinct East as shown in Figure 30.
2. The new local street is to be consistent with the street profile in Section 5.2.13.
3. The new local street is to be two-way to provide vehicular access to the residential development lots.
4. An appropriate transition and connectivity is to be provided between the new public road and the existing roads to ensure a uniform and logical profile. This may be achieved through finishes, treatment and street trees.
5. The design and construction of road infrastructure shall comply with The Hills Shire Council's 'Design Guidelines for Subdivision and Developments'.

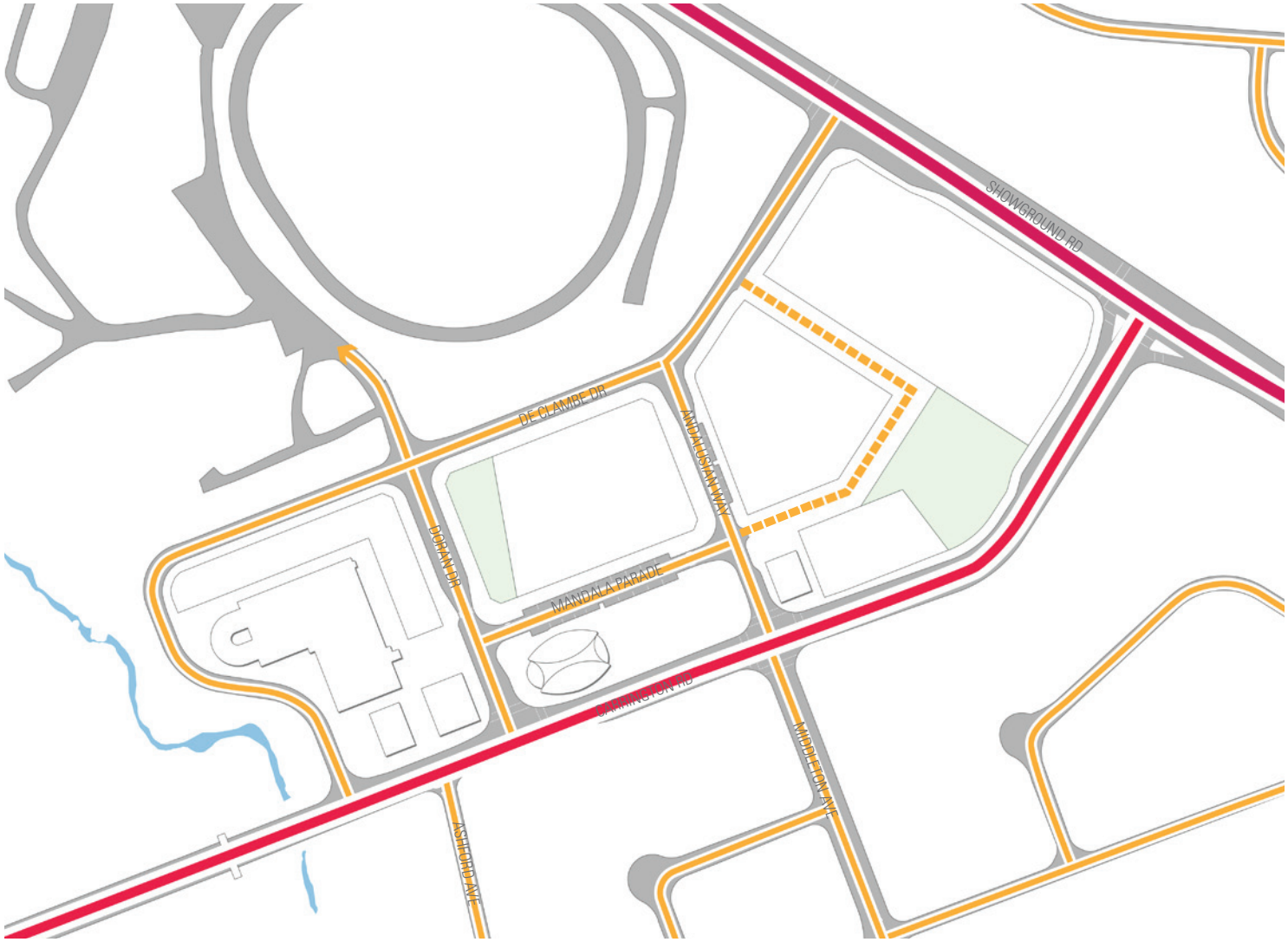

Figure 30: Road Hierarchy Plan

2.10.2. Active Transport

Objectives

a. To reduce reliance on private motor vehicles for trips undertaken to/from, through and within the Precinct.

b. To maximise public transport patronage and encourage walking, cycling and other forms of active transport.

c. To provide weather protected, active connections between the station, transport interchange, Doran Drive Plaza, Castle Hill Showground and the regional recreational resource of Cattai Creek via the existing footpath.

d. To complete the pedestrian and bicycle network, which includes a mixture of dedicated off-road routes and links to the existing active transport networks of the broader Precinct and the Garden Shire.

e. To consider the needs of the residents with particular consideration to access requirements, safety and security.

f. To ensure that appropriate pathways, with high levels of pedestrian amenity are provided for residents in the locality along identified desire lines in accordance with Council's ESD objective 9 (THDCP (2012) Part A Section 5.1).

g. To ensure provision is made for bicycle access and storage in accordance with Council's ESD objective 9.

Controls

1. Active transport movement and access throughout the Precinct is to be provided in accordance with Figure 31.
2. Shared paths are to have a minimum width of 2.5m.
3. Access to dwellings should be direct and without unnecessary barriers. All external and internal pathways and ramps should conform to the requirements set out in Australian Standard 1428 Parts 1 and 2.
4. Clearly defined pedestrian pathways are to be provided between proposed developments and proposed footpaths along sub-arterial roads.
5. Developments are to have adequate lighting in common and access areas to ensure the safety of residents and property.
6. Building and unit numbering and all signage is to be clear and easy to understand.
7. Pathway locations must ensure natural surveillance of the pathway from primary living areas of adjoining units. Dwelling entries must not be hidden from view and must be easily accessible.
8. Bicycle lockup facilities are to be provided close to the main entry to the building.

Figure 31: Active Transport Movement and Access

* *Note that the base diagram for the Guidelines shows a road reserve that indicates a one-way street between Andalusian Way and the new local park, however, the intent is for this street to carry two-way traffic*

2.11. Public Domain and Landscape

The public domain and landscape design is integral to creating a Precinct that is a successful and vibrant place to work and live, captures and enhances the local character, and integrates into the local context.

The following section contains objectives and controls as they pertain to the public domain and landscape within the Hills Showground Station Precinct.

These guidelines directly respond to the key issues outlined in the Showground Station Planned Precinct Public Domain Plan (The Hills Shire Council), including:

- The need to improve accessibility and connections across the Precinct for pedestrians
- Increase the quality of public space
- Build upon the cultural identity, legibility and identity of the Precinct
- Provision of cohesive and attractive streetscapes.

These guidelines will need to be addressed in the design of both public and private spaces to ensure a cohesive and high-quality outcome for the Precinct.

Reference Documents

The following documents provide further valuable guidance that should also be referenced during the public domain and landscape design process.

- **Sydney Metro Northwest Places Public Art Guidelines (Landcom, 2020)** (the Guidelines) will guide the integration of public art through all stages of the project. The Guidelines will assist development teams and other stakeholders incorporate public art into development projects and ensure a consistent approach in delivering public art across Sydney Metro Northwest Places (SMNWP).

  The Guidelines provides information on the approach for the development, production, installation and management of temporary and permanent art within the public domain, private developments and transit connections across SMNWP. Specific to the project, the Guidelines detail the key thematic framework for public art in SMNWP - the idea of a network represented by the connections we have to things, people, places and the environment, and the mutual effects we have on each other.

- **Showground Station Planned Precinct Public Domain Plan (The Hills Shire Council, 2018):** This Public Domain Plan has been prepared to guide the future public domain design interventions and strategies for the Showground Planned Precinct in Castle Hill. The Public Domain Plan sets an urban framework to support the growth and transformation of the Showground Planned Precinct and complements both The Hills Local Environmental Plan 2019 and Development Control Plan 2012 and the Strategic Objectives of the Greater Sydney Commission's Greater Sydney Region Plan and Central City District Plan.

Figure 32: Vibrant community spaces. Source: OCULUS.

Figure 33: Cohesive and attractive public domain and landscape design. Source: OCULUS.

2.11.1. Public Open Space

Objectives

a. To deliver a well-connected, accessible, high quality, diverse, multifunctional and flexible public open space.

b. To reinforce primary connections between the Precinct, the Hills Showground Station, Castle Hill Showground and Cattai Creek.

c. To provide a central open space that can perform as the active community 'heart' over the Precinct.

d. To provide sufficient open space to suit the needs of the residents, employment community and visitor, and that complements the existing open space network.

e. To ensure clear, legible and safe pedestrian and cycle connections, including links to the regional cycle network.

f. To deliver an environmentally and socially sensitive and responsive design that ensures the environmental qualities of surrounding landscapes are maintained or enhanced.

g. To provide an emphasis on local character and a continuity of landscape.

h. To ensure the delivery of public art assets as part of an integrated public domain and public open spaces

i. To retain the existing landscape qualities within public open spaces in terms of topography and existing trees.

Controls

1. Two new publicly accessible open spaces are to be provided:

   a. An urban plaza in the mixed-use Doran Drive Precinct – Doran Drive Plaza

   b. A local park within the new residential neighbourhood of Precinct East – Precinct East Park.

2. A publicly accessible pedestrian link is to be provided between Precinct East Park and Showground Road with a minimum width of 8m.

3. All new publicly accessible open spaces are to be universally accessible and compliant with the Disability Discrimination Act 1995 (DDA).

4. Buildings that interface directly with the publicly accessible open spaces are to be accessed from those spaces via active retail and commercial frontages or residential courtyards.

5. Attractive, high quality outdoor spaces for children to play shall be integrated into the public domain where appropriate. Such spaces should allow for interactive play and include seating and shading.

Doran Drive Plaza

6. Doran Drive Plaza is to be a minimum 1,400m² of publicly accessible open space located in accordance with Figure 34 and the drawings forming part of the Plans for Approval.

   Additional detailed controls for Doran Drive Plaza can be found in Section 4.2.1.

Precinct East Park

7. Precinct East Park is to be approximately 3,200m² of public open space located in accordance with Figure 34 and the drawings forming part of the Plans for Approval.

   Additional detailed controls for Precinct East Park can be found in Section 5.2.1.

Utility Infrastructure

8. Electricity reticulation and telecommunications is to be provided underground for all urban development.

9. Any existing above-ground electricity reticulation service is to be relocated underground during the construction stage, to the satisfaction of the relevant authority, with the exception of main transmission lines.

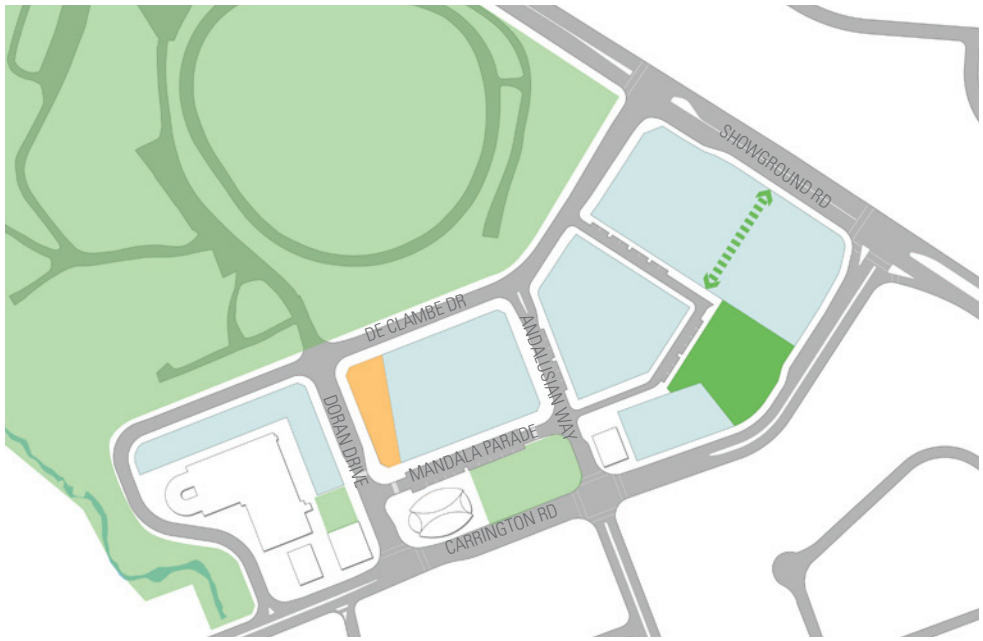

Figure 34: Public Open Space

2.11.2. Communal Open Space

Objectives:

a. To provide additional amenity and recreational opportunities within the private domain for the residents of the Precinct.

Guidelines

1. Communal open space is to be provided in the form of private areas at ground level, podium and rooftop level in accordance with SEPP 65 Apartment Design Guide.
2. External (outside) communal open space areas are to be located and designed to:
    a. Be seen from the street between buildings
    b. Provide for active and passive recreation needs of all residents
    c. Provide landscaping
    d. Present as a private area for use by residents only
    e. Include passive surveillance from adjacent internal living areas and/or pathways
    f. Have a northerly aspect where possible
    g. Be in addition to any public thoroughfares.
3. Internal communal open spaces are to be located within a larger courtyard accessible via ground floor residential courtyards.
4. Communal open space is to provide a range of uses including seating, picnic facilities, play spaces, productive gardens and lawn areas amongst generous planting.
5. Internal open space areas are to provide opportunities for larger communal gathering and/or active recreation (i.e. kitchen facilities, tables and chairs, small-scale gymnasium or health studio) where possible.
6. Communal open space in Precinct East is to be primarily at grade and read as a continuation of the adjacent public domain character in planting and materiality. Small trees suitable for the landscaped area provided are encouraged.
7. Podium and rooftop gardens across all precincts are to incorporate a minimum of 70% native planting for local character, however this may be supplemented with exotics for colour and variation, and edible species as part of vegetable or herb gardens.
8. Rooftop gardens must be adequately enclosed and accessible to occupants of the development.
9. Roof features shall be designed to generate an interesting skyline and enhance views from adjoining developments and surrounding areas.
10. The design of exterior private open spaces such as podium or rooftop gardens are to achieve amenity by addressing visual and acoustic privacy, safety, security and wind effects.
11. The location and design of communal open space is to achieve direct sunlight to the principal usable part of the communal open space for a minimum of 2 hours between 9am and 3pm at the winter solstice (21 June).

Figure 35: Productive communal open spaces

Figure 36: Accessible, passive and private communal open spaces

2.11.3. Materials and Elements

Objectives

a. To emphasise local character and a continuity of landscape.

b. To provide robust and site appropriate materials and elements across the public domain.

c. To respond to the materials and elements in the existing open spaces and streets in the broader Precinct.

d. To ensure that high quality public art is incorporated into the fabric of buildings in the public domain or other publicly accessible areas.

Controls

General

1. All public domain materials and elements including walls, furniture and play equipment are to be durable and of a quality that can withstand public use and high pedestrian volumes.
2. Where communal open space is at ground level, the materiality is to be complimentary to the adjacent public domain and may include additional materials such as brick and/or stone paving. Materiality of podium and rooftop communal open space is to relate to and complement the materiality of the building.
3. Fencing may be provided to delineate private vs public space, however should provide clear views into the ground level private open space.
4. The fencing materials chosen must protect the acoustic amenity and privacy of courtyards.
5. All boundary fencing/ walls fronting a street shall be setback to permit landscaping, and shall include recesses and other architectural features.
6. All fencing or walls shall be combined and integrated with site landscaping.
7. Fencing details for the site, clearly showing the location, height and type of proposed fencing is to be submitted as part of the development application.
8. Lighting is to be provided to all public spaces and connections for interest, wayfinding and safety purposes. Lighting shall be designed to minimise glare and light pollution and is to be aesthetically pleasing, functional and relates to intended night time use and activity.
9. Outdoor seating, bins, drink fountains and other furniture items are to be provided in consultation with, and to the satisfaction of, The Hills Shire Council, unless these elements are otherwise integrated within landscape design and treatments and that appropriate vehicular access is provided to facilitate maintenance.
10. Signage is to be provided in accordance with Sydney Metro's Northwest Wayfinding Strategy.

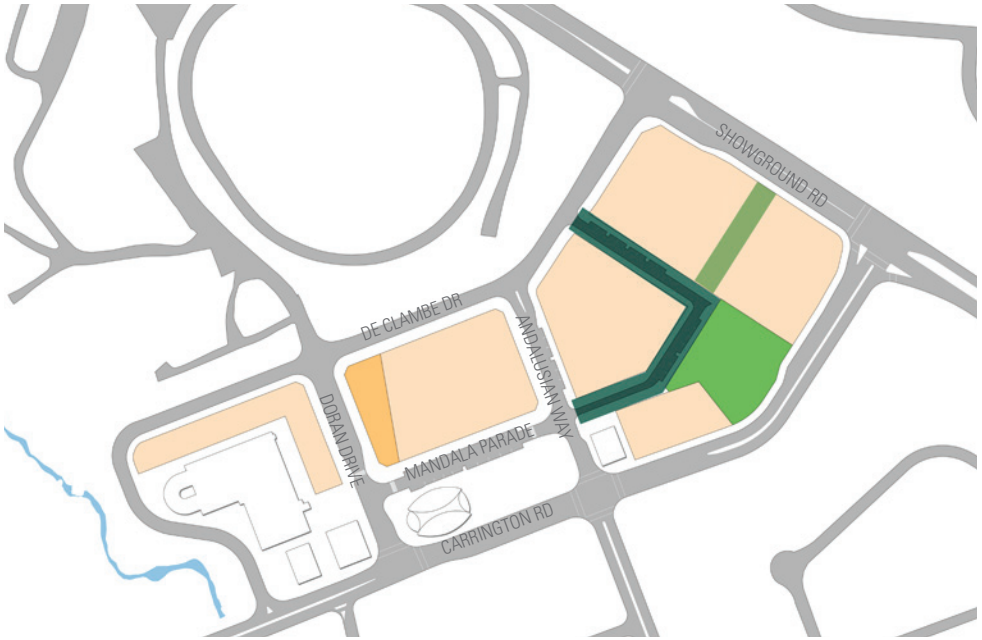

Figure 37: Public Domain Materials and Elements

Key spaces

There are a number of key spaces within the Concept Plan that will have bespoke controls in relation to their materials and elements. These are listed below along with the Section of the UDG in which these controls can be found.

Public Domain Areas	Location of associated materials and elements controls
Doran Drive Plaza	Section 4.2.1 'Doran Drive Plaza' of the Doran Drive Precinct Guidelines.
Precinct East Park	Section 5.2.1 'Precinct East Park' of the Precinct East Guidelines.
Precinct East Pedestrian Link	Section 5.2.2 'Publicly Accessible Pedestrian Link' of the Precinct East Guidelines.
Precinct East New Street	Section 5.2.13 'Precinct East New Street' of the Precinct East Guidelines.

2.11.4. Planting and Trees

Objectives

a. To reinforce the Garden Shire context of the Precinct through extensive and diverse planting across public and private open space.

b. To emphasise local character and a continuity of landscape.

c. To respond to the existing planting across open spaces and streets in the broader Precinct.

d. To retain existing trees within open space where possible.

e. To enable survival and growth of new trees to achieve a large scale.

f. To increase canopy cover and biodiversity.

g. To enable the unique history and heritage of the site to be reflected through plant species and garden design.

Controls

Species

1. Planting design is to be appropriate for the intended location and function. Tree and plant species selection must take into account a number of factors including:
    a. Climate/microclimate
    b. Size requirements/constraints
    c. Form
    d. Native/exotic
    e. Density of foliage
    f. Growth rate
    g. Availability
    h. Maintenance (i.e. leaf fall, fruit drop) and safety (i.e. branch drop)
    i. Other considerations such as interpretation, which is outlined in the Interpretation Strategy for the precinct and must be used to guide decisions.
2. Drought tolerant plant species, and species that enhance habitat and ecology, are to be prioritised.
3. Native ground covers and grasses are to be used in garden beds and path surrounds. Turf is to be confined to useable outdoor areas.
4. Native species are to be used for the Water Sensitive Urban Design rain garden areas.
5. Tree and plant species are to reflect the four themes outlined in the Hills Showground Station Precinct Interpretation Strategy 2019, which are:
    a. Aboriginal Cultural Heritage and History
    b. Resistance and Rebellion
    c. Agriculture and Orcharding
    d. Pride in the Hills.
6. Consultation with The Hills Shire Council and with the Aboriginal community (as per Landcom's Draft Aboriginal Reconciliation Action Plan) is required to inform species choices.
7. Doran Drive Plaza is to utilise a combination of native and exotic species suited to its urban character with a minimum of 50% native species, including a grove of deciduous trees reflecting the area's history with orchards as outlined in Section 4.2.1. Public Art and Interpretation.
8. Precinct East Park and the pedestrian link are to have a palette of predominantly native plants (minimum 70%) that includes existing trees. Exotic deciduous trees (to a max 30% of total park trees) may be incorporated into the park as a feature and to provide solar access in winter.
9. Communal open spaces are to contain predominantly native species (minimum 70%) at ground level. Edible and exotic feature species are acceptable on podium and rooftop gardens.

Figure 38: Native planting palette

Figure 39: Deciduous Grove Planting

Existing Trees

10. All existing trees within Precinct East Park that are of arboricultural significance are to be retained and protected, where possible.

New Planting and Trees

11. Planting in the public domain is to be combined and layered in a way that provides visual interest, reduces visible areas of mulch, is easily maintained, provides screening where appropriate and maintains clear sight lines where needed.
12. Layered planting is to be used to define the public and private interface with residential buildings, and to provide filtered views and adequate screening to balconies and front courtyards of garden apartments while maintaining visual surveillance of the public domain.
13. Large trees are to be planted in the new street in Precinct East, building setbacks and public spaces to provide scale and partial screening to built form in accordance with the Tree Canopy Cover controls contained in Section 2.16.4
14. The new street in Precinct East is to have a predominantly native palette of large trees for scale and shade.
15. New street trees within Precinct East to be planted at least at 10m intervals.
16. Where primary setbacks exceed 6m, deep soil areas are to be incorporated for large scale planting.

Figure 40: Planting and Trees

17. Trees and planting are to be used to provide a comfortable microclimate, including shade for seating and footpaths and adverse wind amelioration. In particular, dense evergreen trees shall be provided and shrubs and hedging shall be considered to improve wind conditions in the pedestrian link, at building corners, and between Precinct East Park and Andalusian Way.
18. Vegetation of the required size and nature is to be provided in locations identified in the wind assessment that is required to be submitted with a Development Application in accordance with Section 2.16.2.
19. Landscaped areas are to have a minimum width of 2m. Areas less than 2m in width will be excluded from the calculation of landscaped area.
20. Soft landscaping to the front of the terrace is to be a minimum of 40% of the setback area, contiguous, and a minimum of 2m in any direction.
21. Landscape design is to be integrated with water and stormwater management.
22. The incorporation of green walls and roofs into the design of commercial and residential buildings is encouraged. Where suitable, building facades should incorporate vertical landscaping features to soften the visual bulk of buildings and to improve streetscape appeal. Refer to Section 2.15 Sustainability for relevant controls.
23. Where roof gardens and green walls are provided, consideration should be given to the Urban Green Cover in NSW – Technical Guidelines, published by the Office of Environment and Heritage.

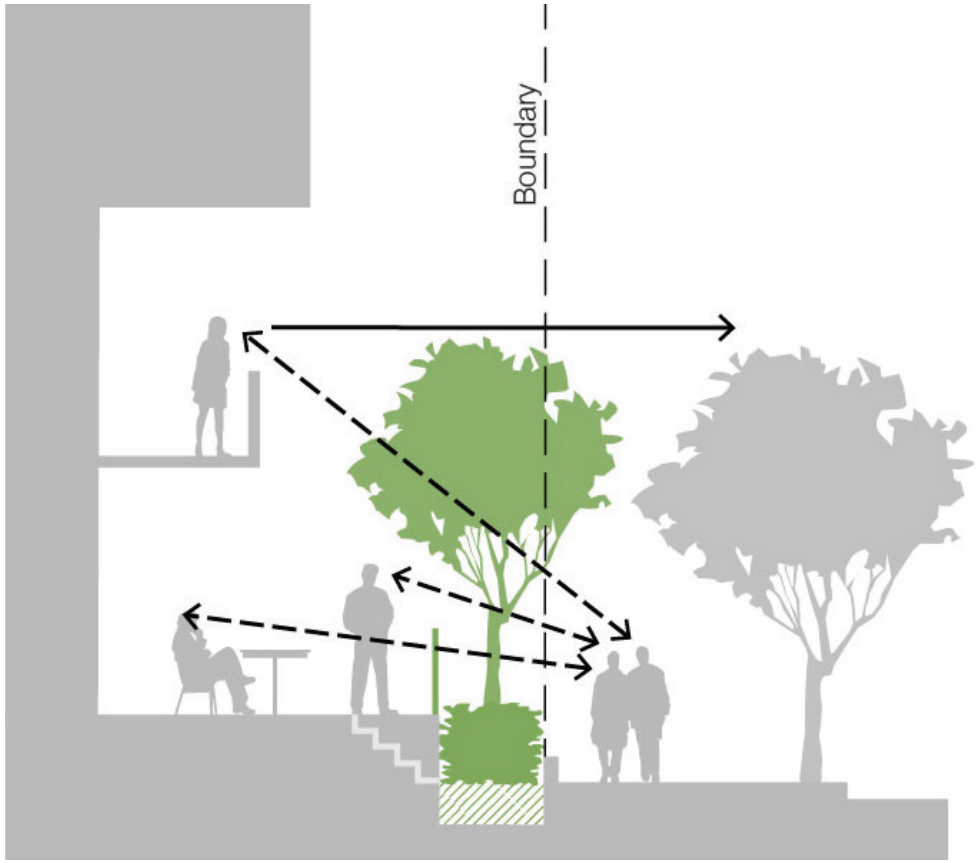

Figure 41: Public private interface

Figure 42: Awnings and vegetation to provide shading and wind protection

Figure 43: Greenwalls combined with sun shading elements

Figure 44: Existing trees retained within the redevelopment

Figure 45: Soft landscaping within the courtyard to a ground floor dwelling accessed from the public domain

Figure 46: Indicative species

Doran Drive Plaza:


Corymbia maculata


Callistemon ‘Better John’


Ficus macrocarpa ‘Hillii’


Liriope ‘Just Right’


Melaleuca quinquenervia


Lomandra tanika


Pyrus usseriensis


Hibbertia scandens

Precinct East Park:


Angophora costata


Sophora japonica


Hardenbergia violoacea


Viburnum odoratissimum


Eucalyptus punctata


Quercus palustris


Myoporum parvifolium


Pennesetum /Nafray’


Lophostemon confertus


Grevillea ‘Honey Gem’


Raphiolepis indica


Eucalyptus resinifera


Grevillea ‘Royal Mantle’


Westringia ‘Aussie Box’

Bioretention gardens:


Carex appressa


Eleocharia sphacelata

Note, plant species can be used to illustrate the four interpretive themes and stories, for example the use of native and endemic species to highlight Theme 1 - Aboriginal Cultural Heritage, or the use of exotic species to highlight Theme 3 - Agriculture and Orcharding or Theme 4 - Pride in the Hills.

Pedestrian link:


Waterhousia floribunda


Dianella caerulea


Westringia 'Aussie Box'


Myoporum parvifolium

Precinct East Street:


Corymbia maculata


Dianella caerulea


Liriope muscari

Public / Private interface:


Lagerstroemia indica


Pyrus calleryana 'Capital'


Buxus japonica


Viburnum odoratissimum

Communal open space:


Tristaniopsis laurina


Grevillea 'Honey Gem'


Acacia cognata 'Mini Cog'


Rosemarinus officinalis


Waterhousia floribunda


Anigozanthos 'Gold Velvet'


Trachelospermum jasminoides


Magnolia 'Exmouth'


Hardenbergia violoacea


Agapanthus orientalis


Lagerstroemia indica


Myoporum parvifolium


Westringia 'Mundi'

2.12. Culture

This section should be read in conjunction with the Hills Showground Aboriginal and non-Aboriginal Heritage Impact Statement (GML, 2019) – further referred to as the Heritage Impact Statement – which includes a site-specific Public Art and Interpretation Strategy.

Part 5, clause 5.10 (1) in The Hills Local Environmental Plan 2019 (THLEP) contains relevant objectives for heritage conservation in relation to: the environmental heritage of The Hills; the heritage significance of heritage items and areas in association with fabric, settings and views; archaeological sites; and Aboriginal objects and places of significance.

Although the site does not contain any heritage items listed within Schedule 5 of THLEP, the site is located within the vicinity of several local significant heritage items listed in THLEP (item number 52, 67, 68 and 69) and the Castle Hill Showground (although not listed) has been identified as a potential heritage item with cultural significance in the Heritage Impact Statement.

Further, Part 9, clause 9.5, subclause 4 in THLEP addresses heritage conservation, including both Aboriginal and European heritage within the Precinct that must be satisfied prior to approval.

Objectives

a. To appropriately design and locate the development with sensitivity in order to minimise the likelihood of disturbance, impact or interface with any significant heritage items.

b. To narrate the different stages of historical land use in the study area and wider area through the design of built form, landscape and public art.

c. To embrace and respond to Landcom's Draft Reconciliation Action Plan (RAP).

d. To foster a strong sense of culture and community within the new residential and non-residential population.

e. To connect and celebrate the non-Aboriginal and Aboriginal cultural heritage of the site and its context.

Controls

1. Development at, or within the vicinity, must have regard to any heritage items listed in Schedule 5 of THLEP.

2. Future detailed design stages of the buildings should respond to the interface with the Castle Hill Showground site and provide an appropriate interface, through built form articulation and streetscape design in order to mitigate the impact on its setting.

3. Cultural connections are to be developed during detailed design via the four interpretive themes and stories by incorporating high quality public art into the fabric of buildings in the public domain, other publicly accessible areas or open space areas, as well as other meaningful elements that underpin the themes as outlined below:

Theme 1 - Aboriginal Cultural Heritage:

- Use extensive native planting across the public domain.
- Provide pedestrian and visual connections to Cattai Creek.
- Provide art and interpretation in public spaces and in consultation with the local aboriginal community.

Theme 2 - Resistance and Rebellion:

- Provide historical interpretation in public spaces.

Theme 3 - Agriculture and Orcharding:

- Plant communal vegetable gardens and fruiting trees in communal open spaces.
- Plant a grove of flowering trees in Doran Drive Plaza.

Theme 4 - Pride in the Hills:

- Provide visual and physical connections to the adjacent Castle Hill Showground.
- Provide public art and interpretation in public spaces.
- Acknowledge the context of 'The Garden Shire' through extensive tree and understorey planting, planted setbacks to buildings, green roofs and podium gardens and visual connections to open spaces.
- Provide space for public community events and gatherings in Doran Drive Plaza.

This is to be documented within the site-specific public art and interpretation plan that is also referenced in control number 10 of the Public Art and Interpretation section.

4. Undertake appropriate and meaningful consultation and collaboration for the planning and production of Public Art and Interpretation as outlined in Control 4 of the Public Art and Interpretation section.

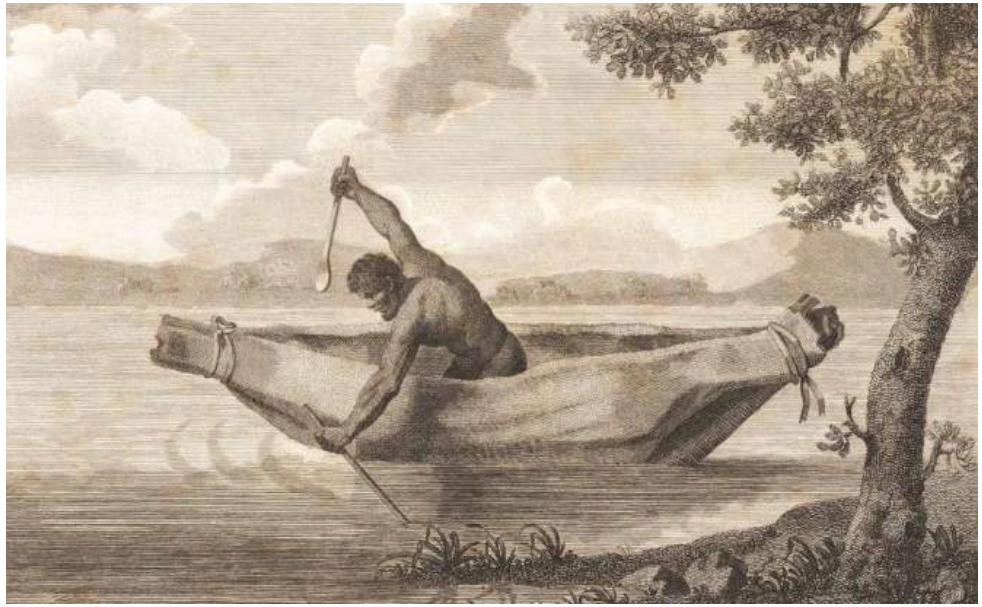

Figure 47: Theme 1 - Aboriginal Cultural Heritage. Source: GML Hills Showground Station Precinct Heritage Interpretation Strategy 2019.

Figure 48: Theme 2 - Resistance and Rebellion. Source: GML Hills Showground Station Precinct Heritage Interpretation Strategy 2019.

Figure 49: Theme 3 - Agriculture and Orcharding. Source: GML Hills Showground Station Precinct Heritage Interpretation Strategy 2019.

Figure 50: Theme 4 - Pride in the Hills. Source: GML Hills Showground Station Precinct Heritage Interpretation Strategy 2019.

2.13. Public Art and Interpretation

This section is to be read in conjunction with the SMNWP Public Art Guidelines and the Hills Showground Station Precinct Interpretation Strategy (prepared by GML, 2019).

The integration of interpretative content and public art, is guided by the SMNWP Public Art Guidelines (the Guidelines).

The delivery of permanent public art will help build the unique story of each place, encourage social connections and bring life to public spaces. Reference should be made to the Guidelines for further information regarding the integration of public art including the objectives, principles, suggestions for types of artworks to be included in proposed locations and thematic framework (the network).

Sub-themes specific to Hills Showground Station Precinct are detailed in the Hills Showground Station Precinct Heritage Interpretation Strategy (GML, 2019).

The integration of public art and the interpretation of cultural content needs to align with Part 9, Clause 9.4, (4) (l) of the THLEP 2019 - *the incorporation of high quality public art into the fabric of buildings in the public domain or other publicly accessible areas.* This is in addition to the three public art and interpretation locations – Doran Drive Plaza, Precinct East Park and Precinct East publicly accessible pedestrian link.

Objectives

a. To celebrate the Aboriginal and European heritage of the site and its surrounds.

b. To add interest and local character to the public domain through public art and interpretation by including a range of public artwork types via an engagement of a Public Art Curator.

c. To select themes that reflect resonant and enduring ideas from the past and connect with values, interest and the kinds of experiences that has meaning and relevance to today's diverse communities.

d. To engage diverse communities and artists in a shared creative dialogue through consultation with local experts including The Hills Shire Council, state records and representatives of the Aboriginal community to ensure public art and interpretation are a true expression of the lived history of the area.

e. To ensure public art:

- exemplifies artistic excellence and integrity, and is driven by curatorial merit;
- contributes to cultural identity and creates a distinctive sense of place for each precinct – both past and present;
- helps build stronger, more connected communities;
- can be enjoyed by people of varied ages, backgrounds and abilities;
- relates well to the built and natural environment, and is genuinely integrated into new development;
- is appropriate and safe in public contexts, and is durable and easily maintained;
- responds to the challenge of climate change through sustainable design and fabrication.

Controls

1. Deliver on the recommendations of Landcom's Hills Showground Station Precinct Heritage Interpretation Strategy (GML, 2019) and SMNWP Public Art Guidelines through the design and implementation of public art and interpretation within the public domain.
2. Develop an Implementation Plan including:
   a. the engagement of a Public Art Curator and evaluation panel to determine the suitable public artwork type for each opportunity;
   b. the selection of a preferred procurement strategy;
   c. the undertaking of stakeholder consultation.
3. Where indigenous artworks are to be included, undertake appropriate and meaningful consultation and collaboration for the planning and production of Public Art and Interpretation.
   a. Landcom's Draft Reconciliation Action Plan (RAP), which is expected to be completed late 2020 will include the development of the appropriate consultation required with Indigenous communities.
   b. In lieu of the completion of the Landcom RAP (expected in late 2020), the SMNWP Public Art Guidelines makes reference to the Arts Council of Australia "*Protocols for Producing Indigenous Australian Visual Arts Guide*." This Guide provides an appropriate process

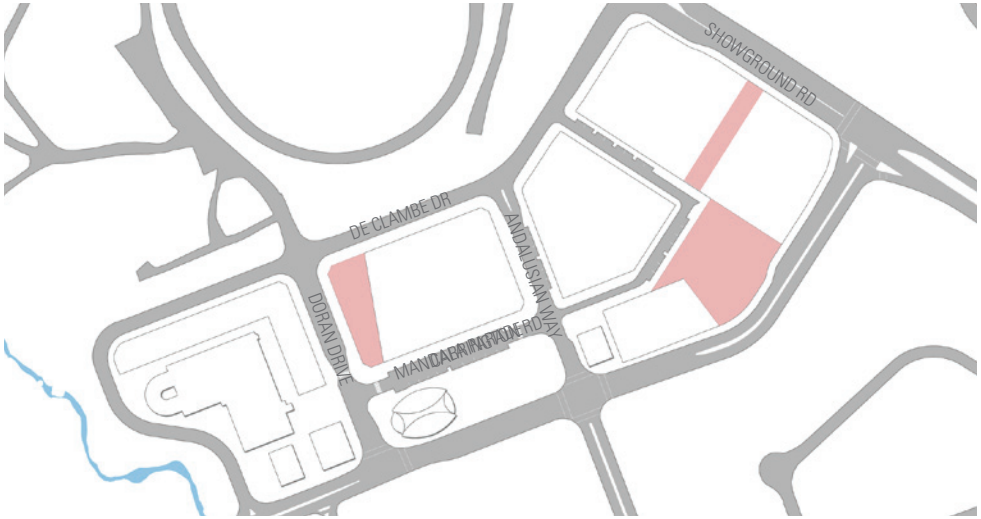

Figure 51: Potential Public Art Locations

of consultation for engaging on and producing Aboriginal Art and is encouraged to be used during consultation for Indigenous public art and interpretation in the Doran Drive Plaza, Precinct East Park and the pedestrian link.

c. The SMNWP Public Art Guidelines also outline the processes for genuine collaboration and consultation with other stakeholders including community groups and local council to assist in building on and delivering public art and interpretation. The steps provided in the SMNWP Public Art Guidelines are to be used for planning and delivery purposes.

4. Include and select themes and stories that celebrate and present the local character of the area. The key thematic framework for public art in SMNWP lies in the idea of a network represented by the connections we have to things that we value throughout our lives, including the relationships we develop with people, places and the environment, and the mutual effects we have on each other.
The network consists of five key themes.

   – **Human and Environment**: art with a focus on sustainability and our relationship to the environment.

   – **Art and Community**: art that is participatory and socially engaged and fosters connectivity.

   – **Here and Far**: art that transports us literally or through the imagination.

   – **Past and Present**: art that connects us to stories specific to the site over time.

   – **Existing and New**: art that celebrates renewed sites and development.

