

DERRIWONG RD, DURAL

URBAN DESIGN REPORT

Prepared for

LEGACY PROPERTY

15 September 2022

FINAL REPORT



EXECUTIVE SUMMARY

Urbis has been engaged by Legacy Property to prepare an urban design study to support the development opportunities and potential rezoning of the site located in Derriwong Road, Dural (The Site).

The site is located on the western side of Old Northern Road and surrounds Dural Public School.

This Urban Design Report (UDR) has been prepared to support the Planning Proposal that seeks approval for the rezoning of the Site with a total area of approximately 12.88ha.

The proposal has investigated the opportunities to develop the Site for a residential community and a local park to support and compliment the Dural community. The planning proposal and this urban design study presents the following outcomes:

- 110 low density residential lots with a mix lot type of average 600 sqm, 1,000 sqm and 2,000 sqm.
- A 4,000 sq.m local park.
- Reservation of a 32m wide corridor to accommodate the future bypass road between Derriwong Road and Old Northern Road.

The urban design and strategic justification for the urban development and rezoning of the site is based on the following consideration:

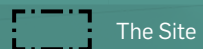
- This part of the Dural locality is undergoing a transition from historical rural land uses into an urban fringe zone with a mix of residential land uses being proposed, as demand for housing with good access to employment, retail and service increases in the region.

- The site is located between two centres, Cascades to the north and Round Corner to the south.
- The Site, comprises land that has not in recent years, and in some instances never been used for productive agricultural activities.
- The Site is mostly cleared and present no physical constraints for urban development.
- Metro Station service at Castle Hill, situated 5km south of The Site and accessible via bus service in less than 15 minutes.
- There are already existing infrastructure services and education facilities available in the locality.

This urban design study has demonstrated that the rezoning and development of the site:

- Delivers a new centrally located local park that is accessible by the community;
- Provides a mix of residential lot types of average 600 sqm, 1,000 sqm and 2,000 sqm lot sizes;
- Improves Dural Public School access and school operational activities during school peak hours;
- Provides the 32m wide corridor reserve that able to accommodate the future bypass road; and
- Improves vehicular and pedestrian permeability between Derriwong Road and Old Northern Road.

LEGEND



The Site

LAND USE



Large Lots (Average 2,000 sqm)



Medium Lots (Average 1,000 sqm)



Standard Lots (Average 600 sqm)

OPEN SPACE & PUBLIC DOMAIN



Local Park



Pedestrian Through Site Link



Stormwater Basins



SP2 Road Reserve

PUBLIC & ACTIVE TRANSPORT



Proposed Pedestrian Link



Existing Bus Stop

STREET NETWORK



Arterial Road / Old Northern Road



Collector Road



Proposed Collector Road with Bypass Corridor



Local Street



Proposed Roundabout



Intersection Treatment subject to TfNSW requirements



Figure 1 Proposed Concept Plan

1:4,000 @ A3
0 50 100 150 200



Contents

URBIS STAFF RESPONSIBLE FOR THIS REPORT:

Director:	Madonna Locke
Project Team:	Hadi Nurhadi, Sarah Abudareb
Project Code:	P0039101
Reference:	02 RPT_Dural PP_UDR
Version:	Rev B
Report Status:	Final
Date:	15 September 2022

We acknowledge Aboriginal and Torres Strait Islanders as the traditional custodians of all the lands throughout Australia. We recognise and respect the connection to their land, cultural heritage and community, and we pay respects to their Elders past, present and emerging.

© Urbis 2022

This publication is subject to copyright. Except as permitted under the Copyright Act 1968, no part of it may in any form or by any means (electronic, mechanical, photocopying, recording or otherwise) be reproduced, stored in a retrieval system or transmitted without prior written permission. Enquiries should be addressed to the publishers.

urbis.com.au

Executive Summary B

Introduction 1

Project Background	1
Purpose of This Report	1
Site Location	2
Site Description	4

Planning Context 6

Strategic Planning Context	6
Local Planning Controls	10

Place Analysis 12

Overview	12
Landform & Terrain	13
Surrounding Land Uses	14

Surrounding Open Space and Amenities	15
Ecological Assessment	16
Bushfire Assessment	17
Heritage	18
Public Transport	19
Road Access	20

Key Directions 22

01 A Suitable Site for Rural Village Expansion	22
02 Responding to Natural Assets	22
03 Connect Into The Local Network	23
04 Improve Safety and Operational Activities for The School	23
05 A New Local Park	23
06 New Communities with Varied Housing Offer	23

Concept Plan 24

Concept Plan	24
Layered Strategy - Housing Mix	26
Indicative Land Use Distribution	28
Layered Strategy - Access and Movement	30
Layered Strategy - Open Space and Public Domain	34

Conclusion 36

INTRODUCTION

Project Background

- In May 2016, a Planning Proposal (23/2016/PLP) was submitted to Hills Shire Council (the Council) seeking amendments to land use zoning, minimum lot size and maximum building height development standards. The Planning Proposal would yield a total of approximately 181 residential allotments across a 'northern' (the subject site) and a 'southern' site.
- In July 2019, the Council resolved to submit the Planning Proposal to the Department of Planning and Environment (DPE) for gateway assessment.
- In April 2020, a Gateway Determination was issued by DPE. However, the Gateway Determination stated that the proposal should not proceed to public exhibition.
- A Gateway Review was subsequently submitted and referred to the Independent Planning Commission (IPC). The IPC supported the proposal but noted that they couldn't resolve that it had strategic merit as it is inconsistent with the rural management objectives which aim to maintain the rural character of the MRA [Metropolitan Rural Area] and the rural areas of Dural by allowing limited residential growth around rural villages.
- Notwithstanding, the IPC found that the proposal had considerable site-specific merit, particularly the 'northern' site as:
 - It would secure a key contribution to Council's Round Corner bypass.
 - It would provide a number of key economic and social improvements by delivering local infrastructure improvements benefiting the school and the local community.
 - The capability of the subject land to be used for agricultural pursuits is comprised by the proliferation uses in the area and along Old Northern Road.
 - The Northern Site is generally contiguous with the Dural Neighbourhood Village and if developed would provide additional housing, choice, and affordability and would likely support the Dural Neighbourhood Village Centre with access to jobs and services.
 - The view and vista impacts can be overcome with site specific design and planning.
 - The development of the Northern Site is unlikely to have a significant impact on the local and regional road network.
- In July 2021, a subsequent Gateway Determination was issued by DPE which resolved that the proposal should proceed to public exhibition, subject to a series of conditions.
- In April 2022, DPE wrote to the proponent of the Planning Proposal to advise that it was considered that there was a significant amount of work required to progress the Planning Proposal and it was unlikely that the conditions of the Gateway Determination could be satisfied in the timeframe set and therefore decided to alter the Gateway Determination so that the Planning Proposal did not proceed further.
- DPE noted that the proponent may wish to consider a new proposal for the 'northern' site, including the provision of a local bypass corridor as an alternative to a regional bypass corridor in response to feedback received from Transport for NSW.

- This advice from DPE (along with the previous advice of DPE and the IPC) has informed the preparation of the subject Planning Proposal, which generally relates to the former 'northern' site. Notably the subject Planning Proposal retains the above site-specific merits including securing a bypass road through the site, delivering key economic and social improvements including local infrastructure benefitting the local school and community, delivering housing supply and diversity, and including sensitive design and planning that mitigates visual impacts and incorporates local open space.

Purpose of This Report

Urbis was engaged by Legacy Property to prepare the revised Concept Plan for their site at Derriwong Road, Dural (The Site).

This Urban Design Report (UDR) has been prepared to support the Planning Proposal that seeks approval for the rezoning of the Site with a total area of approximately 12.88ha.

This report provides a summary of the process undertaken to inform the development of and rationale underpinning the Concept Plan considering:

- The existing and future context of The Site including planned developments and future character of the context.
- The existing site conditions and opportunities and constraints for redevelopment.
- An understanding of Place of The Site including topography, access and movement.

Site Location

The Site is located along the Old Northern Road in Dural, approximately 36 kilometres north-west of Sydney's CBD and 16 kilometres north of Parramatta CBD.






The neighbourhood of Dural is located on the rural-urban fringe of Sydney, with pockets of Dural undergoing a transition to urban residential uses and local services and facilities. The Old Northern Road is the primary road connection between Castle Hill to the South and Glenorie to the North. Additionally, it is the main north-south spine road connecting Dural into Sydney's metropolitan area.

The site is located approximately 5km north of Castle Hill, which is the closest strategic centre to the site. Castle Hill is a strategic centre and key destination in the region with the existence of the two shopping centres, Castle Mall Shopping Centre and Castle Towers Shopping Centre, where range of retail shops, restaurants and cafés are located. Specifically, Castle Towers Shopping Centre encompasses major retail anchors such as David Jones, Myer, Target, Kmart, Coles and Event Cinemas. The site is also within close proximity of Dural Public School.

High frequency bus routes along the Old Northern Road connects the site to Castle Hill and onto Parramatta CBD. Additionally, Castle Hill is currently serviced by the Metro Northwest line that has improved access to key employment centres of Norwest, Macquarie Park, North Sydney CBD and Sydney CBD.

The North-West metro service has improved connectivity to key employment and educational centres which in turn provides a more desirable choice for businesses and residents to locate their presence in Dural.

Legend

-  The Site
-  Metropolitan City Centre
-  Health and Education Precinct
-  Strategic Centre
-  Motorway
-  Primary Road Network
-  Secondary Road Network
-  Northwest Metro Line
-  Planned Metro West Line
-  Train Line

