

VICTORIA INLAND RAIL

URBAN DESIGN FRAMEWORK

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01

Introduction

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Introduction

Inland Rail Project Summary

The Inland Rail Project is a vital part of Australia's national freight network which will cover 1715km of existing and new rail track connecting Brisbane and Melbourne via regional Queensland, New South Wales and Victoria. Its purpose is to provide for faster and more reliable freight movement within Australia and beyond to global markets.

The project also aims to reduce congestion within intersecting roads, allowing them to be safer, as well reducing carbon emissions therefore providing a positive impact upon the environment.






Once completed, it will provide a consistent standard rail gauge connection from Brisbane to Melbourne that accommodates 1800-metre-long trains with double stacked containers to travel its entire length.

The project has committed funding which the Australian Government has provided to the Australian Rail Track Corporation (ARTC) to build in partnership with the private sector.

The overall task is divided into 13 individual projects, with seven in New South Wales, five in Queensland, and one in Victoria.

This Victorian project is known as Inland Rail - Beveridge to Albury.

LEGEND

-  Major City
-  Town/Rural City
-  T2A rail alignment
-  Inland Rail alignment
-  State Boundary

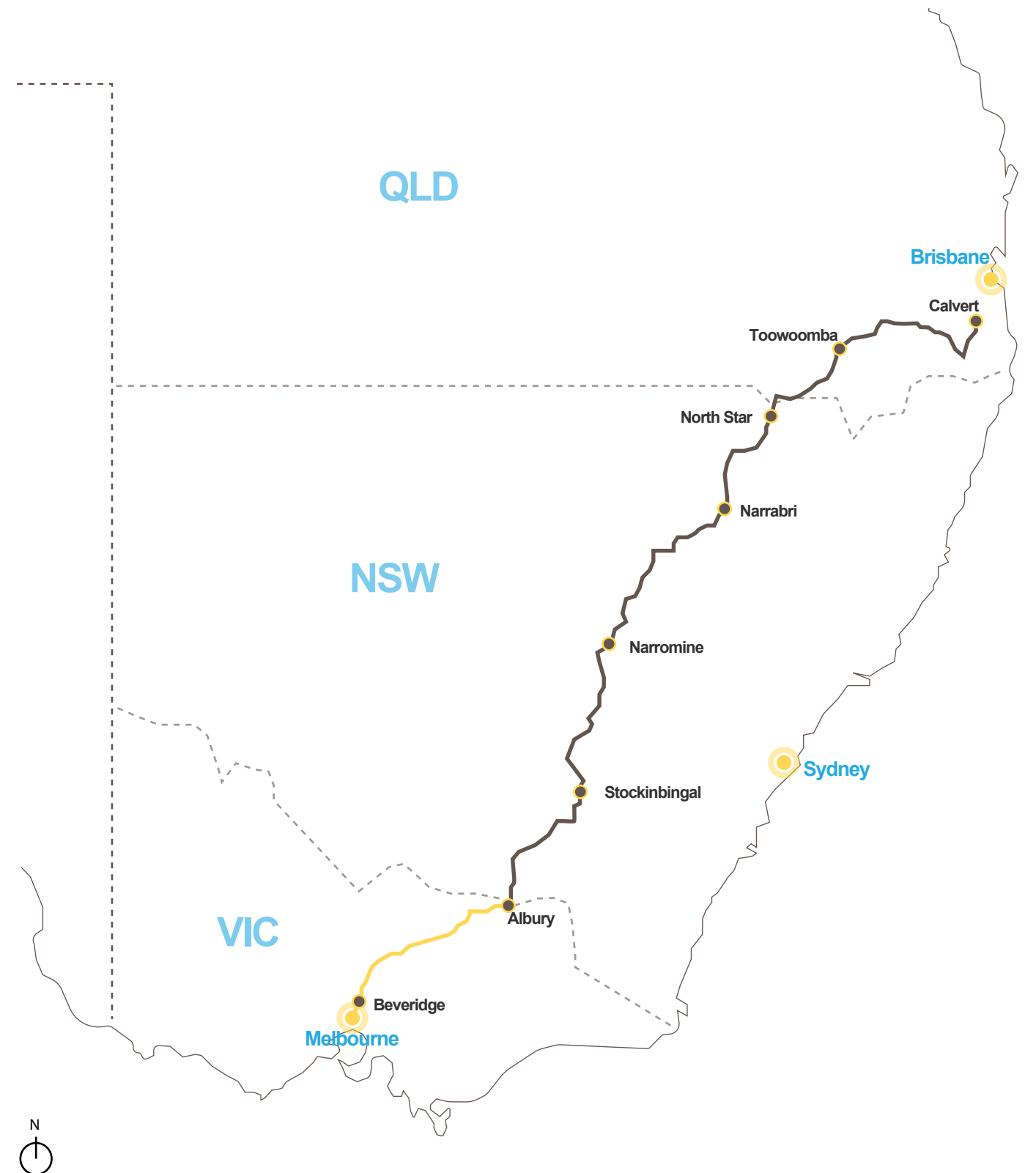


Figure 1 : Project Summary Map

Inland Rail - Beveridge to Albury and Urban Design

Inland Rail - Beveridge to Albury is predominantly a rail infrastructure project which will realign sections of existing rail track and signalling, some of which will be visually negligible. It will, however, also require changes to parts of the rail corridor that lie within towns along the route and necessitate the replacement of existing bridges with new structures that continue to provide local access for communities while also accommodating double stacker freight trains.

ARTC is committed to ensuring that any changes made to the urban landscape of these towns is positive. ARTC has recognised the need to embed urban design principles into the project; changes must enhance the individual lives of the township's residents and visitors alike.

Urban Design as a discipline, is concerned with the arrangement, appearance and function of our suburbs, towns and cities, and as such the focus of urban design within Inland Rail - Beveridge to Albury is on project areas in the following locations:

- Wandong – Broadford-Wandong Road
- Broadford – Hamilton Street
- Broadford – Short Street
- Euroa – Scott Street (and Station Precinct)
- Benalla – Mackellar Street (and Station Precinct)
- Glenrowan – Beaconsfield Parade
- Wangaratta – Norton Street (and Station Precinct)

These are all locations that are at the heart of each respective township, and serve as important gateways, connections, landmarks and heritage places that are vital to their identity and function.

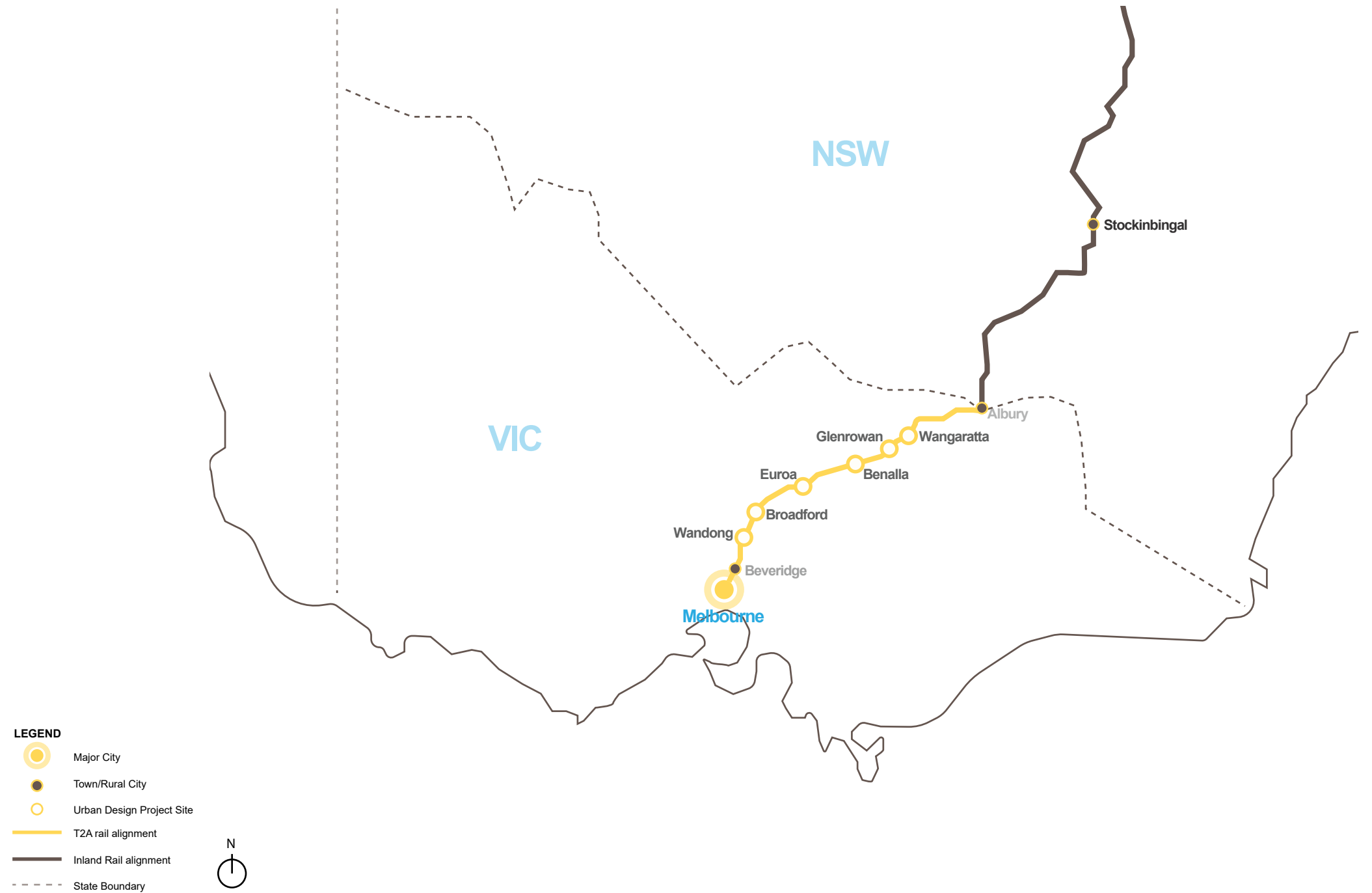


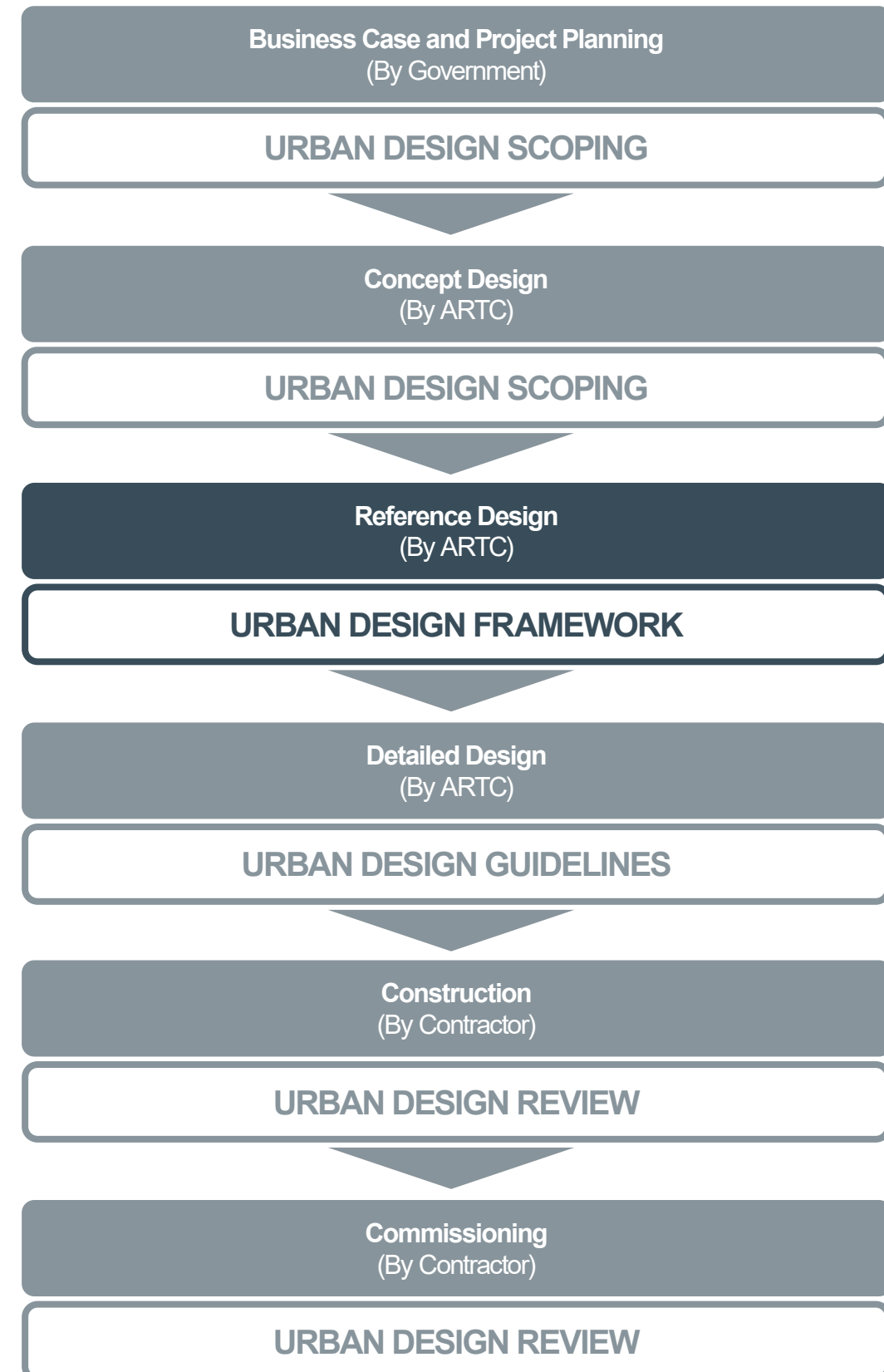
Figure 2 : Inland Rail - Beveridge to Albury Project Summary Map

Inland Rail - Beveridge to Albury and Urban Design

In order to ensure the continued integration of urban design principles into the design, development and delivery of the overall project, ARTC is implementing a comprehensive urban design program that will maintain the call for high-quality urban design outcomes.

This will include:

- Urban Design Framework**
 Establishes the urban design vision, principles and site-specific objectives for the project area.
- Urban Design Guidelines**
 Details site-specific urban design guidance that aids the contracting builder team in their detailed design of individual sites.
- Urban Design Review**
 Provides continued oversight during the design and delivery stages to ensure that urban design has been adequately integrated into the design and meets the vision.
 The individual Urban Design Guidelines for each site must be responded to during the Detailed Design Phase. The design of each site will be assessed by a suitable qualified professional against the relevant Urban Design Guidelines and the Urban Design Framework to ensure a satisfactory and appropriate urban design outcome has been achieved.



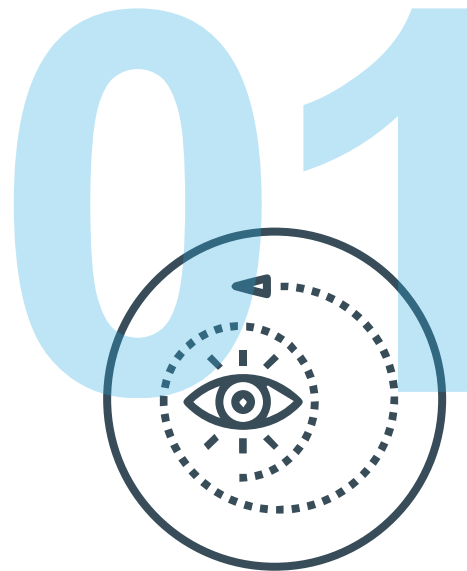
Role of Urban Design Framework

This Urban Design Framework has been developed to appreciate, collate and document the fundamental characteristics of the locations of the urban sites that Inland Rail - Beveridge to Albury will affect. This will allow the project's participant to have a shared understanding of the shared urban design ambition for the project. The Urban Design Framework can subsequently guide the design and delivery of the project to achieve high-quality and context-responsive outcomes.

The Urban Design Framework also:

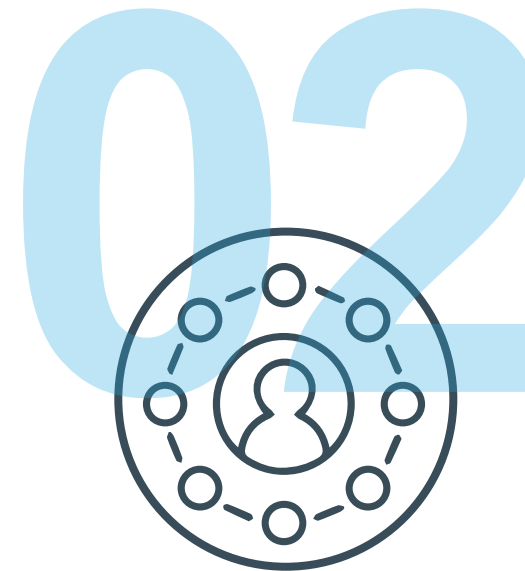
- Evolves the principles of the Urban Design Protocol for Australian Cities into more relevant and tangible directions for this project,
- Supports the Planning Scheme Amendment process during the early phases of design,
- Provides an element in the pathway to meet the urban design requirements as part of Infrastructure Sustainability Council of Australia (ISCA) Rating the project aims to achieve,
- Provides the basis for more detailed Urban Design Guidelines for each project area, and
- Enables evaluation and appraisal of detailed design, including innovative solutions and options that may supersede early concepts.

Rather than prescribe detailed solutions, the Urban Design Framework outlines what type of urban design qualities or performance is to be achieved and is set out in a hierarchy of goals that provide greater definition and tangible direction, whilst also providing flexibility for integrated innovative solutions.



VISION

Provides the high-order, project-wide goal which is the foundational measure of success.



PRINCIPLES

Derived from the Australian National Urban Design Protocol: Creating Places for People and define project-wide values which must be met within all of the project areas.



OBJECTIVES

Project area-specific objectives that adapt, clarify and prioritise the principles to specific outcomes at each site.

Urban Design Framework Structure

The Urban Design Framework is organised into two distinct parts; Sections 01 and 02 having a project-wide focus, while Sections 03 to 08 are divided into six project areas.

The Urban Design Framework is structured as follows:

01 Introduction

Outlines the project, rationale and purpose of the urban design framework, and describes how the framework functions.

02 Vision and Principles

Provides the project-wide urban design vision, developed from insights from initial stakeholder and community contact, as well as the project-wide framework of principles developed from Urban Design Charter principles.