   The Hills Showground Station Precinct has further developed this with four sub-themes specifically related to the Aboriginal and European heritage interpretation for the precinct including:

   – Theme 1 - Aboriginal Cultural Heritage

   – Theme 2 - Resistance and Rebellion

   – Theme 3 - Agriculture and Orcharding

   – Theme 4 - Pride in the Hills

5. The following suggested devices provide interpretive solutions that best fits within the scale of opportunity sites for public art and complements the surrounding built form.

   – Device 1 - Surface inlays

   – Device 2 - Lighting

   – Device 3 - Public Art / Murals

   – Device 4 - Branding and Naming

   Permanent artworks must be durable and weatherproof, fabricated to a high quality standard and seamlessly integrate into the landscape plan.

6. The public art and interpretation in Doran Drive Plaza may integrate an installation of an interpretive water feature within the plaza that reflects the site's connection to Cattai Creek, and a deciduous tree grove referencing the area's previous use for orchards, along with the devices listed above. For further information on Doran Drive Plaza, refer to the Doran Drive Precinct Guidelines.

7. Public art is to be included within the Precinct East Park and is to include integrated public domain elements. This may be in the form of surface inlays, sculptural interactive play elements or other integrated elements that meet the objectives. For further information on the Precinct East Park refer to the Precinct East Guidelines.

8. Public art and interpretation is to be included within the Precinct East publicly accessible pedestrian link. For further information on the Precinct East Park refer to the Precinct East Guidelines.

9. Procure a Public Art Curator to manage the commission of public artists and designers, to make use of local knowledge, experience and understanding, as well as strengthening the local arts industry.

10. Provide a site specific public art and interpretation plan that adheres to the 'Implementation Plan' as outlined in the SMNWP Public Art Guidelines, and outlines how the objectives and controls in this section are or can be met.

Figure 52: Device 1 - Surface Inlays

Figure 53: Device 2 - Lighting

Figure 54: Device 3 - Public Art / Murals

Figure 55: Device 4 - Branding and Naming

2.14. Integrated Water Management

Water Sensitive Urban Design (WSUD) principles promote the sustainable and integrated management of land and water resources, incorporating best practice stormwater management, water conservation and environmental protection measures.

This section is to be read in conjunction with Hills Showground Station Precinct Integrated Water Cycle Management Strategy (IWCMS) (WSP, 2020), as part of the SSDA (SSD 9653).

Under *The Hills Local Environmental Plan 2019* (THLEP 2019) Clause 9.4, subclause 4 (j) addresses opportunities to apply integrated natural water-cycle design and (h) identification, extent and management of watercourses, wetlands and riparian lands and any buffer areas within the Precinct that must be satisfied prior to approval. Further, The Hills Development Control Plan (DCP 2012) Section 6, Part C – Flood Controlled Land provides objectives and controls relating to stormwater management, water sensitive urban design and flood risk management requirements.

Objectives

a. To carry out the recommendations of the IWCMS through the sustainable use and implementation of water treatment measures.

b. To ensure the quality and integrity of urban waterways is maintained and enhanced though both construction and occupation phases of the development at an individual lot, overall development and regional scale; to minimise impact in erosion or pollution to receiving waterways.

c. To utilise stormwater runoff to its fullest for non-potable purposes.

d. To minimise risk to life and property from minor or major flooding to an acceptable level.

e. To protect and enhance the integrity and functionality of ecology and significant riparian corridors.

Controls

1. Any water treatment measures provided are to be located within the development lot with provided access for inspection and maintenance. Water treatment measures are to consider gross pollutant traps and stormwater filtration devices at surface inlet pits and grated drains; linear bioretention in garden and tree beds; and along pedestrian and vehicle pathways are to provide for additional treatment of runoff from Precinct East.
2. Erosion and sediment control is to be provided to all points where stormwater runoff can enter stormwater systems or where runoff may leave the construction site, and have a documented maintenance plan.
3. A WSUD Management Plan is to be prepared that considers all placement and sizing of rainwater tanks to meet/ improve rainwater capture, and reuse application and demand for other array of purposes such as: outdoor use, laundries and toilets. In addition to capture and re-use stormwater from roof areas as irrigation for planting; selected plant species are to withstand the local climate and require a low amount of watering.
4. All floor levels are to be above the 1% AEP level + 0.5m freeboard (i.e. above 83.6 mAHD at the intersection of De Clambe Drive and Carrington Road, and above 78.7mAHD at the detention basin). All garages/ carpark entrances are to be protected from inundation by flood waters up to the 1% AEP + 0.5m.
5. For development adjoining the Cattai Creek riparian corridor an interface adopted riparian width of 30m from the 'top of bank' is to be considered each side of the creek. A minimum 7.5m built form setback is required to be provided to the riparian corridor. Underground carparks are not permitted within 5m of the riparian corridor boundary for Precinct West.
6. Consideration is to be given through the detailed design process to the reuse of greywater or blackwater.
7. Where used, vegetated bioretention measures are to be integrated and coordinated with the landscape design to be aesthetically pleasing and contribute to the visual amenity.
8. Any water feature integrated into the design of Doran Drive Plaza is to be low water use.
9. All stormwater drainage designs are to comply with the most up to date revision of Council's Design Guidelines Subdivision/Developments.
10. All developments are to implement an Erosion and Sediment Control Plan, prepared in accordance with 'Managing Urban Stormwater – Soils and Construction, to minimise land disturbance and erosion and control sediment pollution of waterways.
11. All developments within the Precinct are required to manage the pollutant loads from each separate allotment as per the IWCMS prior to discharge to any adjoining drainage system.
12. Water quality modelling undertaken to support development proposals within the Precinct shall utilise the latest version of MUSIC and be in line with the Draft NSW MUSIC Modelling Guidelines, Sydney Metropolitan Catchment Management Authority, 2010, utilising the modelling parameters in Tables 4 and 5.
13. For developments generating oils and grease, the additional objective of no visible oils for flows up to 50% of the one-year Average Recurrence Interval peak flow shall be achieved.

14. Water Sensitive Urban Design elements are to be designed and constructed in accordance with the following publications:

    a. Adoption Guidelines for Stormwater Biofiltration Systems – Cities as Water Supply Catchments, Sustainable Technologies (CRC for Water Sensitive Cities, 2015 or later)

    b. Australian Runoff Quality (Engineers Australia 2005)

    c. Water Sensitive Urban Design Technical Guidelines for Western Sydney (NSW Government Stormwater Trust and Upper Parramatta River Catchment Trust, May 2004).

15. Rainwater tanks are to be provided with potable water trickle top-up with a back flow prevention device, complying with Sydney Water requirements.

16. In accordance with the recommendations made in the publication "Guidance on the Use of Rainwater Tanks" (enHealth, Commonwealth Government 2004), diversion of the "first flush" of up to 180 litres is to be incorporated into the design of the rainwater tank and associated plumbing based on a minimum first flush of 1L/m2 of roof area.

17. The natural form, characteristics and function of waterways, including riparian land, are to be retained, restored, protected and enhanced wherever possible.

18. Waterway rehabilitation and construction works are to apply 'Best Practice' combination of soft and hard engineering techniques establishing a water sensitive, geomorphically stable, diverse and functional waterway corridor that addresses urban influences and considers the immediate waterway corridor and aquatic systems both upstream and downstream of a subject site.

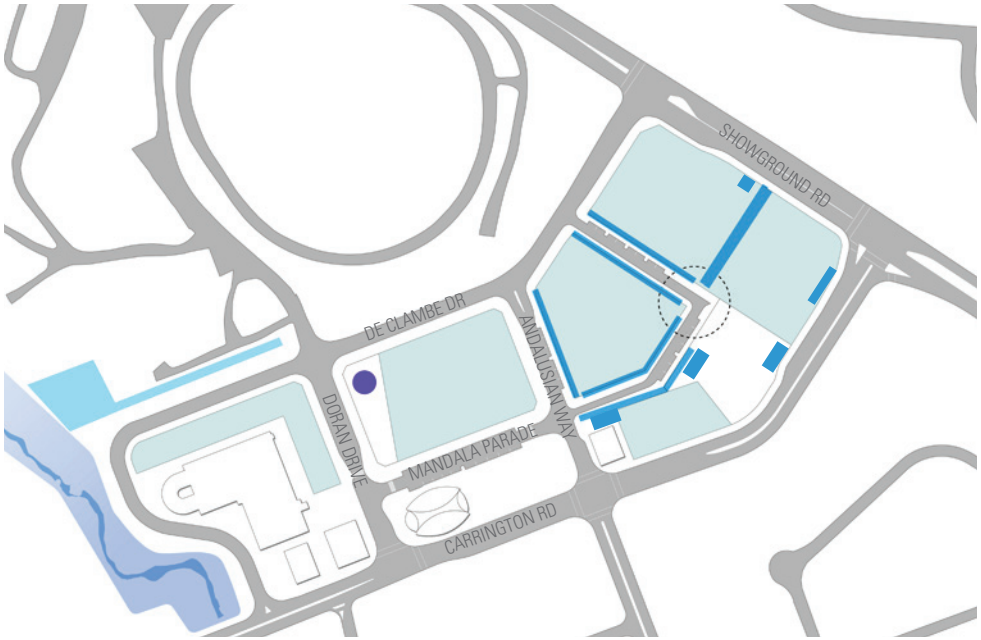

Figure 56: Landscape character and interpretation

Figure 57: Linear bioretention

2.15. Sustainability

This section is to be read in conjunction with the Ecological Sustainable Development Strategy (the ESD Strategy) prepared by WSP as part of the concept SSD Application (SSD-9653). The ESD Strategy successfully meets the requirements defined in the relevant planning legislations, policy and guidelines. Further, the ESD Strategy investigates through design, initiatives that maximise site specific opportunities and aligns with Landcom's Sustainable Places Strategy.

An updated ESD Requirement Tool summary table is provided in Appendix K with the SSDA (SSD-9653), which summarises:

- the mandatory ESD controls;
- the stretch ESD goals;
- the target source;
- the control stage;
- the Determining Authority; and
- the approval mechanism.

The following diagram depicts when approval mechanisms, advice and controls stages are required during the project lifecycle.

Objectives

a. To minimise energy and water consumption during operation and occupation of the Precinct.

b. To reduce waste generation and increase treatment.

c. To provide resilience to climate change projections.

d. To reduce dependence on private transport.

e. To increase biodiversity.

f. To reduce urban heat and improve amenity and comfort via natural and passive means wherever possible.

g. To meet the mandatory requirements outlined in Appendix K of the SSDA (SSD-9653) during detailed design, construction and operation, as they are carried out.

h. To continually improve the opportunities in advancing design or construction measures by achieving the stretch goals.

Controls

1. Achieve minimum 5 star Green Star 'Design and As-Built' with full points in 'Adaptation and Resilience' and 'Heat Island Effect' credits.
2. Achieve 4.5 star NABERS Energy rating (non-residential).
3. Achieve 5 star NatHERS Energy rating (residential).
4. Achieve minimum BASIX ratings 25-35 Energy rating and 40 Water rating.
5. Provide separate metering energy across commercial and multi-unit tenancies.
6. Provide tree canopy cover in accordance with the controls outlined in Section 2.16.3. Tree Canopy Cover of the UDG.
7. Ensure the project does not engage in modern slavery practices.
8. A minimum of 10% of total parking spaces are to have Electric Vehicle charging stations.
9. Canopy trees are to be planted within street verges and medians to provide shade and reduce pavement surface

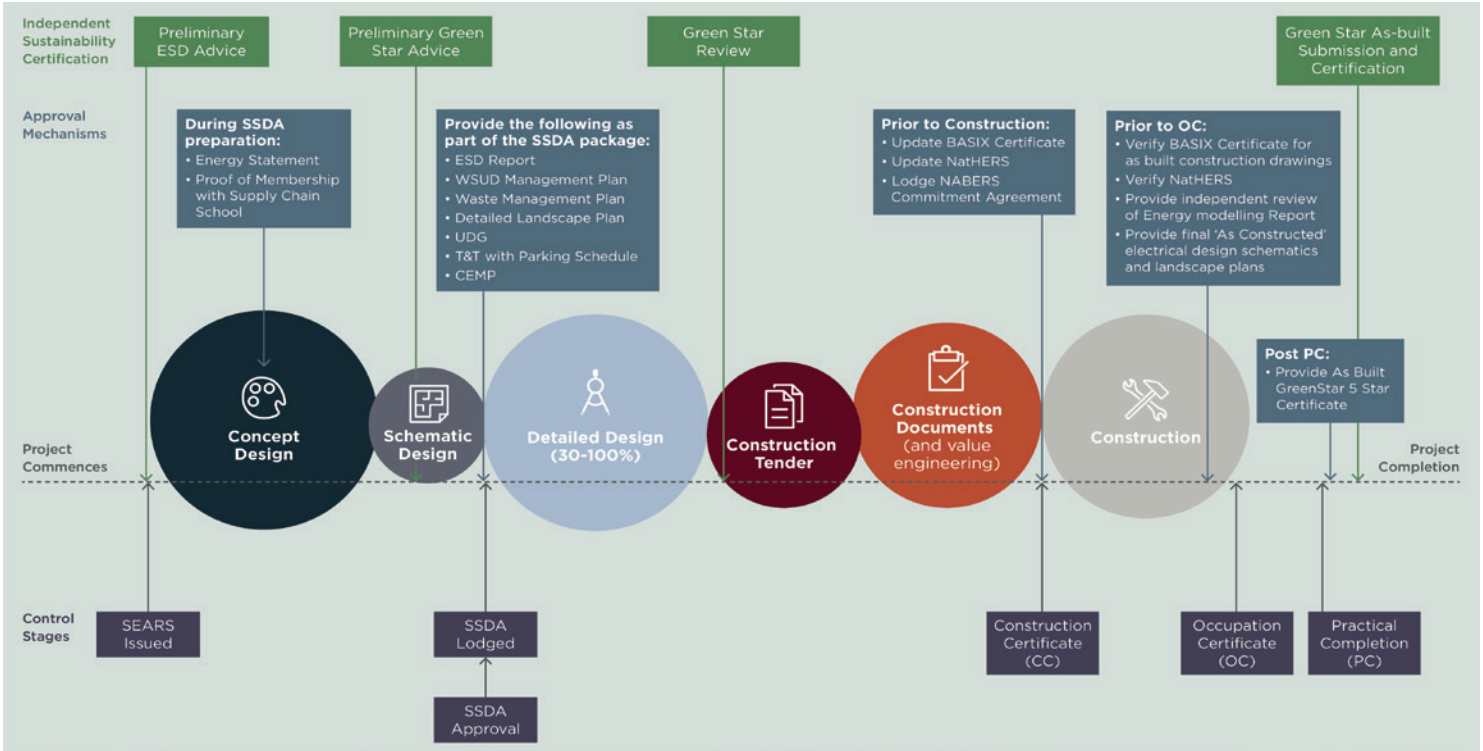

Figure 58: ESD Control Process (WSP, Landcom 2020)

temperatures. Understorey planting and permeable surfaces should also be provided where possible to reduce the extent of paved areas and to enhance the amenity of the streetscape environment.

10. As a minimum, external landscape in or on the building (such as rooftop gardens, green walls, green or brown roofs) must be provided at a ratio of 15% of the development lot area. Vertical or horizontal landscapes are acceptable. Indigenous planting is to be used; this should be suitable local endemic species, as far as possible.
11. Building designs are to:
    a. Maximise the use of natural light and cross ventilation;
    b. Reduce the reliance on mechanical heating and cooling through the use of eaves, awnings, good insulation and landscaping;
    c. Include energy efficient light fittings and water fittings;
    d. Allow for separate metering of water and energy usage for commercial and multi-unit tenancies.
12. Implement the key elements of the Integrated Water Cycle Management (IWCM) Strategy, including:
    a. Inclusion of rain water tanks
    b. Improvement of water quality treatment devices such as gross pollutant traps and filtration devices as well as linear bioretention in garden beds
    c. Selection of energy efficient equipment and fixtures.

Design Guidance

1. Follow the recommendations of the ESD Report (WSP, 2019) – Section 3. ESD Framework Strategy to ensure that sustainability is considered throughout all phases of the project. The recommendations seek to coordinate an integrated approach to the mandatory requirements and stretch goals to ensure best practice ESD initiatives are being implemented.
2. Compliance with Control 10 can be achieved in various ways. Communal Open Space (COS) on podiums/built form can contribute towards this, as seen in Figure 59. For example, if COS includes suitable endemic planting equal to 10% of site area, then the area of additional green roofs/walls planted with endemic species need only be equal to 5% of site area to achieve the 15% total target. Figure 59 provides a spatial illustration of the additional 5% of site area under this scenario. This amount of area could be provided via alternative means such as brown/green roofs, green walls and balcony planters.

Figure 59: Communal Open Space


Figure 60: Maximise native vegetation cover


Figure 61: Green walls

2.16. Amenity

2.16.1. Solar Access

Objectives

a. To ensure solar access to public open spaces achieves a high level of amenity year round for those visiting, residing and working in the Precinct.

b. To ensure that overshadowing from new development does not result in significant loss of sunlight and diminish the enjoyment of public and private open spaces.

Controls

1. Figure 62 prescribes the minimum proportions of the public spaces that are to achieve a minimum of 2 hours of sunlight between 9am and 3pm at the winter solstice (21 June). The minimum proportions are:
    a. Doran Drive Plaza - 100% (excluding areas under awnings)
    b. Station Plaza - 65%
    c. Precinct East Park - 70%
    d. Station Forecourt - 80%.

Figure 62: Solar Access

2.16.2. Wind and Weather Protection

Objectives

a. To allow for cooling summer breezes to move through the Precinct.

b. To ensure pedestrian comfort in streets, and public and private open spaces.

Controls

1. Secondary setbacks are to comply with the controls contained in Sections 3.2.4, 4.2.5 and 5.2.7 to mitigate wind down draft.

2. Wind and weather protection is to be provided at major entry points, active interfaces and dwelling/gathering spaces within the development lots and public domain.

    a. All non-residential interfaces are to have a 2.5m awning and/or operable screening to protect pedestrians from the elements. This applies in all conditions, including where there may be a 3m colonnade inset – refer to Section 4.2.10 Active Use and Street Frontage Street of the Doran Drive Precinct Guidelines.

    b. All building entry points are to have a 2.5m awning for the width of the entry.

    c. All non-residential interfaces to communal open space on a podium are to have a 2.5m awning and/or operable screening for the length of that interface.

    d. Localised screening is to be provided where longer duration activities are expected.

    e. Wind screens or planting are to be provided within publicly accessible through-site links and at corners of buildings.

    f. Awnings are to be designed to complement and integrate with the facade and the streetscape.

3. It is recommended that private courtyards on the ground floor are protected from down draft by an awning and/or operable screening where the existing/future trees in the public and private domain facilitate an awning.

4. Intertenancy screening, blade walls and recessed balconies are recommended where the communal area or private courtyard is elevated and subject to side-streaming winds.

5. Buildings 8 or more storeys in height (or over 25 metres) require wind tunnel testing, irrespective of whether they are built to the street frontage or not, which demonstrates the following:

    a. In walkways and pedestrian transit areas and streets where pedestrians do not generally stop, sit, stand, window shop and the like, the gust equivalent mean (GEM) should not exceed 7.5 metres per second, with 5% probability of exceedance.

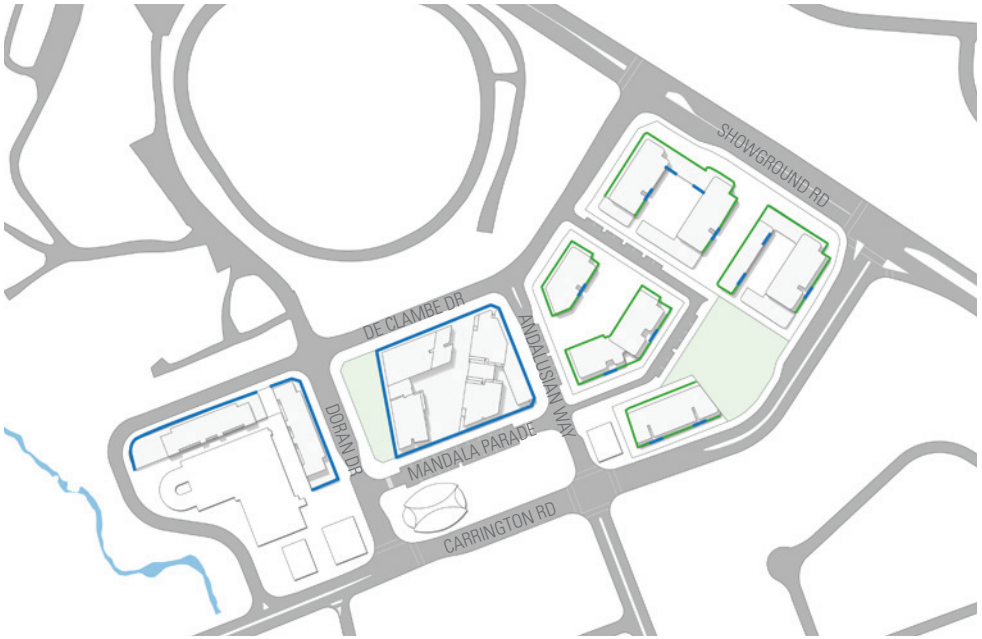

Figure 63: Awnings

    b. In areas where pedestrians are involved in stationary short-exposure activities such as window shopping, standing or sitting (including areas such as bus stops, public open space and private open space, cafes) the gust equivalent mean (GEM) should not exceed 5.5 metres per second, with 5% probability of exceedance.

    c. In areas for stationary long-exposure activity, such as outdoor fine dining or outdoor amphitheatres, the gust equivalent mean (GEM) should not exceed 3.5 metres per second, with 5% probability of exceedance.

    d. The wind tunnel testing report is to be prepared by a suitably qualified engineer.

2.16.3. Tree Canopy Cover

Objectives

a. To maximise tree canopy cover in order to increase biodiversity, reduce urban heat and provide shade and amenity.

Controls

1. In accordance with Figure 65, a minimum of 20% overall tree canopy cover is to be achieved within the Hills Showground Station Precinct (i.e. the combined canopy area of all trees contained within the entire site outlined in red).
2. In accordance with Figure 65, a minimum of 40% tree canopy cover is to be achieved for the new public domain areas, including Precinct East internal street, pedestrian link and park.
3. A minimum of 40% tree canopy cover is to be achieved in private open space areas of Precinct East.
4. Tree planting and canopy cover is to be maximised within all other private open space areas, including building setbacks, communal open space and rooftop/podium gardens, where possible.
5. Street trees are to be planted at 10m intervals to provide continuous canopy cover at expected mature sizes.
6. Adequate soil depth and volumes to support tree growth are to be provided in accordance with SEPP 65 Apartment Design Guide.

Figure 64: Maximise tree canopy cover

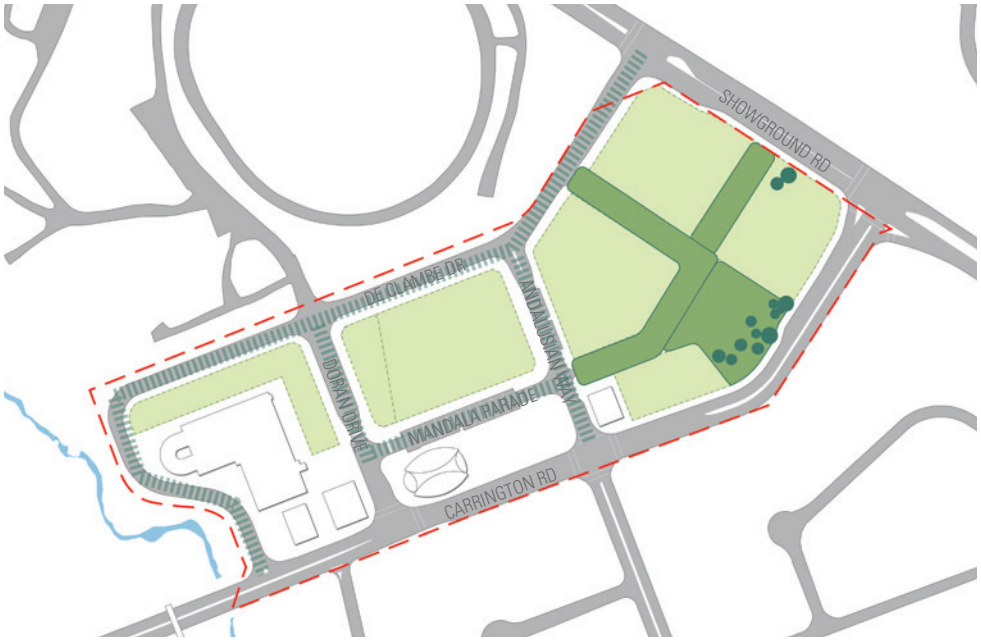

Figure 65: Tree Canopy Cover

2.16.4. Air Quality, Noise and Vibration

Objectives

a. To ensure good amenity for future residents and workers within the development lots through the provision of appropriate interfaces and mitigation of air and noise pollutant impacts.

b. To ensure development appropriately responds to noise and vibration impacts.

c. To minimise land use conflicts arising from noise impacts between non-residential and residential land uses.

d. To ensure that future residential development at the site satisfies the appropriate noise measures.

Controls

Air Quality

1. The external facade of a residential building is to be located at least 10m from the roadway of Showground Road.
2. Balconies that directly face Showground Road on the ground floor and first floor of any building should be able to be closed (i.e. a winter garden or sun room). Windows on the balcony side should be openable/closable to allow the occupant to prevent direct air flow from Showground Road as desired.

Noise

3. Residential accommodation is to be designed to ensure that the following LAeq levels are not exceeded (measured with windows closed):
    a. 35 dB(A) for any bedrooms between 10pm and 7am
    b. 40 dB(A) for anywhere else in the accommodation (other than a garage, kitchen, bathroom or hallway) at any time.
4. Residential accommodation is to be designed to ensure that the following LAeq levels are not exceeded (measured with windows open):
    a. 45 dB(A) (1 hour) for bedrooms between 10pm and 7am
    b. 55 dB(A) (1 hour) for anywhere else in the accommodation (other than a garage, kitchen, bathroom or hallway) at any time.
5. Site planning, building orientation and interior layout are to be used as tools to lessen noise intrusion as far as possible.
6. Attenuation of noise at the source is preferred. Applicants are to indicate measures undertaken to mitigate the impact of noise upon adjacent residents and/or workers.
7. It is preferable that noise attenuation measures last for a minimum of 10 years or the life of the development proposal, before being upgraded to meet current standards as required.
8. A Noise Impact Assessment prepared by a suitably qualified consultant may be required when submitting a DA for a new development or the renovation of an existing development.
9. The provisions of State Environmental Planning Policy (Infrastructure) 2007 and Development near Rail Corridors and Busy Roads Interim Guideline must be taken into consideration to minimise impacts of busy roads and railway corridors on residential and other sensitive development.

Figure 66: Approach to minimise noise and air quality impacts from abutting busy roads

General

10. Development shall address all applicable recommendations contained in the Hills showground Station Precinct Noise Impact Assessment (Renzo Tonin, October 2019) submitted as part of the SSDA package (SSD 9653).
11. Site planning, building orientation and interior layout are to be used as tools to lessen noise intrusion as far as possible.
12. Attenuation of noise at the source is preferred. Applicants are to indicate measures undertaken to mitigate the impact of noise upon adjacent residents and/or workers.
13. It is preferable that noise attenuation measures last for a minimum of 10 years or the life of the development proposal, before being upgraded to meet current standards as required.
14. A Noise Impact Assessment prepared by a suitably qualified consultant may be required when submitting a development application for a new development or the renovation of an existing development.
15. The provisions of State Environmental Planning Policy (Infrastructure) 2007 and Development near Rail Corridors and Busy Roads Interim Guideline must be taken into consideration to minimise impacts of busy roads and railway corridors on residential and other sensitive development.

Residential Uses

16. Development for the purposes of residential accommodation shall comply with the following requirements:

a. Appropriate measures shall be taken to ensure that the following internal traffic noise levels are not exceeded:

Table 2: Projected Internal Traffic Noise Levels

Period	Internal Space	Project Internal Noise Goals	
		Windows Closed	Windows Open
Between 10pm and 7am	In any bedroom	35 dB(A) LAeq (9hour)	45 dB(A) LAeq (9hour)
At any time	Any habitable space (other than a garage, kitchen, bathroom or hallway)	40 dB(A) LAeq (9hour /15hour)	50 dB(A) LAeq (9hour /15hour)

b. Appropriate measures shall be taken to ensure that the following internal noise levels from "normal use" of the active street fronts and Castle Hill Showground (i.e. combined patron and music noise) are not exceeded:

Table 3: Internal Noise Levels from "Normal Use" of Active Street Fronts

Period	Internal Space	Measured with Internal Windows Closed
Daytime/Evening (7am to 10pm)	In bedrooms	38dB(A) Leq(15min)
	Living rooms	43dB(A) Leq(15min)
Late Evening (10pm - midnight)	In bedrooms	35dB(A) Leq(15min)
From 7am up to midnight	Living rooms	40dB(A) Leq(15min)
Overnight (midnight to 7am)	Each tenancy inaudible at any residential receptor	-

c. Appropriate measures shall be taken to ensure that the following cumulative impacts of simultaneous road traffic noise and patron and music noise (provided they are individually compliant with Controls 7a and 7b) are not exceeded:

Table 4: Cumulative Impacts of Simultaneous Road Traffic, Patron and Music Noise

Internal Space	Recommended Noise Criteria	Maximum Noise Criteria
Living areas / Working areas	40 dBA LAeq(9hour /15hour)	45 dBA LAeq(9hour /15hour)
Sleeping areas	35 dBA LAeq(9hour /15hour)	40 dBA LAeq(9hour /15hour)

Non-Residential Uses

17. Environmental noise intrusion from road traffic noise and operational noise to non-residential uses shall comply with the design internal sound levels of Australian/New Zealand Standard AS/NZS 2107:2016 "Acoustics –design sound levels and reverberation times for building interiors" (AS2107).

18. The use and internal fit-out of non-residential premises may be carried out by future operators and tenants in which case they will be subject to separate approval by the relevant determination authority. THDCP 2012 applies to the assessment of the use of non-residential premises, where applicable.

Mechanical Plant and Equipment

19. External noise emissions from the use of mechanical plant and equipment and vehicles being driven on site shall comply with the requirements of relevant NSW EPA Noise Policy for Industry and any other guideline, policy or standard.

20. Acoustic assessment of mechanical services equipment is to be undertaken during the detailed design phase of the development to ensure that the cumulative noise of all equipment does not exceed the applicable noise criteria.

21. Fans shall be mounted on vibration isolators and balanced in accordance with Australian Standard 2625 'Rotating and Reciprocating Machinery – Mechanical Vibration'.

Vibration

22. The provisions of Environmental Protection Authority's Rail Infrastructure Noise Guideline (EPA, 2013) and Assessing Vibration: a technical guideline (DECC, 2006) must be taken into consideration to ensure acceptable vibration and ground-borne noise limits for spaces within the development.

03

PRECINCT WEST GUIDELINES

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

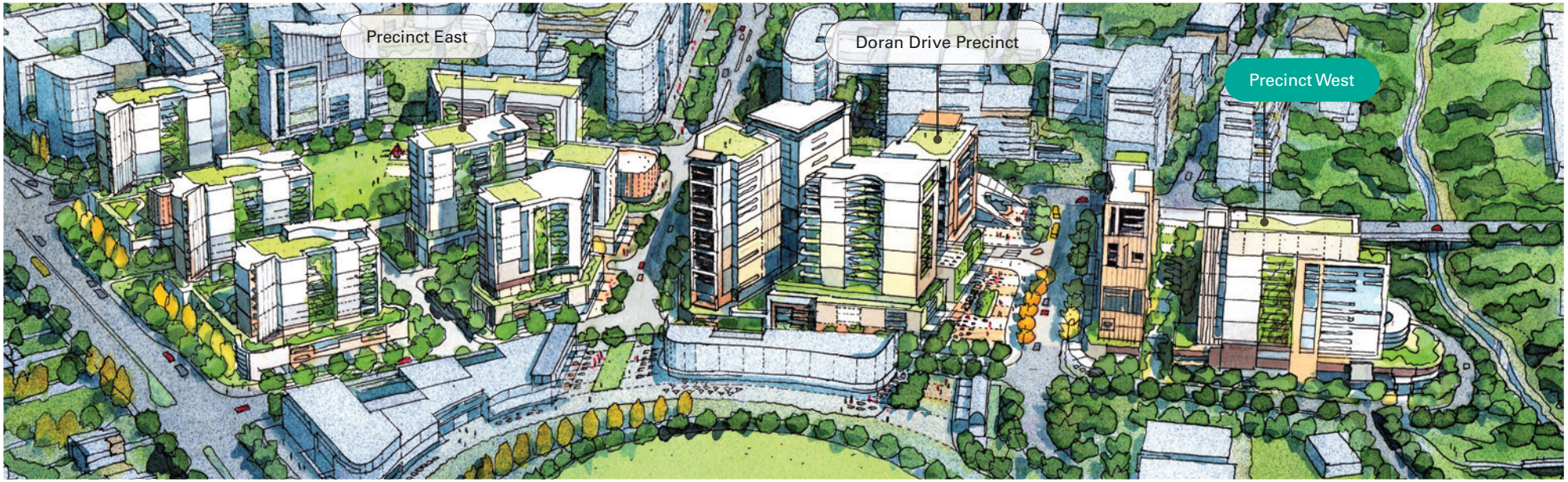

Figure 67: Aerial Sketch of the Hills Showground Concept Masterplan Facing South. Source: Tim Throsby 2020.

3.1. Precinct West Character

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 site provides an opportunity to for unique single loaded apartment typologies.

Figure 68: Precinct West Character Area

Figure 69: Precinct West interface to Cattai Creek and the Showground. Source: Sydney Metro 2019.

3.1.1. 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.

Figure 70: Setbacks and transitions to green and blue elements

Figure 71: Pedestrian scale podiums addressing the public domain. Source: THSC DCP

Figure 72: Pedestrian scale podiums addressing the public domain. Source: THSC DCP

3.1.2. 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.

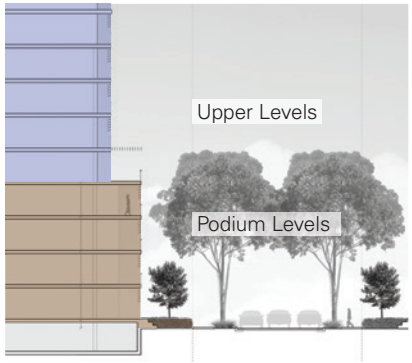

Figure 73: Building configuration

Figure 74: Potential green building elements. Source: THSC DCP

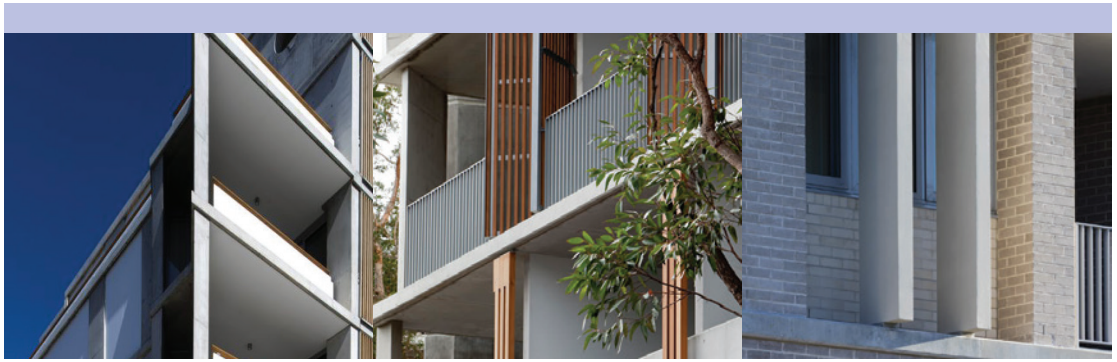

Figure 75: Upper Level Materials & Finishes

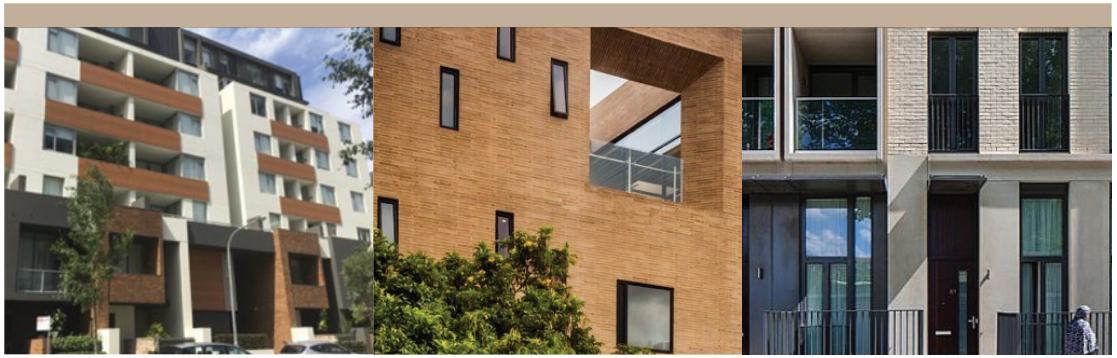

Figure 76: Podium Level Materials & Finishes

3.1.3. 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.

Figure 77: Seating and lawn areas

Figure 78: Seating and picnic facilities

Figure 79: Strong planting character

Figure 80: Vegetable gardens

3.2. Precinct West Design Guidelines

3.2.1. Communal Open Space

Objectives

a. To provide additional amenity and recreational opportunities within the private domain for the residents of the Precinct.

Controls

1. Communal open space is to be provided in the form of private areas at podium level in accordance with SEPP 65 Apartment Design Guide.
2. External (outside) communal open space areas are to be located and designed to:
    a. Be seen from the street between buildings (where possible)
    b. Provide for active and passive recreation needs of all residents
    c. Provide landscaping
    d. Present as a private area for use by residents only
    e. Include passive surveillance from adjacent internal living areas and/or pathways
    f. Have a northerly aspect (where possible)
    g. Be in addition to any public thoroughfares.
3. Communal open space is to provide a range of uses including seating, picnic facilities, play spaces, productive gardens and lawn areas amongst generous planting.
4. Communal open space is to incorporate a minimum of 70% native planting for local character; however, this may be supplemented with exotics for colour and variation, and edible species as part of vegetable or herb gardens.
5. The design of exterior communal open space areas is to achieve amenity by addressing visual and acoustic privacy, safety, security and wind effects.
6. The location and design of communal open space is to achieve a minimum of 50% direct sunlight to the principal usable part of the communal open space for a minimum of 2 hours between 9am and 3pm at the winter solstice (21 June).

Figure 81: Additional amenity in private communal open spaces

3.2.2. Building Siting, Massing and Scale

Objectives

a. To protect and enhance the rich, distinctive and valued character of the area, particularly those elements that contribute to a sense of place and identity including the Castle Hill Showground and Cattai Creek.

b. To provide building forms that reinforce the desired character of the area.

c. To ensure building orientation maximises visual amenity and natural surveillance, taking advantage of any views to open space, public reserves and bushland.

d. To ensure towers are of a slender design to reduce perceived bulk and scale.

e. To ensure towers create an open, attractive and distinct skyline.

f. To frame and define the streets and public open spaces with appropriately scaled built edge.

g. To create a cohesive built environment through consistent and/or complementary elements of built form composition (eg relationships between podiums, modulation, proportions and the like).

Controls

1. Development shall be designed to incorporate clearly defined ground floor street zone, podium and upper level elements.

2. Streets are to be defined by a 4 storey street wall with a height of up to 16m (depending on the use) in accordance with Figure 85. The street wall is to respond to the topography of the site and may vary between buildings where appropriate.

3. Tower forms above the podium shall not exceed 65m in length and 17m in width and shall have floor plates of no more than 700m² GFA per floor.