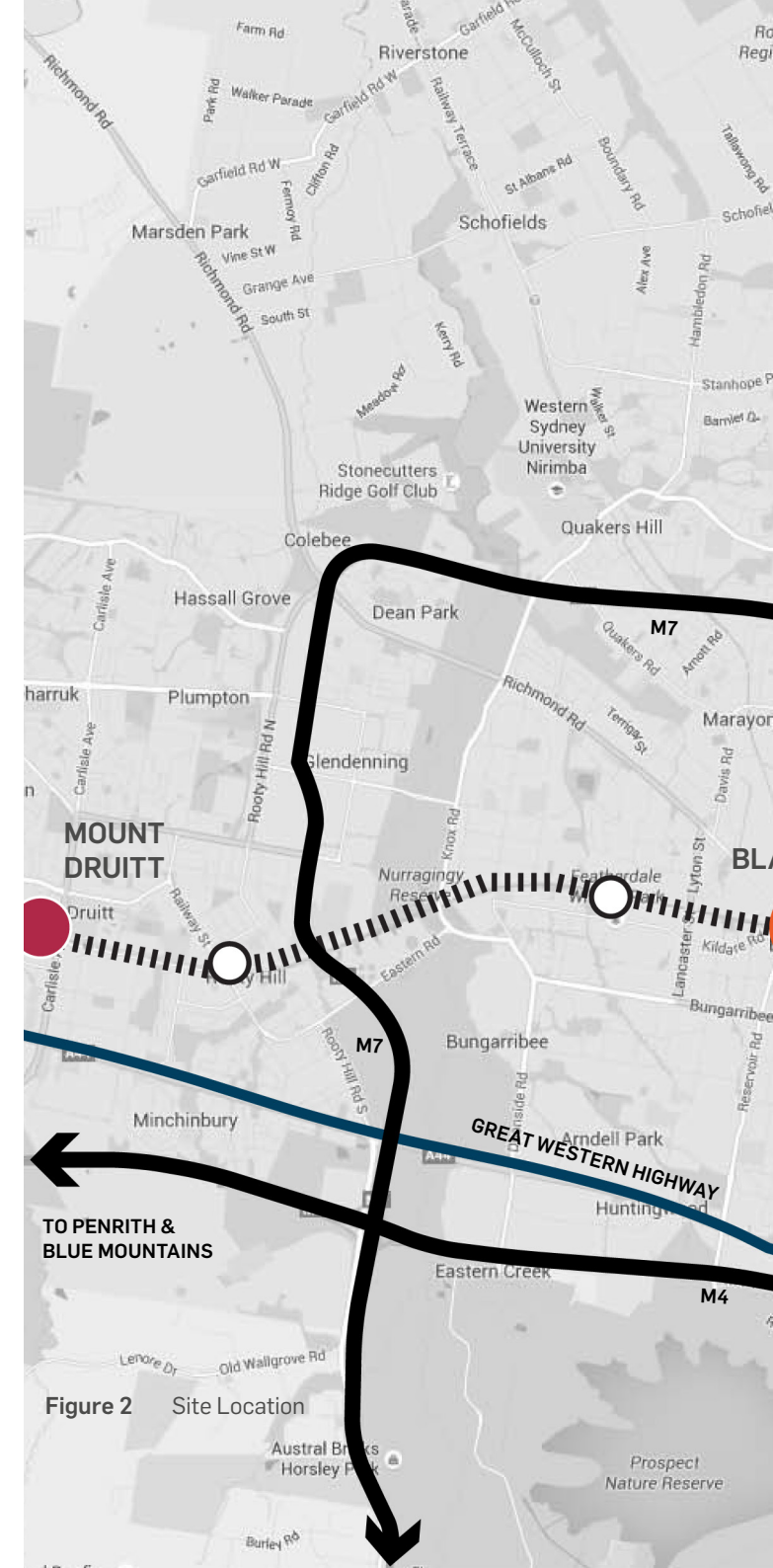
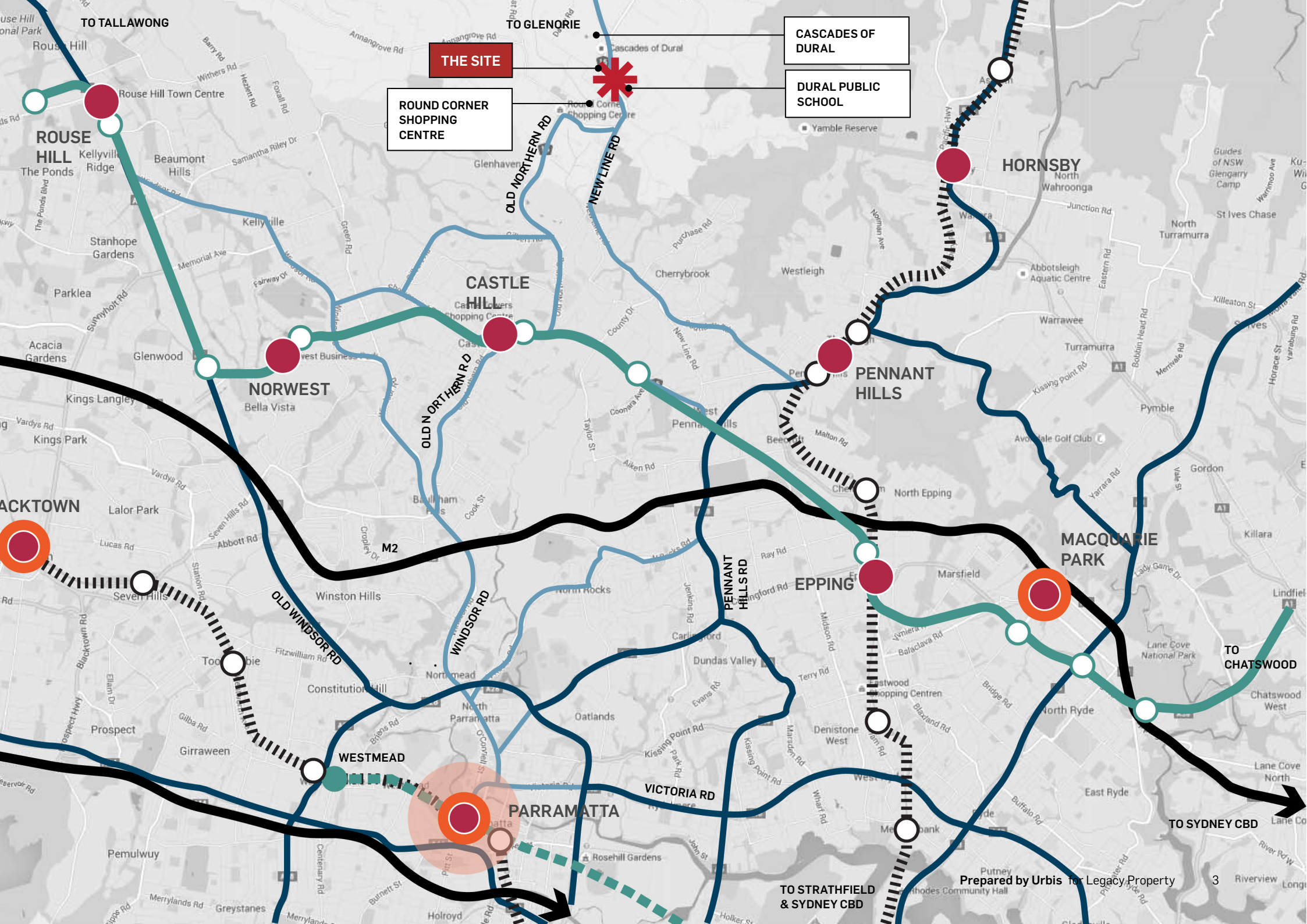


Figure 2 Site Location



Site Description

The Site comprise five adjacent lots creating an irregular shape and is located between the Old Northern Road and the Derriwong Road, with a total area of 12.88 hectares, legally identified as:

- Lot 2 / DP541329
- Lot 9 / DP237576
- Lot X / DP501233
- Lot 2 / DP567995
- Lot Y2 DP91653

It is bound by:

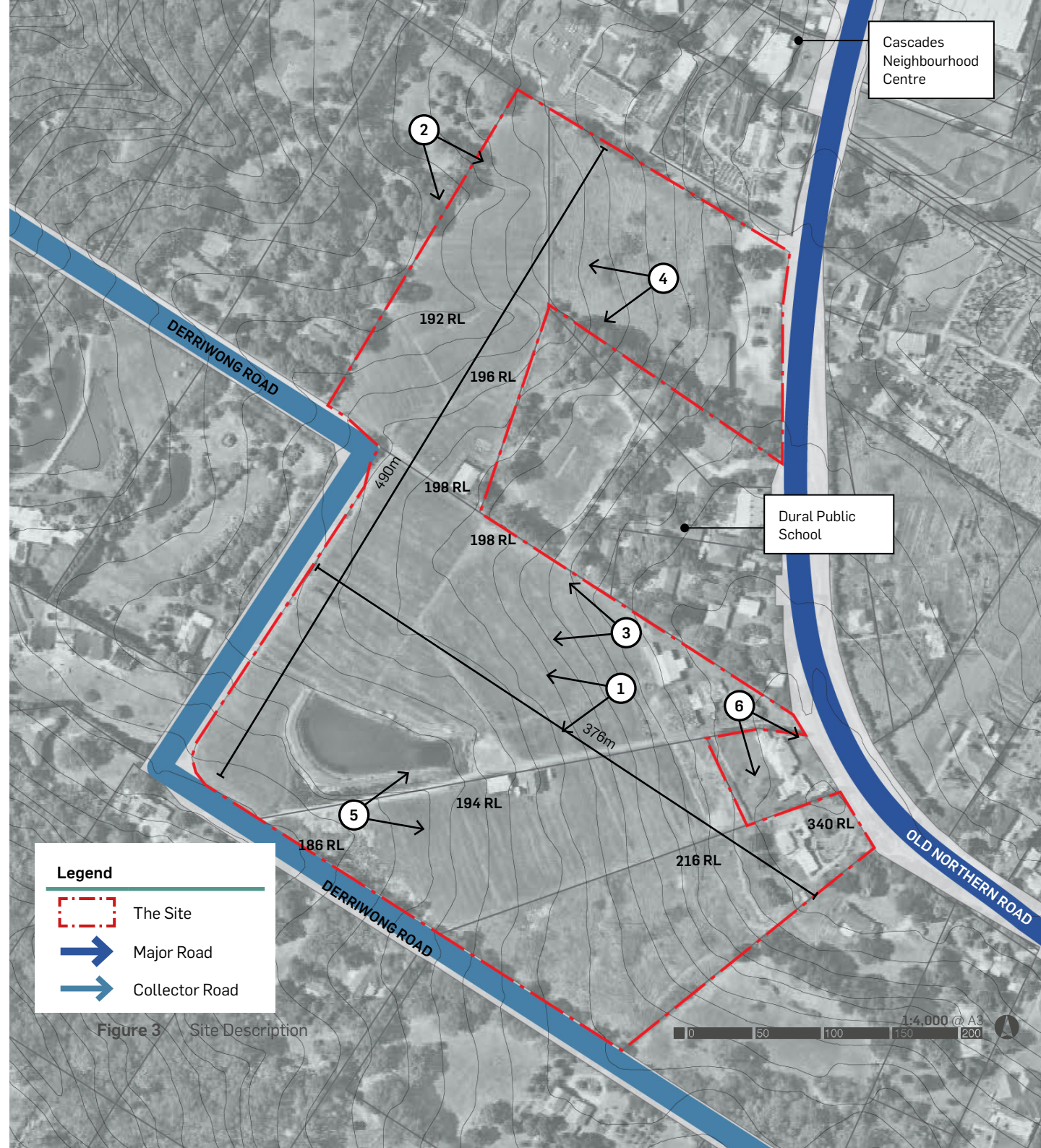
- Existing development comprising restaurant and function centre the north;
- Large residential lot and Derriwong Road to the West
- Derriwong Road to the South;
- Large residential lot to the South East; and
- Old Northern Road to the East.

The site encloses adjacent site occupied by Dural Public School located at 622 Old Northern Road.

Existing features on the site comprises:

- Water dam to the southwest of the Site for farm uses;
- Predominantly farm paddocks within the southern portion of the Site and vacant land to the northern portion; and
- Existing farm buildings and sheds to the south and west of school and vacant structure to the north of the school.

The site dimensions are 490m for the N-S direction and 376m for the southern portion of the Site. The site is situated on sloped land falling away from the east to west.







01 PLANNING CONTEXT

Planning in NSW is underpinned by a series of cascading strategic planning documents which align land use, transport and infrastructure between three tiers of government and across State agencies for the first time in a generation.

This is supported by site specific planning controls which are prepared in alignment with strategic planning objectives and guide development and design outcomes at a detailed level.

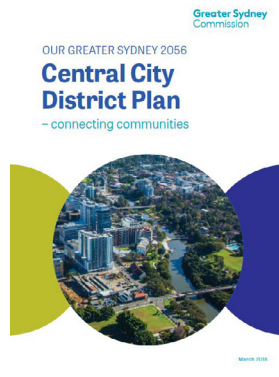
Together these documents set out the existing and future context along with development and design considerations to inform future development outcomes on a site.

This section of the report provides a summary of the key planning directions for The Site as set out in the relevant planning documents.

Strategic Planning Context

A review of strategic planning requirements for the site identified the following plans, strategies and requirements as relevant to The Site:

- Central City District Plan 2018; and
- Hills Future 2036 - Local Strategic Planning Statement 2020.
- Hills Shire Council - Rural Strategy 2019.



Central City District Plan 2018

Five District Plans were prepared to provide a framework for Councils to plan and deliver growth and change over the next 20 years in alignment with place based outcomes.

The Site is located within the Central City District anchored by Greater Parramatta, Sydney's second CBD.

The Central City District is characterised by its strategic location at the geographic centre of Greater Sydney and its vision as the Central River City.

It will be the fastest growing District over the next 20 years.

The relevant Planning Priority for The Site includes:

Planning Priority C18 - Better Managing Rural Areas

The towns and villages such as Dural and Glenorie in the District's Metropolitan Rural Area offer essential retail and community services within rural settings. Maintaining and enhancing the distinctive character of each rural and bushland town and village is a high priority. Ongoing planning and management of rural towns and villages will need to respond to local demand for growth, the character of the town or village and the surrounding landscape and rural activities.



Hills Future 2036 - Local Strategic Planning Statement

In 2020, the GSC endorsed the Hills Shire Council's Local Strategic Planning Statement (LSPS) in line with the Central City District Plan.

It provides a land use vision for the Hills Shire to 2036 and identifies planning priorities and actions for the next five years. It is also supported by a suite of six strategies which provide a robust evidence base around housing, recreation, centres, transport, environment and rural lands.

The relevant Planning Priorities identified in the LSPS with the Site includes:

Planning Priority 4 - Retain and manage the Shire's rural productive capacity

The Site is situated within Middle Dural that has been identified as one of the distinct clusters of rural activity within Metropolitan Rural Area land in The Hills Shire.

The opposite diagram illustrates the two large agricultural clusters within the Shire.

Planning Priority 7 - Plan for new housing in the right locations

Rural villages

Rural villages are the lifeblood of rural communities; they provide the services that support the people who live and work in rural areas. They are a hub of social activity and help people to connect and interact through education, recreation and employment. They are home to people who are transitioning from other rural lifestyles or seeking village-type amenities. Given the Shire's proximity to Sydney CBD these rural areas are popular for people seeking a rural lifestyle close to the city.

As the population grows and changes, we will protect the role and function of rural villages and provide opportunities for limited expansion to meet the needs of the rural community. Any investigations will consider existing constraints and balanced growth, in line with criteria detailed in the Rural Strategy 2019.

Action 7.2 Investigate opportunities for limited residential expansion in rural villages in line with the criteria recommended in the Rural Strategy 2019 (June 2023).

The Site is situated within the Rural Village area of Hills Shire.

The Hills Rural Strategy 2019

Place-based planning requires any application for the expansion of rural villages to fit within criteria developed in consultation with the potentially affected communities.

In addition to satisfying criteria identified by the community, future proposals for the expansion of rural villages would be required to satisfy the criteria listed in Table 1, with an emphasis on infrastructure provision, environmental protection and avoiding bushfire risk.

Coordinated village expansion and renewal will be limited on fragmented land. Consolidated larger lots create scope to plan on a wider scale rather than on a site-by-site basis. This also allows more efficient infrastructure provision, especially for services such as drinking water and electricity.