03-08 Project Areas

Provides a project area focus by analysing their respective contexts, key urban design opportunities and constraints, as well as identifying a series of urban design objectives:

- **Context Analysis**

This section provides a historical, landscape, visual impact sensitivity, land use, strategic planning, built form and heritage analysis of each of the project areas, including their broader contexts' and more immediate interfaces. This provides the foundation of identifying and understanding the urban places into which the project will be introduced.

- **Opportunities and Constraints**

This section summaries the key urban design opportunities and constraints that the Inland Rail T2A project will need to respond and can contribute to through well-considered siting and arrangement of infrastructure as well as detailed design in order to maximise the local benefits to these towns.

- **Key Objectives**

This section outlines the vital elements which the project must address in order to achieve a good urban design outcome. These objectives differ between the project area based on the sites and their characteristics, as well as the aspirations and priorities of their local community.

Appendices

Containing more detailed policy background, glossary of terms and figure sources.

Methodology

The Urban Design Framework has been developed in coordination with specialist inputs from the technical, sustainability and planning teams, as well as contributions made by local stakeholders and community representatives.

This includes:

1.0 Context Analysis

Undertaking background report reviews, planning policy review, site investigation, landscape character impact assessments, mapping and historical research. That is composed of:

General site context analysis

This analysis gathered information that highlighted the broad town setting of the project area, the scale of the town, the geography, significant waterbodies and major waterways of the sub-region in which it sits, the arterial transport links and broad land uses that make up the town and surrounds. This gives a sense of the relative importance of both the location and scale of the Project Area within the town, and the main movement and natural networks it is part of.

Historical context

This analysis has been captured as a timeline of key developments from the establishment of the town, and any Indigenous history that was available for the area with a focused on the economy and transport system of the towns.

Preliminary landscape character impact sensitivity

This assessment has been done to evaluate the potential impacts of new infrastructure in these town locations. While it does not seek to take the place of an in-depth Landscape Visual Impact Assessment (LVIA) nor attempt to evaluate environmental or social impacts, it highlights the potential visual impacts to the Landscape Character Zones (LCZ), highlighting areas of sensitivity for considerations during design development.

There is no accepted national published guidance on landscape and visual amenity impact assessment specific to Australia. Therefore, the assessment is made with reference to an understanding of techniques set out in the following good practice document: The Guidelines for Landscape and Visual Impact Assessment, Third Edition (2013), (GLVIA) developed by the Landscape Institute and Institute for Environmental Management (United Kingdom).

A desktop analysis of each site was undertaken using site images, Google Street View and GIS mapping. This analysis was then contrasted against project assumptions to establish potential sensitivity receptors, the magnitude of the design and its potential impacts on the Landscape Character Zones.

The Project Assumptions are generally the most visually impactful infrastructure options that have been identified for the Project Areas, in order to identify the most significant impacts that could potentially be created.

Potential mitigation measures were identified to be considered in further design development.

Site character

This photo survey was undertaken as part of numerous site inspections to gather information and to ground-truth the desktop studies and mapping prepared for the urban design framework.

Local site context analysis

This analysis examined characteristics of relevance to the project in a closer and more fine-grained way, identifying features that are likely to contribute to the layout, arrangement and detailed design of infrastructure including:

- **Environment** – natural physical features, topography, Environmental Vegetation Classes (EVC), geological and landscape characteristics that can be protected, celebrated or drawn upon in the design.
- **Land use** – land use zones, community facilities, key open spaces and open space networks that inform both the current and future development form and function of the towns to inform preferred modes and networks of movement and urban patterns.
- **Built form and heritage** – heritage places and areas of Indigenous Cultural Heritage sensitivity that inform layout of infrastructure and spaces to protect and celebrate
- **Transport and access** – street networks and hierarchy, rail and bus networks, walking tracks and cycling trails that inform patterns of movement and ideal locations and routes for movement by different modes and how to integrate them.

2.0 Vision Setting

This process involved developing a project-wide vision that draws on the collective insights the ARTC team has collected from stakeholders through the planning of the project and the insights gained through developing the technical aspects of the projects. It was further informed by the extensive feedback already received from community members in response to the formative work in establishing the project.

3.0 Stakeholder and Community Engagement

This is an ongoing activity that has also included gathering local knowledge from local authorities and community representative groups as a foundation for developing the guiding principles for the project. This will continue as the project enters phases of detailed design and delivery to ensure that the urban design framework, the future urban design guidelines, and ultimately the urban design outcome of the projects meets those principles.

4.0 Stakeholder and Community Engagement

This process involved establishing project-wide urban design principles based upon the Creating Places for People: An Urban Design Protocol for Australia principles and the input received from stakeholders and community representatives. The project area-specific objectives have been developed on the basis of these principles and the knowledge gained through the analysis of the project contexts to reflect the diverse nature, character and aspirations for the sites as per the Urban Design Protocol.

In addition, the Good Design + Inland Rail for the Regions Guidance Note, produced by the Office of the Victorian Government Architect (OVGA) specifically addresses good design outcomes for the ARTC Inland Rail project and has been factored into the development of the objectives within this Framework document.

5.0 Stakeholder and Community Review

This process involved returning the local stakeholders and community representatives through the development of this Urban Design Framework to confirm the direction, emphasis and priorities encapsulated in the draft reflects the local perspectives gathered previously.

6.0 Planning Scheme and Accreditation Processes

This includes following the statutory planning process, including exhibition, to achieve a Planning Scheme Amendment that facilitates the project, and enshrines its urban design performance into the approval documents. Further to this the Infrastructure Sustainability Council of Australia (ISCA) rating that the project aims to achieve has further driven and embeds the UDF's principles and objectives into the project.

Relevant Policy Basis

The Urban Design Framework is informed and given effect by a number of key State policies and strategies, most notably:

- **Creating Places for People:** an Urban Design Protocol for Australian Cities, Infrastructure Australia 2011, that establishes place, people and process-focused principles for also projects in urban areas and directly underpin the principles in this urban design framework.
- **Transport Integration Act 2010** that sets out a vision for an integrated and sustainable transport system that provides for an inclusive, prosperous and environmentally responsible community of Victoria.
- **Victorian Cycling Strategy 2018-2028** seeks to increase the number, frequency and diversity of Victorians cycling for transport by investing in a safer, lower-stress, better-connected network, and prioritising strategic cycling corridors making cycling a more inclusive experience.
- **Movement and Place Framework 2019** shapes the approach to managing and evolving the road network in a way that responds to the movement of all modes, as well as integrating the place role that streets perform in cities and towns.
- **Plan Melbourne 2017-2050** sets out the strategy for Melbourne's growth and development as a competitive, liveable and sustainable city, centred on seven key outcomes, including ensuring that regional Victoria is productive, sustainable and supports jobs and economic growth.
- **VicRoads Tree Policy 2016** aims to support active transport and healthier environments while facilitating a safe and efficient road network by promoting trees in the road reserve.

Further to this, the project area-specific objectives are driven by local policies and strategies that have been developed by local authorities.

These include:

- Mitchell Planning Scheme
- Strathbogje Planning Scheme
- Benalla Planning Scheme
- Wangaratta Planning Scheme
- Wandong-Heathcote Junction Structure Plan (2016)
- Draft Broadford Structure Plan (2020)

- Euroa Structure Plan (2010)
- Glenrowan Township Development Plan (2017)
- Wangaratta Health Precinct Structure Plan (2019)
- Wangaratta Central Activity Area Urban Design Framework (2019)
- Wangaratta Walking and Cycling Strategy (2020)

The most relevant material in local policy is contained within Sections 04 to 09 for each site, however a more thorough review can be found at Appendix A.

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02

Vision and Principles

- Urban Design Vision
- Urban Design Principles



Urban Design Vision

The vision statement encapsulates the high order, urban design ambition for the project that ARTC seeks to achieve.

It has been informed by contributions made by local stakeholders and community representatives, as well as the collective appreciation and ambition of the ARTC team, engaged in developing the project and have become familiar with local aspirations.

1. A corridor of towns that take pride in the physical legacy created by Inland Rail, sensitively acknowledging and respecting their existing heritage.

2. Restoring and reconnecting local places to facilitate future prosperity, local identity and environmental sustainability.

3. Through strong collaboration, sensitive design and integrated thinking, the project will deliver:

- Improved local connectivity,***
- Carefully considered insertions that enhance local life,***
- Eased movement,***
- Improved safety, and***
- Important building blocks for the future of these regional towns.***

Urban Design Principles

These urban design principles are founded upon the Urban Design Protocol for Australian Cities principles and developed to more directly address the characteristics and priorities for this project.

The 'Creating Places for People: An Urban Design Protocol for Australian Cities' (CPFP) design principles are arranged under 'Place', 'People' and 'Leadership' headings. Whilst the latter aims to drive a good urban design process, the first two categories focus on tangible quality that should be achieved in the design outcome.

CPFP Design Principles about place: Productivity and Sustainability

Diverse Enhancing Connected Enduring

CPFP Design Principles about people: Liveability

Vibrant Comfortable Safe Walkable

The urban design principles developed for this project are based on these foundational principles and embody the crucial elements of urban design 'performance' or 'function' that need to be addressed in order to be able to deliver the urban design vision and are relevant for all of the project areas.

They remain relatively high-level; however, they inform the project-area or site-specific urban design objectives that take into account the more specific characteristics of each of the sites. They require design attention to different priorities which are necessary as each of the sites function differently, possess a different character and therefore have inherently different opportunities and constraints.

Elevating pride of place

Meeting the scale and importance for the place with design excellence.

New infrastructure should acknowledge and meet the significance of the location in which it is to be inserted and ensure that the importance and visibility of the site, or the relative scale of the infrastructure responds with suitably elevated design quality.

CPFP Design Principles:

Diverse Enhancing

Connecting local communities

Providing for all transport modes, especially walking & cycling.

Local connections are of vital importance to the economic and social life of all towns. New infrastructure should contribute to the enhancement of these connections, particularly where missing links in the pedestrian and cycling network can vastly improve local life.

CPFP Design Principles:

Walkable Connected

Contributing to the future

Accommodating the future plans and aspirations for the town.

Towns are constantly evolving, developing growing and changing and plan for this well in advance to ensure their ongoing viability and liveability. New infrastructure should respond to these aspirations and ensure they are accommodated, and supported in the way it is sited, arranged and designed.

CPFP Design Principles:

Vibrant Enduring

Simple and built to last

Enduring, sustainable and integral to identity and function of the town and easy to maintain.

Infrastructure, particularly in smaller towns, shapes the destiny of these places. Well-considered and sensitively designed infrastructure can even become the trademark of a place, propelling it into fame. New infrastructure should stand the test of time enough to be desired to be retained and simple for authorities to manage.

CPFP Design Principles:

Enduring



Comfortable to use

For all abilities and providing space for shelter, pause and enjoyment.

Well-designed infrastructure makes life easier and more convenient and should not do so at the expense of any group. All users, particularly those that are vulnerable through economic, social or physical barriers should be equally accommodated and share in the benefits that it provides.

CPFP Design Principles:

Walkable Comfortable



Safe for people

Improving visibility, natural surveillance, and protects more vulnerable users.

Safety underpins public life and economic participation and infrastructure can harm or enhance the way towns and precincts are used and perceived. New infrastructure should enhance visibility throughout the public realm to improve the confidence that people have to do things independently. Crime Prevention Through Environmental Design (CPTED) principals must be implemented to ensure public places are safe to use and private property is protected.

CPFP Design Principles:

Safe



Encouraging local life

Contributing to and facilitating vibrant town life and activity.

Town life thrives when places are easy to access, invite activity and generate curiosity and participation. Infrastructure done well can inspire a visit, attract investment and rouse attention to long unrealised social and opportunities that are waiting to be unlocked.

CPFP Design Principles:

Diverse Vibrant



Enriching the journey

Enhancing user experience by creating engaging and memorable experiences.

While efficiency is important, movement can also be a rewarding experience when infrastructure provides an enjoyable and unique experience. This becomes vitally important when seeking to encourage more sustainable modes such as walking and cycling through new infrastructure.

CPFP Design Principles:

Walkable Connected



Responding to its locale

Bespoke, distinctive and suitable for the personality of each place.

All places have unique qualities, both physical and social. By responding uniquely to these attributes new infrastructure can at minimum, silently insert itself, and at best sharpen focus on the identity of a town to be even more like itself.

CPFP Design Principles:

Diverse Enhancing



Respecting the past

Responding to the Indigenous and European heritage of the town and region.

History is even more present in smaller towns, with longer memories and industries dependent on its continued visible presence. Infrastructure's scale provides a unique opportunity to strengthen and celebrate these values to reflect the importance of past eras, events and ancestors.

CPFP Design Principles:

Enhancing Connected



Developed through collaboration

Inspired by shared local knowledge and values.

Large projects demand the assimilation of vast amounts of information, data and knowledge to resolve complex, interrelated issues. Success is achieved only through generously sharing as much intel as possible to identify and develop the best solution that can maximise benefits for all.

CPFP Design Principles:

Diverse Connected



Natural and sustaining

Improving the ecological and environmental footprint of the place.

Ecology in urban places may have been impacted many decades or centuries ago, however large projects can enhance and restore these values through their scale and reach, and in turn make for more sustainable and liveable environments for both people and other flora and fauna.

CPFP Design Principles:

Diverse Connected

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03

Wandong

- Context Analysis
- Opportunities and Constraints
- Urban Design Objectives

Wandong

Context Analysis

Geographic Context

Wandong is a small peri urban town within Mitchell Shire, located approximately 50km north of Melbourne CBD. Wandong supports a population of approximately 1,340 people, offering a laid back lifestyle valued for its village and bushland characteristics.

Wandong is generally well serviced with regard to recreational and community facilities, as well as transport infrastructure, with the rail corridor running through the centre of the township and the Hume Freeway located towards the west of the main town centre. The township largely relies upon larger adjoining towns and metropolitan Melbourne for employment.

The natural environment in and surrounding Wandong is highly valued, with Dry Creek and Merri Creek being prominent waterways traversing through the township, and heavily vegetated ridge lines to the east.

Wandong is usually associated with Heathcote Junction, another peri urban town located to the immediate south. Due to their close proximity, both townships have typically been developed as adjoining towns.

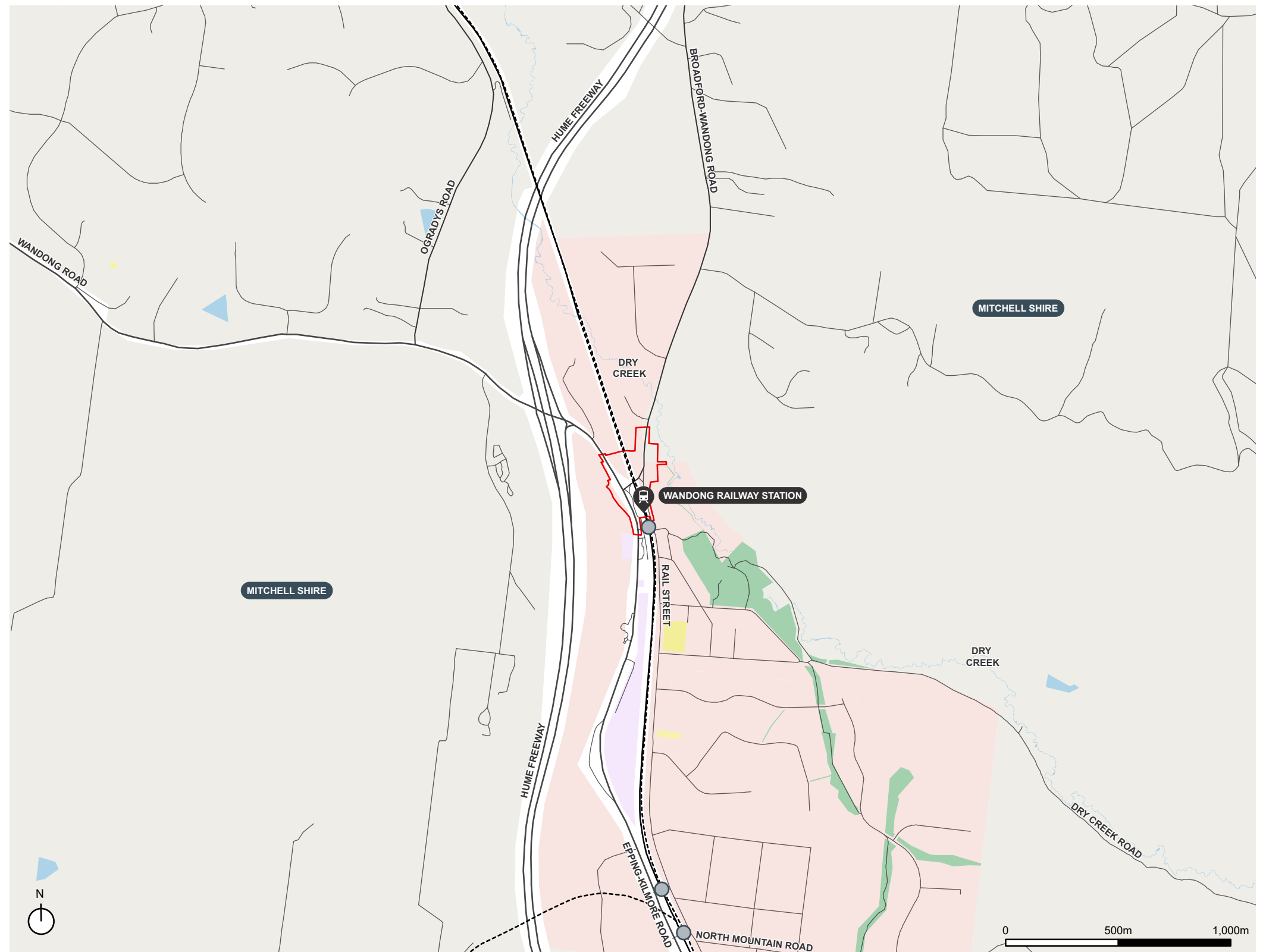


Figure 3 : Wandong Geographic Context Map

Historical Context

Historical Snapshot

'Wandong' is thought to be derived from the Aboriginal word meaning 'spirit' or 'ghost'.

1870s

Early settlement in Wandong grew, largely around a railway siding and sawmills.

1876

Wandong Railway Station opened.

1888

Branch railway line to Heathcote opened 2 kilometres south of Wandong. The branch was named Heathcote Junction, and merged with Wandong as urbanisation grew in the 1980s.

From around 1885-1902, Wandong had a large and prosperous timber industry, seasoning works and brickworks.

Wandong Railway Station was the former terminus for the Mount Disappointment State Forest tramways, whereby the station boasted a large timber seasoning and joinery works, with several rail sidings for the loading and transport of timber.

