

SEPP (Western Sydney Employment Area) 2009

WESTERN SYDNEY EMPLOYMENT AREA (WSEA) SEPP

Transport and Arterial Road Infrastructure Plan

Clause 26 of the WSEA SEPP relates to the regional road network established under the SEPP as a framework for the delivery of future road connections within and surrounding the WSEA. The provisions of clause 26 apply to land which is situated on, or in the vicinity of a proposed transport infrastructure route illustrated on the 'Transport and Arterial Infrastructure Plan Map' (the map), shown adjacent.

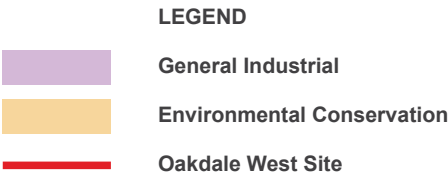
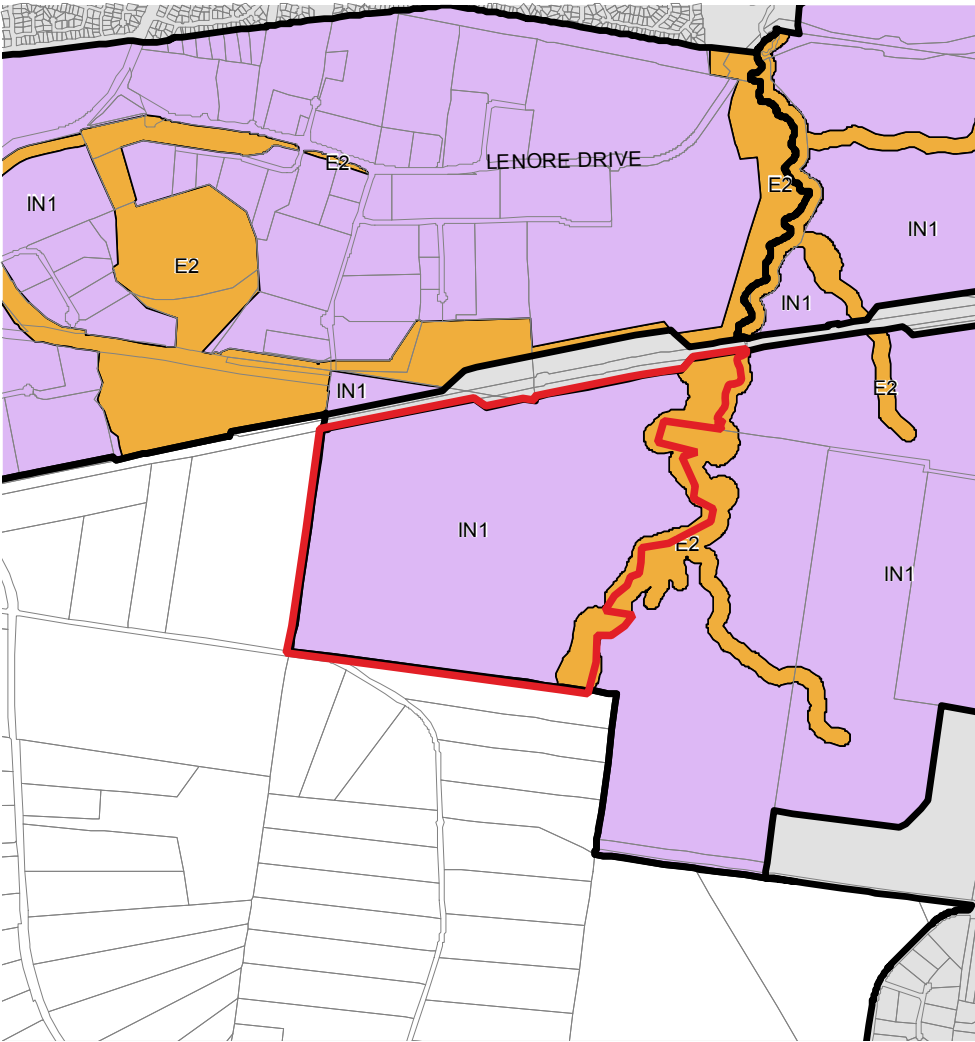
The Oakdale West Estate is affected by two proposed roads shown on the map:

- The site is bisected in an east-west direction by the proposed Southern Link Road (SLR).
- The proposed West North South Link Road (WNSLR) runs in a north-south direction, roughly along the eastern boundary of the site, intersecting the site at certain points.

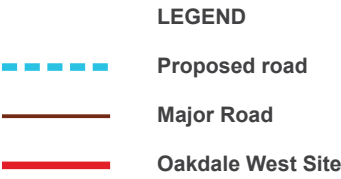
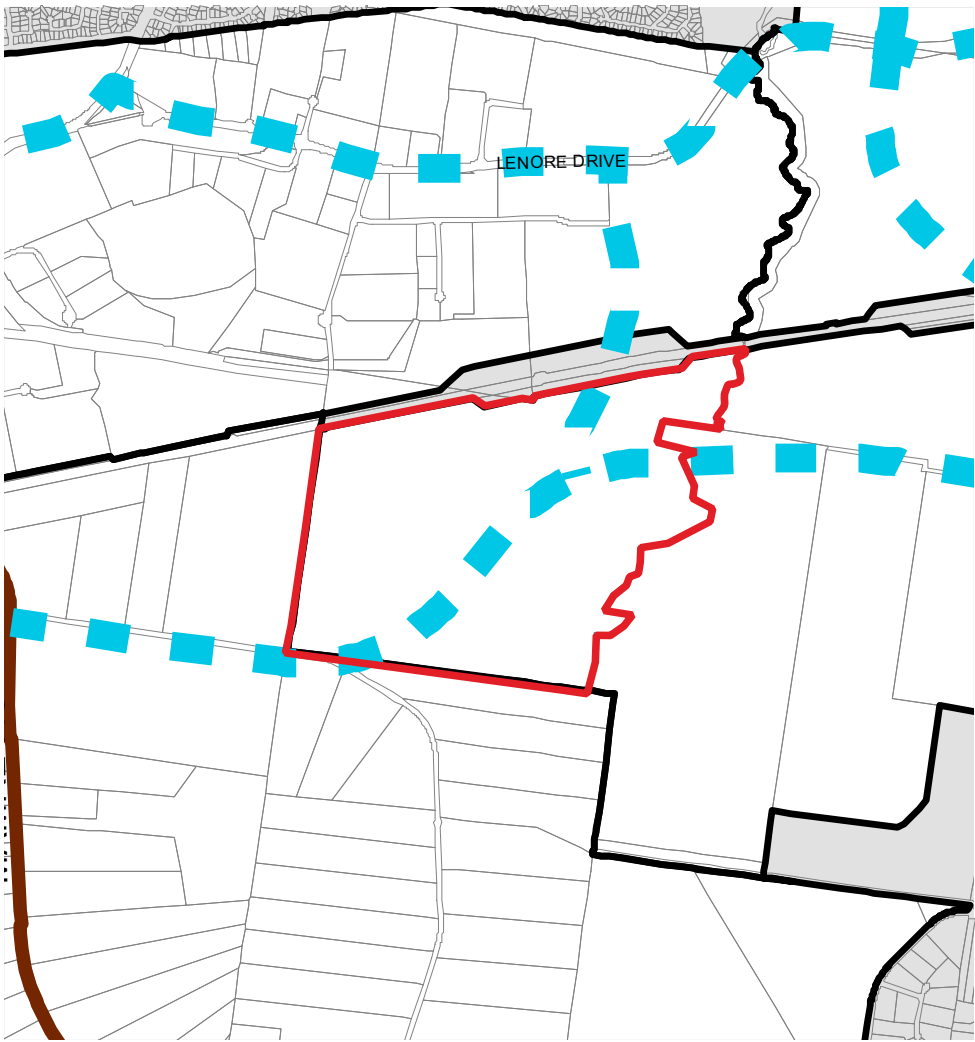
The SLR forms the primary east-west estate road for the Site. The WNSLR would provide the primary access for the Site, linking to Lenore Drive approximately 1.3km to the north of the site. The construction of the WNSLR would require a bridge over the Sydney Water pipeline and consultation has been undertaken with SCA in this regard.

Land Zoning

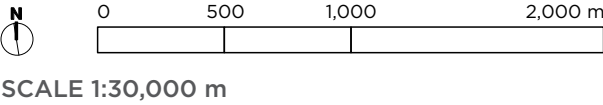
The WSEA SEPP Also defines the land use zoning for the site, with IN1 - General Industry and E2 - Environmental Conservation the two relevant zones controlling development.