Table 1 Planning proposal criteria for rural village expansion

	Criteria	New proposals must demonstrate
1	Infrastructure Provision	Timely provision of utilities, transport, open space and communication infrastructure.
2	Access	Access to a range of transport options that allow efficient travel between homes, jobs and services.
3	Housing Diversity	Provision of a range of housing types.
4	Employment Lands	Provision of employment opportunities or access to employment areas.
5	Avoidance of Risks	Land use conflicts are avoided and safe evacuation routes are available (flood and bushfire).
6	Natural Resources	Responsible use of natural resources and minimisation of development footprint.
7	Environmental Protection	Protection and enhancement of biodiversity, air quality, heritage and waterways.
8	Quality and Equity in Services	Access to health, education and other essential services.

Local Planning Controls

The statutory development controls and built form guidance which underpin the built form implications for the site contained within:

- The Hills Local Environmental Plan 2012 (HLEP 2012)
 - current
- The Hills Development Control Plan 2012 (HDCP 2012)
 - current

The Hills Local Environment Plan 2012

The current planning controls applicable to the site are set out within the Hills Local Environmental Plan (LEP) 2019 and Hills Development Control Plan (DCP) 2019.

The LEP 2019 replaces LEP 2012. This legislative update is administrative only to reflect the change in local government boundaries between The Hills Shire and City of Parramatta Councils. The planning controls for the site have not changed in this update and as such have not been revised since 2012.

The applicable controls for the The Site are set out in the summary tables and plans opposite.

Zoning and Land Use

The site is currently zoned RU6 Transition.

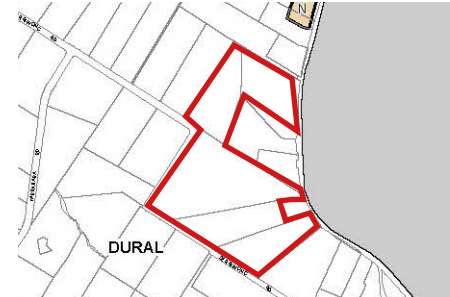


LEGEND

- Site Boundary
- RU6 Transition
- B1 Neighbourhood Centre

Floor Space Ratio

Land for residential purposes is unconstrained by FSR controls.

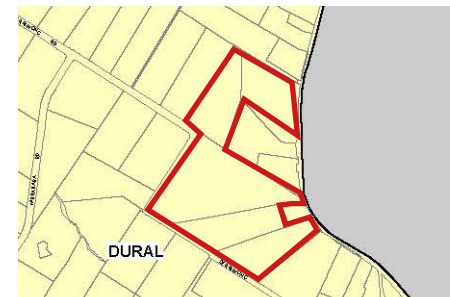


LEGEND

- Site Boundary
- 1.0

Height of Building

The Height of Buildings planning map permits buildings up to 10 metres on the site.



LEGEND

- Site Boundary
- 10

Heritage

No heritage item presence within the Site.

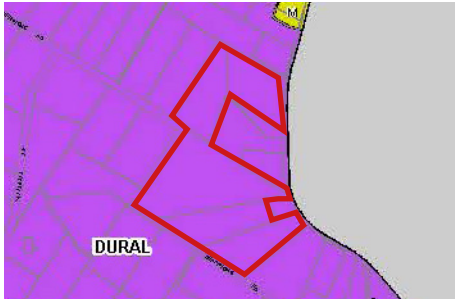


LEGEND

Site Boundary

Minimum Lot Size

The minimum lot size applying to the land is 2 ha (2,000m²). Land to the North of the site is permitted to be a minimum of between 600m².



LEGEND

Site Boundary
2ha
600

The Hills Development Control Plan 2012

The following controls identified in the HDCP 2012 are applicable to the site.

Table 2 DCP Controls

ELEMENT	CONTROLS
Ch. 2.13.1 Residential Lot Width and Depth	<ul style="list-style-type: none">The minimum frontage for other road frontages for a lot where a dwelling is permissible is 18m.The minimum depth of lots where a dwelling is permissible is 27m.The minimum width for the battleaxe handle on battleaxe shaped allotments is:<ul style="list-style-type: none">One allotment to be accessed- 4mTwo or more allotments to be accessed - 6m

02 PLACE ANALYSIS

Understanding and nurturing the unique identity of each place whilst also meeting the existing and future needs of our communities will ensure we create places, neighbourhoods and cities that are healthy, responsive, integrated, equitable and resilient.

This chapter of the report has been prepared in alignment with these guidelines to understand the strategic and local place characteristics of the locality.

Overview

The strategic and local place characteristics of the Site are defined by the following key elements which have been explored in detail:

- Landform and Terrain
- Surrounding Land Use
- Site Characteristics
- Road Access
- Public Transport
- Heritage
- Ecology and
- Bushfire







A summary of a site opportunities is identified at the end of this chapter.

Landform & Terrain

The Site is located along Old Northern Road which follows the ridgeline and sit at an elevated position descending from this point westwards toward the vegetated corridor and creek.

- The site typically slopes downwards from the ridgeline along Old Northern Road in a south-westerly direction towards the vegetated area of O'Haras Creek.
- The high point of the Site creates opportunities for views towards the Blue Mountains (west of the Site) on a clear day.
- Views from the Site are directed towards the O'Haras Creek and the tributary corridor which is densely vegetated.

Legend

-  The Site
-  High Elevation
Low Elevation
-  Ridgeline
-  High Points
-  O'Haras Creek
-  Distant View

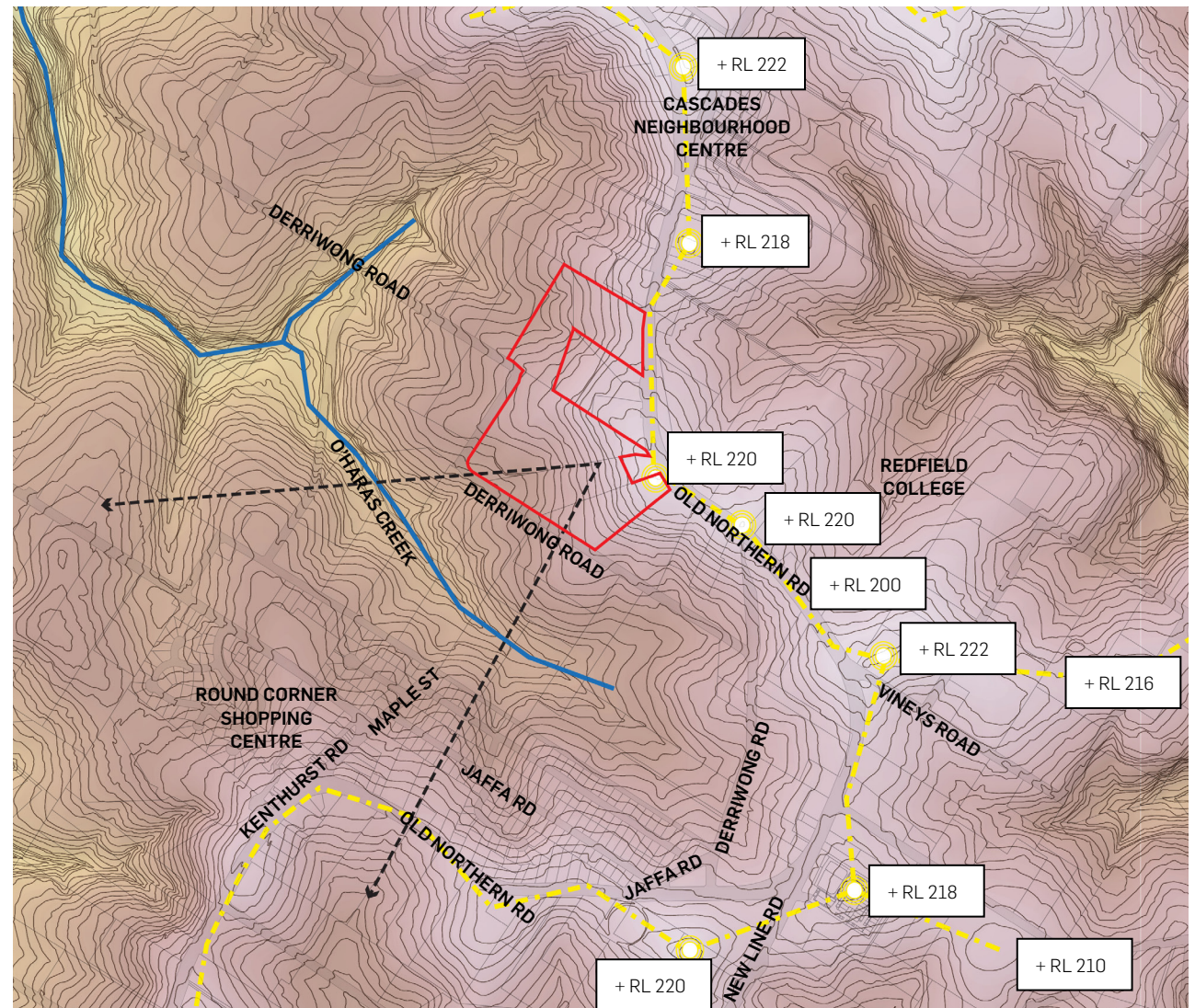


Figure 4 Topographical Analysis

1:15,000 @ A4
0 10 20 30 40 50

Surrounding Land Uses

The site is located between the Round Corner (Local Centre - B2), Cascade (Neighbourhood Centre - B1) and the Dural Business Park, where a range of retail shops, cafés and restaurants are located.

- Round Corner Local Centre is located 1km west of the Site and Cascades (Neighbourhood Centre) is located 1km north of the Site. Both of these centres are aligned along Old Northern Road.
- Dural Business Park and light industrial sites provides employment zone situated to the south east of the Site and sits along New Line Road.
- Two educational facilities are situated in proximity to the Site, including:
 - The Dural Public School.
 - Redfield College to the east of Old Northern Road.
- There are current and emerging residential clusters with more urbanised forms and character situated closer to the town centre. This include:
 - A number of seniors housing sites west of the local centre;
 - Townhouse, attached/dual occupancy and villa style development within the R3 Zone;
 - Residential subdivisions with an average of 700 sqm lots to the south west of the Site; and
 - Future development of Cascades, a mixed-use development comprising business uses, residential, food and beverage, a child care centre and a recreation facility/multi-purpose hall.
- Surrounding land uses are predominantly rural-residential in the area.

The Site presents significant development opportunities given its location, existing land uses and likelihood of change in their urban form. The site is prominently located on a well trafficked road with good access to local facilities and services.

Legend

	The Site
	RU6-Transition
	B1- Neighbourhood Centre
	B2- Local Centre
	E2 - Environmental Conservation
	E3- Environmental Management
	R2 - Low Density Residential
	R3- Medium Residential Density
	RE1 - Public Recreation
	School
	SP2- Infrastructure

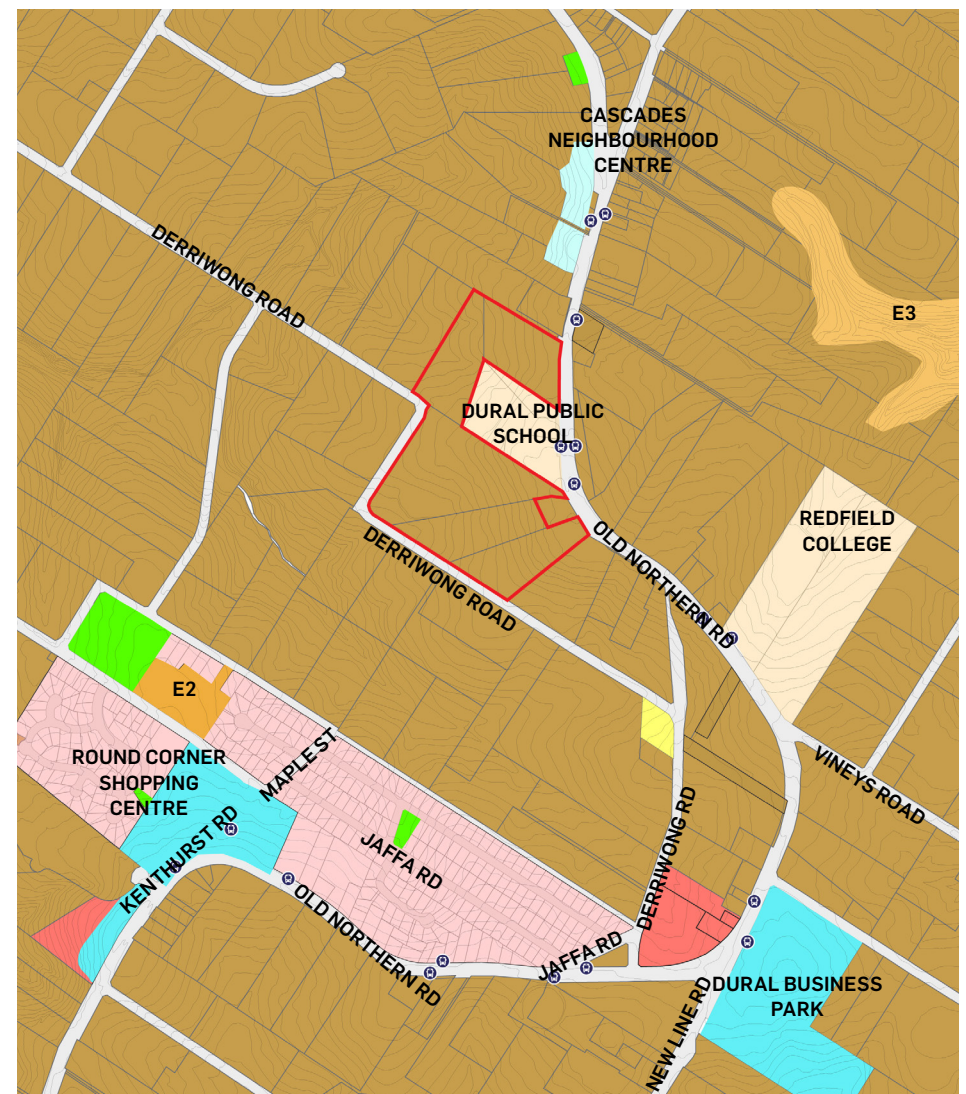


Figure 5 Surrounding Land Use Plan








Surrounding Open Space and Amenities

The Site have access to public parks, nature reserves and a range of facilities and services. This includes:

- Tunks Creek environmental conservation to the East;
- Ellerman Park and Edna Brown Reserve are two key public parks to the south of the Site; and
- O'Haras Creek Vegetation Corridor is located between the Round Corner Town Centre and the Site. It has potential to improve access to the natural amenity of future developments in Dural. This area of vegetation also presents as a natural boundary for urban development in the area.