1962

The North East standard gauge line opens.

2009

Wandong Railway Station, the local primary school and 40 homes were damaged or destroyed by the Black Saturday fires.



01



02



03



04

01 Wandong Saw Mill Tram, 1875.

02 Sydney Express Train Leaving Wandong Railway Station, 1900s.

03 Wandong Town, 1898.

04 Mount Disappointment Tramways, 1888.

Preliminary Landscape Character and Impact Sensitivity Assessment

A preliminary Landscape Character Impact Sensitivity Assessment was undertaken for the Wandong site. Landscape character impacts for land within and surrounding the project area have been assessed according to their assigned Landscape Character Zones (LCZ).

LCZs are areas which can be defined in terms of level of development, urban character, land use, landform, vegetation coverage, presence of water, road and street configuration and other characteristic features. A summary of terms and a description of each LCZ can be found at Appendix C.

Project Assumptions for Assessment

To facilitate the proposed infrastructure upgrade, a new road bridge and associated ancillary works at the Broadford-Wandong crossing are likely to be required.

The new road bridge will increase in height and therefore, increasing its span. Rail Street, Broadford-Wandong Road and Epping-Kilmore Road will all require alterations to their vertical alignments as well as increased batters and new retaining walls along Rail Street to accommodate the new span. These changes will occur up to 100m from the rail crossing.

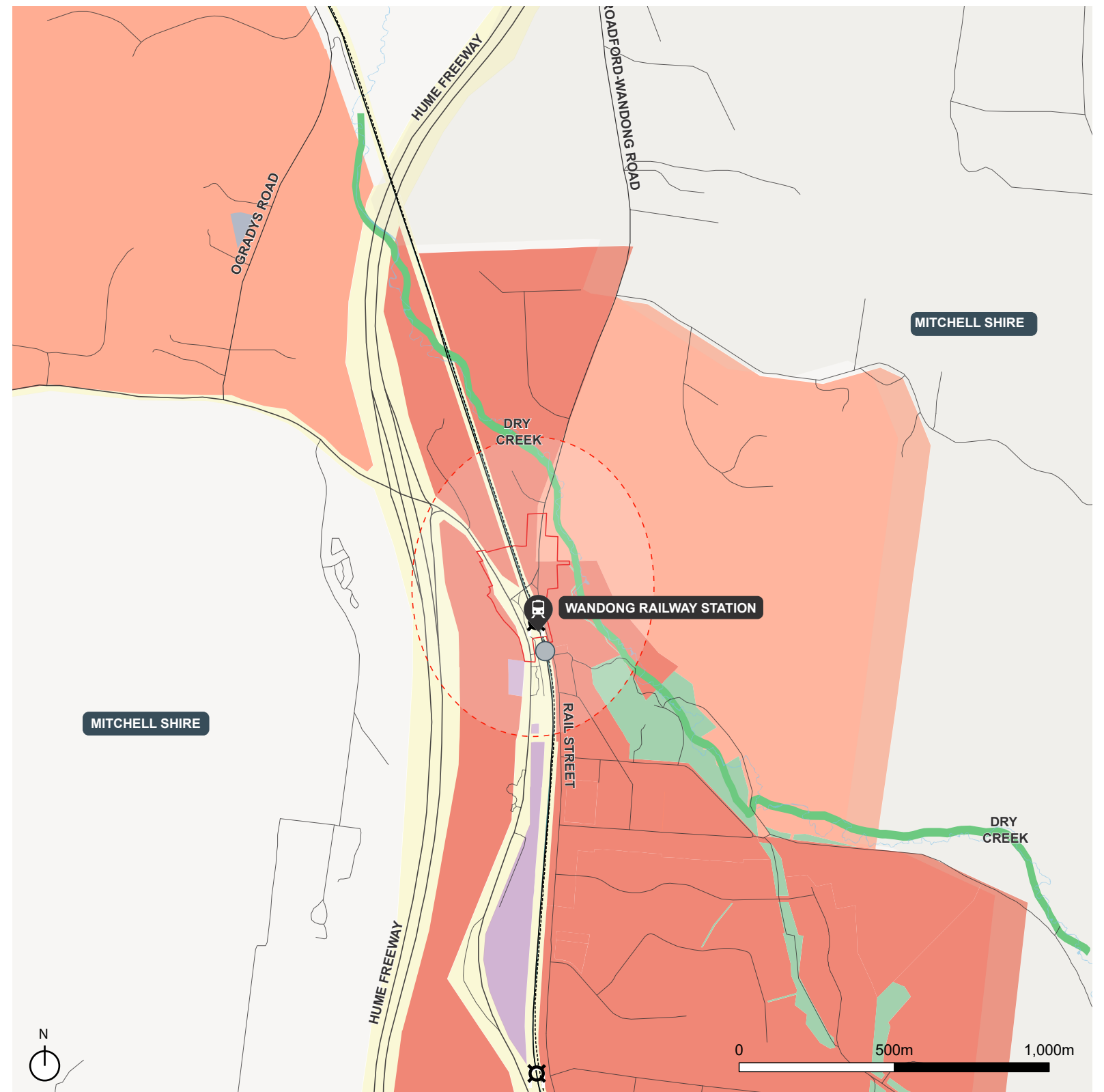
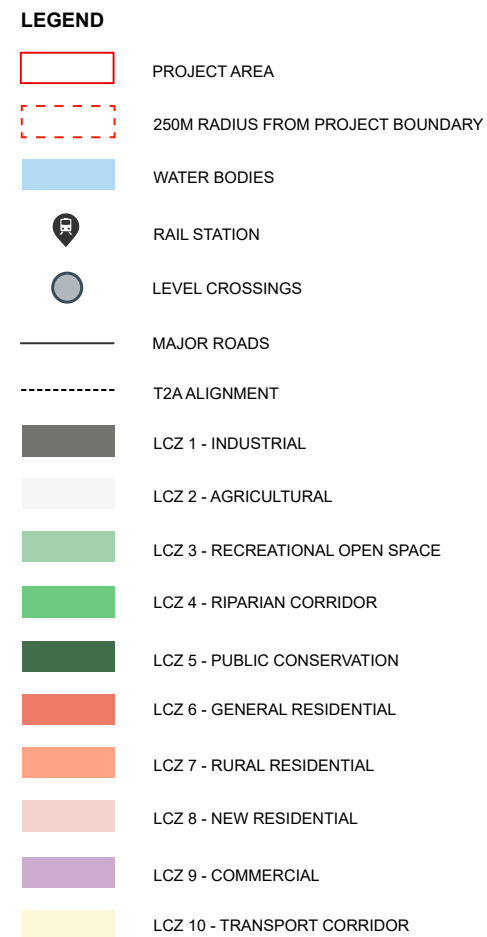


Figure 4 : Wandong Landscape Character Zones Map

Preliminary Landscape Character Impact Assessment

Strategic Conclusion

The most sensitive Landscape Character Zone for the Broadford-Wandong road bridge extension is LCZ 6 (General Residential). This is due to the residence's property boundary adjacency to the proposed extent of works along Rail Street. These residents are rated as highly sensitive due to the nature of the proposed design and the magnitude of the visual impacts to these residencies.

The proposed height of the bridge's wall system, as well as their visual seclusion poses a potential risk for vandalism and graffiti. An Urban Design solution, such as a surface texture, for example can mitigate this potential risk.

All other listed Landscape Character Zones are minimally impacted by the proposed design. Any potential visual impacts can be mitigated by strategic revegetation and rehabilitation of the surrounding landscape. Particular existing tree structures with social significance, such as those situated upon Wandong Road and Broadford Wandong Road, can be reinstated if impacted by the scale of the proposed works.

Potential mitigation measures to minimise these visual impacts to the LCZ 6 - General Residential should include:

- Replacement and augmentation of removed tree vegetation within the impacted project area.
- The addition of strategic planting to provide visual screening and to minimise the visual impacts.
- Close consultation by ARTC with the affected residencies to devise an acceptable urban design solution for the new retaining walls along Rail Street.

Magnitude of Impact

Negligible

Low

Moderate to Low / Moderate

High to Moderate / High

Landscape Character Zone	Sensitivity	Magnitude	Landscape Character Impact
 LCZ 1 - Industrial	Low Due to its proximity of the proposed extent of works.	Low The proposed works will have minimal impact	Low The proposed works are outside this zone Impacts can be mitigated through revegetation measures.
 LCZ 2 – Agricultural	Negligible Due to its proximity of the proposed extent of works.	Negligible The proposed works are outside this zone	Negligible Impacts can be mitigated through revegetation measures.
 LCZ 3 – Recreational Open Space	Low Due to its proximity of the proposed extent of works.	Low The proposed works are outside this zone but are within a 250m radius	Low Impacts can be mitigated through revegetation measures.
 LCZ 4 – Riparian Corridor	Moderate Due to its proximity of the proposed extent of works.	Low The proposed works are outside this zone but are within a 250m radius	Moderate - Low The proposed works will have minimal impact on this LCZ provided appropriate sediment control measures are in place during construction and water runoff is managed appropriately.
 LCZ 5 – Public Conservation	Negligible Due to its proximity of the proposed extent of works	Negligible The proposed works are outside this zone	Negligible The proposed works will not be visible from this LCZ
 LCZ 6 – General Residential	High The proposed extent of works adjoins nearby sensitive residencies	High The proposed works will have the greatest impact on this LCZ	High Increase in bridge height and extent of retaining wall will not be able to be mitigated through conventional methods
 LCZ 7 – Rural Residential	Negligible Due to its proximity of the proposed extent or works	Negligible The proposed works are outside this zone	Negligible Impacts can be mitigated through revegetation measures.
 LCZ 8 – New Residential	Moderate Due to its proximity of the proposed extent of works.	Moderate The proposed works are outside this zone but are within a 250m radius	Moderate Impacts can be mitigated through revegetation measures.
 LCZ 9 – Commercial	Moderate The proposed extent of works adjoins nearby sensitive residencies	Moderate The proposed works will have visual impacts for commercial at then end of Carrier street	Moderate Bridge and proposed design will be visible from this LCZ
 LCZ 10 – Transport Corridor	Moderate The proposed extent of works Directly overlays with this LCZ	Low The proposed works will have minimal impact on this LCZ	Moderate-Low Impacts can be mitigated through revegetation measures.

Environment

Topography

The natural topography within the immediate project area is gently undulating, with the land gradually rising and falling towards the east and west, as it meets with Hume Freeway and farmland.













Landscape Features

Prominent landscape features include Dry Creek, which generally traverses in a north-south direction along the western boundary of the project area. It is of local environmental significance, providing an essential link that enables wildlife movement across Mitchell Shire and beyond.

The site's Environmental Vegetation Class number (EVC) is 47, being 'Valley Grassy Forest'. Remnant vegetation can be found across the entire project area, commonly present on fertile and well-drained soils

Geologically, the project area sits upon a fine-grained Kilmore siltstone.

LEGEND - ENVIRONMENT

	PROJECT AREA
	LEVEL CROSSINGS
	MAJOR ROADS
	TRAIN LINE
	TRAIN STATION
	MAJOR RESERVES & OPEN SPACE
	MAJOR WATERBODIES
	1M CONTOUR LINE
	EVC 18 RIPARIAN FOREST
	EVC 23 HERB-RICH FOOTHILL FOREST
	EVC 127 VALLEY HEALTHY FOREST
	EVC 178 HERB RICH FOOTHILL FOREST SHRUBBY FOOTHILL FOREST COMPLEX

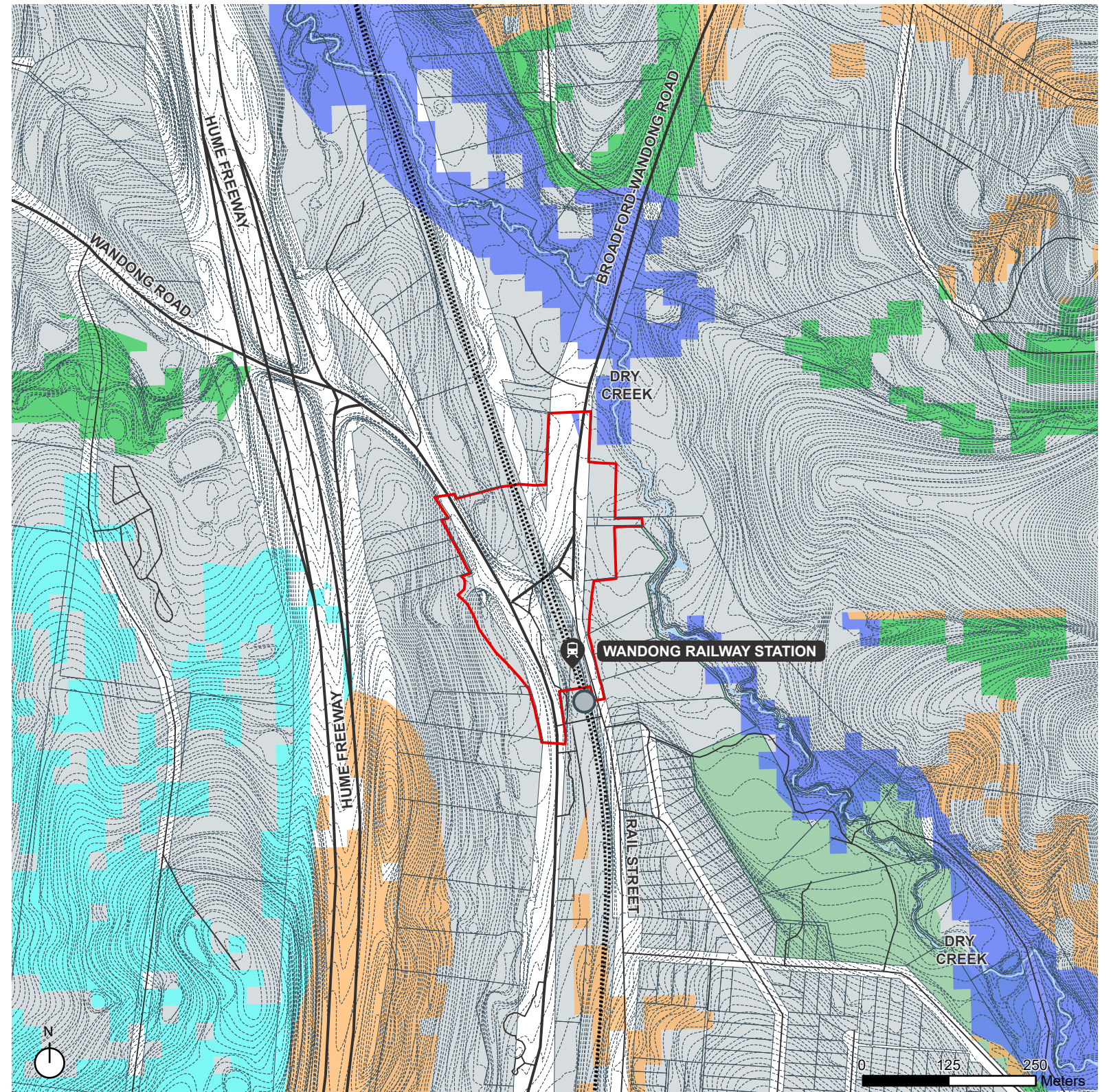


Figure 5 : Wandong Environmental Attributes Map

Site Character



05



06



07

05 Pickett Walk provides a commemorative public open space for the community.

06 Expansive agricultural land and single storey residential dwellings are found around the project area.

07 Cafes and restaurants to the immediate south-west of Wandong Railway Station.

08 Distinct streetscape character provided by existing tree structure and large setbacks to residential dwellings along Rail Street, Wandong Road and Broadford Wandong Road.

09 House at 770 Wandong Road, which is historically and aesthetically significant to the municipality.

10 Residential dwellings are situated on large blocks of land opposite the rail corridor and along Rail Street.

11 Road bridge along Broadford-Wandong Road. Currently, the bridge does not allow for pedestrian access.

12 Pickett Walk's meandering pedestrian footpath leading to Wandong Railway Station.

13 An at grade pedestrian crossing providing cross-corridor access to Wandong Railway Station.



08



09



10



11



12



13

Land Use Context

Residential

Low density detached residential dwellings on large properties can be found within and surrounding the project area amongst land used for agricultural purposes. Residential land use is intensified to the south of the project area.

Commercial/Mixed Use

The Wandong Town Centre can be found south of the project area between Epping Kilmore Road and the rail corridor and takes shape in the form of a local shopping centre, comprising of a supermarket, pharmacy, post office, restaurants and other retail stores. Abutting the shopping centre is a petrol station and bank.

Community Facilities and Recreation

A number of community facilities are located towards the south of the project area. Sports and recreation facilities can be found at the LB Davern Reserve, comprising of tennis courts, a football oval, netball courts, a playground, outdoor BBQ area and a community centre. Wandong's only primary school is located some 500 metre south of the railway station, on Rail Street abutting the rail corridor.
















Open Space

The main public open spaces close by include Lions Park and the LB Davern Reserve located south of the project area, while Pickett Walk and Wandong Memorial Park provide small and secluded public open space of historical significance within the south-west portion of the project area, as well as an entry gateway to the town centre.

Pickett Walk is also a community developed project, named after Frank Pickett, who came to Wandong in 1935, serving as the district's station master for 21 years.

These open spaces have recently been connected with a trail system to provide a network of recreation spaces accessible by pedestrians and cyclists.