Land Zoning



Transport and Arterial Road Infrastructure Plan



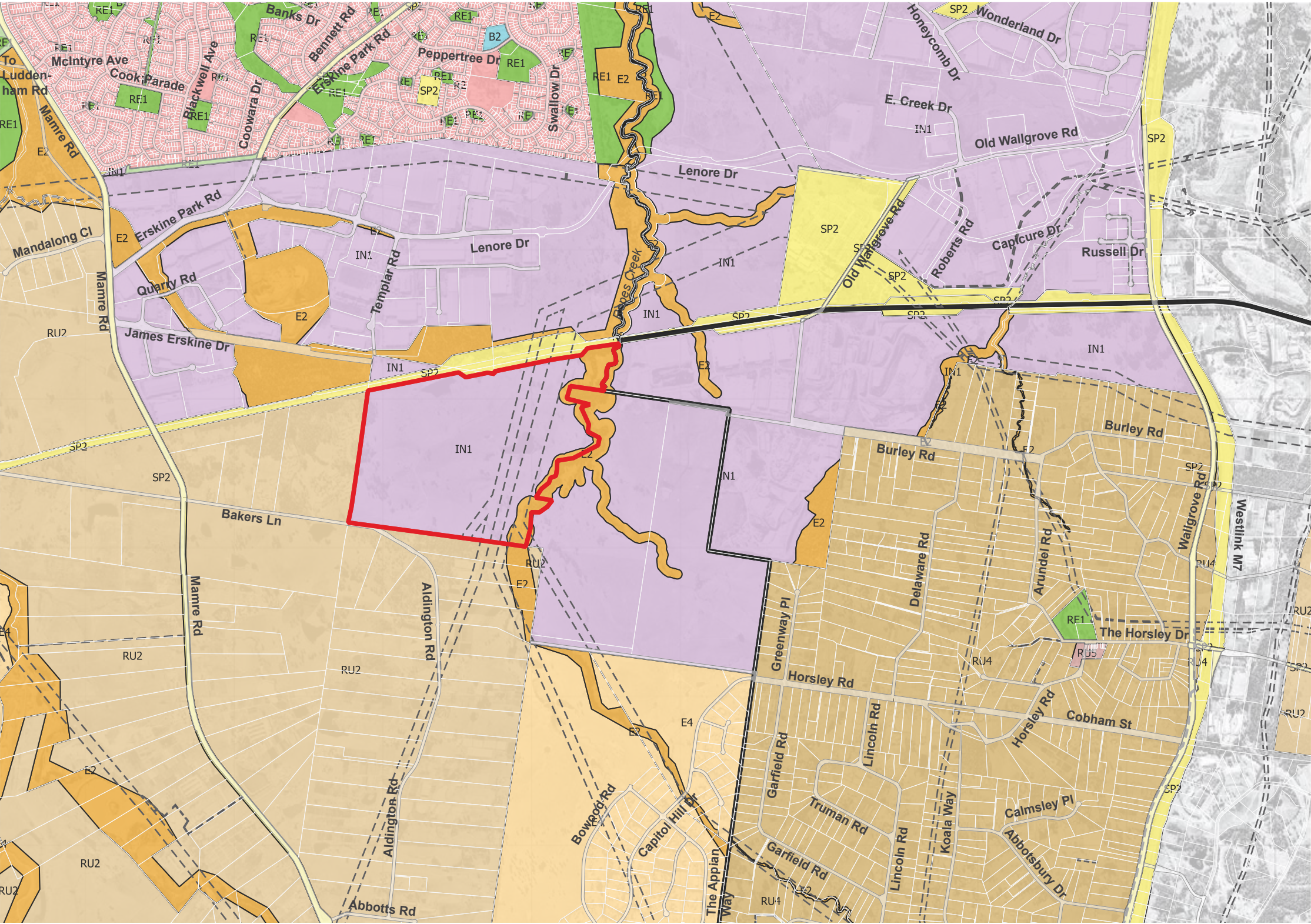
Local Environmental Plan - Land Use Zoning

LAND USE ZONING

The adjacent diagram shows the existing zoning around the Oakdale West Site, as a composite of the Local Environmental Planning Maps for the relevant Local Government Areas, this being Penrith and the Penrith Local Environmental Plan 2014.

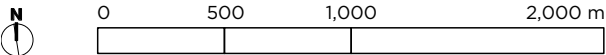
Land use on the Site is Governed by the State Environmental Planning Policy (Western Sydney Employment Area) 2009, and zoned IN1 (General Industrial).

The lands to the south and west are currently zoned RU2 (Rural Landscape), with other land around the site a mix of zoning including E2 (Environmental Conservation), E4 (Environmental Living), RU2 (Rural Landscape) and RU4 (Primary Production Small Lots).



LEGEND

- The Site
- General Industrial
- Rural Landscape
- Environmental Living
- Primary Production Small Lots
- Environmental Conservation
- Low Density Residential
- Public Recreation
- Local Centre
- Village
- Infrastructure
- Transgrid Easement



SCALE 1:30,000 m

Land Use Zoning Map

3.0 SITE CONTEXT AND ANALYSIS

Land Form and Topography

TOPOGRAPHY

The site generally falls from south to north and east to west. There is a long ridge that runs through the middle portion of the site on a north south alignment, with several spurs coming off it to the east and west. The Ridge has a high point at RL. 92 close to the southern boundary.

The fall along the eastern boundary is less pronounced falling from RL. 64 in the north to RL. 60 in the south.

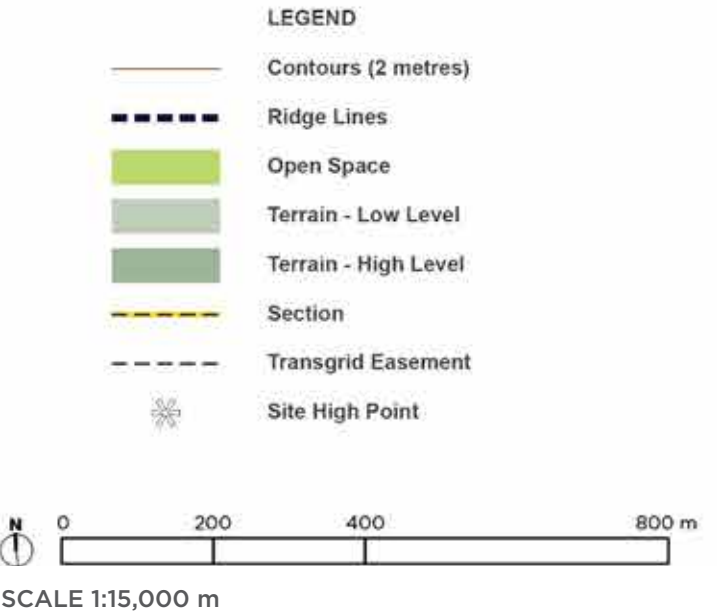
- 1

Section 1 - Existing surface level
- 2

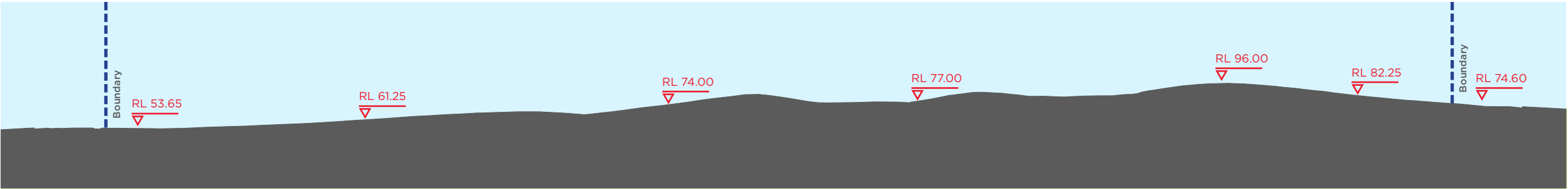
Section 2 - Existing surface level
- 3

Section 3 - Existing surface level
- 4

Section 4 - Existing surface level

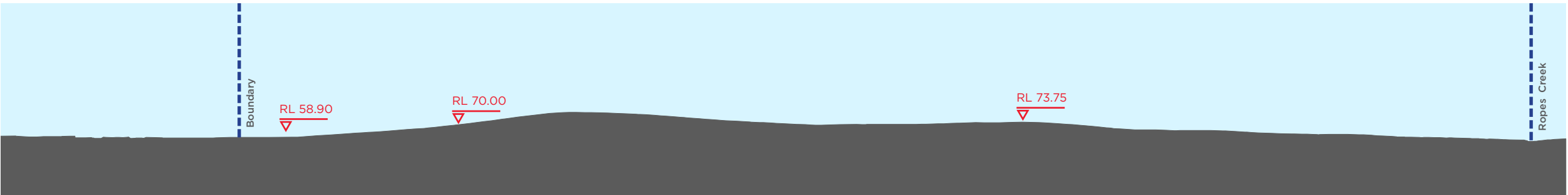


Site Sections



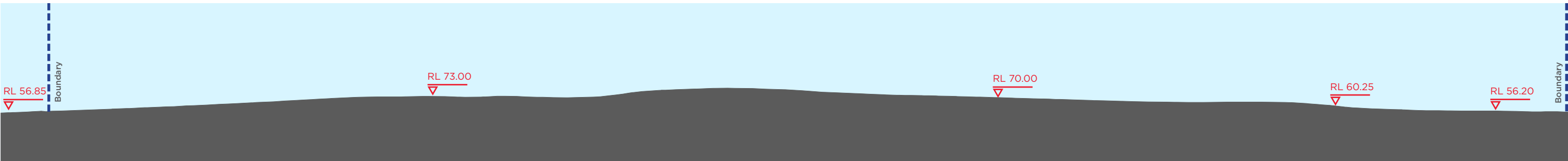
SITE SECTION 1 - EXISTING SITUATION

SCALE 1:4,000 m



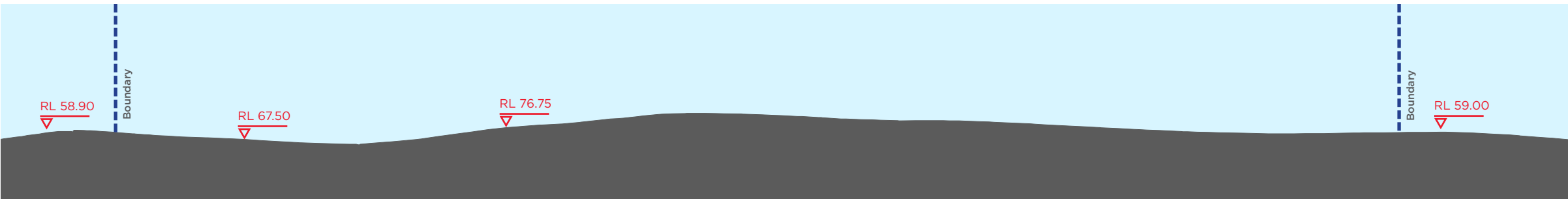
SITE SECTION 2 - EXISTING SITUATION

SCALE 1:4,000 m



SITE SECTION 3 - EXISTING SITUATION

SCALE 1:4,000 m



SITE SECTION 4 - EXISTING SITUATION

SCALE 1:4,000 m

Existing Site Sections

Natural Features

Water, Creeks and Flood Zones

The site is located within the Hawkesbury Nepean catchment. A flood study has been undertaken and potential development will need to respond to the flood plain characteristics in order to minimise any influence on the flood plain.

Ropes Creek runs in a north-south direction along the site's eastern boundary. Riparian zones have been established for the water courses and are shown in the adjacent diagram.