Legend

-  The Site
-  Public Recreation/ Park
-  Environmental Conservation/Management
-  O'Haras Creek
-  Vegetation Corridor

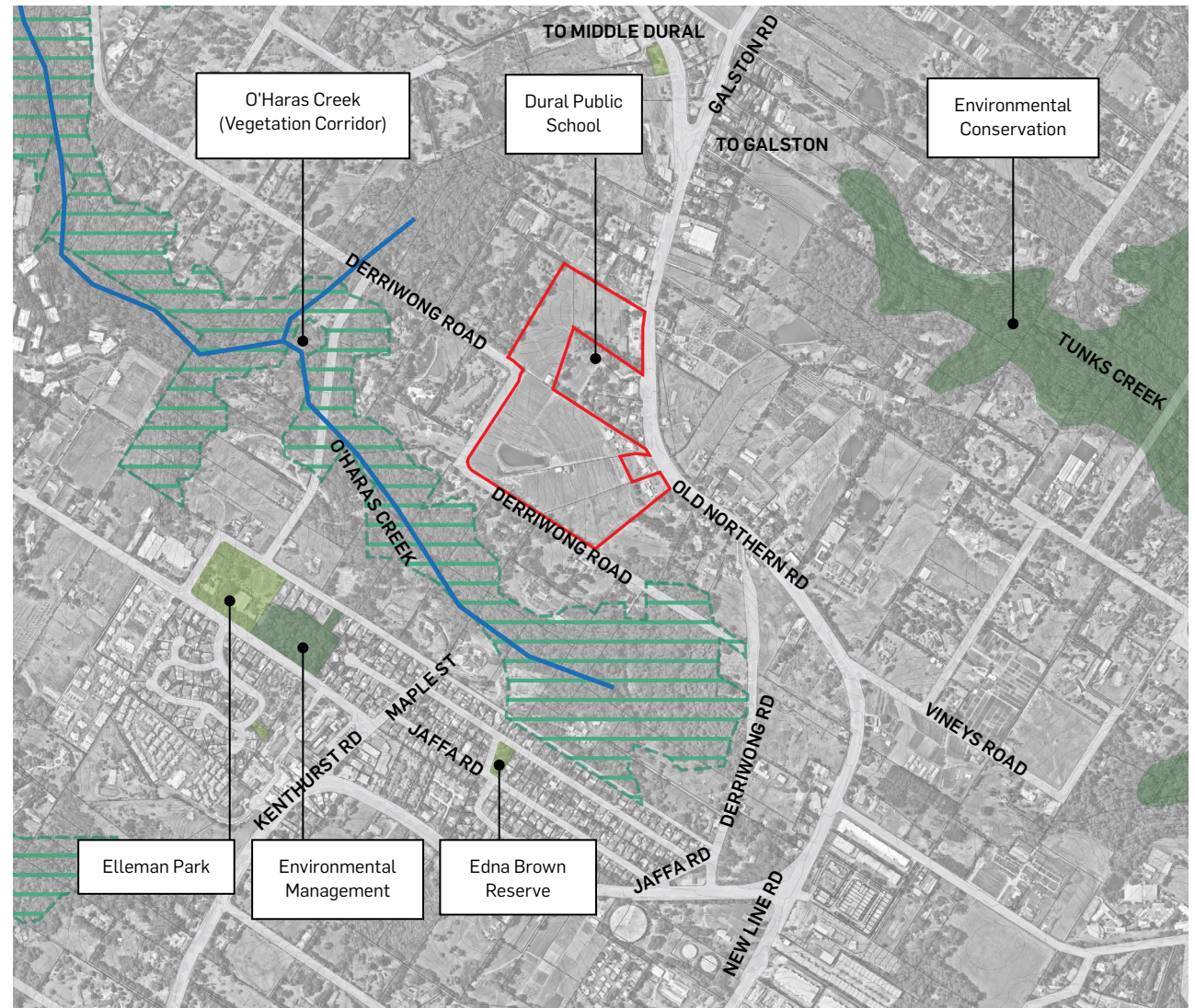


Figure 6 Surrounding Open Space and Amenities



Ecological Assessment

High biodiversity value land are located mainly within Dural Public School and to the land west of the Site.

No high biodiversity value land identified within the Site.

Legend



-  The Site
-  High Biodiversity Value Land



Figure 7 High Biodiversity Value Land Map. (Source: Ecological Australia)



Bushfire Assessment

There is a 16m Asset Protection Zones (APZ) required along the north-west of the Site.

Another 16m APZ runs along the Derriwong Road to the south and sits outside the Site.

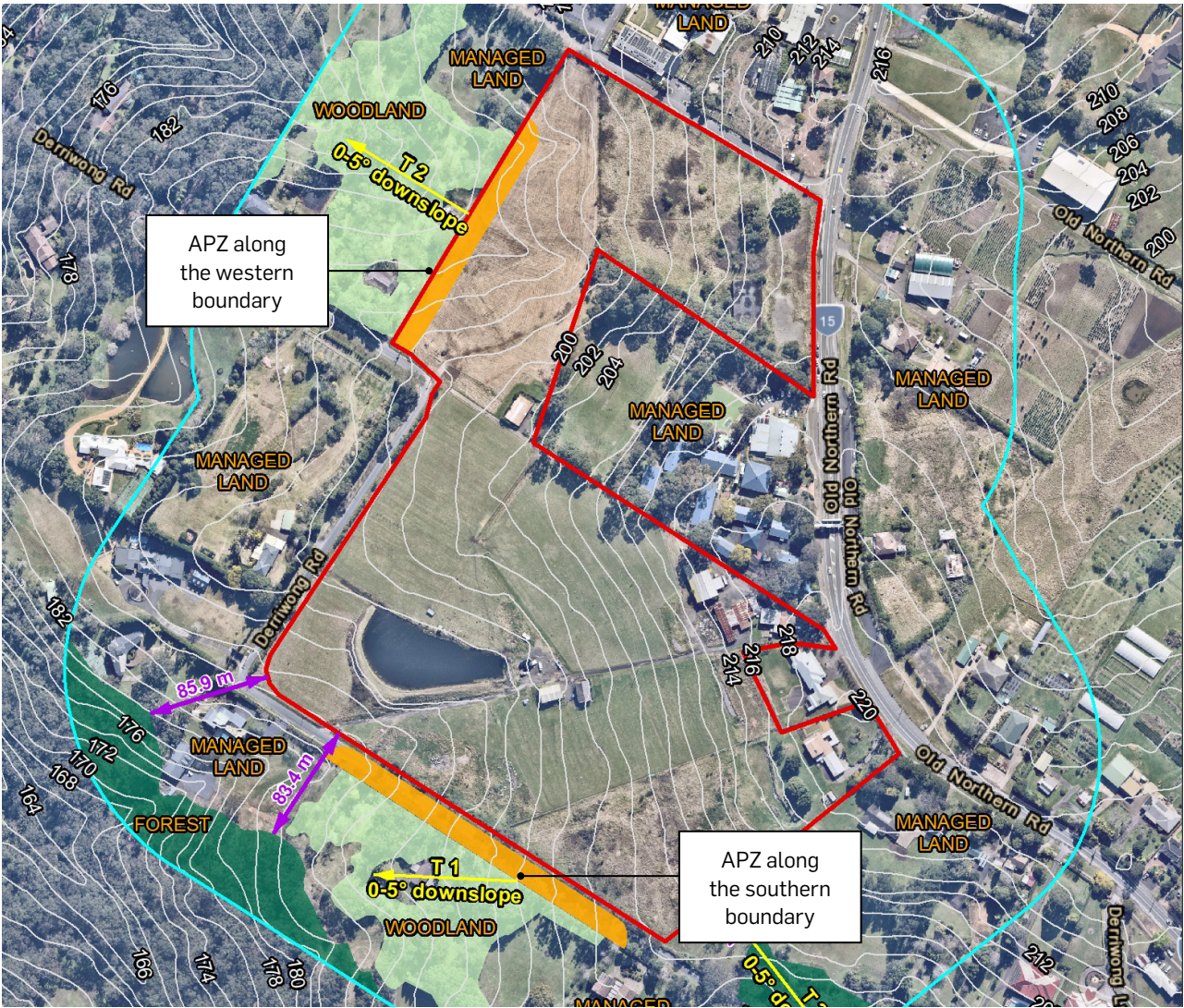
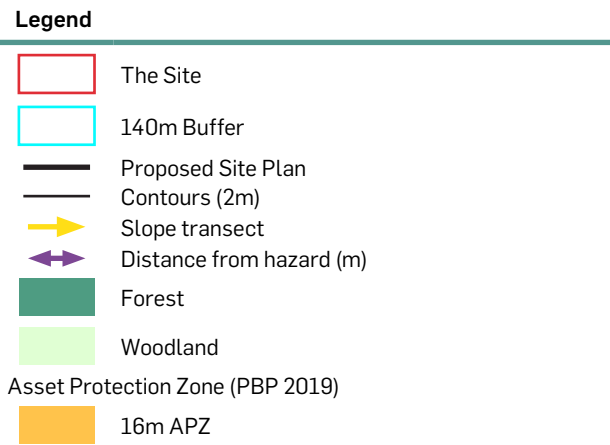


Figure 8 Asset Protection Zone. (Source: Ecological Australia)

Heritage

There is no heritage constraints identified within the site. Local heritage items are located along the Old Northern Road :

- 348 "House" - General Item.
- 349 "House" - General Item.
- A38 "Cemetery" - Item Archaeological.
- 351 "House" (former Uniting Church and Chapel) - General Item.
- 448 "Roadside trees" - Item Landscape.
- 343 "Street trees and bushland" - Item Landscape.
- A12 "Old Northern Road" to the west of the Site is an archaeological Item from Glenhaven to the Hawkesbury River at the north with a distance of approximately 40km.
- 185 "House" is part of the southern site - Item General. Heritage building will be retained in proposed development.
- 186 "Dural Soldiers Memorial Hall" - Item General is located north of the southern site but is not part of it. The Memorial Hall is surrounded by the Southern site precinct.
- 181 "Uniting Church Cemetery" is adjacent to the southern site.