4. Tower form is to be orientated to provide privacy for both communal and private open space areas.

5. Towers above the street wall shall be orientated to maximise solar access to public and private spaces and habitable rooms, district views to the east, north and west and to minimise wind down draft.

6. Tower massing and scale is to consider possible future development on adjoining sites, including Doran Drive Precinct, the Castle Hill Showground and the commuter carpark.

Figure 82: Slender towers that mitigate undesirable interfaces

Figure 83: Small Office/Home Office/Retail with residential podium and towers set back above

Design Guidance

Figure 84 shows how the future built form can address the urban design controls relating to massing, scale, composition and activation, by:

1. Defining the prominent corner of Doran Drive and De Clambe Drive with a contiguous podium edge and tower form above
2. Aligning retail and commercial uses along Doran Drive, the heart of the Precinct
3. Designing flexible ground floors, with larger ceiling heights, to accommodate retail, commercial and/or SoHo tenancies along De Clambe Drive
4. Providing privacy for residents by separating buildings and allowing adequate sunlight access to communal and public open spaces
5. Maintaining maximum podium and tower building heights
6. Stepping podium heights, responding to topography
7. Tapering building massing towards the interface with Cattai Creek
8. Defining building entries, to be clearly identifiable from the street
9. Providing communal open space on podium rooftops.

Figure 84: Possible conformance to Precinct West Building Massing, Scale and Composition controls

3.2.3. Street Wall Heights

Objectives

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

b. To provide street wall heights that respond to future conditions within, and adjoining the site and the desired future character of the streets and Character Areas.

Controls

1. Provide a 4-storey street wall for Precinct West to define the streets and public open spaces with an appropriately scaled built form.

2. A street wall height control or secondary setback control does not apply to the building interface with the commuter car park.

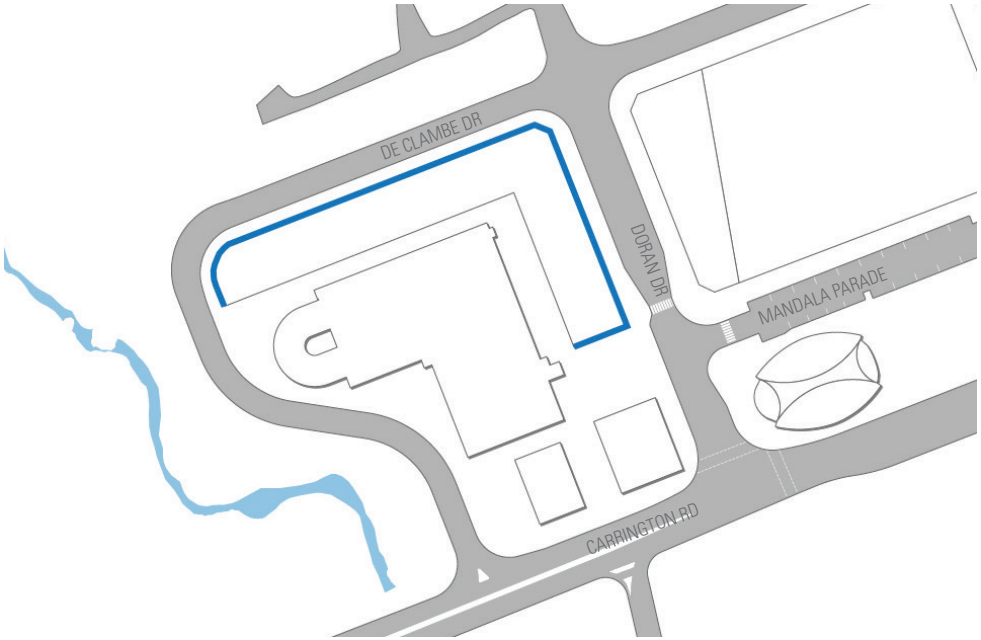

Figure 85: Precinct West - Street Wall Height

Figure 86: Podium with tower setback

Figure 87: Four storey podium with tower setback

3.2.4. Setbacks

Objectives

a. To contribute to the human scale and visual experience of the street.

b. To define an appropriate outdoor dining zone.

c. To enhance the pedestrian experience through visual enclosure and scale of streets and provide access to sunlight.

d. To define the public domain and create a consistent streetscape.

e. To reduce building bulk and scale and enable adequate sunlight access to the public domain.

f. To complement building mass and emphasise key design elements such as entrance points and respond to environmental conditions including solar access, noise, privacy and views.

Controls

1. In accordance with Figure 88, the minimum setback for a development to the boundary is:
   a. 0m ground floor primary setback for all interfaces, except where a 3m primary setback is required for outdoor dining zones
   b. 0m secondary setback for the interface with the commuter carpark
   c. 2m secondary setback above the podium for the interface to the carpark plaza, Doran Drive and De Clambe Drive.
2. Setbacks are to comply with the Cattai Creek interface transition controls contained in Section 3.2.6.

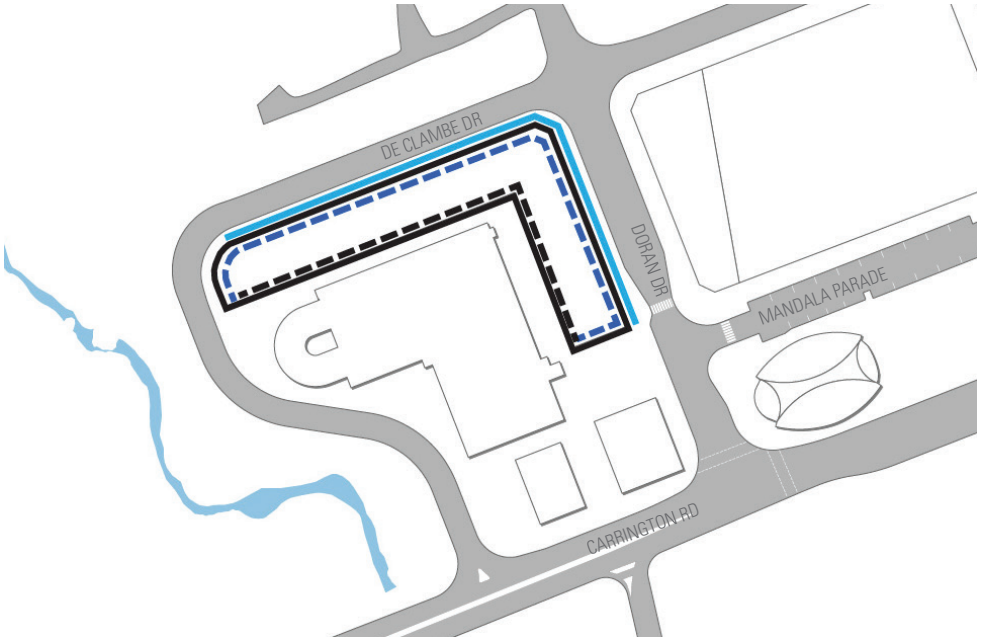

Figure 88: Precinct West - Building Setback

Design Guidance

Refer to Figure 84 for possible conformance to Precinct West setback controls.

3.2.5. Building Height

Objectives

a. To locate density where most appropriate and in accordance with TOD fundamentals - eg in the mixed-use areas with greatest access to transport.

b. To provide an appropriate pedestrian scale built form to the public domain of Doran Drive Plaza, surrounding streets and the Station Plaza and forecourt.

c. To deliver a varied skyline across the Hills Showground Station Precinct and the broader Precinct.

Controls

1. A maximum height of 68m (20 storeys) is permitted for the towers.
2. A maximum height of 16m (4 storeys) is permitted for the podiums.
3. Building heights are to comply with the Cattai Creek interface building transition controls contained in Section 3.2.6.

Design Guidance

Refer to Figure 84 for possible conformance to Precinct West building height controls.

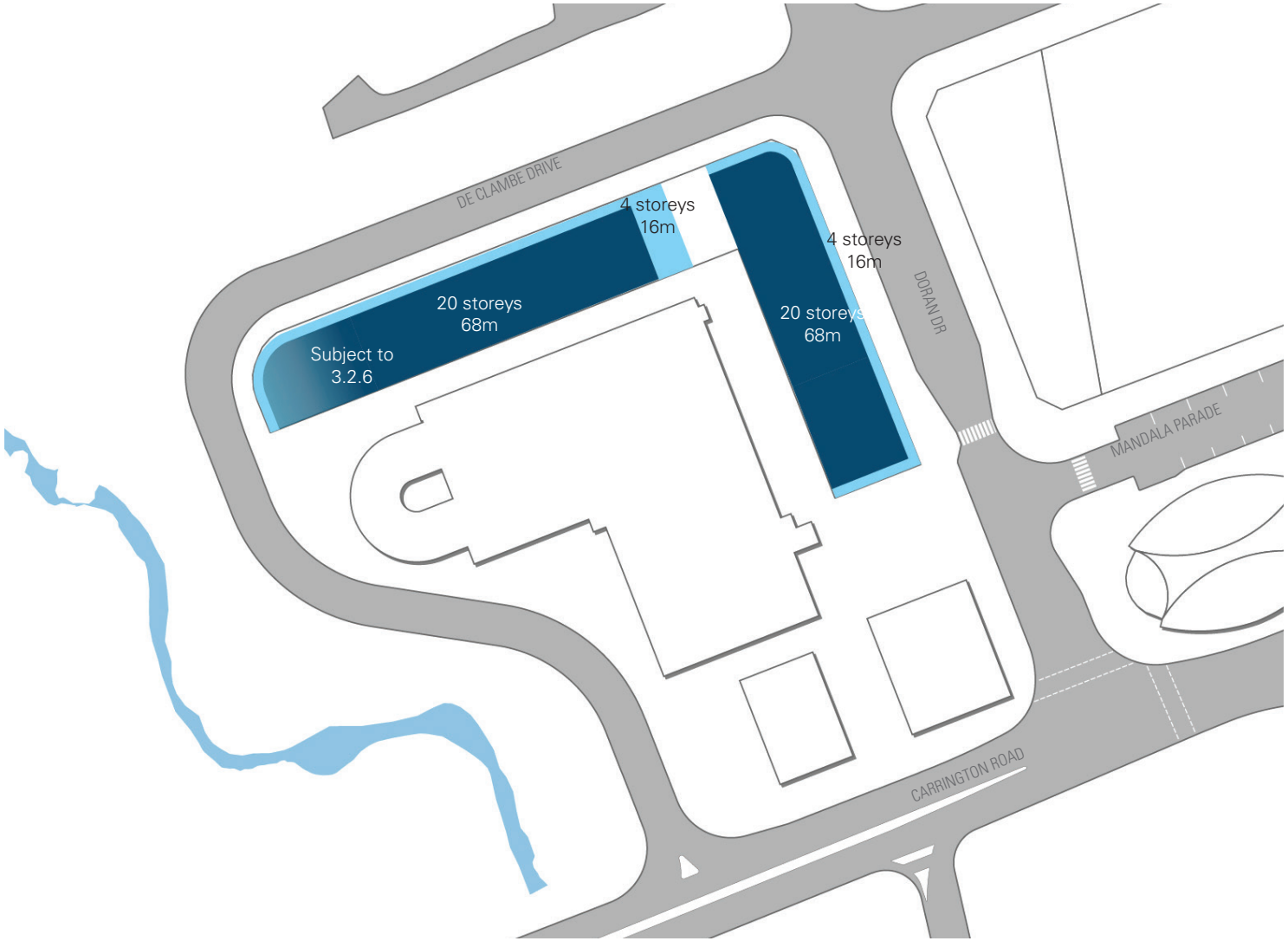

Figure 89: Precinct West - Building Height in Maximum Storeys

3.2.6. Building Transition

Objectives

a. To provide an appropriately scaled interface with the Cattai Creek corridor.

Controls

1. In accordance with Figure 91, development adjacent to the Cattai Creek corridor shall comply with the following building transition controls:
   a. A 45 degree height plane is to be taken from the top of bank of Cattai Creek and extend east to prescribe the maximum building heights permitted within the envelope.
   b. A maximum of one step is permitted for the tower envelope within this transition line to prevent ziggurat or terraced tower forms.

Design Guidance

Refer to Figure 84 for possible conformance to Precinct West building transition controls.

Figure 90: Location of Precinct West Interface Section

Design Guidance

Figure 91 shows how the maximum building height can be accommodated within the height plane from Cattai Creek, as measured from the top of the creek's bank towards the east, by:

1. Reaching a maximum building height of 13 storeys, fronting Cattai Creek
2. Applying an additional setback that is permitted above 13 storeys with the tower rising above but still within the height plane.

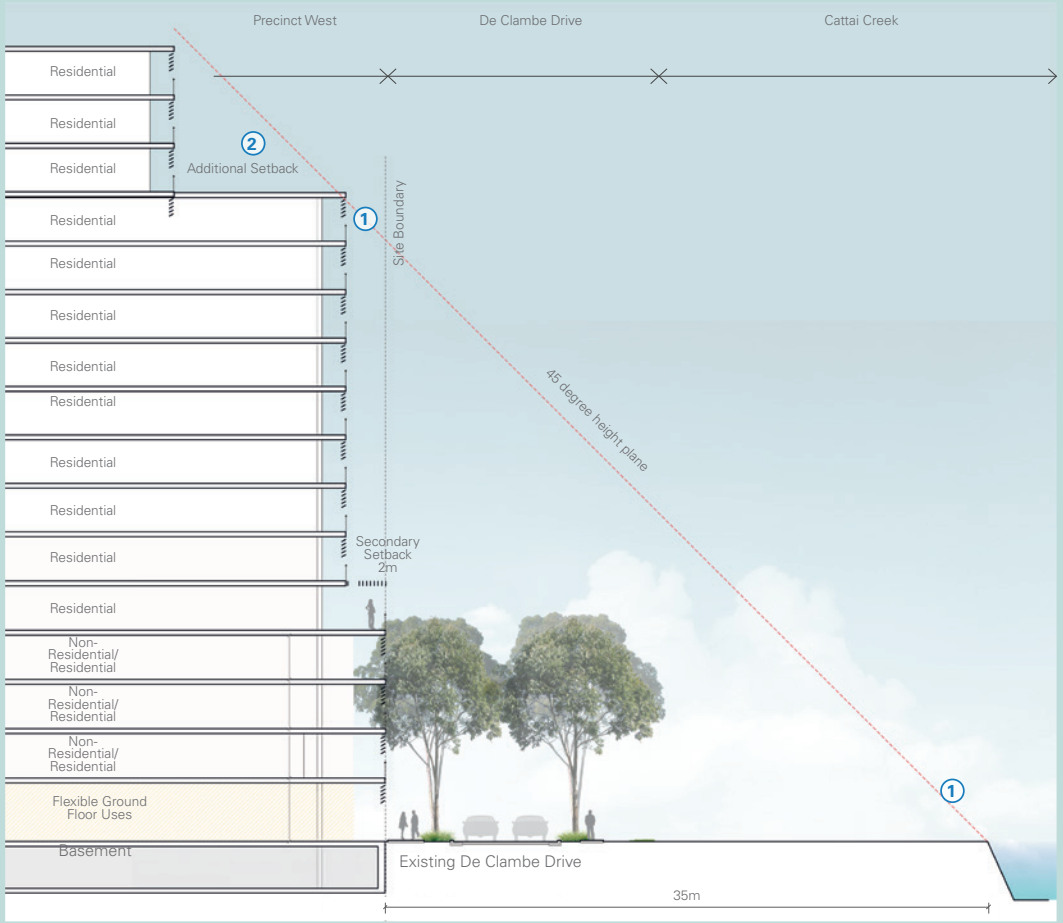

Figure 91: Precinct West Interface to Cattai Creek

3.2.7. Building Separation

Objectives

a. To protect privacy and solar access to private and public spaces.

b. To ensure suitable open sky views are provided from key public infrastructure elements such as Doran Drive Plaza and the transport interchange.

c. To provide building envelopes that enable design options that exceed minimum ADG requirements.

d. To ensure that views to Castle Hill Showground from the metro station and beyond are open to the sky.

Controls

1. A minimum building separation of 10m is required between podiums and is to align with the access easement from De Clambe Drive to the metro services box located on Carrington Road.
2. A minimum building separation of 18m is required between towers.
3. Separation between building envelopes within Precinct West and Doran Drive Precinct must be a minimum of:
    a. 41m at the southern end and 55m at the northern end for podiums
    b. 46m at the southern end and 60m at the northern end for towers.

Design Guidance

Refer to Figure 84 for possible conformance to Precinct West building separation controls.

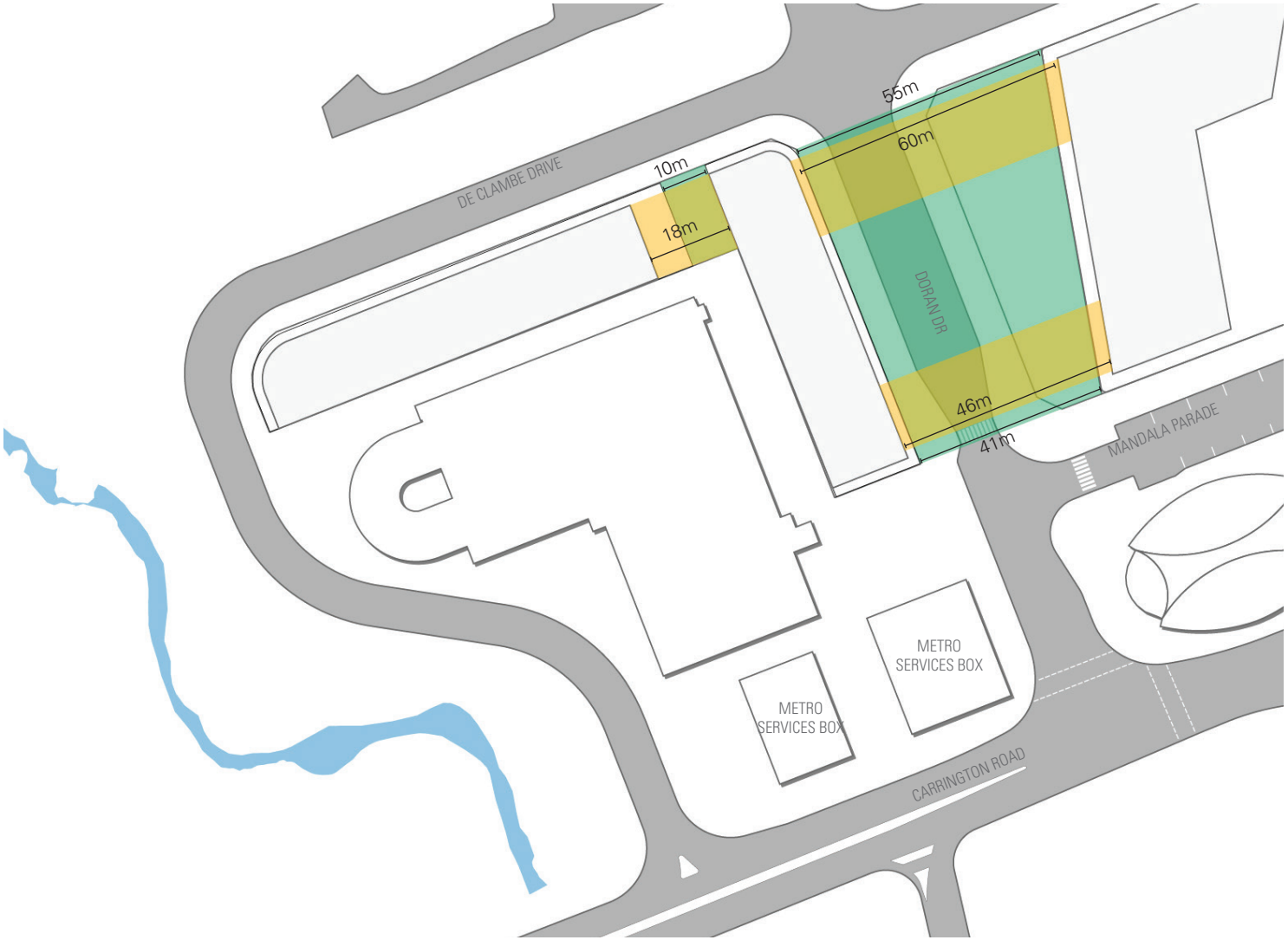

Figure 92: Precinct West - Building Separation

3.2.8. Building Envelopes

Objectives

a. To prescribe a desired outcome for individual sites, and the Precinct as a whole, that delivers a level of certainty to Council and the community and retains a level of flexibility for innovation and diverse design outcomes in the future.

b. To ensure good amenity is provided through appropriate building separation, setbacks and depths.

c. To ensure building depths support well-designed apartment layouts.

Controls

1. Development is to conform to the building envelopes outlined in Figure 93.

Design Guidance

Refer to Figure 84 for possible conformance to Precinct West building envelope controls.

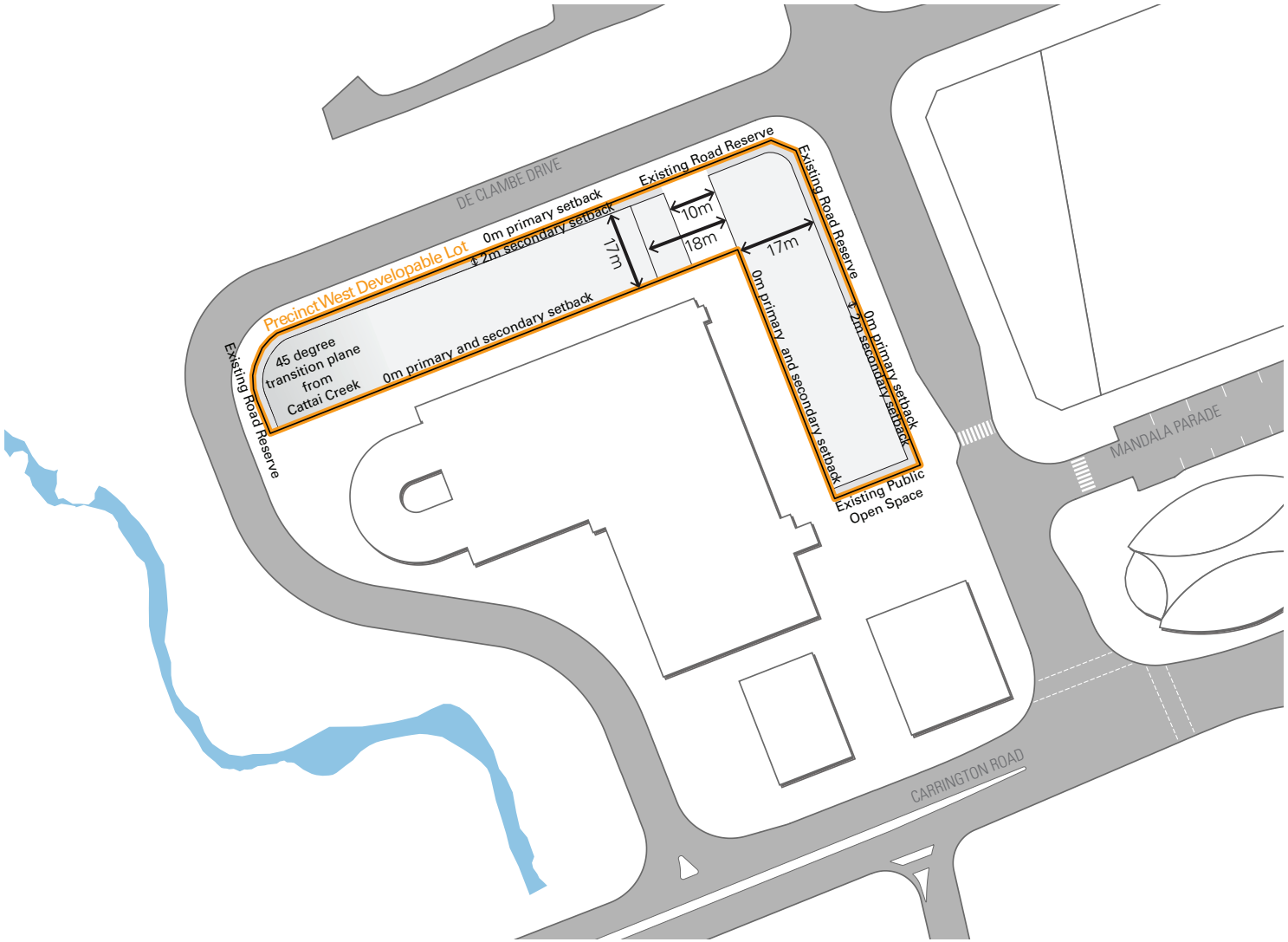

Figure 93: Precinct West - Building Envelope Controls

3.2.9. Building Articulation and Facades

Objectives

a. To ensure that developments are aesthetically pleasing, encourage creativity and diversity in design, incorporating architectural relief and modulation of facades to avoid a bulky or monotonous appearance.

b. To deliver a varied built form via both horizontal and vertical articulation.

c. To reinforce the intended neighbourhood character and enhance the pedestrian experience.

d. To ensure that building design achieves a sense of address.

Controls

1. Development shall be designed to incorporate ground floor street zone, podium and upper level elements that are clearly defined by horizontal articulation.

2. Buildings on corners are to address both streets and corner elements are to be emphasised to signify key intersections and enhance public domain legibility. Street corners shall be addressed by giving visual prominence to those parts of the building façade, such as a change in building articulation, material or colour, roof expression or height.

3. Facade treatments are to create visual variety and interest while contributing to the continuity of the streetscape.

4. Walls should comprise a variety of colours to reduce monotony and add variety to the streetscape.

Ground Floor Street Zone Controls

5. Ground level articulation is to ensure universal access to all tenancies and properties from the public domain. A mid-point in the topographical change may be used as a common access point where reduced terracing to the public domain is desired (eg colonnade or outdoor dining areas).

6. Provide architectural features in the façade that give human scale at ground floor level, such as entry porches, pergolas and so on.

7. A sense of address and visual interest from the street is to be provided through the use of insets and projections and, where relevant, the appearance of finer grain buildings, however ground floor recesses that undermine the safety of the public domain are to be avoided.

8. Fine grain retail and commercial frontages are to be provided to ensure an interesting street edge and support human scale streetscapes. Finer detail to identify individual tenancies and different building levels are to be used to add richness to the architectural design.

9. Building entries are to be visually identifiable from the street frontage with clear sight lines and are to have direct address to the street. Separate entrances are required for commercial/ retail and residential uses. Lighting should be provided for safety at night.

10. Where an active frontage is required, a majority of the building frontage is to be transparent (i.e. windows and glazed doors). Clear glazing is to be provided to windows and doors.

Figure 94: Precinct West Potential Articulation and Facade Treatment

Figure 95: Precinct West Potential Ground Floor Active Uses

11. Security grilles may only be fitted internally behind the shopfront of any non-residential uses at ground level. They are to be transparent and fully retractable.
12. A minimum 2.5m awning is to extend over the public domain where any active edge is prescribed by these Guidelines. This is to also extend beyond any outdoor dining areas zones as shown in Figure 102.
13. Footpath awnings shall be designed to complement and integrate with the façade and the streetscape.
14. Ventilation louvres and carpark entry doors are to be integrated into facade designs where located on street frontages.
15. Services such as for fire protection, water and power distribution are not to intrude upon the pedestrian right of way, visually detract from the appearance of the development, and are to be screened from the street frontage with materials which are integrated with architectural expression of the development.
16. Any visible carpark entries or walls should be comprised of more than one material and colour to enhance visual attractiveness and interest.
17. Any ground level car park entries should be concealed or screened by planting from the street and public view, as much as possible.

Podium Controls

18. Horizontal articulation of the podium façade is to be provided above 2 storeys.
19. Horizontal articulation is to respond to the natural topography of the development lots with a maximum of two steps within each podium aligned with any breaks in the built form or tower elements above the podium.
20. A constant podium height is required across individual buildings. Podium height may vary between buildings in response to topography.
21. Podium facades shall avoid blank, featureless walls by patterning high quality architectural elements such as window bays, canopies and fenestration.

Figure 96: Horizontal Articulation

Upper Level Controls

22. Building façades are to be vertically articulated to reduce the appearance of building bulk and to express the elements of the building's architecture.
23. Building facades are to be enhanced through the use of well-proportioned and balanced projections and recesses.
24. Any towers longer than 50m must be articulated through a minimum 3m and maximum 5m recess, inset or projection and treated with different materials and finishes.
25. Telecommunications, service structures, lift motor rooms and mechanical plants are to be integrated within the roof design and roof features to contribute to an attractive and interesting skyline for the precinct.
26. Tower facades are to be:
    a. Articulated to manage passive solar gain
    b. Well-glazed with functional windows where possible to reduce reliance on artificial cooling
    c. Designed with high-quality sustainable materials and finishes that promote building longevity
    d. Varied in design and articulation to promote visual interest.

Figure 97: Vertical tower facade articulation

Figure 98: Vertical podium facade articulation

Design Guidance

Figure 100 visually demonstrates how the future built form can address the urban design controls for articulation and facades, by:

1. Using a mid-point in the topographical change as a common access point where reduced terracing to the public domain is desired (eg colonnade or outdoor dining areas).
2. Aligning vertical façade elements from the podium to the tower above, accentuating building entries
3. Maintaining a consistent podium height while stepping along Doran Drive and De Clambe Drive, responding to topography
4. Defining non-residential uses with horizontal façade articulation
5. Preserving the service easement and satisfying tower separation controls
6. Recessing the building to improve the sense of scale and massing from the street.

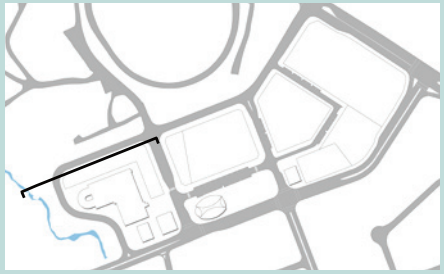

Figure 99: Location of Precinct West Built Form Articulation Elevation

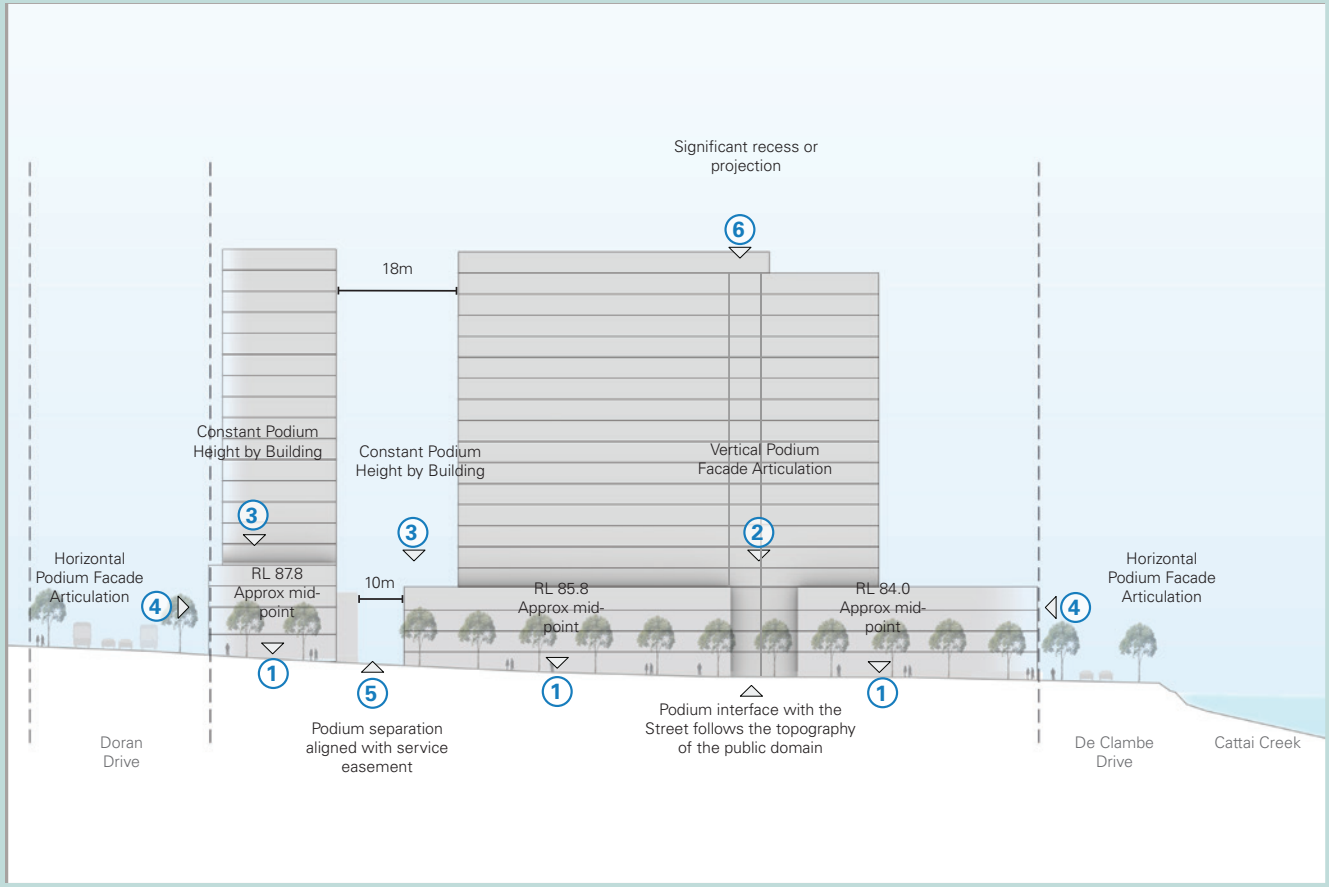

Figure 100: Precinct West articulation controls diagram

3.2.10. Active Use and Street Frontage

Objectives

a. To reinforce complementary uses and desired street character.

b. To promote an exceptional pedestrian experience with active frontages.

c. To ensure active uses are located in areas of high pedestrian activity and amenity.

d. To ensure ground floor uses are flexible to cater for changes in demand for non-residential uses over time.

e. To ensure ground floor uses activate the public domain and streets and provide passive surveillance.

f. To encourage ground floor activities (uses such as local retail, business and/or community) to spill out into the public domain to create a vibrant streetscape and promote a sense of community.

g. To provide flexibility in allowing for permanent outdoor dining areas outside of the existing road reserve and footpath areas.

h. To provide an active interface with the public domain through access to/from ground floor dwellings.

Controls

1. Flexible ground floor uses are permitted along De Clambe Drive and can include residential, retail, commercial, Small Office/Home Office and other non-residential uses.
2. Ground floor heights are to be a minimum of 4m (floor to floor) for all non-residential uses.
3. Active, non-residential frontages are to be located on Doran Drive.
4. Active uses may include one or a combination of the following uses:
    a. Shop front
    b. Business or retail premises
    c. Café or restaurant with a street entrance
    d. Community and civic uses with a street entrance
    e. Recreation facilities with a street entrance
    f. Small Office / Home Office ground floor addresses.
5. An active street frontage is not required for any part of a building that is used for any of the following:
    a. Entrances and lobbies (including as part of mixed use development)
    b. Residential that is providing direct access from the public domain to the residence
    c. Access for fire services
    d. Vehicular access.
6. Large retail tenancies (above 500m² GFA) are to be screened by smaller tenancies for greater street activation and retail variety, where needed.
7. For larger developments, building entrances should be provided on each street frontage.
8. Retail and commercial uses at ground level are to be designed so that the ground floor for the primary entry area of the premises is at the same level as the finished footpath level of the adjacent street and/or open space.
9. Ground floor residential or SoHo units are to have a primary street address or be oriented and accessed in a way that activates the public domain with clear, legible entries.

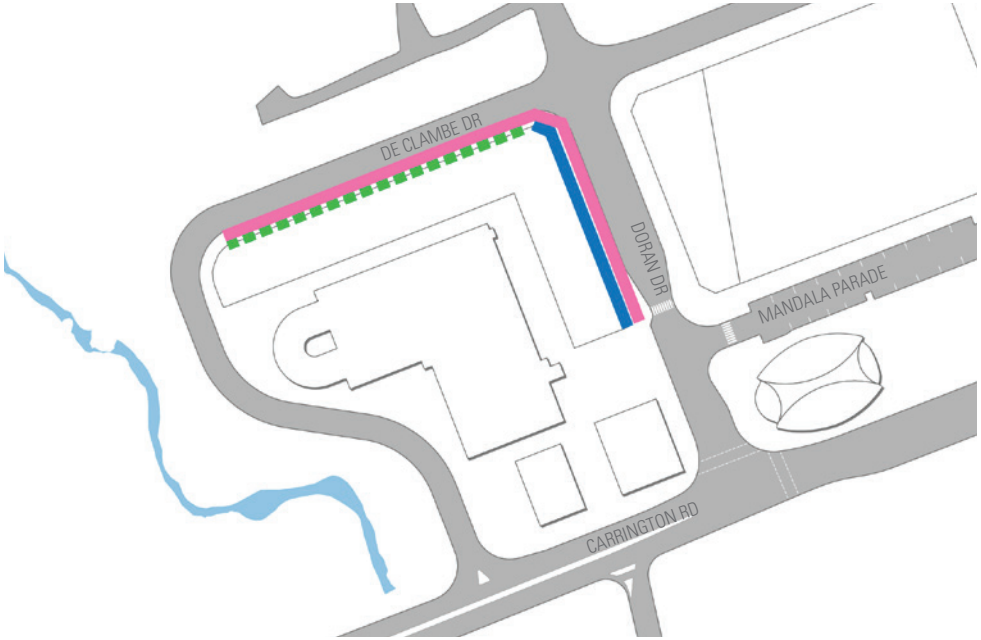

Figure 101: Precinct West - Active Frontages
Appropriate locations where outdoor dining may be considered along the interface with De Clambe Drive and Doran Drive outside of areas required for building, carpark and loading dock access

10. Ground floor residential apartments (if provided) are to be elevated from the ground level by a minimum of 300mm and a maximum of 600mm subject to flood control levels.
11. Outdoor dining along the interface with De Clambe Drive and Doran Drive is to be located in accordance with Figure 101 to ensure there are no conflicts with building entries, carpark and loading dock access.
12. Where a 3m outdoor dining zone is desired, it is to be provided in addition to the existing 5m pedestrian zone (2.5m footpath and 2.5m verge) on De Clambe Drive and Doran Drive.
13. Outdoor dining areas are to be adjacent to active edges that front streets with high pedestrian activity.
14. Where more than one outdoor dining tenancy is desired along a single interface, the tenancies are to be continuous.
15. Outdoor dining areas located on a street corner are to wrap around the corner to address both streets.
16. If ground floor residences are located on De Clambe Drive they must have access from the street and fences are to be no more than 1.2m in height with a minimum of 50% transparency. Contemporary palisade fence designs in a dark recessive colour are encouraged.

Design Guidance

1. Figure 102 shows the desired streetscape outcome for one or more tenancies with outdoor dining, i.e. when a 3 metre setback is required.