Riparian Zones

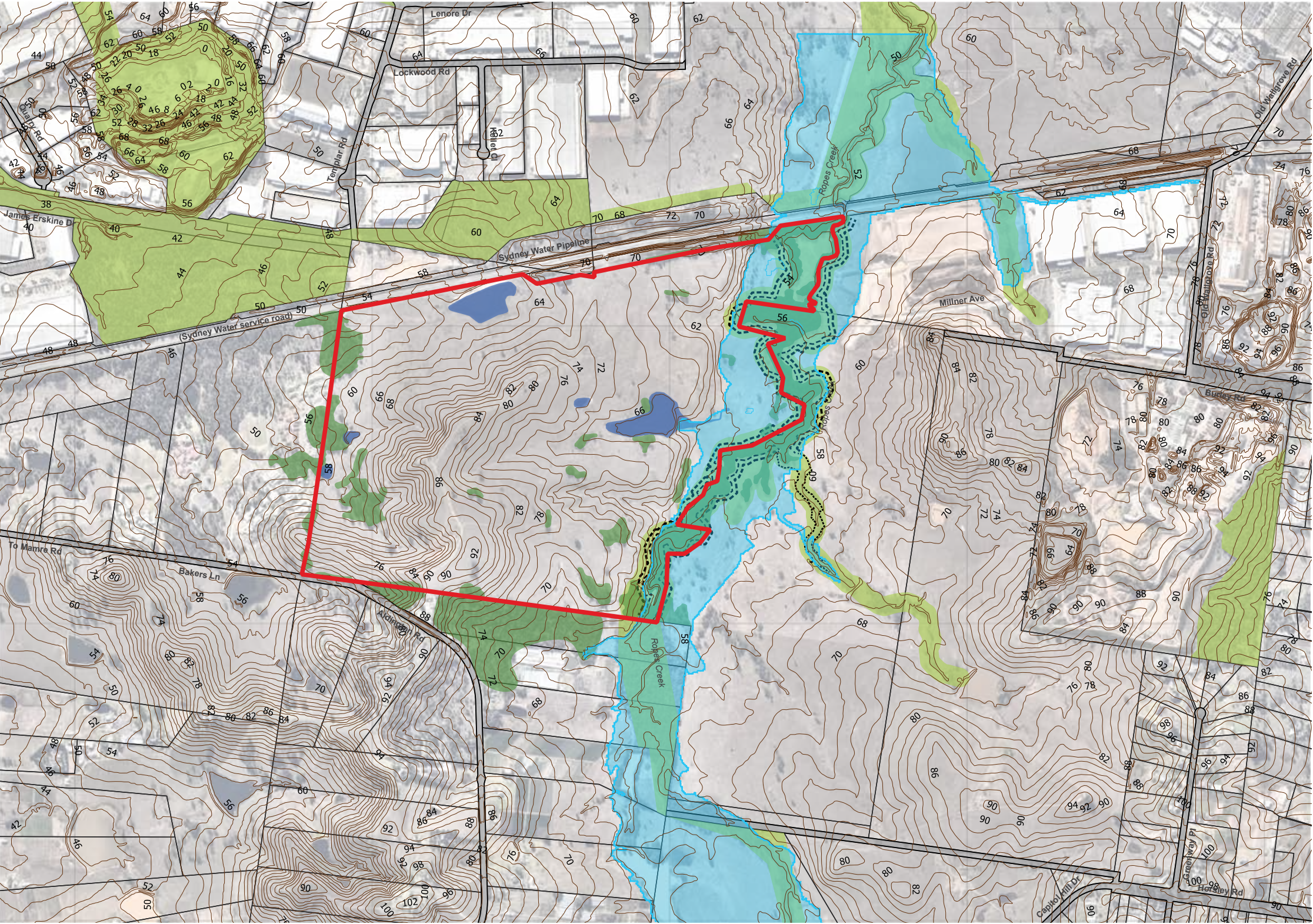
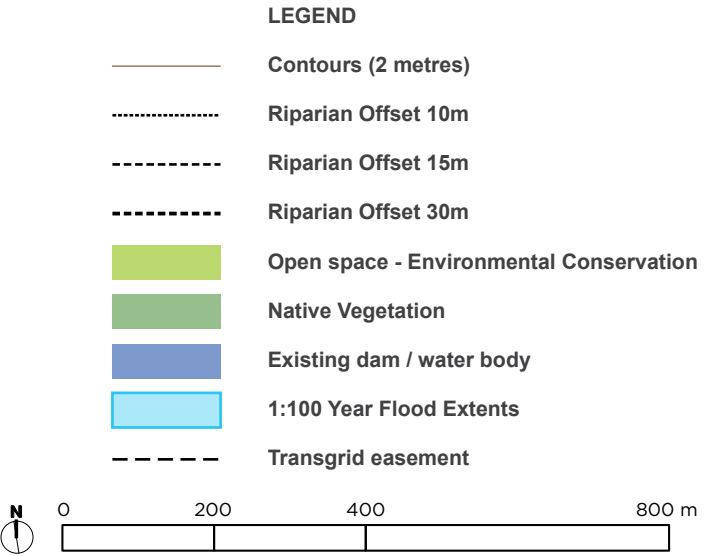
Riparian corridor stream orders for the Oakdale West precinct were defined in accordance with NSW Office of Water (NOW) 'Guidelines for riparian corridors on waterfront land (July 2012)' and in consultation with NOW, with the following findings (AECOM, August 2015):

Ropes Creek is a 3rd order watercourse requiring a 30m vegetated riparian zone either side of the channel.

Flora and Fauna

The site is currently comprised of exotic species of low diversity and native grasses. Higher diversity plant species exist along Ropes Creek where biodiversity is proposed to be retained and enhanced through on-going management strategies.

Areas of mature vegetation as also present along the sites western boundary, which should be retained and enhanced.



Natural Features

Heritage and Views

Heritage and Archaeology

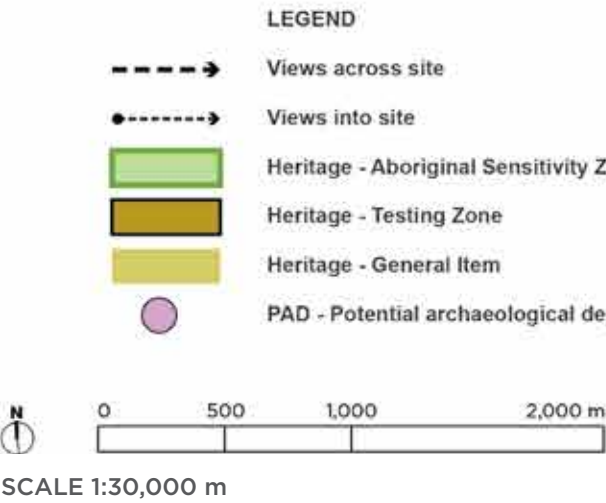
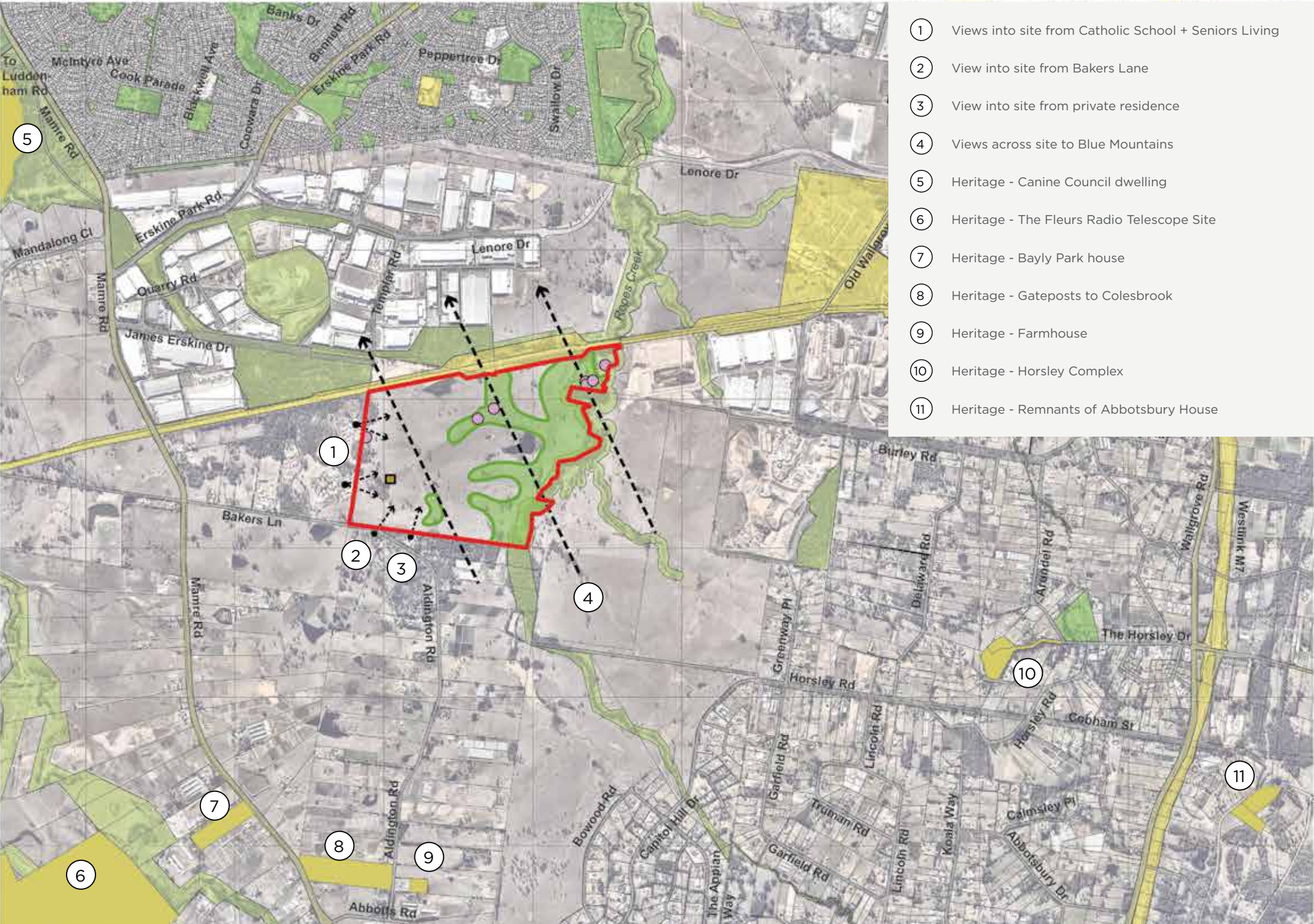
Aboriginal and non-indigenous heritage objects/sites that have been identified on the site are shown on the adjacent diagram. Archaeological assessment indicates that the land is unlikely to have been subject to a level of intensive Aboriginal visitation reducing the likelihood of substantial on-site archaeological deposits.