Legend

- The Site
- General Item
- Landscape Item
- Archaeological Item

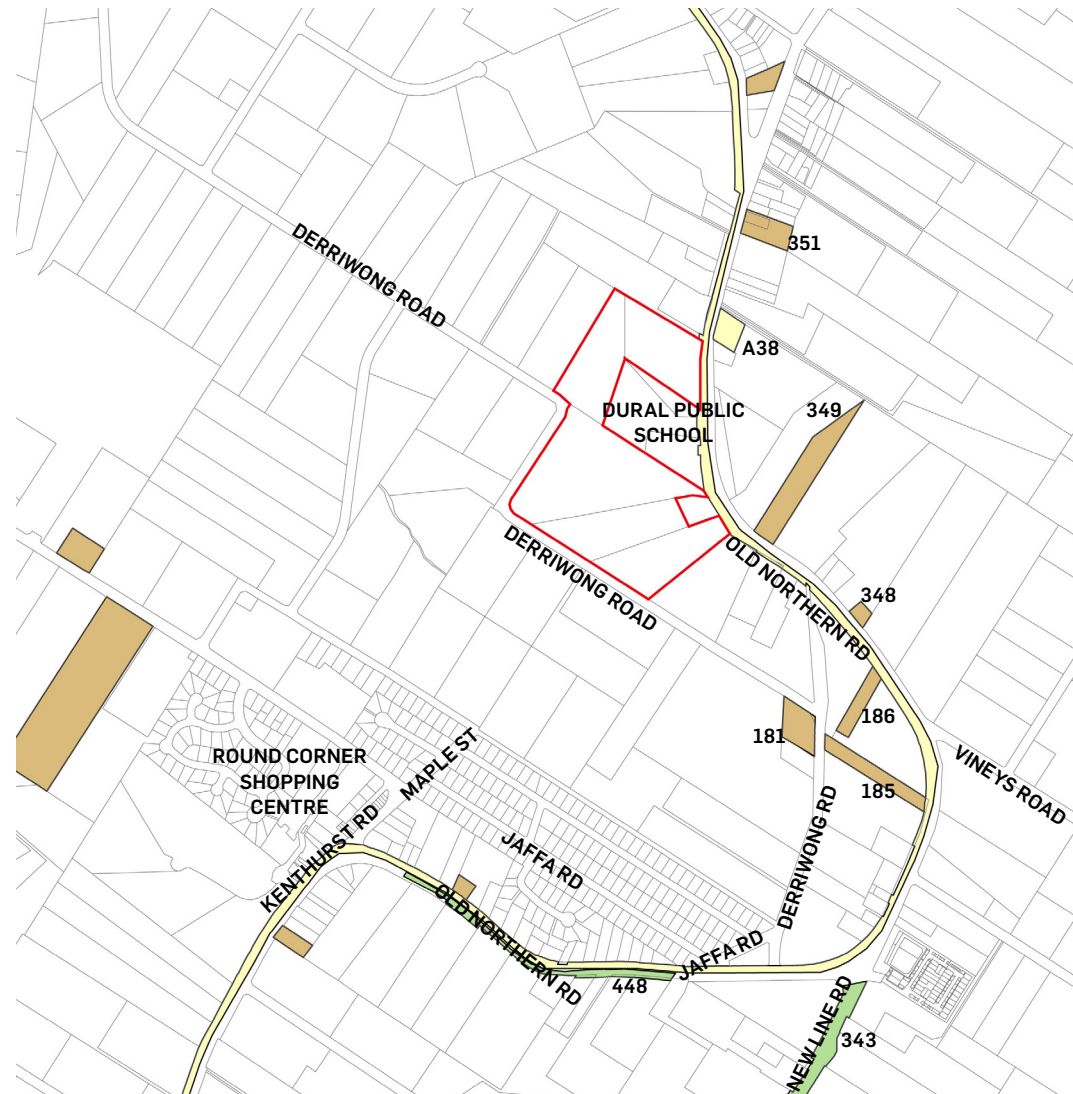


Figure 9 Heritage Constraints. (Source: NSW Crown- Planning and Environment)



Public Transport

The Site is located in proximity to a frequently serviced public transportation network. This includes:

- Immediate access to a bus stop at Old Northern Road that connects user to Greater Sydney areas such as to the Sydney CBD, North Sydney, The Hills District and Glenorie;
- Castle Hill Metro Station is the closest Metro station with primary retail destination, situated 5km to the south. It currently provides metro services to Sydney CBD and Tallawong and Bankstown in the future;
- Route 637 connect the Site to Castle Hill in less than 15 minutes;
- Pennant Hills Station is situated 10km to the south east and provide train service connections regionally for district residents; and
- Bus routes to Pennant Hills have a frequency between 40 and 60 minutes with an average commute time of 45 minutes.

The Site is situated along a highly frequent major bus corridor along Old Northern Road providing connection to major destinations.

Legend

- The Site
- Route 637
- Route 638
- Route 639
- Route 641
- Route 620/
620n/ 620x/
622/ 642/ 642x
- Route 644
- Ⓚ Bus Stops
- 400m
Pedestrian
Catchment
from Major Bus
Stop

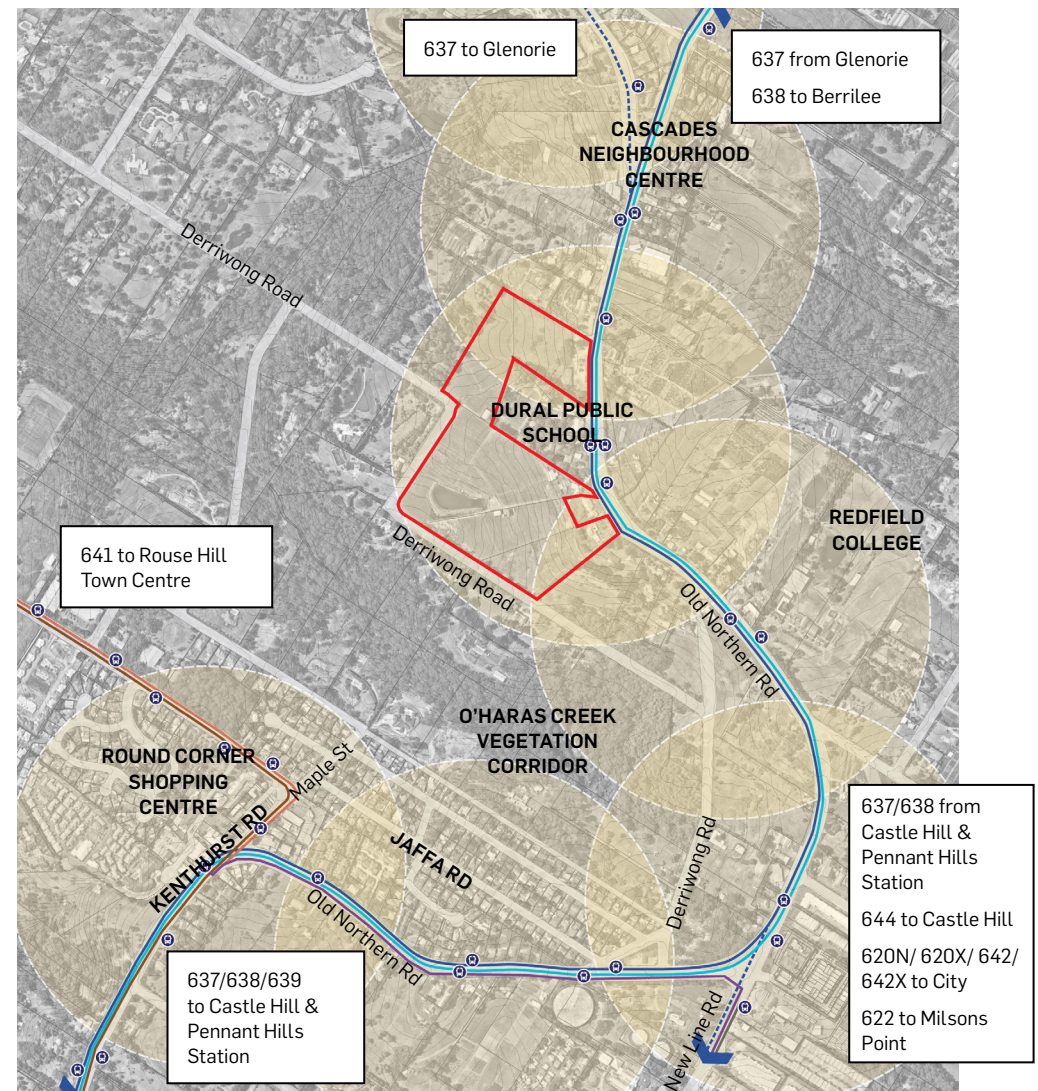


Figure 10 Public Transport Plan



Road Access

The Site primary point of access and vehicle movement is via Old Northern Road.

- Old Northern Road has a major role in the local context of the site, with its role as a high frequency bus corridor and provide direct connection towards major roads and motorway including New Line Road, Windsor Road and M2 Motorway further South. These major roads connect the Site to Castle Hill, Parramatta CBD and Sydney CBD.
- Dural Public School is situated at Old Northern Road and currently restricted to one point of access and servicing. This results in traffic issues on school peak hours and special event days.
- Key intersections in proximity to the The Site include:
 - The Y-intersection of Old Northern Road and Galston Road, at the north of the Site that connect to Glenorie and Marramarra National Park; and
 - The round-a-bout intersection where Old Northern Road and New Line Road intersect south of the Site connecting to Castle Hill or West Pennant Hills and to M2.
- Derriwong Road is a local road that connects The Site to the south-west of Old Northern Road, servicing primarily large lot residential west of the site.
- Derriwong Road presents potential to be the key access route to the site in order to divert traffic from Old Northern Road.
- No direct road access for future development lots fronting Old Northern Road.
- Council has proposed a Bypass Road between Derriwong Road and Old Northern Road through the Site. A further detailed plan is identified in the following page.

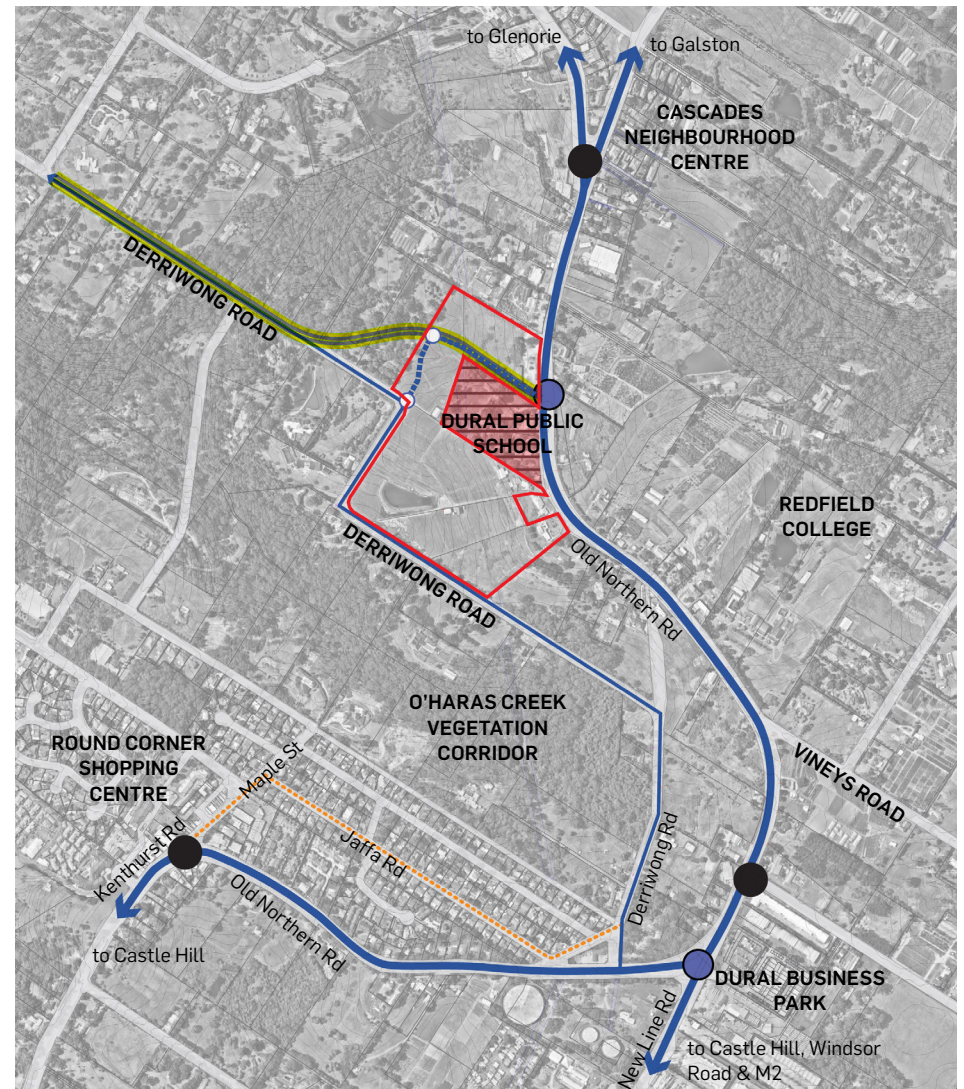
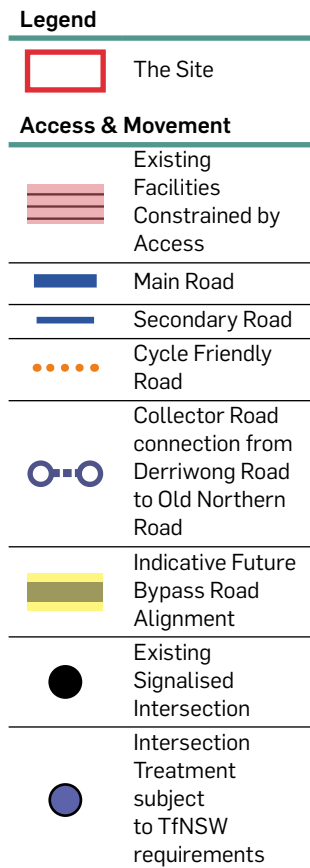


Figure 11 Access and Movement Plan

Future Bypass Road Alignment Option

Council has identified that a minimum 32m wide road reservation is required to accommodate the future bypass road providing connection between Old Northern Road and Annangrove Road to the West through Derriwong Road.