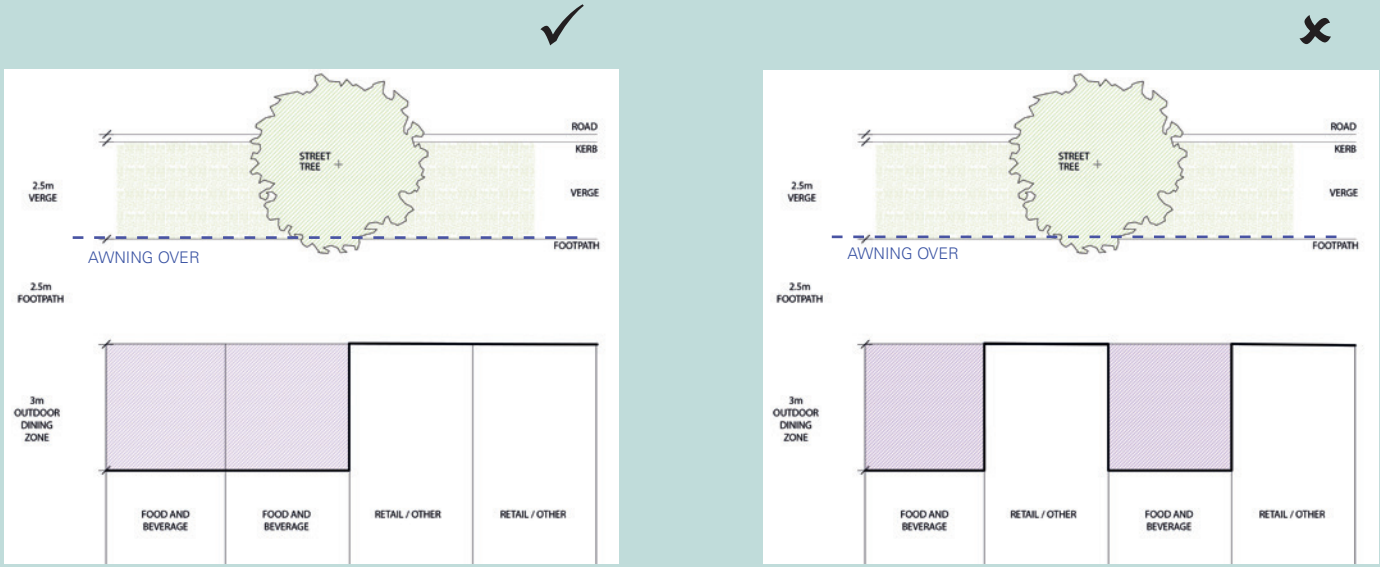

Figure 102: Possible conformance to Precinct West Street Activation Controls for locating and configuring outdoor dining areas

Design Guidance

1. Figure 103 shows a street frontage with a 3 metre setback for outdoor dining and a double-height awning/ colonnade space for the extent of the street frontage. Extra weather protection is provided by an additional awning at 2.5 metres in length over the existing footpath. A secondary setback of 2 metres above the four storey podium is still required.
2. Figure 104 shows the streetscape interface when a 3 metre setback is not required for retail and/or commercial tenancies.

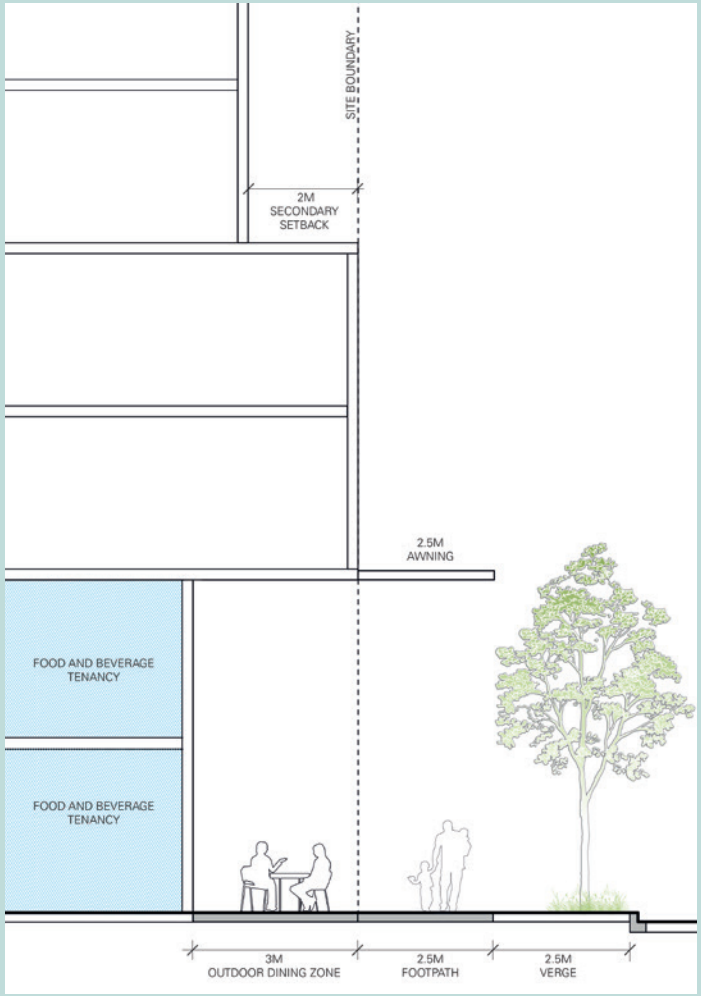

Figure 103: Outdoor dining located within a 3m primary setback applied to a 2-storey colonnade and associated 2-storey high awning over the existing 2.5m footpath. The 2m secondary setback remains for any storeys above the 4-storey podium above the podium.

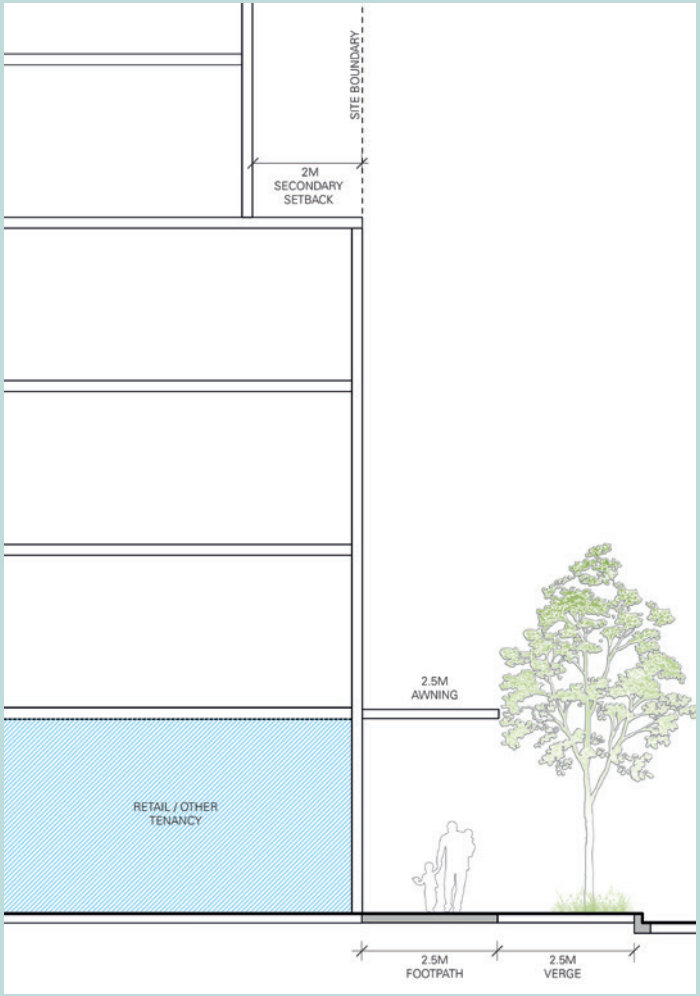

Figure 104: Retail and commercial tenancies, where not located within an outdoor dining zone are required to directly address the public domain. Minimum 2.5m wide awnings may be provided at a single storey above ground where transition from outdoor dining areas is facilitated by vertical articulation elements, building entries or carpark entries.

Figure 105: Outdoor dining located in a colonnade

Figure 106: 2-storey colonnade with podium extended to primary setback above

Figure 107: Outdoor dining within a colonnade

3.2.11. Street Interface

Doran Drive

Objectives

a. To enhance the existing functions of Doran Drive where it interfaces with Precinct West development lots.

Controls

1. Development is to maintain the existing functions of Doran Drive as a local road and transport interchange.
2. Development is to maintain the width of the existing landscape verge and footpath.
3. Development is to comply with the following interface controls:
    a. 0m primary setback for the first 4 storeys where there are no outdoor dining uses
    b. Minimum 3m inset via a colonnade for 2 storeys, or a 3m primary setback for the extent of the podium, where developments include outdoor dining uses
    c. 2m secondary setback above 4 storeys, including where a colonnade or additional primary setback for outdoor dining has been provided.
4. A 2.5m awning is to be provided over the public domain.

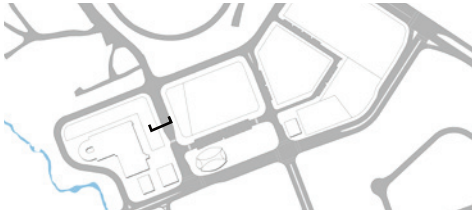

Figure 109: Location of Precinct West Interface with Doran Drive Section

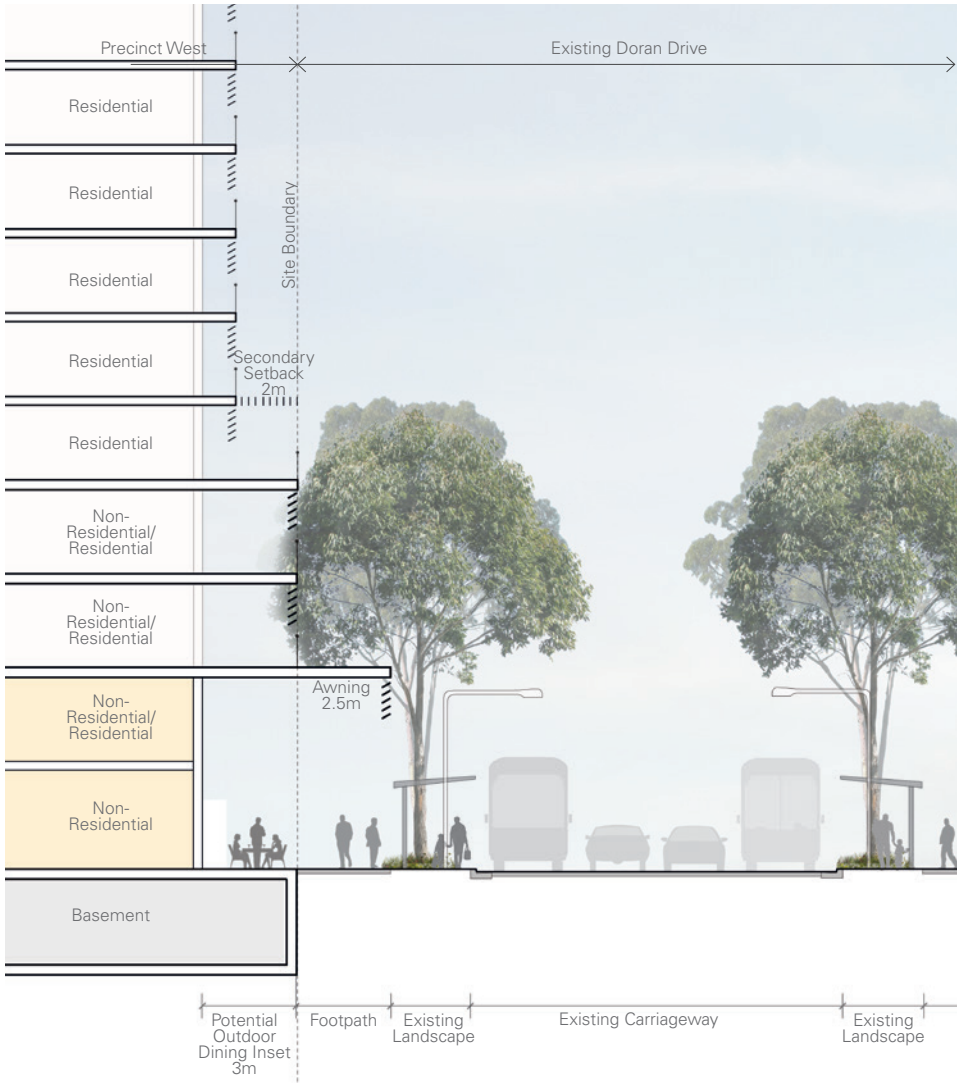

Figure 108: Street Interface to Doran Drive

De Clambe Drive

Objectives

a. To enhance the existing functions of De Clambe Drive where it interfaces with Precinct West development lots.

b. To maintain the existing functions of De Clambe Drive as a local road.

c. To maintain the width of the existing landscape verge and footpath.

Controls

1. Development is to comply with the following interface controls:

    a. 0m primary setback for the first 4 storeys where there are no outdoor dining uses

    b. Minimum 3m inset via a colonnade for 2 storeys, or a 3m primary setback for the extent of the podium, where developments include outdoor dining uses

    c. 2m secondary setback above 4 storeys, including where a colonnade or additional primary setback for outdoor dining has been provided.

2. A 2.5m awning is to be provided over the public domain.

Figure 111: Location of Precinct West Interface with De Clambe Drive Section

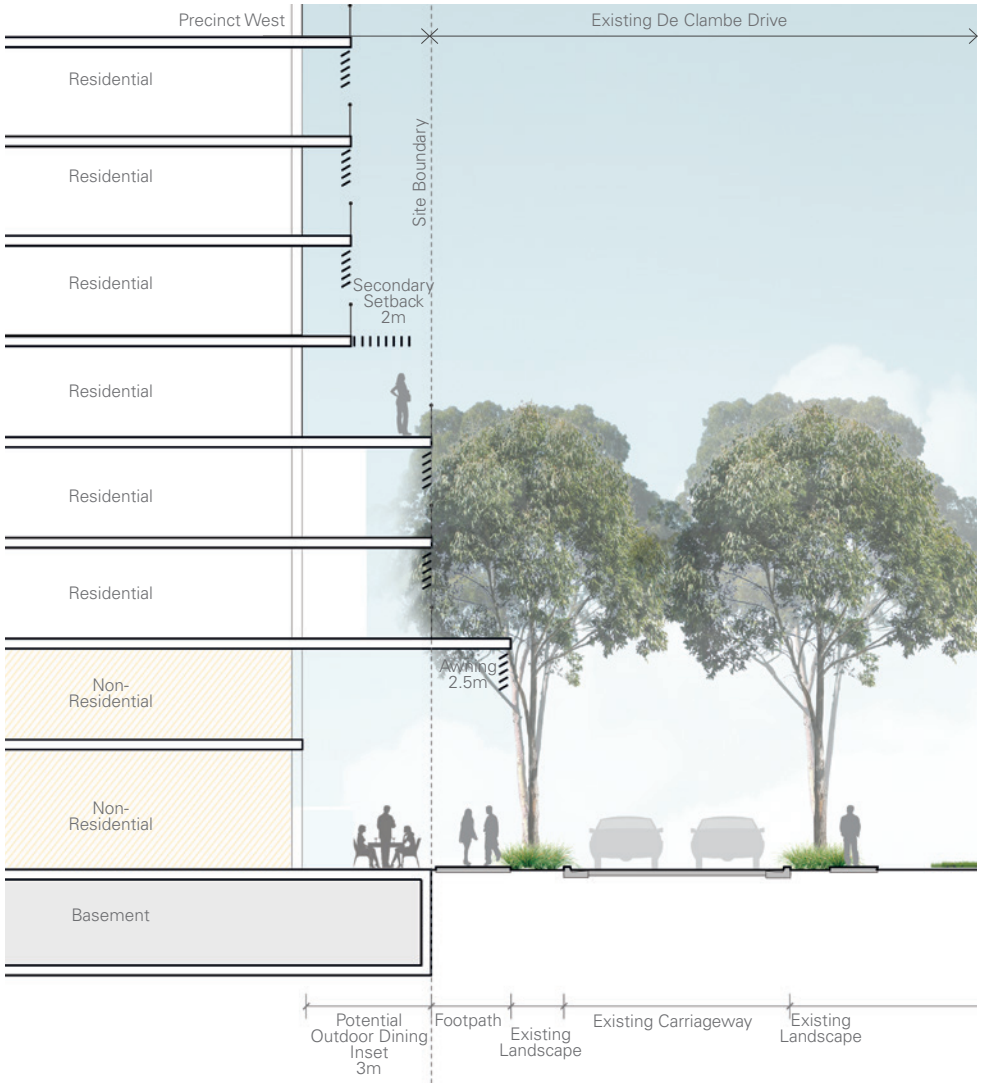

Figure 110: Street Interface to De Clambe Drive

3.2.12. Commuter Car Park Interface

Objectives

a. To maintain visual privacy and amenity for dwellings that directly interface the existing commuter carpark.

Controls

1. The residential floors of a development that have a direct interface with the commuter carpark (i.e. up to Level 4) are to comply with the following:

    a. Windows are to be suitably screened or comprise of opaque glazing

    b. Primary living areas are not to be located in the interface zones. These areas may be suitable for bedrooms, bathrooms and/or storage rooms.

2. The residential floors of a development that have an indirect interface with the commuter carpark (i.e. above Level 4) are to comprise of clerestory or high-light windows with a minimum sill height of 1.5m above the floor level. Consideration should be given as to how these windows might interface with future residential development of the commuter car park.

    Note: The direct and indirect interface zones with the commuter car park are shown in Figure 112.

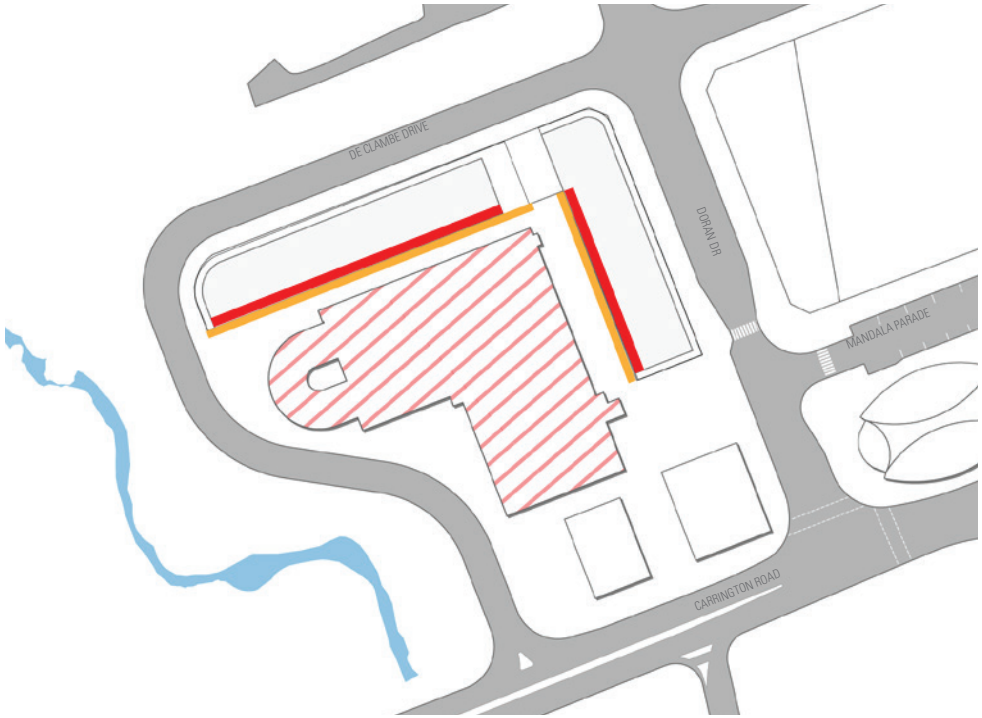

Figure 112: Precinct West - Commuter Car Parking Interface

Design Guidance

Figure 113 and Figure 114 show how dwellings with a direct interface to the existing commuter carpark can mitigate potential visual impacts, by:

1. Arranging primary living areas (or rooms requiring clear glazing) towards De Clambe Drive and Doran Drive to ensure privacy and a better outlook
2. Installing operable screens to maintain visual privacy while allowing cross ventilation
3. Positioning bathrooms, studies, storage and secondary bedrooms towards the carpark
4. Locating circulation cores and services along the carpark interface
5. Providing notches for air intakes
6. Above the carpark height (5 storeys and above), considering clerestory or high level windows above eye level would allow an outlook towards open sky without a view of the carpark.

Figure 113: Precinct West - Typical Podium Level Commuter Car Parking Interface

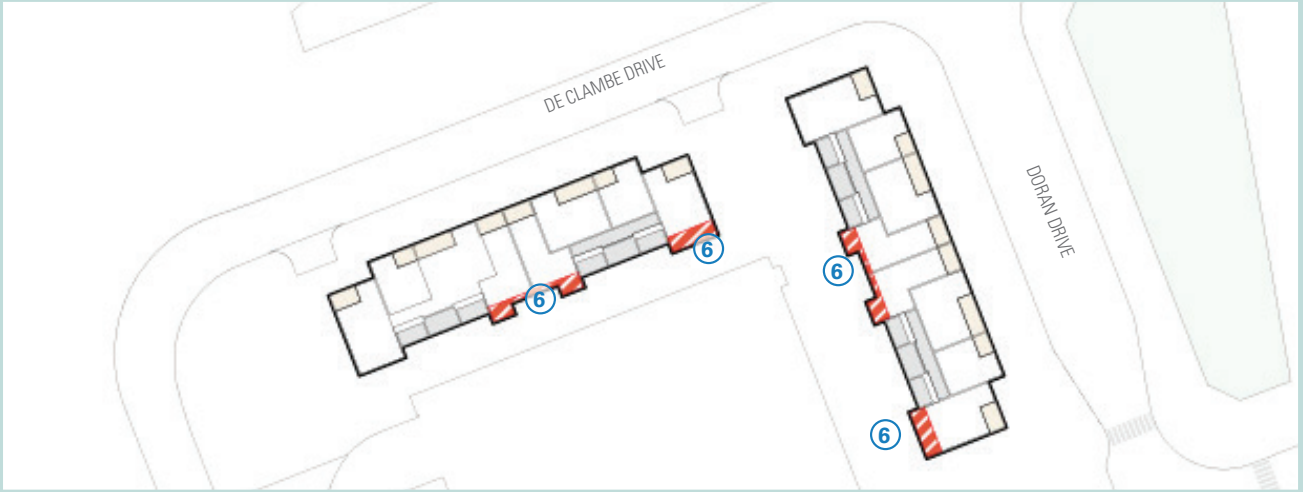

Figure 114: Precinct West - Typical Tower Level Commuter Car Parking Interface

3.2.13. Car Parking and Access

Objectives

a. To ensure access does not compromise the activity and pedestrian movements within the heart of the Precinct and the transport interchange on Doran Drive.

b. To ensure entries and structures do not impinge upon pedestrian amenity and streetscape quality.

c. To encourage car share spaces within residential flat buildings for the exclusive use of car share scheme vehicles.

d. To future proof the development via the provision of electric vehicle charging stations.

e. To ensure residential parking rates allow for flexibility to meet the future demographic needs and ongoing modal shift towards more sustainable transport outcomes.

Controls

1. Residential car parking spaces are to be provided at the rates specified in Table 5. For any use not specified, the car parking rates in The Hills Development Control Plan 2012 (Part C Section 1 – Parking) apply.
2. The maximum cap for residential car spaces is 1,663 across the Hills Showground Station Precinct.
3. Dedicated residential visitor parking is not applicable.
4. Parking is to be provided and suitably located to enable shared parking between residential visitor parking and non-residential parking.
5. Secure, conveniently located bicycle parking facilities are to be provided at the rates specified in Table 6.
6. Driveways and vehicular access to carparks shall not to be located on Doran Drive.
7. Vehicular access to carparks is to be limited to a maximum of two driveway entry points on De Clambe Drive. Entry and exit is to be in accordance with Figure 115.
8. Driveways are to be appropriately set back from corners and intersections.
9. Driveways are to have a minimum width of 6 metres at the property boundary for a distance of 6 metres (measured along the centreline of the driveway) within the development to ensure easy entry/exit of vehicles.
10. Adequate vehicular entry, exit and circulation areas are to be provided. The design must:
    a. Provide safe environment for both pedestrians and vehicles using the site and surrounding road networks
    b. Ensure vehicular ingress and egress to the site is in a forward direction at all times
    c. Be designed to minimise the visual impact of hard paved areas.
11. Parking is to be underground and avoided within street setbacks. Where above ground parking cannot be avoided due to site conditions, it must be well integrated into the overall façade design and create a good relationship with the public domain.
12. Garages and parking structures are not to project forward of the building line into the public domain and are to be screened from the public domain by active uses.
13. Basement carparks or other structures are not to constrain the infrastructure or access easement to the metro services building.
14. Underground car parking is not permitted within 5m of the riparian corridor boundary.
15. Car parking shall not be located on the roof of buildings.
16. The location and means of access to customer car parking within a building is to be clearly visible.
17. Car share spaces are to be provided at a rate of one space per 150 car spaces for residential and one space per 80 car spaces for commercial.
18. Car share spaces are to be for the exclusive use of car share scheme vehicles, and included in the number of car parking spaces permitted on a site. The car share parking spaces are to be:

Table 5: Precinct West Residential Car Parking Spaces

	Minimum (per unit)	Maximum (per unit)	Affordable Housing Minimum (per unit)	Affordable Housing Maximum (per unit)
1 bedroom units	0.4	Average of 1 across all bedroom apartment mix	0.4	0.4
2 bedroom units	0.7		0.5	0.5
3 bedroom units	1.0		1	1
	Minimum (per area)	Maximum (per area GFA)		
Retail	1 space per 130m² GFA	1 space per 60m² GFA		
Commercial	1 space per 145m² GFA	1 space per 100m² GFA		

Table 6: Precinct West Bicycle Parking Facility Rates

	Rate (minimum)
Residential flat buildings	1 resident space per 3 apartments 1 visitor space per 12 apartments
Commercial use	1 space per 600m² GFA for staff
Retail use	1 space per 450m² GFA for staff

a. Grouped together in the most convenient locations relative to car parking entrances and pedestrian lifts or access points

b. Located in well-lit paces that allow for casual surveillance

c. Signposted for use only by car share vehicles

d. Made known to building occupants and car share members through appropriate signage which indicates the availability of the scheme and promotes its use as an alternative mode of transport.

19. Development applications are to demonstrate how the car share parking space(s) is to be accessed, including where access is through a security gate. A covenant is to be registered with the strata plan advising of any car share parking space. The covenant is to include provisions that the car share parking space(s) cannot be revoked or modified without prior approval of Council.

20. A minimum of 10% of the total number of parking spaces are to provide for Electric Vehicle charging stations.

21. All garages/ carpark entrances must be protected from inundation by flood waters up to the 1% AEP + 0.5m.

22. End of trip facilities are to be provided where there are allocated bicycle parking facilities associated with commercial or retail development.

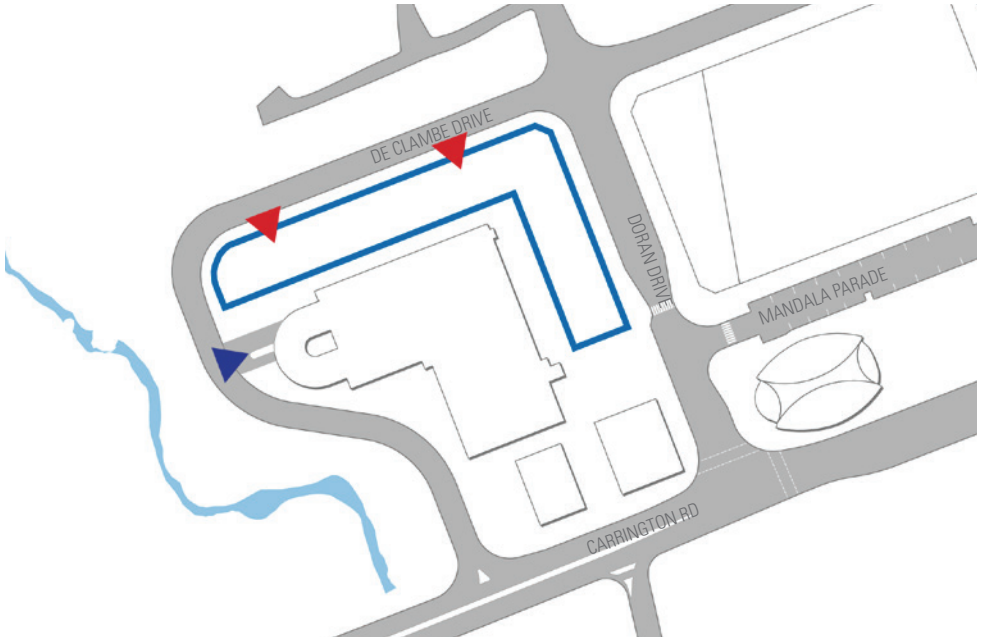

Figure 115: Precinct West - Car parking Configuration and Access

Design Guidance

Future applications shall include a Parking Management Plan, which shall consider, but not limited to:

- access
- location
- security
- ongoing operation and management.

3.2.14. Service Vehicles and Waste Collection

Objectives

a. To provide a common zone for service vehicles and waste collection.

b. To provide a safe environment for pedestrians and vehicles using the road network.

Controls

1. On-site waste collection should be either at grade or via a basement and waste collection vehicles must be able to enter and exit the site in a forward direction.
2. Waste collection must occur from De Clambe Drive as demonstrated in Figure 116.
3. Loading areas and vehicular access points for development are to be screened from public roads and public access points.
4. Loading areas and vehicular access point for development must avoid conflicts with pedestrian activity areas including waiting zones for bus, taxi and kiss and ride activities.
5. Service and waste collection vehicle zones must be sufficient dimensions to accommodate a standard 12.5m long HRV and allow for all access and manoeuvring to occur within the zone.
6. Waste management shall comply with the waste management controls contained within Part B Section 5 - Residential Flat Buildings and Part B Section 6 - Business of The Hills DCP 2012.

Design Guidance

1. Figure 116 shows an appropriate location and configuration of the service vehicle access point and waste collection zone, providing an adequate turning circle for vehicles to enter and exit in a forward direction.

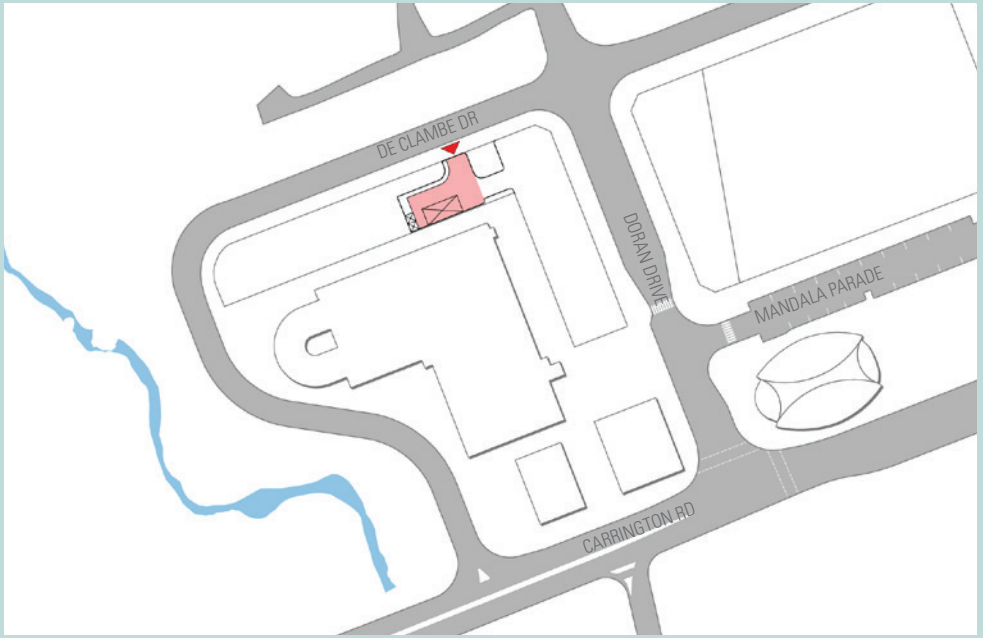

Figure 116: Possible conformance to Precinct West Service Vehicles and Waste Collection Controls

3.2.15. Subdivision and Earthworks

Controls

1. Earthworks shall be minimised to locations where the construction of roads require it or where fill is required adjacent to Cattai Creek (refer to Integrated Water Management and Cut and Fill Sections of this DCP).
2. Subdivision applications must provide a plan showing the existing pre-development and proposed finished ground levels to enable an assessment of the extent of earthworks proposed and assessment of the relationship between the finished road levels and proposed building platform levels.
3. The filling of land adjacent to the Cattai Creek Riparian Corridor may be required to facilitate the urban development of the Precinct and will only be permitted after consultation with NSW Office of Water and to the subsequent levels provided. Justification for any proposed changes to land levels provided is required and is to be supported by a flood assessment that takes into account the cumulative impact of flooding behaviour, and associated risks caused by individual developments.
4. In the areas of fill relevant provisions of Council's Flood Controlled Land DCP are to be applied.
5. A Fill Plan must be prepared.
6. All cut and fill works shall be in accordance with Council's Design Guidelines Subdivisions/Developments and Works Specification Subdivisions/ Developments.
7. All landfilled areas must comprise clean material free from contamination. Imported material shall be certified "Virgin Excavated Natural Material (VENM)".
8. Landfilled areas must be suitably compacted and stabilised with density tests to verify that compaction was achieved in accordance with Council requirements.

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04

DORAN DRIVE PRECINCT GUIDELINES

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 117: Aerial Sketch of the Hills Showground Concept Masterplan Facing South. Source: Tim Throsby 2020

4.1. Doran Drive Precinct Character

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 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 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 Metro Plaza.

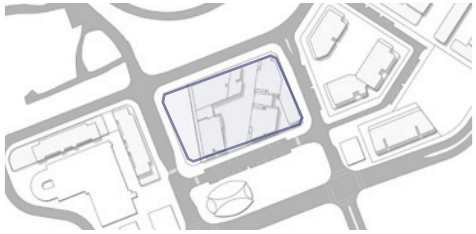

Figure 118: Doran Drive Precinct Character Area

Figure 119: Doran Drive Precinct. Source: Sydney Metro 2019

4.1.1. Built Form Character

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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.

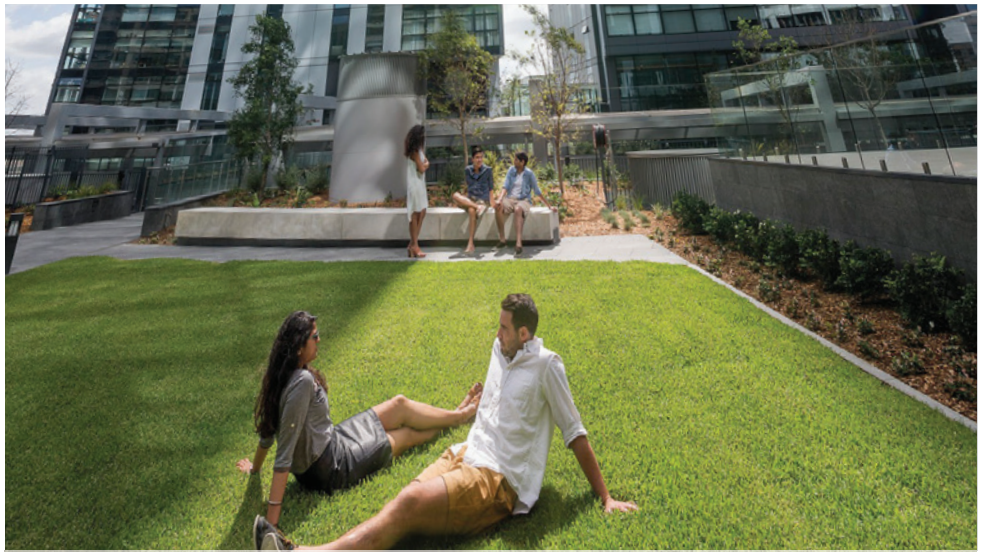

Figure 120: Podium communal open space accessed via adjoining residences and tenancies

Figure 121: Fine grain, dual frontage retail sleeving larger retail tenancies behind

Figure 122: Pedestrian scale podiums addressing the public domain. Source: THSC DCP

Figure 123: A variety of uses and users within and adjoining the future plaza

Figure 124: Pedestrian scale podiums addressing the public domain. Source: THSC DCP

4.1.2. 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.

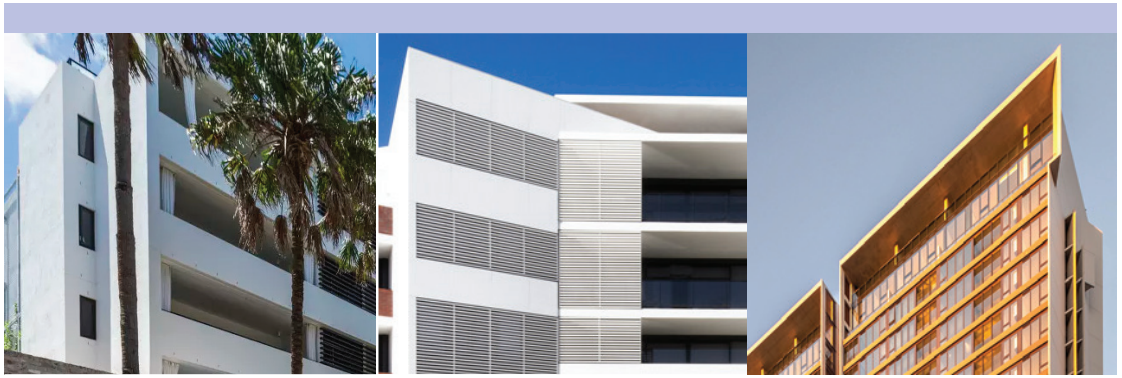

Figure 125: Upper Level Materials & Finishes

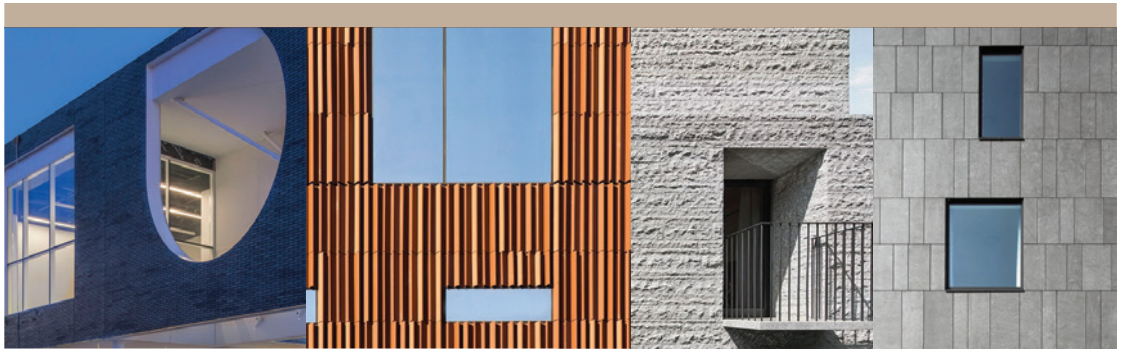

Figure 126: Podium Level Materials & Finishes

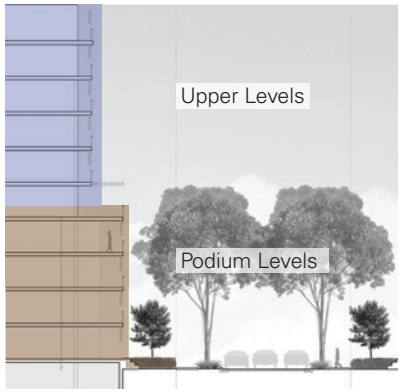

Figure 127: Building configuration

Figure 128: Active Frontage Finishes. Source: THSC DCP

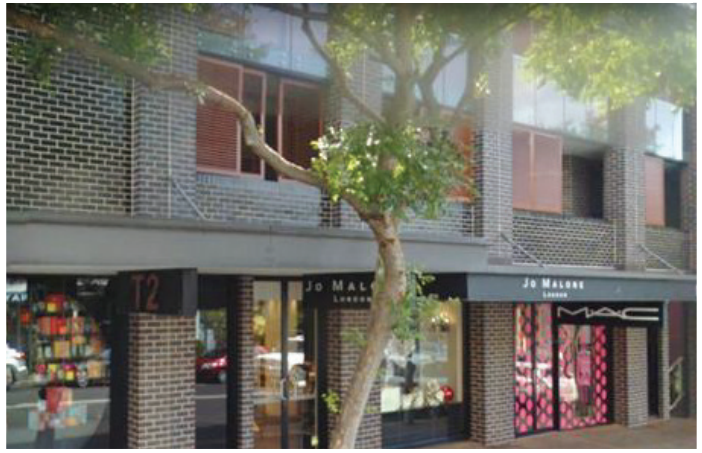

Figure 129: Active Frontage Finishes. Source: THSC DCP

Figure 130: Upper Level Podium and Tower Green Elements. Source: THSC DCP

4.1.3. Open Space 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 131: Lawn and seating areas

Figure 132: Paved plaza with seating and water feature

Figure 133: The 'Active Heart'

4.2. Doran Drive Precinct Design Guidelines

4.2.1. Doran Drive Plaza

Objectives

a. To provide an active plaza space as part of the community heart of the Precinct.

b. To reinforce primary pedestrian connections between the Hills Showground Metro Station and Castle Hill Showground.

c. To maintain clear and generous pedestrian access across all pedestrian desire lines between retail, transport and the Castle Hill Showground.

d. To provide opportunities for outdoor dining along the building frontage.