LEGEND - LAND USE

	PROJECT AREA
	LEVEL CROSSINGS
	MAJOR ROADS
	TRAIN LINE
	MAJOR RESERVES AND OPEN SPACE
	MAJOR WATERBODIES
	COMMERCIAL ZONE
	PUBLIC USE - EDUCATION
	RESIDENTIAL
	FARMING/RURAL USE
	RAIL STATION
	EDUCATION CENTRE
	PARK/RESERVE & GARDENS
	ACCOMODATION
	COMMUNITY CENTRE

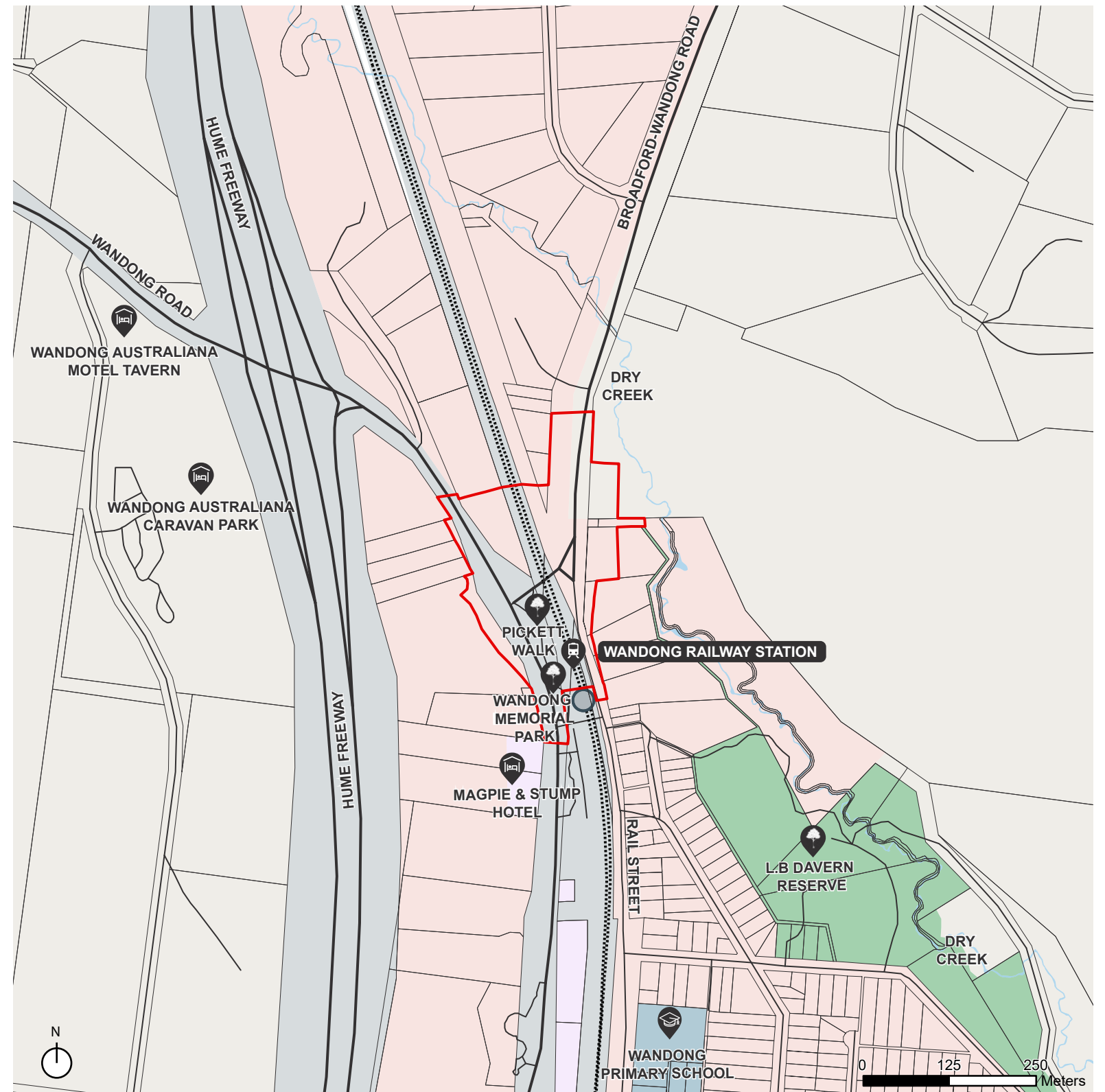


Figure 6 : Wandong Land Use Map

Built Form and Heritage

Built Form and Character

The character of the project area is considered to be rural residential and relatively quiet and relaxed. The built form largely comprises of single storey brick or weatherboard residential buildings sited on large parcels of land, spaced relatively far apart. Steel or aluminium farming sheds can also be found within and surrounding the project area that are of a similar height and size. While the width of residential street carriageways are relatively narrow, an 'open experience' is created by the large setbacks of the adjacent residential dwellings.

Built form is more prominent towards the south of the project area, where land is more developed and urbanised. Residential properties are of a similar size to those in the north, however, on smaller sites, they occupy approximately 30%-50% of the lot. The site's more larger building footprints are provided by community facilities and commercial shops.

Aboriginal Cultural Heritage

Prior to European settlement, the Taungurung Clan of the Kulin Nation were the first inhabitants of Wandong. Traditionally, the Taungurung people typically relied upon the rich resources of the rivers, creeks and floodplains such as Dry Creek for fish and other wildlife including birds, kangaroo, koala and emu. The Taungurung People migrated through their Country dependent upon the seasonal variations of weather and the availability of food.

European settlement first occurred in the region in the early 1800's. Many Taungurung people still live on their country and participate widely in the community as Cultural Heritage Advisors, Land Management Officers, artists and educators, and are a ready source of knowledge concerning the Taungurung people from the central areas of Victoria.












Heritage

There are several buildings and places within the vicinity of the project area that are of local heritage significance. Wandong Precinct is located adjacent to the southern end of the project area and is historically significant as a reminder of the small township's beginnings during the 19th and early 20th centuries when it flourished through the timber and terracotta industries.

The house and garden situated at 770 Wandong Road is partially located within the project area. The house and garden are aesthetically and historically significant, being one of the few houses constructed from terracotta lumber during Wandong's optimistic but short-lived terracotta lumber production days.

There are also three sites in proximity to the project area that are listed on the Victoria Heritage Inventory. These include the 'Former Houses' site located at 780 Wandong Road, the former Coffee Palace site located at 13 Rail Street, and the Seasoning Works site Terracotta Lumberwall, located to the immediate south-east of Wandong Railway Station, abutting Dry Creek.

LEGEND - BUILT FORM & HERITAGE

	PROJECT AREA
	LEVEL CROSSINGS
	MAJOR ROADS
	TRAIN LINE
	MAJOR RESERVES AND OPEN SPACE
	MAJOR WATERBODIES
	HO - HERITAGE OVERLAY
	VHR - HERITAGE REGISTER
	ABORIGINAL CULTURAL SENSITIVITY
	TRAIN STATION
	HERITAGE SITE

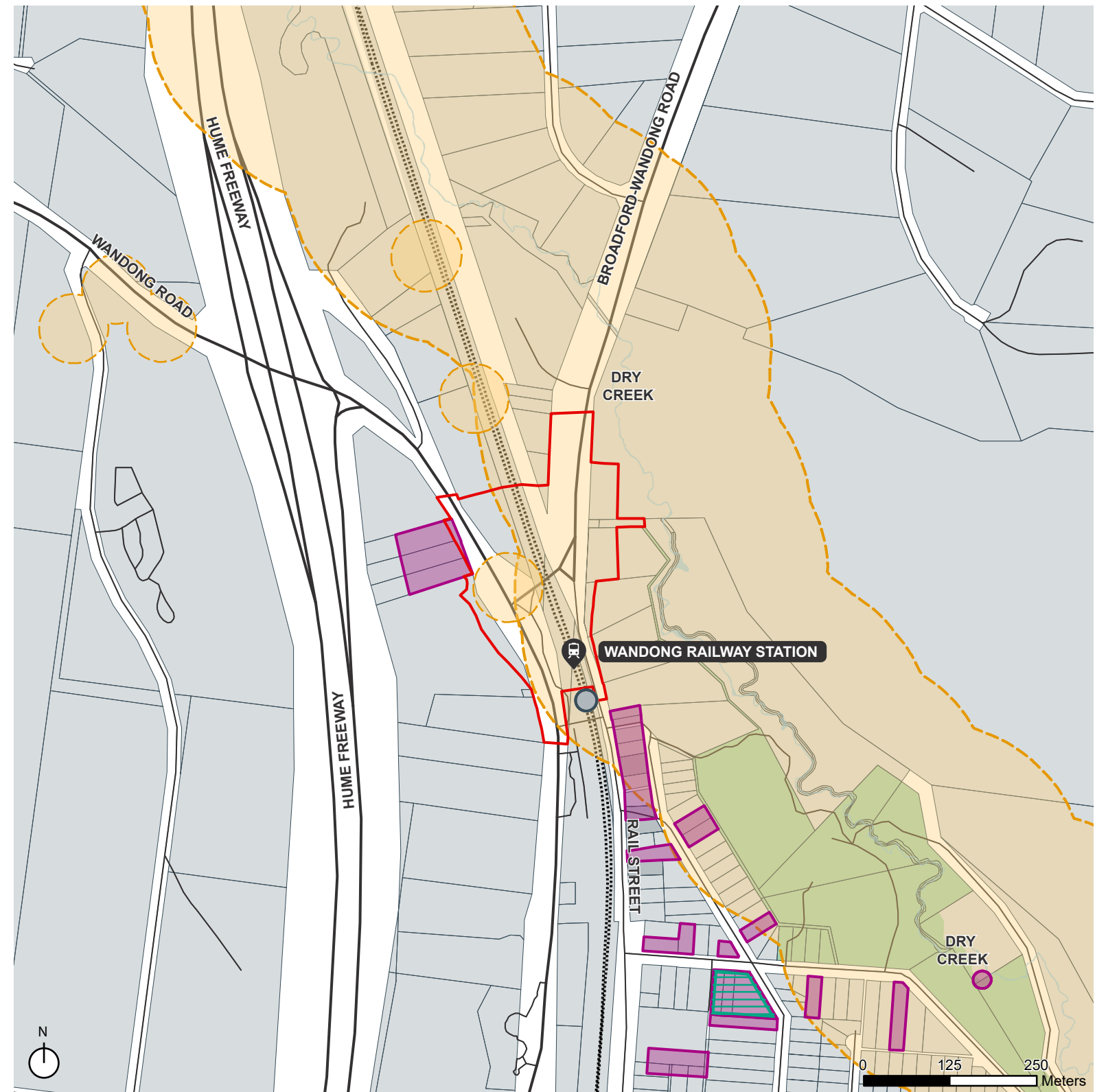


Figure 7 : Wandong Heritage Map

Transport and Access

Public Transport

Public transport to the project area is limited to rail services accessible at Wandong Railway Station, which abuts the project area to the south. The Station is a V-Line station and services the North East Line with up to 10 services a day. The station has two platforms and two rail tracks.

Active Transport

Cross corridor pedestrian access around Wandong Station is limited to one at-grade pedestrian crossing. The crossing is located at the station and provides access to both station platforms. A pedestrian bridge, a further 500 metres to the south, provides additional pedestrian access. The road bridge situated within the project area, does not provide pedestrian footpaths and is only utilised by vehicles.

An active transport link between Wandong and Heathcote Junction is provided via the G'day Rail Trail. The Trail starts at LB Davern Reserve and ends at North Mountain Road in Heathcote Junction, and can be utilised by both pedestrians and cyclists.

Road Transport

Vehicle traffic predominates in the area and increases during school drop-off and pick-up times. The project area does not have any public bus service routes within proximity.

LEGEND - TRANSPORT & ACCESS

- PROJECT AREA
- LEVEL CROSSINGS
- ARTERIAL ROADS
- TRAIN LINE
- EXISTING WALKING TRAIL
- EXISTING PEDESTRIAN RAIL CROSSING
- MAJOR RESERVES AND OPEN SPACE
- MAJOR WATERBODIES
- TR TRAIN STATION

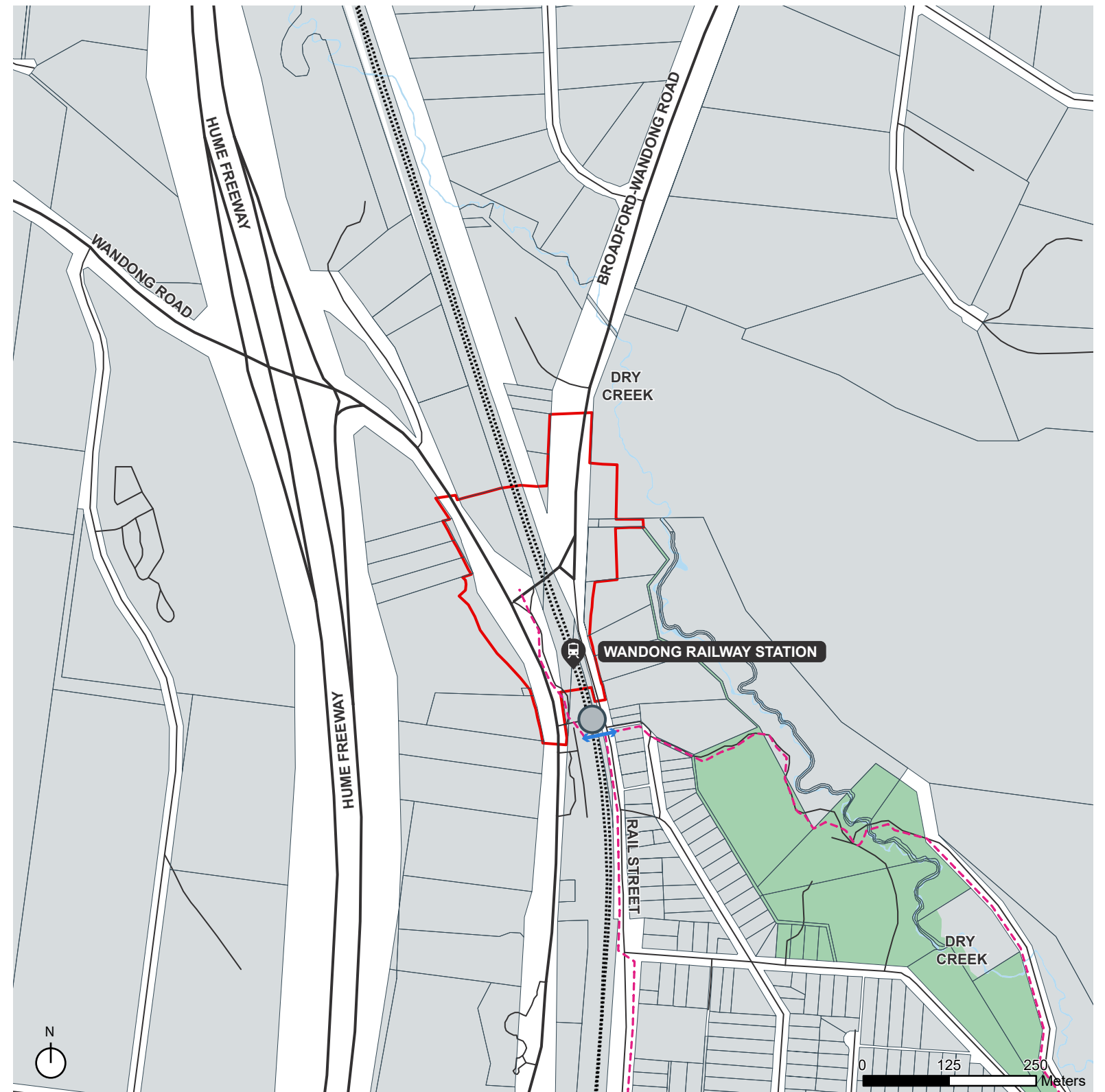


Figure 8 : Wandong Transport Map

Wandong

Opportunities and Constraints









Opportunities

- Improvement to local identity and legibility by enhancing and reinstating Pickett Walk as a gateway feature when entering Wandong.
- Improvement to cross corridor pedestrian access, as well as a safer pedestrian environment along the Broadford-Wandong road bridge and around Wandong Railway Station.
- Provision of safer, more direct and inclusive access to Wandong Railway Station.
- Enhancement of streetscape and landscaping treatments, particularly along Epping-Kilmore Road as outlined in the Wandong-Heathcote Junction Structure Plan (2016).

Constraints

- Pickett Walk is a significant piece of public open space highly valued by the community and will be severely impacted during construction.
- There is insufficient cross corridor pedestrian access along the rail corridor. The existing road bridge along Broadford-Wandong Road does not provide pedestrian access and can only be utilised by vehicles.
- The western section of the project area partially includes the heritage listed property at 770 Wandong Road.
- Dry Creek alignment is within close proximity to the project area's east. It is an important waterbody that will be highly sensitive to change and impact from adjoining development, including any ground disturbance and/or vegetation removal.
- The project area abuts sensitive residential interfaces to the east, west and north and access driveways to these residential properties may be impacted as a result of changed road alignments.
- Project area includes privately owned land, whereby potential land acquisitions may be required.
- Gas pipeline to the east may limit opportunities for design alignments and scope.

LEGEND - OPPORTUNITY & CONSTRAINTS

	PROJECT AREA
	LEVEL CROSSINGS
	MAIN ROADS
	LOCAL ROADS & STREETS
	TRAIN LINE
	RAIL STATION
	OPPORTUNITY
	CONSTRAINT
	KEY/INFORMAL PEDESTRIAN MOVEMENT
	EXISTING PEDESTRIAN AT-GRADE CROSSING
	KEY VEHICLE MOVEMENT
	GAS AND OIL PIPELINE
	SENSITIVE INTERFACE
	HERITAGE OVERLAY
	EXISTING MATURE VEGETATION
	KEY VIEWS
	MAJOR WATERBODIES

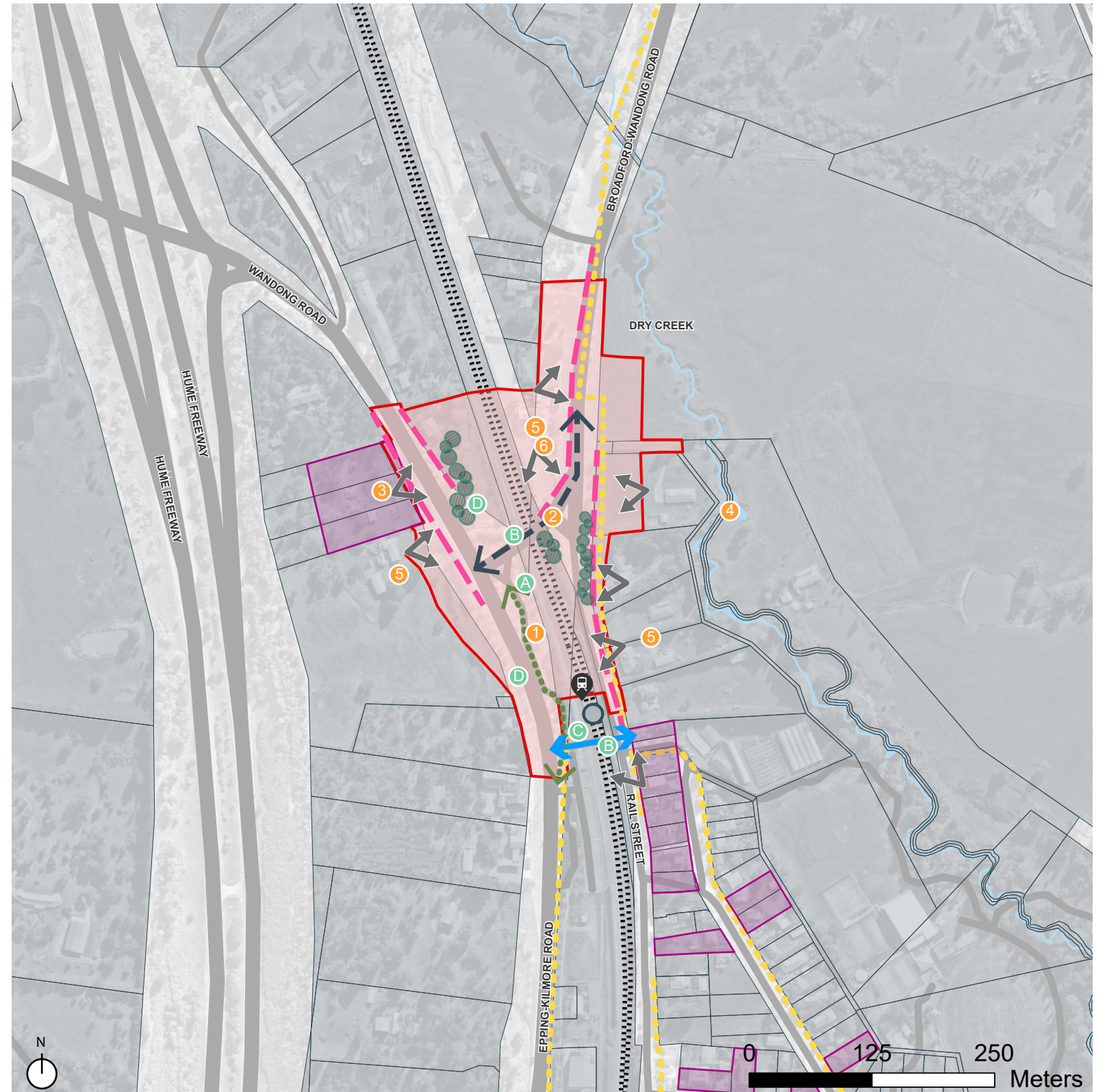


Figure 9 : Wandong Opportunities and Constraints Map

Wandong

Key Objectives

The Wandong project area is a critical gateway into the town, as well as the single vehicular link within the town.