Based on the road speed design, the proposed geometry runs through Derriwong Road, and The Site along the northern boundary of Dural Public School and the adjoining lot to the west.

Noting this alignment is dependant on the adjoining lot, a proposed bypass road alternative solution that can be managed within Site is required to provide the connection from Derriwong Road.

A new signalised intersection is proposed at Old Northern Road and future bypass road.

Old Northern Road Future Widening

An additional SP2 zoning along the Old Northern Road is proposed to allow for a future road widening.

Site

The Site is currently accessible from Derriwong Road along the southern and western boundary. Access from Old Northern Road will be provided from the new Intersection Treatment subject to TfNSW requirements to the northeast corner of Dural Public School.

Legend

- The Site
- Indicative Future Bypass Road Alignment
- SP2 Zone
- Collector Road connection from Derriwong Road to Old Northern Road
- Indicative Potential Site Access
- Intersection Treatment subject to TfNSW requirements

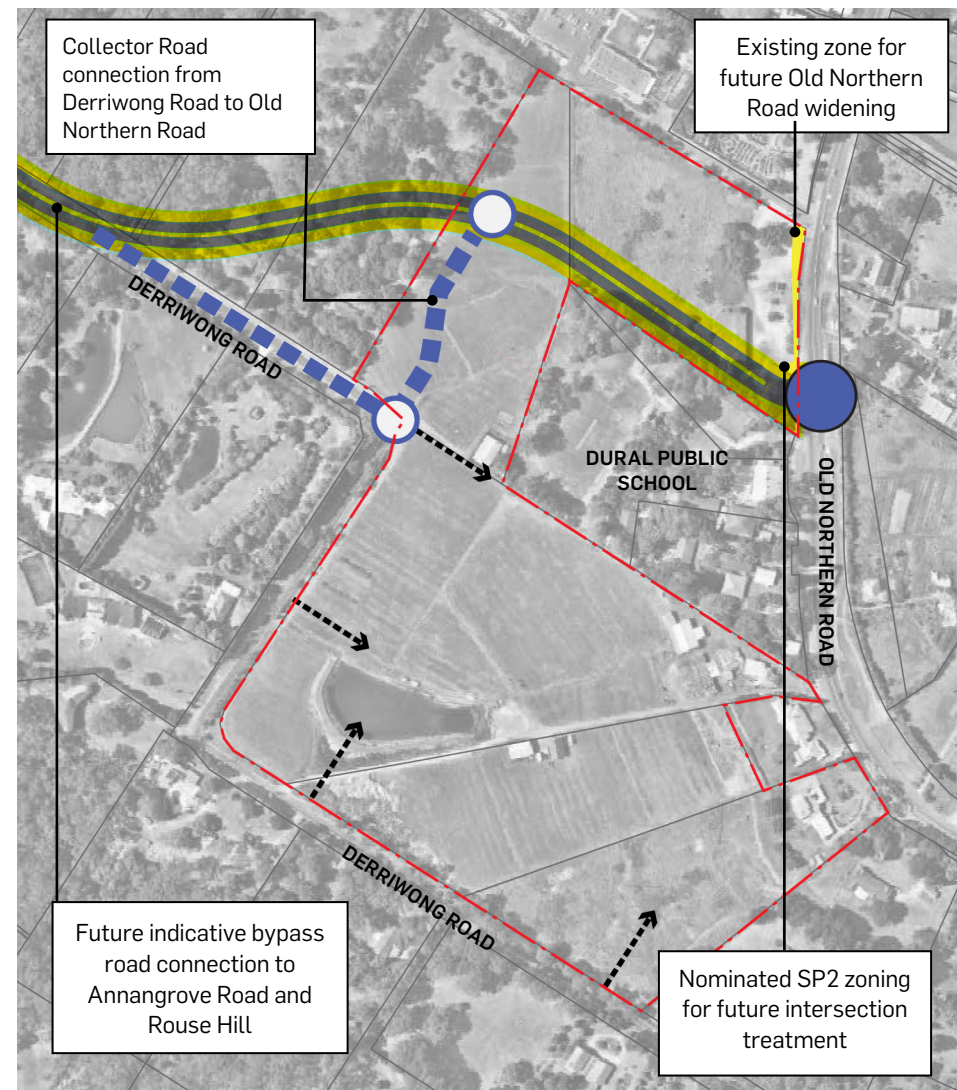


Figure 12 Bypass Road Indicative Alignment

1:5,000 @ A4
0 5 10 15 20 25

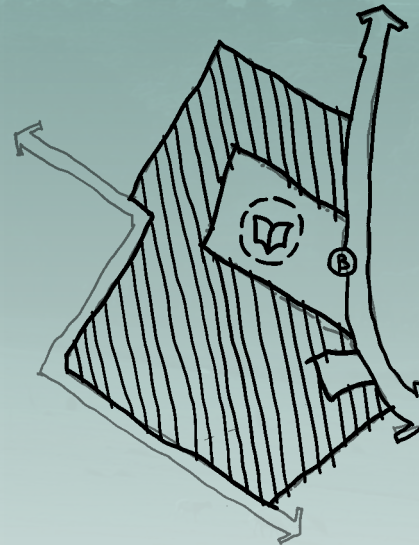
03 KEY DIRECTIONS

The following key directions were identified for the Site based on the synthesis of background reviews and site specific investigations including:

- Strategic Planning Context;
- Local Planning Controls; and
- Place Analysis.

These key directions form the guiding principles and outcomes that underpin the Concept Plan presented within this planning proposal that meets the Rural Village Expansion requirements as identified in the Rural Strategy 2019.

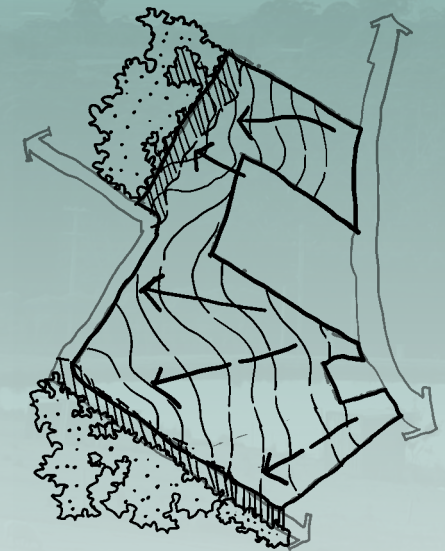
01 A Suitable Site for Rural Village Expansion



The Site provides a suitable land for Rural Village Expansion.

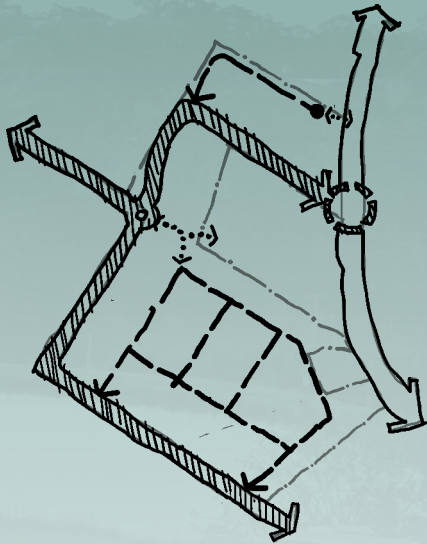
- The site comprises of cleared land with no major impacts from the identified environmental constraints;
- Access to education facilities, local centre, public transport services and employment areas via Old Northern Road; and
- Existing utilities and social infrastructure provision;

02 Responding to Natural Assets



- Incorporate appropriate bushfire protection to the west and south; and
- Orientate development to provide visual connectivity leveraging the topography.

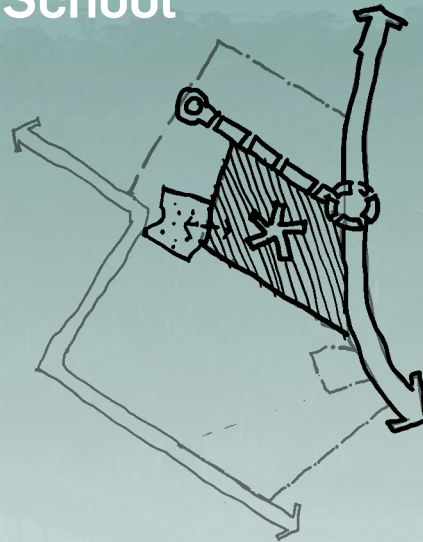
03 Connect Into The Local Network



Establish street network within Site that provides connections and access points, including:

- Provide a 32m wide road reserve to secure the ability to deliver a future bypass road from Derriwong Road;
- Intersection Treatment at Old Northern Road subject to TfNSW requirements;
- Multiple access points to the residential community off Derriwong Road and proposed Collector Road; and
- Provide pedestrian through site links to Old Northern Road, Dural Public School and southern neighbourhood.

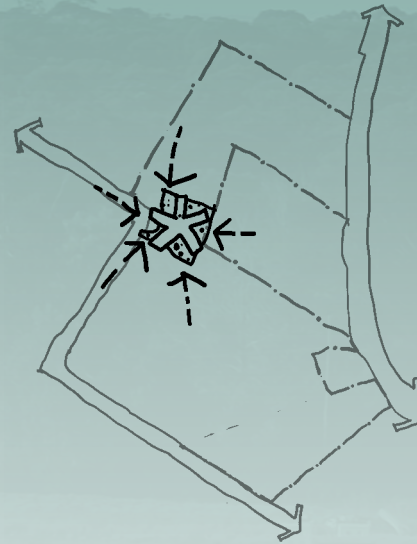
04 Improve Safety and Operational Activities for The School



Improve school safety and operational activities during school peak hours period, including:

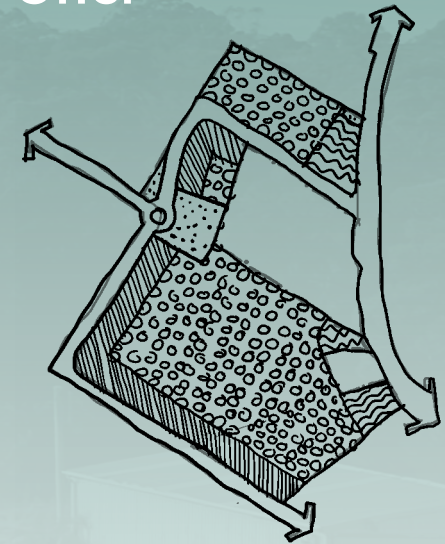
- Provide secondary access point from the proposed bypass road off Old Northern Road;
- Provide on-street drop off/pick up zone along the northern school boundary for 25 parking spaces; and
- Provide roundabout to the west to contain vehicular movement.

05 A New Local Park



Deliver a new 4,000 sq.m local park at the heart of the Site that is accessible by the wider community and school students.

06 New Communities with Varied Housing Offer



Establish a new residential community with varied housing offer to support housing diversity.

04 CONCEPT PLAN

This chapter identifies the proposed concept plan and layered strategies that underpins the concept plan. This includes:

- Concept Plan
- Indicative Land Use Distribution
- Access and Movement
- Open Space and Public Domain; and
- Housing Mix.

Concept Plan

The proposal will deliver 110 low density residential lots with a local park at the heart of the Site. It provides a combination of following lot typologies:

- Large Lots - average 2,000 sqm situated along Old Northern Road;
- Medium Lots - average 1,000sqm distributed along Derriwong Road; and
- Standard Lots - average 600sqm, distributed within the remainder of the Site.

The key benefits of the proposal include:

- A new local park at the heart of the development and situated next to Dural Public School that is accessible to the community;
- An improved connectivity and permeability of the local area through the provision 32m road reserve between Derriwong Road and Old Northern Road that could accommodate the future bypass road.;
- The provision of school pick up and drop off zone along the proposed Bypass Road, alleviating traffic issues off Old Northern Road and during peak school periods; and
- A local street network with multiple access points from Derriwong Road and proposed Bypass Road.

The opposite page illustrates the proposed concept plan. The layered strategies of the Concept Plan are identified in the following pages.

LEGEND



The Site

LAND USE



Large Lots (Average 2,000 sqm)



Medium Lots (Average 1,000 sqm)



Standard Lots (Average 600 sqm)

OPEN SPACE & PUBLIC DOMAIN



Local Park



Pedestrian Through Site Link



Proposed Stormwater Basins



SP2 Road Reserve

PUBLIC & ACTIVE TRANSPORT DEDICATION



Existing Bus Stop

STREET NETWORK



Arterial Road / Old Northern Road



Collector Road/ Derriwong Road



Proposed Collector Road with Bypass Corridor



Local Street



Proposed Roundabout



Intersection Treatment subject to TfNSW requirements



Figure 14 Concept Plan

1:4,000 @ A3
0 50 100 150 200

Indicative Land Use Distribution

The following figure illustrates the land use distribution of the concept plan.