Controls

1. Multiple comfortable seating options and gathering spaces are to be provided to cater to different individual needs and group settings.
2. The Plaza is to include an engaging focal point in the form of a water feature, public art, sculptural pavilion or other urban element. Refer to SMNWP Guidelines to guide the decision and design of public art and interpretation features.
3. A minimum 6m wide pathway is to be provided adjacent Doran Drive.
4. A minimum 3m wide footpath is to be provided along the building frontage for uninterrupted pedestrian movement. A zone of up to 3m may be licensed for outdoor dining purposes, however this must not interrupt the pedestrian movement zone.
5. Adequate soil depths and volumes for trees and adequate soil depths for other types of planting such as shrubs, ground covers and turf are to be provided in accordance with Section 4P of the Apartment Design Guide.
6. The Plaza must be universally accessible and compliant with the Disability Discrimination Act.
7. Variation in paving texture and format is acceptable if it supports the character and layout of the Plaza.
8. High quality seating and furniture elements are to be integrated into the landscape design.
9. Public art and interpretation is to be incorporated into the design of Doran Drive Plaza in line with the SMNWP Guidelines and Hills Showground Station Precinct Heritage Interpretation Strategy (GML, 2019).
10. A combination of native and exotic species suited to the urban character of the Plaza are to be provided. This includes a minimum of 50% native species, and the a grove of deciduous trees reflecting the area's history with orchards.

Figure 134: Seating and street furniture

Figure 135: High quality paving

Figure 136: Integrated seating elements

Design Guidance

Figure 137 shows the potential arrangement of required public domain elements within Doran Drive Plaza, including:

1. Central open lawn area to cater for informal recreation and small events
2. Active retail edge to the east with opportunities for outdoor dining
3. Feature trees, shade trees and low-level planting including grove of trees reflective of the area's heritage
4. Water feature with a play element
5. Public seating, benches and informal seating opportunities integrated into garden walls and steps
6. Lighting, including feature lighting at locations yet to be determined
7. Paved circulation spaces including a wider footpath adjacent to Doran Drive and a wider pedestrian path along the eastern retail edge
8. Minimised grade changes across the plaza
9. To provide for public art located within the Plaza in accordance with the preparation of a site specific public art and interpretation plan that adheres to the 'Implementation Plan' as outlined in the SMNWP Public Art Guidelines

Plaza / water play

Central lawn

Bus Stop

Generous footpaths

Pedestrian crossing to station

Terraced seating steps

Retail and outdoor dining

Seating Grove

Figure 137: Doran Drive Plaza

4.2.2. Communal Open Space

Objectives

a. To provide additional amenity and recreational opportunities within the private domain for the residents of the Precinct.

b. To locate and configure the communal open space to provide visual connection to and from the station plaza and Showground.

Controls

1. Communal open space is to form part of the Mandala Parade interface and overlook the public domain.
2. External access to the public domain from the communal podium spaces is to be provided where possible, subject to adherence to CPTED principles.
3. Communal open space is to be provided in the form of private areas at podium level in accordance with SEPP 65 Apartment Design Guide.
4. External (outside) communal open space areas are to be located and designed to:
   - Be seen from the street between buildings (where possible)
   - Provide for active and passive recreation needs of all residents
   - Provide landscaping
   - Present as a private area for use by residents only
   - Include passive surveillance from adjacent internal living areas and/or pathways
   - Have a northerly aspect (where possible)
   - Be in addition to any public thoroughfares.
5. Communal open space is to provide a range of uses including seating, picnic facilities, play spaces, productive gardens and lawn areas amongst generous planting.
6. Communal open space is to incorporate a minimum of 70% native planting for local character, however this may be supplemented with exotics for colour and variation, and edible species as part of vegetable or herb gardens.
7. The design of exterior communal open space areas are to achieve amenity by addressing visual and acoustic privacy, safety, security and wind effects.
8. The location and design of communal open space is to achieve a minimum of 50% direct sunlight to the principal usable part of the communal open space for a minimum of 2 hours between 9am and 3pm at the winter solstice (21 June).

Figure 138: Private Communal Open Space

4.2.3. Building Siting, Massing and Scale

Objectives

a. To protect and enhance the rich, distinctive and valued character of the area, particularly those elements that contribute to a sense of place and identity including the Castle Hill Showground and Station Plaza.

b. To provide building forms that reinforce the desired character of the area.

c. To ensure building orientation maximises visual amenity and natural surveillance, taking advantage of any views to open space, public reserves and bushland.

d. To ensure towers are of a slender design to reduce perceived bulk and scale.

e. To ensure towers create an open, attractive and distinct skyline.

f. To frame and define the streets and public open spaces with appropriately scaled built edge.

g. To create a cohesive built environment through consistent and/or complementary elements of built form composition (eg relationships between podiums, modulation, proportions and the like).

Controls

1. Development shall be designed to incorporate clearly defined ground floor street zone, podium and upper level elements.
2. Ground floor heights are to be a minimum of 4m (floor to floor) for all non-residential uses.
3. Streets are to be defined by a 4 storey street wall with a height of up to 19m (depending on the use) in accordance with Figure 141. The street wall is to respond to the topography of the site and may vary between buildings where appropriate.
4. Tower forms above the 8th storey shall not exceed 40m in length and 24m in width and shall have floor plates of no more than 800m² GFA per floor.
5. Tower form is to be orientated to:
   a. Reduce the perceived mass of the building
   b. Provide solar access to station plaza as per the controls in Section 2.16.1
   c. Provide privacy for both communal and private open space areas.
6. Towers above the street wall shall be orientated to maximise solar access to public and private spaces and habitable rooms, district views to the east, north and west and to minimise wind down draft.
7. Tower massing and scale is to consider possible future development on adjoining sites, including Precinct West, Precinct East and the Castle Hill Showground.

Figure 139: Mixed podium with vertical articulation and weather protection with tower form set back above

Design Guidance

Figure 140 shows how the future built form can address the urban design control relating to massing, scale, composition and activation, by:

1. Varying podium levels, responding to topography
2. Defining the prominent corners
3. Locating retail tenancies to address the surrounding streets to support greater activation
4. Orientating buildings to achieve the required building separation distances while providing adequate sunlight to communal and public spaces
5. Articulating podium facades vertically to provide a finer scale along the street interface.

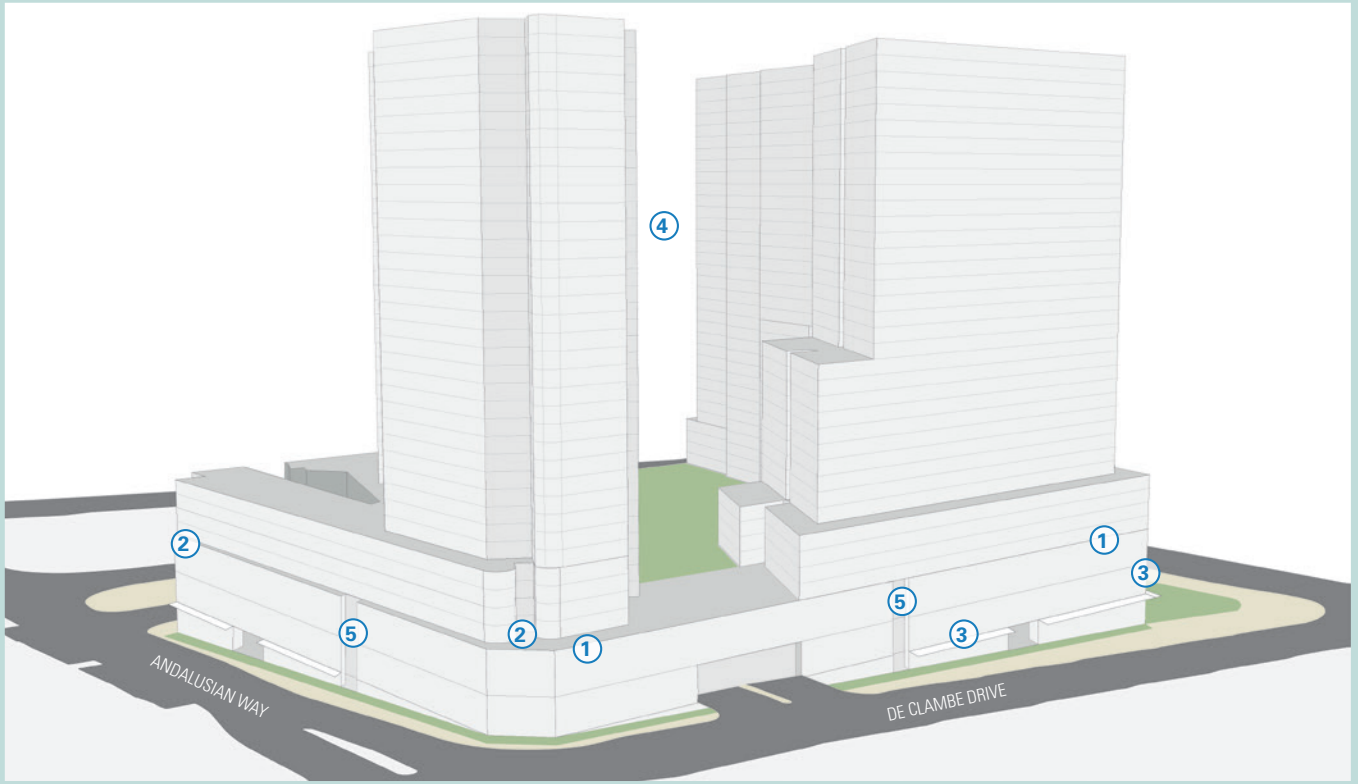

Figure 140: Possible conformance to Doran Drive Precinct Building Massing, Scale and Composition controls

4.2.4. Street Wall Height

Objectives

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

b. To provide street wall heights that are a response to future conditions within, and adjoining the site and the desired future character of the streets and Character Areas.

Controls

1. Provide a 4-storey street wall for Doran Drive Precinct to define the streets and public open spaces with an appropriately scaled built form.

2. The southern, northern and eastern street walls of the Doran Drive Precinct may be a minimum of 2-storeys high and a maximum of 4-storeys high to allow for variation in the podium in response to topographical conditions on the site and the location of communal open space areas on the podium and potential relationships to the public domain.

3. Where the podium does not exceed the 19m height limit, a mezzanine level of retail/commercial may be provided to assist in sleeving tenancies that have a large floor-to-floor height such as supermarkets. The mezzanine level should use similar finishes and materials as the ground floor and be connected via internal circulation to the ground floor tenancy addressing Doran Drive Plaza and De Clambe Drive.

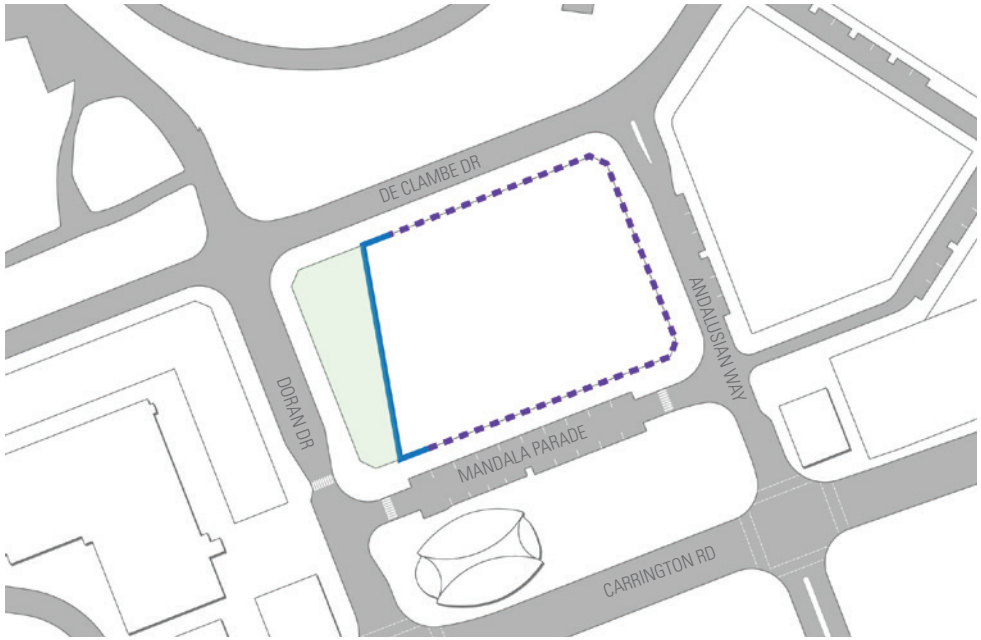

Figure 141: Doran Drive Precinct - Street Wall Heights

Design Guidance

Refer to Figure 140 for possible conformance to Doran Drive Precinct street wall height controls.

Figure 142: Varying 2-4 storey street walls that respond to topographical changes

Figure 143: Street walls that define the public domain with pedestrian scaled buildings

4.2.5. Setbacks

Objectives

a. To contribute to the human scale and visual experience of the street.

b. To provide an intimate urban experience within active and non-residential streets where shops and food and beverage businesses can be easily viewed and 'spill out' onto the footpath.

c. To enhance the pedestrian experience through visual enclosure and scale of streets and provide access to sunlight.

d. To define the public domain and create a consistent streetscape.

e. To reduce building bulk and scale and enable adequate sunlight access to the public domain.

f. To complement building mass and emphasise key design elements such as entrance points and respond to environmental conditions including solar access, noise, privacy and views.

Controls

1. In accordance with Figure 144, the minimum setback for a development to the boundary is:

   a. 0m ground floor primary setback for all interfaces, except where a 3m primary setback is required for outdoor dining zones

   b. 3m secondary setback above the podium.

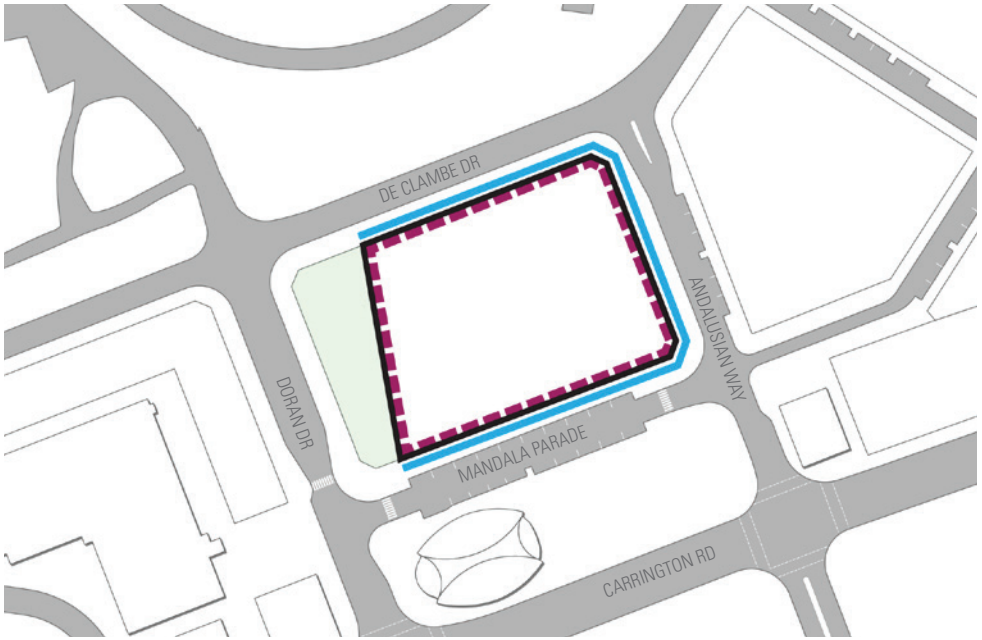

Figure 144: Doran Drive Precinct - Building Setbacks

Design Guidance

Refer to Figure 140 for possible conformance to Doran Drive Precinct setback controls.

4.2.6. Building Height

Objectives

a. To locate density where most appropriate and in accordance with TOD fundamentals - eg in the mixed-use areas with greatest access to transport.

b. To provide an appropriate pedestrian scale built form to the public domain of Doran Drive Plaza, surrounding streets and the Station Plaza and forecourt.

c. To deliver a varied skyline across the Hills Showground Station Precinct and the broader Precinct.

d. To identify the heart of the Precinct at Doran Drive Plaza and the metro station.

Controls

1. A maximum height of 68m (21 storeys) is permitted for the towers.

2. A maximum height of 28m (6 storeys) for a small portion of the De Clambe Drive interface to provide adequate solar access to communal open space.

3. A maximum height of 19m (4 storeys) is permitted for the podiums as per controls within Section 4.2.4. The inclusion of a mezzanine level within one of these storeys is permitted to assist in providing a finer grain sleeving of larger format retailing to the public domain as long as the total height of the podium does not exceed 19m.

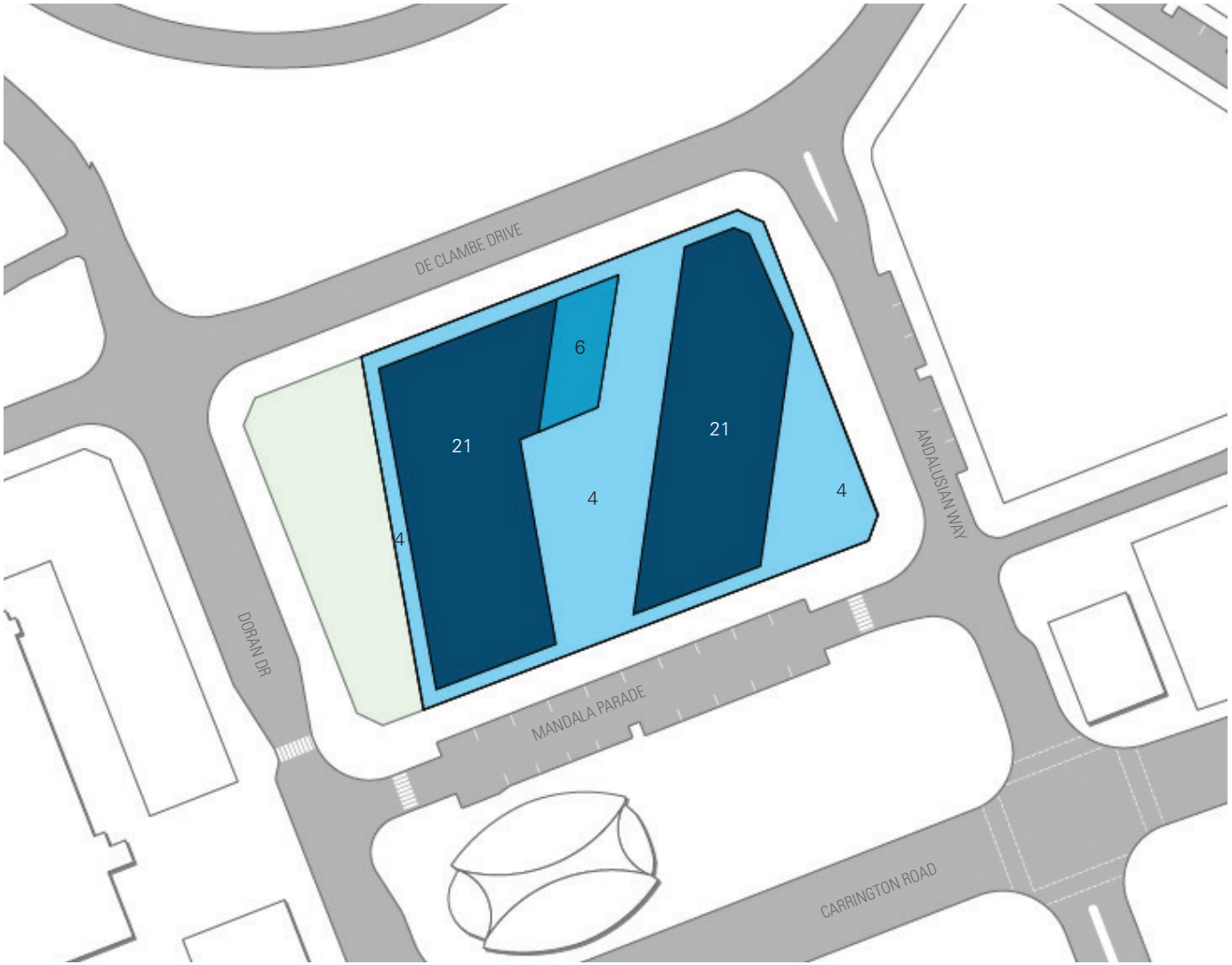

Figure 145: Doran Drive Precinct - Building Height in Maximum Storeys

Design Guidance

Refer to Figure 140 for possible conformance to Doran Drive Precinct building height controls.

4.2.7. Building Separation

Objectives

a. To protect privacy and solar access to private and public spaces.

b. To ensure suitable open sky views are provided from key public infrastructure elements such as Doran Drive Plaza and the transport interchange.

c. To provide building envelopes that enable design options that exceed minimum ADG requirements.

d. To provide generous building separation between the towers that frame Doran Drive Plaza and the transport interchange.

Controls

1. As shown in Figure 146, a minimum building separation of 12m and 24m is required for towers on the northern interface and a minimum building separation of 20m is required for towers on the southern interface.
2. Separation between building envelopes within Precinct West and Doran Drive Precinct must be a minimum of:
   a. 41m at the southern end and 55m at the northern end for podiums
   b. 46m at the southern end and 60m at the northern end for towers.
3. Separation between building envelopes within Doran Drive Precinct and Precinct East must be a minimum of:
   a. 30m for the podiums
   b. 36m at the northern end and 53m at the southern end for towers.

Figure 146: Doran Drive Precinct - Building Separation

4.2.8. Building Envelopes

Objectives

a. To prescribe a desired outcome for individual sites, and the Precinct as a whole, that delivers a level of certainty to Council and the community and retain a level of flexibility for innovation and diverse design outcomes in the future.

b. To ensure good amenity is provided through appropriate building separation, setbacks and depths.

c. To ensure building depths support well-designed apartment layouts.

Controls

1. Development is to conform to the building envelopes outlined in Figure 147.

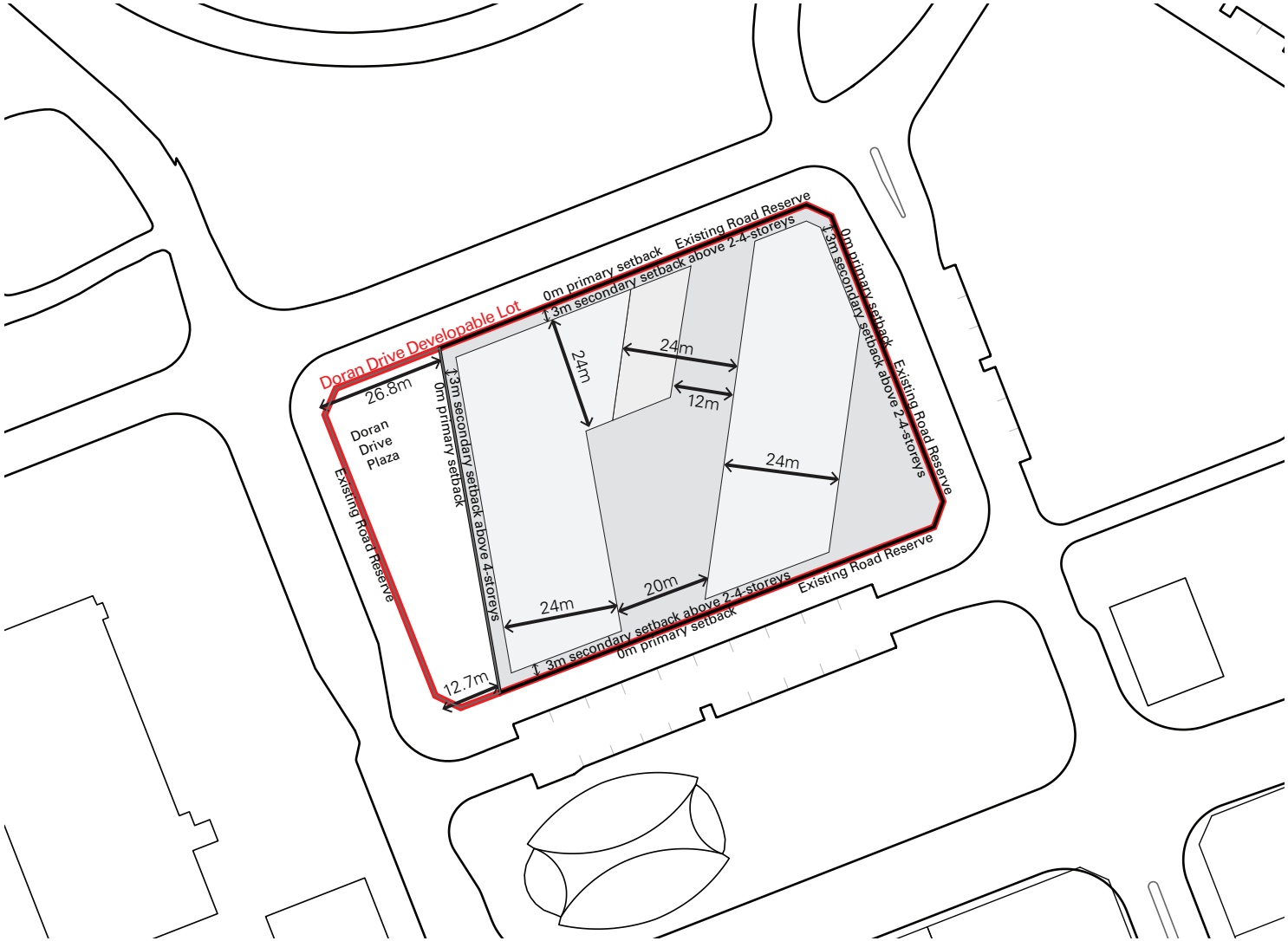

Figure 147: Doran Drive Precinct - Envelope Controls

Design Guidance

Refer to Figure 140 for possible conformance to Doran Drive Precinct building envelopes controls.

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4.2.9. Building Articulation and Facades

Objectives

a. To ensure that developments are aesthetically pleasing, encourage creativity and diversity in design, incorporating architectural relief and modulation of facades to avoid a bulky or monotonous appearance.

b. To deliver a varied built form across both horizontal and vertical planes.

c. To reinforce the intended neighbourhood character and enhance the pedestrian experience.

d. To ensure that buildings address the existing streets.

Controls

1. Development shall be designed to incorporate ground floor street zone, podium and upper level elements that are clearly defined by horizontal articulation.

2. Corner buildings are to address both street and corner elements, to emphasize significant key intersections and enhance public domain legibility. Street corners shall be addressed by giving visual prominence to those parts of the building façade, such as a change in building articulation, material or colour, roof expression or height.

3. Facade treatments are to create visual variety and interest while contributing to the continuity of the streetscape.

4. Walls should comprise a variety of colours to reduce monotony and add variety to the streetscape.

Ground Floor Street Zone Controls

5. Ground level articulation is to ensure universal access to all tenancies and properties from the public domain. A mid-point in the topographical change may be used as a common access point where reduced terracing to the public domain is desired (eg colonnade or outdoor dining areas).

6. Provide architectural features in the façade that give human scale at ground floor level, such as entry porches, pergolas and so on.

7. A sense of address and visual interest from the street is to be provided through the use of insets and projections and, where relevant, the appearance of finer grain buildings, however ground floor recesses that undermine the safety of the public domain are to be avoided.

Figure 148: Vertical podium facade articulation

8. Fine grain retail and commercial frontages are to be provided to ensure an interesting street edge and support human scale streetscapes. Finer detail to identify individual tenancies and different building levels are to be used to add richness to the architectural design.
9. Building entries are to be visually identifiable from the street frontage with clear sight lines and are to have direct address to the street. Separate entrances are required for commercial/ retail and residential uses. Lighting should be provided for safety at night.
10. Where an active frontage is required, a majority of the building frontage is to be transparent (i.e. windows and glazed doors). Clear glazing is to be provided to windows and doors.
11. Security grilles may only be fitted internally behind the shopfront of any non-residential uses at ground level. They are to be transparent and fully retractable.
12. A minimum 2.5m awning is to extend over the public domain where any active edge is prescribed by these Guidelines. This is to also extend beyond any outdoor dining areas zones as shown in Figure 161.
13. Footpath awnings shall be designed to complement and integrate with the façade and the streetscape.
14. Ventilation louvres and carpark entry doors are to be integrated into facade designs where located on street frontages.
15. Services such as for fire protection, water and power distribution are not to intrude upon the pedestrian right of way, visually detract from the appearance of the development, and are to be screened from the street frontage with materials which are integrated with architectural expression of the development.
16. Any visible carpark entries or walls should be comprised of more than one material and colour to enhance visual attractiveness and interest.
17. Any ground level car park entries should be concealed or screened by planting from the street and public view, as much as possible.

Figure 149: Glazed building facades and awnings over the public domain interface

Podium Controls

18. Horizontal articulation of the podium facade is to be provided above 2 storeys.
19. Horizontal articulation is to respond to the natural topography of the development lots with a maximum of two steps within each podium aligned with any breaks in the built form or tower elements above the podium.
20. A constant podium height is required across individual buildings. Podium height may vary between buildings in response to topography.
21. A 1m wide notch is to be provided at regular interval for vertical podium façade articulation.
22. Podium facades shall avoid blank, featureless walls by patterning high quality architectural elements such as window bays, canopies and fenestration.

Upper Level Controls

23. Building façades are to be vertically articulated to reduce the appearance of building bulk and to express the elements of the building's architecture.
24. Building facades are to be enhanced through the use of well-proportioned and balanced projections and recesses.
25. Any towers longer than 50m between the podium and the 7th storey must be articulated through a minimum 3m and maximum 5m recess, inset or projection and treated with different materials and finishes.
26. Telecommunications, service structures, lift motor rooms and mechanical plants are to be integrated within the roof design and roof features to contribute to an attractive and interesting skyline for the precinct.
27. Tower facades are to be articulated to be:
    - Articulated to manage passive solar gain
    - Well-glazed with functional windows where possible to reduce reliance on artificial cooling
    - Designed with high-quality sustainable materials and finishes that promote building longevity
    - Varied in design and articulation to promote visual interest.

Figure 150: Horizontal and vertical podium articulation and different materials and finishes to read as two separate buildings from different aspects

Design Guidance

The following elevation of De Clambe Drive demonstrates how the future built form can address urban design controls relating to articulation and facades, by:

1. Using a mid-point in the topographical change as a common access point where reduced terracing to the public domain is desired (eg colonnade or outdoor dining areas).
2. Aligning vertical façade elements from the podium to the tower above, accentuating building entries.
3. Maintain a consistent podium height while stepping along surrounding streets, responding to topography.
4. Defining non-residential uses with horizontal façade articulation.
5. Recessing the building to improve the sense of scale and massing from the street.
6. Separating commercial and residential uses and entries.
7. Minimising the visual impact of the tower at the corner of De Clambe Drive and Andalusian Way by narrowing the building form, opening views through the site.

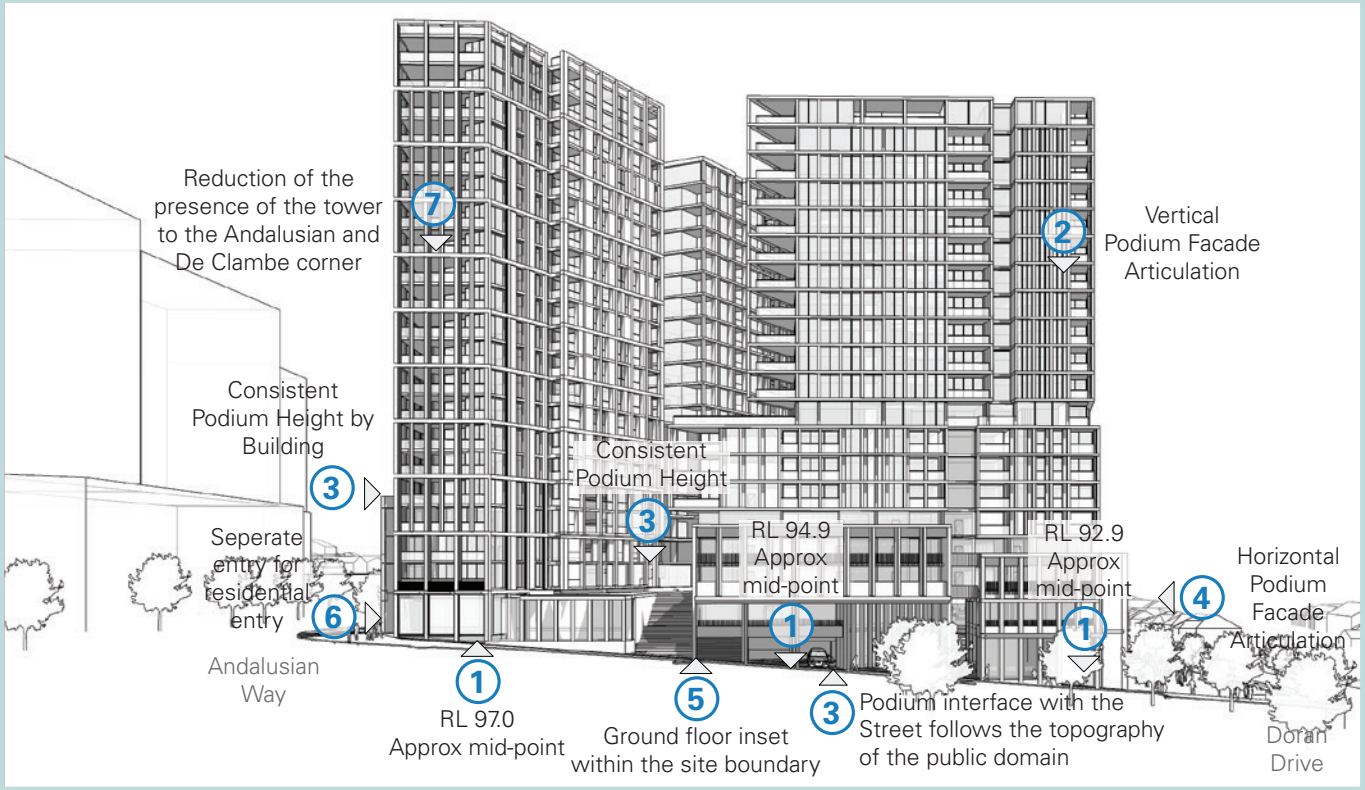


Figure 151: De Clambe Drive elevation demonstrating possible conformance to Doran Drive Precinct Building Articulation Controls

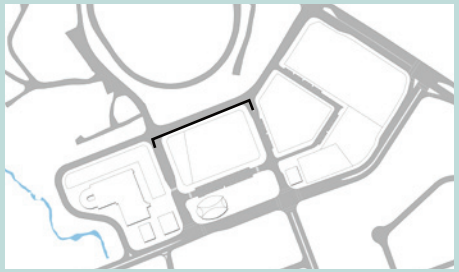


Figure 152: Location of Doran Drive Precinct Building Articulation Elevation

Design Guidance

The following elevation of Andalusian Way demonstrates how the built form can address urban design controls relating to articulation and facades, by:

1. Using a mid-point in the topographical change as a common access point where reduced terracing to the public domain is desired (eg colonnade or outdoor dining areas).
2. Aligning vertical façade elements from the podium to the tower above, accentuating building entries.
3. Maintain a consistent podium height while stepping along surrounding streets, responding to topography.
4. Defining non-residential uses with horizontal façade articulation.
5. Separating commercial and residential uses and entries and using entry porches and pergolas.
6. Finer detail and materials and finishes to identify individual tenancies and different building levels.

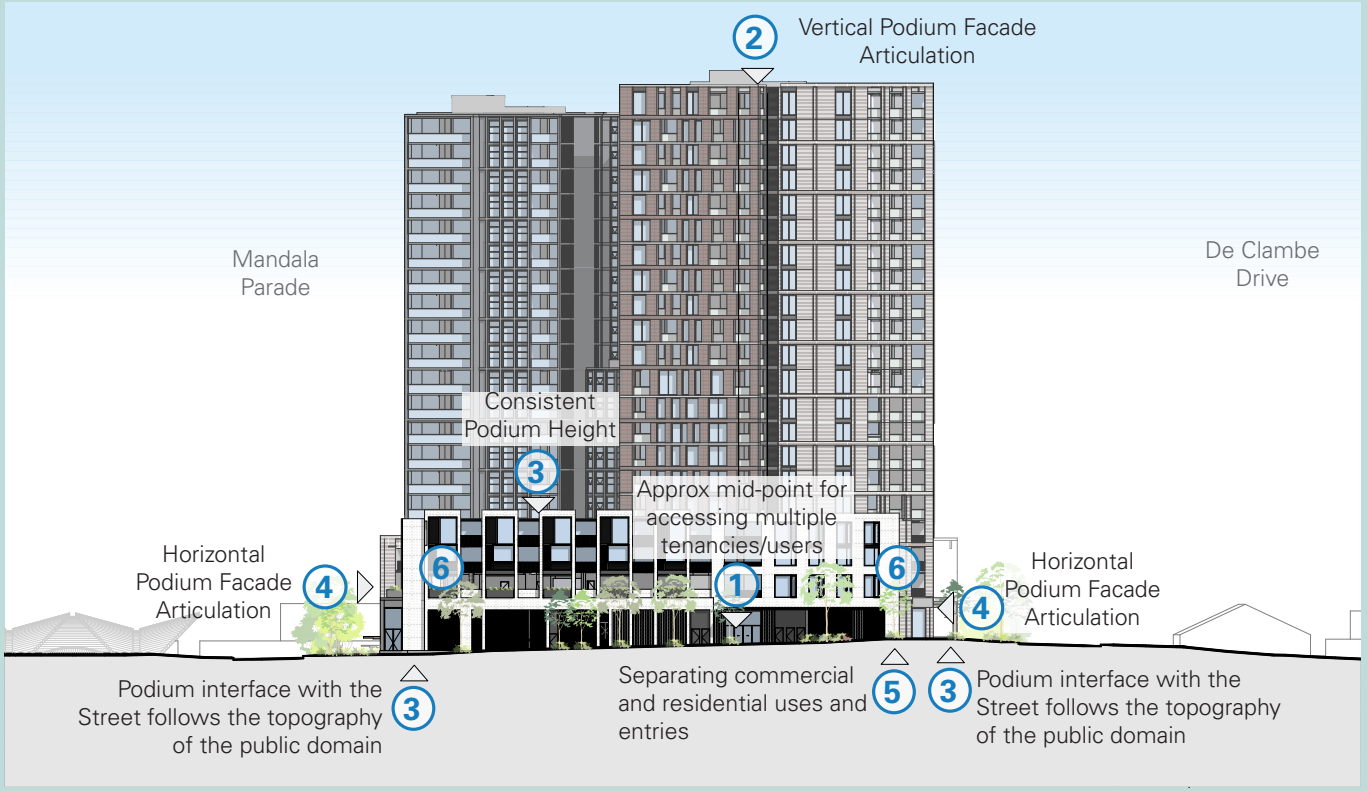


Figure 53: Andalusian Way elevation demonstrating possible conformance to Doran Drive Precinct Building Articulation Controls

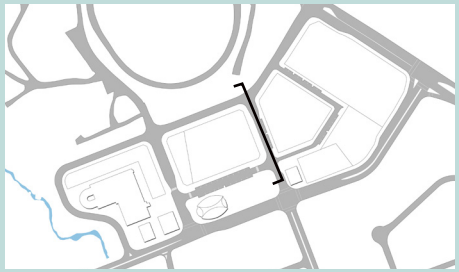


Figure 54: Location of Doran Drive Precinct Building Articulation Elevation

Design Guidance

The following elevation of Mandala Parade demonstrates how the built form can address urban design controls relating to articulation and facades, by:

1. Using a mid-point in the topographical change as a common access point where reduced terracing to the public domain is desired (eg colonnade or outdoor dining areas).
2. Aligning vertical façade elements from the podium to the tower above, accentuating building entries.
3. Maintain a consistent podium height while stepping along surrounding streets, responding to topography.
4. Defining non-residential uses with horizontal façade articulation.
5. Separating commercial and residential uses and entries and using entry porches and pergolas.
6. Finer detail and materials and finishes to identify individual tenancies and different building levels.