Local Views

The potential for views into The Site are greatest on the western boundary. While these is extensive mature vegetation along this boundary, breaks in the vegetation and the varied topography create potential for views in to The Site from two main locations.

There are two areas to the south of the site where views into the site are possible. The first is on the boundary with Bakers Lane, and the second is from a high point overlooking the site form an adjacent private residential property. For the remainder of the southern boundary the presence of mature vegetation restricts views into the site.

From locations to the south and east of The Site the existing land form and vegetation patterns restrict views into the site. From these areas the view across the site to the Blue Mountains is a prominent feature.



Heritage and Views Diagram

Photos Local Context and Site

SURROUNDING CONTEXT

The photos on this page provide an indication of the local character and context around the site where there is a mix of employment, agricultural and rural development along with significant infrastructure installations and areas with important ecological value.



Existing infrastructure corridor



Oakdale Central Estate - typical street



Existing industrial development



Existing Dam adjacent to Bakers lane



View of Bakers Lane looking east



Existing residence on Bakers Lane



View along Bakers Lane looking west



Emmaus Catholic College Entrance



View towards the Site looking east

THE OAKDALE WEST ESTATE SITE

The panoramic photos on the following pages present selected views from within The Site and the relationship of the boundaries of the site to the immediate and general context.

KEY



Site Photo Location Key Plan

SCALE 1:22,500 m



View 1 - The former farm house



View 2 - towards the north west

KEY



Site Photo Location Key Plan

SCALE 1:22,500 m



View 3 - From the ridge line towards the neighbouring property on Bakers Lane



View 4 - view from the ridge-line towards the Blue Mountains



View 5 - View north from the center of the Site

KEY



Site Photo Location Key Plan

SCALE 1:22,500 m



View 6



View 7

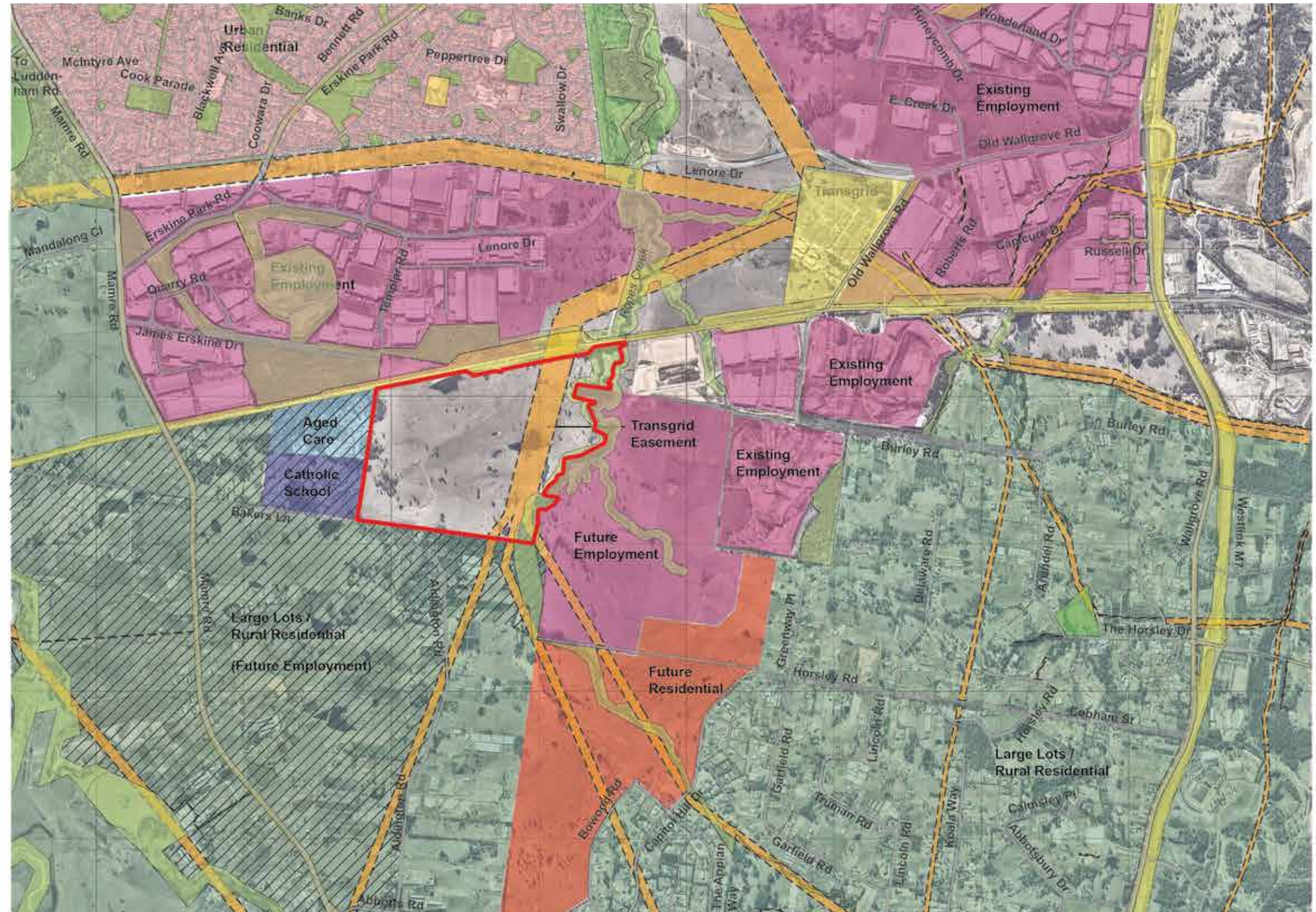
Surrounding Land Use Pattern

AN AREA IN TRANSITION

The adjacent diagram identifies the existing land use in relation to The Site.

Significantly the Oakdale West has the potential to link established employment areas to the north with the emerging employment lands south of the Sydney Water Pipeline.

Significant areas of land to the west of the site have been identified as future employment areas.



SCALE 1:30,000 m

Surrounding Land Use Pattern

Transport and Access

LOCAL ROAD NETWORK

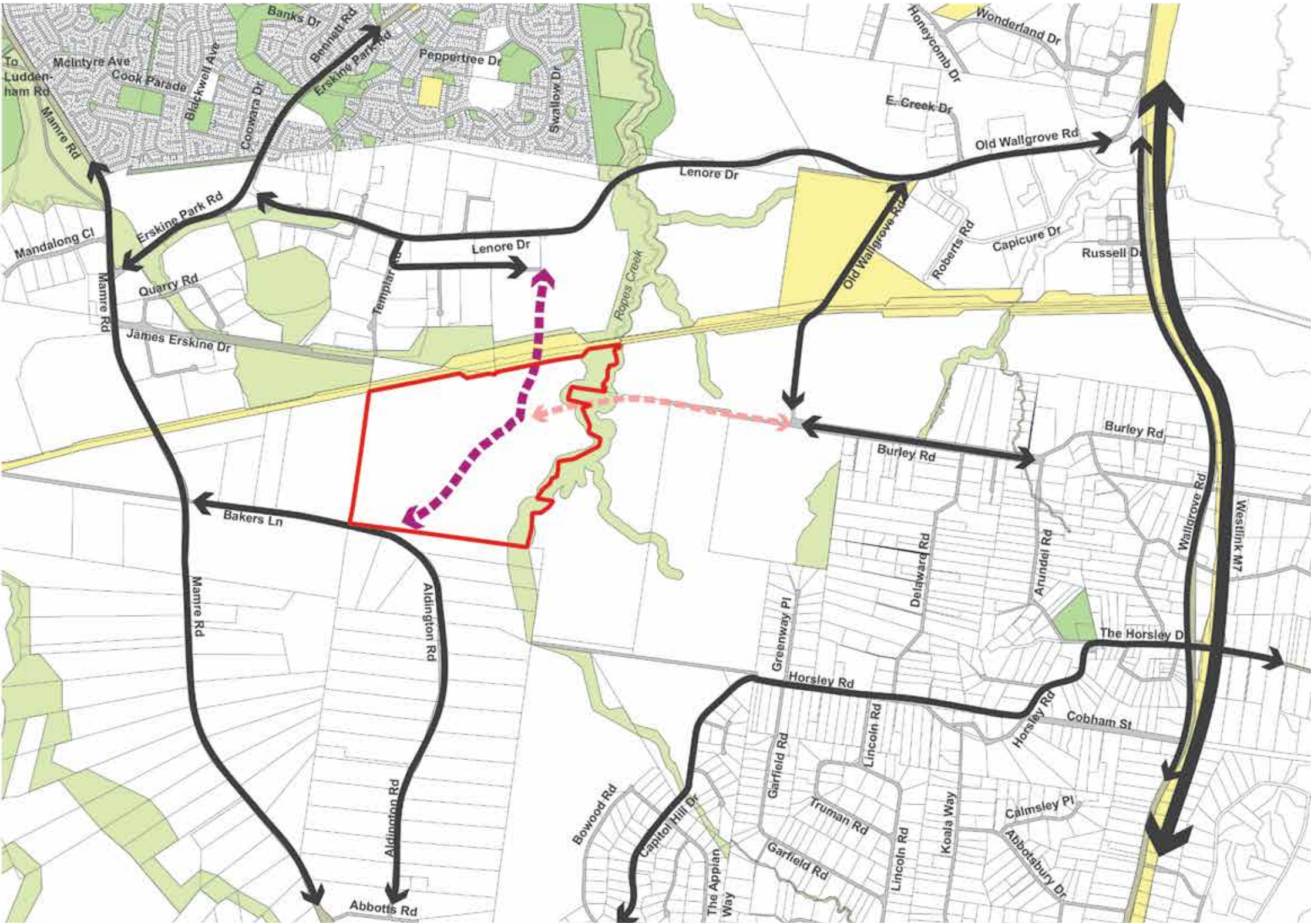
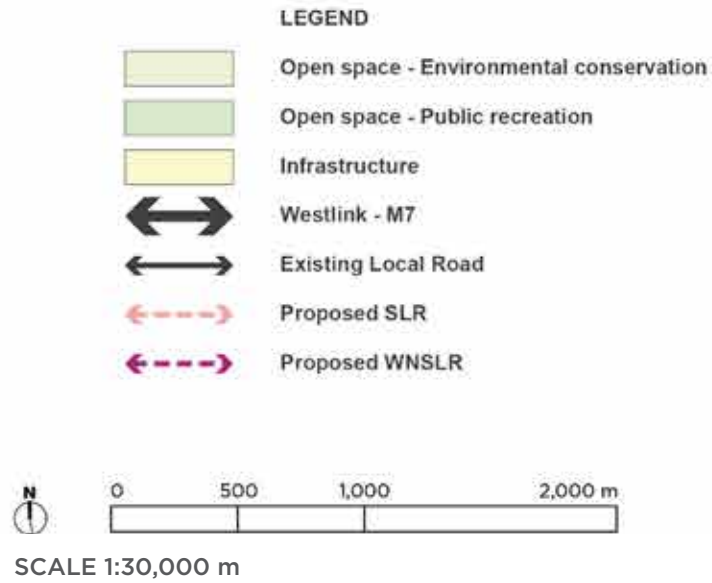
Roads and Traffic

The local road network consists of regional motorway links, local connector roads and access streets. The Site currently has a single road frontage to Bakers Lane, the WSEA SEPP identifies two new significant roads (WNSLR and the SLR) that will increase access to the Site and cross precinct connectivity.