LEGEND



The Site

LAND USE








-  Large Lots (average 2,000 sqm)
-  Medium Lots (average 1,000 sqm)
-  Standard Lots (average
-  Open Space
-  Stormwater Basins
-  SP2 Infrastructure
-  Road Reserve



Figure 15 Land Use Distribution

Development Summary

The following tables identify the development assumptions and the land use and yield calculation of the Concept Plan.

Table 3 Development Summary

LAND USE	LAND USE AREA (SQM)	LAND USE AREA (HA)	LAND USE AREA (%)	DWELLINGS	DWELLING MIX %
RESIDENTIAL					
Standard Lots (avg 600 sqm)	59,986	6.0	47.3%	92	83.6%
Medium Lots (avg 1,000 sqm)	17,576	1.8	13.9%	15	13.6%
Large Lots (avg. 2,000 sqm)	7,323	0.7	5.8%	3	2.7%
Sub Total Developable Area	84,884	8.5	66.9%	110	100%
Local Park	4,142	0.4	3.3%		
Pedestrian Link	141	0.0	0.1%		
Stormwater Basin	2,659	0.3	2.1%		
SP2 Road Reserve	561	0.1	0.4%		
Road Reserve	34,649	3.5	27.3%		
Sub Total Non Developable Area	37,307	3.7	29.4%		
TOTAL SITE AREA	126,895	12.7	100.0%	110	100%

Layered Strategy - Housing Mix

The proposal identifies three residential lot typologies. This includes:

LEGEND



The Site

LAND USE



Large Lots (average 2,000 sqm)

Large lots are mainly situated along Old Northern Road.



Medium Lots (average 1,000 sqm)

Medium lots are situated along Derriwong Road to the west and south as a transition to the standard lots.



Standard Lots (average 600 sqm)

The standard lots are mainly distributed within the southern, western and northern portion of the Site.

The following diagram illustrates the distribution of these lot types with reference images on the opposite page.

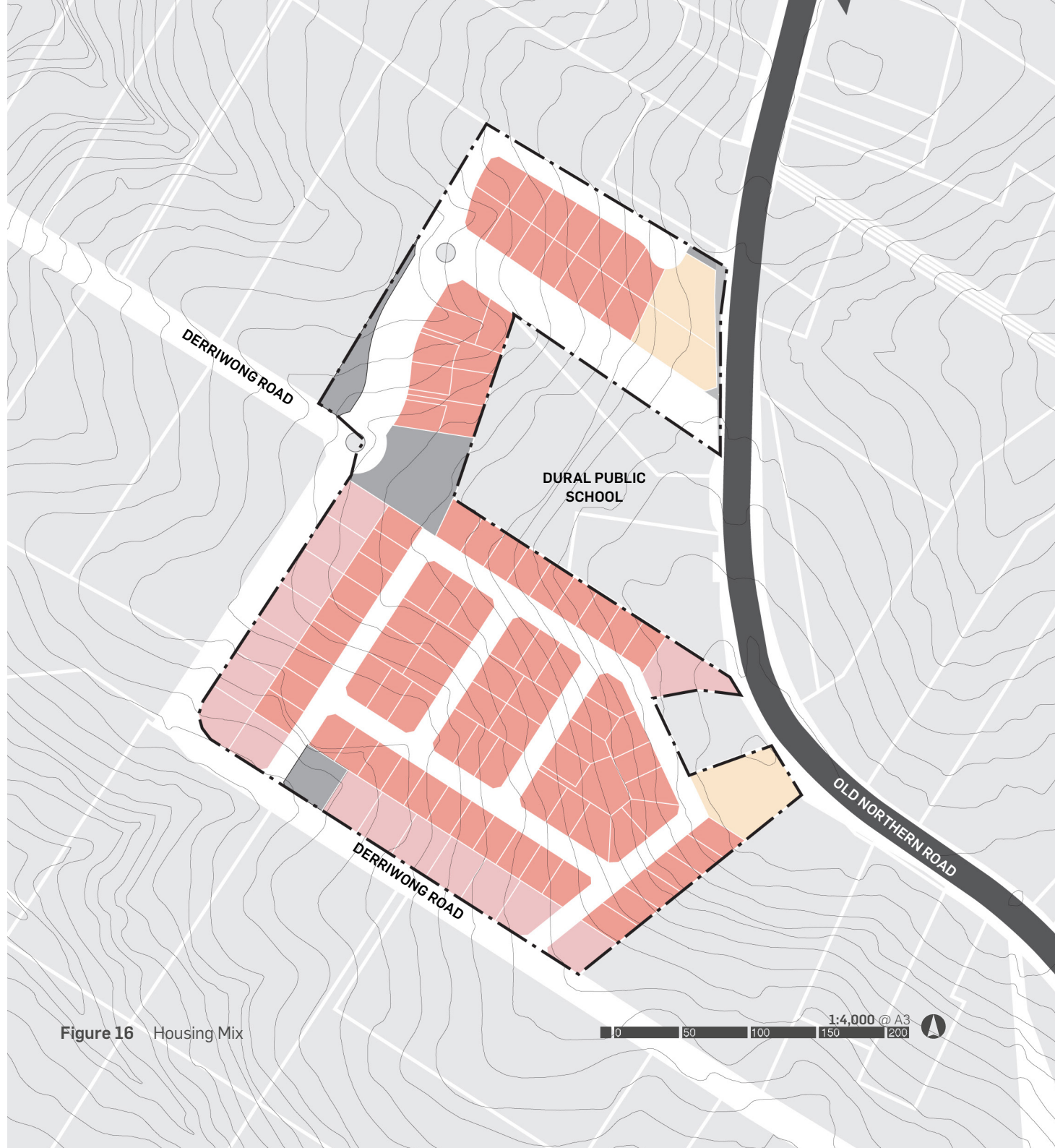


Figure 16 Housing Mix

Housing Typology Mix

STANDARD LOT (AVG. 600 sqm)



MEDIUM LOT (AVG 1,000 sqm)



LARGE LOT (AVG. 2,000 sqm)



Layered Strategy - Access and Movement

The proposed access and movement strategy of the proposal includes:

LEGEND



The Site

PUBLIC & ACTIVE TRANSPORT



Proposed Pedestrian Link

Proposed pedestrian links between local road to Old Northern road and through the local park in the centre.



Existing Bus Stop

STREET NETWORK



Arterial Road / Old Northern Road

Runs along the eastern side



Proposed Collector Road with Bypass Corridor

An L-shape Collector Road alignment with two roundabouts is proposed to provide connection between Derriwong Road and Old Northern Road whilst still maintaining road reservation for future bypass corridor.



Collector Road / Derriwong Road



Indicative School Kiss and Drop Off Zone



Local Street

Provide connection to residential lots with multiple access points.



Proposed Roundabout



Intersection Treatment subject to TfNSW requirements

Proposed new signalised intersection to the northeast corner of Dural Public School.

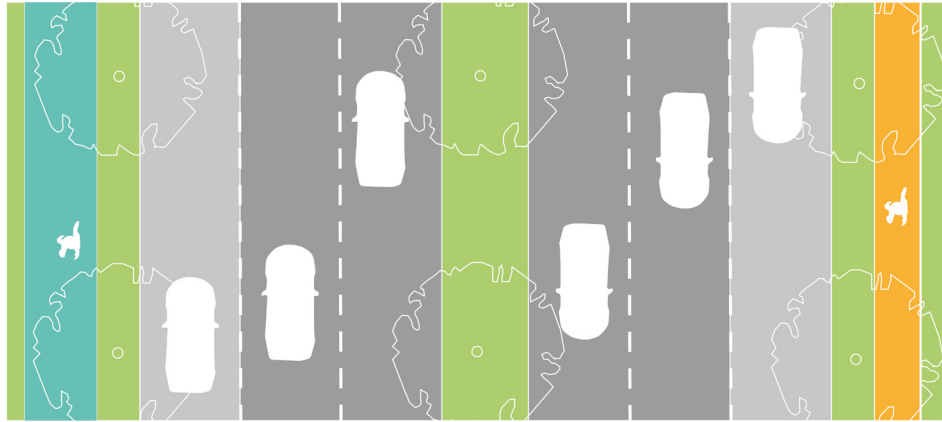
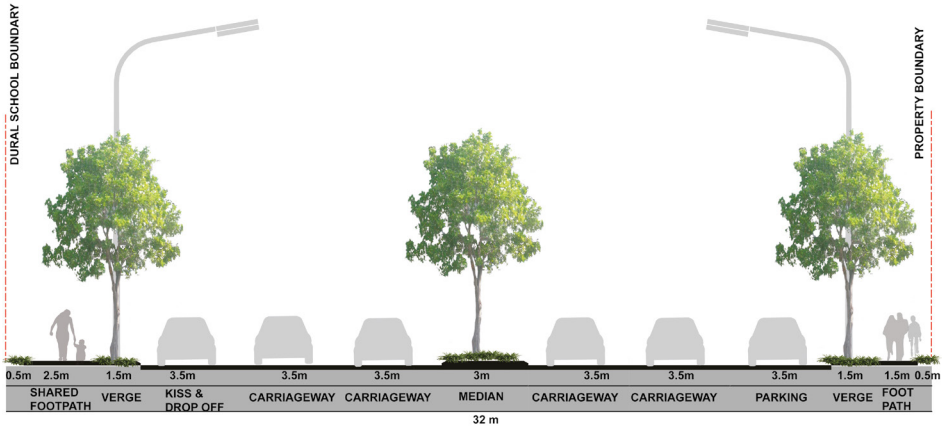


Figure 17 Access and Movement Strategy

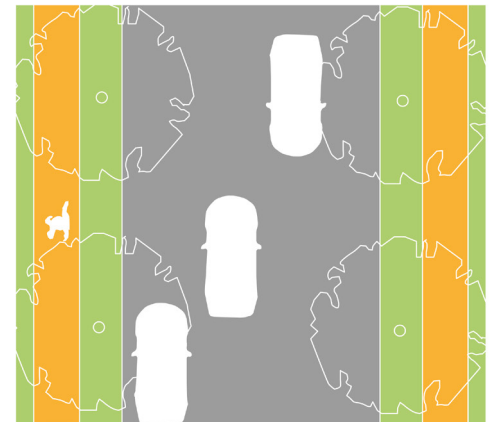
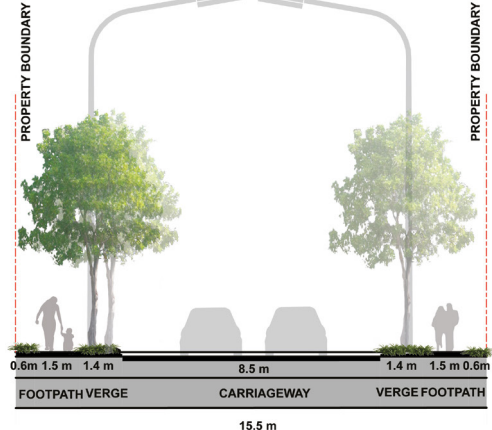
Typical Road Sections

The following figures illustrates the typical cross section for the proposed Bypass Road Corridor and local road.

POTENTIAL BYPASS ROAD CORRIDOR- 32m RESERVE



LOCAL ROAD- 15.5m RESERVE



School Kiss and Drop Off Strategy

On-street kiss and drop off location is proposed within the proposed Bypass Road along the Dural Public School northern boundary.

The school frontage can allow for 160m of kiss and drop parking facilities. This provides for 25 parallel parking spaces assuming 6.3m per space according to AS2890.

The following figures illustrate the location and excerpts from AS2890.5 (2020) on street parking dimension.