Key objectives for the Wandong project area are outlined below. Note that all key objectives are considered to be of equal importance and significance and are therefore not listed in a hierarchical order.

- 1 An enhanced visual gateway that strengthens Wandong's rural township identity and aids orientation to pedestrians, cyclists and vehicle users.
Relevant Urban Design Principles: 1, 5, 9
- 2 A respectful re-establishment of Pickett Walk that accommodates the historical references, recreational space and trail connectivity with Wandong's open space and pedestrian/cycling trail networks.
Relevant Urban Design Principles: 7, 9, 10
- 3 Retention and restoration of adjacent streetscapes that reaffirm Wandong's character and heritage, to provide for the comfortable use of the streets for walking and cycling.
Relevant Urban Design Principles: 3, 5, 12
- 4 An improved road bridge that enhances the pedestrian network by providing a dedicated, universally accessible and safe cross corridor link between the two sides of the railway line.
Relevant Urban Design Principles: 3, 5, 6
- 5 A strengthening of the relaxed, laid-back, rural character of Wandong that emphasizes its connection to the surrounding countryside and topography.
Relevant Urban Design Principles: 1, 9, 12
- 6 A reinstated network of surrounding streets that maximise visual connection from adjacent properties and retain a positive street address that also strengthens personal safety.
Relevant Urban Design Principles: 5, 6, 7

LEGEND - OBJECTIVES

- PROJECT AREA
- LEVEL CROSSINGS
- MAIN ROADS
- LOCAL ROADS & STREETS
- TRAIN LINE
- R RAIL STATION
- OBJECTIVE
- MAJOR WATERBODIES
- KEY PEDESTRIAN MOVEMENT
- KEY PUBLIC REALM INTERFACE
- KEY VISUAL LINE
- KEY GATEWAY LOCATION

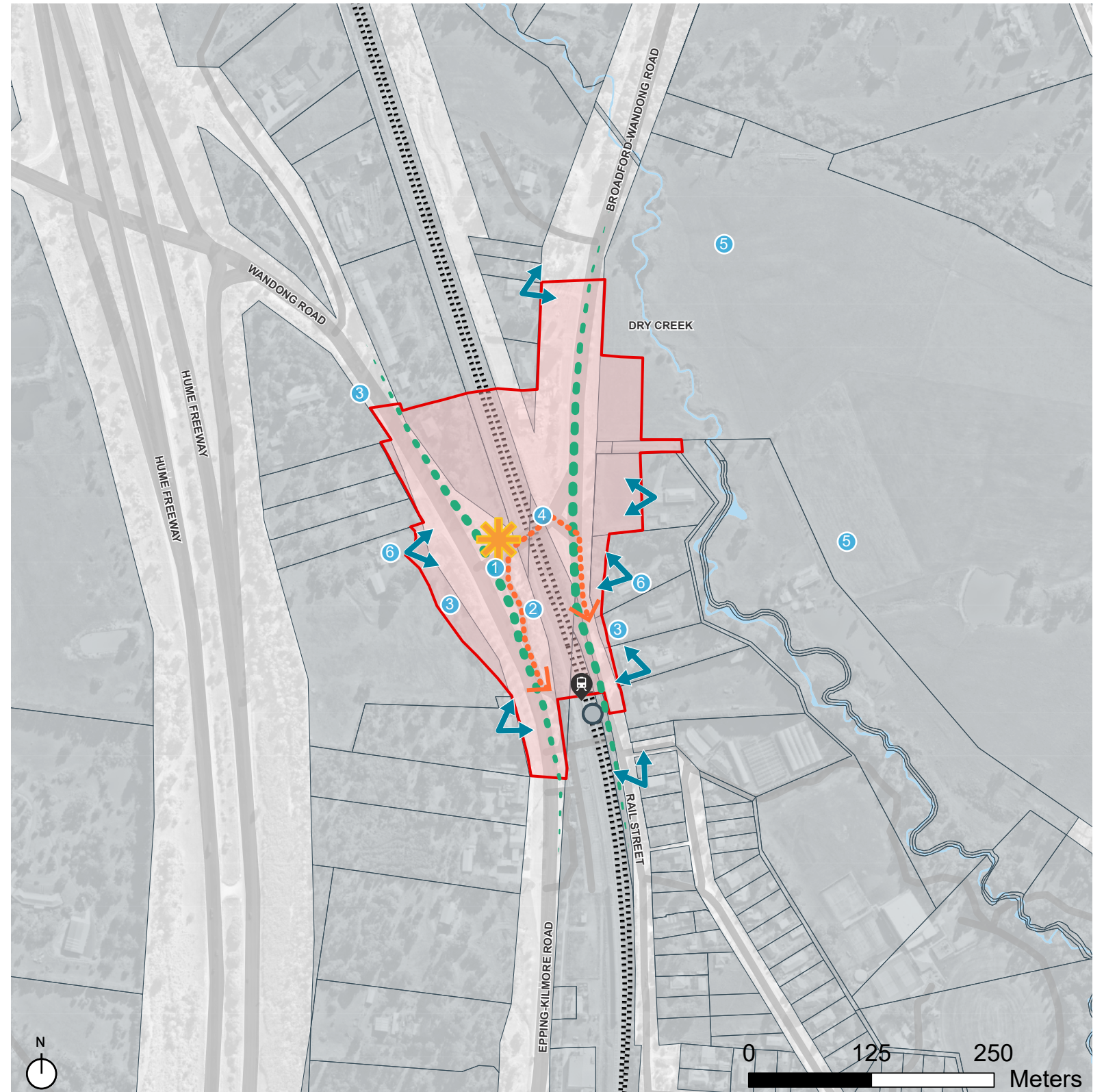


Figure 10 : Wandong Urban Design Objectives Map

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04

Broadford

- Context Analysis
- Opportunities and Constraints
- Urban Design Objectives

Broadford

Context Analysis

Geographic Context

Broadford is a peri-urban town, located approximately 75km north of Melbourne CBD and hosts a population of approximately 4,741. The township has scope to grow in population size, with an estimated 7,101 residents by 2041.

The established township comprises of a centrally located railway station, High Street shopping strip and a range of educational, recreational and community facilities.

Broadford is surrounded by highly valued countryside views and vegetation. The township's settlement is shaped by the undulating topography, as well as Sunday and Dry Creeks which traverse through and around Broadford. The low scale built form provides distant views towards Mount Piper and surrounding hilltops.

LEGEND - GEOGRAPHIC CONTEXT

- PROJECT AREA
- TRAIN STATION
- LEVEL CROSSINGS
- MAJOR ROADS
- TRAIN LINE
- MAJOR RESERVES AND OPEN SPACE
- MAJOR WATERBODIES
- COMMERCIAL ZONE
- PUBLIC USE ZONE
- INDUSTRIAL USE ZONE
- RESIDENTIAL ZONE
- FARMING/RURAL USE ZONE

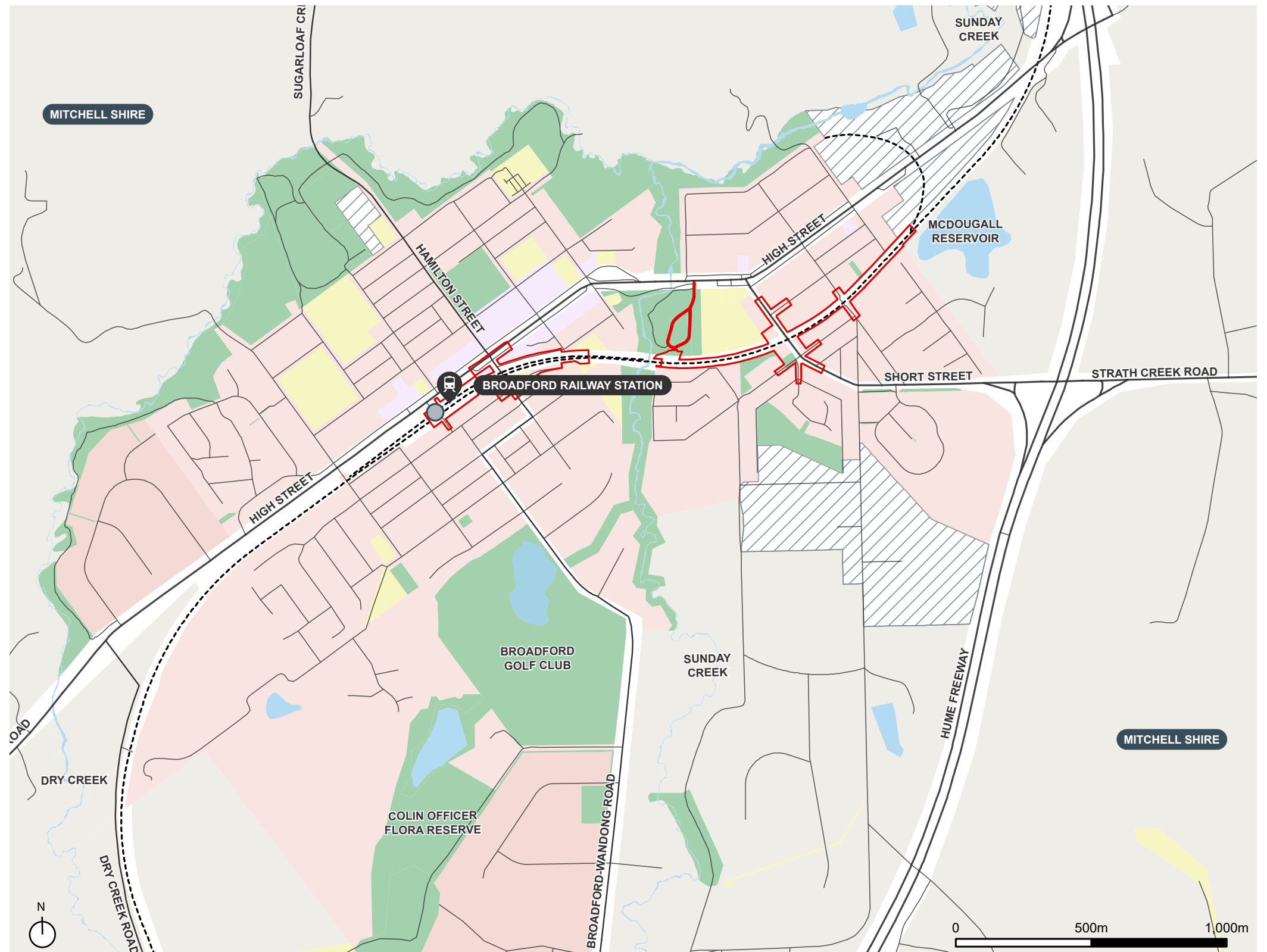


Figure 11 : Broadford Geographic Context Map

Historical Context

Historical Snapshot

The name 'Broadford' is thought to have come from several early settlers who were of Scottish origin, particularly the Isle of Skye, which has a settlement called Broadford.

1838

The first European settler in Broadford was Lt. Col. Henry White.

1858

Discovery of gold in the nearby Reedy Creek and later, at Strath Creek and Sunday Creek, which quickly turned Broadford into a mining town.

1872

The North East Railway Line was built through the Broadford township. Broadford Railway Station opened alongside the opening of the rail line.

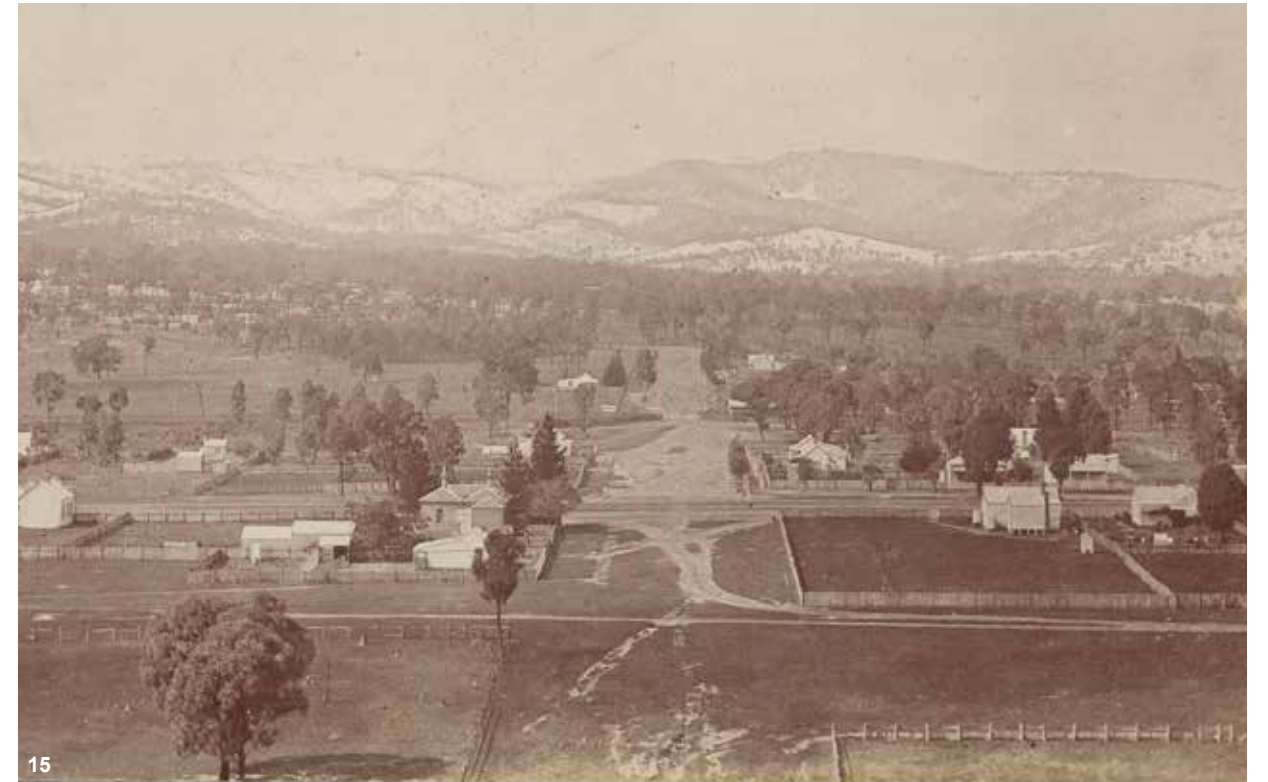
1962

The North East standard gauge line opens.

An area traditionally connected with Broadford has been Sugarloaf Creek, Victoria, which is located to the immediate south of Broadford. Sugarloaf Creek is known for being the first inland settlement in Victoria when it was set up by Charles Ebden and Charles Bonney in 1837.



14



15



16



17

14 High Street looking south, 1906.

15 Broadford township, 1906.

16 Broadford express train heading for Melbourne, 1908.

17 Alluvial gold was found along Reedy Creek to the east of the Broadford township, with alluvial mining peaking in 1864.

Preliminary Landscape Character and Impact Sensitivity Assessment

A preliminary Landscape Character Impact Sensitivity Assessment was undertaken for the Broadford sites. Landscape character impacts for land within and surrounding the project area have been assessed according to their assigned Landscape Character Zones (LCZ).

LCZs are areas which can be defined in terms of level of development, urban character, land use, landform, vegetation coverage, presence of water, road and street configuration and other characteristic features. A summary of terms and a description of each LCZ can be found at Appendix C.

Project Assumptions for Assessment

The proposed design for Broadford consists of two main interventions; lowering of the rail track at Short Street and a new road bridge at Hamilton Street.

Hamilton Street road bridge will likely require rebuilding with an increased width to accommodate wider pedestrian access, and with an increased height to provide greater clearance above the rail line. The proposed design, however, will remove vehicular access to the bridge from Ferguson Street.

The rail tracks are likely to be lowered at Short Street road bridge, however there is a possibility that the road bridge will need to be rebuilt if the lowering of the rail track would be insufficient. Should this be the case, the rebuild would likely require an increased width to accommodate wider pedestrian and cycling access, and with an increased height to provide greater clearance above the rail line. The project may impact on abutting open spaces, such as Lions Park. During construction, High Street and the accessway to Broadford Bowls Club may be impacted as construction vehicles enter and exit through this street.