The opportunities this new infrastructure presents is summarised below:

- New primary access to the Site would be via connection to the approved WNSLR which will run from Lenore Drive through the site to the future SLR.
- The proposed future SLR will run through the Site east to west, forming a new intersection with the WNSLR. The future alignment will be determined buy the master plan for the site.

The Roads and Maritime Service (RMS) has set out requirements for intersection spacing along the WNSLR and SLR, with a minimum spacing of 500 metres between each intersection.



LOCAL road network

Infrastructure and Services

INFRASTRUCTURE AND SERVICES

Pre-existing infrastructure and services in the vicinity of the site are shown on the adjacent diagram and include:

Power

High voltage overhead transmission lines and easements bisect the site running parallel to Ropes Creek. Integral Energy has indicated that a new zone sub-station will be required to service the full Oakdale Estate.

Gas

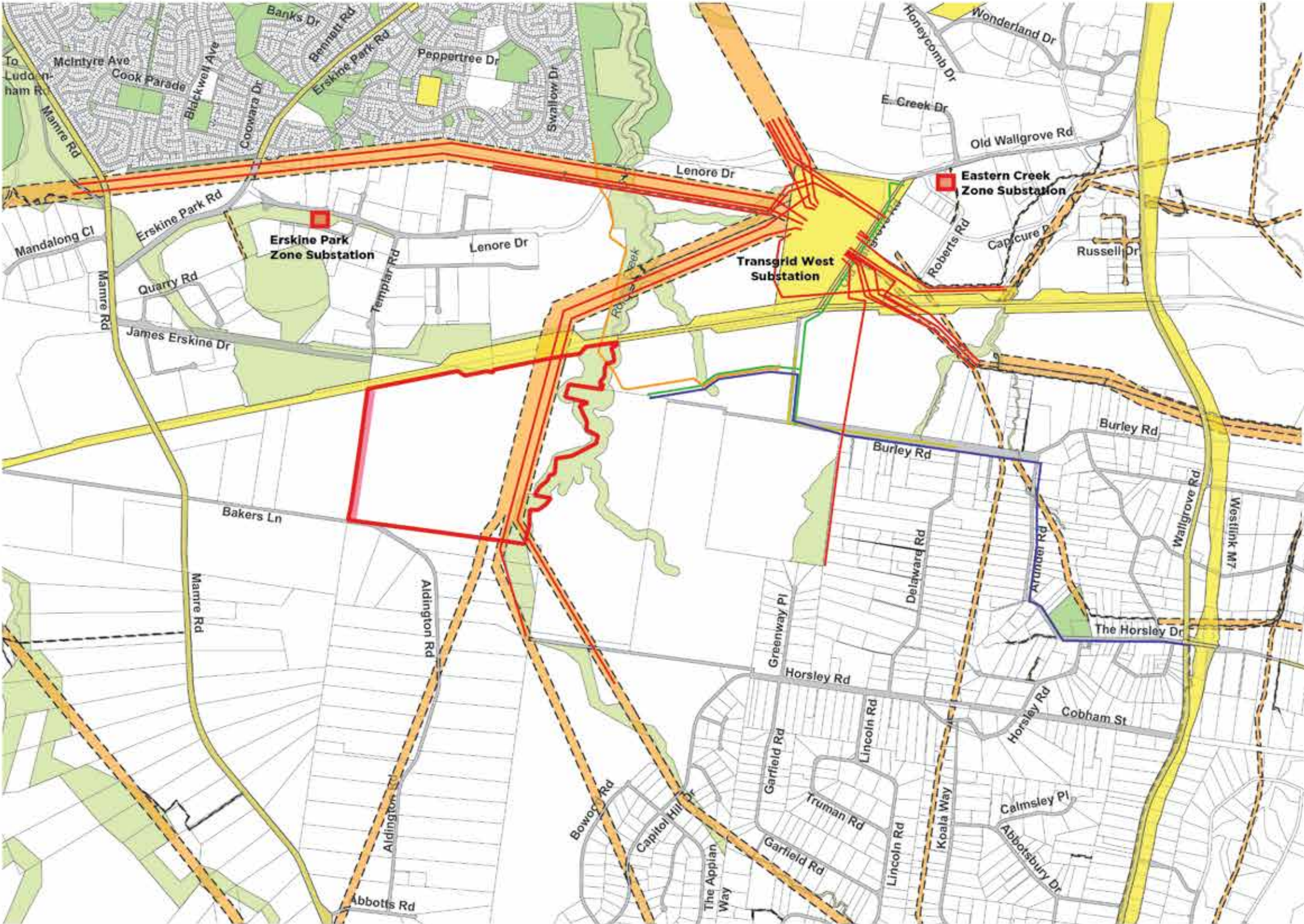
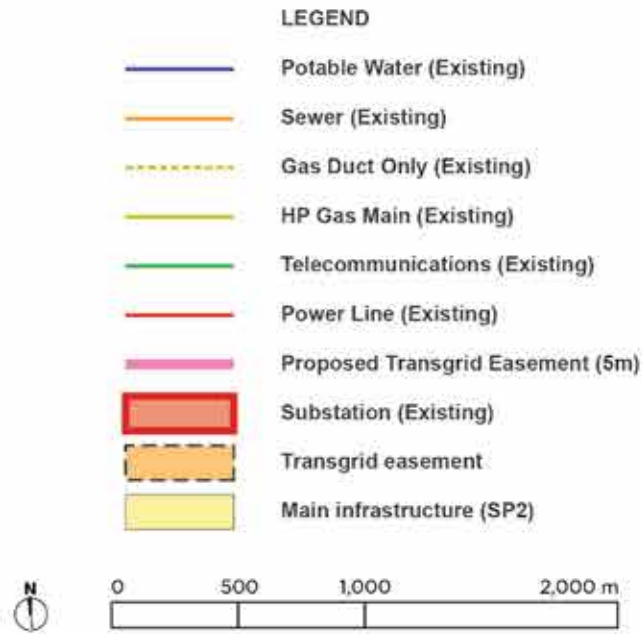
Gas services are available from Old Wallgrove Road to the East and from Bakers Road to the West.

Telecommunications – Services are available from Old Wallgrove Road to the East and from Bakers Road to the West.

Potable water

Water is available in Burley Road to the east and Bakers Lane to the south-west, the site-wide regional system would require augmentation to service the Oakdale West development due to capacity constraints.

Sewer – The land is not serviced by sewerage infrastructure and the regional system would require major augmentation to service the Oakdale West land. Accordingly, an innovative self-contained system is proposed to service the land.



Infrastructure and services

Edges and Interfaces

SITE INTERFACES

North

The site is bounded to the North by the existing Sydney Water Pipeline and industrial development.

South

It is bounded to the south by farmland and suburban development. A single residential property is located on this boundary. The property is access off Bakers Lane and consists of a main house and associated granny flat approximately 20 metres from the shared boundary.