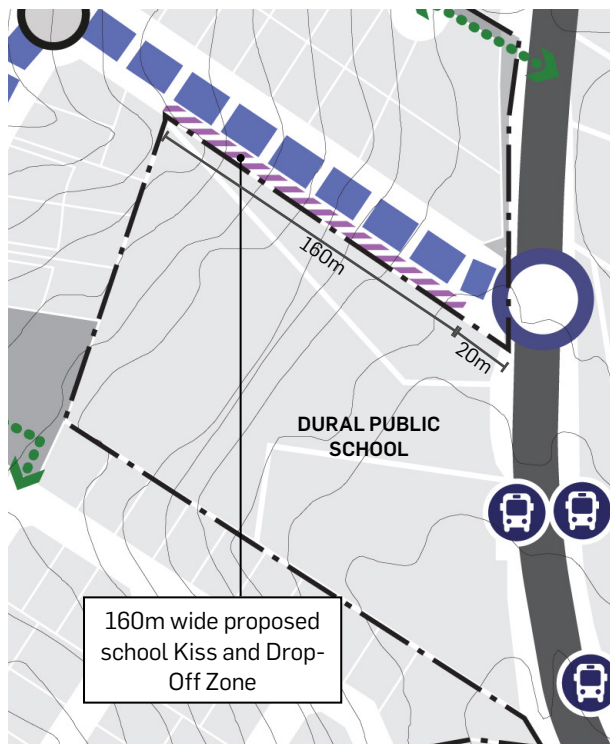


Figure 18 Proposed school kiss and drop off location

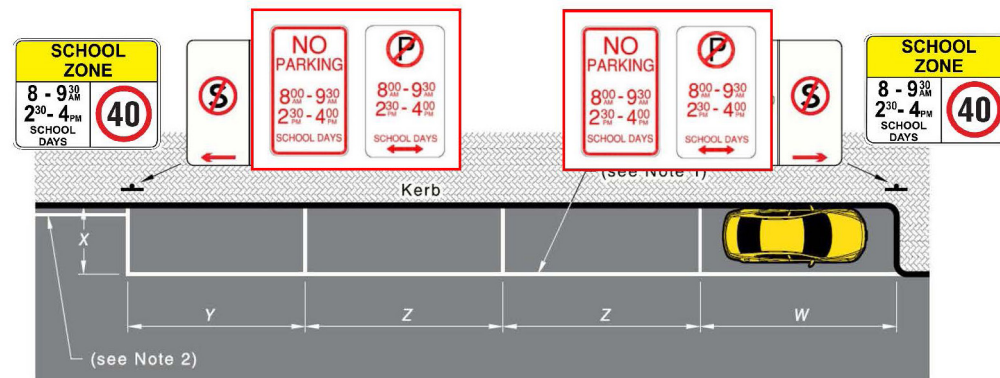


Figure 19 On Street Parking Standard Dimension

Source: AS2890.5 (2020)

Key

X = Width of space, including safety buffer.

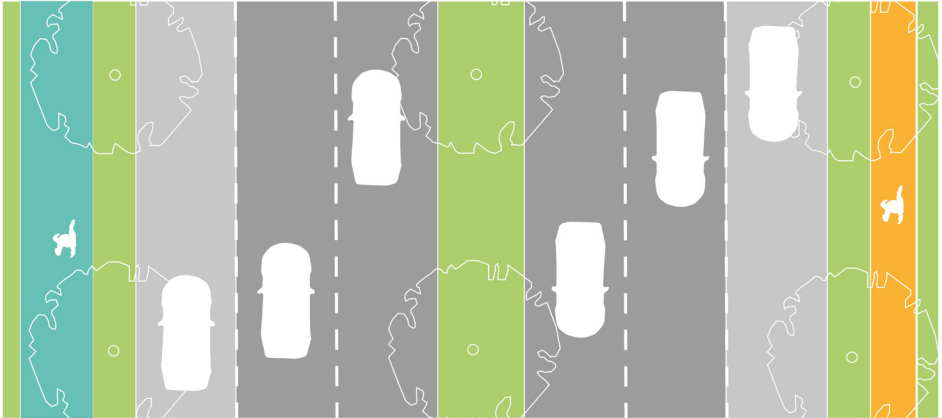
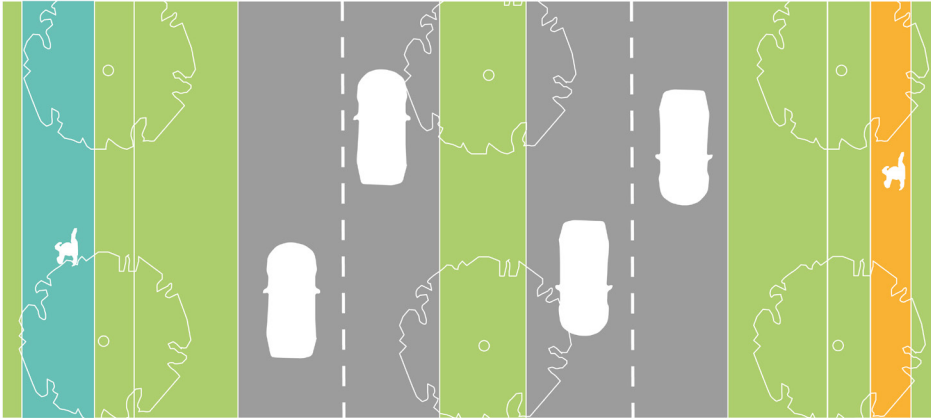
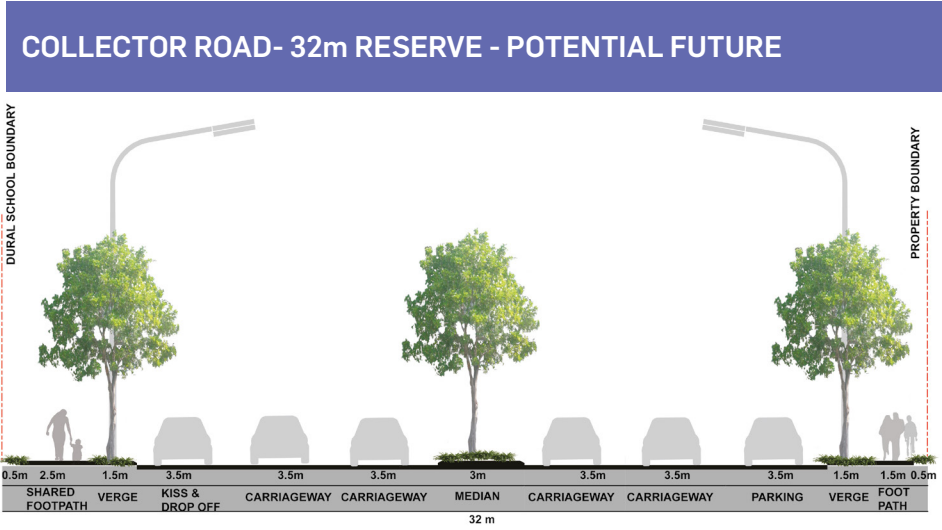
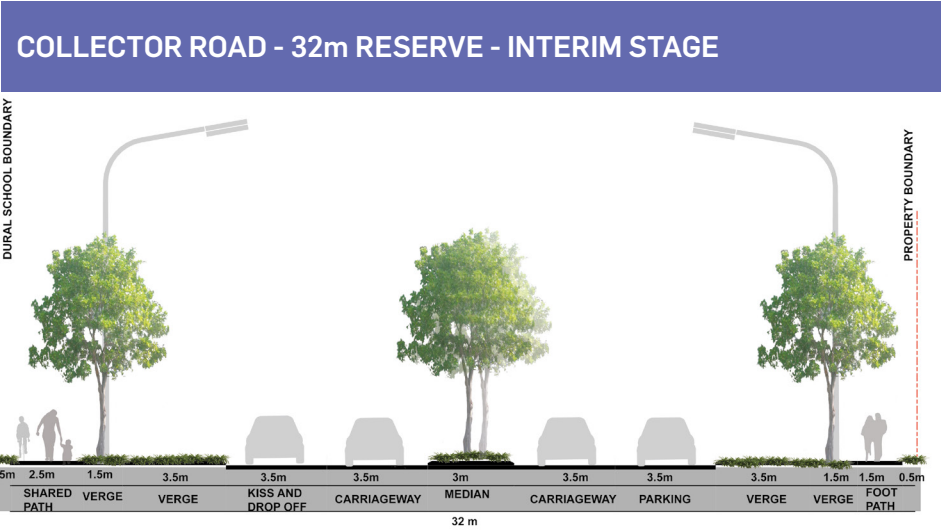
Y = Length of end where vehicles may enter or leave the space directly - 5.4 m min.

Z = Length of intermediate space - 6.0 m to 6.7 m, depending on parking turn over traffic volume.

W = Length of end space which is obstructed at one end by a kerb or barrier - 6.3 m or length **Z** of adjacent space, whichever is the greater.

Collector Road and Bypass Road Configuration

Two configuration scenarios have been identified including the interim and ultimate stage to accommodate the future Bypass Road as illustrated in the following section. The two cross sections in the opposite page illustrates this.



Layered Strategy - Open Space and Public Domain

The key open space and public domain outcomes for the site includes:

LEGEND



The Site

OPEN SPACE & PUBLIC DOMAIN



Local Park

A 4,000 sqm local park situated at the centre and flattest land of development and accessible to the community. Refer to the opposite page for the indicative concept plan.



Pedestrian Through Site Link

Two pedestrian through site links are proposed including:

- To the north-eastern corner of the site providing connection to Old Northern Road.
- Between Derriwong Road, Dural Public School and the southern residential lots through the local park.



400m Local Park Catchment

All residential lots are within 400m of the local park catchment.



Stormwater Basins

Two stormwater basins situated along the western boundary and to the south of the site with an area between 1,200 - 1,500 sqm for each.



Figure 20 Open Space and Public Domain

1:4,000 @ A3
0 50 100 150 200

Proposed Local Park

An indicative concept plan of the proposed local park has been prepared by Place Design Group. The local park comprises of multiple open space programs including playground, picnic area and open lawn area.

It also provides connection between the Collector Road to the west, Dural Public School and residential community to the south east through the pedestrian footpath.

The following plan and image references illustrate the indicative local park concept.

KEY

- 1 Entry feature with blade walls and paving element
- 2 Local play space
- 3 Main play structure (two options - Kanope multiplay piece or Quartz Climber)
- 4 Balance play elements
- 5 Shelters with picnic tables
- 6 Shared Path (2.5m)
- 7 Sandstone logs (walls/vehicle barrier)
- 8 Interpretive tree planting (orchards)
- 9 School access point (subject to SINSW requirements)
- 10 Open space kick-about area
- Electrical substation
- Site boundary
- Proposed trees

- Road
- Pedestrian path
- Turf verge
- Open turf area
- Playground Mulch
- Sandstone retaining
- Softfall rubber
- Mass planting



Figure 21 Proposed Local Park Concept Plan (Source: Place Design Group)



05 CONCLUSION

This urban design report has outlined an analysis of the regional and local context of The Site. It is situated in a desirable location for development given its prominent location and presents limited physical constraints for urban development. This include:

- The Site is mostly cleared land;
- The environmental constraints analysis have identified no major impacts on the site;
- The site is not constrained by any heritage items;
- Existing infrastructure services and education facilities including Dural Public School are available in the locality; and
- The proximity of the Site to the new Castle Hill Station indicate the potential of the Site to be better connected to the greater Sydney region with the completion of Sydney Metro Northwest. This will enable improved access to surrounding employment and education centres.

This urban design study has demonstrated that the rezoning and development of the site:

- Delivers a new centrally located local park that is accessible by the community;
- Provides a mix of residential lot types of average 600 sqm, 1,000 sqm and 2,000 sqm lot sizes;
- Improves Dural Public School access and school operational activities during school peak hours;
- Provides the 32m wide corridor reserve that able to accommodates the future bypass road; and
- Improves vehicular and pedestrian permeability between Derriwong Road and Old Northern Road.

Rural Strategy 2019 - Criteria Alignment

The proposal meets the criteria requirement for rural village expansion as identified in Hills Shire Rural Strategy 2019. The following table identifies the outcome of each criteria.

Table 4 Planning proposal criteria for rural village expansion

	Criteria	New proposals must demonstrate	Outcomes
1	Infrastructure Provision	Timely provision of utilities, transport, open space and communication infrastructure.	<ul style="list-style-type: none"> Provision of a 32m wide corridor reserve for future bypass road. A new centrally located 4,000 sqm local park that is accessible to the local community and the school. Stormwater basin provision for stormwater management.
2	Access	Access to a range of transport options that allow efficient travel between homes, jobs and services.	<ul style="list-style-type: none"> Access to highly frequent bus services along Old Northern Road to key destinations including Castle Hill from the bus stop to the east. Improved vehicular and pedestrian permeability between Derriwong Road and Old Northern Road.
3	Housing Diversity	Provision of a range of housing types.	<ul style="list-style-type: none"> Deliver 110 residential lots with a mix of average 600 sqm, 1,000 sqm and 2,000 sqm lots.
4	Employment Lands	Provision of employment opportunities or access to employment areas.	<ul style="list-style-type: none"> Key employment areas including Dural Business Park and Local Centres are accessible via public transport services along Old Northern Road.
5	Avoidance of Risks	Land use conflicts are avoided and safe evacuation routes are available (flood and bushfire).	<ul style="list-style-type: none"> Provision of multiple local road access to the residential neighbourhood from Derriwong Road and proposed Bypass Road.
6	Natural Resources	Responsible use of natural resources and minimisation of development footprint.	<ul style="list-style-type: none"> Optimised development footprint with allocation for infrastructure including road reserve, local park and stormwater basin.
7	Environmental Protection	Protection and enhancement of biodiversity, air quality, heritage and waterways.	<ul style="list-style-type: none"> The site comprises of cleared land with no major impacts from the identified environmental constraints.
8	Quality and Equity in Services	Access to health, education and other essential services.	<ul style="list-style-type: none"> Improved access to Dural Public School from Derriwong Road and Old Northern Road. Improved safety and school operational activities of the Dural Public School during school peak hours through the provision of Kiss and Drop Off Zone along the school's northern boundary.