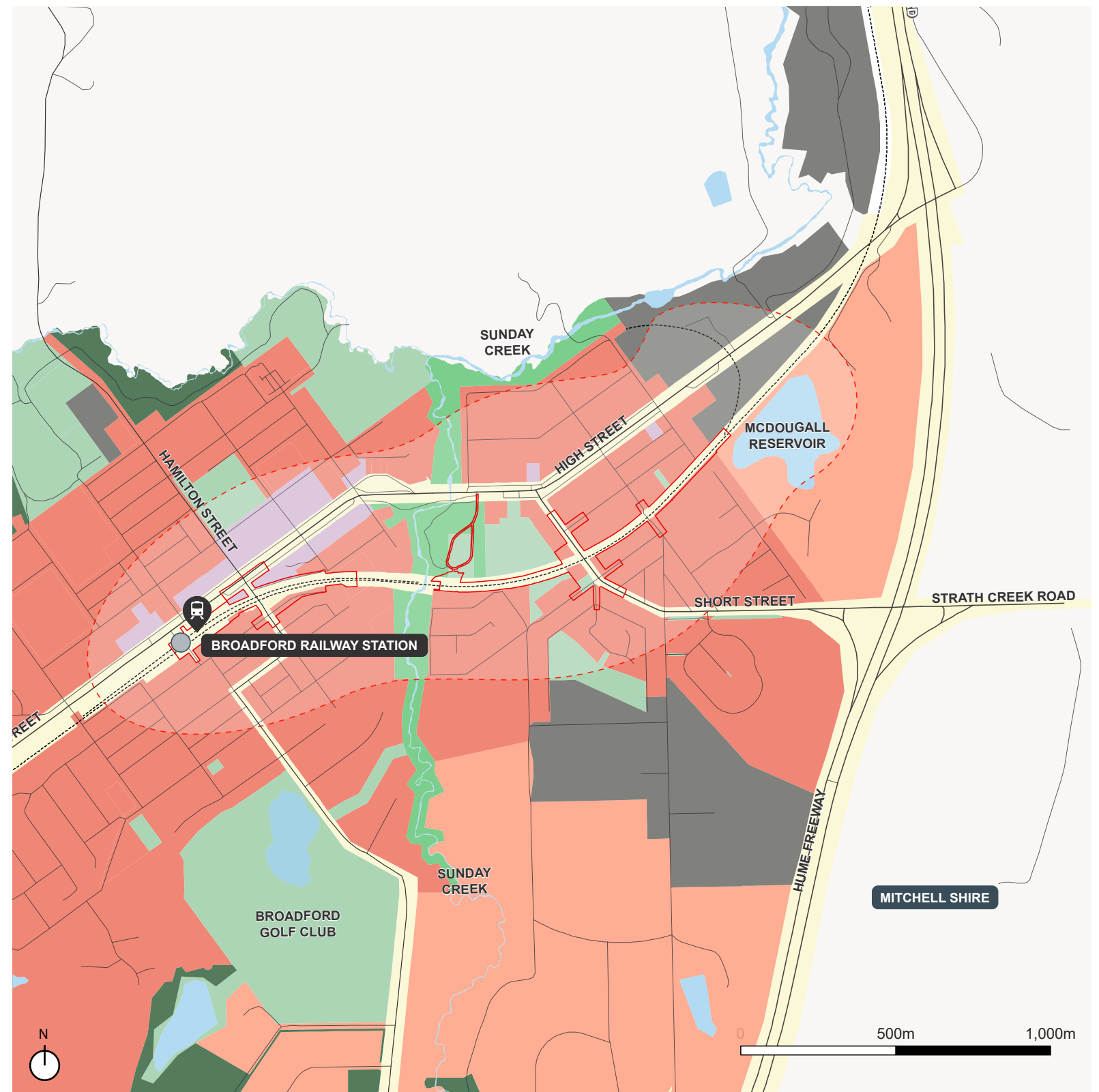
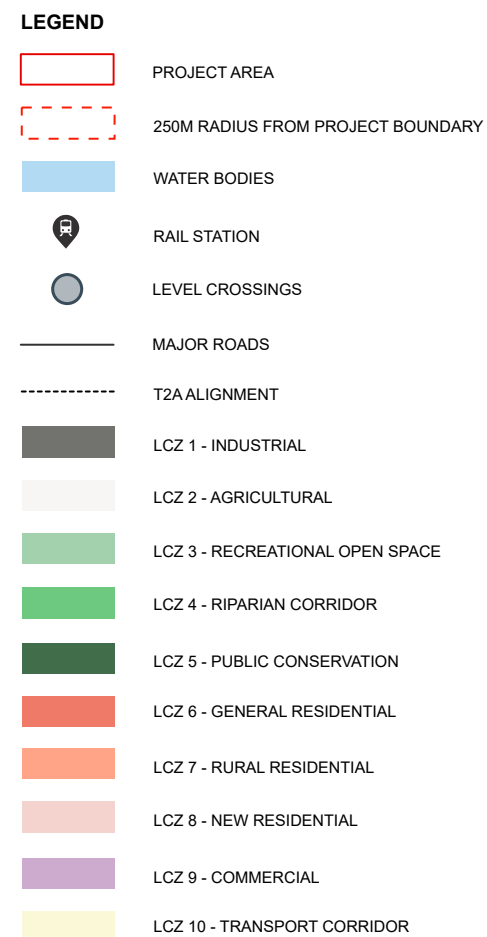


Figure 12 : Broadford Landscape Character Zones Map

Preliminary Landscape Character Impact Assessment - Hamilton Street

Strategic Conclusion

Given a degree of uncertainty of the nature of infrastructure change, this assessment has assumed the impacts of both partial lowering of the rail tracks and rebuilding of the Short Street road bridge.

The most sensitive Landscape Character Zone for the Hamilton Street road bridge is LCZ 6 (General Residential) and LCZ10 (Transport Corridor). The extent of impact will be determined by the extent of vegetation clearing.

Potential mitigation measures to minimise these visual impacts could include but are not limited to:

- Sediment control measures, as well as the minimisation of land take and disturbance during construction.
- Replacement and augmentation of removed tree vegetation within the impacted project area.
- The addition of strategic planting to provide visual screening to minimise the visual impacts.
- Enable quality urban design outcomes to bridge structure.

Magnitude of Impact

Negligible

Low

Moderate to Low / Moderate

High to Moderate / High

Landscape Character Zone	Sensitivity	Magnitude	Landscape Character Impact
 LCZ 1 - Industrial	Negligible Due to its proximity of the proposed extent of works.	Negligible The proposed works are outside this zone	Negligible Impacts can be mitigated through revegetation measures.
 LCZ 2 – Agricultural	Negligible Due to its proximity of the proposed extent of works.	Negligible The proposed works are outside this zone	Negligible Impacts can be mitigated through revegetation measures.
 LCZ 3 – Recreational Open Space	Low Due to its proximity of the proposed extent of works.	Low The proposed works are outside this zone but are within a 250m radius	Low Impacts can be mitigated through revegetation measures.
 LCZ 4 – Riparian Corridor	Low Due to its proximity of the proposed extent of works.	Low The proposed works are outside this zone but are within a 250m radius	Low The proposed works will have minimal impact on this LCZ provided appropriate sediment control measures are in place during construction and water runoff is managed appropriately
 LCZ 5 – Public Conservation	Negligible Due to its proximity of the proposed extent of works	Negligible The proposed works are outside this zone	Negligible The proposed works will not be visible from this LCZ
 LCZ 6 – General Residential	High The proposed extent of works adjoins nearby sensitive residencies	High The proposed works will have the greatest impact on this LCZ.	Moderate Roadside clearing of mature vegetation for set down area along the rail corridor
 LCZ 7 – Rural Residential	Negligible Due to its proximity of the proposed extent or works	Negligible The proposed works are outside this zone	Negligible Impacts can be mitigated through revegetation measures.
 LCZ 8 – New Residential	-	-	-
 LCZ 9 – Commercial	High The proposed extent of works adjoins nearby sensitive residencies	High The proposed works will have minimal impact on this LCZ	Moderate - Low Impacts can be mitigated through revegetation measures.
 LCZ 10 – Transport Corridor	Moderate The proposed extent of works Directly overlays with this LCZ	Moderate The set down area will potentially impact mature vegetation	Moderate Roadside clearing of mature vegetation for set down area along the rail corridor

Preliminary Landscape Character Impact Sensitivity Assessment - Short Street

Strategic Conclusion

The most sensitive Landscape Character Zones involving the Short Street road bridge are LCZ 3 (Recreational Open Space) and LCZ 4 (Riparian Corridor). Although the extent of vegetation clearing is unconfirmed, there is a highly probability that established trees will need to be removed due to the land take required by construction. This has the potential to increase the project's visibility and have a negative impact upon the area encompassed by the project boundary.

Potential mitigation measures to minimise these visual impacts could include but are not limited to:

- Sediment control measures, as well as the minimisation of land take and disturbance during construction.
- Replacement and augmentation of removed tree vegetation within the impacted project area.
- The addition of strategic planting to provide visual screening and to minimise the visual impacts to adjacent sensitive receptors.
- Enable quality urban design outcomes to bridge structure via ongoing community consultation.

Magnitude of Impact

Negligible
Low
Moderate to Low / Moderate
High to Moderate / High

Landscape Character Zone	Sensitivity	Magnitude	Landscape Character Impact
LCZ 1 - Industrial	Moderate Due to its proximity of the proposed extent of works.	Moderate The proposed works are adjoining this LCZ	Moderate Impacts can be mitigated through revegetation measures.
LCZ 2 – Agricultural	Negligible Due to its proximity of the proposed extent of works.	Negligible The proposed works are outside this zone	Negligible Impacts can be mitigated through revegetation measures.
LCZ 3 – Recreational Open Space	High Due to its proximity of the proposed extent of works.	High Set down area within Lions Park and construction impacts within Rupert Reserve	High Open space and roadside clearing of mature vegetation and recreation area means works will be visible but can be mitigated through revegetation and reinstatement measures.
LCZ 4 – Riparian Corridor	High Due to its proximity of the proposed extent of works.	High The proposed works are adjoining this LCZ	High The proposed works have the potential to impact on this LCZ with two drainage lines crossing the proposed site
LCZ 5 – Public Conservation	Negligible Due to its proximity of the proposed extent of works	Negligible The proposed works are outside this zone	Negligible The proposed works will not be visible from this LCZ
LCZ 6 – General Residential	Moderate The proposed extent of works adjoins nearby sensitive residences	Moderate The proposed works will have the greatest impact on this LCZ	Moderate Roadside clearing of mature vegetation means works will be visible but can be mitigated through revegetation measures
LCZ 7 – Rural Residential	Negligible Due to its proximity of the proposed extent or works	Negligible The proposed works are outside this zone	Negligible Impacts can be mitigated through revegetation measures.
LCZ 8 – New Residential	-	-	-
LCZ 9 – Commercial	Moderate The proposed extent of works adjoins nearby sensitive residences	Low The proposed works will have minimal impact on this LCZ	Moderate - Low Impacts can be mitigated through revegetation measures
LCZ 10 – Transport Corridor	Moderate The proposed extent of works Directly overlays with this LCZ	Moderate The set down area will potentially impact mature vegetation	Moderate Roadside clearing of mature vegetation for set down area along the rail corridor

Environment

Topography

The natural topography of the immediate project area and its surrounds is gently undulating despite the broader Broadford township occupying more significantly undulating land. Beyond Dry Creek to the north, the topography becomes more challenging as the land quickly rises and steepens.

Landscape Features

Broadford's prominent landscape features include Sunday Creek, which traverses between two halves of the project area, as well as Dry Creek, located to the north of the project area.

The McDougall Reservoir abuts the rail corridor and is located immediately south of the eastern portion of the project area.

The site context's Environmental Vegetation Class (EVC) numbers are 55 (Plains Grassy Woodland) and 175 (Grassy Woodland). EVC 68 (Creekline Grassy Woodland) can be found all along Dry Creek and Sunday Creek.

Geologically, the project area sits upon Humevale siltstone and undifferentiated Devonian sedimentary rocks.

LEGEND - ENVIRONMENT

- PROJECT AREA
- LEVEL CROSSINGS
- MAJOR ROADS
- TRAIN LINE
- TRAIN STATION
- MAJOR RESERVES & OPEN SPACE
- MAJOR WATERBODIES
- 1M CONTOUR LINE
- EVC 55 PLAINS GRASSY WOODLAND
- EVC 68 CREEKLINE GRASSY WOODLAND
- EVC 68 CREEKLINE GRASSY WOODLAND

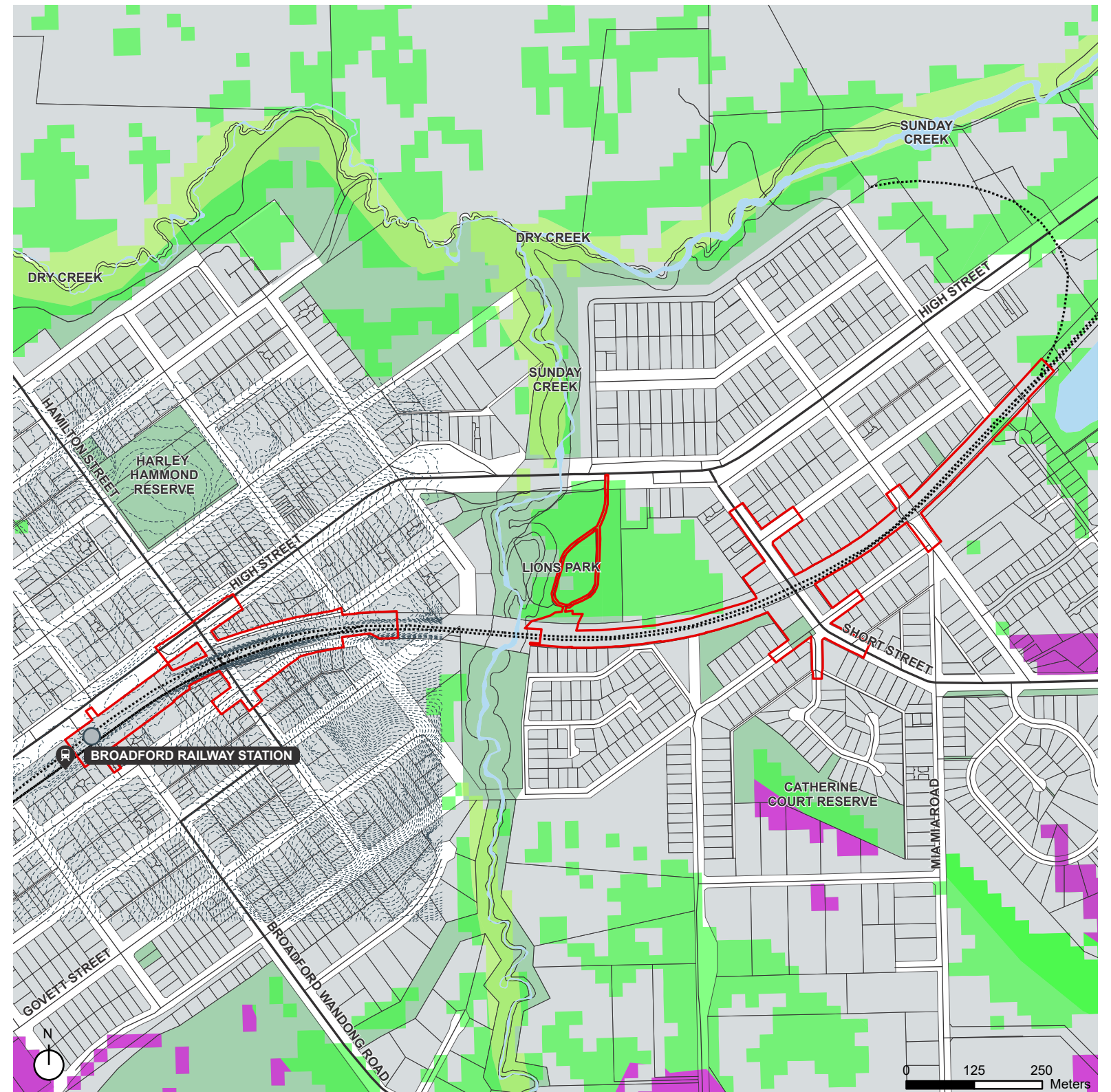


Figure 13 : Broadford Environmental Attributes Map

Site Character



18 View of High Street from Hamilton Street road bridge.

19 Hamilton Street road bridge primarily serves motor vehicles, comprising of a small and narrow pedestrian footpath on the western side of the carriageway.

20 Short Street road bridge, heading south.



21 Abundance of vegetation along the rail corridor acting as a sufficient landscape buffer between the rail corridor and adjacent residential properties.

22 Short Street road bridge overlooking the rail corridor.

23 Mature vegetation abuts the Hamilton Street road bridge.

24 Much of the rail corridor abuts sensitive residential interfaces.

25 Broadford is home to many native and non-native mature trees and a scenic hilly landscape setting.

26 Short Street road bridge, looking north-west. A pedestrian path is provided on the eastern side of the bridge.



Land Use Context

Residential

Low density single detached residential properties can be found surrounding the project area, predominantly around it's western half.

Commercial/Industrial

The Broadford Town Centre is located near the western end of the project area, with shops situated along either side of High Street. These comprise of a supermarket, bank, pharmacies, restaurants, retail stores and places of worship.

More industrial uses can be found towards the eastern end of the project area and to the south, comprising of concrete and firewood suppliers, self-storage facilities, packaging companies, the Broadford sawmill and food manufacturers.

Immediately to the northwest and northeast of the Hamilton Street road bridge is a carwash facility and cafe facility respectively

Community Facilities and Recreation

Community and recreational facilities are mainly located on the northern side of the rail corridor. The Broadford Living and Learning Centre, as well as Youth Centre, are located just north of the middle section of the project area on the corner of High Street and Short Street. The Broadford Bowling Club located within Lions Park is also located nearby.

The Broadford Shire Hall, outdoor public pool, soccer and baseball clubs are also located to the north of the project area. To the south, the Broadford golf club provides a large recreational and green open space for the locality.
























Broadford has several educational facilities comprising of pre-schools located on either side of the corridor, as well as a primary school and a secondary school, which are both located on the northern side of the corridor.

The Broadford CFA and Nexus Primary Health Centre are located in close proximity to the Hamilton St project area.

Open Space

Nearby public open spaces include the Broadford Recreation Reserve, the Harley Hammond Reserve, Lions Park, the Sutherland Street Playground and the Broadford Common grounds. In addition, Rupert Reserve provides for informal public open space area and children's playground adjacent to the project area at the corner of Rupert Street and Short Street.