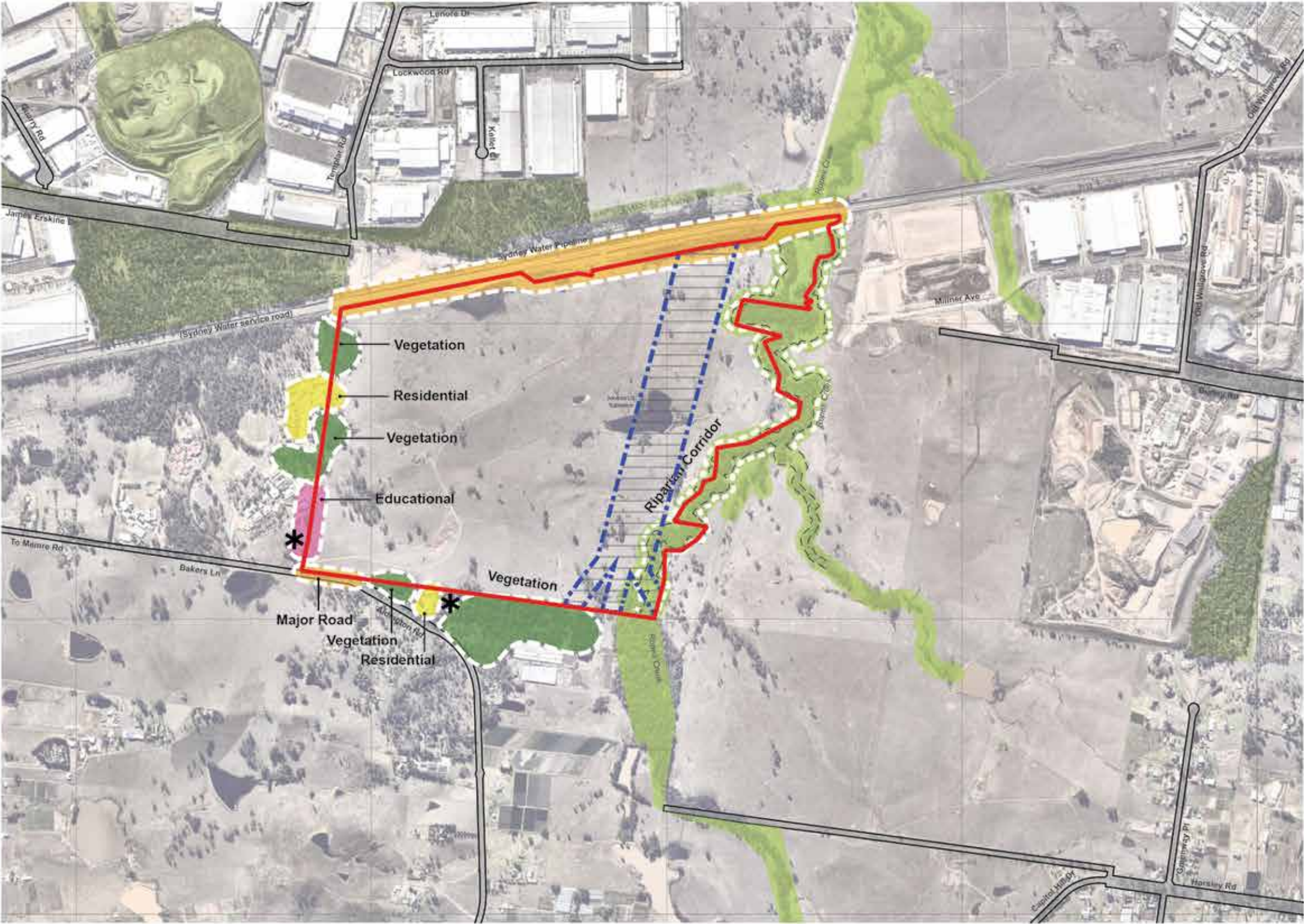
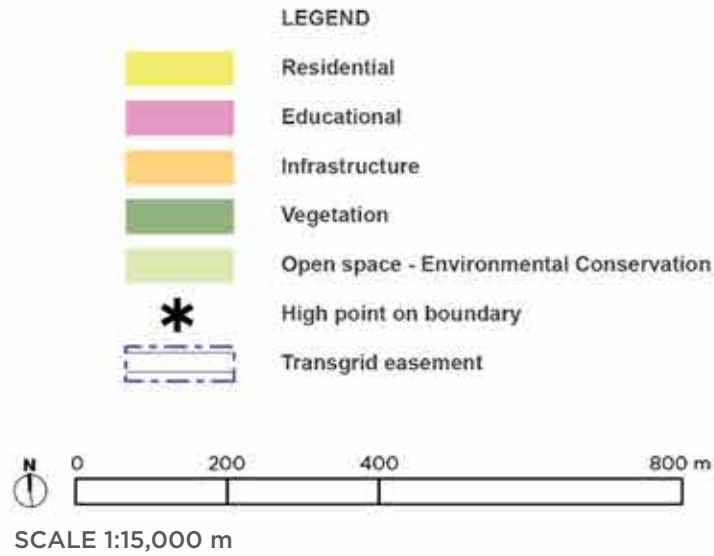
East

To the east it is bounded by Ropes Creek and Oakdale South Estate and to the west by Emmaus Catholic College & Seniors Living development.

A spur from the main north south ridge line within the site intersects the boundary with Emmaus Catholic College. The main building of the college are approximately 45 degrees off north and are sited at approximately RL. 50 to RL. 58.

West

Ropes Creek to the east is a creek and associated riparian area. The creek corridor has numerous mature tress and established ground cover.



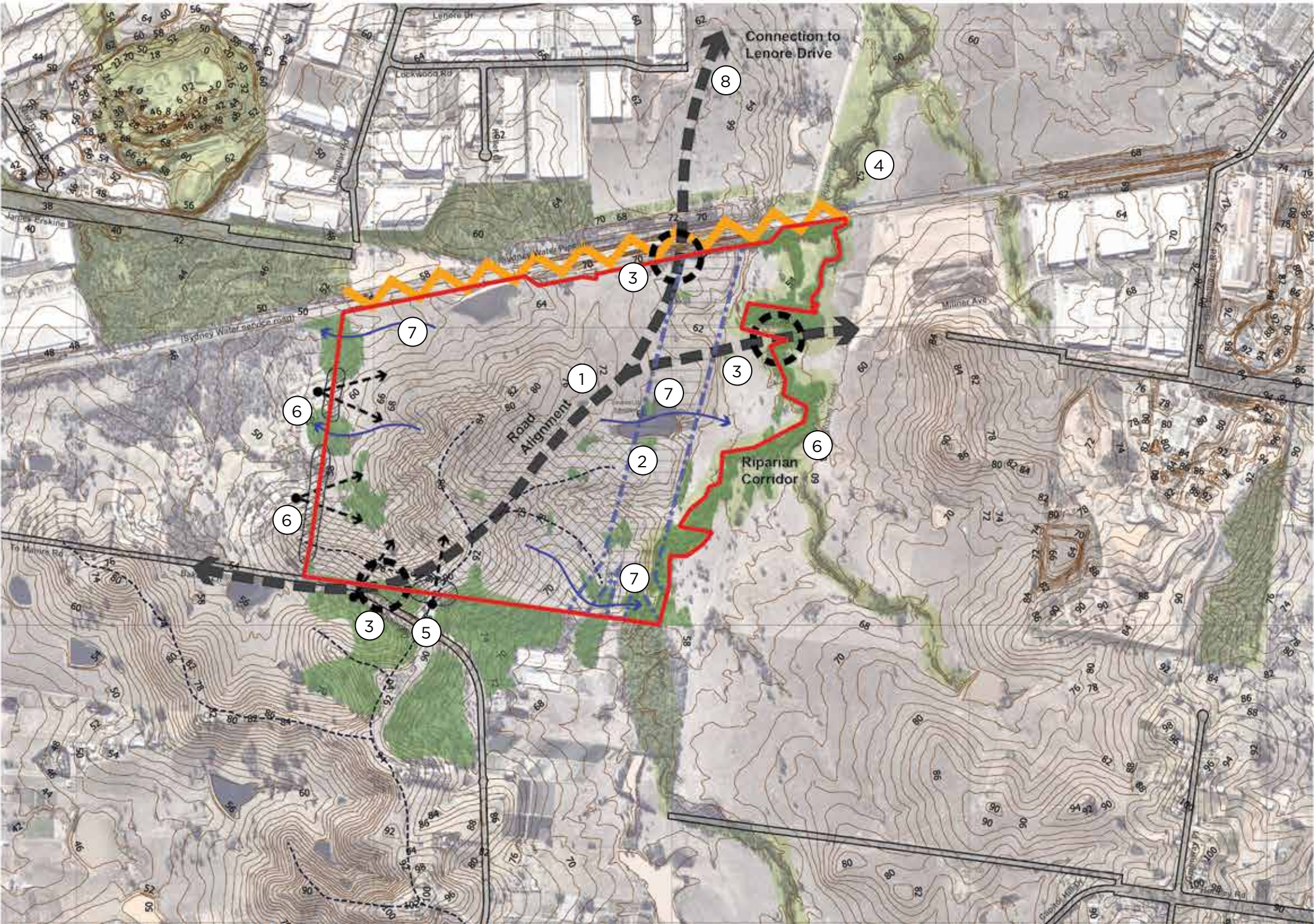
Site interfaces

Spatial Design Drivers

SITE ORGANISATION AND PLANNING

The following key considerations should inform the development of the Master Plan for the Oakdale West Estate:

- ① The Western North South Link Road and Southern Link Road alignment and required intersection separation distances
- ② Restrictions on development within the Ausgrid Easement
- ③ Site access and arrival points
- ④ Ropes Creek riparian corridor
- ⑤ Retention of views across the site from the neighbouring residential property on Bakers Lane
- ⑥ Creation of a suitable landscape interface to Emmaus Catholic College and Residential Aged Care Village
- ⑦ Retaining the existing stormwater system
- ⑧ Connection to Lenore Drive



Spatial Design Drivers

4.0 DEVELOPMENT OBJECTIVES AND OPTIONS

Design Principles and Objectives

The key Master Plan Principles have been developed according to four themes:

- Land Use Integration
- Landscape And Public Domain
- Built Form
- Place Making And Working Environment

The Principles have informed the spatial planning for the site and will contribute toward the detailed design in later stages.

Land Use Integration

- Provide flexible large scale development lots to suit a range of uses.
- Provide a rational, efficient road access system which is integrated with the future regional road network.
- Maximise functional use of the land for employment generation development.
- Provide land for a future zone substation in the location required by Endeavour Energy based on demand modelling.
- Estate divided into distinct development ‘Precincts’ to allow for flexibility in the detailed design and staging of development to respond to market demand.
- Provide landscape setbacks and buffers at interfaces with existing developments on the Site boundary.

Landscape And Public Domain

- Respect existing water ways and environmentally sensitive land.
- Provide a high quality built form integrated with the landscape design.
- Subdivision to respond to the needs and requirements of relevant roads and drainage authorities for future dedication and management.
- Stormwater management for the The Site designed in accordance with Penrith Council requirements and WSUD principles.
- Management of riparian lands on the site.
- Landscaped nodes along estate roads providing publicly accessible open space.
- Open space along riparian corridor and around detention basins not publicly accessible.
- Use landscape to mitigate potential visual impacts on neighbouring properties.

Built Form

- The design of the built form is based on the following objectives.
- To foster a cohesive estate identity as a place of recognised class leading design in industrial/ distribution facilities.
- To promote the integration of the built form/ urban framework with a layered and detailed landscape master plan to encourage integration with the existing natural site features, reinforce the estate identity and provide a healthy, pleasant environment for the working population on the site.
- To allow for careful scaling and subtle variety in the design of buildings to reflect a natural pattern of urban development and flexibility across the estate as it is occupied, within a controlled and coherent overall design language.
- The objectives above have been achieved through implementation of the following urban design strategies.
- Create a strong master plan using key entries, intersections (nodes) and axes as organisation and place-making devices.