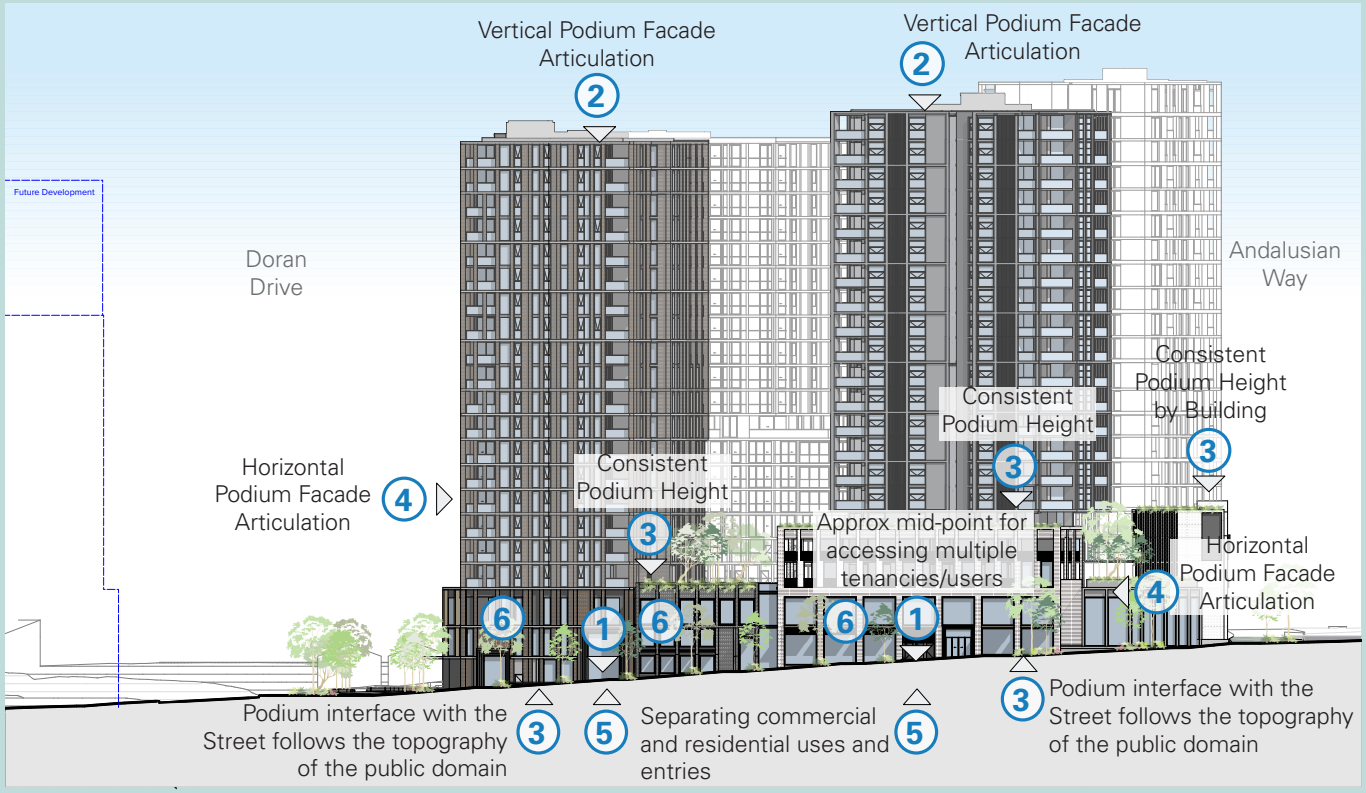


Figure 55: Mandala Drive elevation demonstrating possible conformance to Doran Drive Precinct Building Articulation Controls

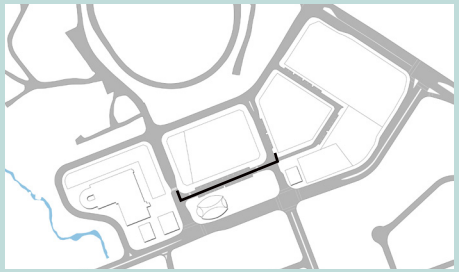


Figure 56: Location of Doran Drive Precinct Building Articulation Elevation

4.2.10. Active Use and Street Frontage

Objectives

a. To create an active node around Doran Drive Plaza.

b. To reinforce complementary uses and desired street character.

c. To promote an exceptional pedestrian experience with active frontages.

d. To ensure active uses are located in areas of high pedestrian activity and amenity.

e. To ensure ground floor uses activate the public domain and streets and provide passive surveillance.

f. To encourage ground floor activities (uses such as local retail, business and/or community) to spill out into the public domain to create a vibrant streetscape and promote a sense of community.

g. To provide flexibility in allowing for permanent outdoor dining areas outside of the existing road reserve and footpath areas.

Controls

1. Active frontages are to be located on Doran Drive, De Clambe Drive, Mandala Parade and Andalusian Way for the extent identified in the Active Frontages diagram in Figure 157.

2. Active frontages may include one or a combination of the following:

   – Shop front

   – Business or retail premises

   – Café or restaurant with a street entrance

   – Community and civic uses with a street entrance

   – Recreation facilities with a street entrance.

3. An active street frontage is not required for any part of a building that is used for any of the following:

   – Entrances and lobbies (including as part of mixed use development)

   – Access for fire services

   – Vehicular access.

4. Large retail tenancies (above 500m² GFA) are to be screened by smaller tenancies for greater street activation and retail variety, where needed.

5. For larger developments, building entrances should be provided on each street frontage.

6. Retail and commercial uses at ground level are to be designed so that the ground floor for the primary entry area of the premises is at the same level as the finished footpath level of the adjacent street and/or open space.

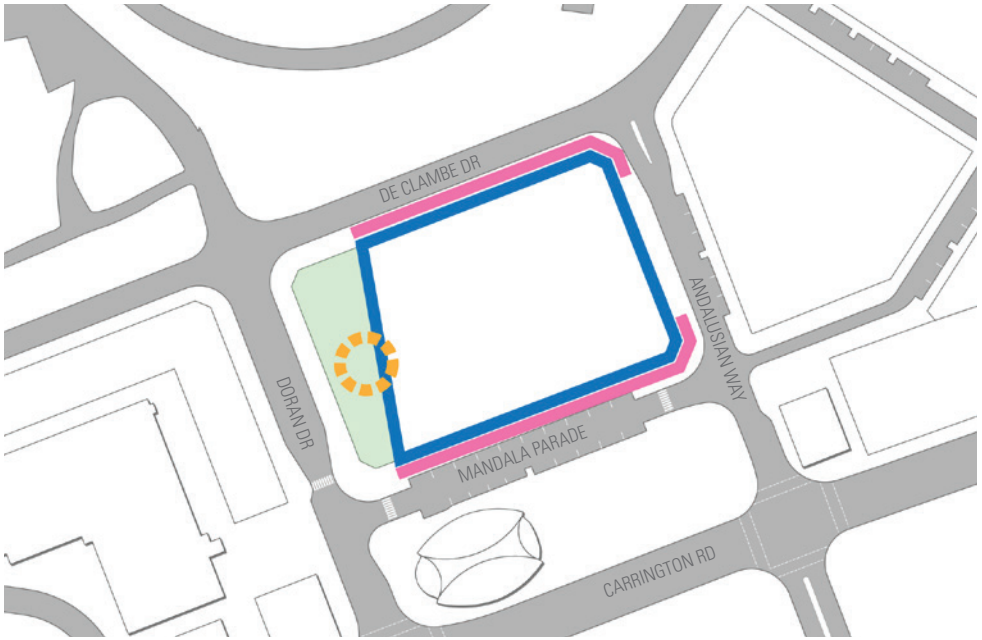


Figure 157: Doran Drive Precinct - Activity Nodes and Frontages. Appropriate locations where outdoor dining may be considered along the interface with De Clambe Drive, Mandala Parade and Doran Drive

7. Outdoor dining along the interface with De Clambe Drive, Mandala Parade and Andalusian Way is to be located in accordance with Figure 157 to ensure there are no conflicts with building entries, carpark and loading dock access.

8. Where a 3m outdoor dining zone is desired, it is to be provided in addition to the existing public domain.

9. Outdoor dining areas may be provided within Doran Drive Plaza in accordance with the controls contained in Section 4.2.10.

10. Outdoor dining areas are to be adjacent to active edges that front streets with high pedestrian activity.

11. Where more than one outdoor dining tenancy is desired along a single interface, the tenancies are to be continuous.

12. Outdoor dining areas located on a street corner are to wrap around the corner to address both streets.

Figure 158: Active Ground Floor and Colonnade

Figure 159: Active uses that address both street corners

Figure 160: Increased Floor to Floor Heights for Food and Beverage with awning over the public domain

Design Guidance

1. Figure 161 shows the desired streetscape outcome for one or more tenancies with outdoor dining, i.e. when a 3 metre setback is required.

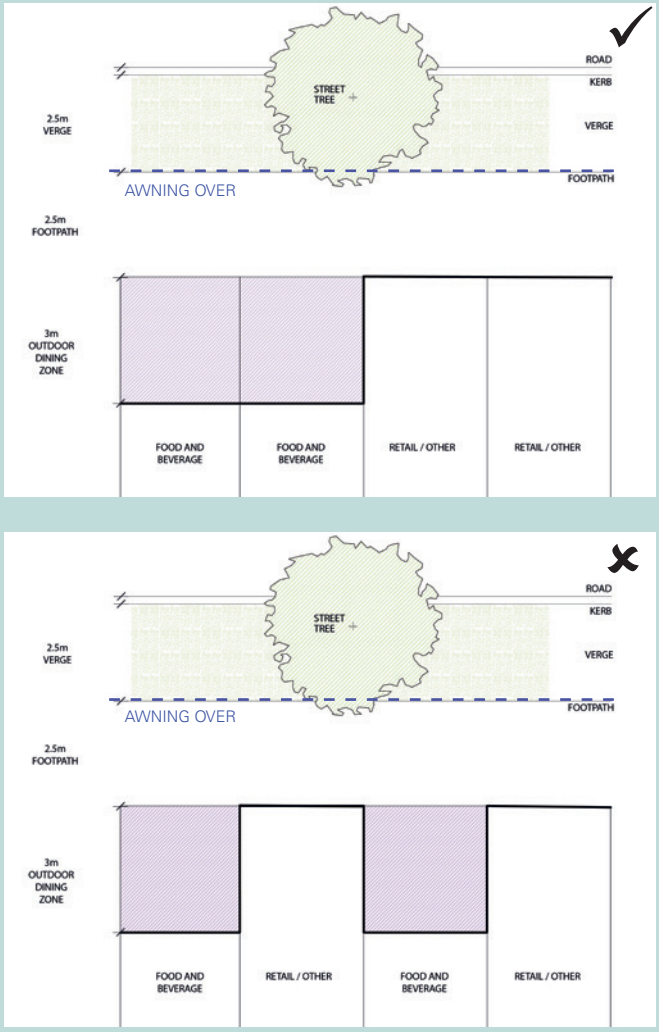


Figure 161: Possible conformance to Precinct West Street Activation Controls for locating and configuring outdoor dining areas

Figure 162: Outdoor dining located in a colonnade

Figure 163: 2-storey colonnade with podium extended to primary setback above

Design Guidance

1. Figure 164 shows a street frontage with a 3 metre setback for outdoor dining and a double-height awning/ colonnade space for the extent of the street frontage. Extra weather protection is provided by an additional awning at 2.5 metres in length over the existing footpath. A secondary setback of 2 metres above the four storey podium is still required.
2. Figure 165 shows the streetscape interface when a 3 metre setback is not required for retail and/or commercial tenancies.

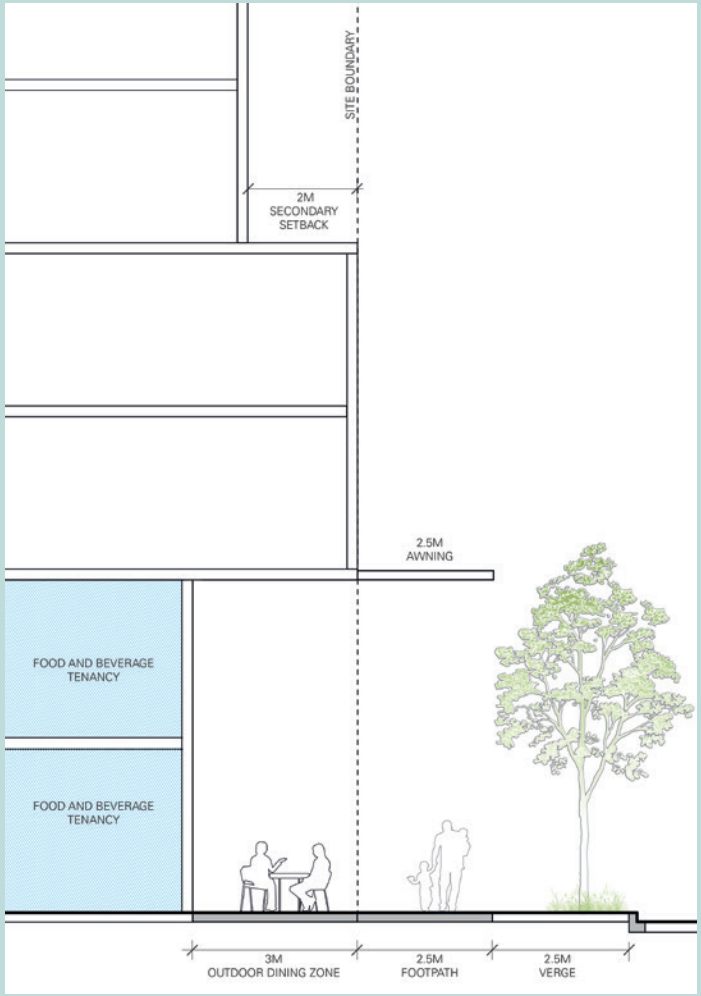


Figure 164: Outdoor dining located within a 3m primary setback applied to a 2-storey colonnade and associated 2-storey high awning over the existing 2.5m footpath. The 2m secondary setback remains for any storeys above the 4-storey podium above the podium.

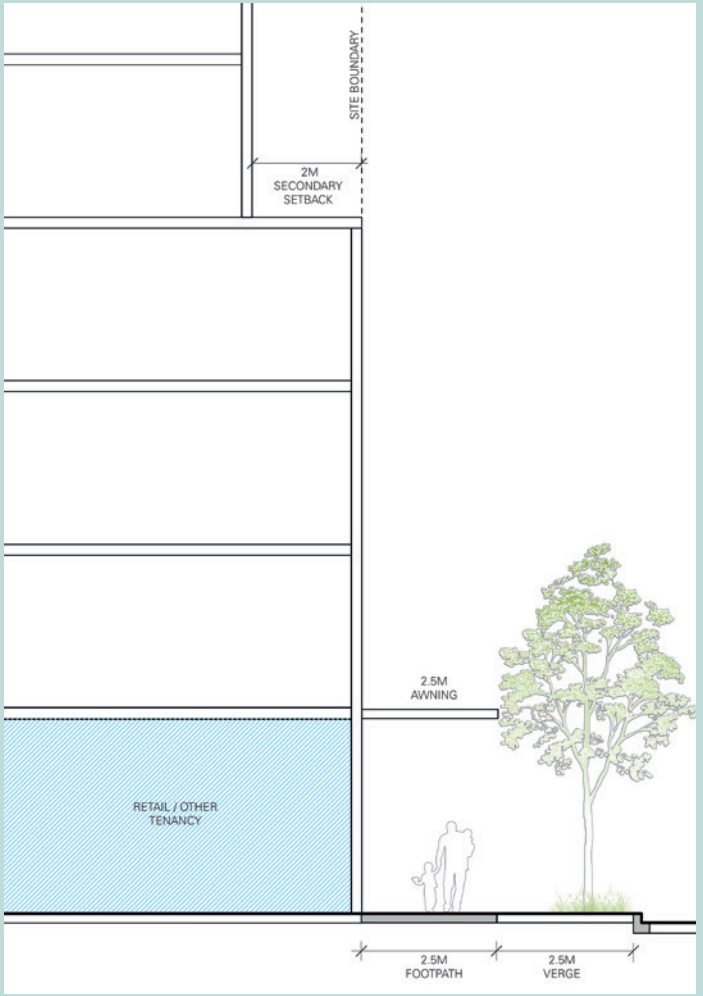


Figure 165: Retail and commercial tenancies, where not located within an outdoor dining zone are required to directly address the public domain. Minimum 2.5m wide awnings may be provided at a single storey above ground where transition from outdoor dining areas is facilitated by vertical articulation elements, building entries or carpark entries.

4.2.11. Street Interface

De Clambe Drive Interface Objectives

a. To enhance the existing functions of De Clambe Drive where it interfaces with the Doran Drive Precinct development lot.

b. To maintain the existing functions of De Clambe Drive as a local road.

c. To maintain the width of the existing landscape verge and footpath.

Controls

1. Development is to comply with the following interface controls:

    a. 0m primary setback for the first 4 storeys where there are no outdoor dining uses

    b. Minimum 3m inset via a colonnade for 2 storeys, or a 3m primary setback for the extent of the podium, where developments include outdoor dining uses

    c. 3m secondary setback above the podium, including where a colonnade or additional primary setback for outdoor dining has been provided.

2. A 2.5m awning is to be provided over the public domain.

Figure 166: Location of De Clambe Drive Street Interface Section

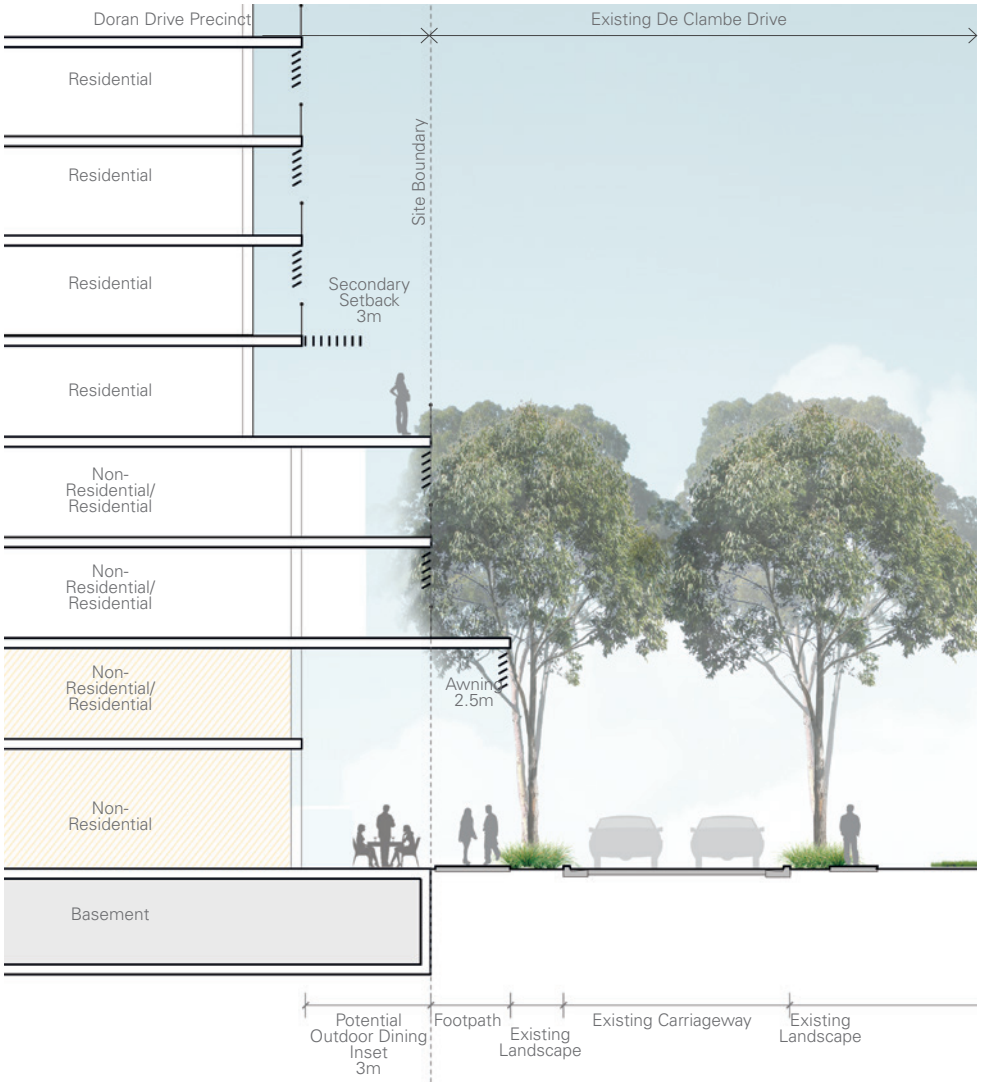


Figure 167: Street Interface to De Clambe Drive

Doran Drive Plaza Interface

Objectives

a. To enhance the existing functions of Doran Drive and Doran Drive Plaza.

b. To maintain the existing functions of Doran Drive as a local road and transport interchange.

c. To maintain the width of the existing landscape verge and footpath.

Controls

1. Development is to comply with the following interface controls:

    a. 3-4 storey podium for the extent of the interface with Doran Drive Plaza to a height of 19m

    b. 0m primary setback for the height of the podium storeys where there are no outdoor dining uses.

2. A 2.5m awning is to be provided over the public domain.

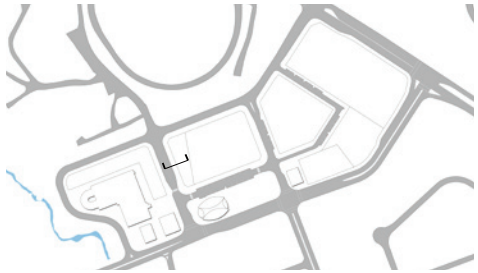


Figure 168: Location of Doran Drive Interface Section

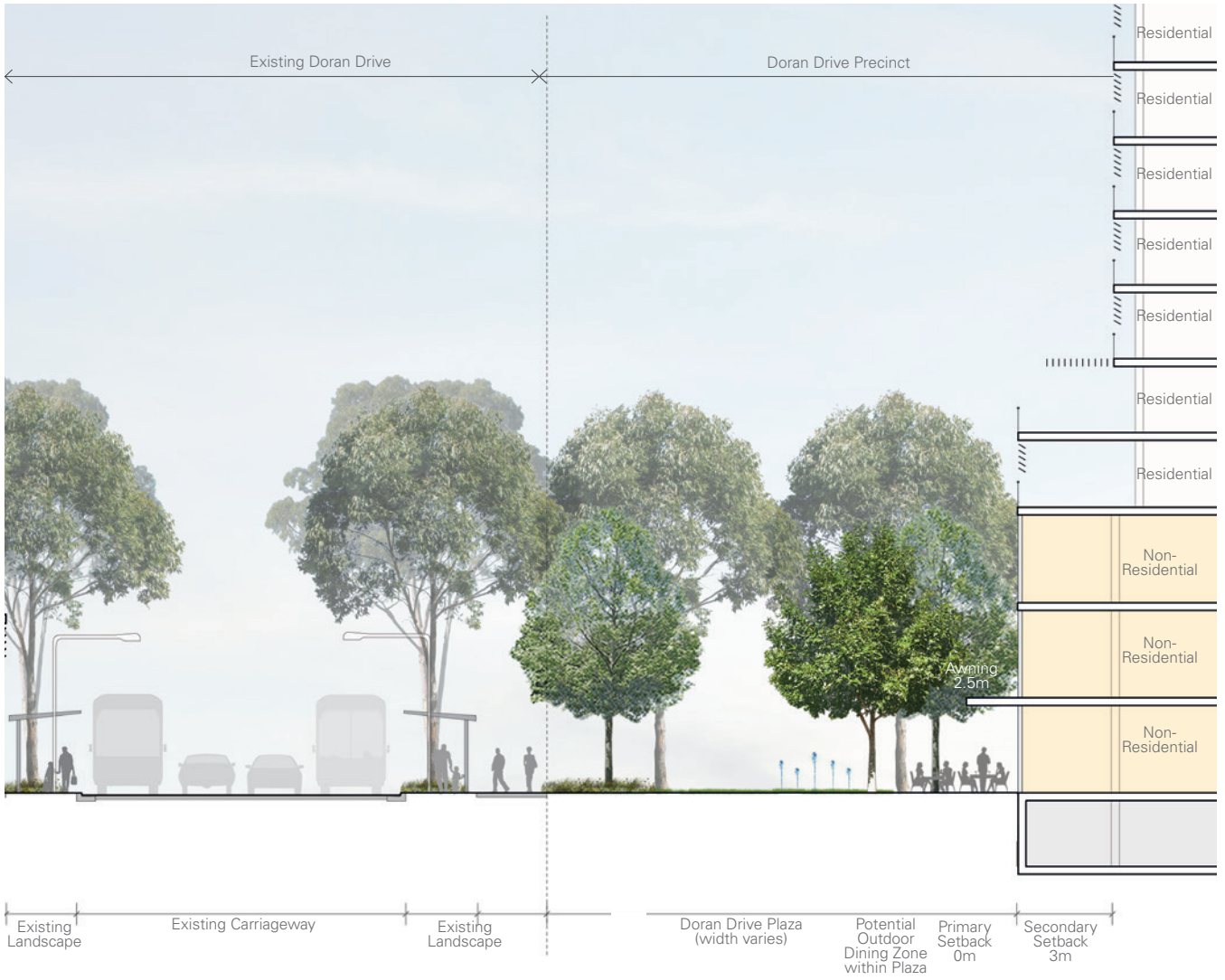


Figure 169: Doran Drive Interface

Mandala Parade Interface

Objectives

a. To enhance the existing functions of Mandala Parade where it interfaces with the Doran Drive Precinct development lot.

b. To reinforce the public open space of the station plaza through the location and visual connection to private open space within or on top of the podium on Doran Drive Precinct.

Controls

1. Development is to comply with the following interface controls:

   a. 0m primary setback

   b. 3m secondary setback above a minimum 2 storey podium.

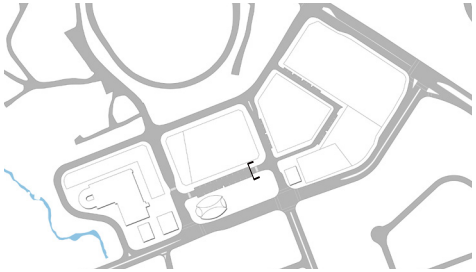


Figure 170: Location of Street Interface to Mandala Parade Section

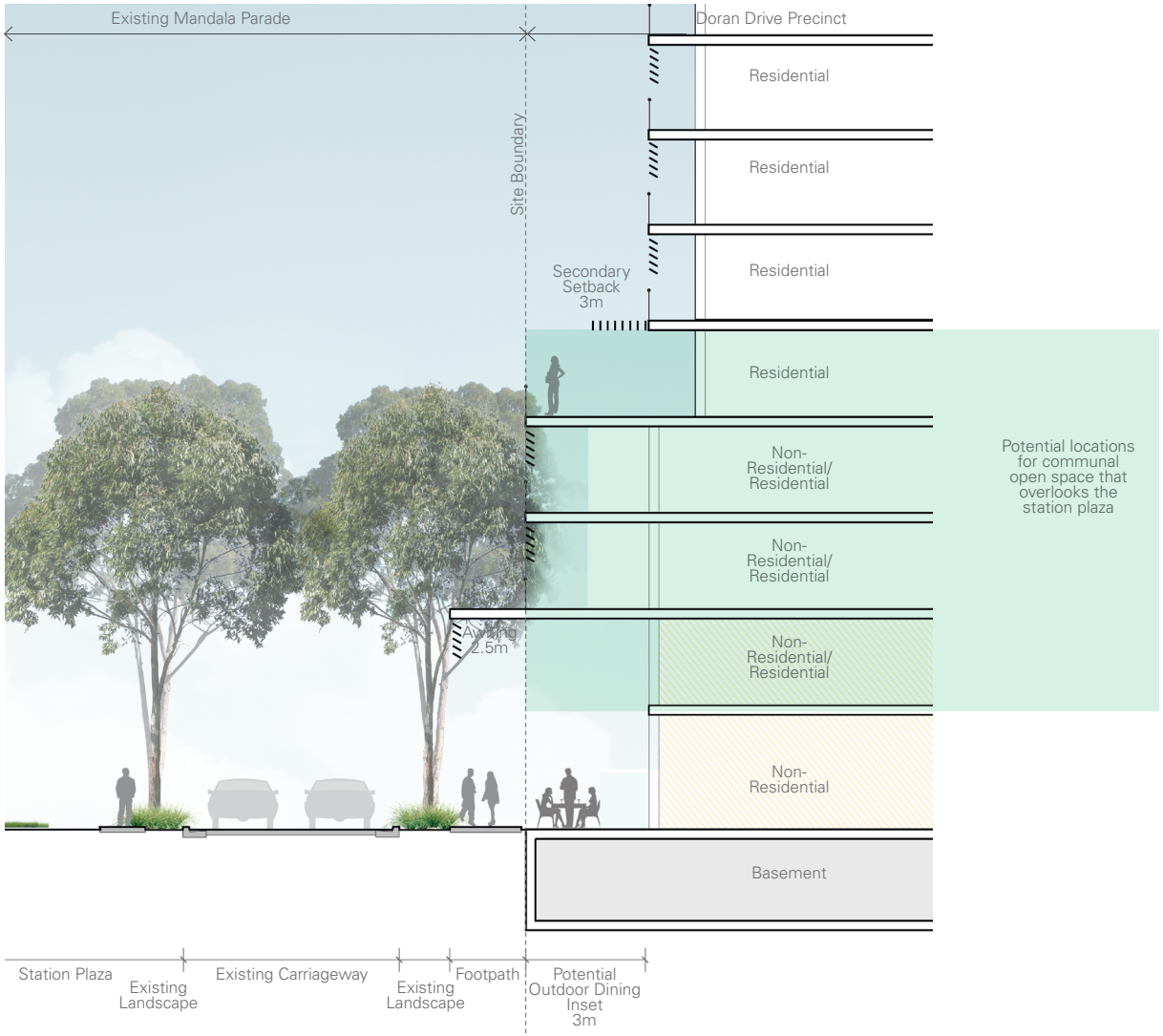


Figure 171: Street Interface to Mandala Parade

Andalusian Way Interface

Objectives

a. To enhance the existing functions of Andalusian Way where it interfaces with the Doran Drive Precinct development lot.

b. To maintain the existing functions of Andalusian Way as a local road.

c. To maintain the width of the existing landscape verge and footpath.

Controls

1. Development is to comply with the following interface controls:

    a. A maximum 4 storey podium for the extent of the interface with Andalusian Way

    b. 0m primary setback for the extent of the podium where there are no outdoor dining uses

    c. Minimum 3m inset via a colonnade for 2 storeys, or a 3m primary setback for the extent of the podium, where developments include outdoor dining uses

    d. 3m secondary setback above the podium, including where a colonnade or additional primary setback for outdoor dining has been provided

    e. Where outdoor dining areas are provide, they are to be located on the corners of Mandala Parade and De Clambe Drive.

2. A 2.5m awning is to be provided over the public domain.

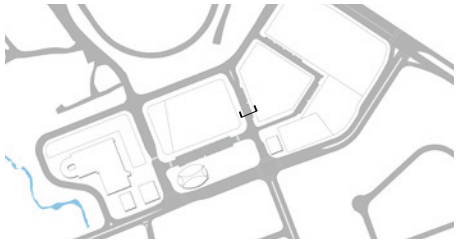


Figure 172: Location of Street Interface to Andalusian Way Street Section

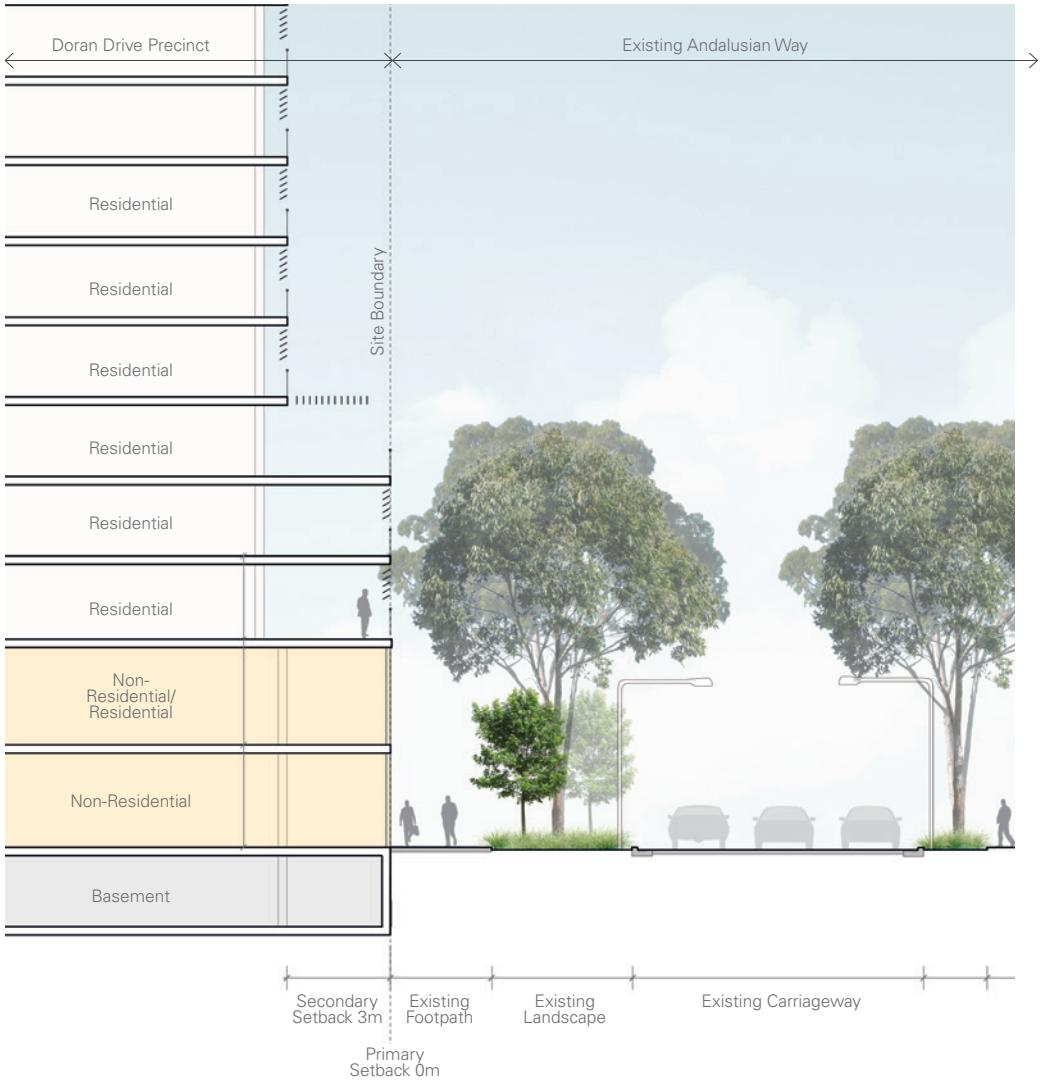


Figure 173: Street Interface to Andalusian Way

4.2.12. Car Parking and Access

Objectives

a. To ensure access does not compromise the activity and pedestrian movements within the heart of the Precinct and the transport interchange on Doran Drive.

b. To ensure entries and structures do not impinge upon pedestrian amenity and streetscape quality.

c. To encourage car share spaces within residential flat buildings for the exclusive use of car share scheme vehicles.

d. To future proof the development via the provision of electric vehicle charging stations.

e. To ensure residential parking rates allow for flexibility to meet the future demographic needs and ongoing modal shift towards more sustainable transport outcomes.

Controls

1. Residential carparking spaces are to be provided at the rates specified in Table 7. For any use not specified, the carparking rates in The Hills Development Control Plan 2012 (Part C Section 1 – Parking) shall apply.
2. The maximum cap for residential car spaces is 1,663 across the Hills Showground Station Precinct.
3. Dedicated residential visitor parking is not applicable.
4. Parking is to be provided and suitably located to enable shared parking between residential visitor parking and non-residential parking.
5. Secure, conveniently located bicycle parking facilities are to be provided at the rates specified in Table 8.
6. Driveways and vehicular access to carparks shall not be located on Doran Drive.
7. Vehicular access to carparks is to be limited to the eastern end of De Clambe Drive and along Andalusian Way. Access via Doran Drive and Mandala Parade is prohibited. Entry and exits are to be located in accordance with Figure 164
8. Driveways are to be appropriately set back from corners and intersections.
9. Driveways are to have a minimum width of 6 metres at the property boundary for a distance of 6 metres (measured along the centreline of the driveway)

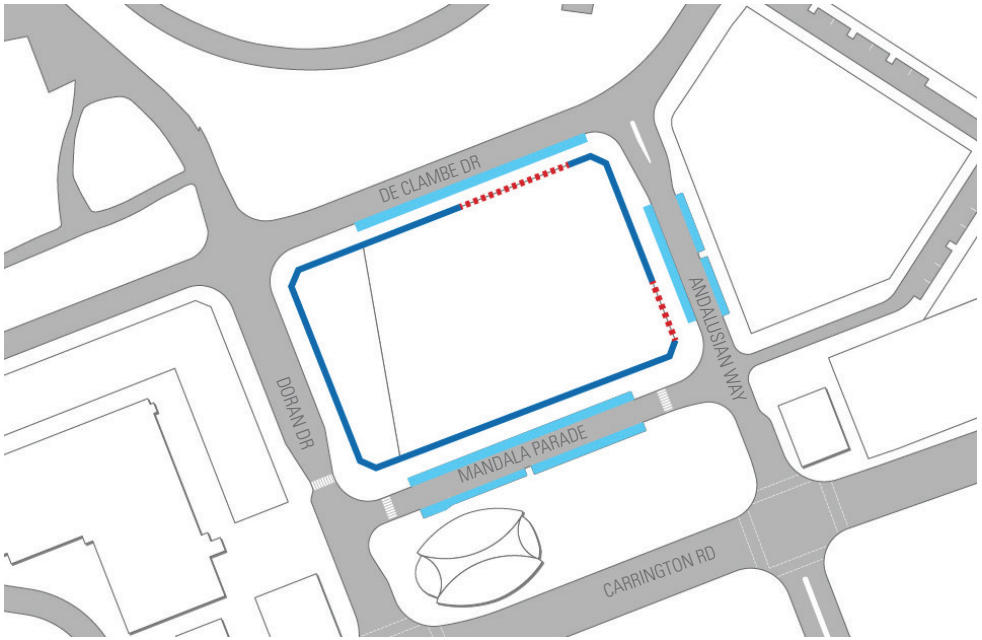


Figure 174: Doran Drive Precinct - Carparking Configuration and Access

Table 7: Doran Drive Precinct Residential Car Parking Spaces

	Minimum (per unit)	Maximum (per unit)	Affordable Housing Minimum (per unit)	Affordable Housing Maximum (per unit)
1 bedroom units	0.4	Average of 1 across all bedroom apartment mix	0.4	0.4
2 bedroom units	0.7		0.5	0.5
3 bedroom units	1.0		1	1
	Minimum (per area)	Maximum		
Retail	1 space per 130m² GFA	A maximum car parking cap of 341 spaces for retail and commercial development for Doran Drive Precinct, or 1 space per 32m², whichever is lower		
Commercial	1 space per 145m² GFA			
Office	1 space per 145m² GFA	1 Space per 100m² GFA		

Table 8: Doran Drive Precinct Bicycle Parking Facility Rates

	Rate (minimum)
Residential flat buildings	1 resident space per 3 apartments 1 visitor space per 12 apartments
Commercial use	1 space per 600m² GFA for staff
Retail use	1 space per 450m² GFA for staff

within the development to ensure easy entry/exit of vehicles.