LEGEND - LAND USE

	PROJECT AREA
	LEVEL CROSSINGS
	MAJOR ROADS
	TRAIN LINE
	MAJOR RESERVES AND OPEN SPACE
	MAJOR WATERBODIES
	COMMERCIAL ZONE
	PUBLIC USE - EDUCATION
	PUBLIC USE - OTHER
	PUBLIC USE - LOCAL GOVERNMENT
	PUBLIC USE - SERVICE & UTILITY
	INDUSTRIAL USE
	RESIDENTIAL
	FARMING/RURAL USE
	RAIL STATION
	EDUCATION CENTRE
	EMERGENCY SERVICE
	COUNCIL BUILDING
	HEALTH SERVICE
	PARK/RESERVE & GARDENS
	SPORTING FACILITY/GROUNDS
	HERITAGE SITE
	COMMUNITY CENTRE

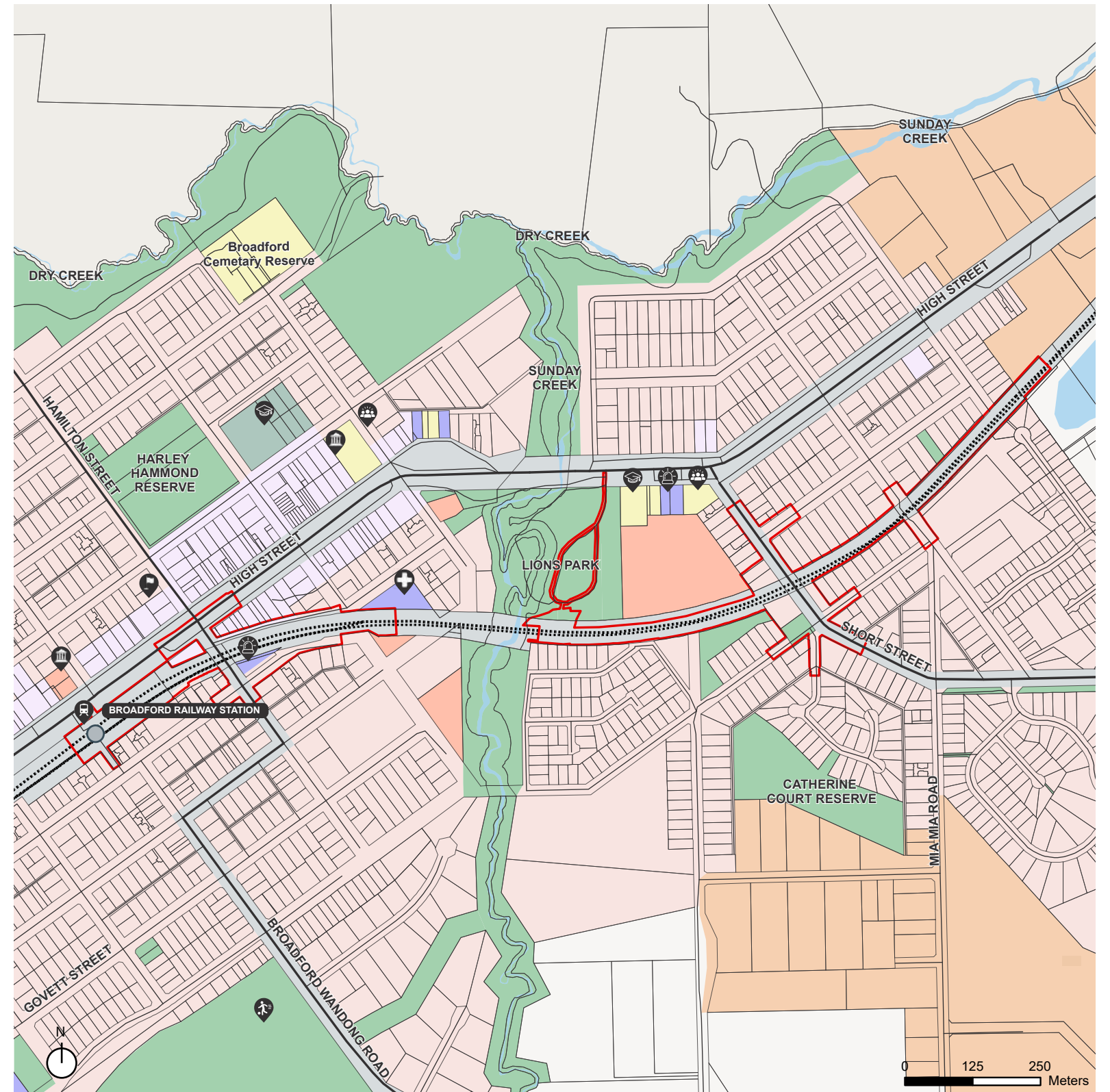


Figure 14 : Broadford Land Use Map

Built Form and Heritage

Built Form and Character

The character of the project area and its surrounds maintains the 'village feel' of a quaint rural town, sustained through low density residential brick or weatherboard properties and commercial stores operating within older post-war style buildings.

Built form is less prominent towards the eastern end of the project area and mainly comprises of industrial warehouses and sheds of larger building footprints.

The street layout surrounding the western end of the project area around the Broadford town centre adheres to a grid pattern, with street alignments appearing more curvilinear further to the south and west as the road system deals with the varying topography.

Aboriginal Cultural Heritage

Prior to European settlement, The Taungurung Clan of the Kulin Nation were the first inhabitants of Broadford. Traditionally, the Taungurung people relied upon the rich resources of the rivers, creeks and floodplains such as Sunday and Dry Creek for fish and other wildlife including birds, kangaroo, koala and emu. The Taungurung People migrated through their Country dependent upon the seasonal variations of weather and the availability of food. European settlement first occurred in the region in the early 1800's.

Many Taungurung people still live on their country and participate widely in the community as Cultural Heritage Advisors, Land Management Officers, artists and educators, and are a ready source of knowledge concerning the Taungurung people from the central areas of Victoria. The Taungurung Clans Aboriginal Corporation is based in Broadford, with their offices being located along High Street, opposite Broadford Railway Station.

Heritage

There are several buildings and places within the vicinity of the project area that are of local heritage significance. Bluestone culverts, the Broadford Pinniger Street Precinct, St. George's Presbyterian Church and the Broadford Pre-1912 Group (residential dwelling) are all of local heritage significance, and are located around Broadford Railway Station.

LEGEND - BUILT FORM & HERITAGE

- PROJECT AREA
- LEVEL CROSSINGS
- MAJOR ROADS
- TRAIN LINE
- MAJOR RESERVES AND OPEN SPACE
- MAJOR WATERBODIES
- HO - HERITAGE OVERLAY
- ABORIGINAL CULTURAL SENSITIVITY
- R TRAIN STATION
- H HERITAGE SITE

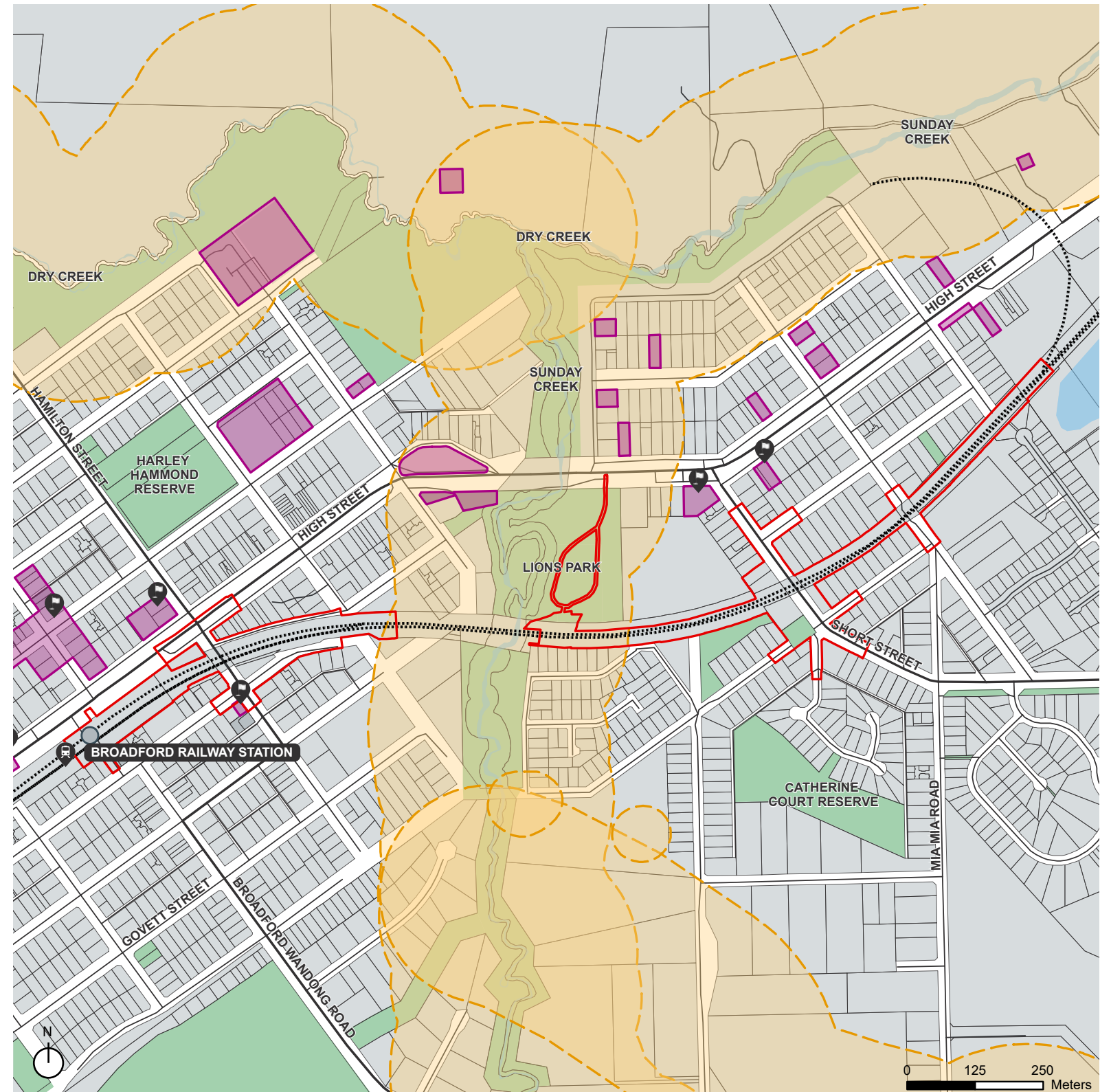


Figure 15 : Broadford Heritage Map

Transport and Access

Public Transport

Public transport is limited to rail services accessed at Broadford Railway Station towards the western end of the project area. The station is predominantly accessed by the public via private motor vehicle. Access by motor vehicle across the rail line within Broadford is limited to the Hamilton street and Short Street road bridges.

Broadford Railway Station is located within the western portion of the project area. The station accommodates V-Line services including the North East Line, which has 10 scheduled services (five in each direction) per day. The station has two platforms and three rail tracks.

The project area envelops one bus stop situated at the train station which mainly services the Balfours Airport Direct regional bus service, travelling from Mooroopna/Shepparton to Melbourne Airport.

Active Transport

Cross corridor pedestrian access is limited to an at-grade pedestrian crossing adjacent to Broadford Railway Station. The road bridges at Hamilton street and Short Street have narrow pedestrian footpaths that allow for some pedestrian access across the rail corridor. The two bridges act as critical cross corridor connections for pedestrians to access the town centre core.

Road Transport

Several shared use trails can be found running alongside Sunday Creek and Dry Creek, providing an active transport traverse as a part of the broader network.

LEGEND - TRANSPORT & ACCESS

- PROJECT AREA
- LEVEL CROSSINGS
- ARTERIAL ROADS
- TRAIN LINE
- BUS STOPS
- MAJOR RESERVES AND OPEN SPACE
- MAJOR WATERBODIES
- R TRAIN STATION



Figure 16 : Broadford Transport Map

Broadford - Hamilton Street

Opportunities and Constraints

Opportunities

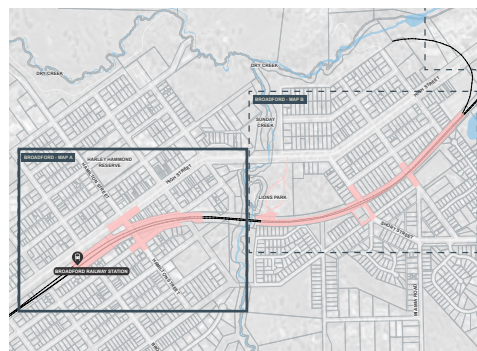
- Due to the project area's significant length across the township, there is opportunity to provide better visual amenity between the rail corridor and adjacent interfaces, to enhance visual appeal and contribute to the identity of Broadford.
- Creation of a local landmark and gateway entrance into Broadford via the construction of the Hamilton Street road bridge, as outlined in the Broadford Urban Design Framework (2018).
- Enhancement of north-south cross corridor pedestrian and cycling connections to better integrate the communities on either side of the rail corridor.
- Improvement to pedestrian, cyclist and vehicular safety the Hamilton and High Street intersection, therefore contributing to the overall enhancement of the Broadford Town Centre.
- Reinstatement and improvement of landscape assets to provide a consistent, high-quality landscape character along the rail corridor's urban interface.

Constraints

- The rail corridor acts as a significant physical barrier between the north and the south, whereby cross-corridor access is severely limited.
- The western portion of the project area is surrounded by numerous buildings subject to heritage overlays.
- The project area abuts various privately owned properties on both sides of the rail corridor.
- The project area is in close proximity to Sunday Creek and Dry Creek, both of which are important to Broadford's local identity and flora and fauna. Both creeks act as essential wildlife links and are highly sensitive to change from adjacent development.
- The project may pose minor impacts to adjacent businesses, namely the cafe and carwash on the northern side of High Street. Likely impacts include business disruption during construction and the loss of the coffee shop car park.
- Existing land grade between Hamilton Street and High Street intersection is relatively steep and is prone to black ice conditions.

LEGEND - OPPORTUNITY & CONSTRAINTS

- PROJECT AREA
- LEVEL CROSSINGS
- MAIN ROADS
- LOCAL ROADS & STREETS
- TRAIN LINE
- RAIL STATION
- OPPORTUNITY
- CONSTRAINT
- KEY/INFORMAL PEDESTRIAN MOVEMENT
- EXISTING AT GRADE PEDESTRIAN CROSSING
- EXISTING PEDESTRIAN GRADE SEPARATED CROSSING
- KEY VEHICLE MOVEMENT
- SENSITIVE INTERFACE
- ACTIVE INTERFACE
- HERITAGE OVERLAY
- EXISTING MATURE VEGETATION
- BUFFER ZONE/VEGETATION CORRIDOR
- KEY VIEWS



Broadford Sites Overview Map



Figure 17 : Broadford - Hamilton Street Opportunities and Constraints Map

Broadford - Short Street

Opportunities and Constraints

Opportunities

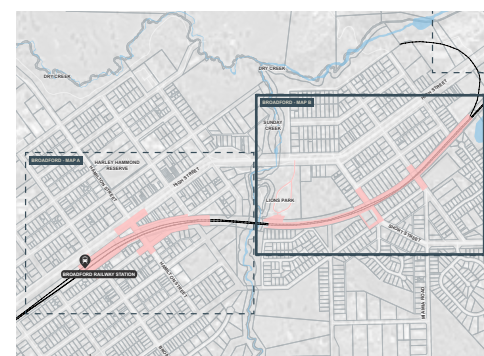
- a. Due to the project area's significant length across the township, there is opportunity to provide better visual amenity between the rail corridor and adjacent interfaces, to enhance visual appeal and contribute to the identity of Broadford.
- b. Should a bridge replacement at Short Street be pursued, there is an opportunity to create a local landmark and gateway entrance into Broadford via the construction of the Short Street road bridge, as outlined in the Broadford Urban Design Framework (2018).
- c. Enhancement of north-south cross corridor pedestrian connections to better integrate the communities upon either side of the rail corridor.
- d. Reinstatement of Rupert Reserve as an improved open space asset that also contributes to the landmark gateway of Short Street.

Constraints

- 1. The rail corridor acts as a significant physical barrier between the north and the south, whereby cross-corridor access, particularly for pedestrians, is severely limited.
- 2. The project area abuts a number of public open spaces and parklands that are significant and well utilised and appreciated by the local community, such as Rupert Reserve. Disturbances to some of these public open spaces may occur as a result of the project.
- 3. The project area abuts various privately owned properties on both sides of the rail corridor.
- 4. The project area is in close proximity to Sunday Creek and Dry Creek, both of which are important to Broadford's local identity and flora and fauna. Both creeks act as essential wildlife links and are highly sensitive to change from adjacent development.
- 5. Accessways through Lions Park are relatively degraded and may not be suitable for construction vehicle movements. Utilisation of Lions Park will need to be coordinated with, and to the satisfaction of Mitchell Shire Council prior to works commencing.