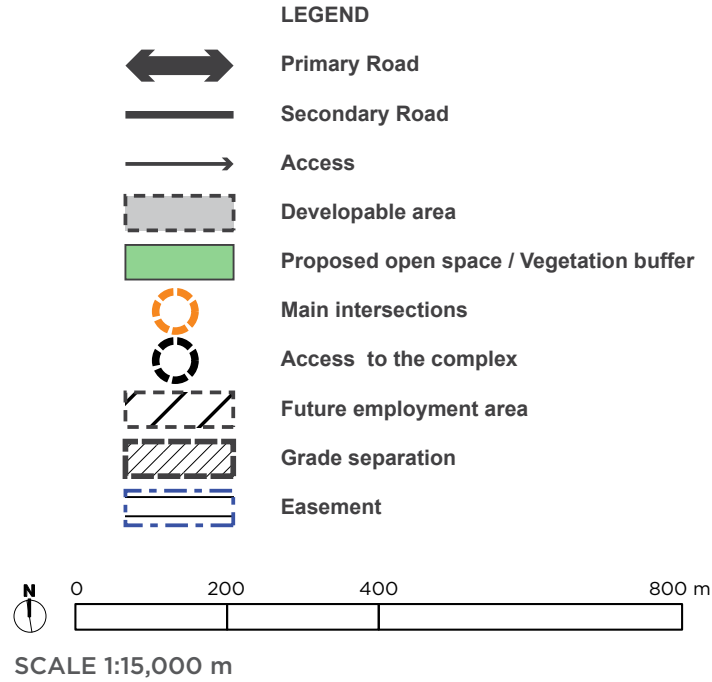
Place Making And Working Environment

- Create a pleasant working environment.
- Cluster building address points to promote social interactions.
- Promote legibility through well designed signage and way-finding.
- Ensure good identification of office building entries from streets
- Termination of views and vistas with active office frontages.
- Creation of active urban axes to form a ‘campus’ of office activity to each precinct which creates a commercial centre or ‘hub’ for each precinct.
- Promotion of a range of distinct characters or identities through the use of different materials and colours in each precinct.

Preferred Structure Plan

KEY FEATURES

- Key Features include:
- The WNSLR and SLR as the principle site organisational element connecting the established employment area to the north with the emerging employment zone centred around Oakdale South and Oakdale West.
 - Estate entry points which are dictated by WNSLR and SLR intersection spacing in accordance with the SLR Concept design.
 - Landscape Buffer zones to the south, east and west boundaries to assist in the mitigation of potential impacts.
 - A series of flexible development zones for new buildings with common access points and street edge address points.
 - Development free areas within the Transgrid easement and Ropes Creek riparian corridor.



Preferred Structure Plan

Design Options Assessment

OPTIONS ASSESSMENT MATRIX

Several options for the master plan were investigated in preparation of the final proposal. The following table summarises the main 3 options that were considered:

MASTER PLAN OPTION 1 - ESTATE CUL-DE-SAC ROADS



MASTER PLAN OPTION 2 - ESTATE RING ROAD



MASTER PLAN OPTION 3 - PERMEABLE NETWORK



PROS

- | | | |
|---|---|---|
| <ul style="list-style-type: none">- Direct efficient access with possible large lot designs- Efficient road design | <ul style="list-style-type: none">- Direct efficient access with only 2 main intersections with Proposed Southern Link Road- | <ul style="list-style-type: none">- Direct efficient access with large lot designs easily developed, Coordinated with Chandos Parkway- Better shaped development parcels- Ability to control western interface with landscape |
|---|---|---|

CONS

- | | | |
|--|---|---|
| <ul style="list-style-type: none">- Build up of traffic at intersections due to single point of entry and access- Buildings proximity to western boundary means there is less space for landscape interface | <ul style="list-style-type: none">- Residual parcels not easily developed with potential for more difficult shapes and smaller lots- Inefficient, single sided road layout on the east of the site- Buildings proximity to western boundary means there is less space for landscape interface | <ul style="list-style-type: none">- Minor re-alignment of water-way to provide flexible lot parcels |
|--|---|---|

5.0 INDICATIVE MASTER PLAN

The Master Plan

CONCEPT MASTER PLAN

Proposed Land Use

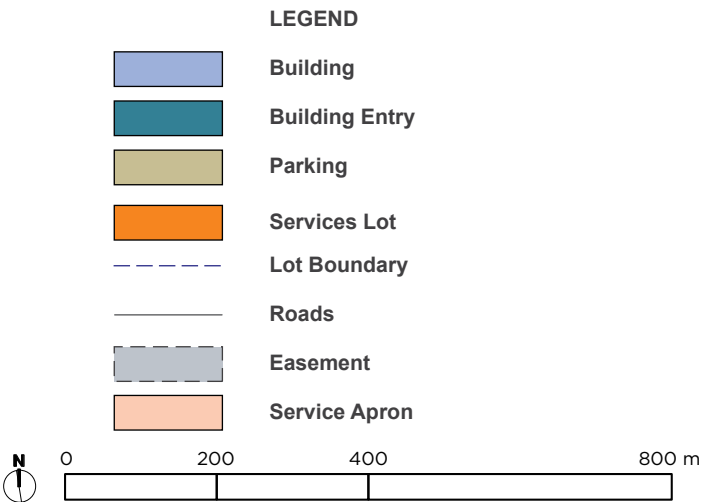
The design for Oakdale West incorporates 22 warehouse buildings of varying sizes and 22 offices. Associated services, ancillary functions and site environmental considerations are also integrated.

Design and Layout

The planning for Oakdale West has been undertaken to optimise the potential of the site to provide for employment floor space, while also addressing the particular site constraints and interfaces on the edges of the site.

Key features of the master plan include:

- A public domain network that breaks the site down into a series of discreet interconnected precincts.
- Significant landscape buffers on the western and southern edge of the site that incorporate native tree planting and stormwater management.
- New site access points to the south, north and east of the site.
- A range of street typologies that reflect the movement and access needs within the Site.



SCALE 1:10,000 m



The Master Plan

Key Development Controls

PROPOSED DESIGN CONTROLS AND STANDARDS

To ensure a blend of consistency with the wider industrial area already develop or planned by Goodman Group, while also understanding that a level of distinctiveness is important within large developments, draft design controls and standards have been developed or the Site.

Lot size

Objective

- Flexibility in lot sizes and dimensions required to accommodate a diversity of development typologies and configurations.
- Lot size and width must respond to contemporary industrial development standards and requirements and the needs of modern industrial operations.
- Lot size to provide sufficient area for unrestricted heavy vehicle access and manoeuvring, loading and car parking.
- Lot size and dimension to maximise efficiencies in the construction process.

Design Controls and Standards

- Minimum lot size: 5,000m2
- Minimum frontage (excluding cul-de-sacs): 40m
- Minimum lot width at building line: 35m

Site Coverage

Objective

- Development of the The Site needs to respond to the site's environmental constraints and attributes.
- Development of the The Site must preserve minimum standards of internal and external amenity.
- Amenity within industrial estates is becoming more important to industrial operators.
- Potential visual impacts of the The Site development on surrounding lands must be considered in the Concept Proposal design and planning process.

Design Controls and Standards

- Maximum site coverage: 65% (excluding awnings), unless it can be demonstrated that there would be no adverse impact on the estate and/or the amenity of adjoining properties.

Setbacks

Objective

- Development within the The Site must respond to required setbacks to regional roads.
- Road setbacks within the The Site must be sufficient to allow for services infrastructure (as required), pedestrian pathways (as required) and appropriate landscaping.
- Setbacks within the The Site to be consistent with those at Oakdale Central and Oakdale South for branding and efficiencies in the coordinated management of the estates.
- Side and rear setbacks to accommodate and/or respond to emergency vehicle access, asset protection zones, fire rating and BCA standards and amenity for adjoining landowners

Design Controls and Standards

- Minimum building setbacks for the OSE:
- Southern Link Road/WNSLR: 20m.
- Collector Road: 15m.
- Local Estate Roads: 7.5m.
- Western site boundary: 40m.
- Rear boundary: 5m.
- Side boundary setback: 0m (Subject to compliance with fire rating requirements.

Landscaping

Objective

- Landscaping to balance the need for amenity and functionality on the estate.
- Landscaping to communicate a consistent brand and identity with other Oakdale lands.
- Landscape treatments to provide appropriate transitions between public and private domain and between developable and non-developable lands on the site.

Design Controls and Standards

Minimum Landscaped Setbacks:

- Southern Link Road: Average of 20m depth along the site frontage. 20m setback/10m landscape
- Collector Road: 7.5m, or average of 50% of setback along the frontage.
- Local Estate Road: Average of 50% of setback along the frontage.
- Side boundary: No minimum requirement (except for western site boundary as described above).
- Rear boundary: 2.5m.

Car Parking

Objective

- Car parking rates to recognise the needs of modern warehousing operations and the unique characteristics of the WSEA and typical WSEA operations.
- Car parking rates to provide flexibility to respond to the demands of different operators that may locate on the site.