10. Adequate vehicular entry, exit and circulation areas are to be provided. The design must:
    a. Provide safe environment for both pedestrians and vehicles using the site and surrounding road networks
    b. Ensure vehicular ingress and egress to the site is in a forward direction at all times
    c. Be designed to minimise the visual impact of hard paved areas.
11. Parking is to be underground and avoided within street setbacks. Where above ground parking cannot be avoided due to site conditions, it must be well integrated into the overall façade design and create a good relationship with the public domain.
12. Garages and parking structures are not to project forward of the building line into the public domain and are to be screened from the public domain by active uses.
13. Basement carparks or other structures are not to constrain the infrastructure or access easement to the metro services building.
14. Carparking shall not be located on the roof of buildings.
15. The location and means of access to customer carparking within a building is to be clearly visible.
16. Car share spaces are to be provided at a rate of one space per 150 car spaces for residential and one space per 80 car spaces for commercial.
17. Car share spaces are to be for the exclusive use of car share scheme vehicles, and included in the number of carparking spaces permitted on a site. The car share parking spaces are to be:
    a. Retained as common property by the Owners Corporation of the site, and not sold or leased to an individual owner/occupier at any time
    b. Made available for use by operators of car share schemes without a fee or charge
    c. Grouped together in the most convenient locations relative to carparking entrances and pedestrian lifts or access points
    d. Located in well-lit paces that allow for casual surveillance
    e. Signposted for use only by car share vehicles
    f. Made known to building occupants and car share members through appropriate signage which indicates the availability of the scheme and promotes its use as an alternative mode of transport.
18. Development applications are to demonstrate how the car share parking space(s) is to be accessed, including where access is through a security gate. A covenant is to be registered with the strata plan advising of any car share parking space. The covenant is to include provisions that the car share parking space(s) cannot be revoked or modified without prior approval of Council.

Figure 175: Doran Drive Precinct Dedicated Car Share Spaces in Basement Parking Source: Simon Wood Photography

19. A minimum of 10% of the total number of parking spaces are to have Electric Vehicle charging stations.
20. All garages/ carpark entrances must be protected from inundation by flood waters up to the 1% AEP + 0.5m.
21. End of trip facilities are to be provided where there are allocated bicycle parking facilities associated with commercial or retail development.A minimum of 10% of the total number of parking spaces are to have Electric Vehicle charging stations.

Design Guidance

Future applications shall include a Parking Management Plan, which shall consider, but not limited to:

- access
- location
- security
- ongoing operation and management.

4.2.13. Service Vehicles and Waste Collection

Objectives

a. To provide a common zone for service vehicles and waste collection.

b. To provide a safe environment for pedestrians and vehicles using the road network.

Controls

1. On-site waste collection should be either at grade or via a basement and waste collection vehicles must be able to enter and exit the site in a forward direction.
2. Waste collection must occur from Andalusian Way as demonstrated in Figure 166.
3. Loading areas and vehicular access points for development are to be screened from public roads and public access points.
4. Loading areas and vehicular access point for development must avoid conflicts with pedestrian activity areas including waiting zones for bus, taxi and kiss and ride activities.
5. Service and waste collection vehicle zones must be sufficient dimensions to accommodate a standard 12.5m long HRV and allow for all access and manoeuvring to occur within the zone.
6. Waste management shall comply with the waste management controls contained within Part B Section 5 - Residential Flat Buildings and Part B Section 6 - Business of The Hills DCP 2012.

Design Guidance

Figure 176 shows the appropriate location and configuration of service vehicle access points and waste collection zones, providing an adequate turning circle for vehicles to enter and exit in a forward direction and preserving the primary frontages for activation.

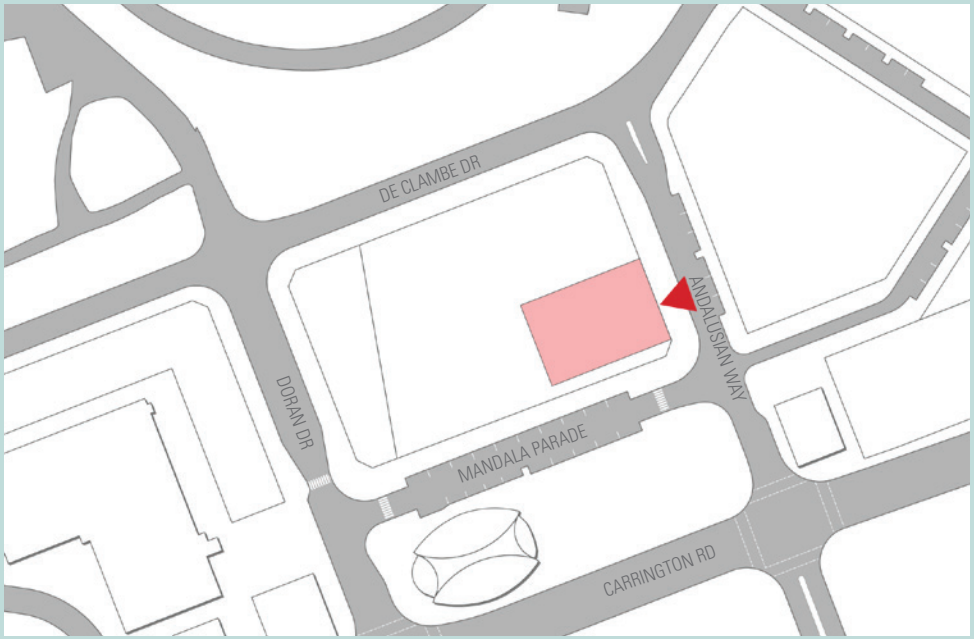


Figure 176: Doran Drive Precinct - Service Vehicles and Waste Collection

4.2.14. Subdivision and Earthworks

Controls

1. Subdivision applications must provide a plan showing the existing pre-development and proposed finished ground levels to enable an assessment of the extent of earthworks proposed and assessment of the relationship between the finished road levels and proposed building platform levels.
2. In the areas of fill relevant provisions of Council's Flood Controlled Land DCP are to be applied.
3. A Fill Plan must be prepared.
4. All cut and fill works shall be in accordance with Council's Design Guidelines Subdivisions/Developments and Works Specification Subdivisions/ Developments.
5. All landfilled areas must comprise clean material free from contamination. Imported material shall be certified "Virgin Excavated Natural Material (VENM)".
6. Landfilled areas must be suitably compacted and stabilised with density tests to verify that compaction was achieved in accordance with Council requirements.

05

PRECINCT EAST GUIDELINES

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

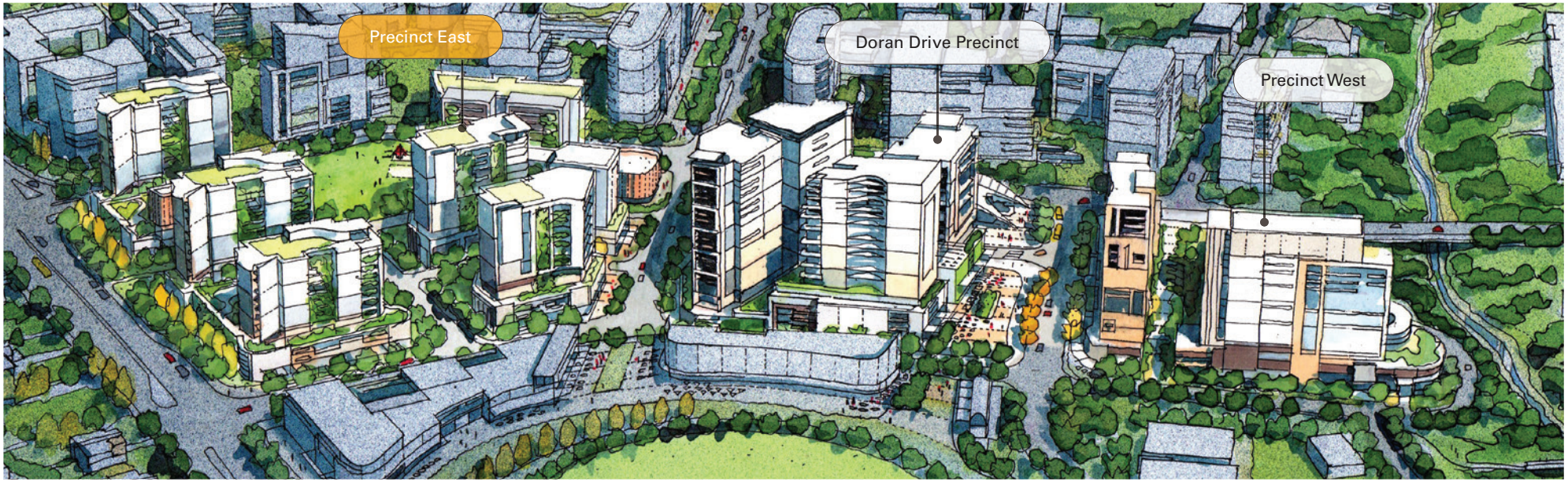


Figure 177: Aerial Sketch of the Hills Showground Concept Masterplan Facing South. Source: Tim Throsby 2020

5.1. Precinct East Character

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 Metro 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 public park, approximately 3,200m² in size, 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 townhouse apartments 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 178: Precinct East Character Area

Figure 179: Precinct East. Source: Sydney Metro 2019
Note: Buildings on Precinct East have since been demolished

5.1.1. 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 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 townhouse apartments 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 180: Cohesion between the public and private domain

Figure 181: Townhouses that are accessed from the public domain

Figure 182: Garden Apartments

Figure 183: Through site links

Figure 184: Garden apartments and midrise residential

5.1.2. 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 186: Upper Level Materials & Finishes

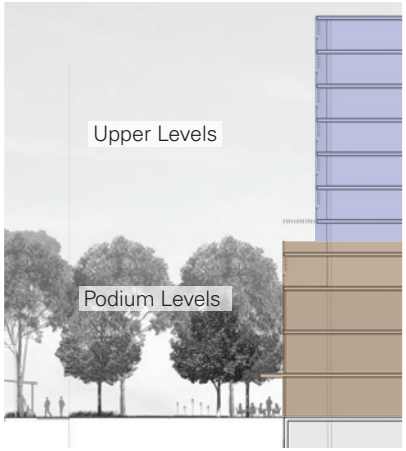


Figure 185: Building configuration

Figure 187: Ground Podium Level Materials & Finishes

5.1.3. Open Space 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 approximately 3,200m² 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.

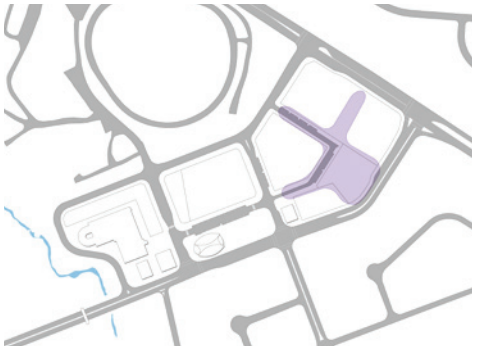


Figure 188: Precinct East Public Domain

Figure 189: Picnic shelters and tables

Figure 190: Play elements adjacent seating

Figure 191: Open lawn and concrete footpaths

5.2. Precinct East Design Guidelines

5.2.1. Precinct East Park

Objectives

a. To provide a new local park to meet the passive recreational needs of the community.

b. To retain existing trees within the new local park.

Controls

1. A minimum 250m² play space with play elements that cater to the very young (up to 5yo) and primary school age children (5-12yo) is to be provided within the park. This shall comprise of a range of play equipment that may include a mixture of natural play elements and high quality custom or off-the-self play elements.
2. An open lawn for passive recreation is to be provided within the park.
3. The park is to comprise of insitu concrete paths and paving.
4. Durable picnic shelters, tables and park seating are to be provided throughout the park.
5. Footpath access is to be provided between areas of the park, the adjacent residential building entries and the surrounding street network.
6. Existing trees of arboricultural significance within the footprint of the park are to be retained and protected.
7. A minimum 40% tree canopy cover (at maturity) is to be provided throughout the park.
8. Tree planting is to utilise a palette of predominantly native plants (minimum 70%) that includes existing trees.
9. Exotic deciduous trees (max. 30% of total park trees) may be incorporated into the park as a feature and to provide solar access in winter.
10. No basement or sub-basement is permitted below ground for the full extent of the park, with the exception of the existing Metro tunnel.
11. The park must be universally accessible and DDA compliant.
12. Development is to comply with The Hills shire Council's Recreation Strategy (2019) and the Level of Service for a local park.
13. Public art and interpretation is to be incorporated into the design of the park in line with the SMNWP Guidelines and Hills Showground Station Precinct Heritage Interpretation Strategy (GML, 2019).
14. The design and layout of any building adjoining the park shall ensure there is natural surveillance of the area to protect the security and amenity of users.

Figure 192: Park furniture

Figure 193: Play equipment

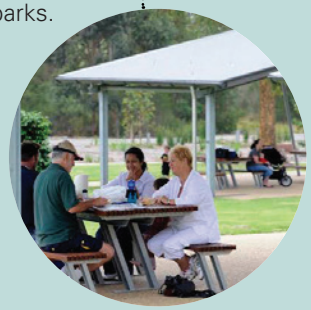
Figure 194: Insitu concrete paths

Design Guidance

Figure 195 shows the potential arrangement of required public domain elements within Precinct East Park, including:

1. Shaded seating and picnic tables
2. Central open lawn
3. Children's play space
4. Shade trees and low level planting
5. Lighting, including feature lighting at locations yet to be determined
6. Pedestrian pathways
7. Bike parking
8. To provide for public art located within the Plaza in accordance with the preparation of a site specific public art and interpretation plan that adheres to the 'Implementation Plan' as outlined in the SMNWP Public Art Guidelines.

Note: Refer to the Level of Service provision for Local Urban Parks contained within The Hills Shire Council's Recreation Strategy 2019 for details of the type of facilities required for parks.



Pedestrian connection

Picnic shelter and tables

Figure 195: Precinct East Park concept plan

Private communal open space

Lawn area

Native planting and existing trees

Playground

5.2.2. Publicly Accessible Pedestrian Link

Objectives

a. To provide a safe and comfortable public pedestrian connection between Showground Road and Precinct East internal street.

Controls

1. The pedestrian link is to be aligned with the wider pedestrian connection between Showground Road and the Metro Station (via Mandala Parade) to maximise pedestrian and visual access.
2. The pedestrian link is to comprise a minimum 3m wide footpath within a minimum 8m wide publicly accessible space.
3. Pedestrian link shall have regard to the following:
   - be publicly accessible
   - include a minimum of 500mm of landscaping (maximum height of 800mm) along each side of the pedestrian link
   - be clearly identifiable as a publicly accessible pedestrian link
   - encourage pedestrians to move along the link and not linger
   - maintain the privacy of ground floor apartments which adjoin the link
   - ensure adequate passive surveillance is provided
   - have adequate lighting to improve safety
   - building setbacks to the pedestrian links are to as per the UDG.
4. The pedestrian link is to have an insitu concrete footpath that ties into the surrounding public domain rather than appear as a privatised space.
5. A continuous tree canopy (at maturity) is to be provided along the length of the pedestrian link.
6. A clear line of sight is to be maintained from one end of the pedestrian link to the other.
7. The design and layout of any building adjoining the pedestrian link is to ensure there is natural surveillance of the pathway to protect the security and amenity of users. Solid fences are not permitted along the boundary of a pathway as they will restrict passive surveillance over the pathway.
8. Bioretention measures are to be provided in line with the Integrated Water Management Strategy.
9. No basement or sub-basement is permitted below the pedestrian link.
10. The pedestrian link must be universally accessible and DDA compliant.
11. Public art and interpretation is to be incorporated into the design of the pedestrian link in line with the SMNWP Public Art Guidelines and Hills Showground Station Precinct Heritage Interpretation Strategy (GML, 2019).

Figure 196: Accessible pedestrian paths

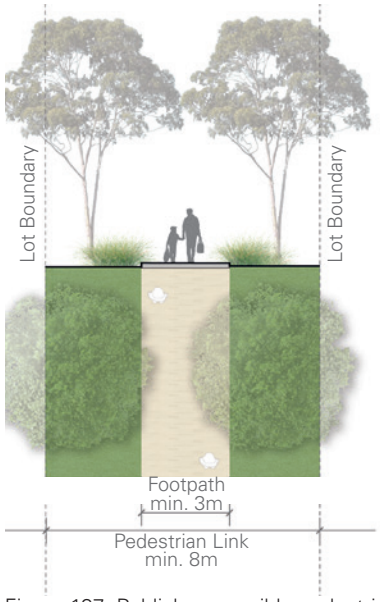


Figure 197: Publicly accessible pedestrian link

5.2.3. Communal Open Space

Objectives

a. To provide additional amenity and recreational opportunities within the private domain for the residents of the Precinct.

Controls

1. Communal open space is to be provided in the form of private areas at podium, rooftop and ground level in accordance with SEPP 65 Apartment Design Guide.
2. Communal open space is to be primarily at grade and read as a continuation of the adjacent public domain character in planting and materiality. The materiality is to compliment the adjacent public domain and may include additional materials such as brick and/ or stone paving. Small trees suitable for the landscaped area provided are encouraged.
3. Fencing may be provided to delineate private vs public space, however it should be designed to provide clear views into the ground level private open space.
4. External (outside) communal open space areas are to be located and designed to:
   - Be seen from the street between buildings (where possible)
   - Provide for active and passive recreation needs of all residents
   - Provide landscaping
   - Present as a private area for use by residents only
   - Include passive surveillance from adjacent internal living areas and/or pathways
   - Have a northerly aspect (where possible)
   - Be in addition to any public thoroughfares.
5. Communal open space is to provide a range of uses including seating, picnic facilities, play spaces, productive gardens and lawn areas amongst generous planting.
6. Communal open space is to incorporate a minimum of 70% native planting for local character, however this may be supplemented with exotics for colour and variation, and edible species as part of vegetable or herb gardens.
7. The design of exterior communal open space areas are to achieve amenity by addressing visual and acoustic privacy, safety, security and wind effects.
8. The location and design of communal open space is to achieve a minimum of 50% direct sunlight to the principal usable part of the communal open space for a minimum of 2 hours between 9am and 3pm at the winter solstice (21 June).

Figure 198: Private Communal Open Spaces

5.2.4. Building Siting, Massing and Scale

Objectives

a. To protect and enhance the rich, distinctive and valued character of the area, particularly those elements that contribute to a sense of place and identity including the Castle Hill Showground and existing landscape within the Precinct East Park.

b. To provide building forms that reinforce the desired character of the area.

c. To ensure building orientation maximises visual amenity and natural surveillance, taking advantage of any views to open space, public reserves and bushland.

d. To ensure towers are of a slender design to reduce perceived bulk and scale.

e. To ensure towers create an open, attractive and distinct skyline.

f. To frame and define the streets and public open spaces with appropriately scaled built edge

g. To create a cohesive built environment through consistent and/or complementary elements of built form composition (eg relationships between podiums, modulation, proportions and the like).

h. To protect the natural features of the Precinct in existing stands of trees and solar access to the public realm.

Controls

1. Development shall be designed to incorporate clearly defined ground floor street zone, podium and upper level elements as shown in Envelope A (Figure 199).

2. Ground floor heights are to be a minimum of 4m (floor to floor) for all non-residential uses.

3. Streets are to be defined by a mix of townhouse apartments and apartment podium edges:

    a. Apartment podiums are to provide a 4 storey street wall with a height of up to 16m (depending on the use) is to be provided in accordance with Figure 204. The street wall is to respond to the topography of the site and may vary between buildings where appropriate.

    b. Townhouse apartments are to be a maximum of 3 storeys (12m) in height.

4. A secondary setback above the podium is to be provided in accordance with Figure 204 to maximise solar access to public and private spaces and habitable rooms, district views to the east, north and west, and to minimise wind down draft.

5. Tower forms above the podium shall not exceed 50m in length and 24m in width (measured through the centre of the building, with the exception of the Building A envelope identified in Figure 199) and shall have floor plates of no more than 850m² GFA per floor.

6. Tower form is to be orientated to:

    a. Reduce the perceived mass of the building, particularly to Showground Road

    b. Provide solar access to station plaza as per the controls in Section 2.16.1

    c. Provide privacy for both communal and private open space areas

    d. maximise solar access to public and private spaces and habitable rooms, district views to the east, north and west and to

    e. minimise wind down draft.

7. Tower massing and scale is to consider possible future development on adjoining sites, including Precinct West, Precinct East and the Castle Hill Showground.

8. Built form within the Envelope A (identified in Figure 199) shall be:

    a. designed to address different orientations

    b. designed with different heights

    c. significantly articulated both horizontally and vertically to read as two separate buildings

    d. articulated through a minimum 3m wide and deep recess and treated with different materials and finishes.

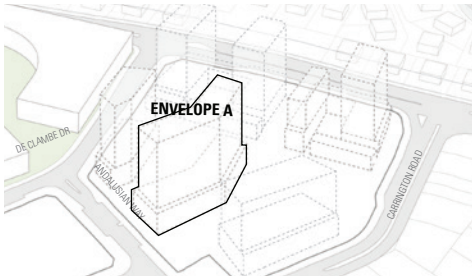


Figure 199: Precinct East - Envelope A

Figure 200: Consistent elements of built form composition

Figure 201: Midrise typology and interface to publicly accessible link

Design Guidance

Figure 202 shows how the future built form can address the urban design controls for massing, scale, composition and activation by:

1. providing good amenity and privacy for residents by separating buildings and allowing adequate sunlight access to communal and public open spaces
2. varying tower heights along Showground Road and Carrington Road
3. ensuring human-scaled streetscapes with 3 and 4 storey townhouse apartments and garden apartments along the new street
4. defining building entries, to be clearly identifiable from the street
5. increasing activation with ground-floor dwellings directly accessed from the public domain
6. designing flexible ground floors, with larger ceiling heights, to accommodate retail, commercial and/or SoHo tenancies along De Clambe Drive and Showground Road
7. providing communal open space, at grade, between buildings and on lower-level podium rooftops
8. aligning vertical façade elements from the podium to the tower above, accentuating building entries.

Figure 202: Possible conformance to Precinct East Building Massing, Scale and Composition controls

5.2.5. Pedestrian Connectivity

Objectives

a. To cater for existing and future pedestrian movement to, through and within the Precinct.

b. To ensure that any future connection from the station to the broader catchment is via dedicated/pedestrian priority links.

Controls

1. Pedestrian connectivity throughout the Precinct is to be provided in accordance with Figure 203.

2. Car parking access and ramps for the eastern-most superlot are not to extend beyond the facade of the building to ensure the private and public domain provide cohesive connections to the publicly accessible through site link from the local park.

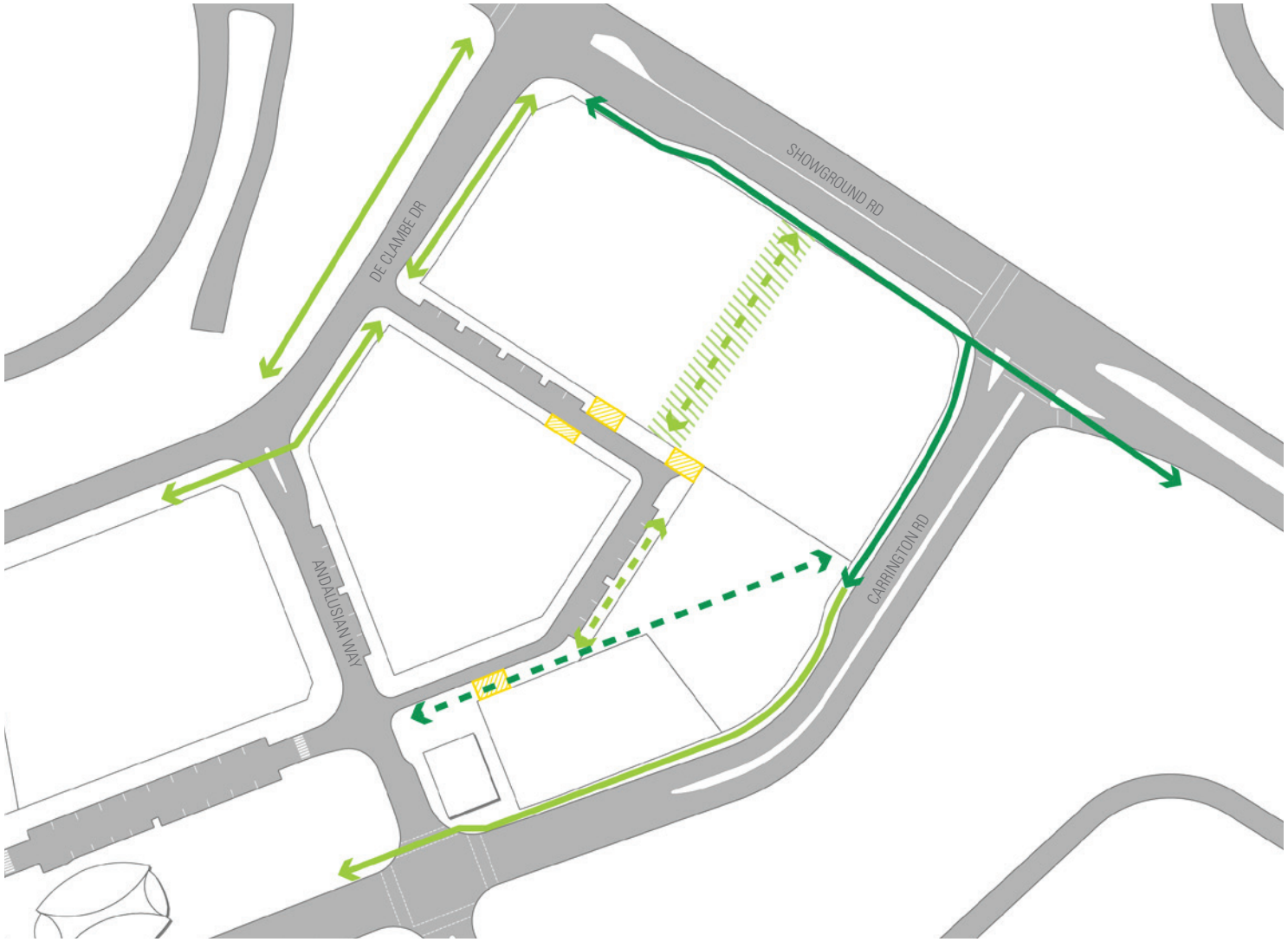


Figure 203: Precinct East - Pedestrian Connectivity

5.2.6. Street Wall Heights

Objectives

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

b. To provide street wall heights that are a response to future conditions within, and adjoining the site and the desired future character of the streets and Character Areas.

Controls

1. In accordance with Figure 204, there is a provision of a mixed 3-storey and 4-storey street wall for Precinct East to define the streets and public open spaces with an appropriately scaled built form.

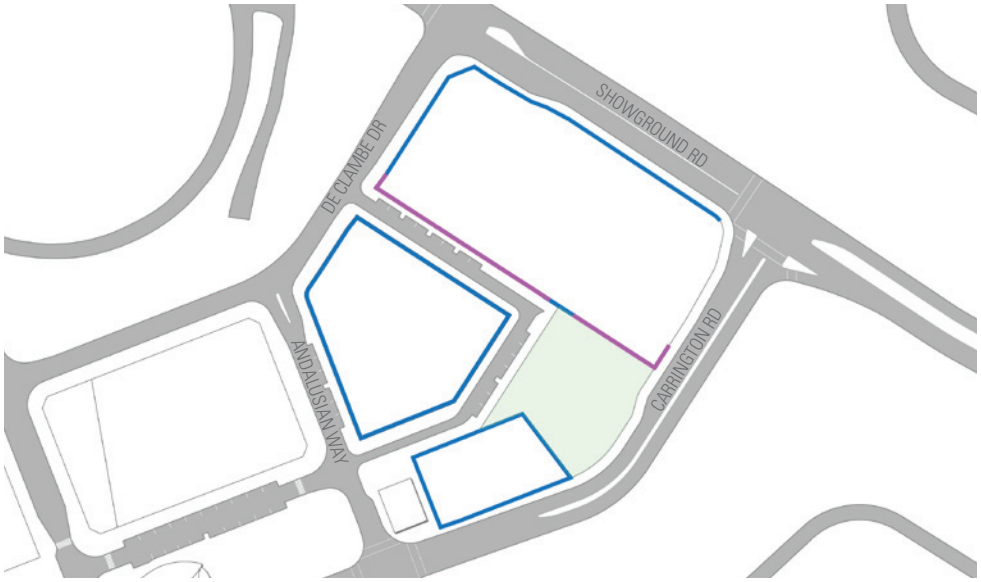


Figure 204: Precinct East - Street Wall Height

Design Guidance

Refer to Figure 202 for possible conformance to Precinct East street wall height controls.

Figure 205: Three storey townhouse

Figure 206: Four storey podium with tower setback

5.2.7. Setbacks

Objectives

a. To contribute to the visual experience of the street.

b. To provide space for landscaping and courtyards that weave together the public and private domain.

c. To mitigate noise and particulate matter pollution.

d. To enhance the pedestrian experience through visual enclosure and scale of streets and provide access to sunlight.

e. To define the public domain and create a consistent streetscape.

f. To reduce building bulk and scale and enable adequate sunlight access to the public domain.

g. To complement building mass and emphasise key design elements such as entrance points and respond to environmental conditions including solar access, noise, privacy and views.

h. To reinforce street edges that contribute to the existing character of the Precinct and the broader Hills Showground Station Precinct.

Controls

1. In accordance with Figure 207, the minimum primary setback for a development to the boundary is:
   a. 5m for all interfaces, except those specified below
   b. 0m to Precinct East Park for the southern building
   c. 5m to publicly accessible through-site link
   d. 6m to the metro services building
   e. 10m to Showground Road.
2. In accordance with Figure 207, the minimum secondary setback for a development above the podium is 3m.

Design Guidance

Refer to Figure 202 for possible conformance to Precinct East setback controls.

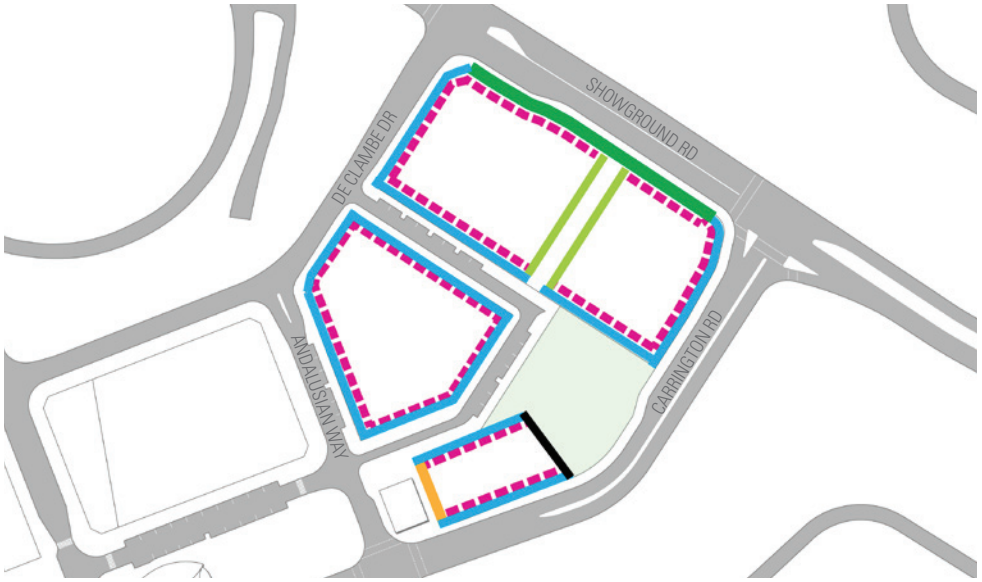


Figure 207: Precinct East - Building Setbacks

Figure 208: Townhouse Apartment setback from the public domain

Figure 209: Secondary setback above the podium

5.2.8. Building Height

Objectives

a. To translate the permissible building heights into desired building heights that reinforce the Urban Design Principles and desired future character of the Precinct.

b. To provide a transition between the heights of buildings near the Hills Showground Metro Station and the heights of buildings in the residential areas to the north-east of Showground Road.

c. To deliver a varied skyline across the Hills Showground Station Precinct and the broader precinct.

d. To reinforce the building heights planned for the broader precinct on the southern side of Carrington Road.

e. To provide podium heights that appropriately interface with streets and to link elements between towers.

Controls

1. A maximum height of 52m (16 storeys) is permitted for towers.
2. A maximum height of 46m (14 storeys) is permitted for the building that adjoins the metro services box on Carrington Road.
3. A maximum 26m (8-storey) mid-rise on the south-eastern edge of the pedestrian link
4. A maximum height of 14m (4 storeys) is permitted for podiums.
5. A maximum height of 12m (3 storeys) is permitted for townhouse apartments located along the new local street and adjoining the local park.

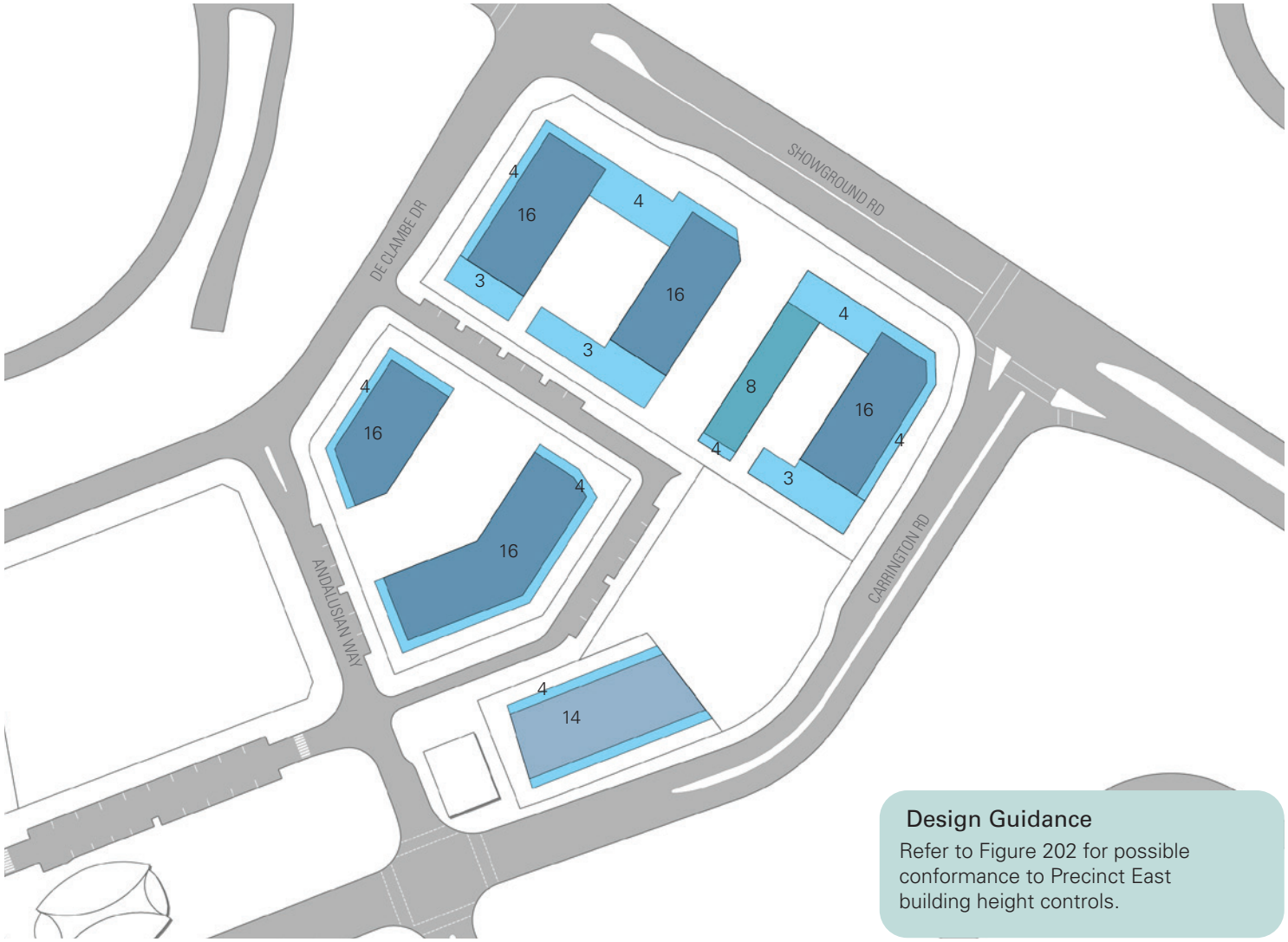


Figure 210: Precinct East - Building Height in Maximum Storeys

Design Guidance

Refer to Figure 202 for possible conformance to Precinct East building height controls.

5.2.9. Building Separation

Objectives

a. To protect privacy and solar access to private and public spaces.

b. To ensure suitable open sky views are provided from key public infrastructure elements such as Doran Drive Plaza and the transport interchange.

c. To provide building envelopes that enable design options that exceed minimum ADG requirements.

d. To provide generous building separation between the towers that interface with Showground Road.

e. To ensure that views to Castle Hill Showground from the local park and beyond are open to the sky.

Controls

In accordance with Figure 211:

1. A minimum building separation of 24m is required for towers and a minimum building separation of 18m is required for podium and mid-rise buildings.
2. A minimum building separation of 28m is required for towers on Showground Road to the north-west of the Precinct.
3. A minimum building separation of 48m is required for towers on Showground Road to the north-east of the Precinct.
4. A minimum building separation of 18m is required for the 8 storey mid-rise building and the 16 storey building in the north-east of the Precinct.

Figure 211: Precinct East - Building Separation

Podium Separation Midrise Separation Tower Separation

Design Guidance

Refer to Figure 202 for possible conformance to Precinct East building separation controls.

5.2.10. Residential Typologies and Street Activation

Objectives

a. To provide a range of residential typologies within the Precinct.

b. To complement the built form and uses planned for surrounding Precincts, including Doran Drive Precinct, Precinct West and the future higher density residential communities north of Showground Road and south of Carrington Road.

c. To enable potential demand for non-residential facilities or services within Precinct East to be met.

d. To ensure ground floor uses (whether residential or non-residential) activate the public domain and streets and provide passive surveillance to the public domain and streets.

Controls

Townhouse Apartments Controls

1. Townhouse apartments are to be located in the areas identified in Figure 215. Townhouse apartments are to have a direct interface with the local street or park.
2. Townhouse apartments are to be physically separate from the residential apartment buildings they are collocated with on the development lots to allow for movement between the public and private communal open space.
3. A maximum of 8 townhouse apartments are permitted in a row with a minimum 3m break in between.
4. A rear setback of 3m and a side setback of 3m is required for townhouse apartments adjoining residential development.
5. Communal open space is to be provided within the front courtyard and on the rooftop of each townhouse apartment.
6. Townhouse apartments shall have access to the front door from the public domain and private courtyards, with supplementary access to the basement parking below.

Residential Flat Building Controls

7. Residential and non-residential uses are permitted on the ground floor areas of all buildings that interface with the public domain, with the exclusion of those areas nominated for townhouse apartments.
8. For larger developments, building entrances should be provided on each street frontage.
9. Ground floor dwellings are to have a primary street address or are to be orientated and accessed in a way that activates the public domain with clear, legible entries.
10. Separate entrances are required where buildings include both non-residential and residential use. Entrances must be from the public domain and publicly accessible open spaces.
11. Outdoor dining areas or other spaces associated with any non-residential ground floor uses are to be located within the primary ground floor setback so as to not intrude into the public domain.

Figure 212: Precinct East - Townhouse Apartments accessed from the public domain with basement parking

Figure 213: Precinct East - Mid-rise residential with an interface to a publicly accessible link

Figure 214: Precinct East - Tower Residential with different materials for podium and tower elements

Design Guidance

Refer to Figure 202 for possible conformance to Precinct East use and street activation controls.

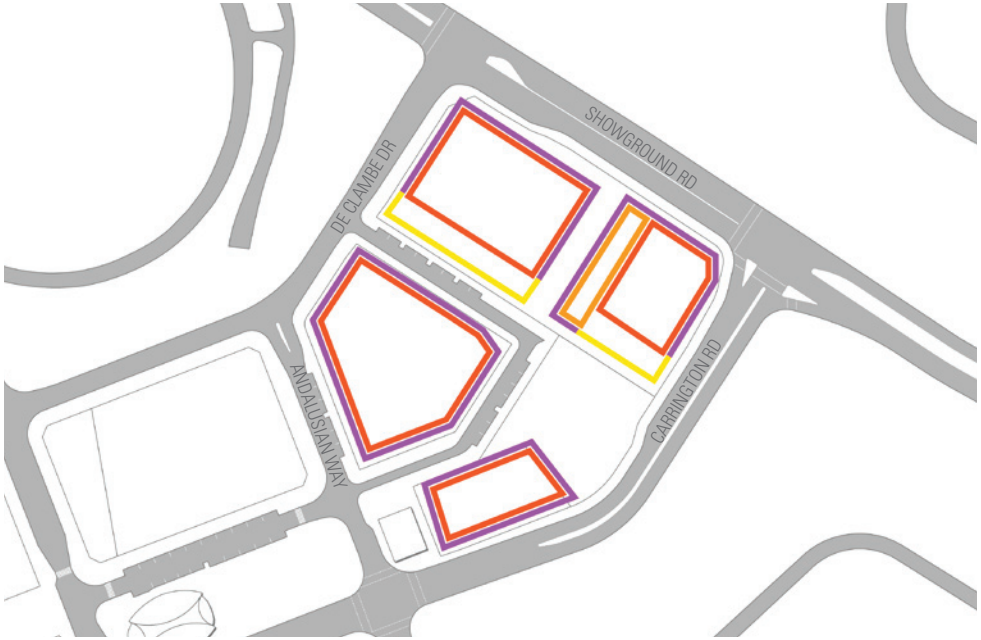


Figure 215: Precinct East - Ground Floor Areas

Design Guidance

Figure 216 shows how the layout of single loaded townhouse apartments and adjoining apartment buildings can be planned so that openable windows, an upper level terrace and operable roof ventilation can be located so both typologies can be designed together. Figure 217 shows the layout of a double loaded townhouse apartment with openable windows, north facing upper level terrace and a front and rear courtyard.

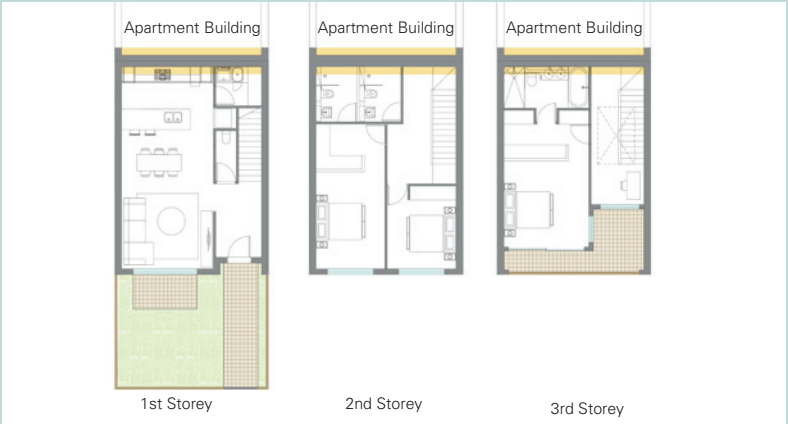


Figure 216: Potential Single Loaded Townhouse Apartment Layout

Figure 217: Potential Double Loaded Townhouse Apartment Layout

5.2.11. Building Envelopes

Objectives

a. To prescribe a desired outcome for individual sites, and the Precinct as a whole, that delivers a level of certainty to Council and the community and retain a level of flexibility for innovation and diverse design outcomes in the future.

b. To ensure good amenity is provided through appropriate building separation, setbacks and depths.

c. To ensure building depths support well-designed apartment layouts.

Controls

1. Development is to conform to the building envelopes outlined in Figure 219 and Figure 221.

Design Guidance

Refer to Figure 202 for possible conformance to Precinct East building envelopes controls.

Figure 218: Location of Precinct East Envelope Controls

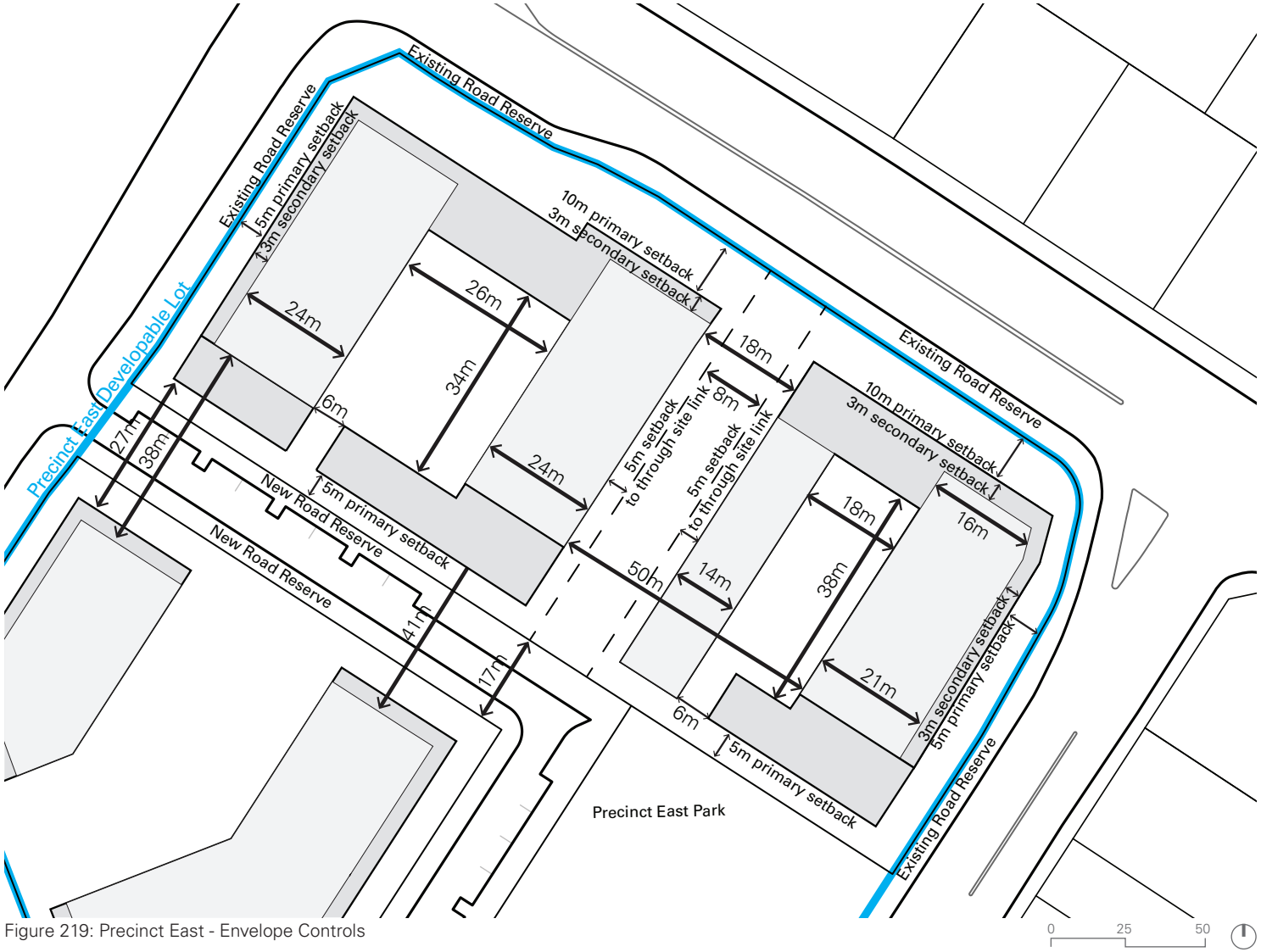


Figure 219: Precinct East - Envelope Controls

Figure 220: Location of Precinct East Envelope Controls

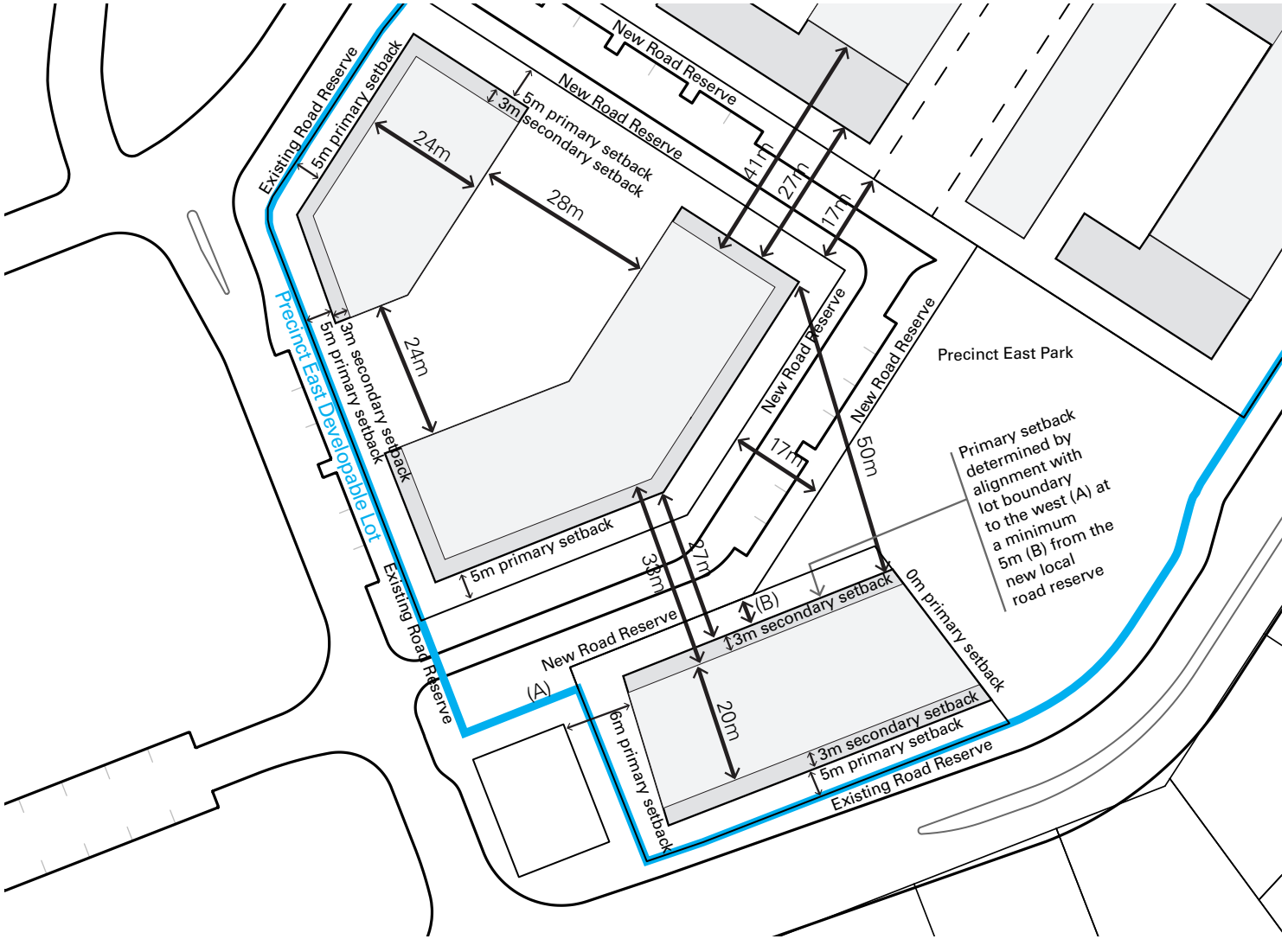


Figure 221: Precinct East - Envelope Controls

5.2.12. Building Articulation and Facades

Objectives

a. To ensure that developments are aesthetically pleasing, encourage creativity and diversity in design, incorporating architectural relief and modulation of facades to avoid a bulky or monotonous appearance.

b. To deliver a varied built form via both horizontal and vertical articulation.

c. To reinforce the intended neighbourhood character and enhance the pedestrian experience.

d. To ensure that building design achieves a sense of address.

Controls

1. To ensure that developments are aesthetically pleasing, encourage creativity and diversity in design, incorporating architectural relief and modulation of facades to avoid a bulky or monotonous appearance.
2. To deliver a varied built form via both horizontal and vertical articulation.
3. To reinforce the intended neighbourhood character and enhance the pedestrian experience.
4. To ensure that building design achieves a sense of address.
5. Buildings on corners are to address both streets and corner elements are to be emphasised to signify key intersections and enhance public domain legibility. Street corners shall be addressed by giving visual prominence to those parts of the building façade, such as a change in building articulation, material or colour, roof expression or height.

Ground Floor Street Zone Controls

6. A sense of address and visual interest from the street is to be provided through the use of insets and projections, however ground floor recesses that undermine the safety of the public domain are to be avoided.
7. Building entries are to be visually identifiable from the street frontage with clear sight lines and are to have direct address to the street.
8. Ground floor residential fences are to be no more than 1.2m in height with a minimum 50% transparency. Contemporary palisade fence designs in a dark recessive colour are encouraged.
9. Ventilation louvres and carpark entry doors are to be integrated into facade designs where located on street frontages.
10. Services such as for fire protection, water and power distribution are not to intrude upon the pedestrian right of way, visually detract from the appearance of the development, and are to be screened from the street frontage with materials which are integrated with architectural expression of the development.
11. Any visible carpark entries or walls should be comprised of more than one material and colour to enhance visual attractiveness and interest.
12. Any ground level car park entries should be concealed or screened by planting from the street and public view, as much as possible.
13. Security grilles may only be fitted internally behind the shopfront of any non-residential uses at ground level. They are to be transparent and fully retractable.

Podium Controls

14. Horizontal articulation is to be provided within the podium façade between the second and third storey of podiums (not applicable to townhouse apartments).
15. A constant podium height is required across individual buildings. Podium height may vary between buildings in response to topography.
16. A minimum 1m wide notch at regular intervals is required for vertical podium façade articulation.
17. Podium facades shall avoid blank, featureless walls by patterning high quality architectural elements such as window bays, canopies and fenestration.

Upper Level Controls

18. Building facades are to be vertically articulated to reduce the appearance of building bulk and express the elements of the building's architecture.
19. Where a tower above the podium has a length greater than 50m it shall have the appearance of two distinct building elements with individual architectural expression and features.
20. Telecommunications, service structures, lift motor rooms and mechanical plants are to be integrated within the roof design and roof features to contribute to an attractive and interesting skyline for the precinct.
21. Tower facades are to be articulated to be:
    - Articulated to manage passive solar gain
    - Well-glazed with functional windows where possible to reduce reliance on artificial cooling
    - Designed with high-quality sustainable materials and finishes that promote building longevity
    - Varied in design and articulation to promote visual interest.

Figure 222: Examples of buildings that treat the ends differently as they appear to the public domain and articulate facades vertically

Figure 223: Examples of buildings that clearly define podium and upper level elements and provide a secondary setback above the podium

Figure 224: Examples of buildings that provide for horizontal articulation within the podium and ensure a constant podium height across individual buildings. Source: THSC DCP Andrew Chung courtesy of FJMT

Figure 225: Examples of buildings that address both street corners and provide a sense of address and visual interest from the street through the use of insets and projections. Source: THSC DCP

5.2.13. Precinct East New Street

Objectives

a. To provide vehicular access to and from the residential development and the local park.

b. To provide a vehicular and pedestrian connection between De Clambe Drive and the intersection of Mandala Parade and Andalusian Way.

Controls

1. The design and construction of road infrastructure shall comply with The Hills Shire Council's Design Guidelines for Subdivisions/Development.
2. A new local street with a 17m road reserve is to be provided within Precinct East as shown in Figure 226 and Figure 229.
3. The new local street is to be two-way to provide vehicular access to the residential development lots.
4. The new street is to have insitu concrete paths as per the existing surrounding streets, with shared paths differentiated using coloured concrete as per Council's standard approach in the Hills Shire Council Public Domain Plan Showground Station Planned Precinct
5. The road carriageway may be paved with concrete or stone cobblestones at thresholds and key points to emphasise a slow speed and high pedestrian movement zone.
6. On-street parking is to be provided on the northern side from De Clambe Drive and the southern side adjoining the park.
7. A minimum 2m wide footpath is required on the southern side of the street.
8. A 2.5m shared path shared path is required on the northern side of the street to provide access to the park.
9. A minimum 5m primary setback is to be provided to both sides of the street.

Figure 226: Precinct East - New Street Location

Figure 227: Precinct East - New Street in Plan

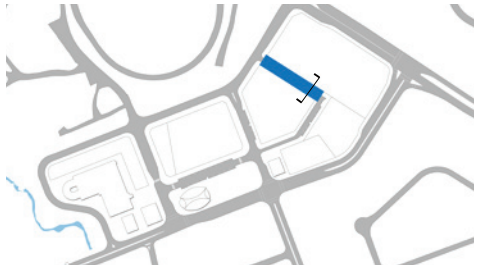


Figure 228: Location of New Local Street Interface Section

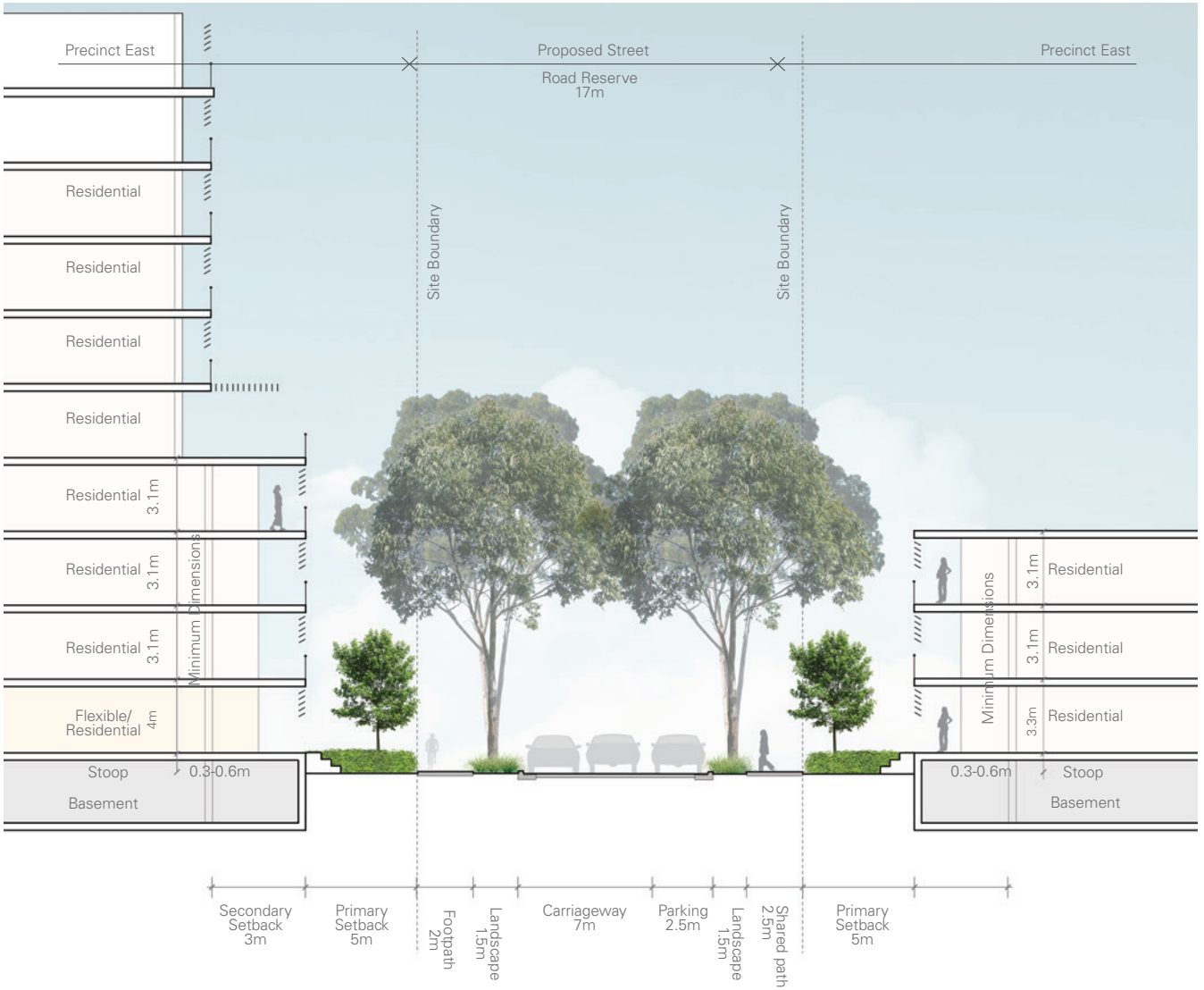


Figure 229: New Local Street Interface

5.2.14. Street Interface

Andalusian Way Interface

Objectives

a. To enhance the existing functions of Andalusian Way where it interfaces with the Precinct East development lots.

b. To maintain the existing functions of Andalusian Way as a local road.

Controls

1. Development is to comply with the following interface controls:
    a. 5m primary setback
    b. 3m secondary setback above the 4 storey podium
    c. Minimum 4m floor to ceiling height for flexible use on the ground floor
    d. Minimum 3.1m floor to ceiling height above the ground floor.
2. Ground floor residential apartments are to be elevated from the street level by a minimum of 300mm and a maximum of 600mm.

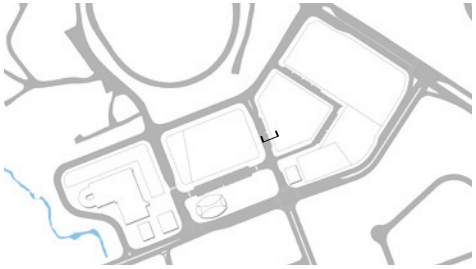


Figure 230: Location of Andalusian Way Interface Section

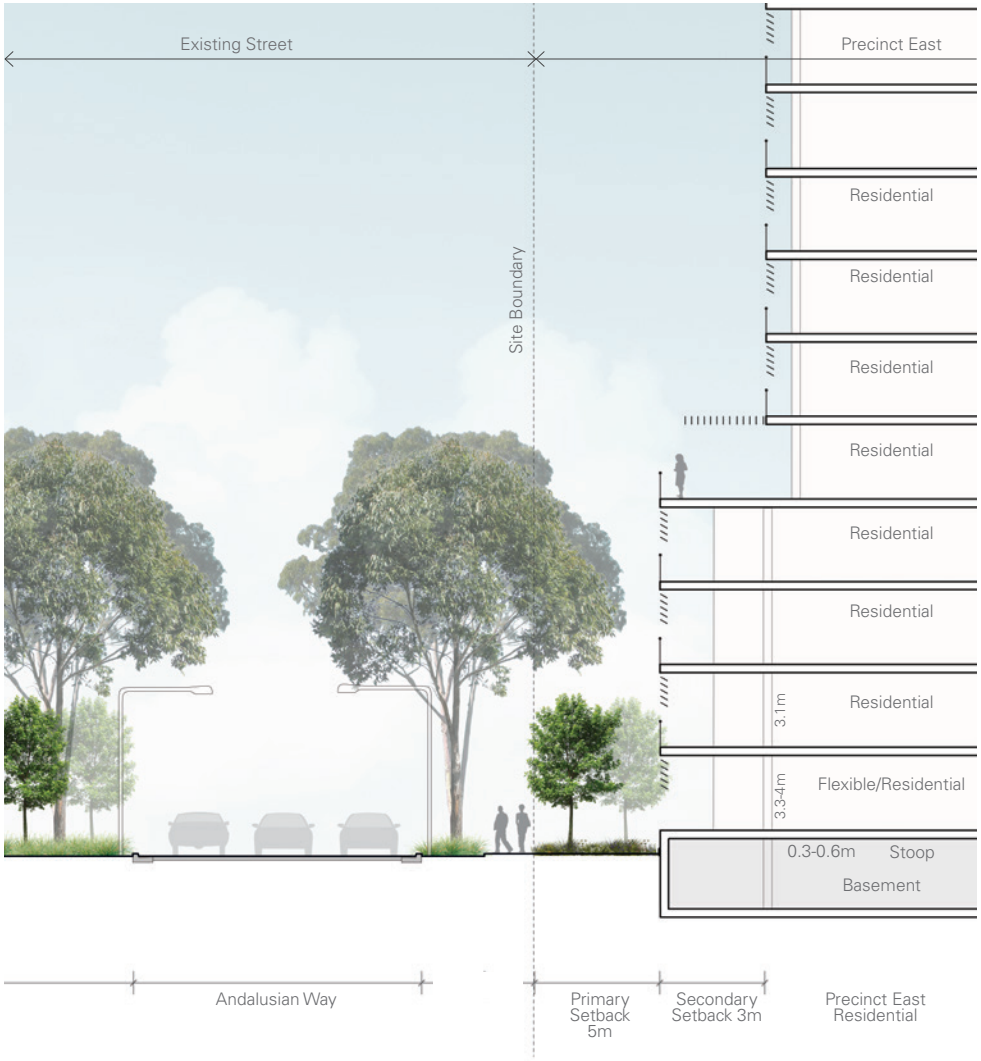


Figure 231: Andalusian Way Interface

5.2.15. Park Interface

Objectives

a. To provide residential activation to the Precinct East Park and footpaths and shared paths within it.

b. To ensure residential address and identity for the interface with the park.

c. To provide appropriate passive surveillance and residential privacy within the townhouse apartments that interface with the park.

Controls

1. Townhouse Apartments are to have individual gates and entrances accessed directly from the shared path within Precinct East Park.
2. The ground floor of the townhouse apartments are to be elevated from the shared path level by a minimum of 300mm and a maximum of 600mm.
3. Fences are to be no more than 1.2m in height with a minimum 50% transparency. Contemporary palisade fence designs in a dark recessive colour are encouraged.
4. Soft landscaping to the front of the terrace is to be a minimum of 40% of the setback area, contiguous, and a minimum of 2m in any direction.
5. Small trees suitable for the landscaped area provided are encouraged.
6. Shared path in front of townhouse apartments to be a minimum 2.5m in width and located a minimum 500mm from the fence of the dwelling

Design Guidance

Figure 233 shows how the future built form can address the urban design controls for the Precinct East Park Interface:

1. increasing activation with ground-floor dwellings directly accessed from the public domain
2. defining building entries, to be clearly identifiable from the street
3. elevated ground floor living areas and terraces by 300mm-600mm above the shared path that adjoins the park
4. Soft landscaping and small trees within the primary setback
5. Examples of appropriate entrance and fence configurations to define the public and private domain are provided adjacent as per the The Hills DCP 2012 Part D Section 9 - 5.7 Controls.

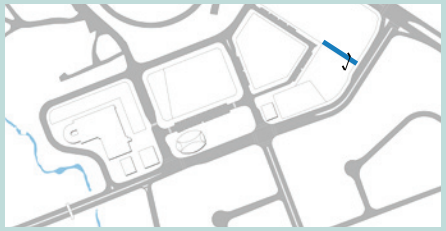


Figure 232: Location of Precinct East Park Interface

Figure 233: Precinct East Park Interface

Figure 234: Examples of appropriate townhouse and public domain interfaces. Source: THSC DCP

5.2.16. Car Parking and Access

Objectives

a. To ensure access does not compromise the activity and pedestrian movements within the Precinct.

b. To ensure entries and structures do not impinge upon pedestrian amenity and streetscape quality.

c. To encourage car share spaces within residential flat buildings for the exclusive use of car share scheme vehicles.

d. To future proof the development via the provision of electric vehicle charging stations.

e. To ensure residential parking rates allow for flexibility to meet the future demographic needs and ongoing modal shift towards more sustainable transport outcomes.

Controls

1. Residential car parking spaces are to be provided at the rates specified in Table 9. For any use not specified, the car parking rates in The Hills Development Control Plan 2012 (Part C Section 1 – Parking) shall apply.
2. The maximum cap for residential car spaces is 1,663 across the Hills Showground Station Precinct.
3. Secure, conveniently located bicycle parking facilities are to be provided at the rates specified in Table 10.
4. Driveways and vehicular access to carparks shall not be located on Showground Road, De Clambe Drive, Andalusian Way or Carrington Road.
5. Vehicular access is to be limited to a maximum of 1 two-way driveway per superlot.
6. Vehicular entry and exit is to be in accordance with Figure 235.
7. Driveways are to be appropriately set back from corners and intersections. Ramps are to be located within the primary setback only and shall not intrude in to the public domain.
8. Driveways are to have a minimum width of 6 metres at the property boundary for a distance of 6 metres (measured along the centreline of the driveway) within the development to ensure easy entry/exit of vehicles.

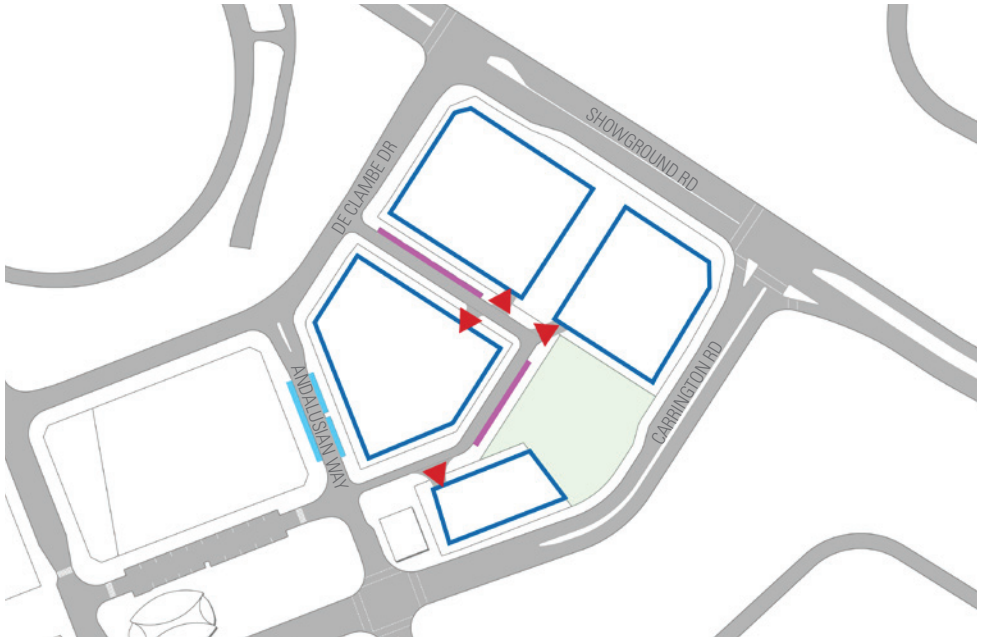


Figure 235: Precinct East - Car parking Configuration and Access

Table 9: Precinct East Residential Car Parking Spaces

	Minimum (per unit)	Maximum (per unit)	Affordable Housing Minimum (per unit)	Affordable Housing Maximum (per unit)
1 bedroom units	0.4	Average of 1 across all bedroom apartment mix	0.4	0.4
2 bedroom units	0.7		0.5	0.5
3 bedroom units	1.0		1	1
Visitor Parking	0.05	0.05	-	0.05
	Minimum (per area)	Maximum (per area GFA)		
Retail	1 space per 130m² GFA	1 space per 60m² GFA		
Commercial	1 space per 145m² GFA	1 space per 100m² GFA		

Table 10: Precinct East Bicycle Parking Facility Rates

	Rate (minimum)
Residential flat buildings	1 resident space per 3 apartments 1 visitor space per 12 apartments
Commercial use	1 space per 600m² GFA for staff
Retail use	1 space per 450m² GFA for staff

9. The driveway ramp for the eastern-most superlot shall not extend beyond the facade of the building to maintain pedestrian priority from the park to the pedestrian through-site link.
10. Townhouse apartment parking is to be collated within the basement of superlots. No individual garages or private parking are permitted on any street frontage.
11. Adequate vehicular entry, exit and circulation areas are to be provided. The design must:
    a. Provide safe environment for both pedestrians and vehicles using the site and surrounding road networks
    b. Ensure vehicular ingress and egress to the site is in a forward direction at all times
    c. Be designed to minimise the visual impact of hard paved areas.
12. Parking is to be underground, avoided within street setbacks and not located within the public domain. Where above ground parking cannot be avoided due to site conditions, it must be well integrated into the overall façade design and create a good relationship with the public domain.
13. Garages and parking structures are not to project forward of the building line and are to be screened from the public domain by active uses.
14. Basement carparks or other structures must not constrain the infrastructure or access easement to the metro services building or intrude into the first reserve of the metro tunnel in accordance with the Sydney Metro Underground Corridor Protection Technical Guidelines (16 October 2017).
15. Car parking shall not be located on the roof of buildings.
16. Car share spaces are to be provided at a rate of one space per 150 car spaces for residential.
17. Car share spaces are to be for the exclusive use of car share scheme vehicles, and included in the number of car parking spaces permitted on a site. The car share parking spaces are to be:
    a. Exclusive of visitor car parking
    b. Grouped together in the most convenient locations relative to car parking entrances and pedestrian lifts or access points
    c. Located in well-lit paces that allow for casual surveillance
    d. Signposted for use only by car share vehicles
    e. Made known to building occupants and car share members through appropriate signage which indicates the availability of the scheme and promotes its use as an alternative mode of transport.
18. Development applications are to demonstrate how the car share parking space(s) is to be accessed, including where access is through a security gate. A covenant is to be registered with the strata plan advising of any car share parking space. The covenant is to include provisions that the car share parking space(s) cannot be revoked or modified without prior approval of Council.
19. A minimum of 10% of the total number of parking spaces are to provide for Electric Vehicle charging stations
20. All garages/ carpark entrances must be protected from inundation by flood waters up to the 1% AEP + 0.5m.
21. End of trip facilities are to be provided where there are allocated bicycle parking facilities associated with commercial or retail development.

Figure 236: Dedicated Car Share Spaces within Basement Parking

5.2.17. Service Vehicles and Waste Collection

Objectives

a. To provide a common zone for service vehicles and waste collection.

b. To provide a safe environment for pedestrians and vehicles using the road network.

Controls

1. On-site waste collection should be either at grade or via a basement and waste collection vehicles must be able to enter and exit the site in a forward direction.
2. Waste collection must occur from the new street as demonstrated in Figure 237.
3. Townhouse apartments are to be serviced and have their waste collection within the communal basement of the development lot on which they are located.
4. Loading areas and vehicular access points for development are to be screened from public roads and public access points.
5. Service and waste collection vehicle zones must be sufficient dimensions to accommodate a standard 12.5m long HRV and allow for all access and manoeuvring to occur within the zone.
6. Waste management shall comply with the waste management controls contained within Part B Section 5 - Residential Flat Buildings of The Hills DCP 2012.

Design Guidance

Figure 237 shows the appropriate location and configuration of service vehicle access points and waste collection zones, providing an adequate turning circle for vehicles to enter and exit in a forward direction.

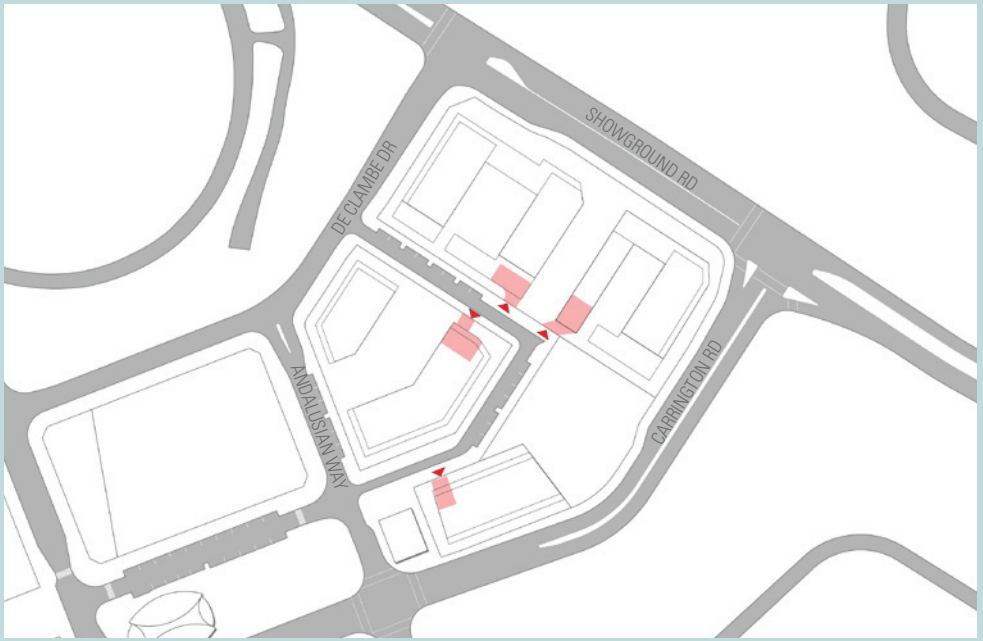


Figure 237: Precinct East - Service Vehicles and Waste Collection

5.2.18. Subdivision and Earthworks

Controls

1. Earthworks shall be minimised to locations where the construction of roads require it.
2. Subdivision applications must provide a plan showing the existing pre-development and proposed finished ground levels to enable an assessment of the extent of earthworks proposed and assessment of the relationship between the finished road levels and proposed building platform levels.
3. In the areas of fill relevant provisions of Council's Flood Controlled Land DCP are to be applied.
4. A Fill Plan must be prepared.
5. All cut and fill works shall be in accordance with Council's Design Guidelines Subdivisions/Developments and Works Specification Subdivisions/ Developments.
6. All landfilled areas must comprise clean material free from contamination. Imported material shall be certified "Virgin Excavated Natural Material (VENM)".
7. Landfilled areas must be suitably compacted and stabilised with density tests to verify that compaction was achieved in accordance with Council requirements.