Design Controls and Standards

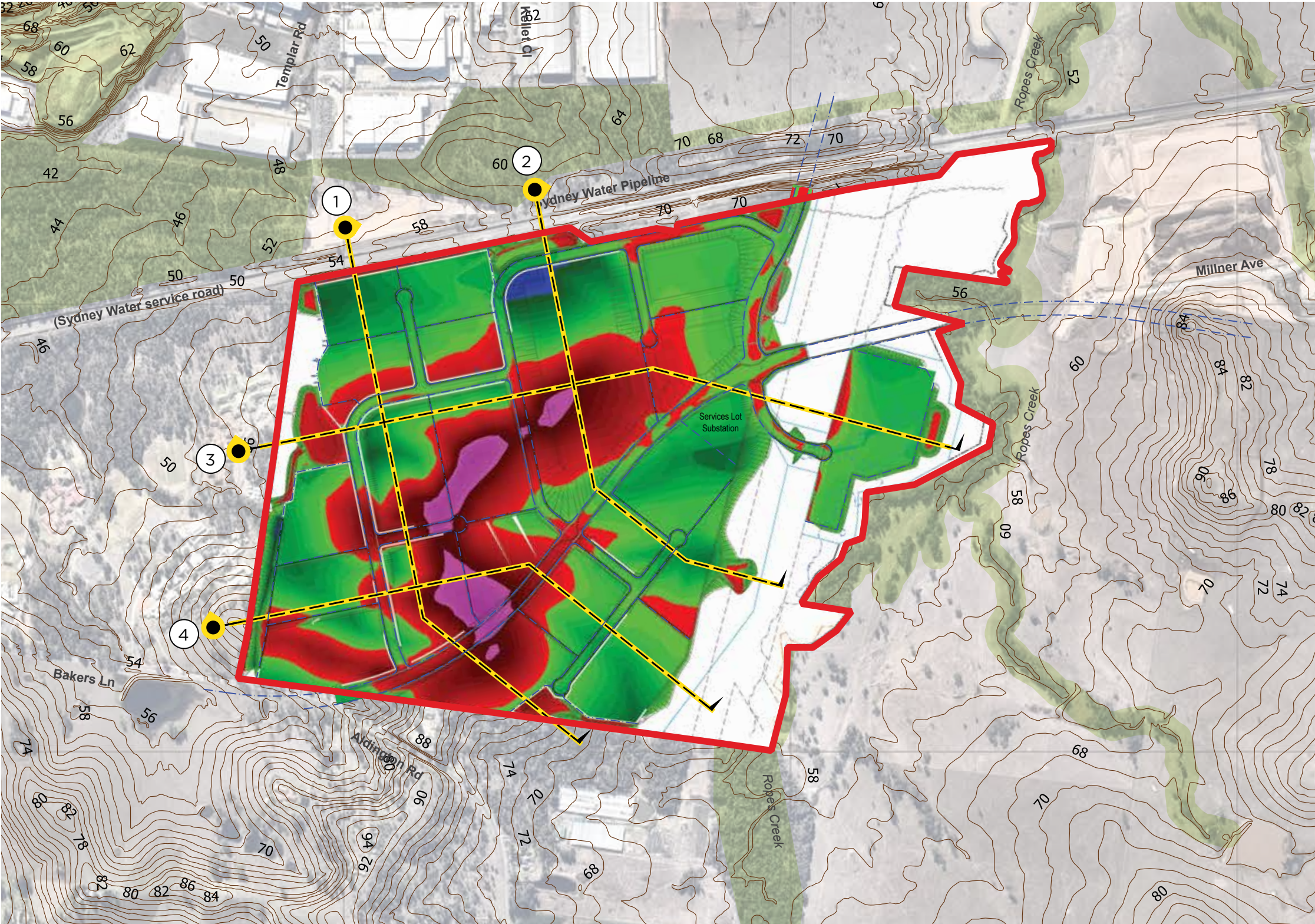
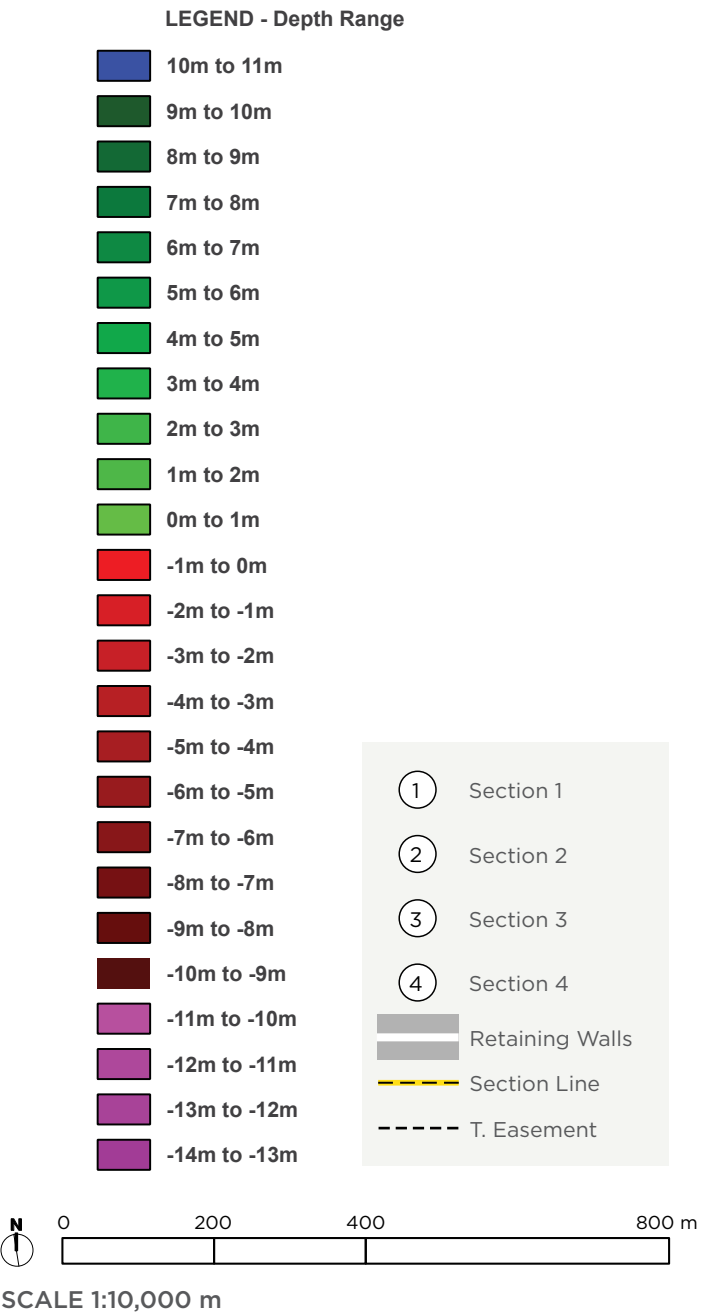
On-site car parking for the The Site to be provided at the following rates:

- Industrial and Light Industrial Uses: 1 space/75m2;
- Warehouses and Bulk Storage: 1 space/300m2;
- Office: 1 space/40m2 - unless otherwise justified in accordance with the DCP 2014.
- Development requiring more than 50 car parking spaces to provide a minimum of 2% of spaces as disabled parking.

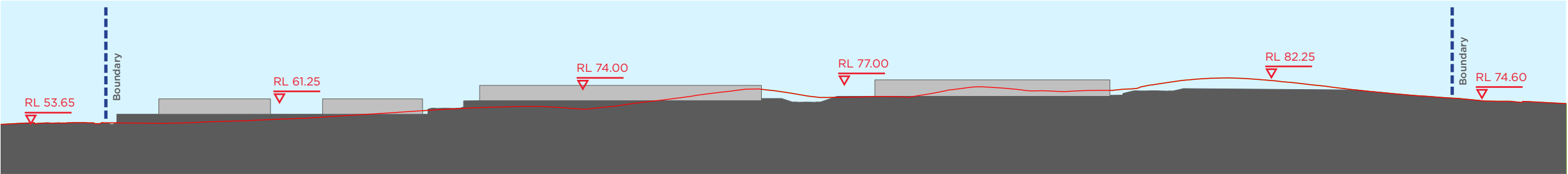
Key Master Plan Features

CIVIL ENGINEERING & EARTHWORKS

The development design is an integration of civil engineering, landscaping and architecture. The design strikes a balance between minimising impact on existing water ways, topography and features, and the need to create a functional master plan with appropriate lot sizes. Bulk earthworks would be undertaken across the site with existing level generally maintained on the site boundary .

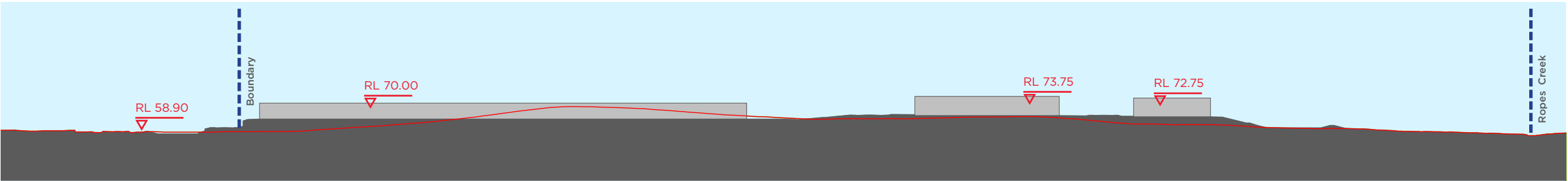


Earthworks



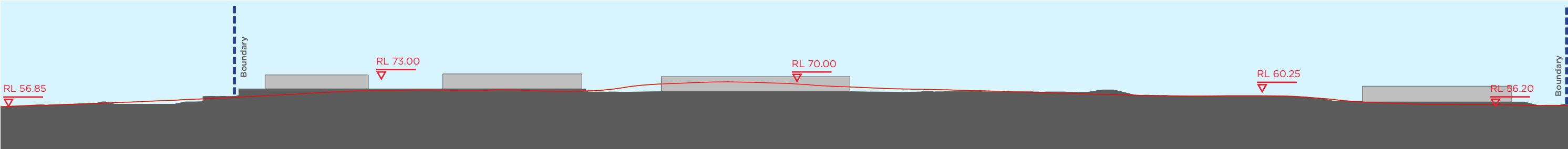
SITE SECTION 1 - PROPOSED SITUATION

SCALE 1:4,000 m



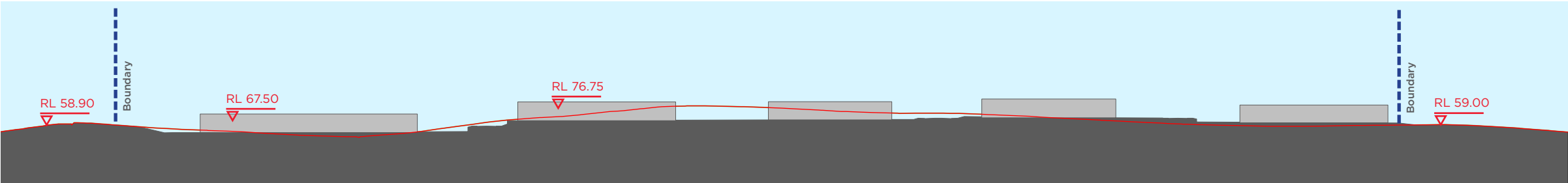
SITE SECTION 2 - PROPOSED SITUATION

SCALE 1:4,000 m



SITE SECTION 3 - PROPOSED SITUATION

SCALE 1:4,000 m



SITE SECTION 4 - PROPOSED SITUATION

SCALE 1:4,000 m

Proposed sections