LEGEND - OPPORTUNITY & CONSTRAINTS

- PROJECT AREA
- LEVEL CROSSINGS
- MAIN ROADS
- LOCAL ROADS & STREETS
- TRAIN LINE
- RAIL STATION
- A OPPORTUNITY
- I CONSTRAINT
- <- - - - -> KEY/INFORMAL PEDESTRIAN MOVEMENT
- <- - - - -> EXISTING PEDESTRIAN GRADE SEPARATED CROSSING
- <- - - - -> KEY VEHICLE MOVEMENT
- SENSITIVE INTERFACE
- HERITAGE OVERLAY
- EXISTING MATURE VEGETATION
- ~ ~ ~ ~ ~ BUFFER ZONE/VEGETATION CORRIDOR
- KEY VIEWS
- MAJOR WATERBODIES



Broadford Sites Overview Map

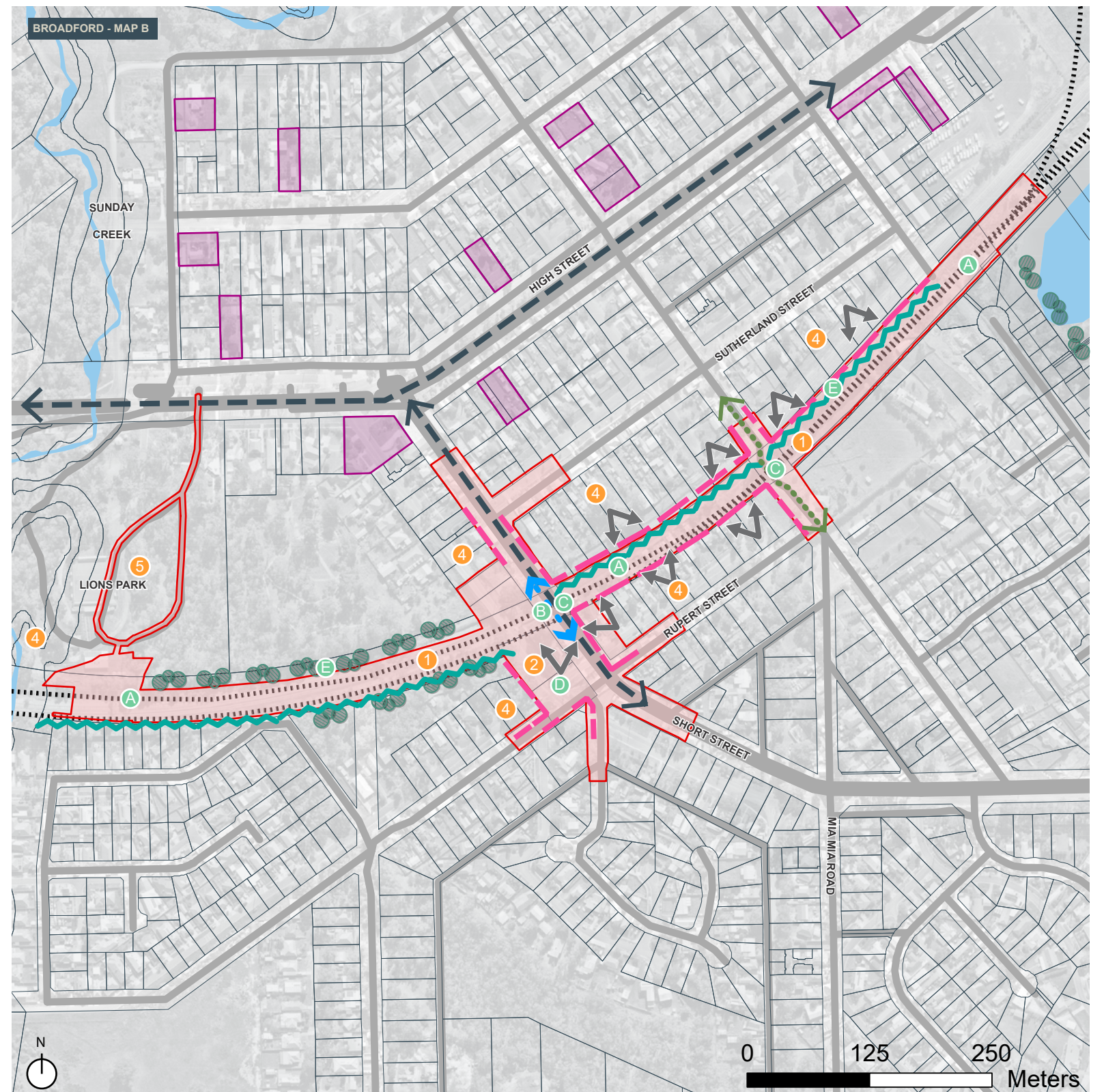


Figure 18 : Broadford - Short Street Opportunities and Constraints Map

Broadford - Hamilton Street

Key Objectives

The Hamilton Street project area's proximity to High Street elevates its prominence and focuses attention on access to the town centre by all modes of movement.

Key objectives for the Hamilton Street - Broadford project area are outlined below. Note that all key objectives are considered to be of equal importance and significance and are therefore not listed in a hierarchical order.

- 1 An optimised vertical and horizontal alignment along Hamilton Street that provides for vehicular safety and accommodates pedestrians and cyclists safely on both sides of street.
Relevant Urban Design Principles: 3, 5, 6
- 2 A strengthening of Broadford's 'country town feel' that contributes positively to the western end of the town centre core through the use of appropriate materials, colour, scale and mass for new built form.
Relevant Urban Design Principles: 1, 7, 9
- 3 A safe Hamilton Street/High Street intersection that improves access to and across High Street for all transport modes.
Relevant Urban Design Principles: 5, 6, 8
- 4 A reimagining of Ferguson Street North (rear lane) that maintains pedestrian connectivity to key town centre destinations and establishes a new pattern of use.
Relevant Urban Design Principles: 1, 6, 7
- 5 A well-integrated public realm that innovatively repurposes space between the new roadway and adjacent properties into safe, accessible and useable spaces that support the town centre.
Relevant Urban Design Principles: 5, 6, 7

LEGEND - OBJECTIVES

- PROJECT AREA
- LEVEL CROSSINGS
- MAIN ROADS
- LOCAL ROADS & STREETS
- TRAIN LINE
- R RAIL STATION
- 1 OBJECTIVE
- MAJOR WATERBODIES
- KEY PEDESTRIAN MOVEMENT
- KEY PUBLIC REALM INTERFACE
- KEY VISUAL LINE
- KEY GATEWAY LOCATION
- KEY PRECINCT FOCUS

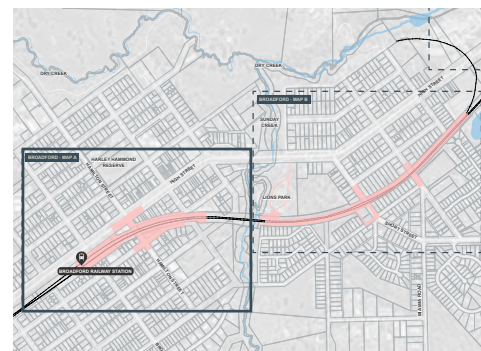


Figure 19 : Broadford - Hamilton Street Urban Design Objectives Map

Broadford - Short Street

Key Objectives

The Short Street project area is the primary entrance into Broadford from the Hume Freeway with an important role of orientating visitors and announcing the town centre.

Key objectives for the Short Street - Broadford project area are outlined below. Note that all key objectives are considered to be of equal importance and significance and are therefore not listed in a hierarchical order.

- 1 A new town gateway landmark that leverages its unique location and the space and visibility afforded by existing road alignments and Rupert Reserve.
Relevant Urban Design Principles: 1, 8, 9
- 2 A reimagined Rupert Reserve as a welcoming and usable local public space that contributes to the ambition of a 'visually stunning town'.
Relevant Urban Design Principles: 5, 7, 12
- 3 The facilitation of a future, connected pedestrian and cycling network through the provision of safe space for pedestrians and cyclists across the rail line, regardless of the chosen engineering solution.
Relevant Urban Design Principles: 2, 5, 6
- 4 A reinstated network of surrounding streets that maximise visual and physical connection from adjacent properties and public spaces.
Relevant Urban Design Principles: 5, 6, 7
- 5 An engaging town entry experience that strengthens Broadford's 'country town feel' and assists moderating driver behaviour.
Relevant Urban Design Principles: 1, 9, 12

LEGEND - OBJECTIVES

- PROJECT AREA
- LEVEL CROSSINGS
- MAIN ROADS
- LOCAL ROADS & STREETS
- TRAIN LINE
- RAIL STATION
- OBJECTIVE
- MAJOR WATERBODIES
- KEY PEDESTRIAN MOVEMENT
- KEY PUBLIC REALM INTERFACE
- KEY VISUAL LINE
- KEY GATEWAY LOCATION

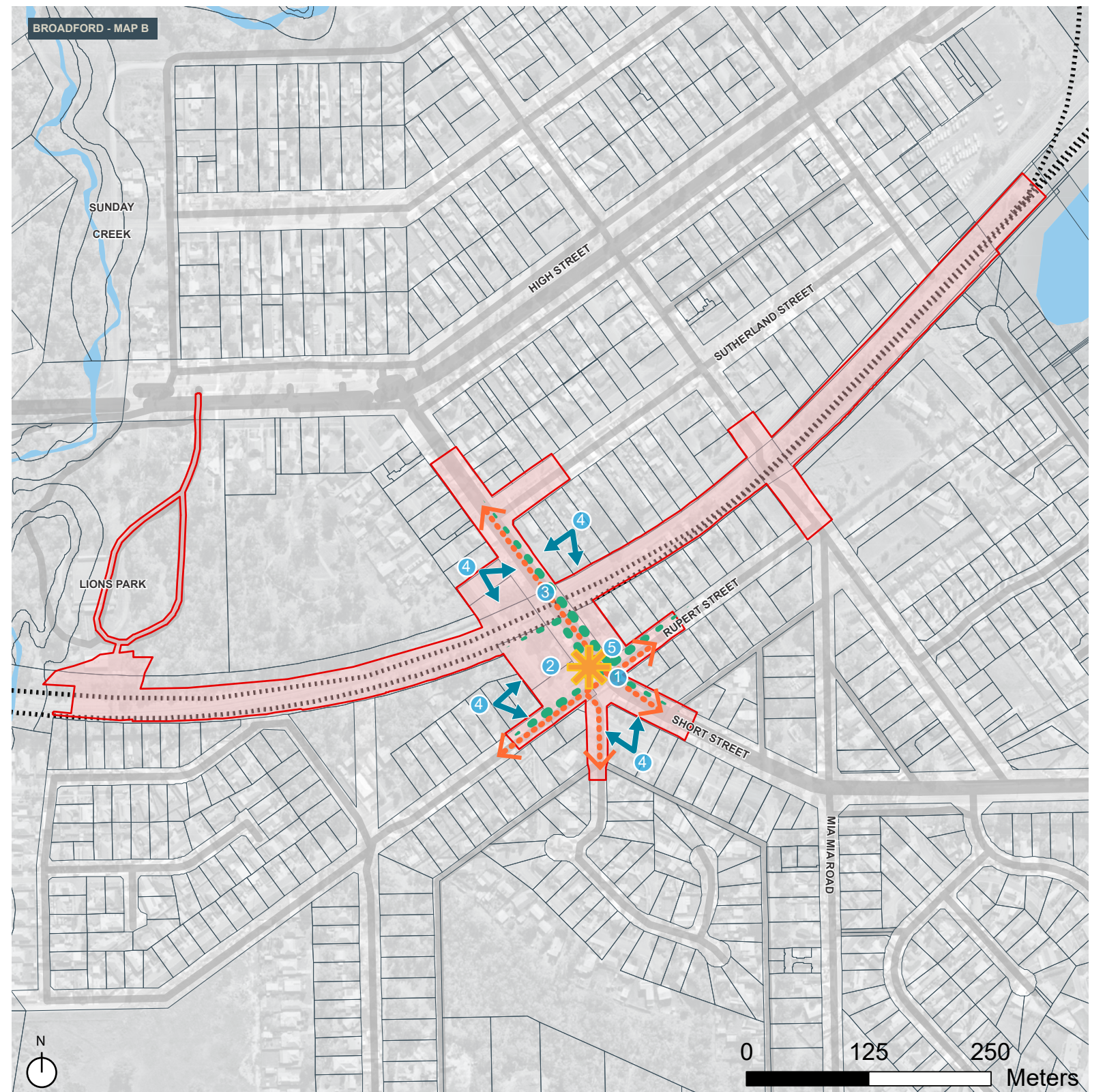
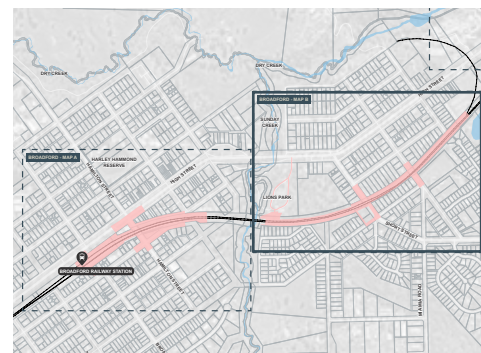


Figure 20 : Broadford - Short Street Urban Design Objectives Map

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05

Euroa

- Context Analysis
- Opportunities and Constraints
- Urban Design Objectives

Euroa

Context Analysis

Geographic Context

Euroa is a small town located within Strathbogie Shire, approximately 160km north-east of Melbourne CBD and has a population of approximately 3,275 people.

Euroa is well serviced by a wide variety of community and recreational facilities, and green open spaces. The rail corridor cuts through the township, with Euroa Railway Station centrally located next to the main town centre.

Euroa is a picturesque town, nestled at the base of the Strathbogie ranges and has Seven Creeks and Castle Creeks running through, adding to its natural and rural character and setting.

LEGEND - GEOGRAPHIC CONTEXT

- PROJECT AREA
- TRAIN STATION
- LEVEL CROSSINGS
- MAJOR ROADS
- TRAIN LINE
- MAJOR RESERVES AND OPEN SPACE
- MAJOR WATERBODIES
- COMMERCIAL ZONE
- PUBLIC USE ZONE
- INDUSTRIAL USE ZONE
- RESIDENTIAL ZONE
- FARMING/RURAL USE ZONE

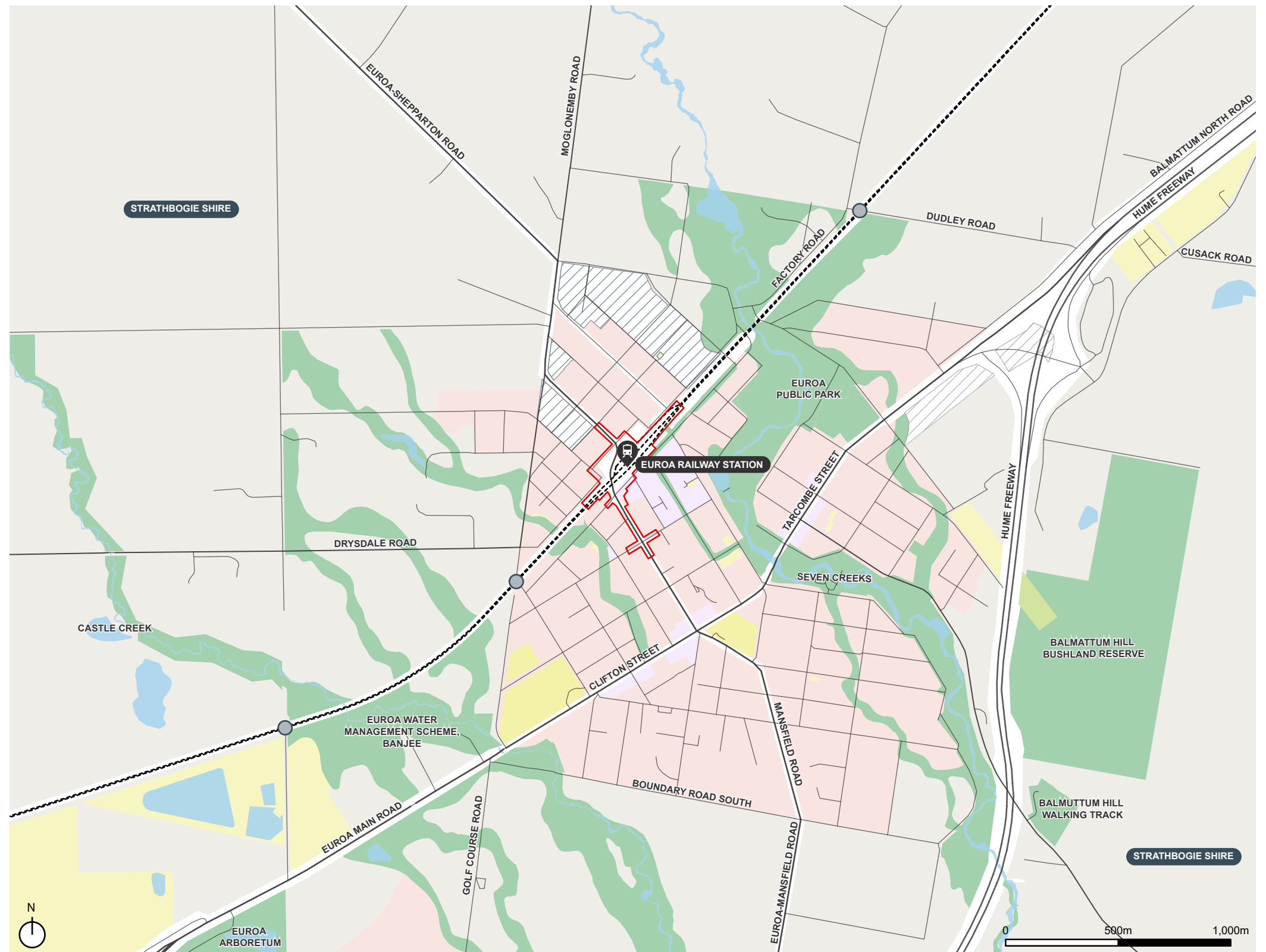


Figure 21 : Euroa Geographic Context Map

Historical Context

Historical Snapshot

The name 'Euroa' originated from the Aboriginal name 'Yero-O', meaning 'joyful'.

1836

Sir Thomas Mitchell surveys the land and camped on the banks of the Seven Creeks at Euroa.

1850s

Early settlement in Euroa was established due to the traffic generated by the gold rush.

1851

Eliza Forlong introduces the first fine-wool Saxon merino sheep into Victoria, locating them at Seven Creeks. This led to Euroa's strong fine-wool production.

1873

Euroa Railway Station opens.

1878

Ned Kelly robbed the town's National Bank, which generated great interest in the town.

1952

Circus truck hit by train at the then level crossing, with two circus performer casualties.

1953

Euroa Post Office opened as the township was settled and is now listed on the Australian Commonwealth Heritage List.

1960s

Level crossing was removed and the Scott-Anderson Street road bridge was built.

1962

The North East standard gauge line opens.

1992

Hume Freeway opens to traffic removing through-traffic from town.



27



28



29



30

27 Euroa Township, including the Euroa Hotel 1887.

28 Railway Street, Euroa 1958.

29 Euroa Township shot from the railway semaphore signal, 1912.

30 Dukes Crescent, Euroa, which was removed in the 1960s for the standard gauge line.

Preliminary Landscape Character and Impact Sensitivity Assessment

A preliminary Landscape Character Impact Sensitivity Assessment was undertaken for the Euroa site. Landscape character impacts for land within and surrounding the project area have been assessed according to their assigned Landscape Character Zones (LCZ).

LCZs are areas which can be defined in terms of level of development, urban character, land use, landform, vegetation coverage, presence of water, road and street configuration and other characteristic features. A summary of terms and a description of each LCZ can be found at Appendix C.

Project Assumptions for Assessment

Two feasible options are being considered at Euroa:

Oversized Vehicle Underpass (Feasible Option A)

This option includes the provision of a road underpass in place of the existing bridge, allowing for a road clearance of 5.9 metres and requiring approximately 300 metres of approach road realignment to achieve the required level at the rail line.

Road Bridge (Feasible Option B)

This option includes the replacement of the Scott-Anderson Street road bridge with a new road bridge over the rail line. The new road bridge would require an increased height in order to provide adequate rail clearance. Road connections from the bridge to the station platform and Railway Street are to be investigated in efforts to reinstate this connection.

Both options will include the realignment of the eastern track and platform to the west of the station, as well as a new pedestrian underpass to the north of the station.

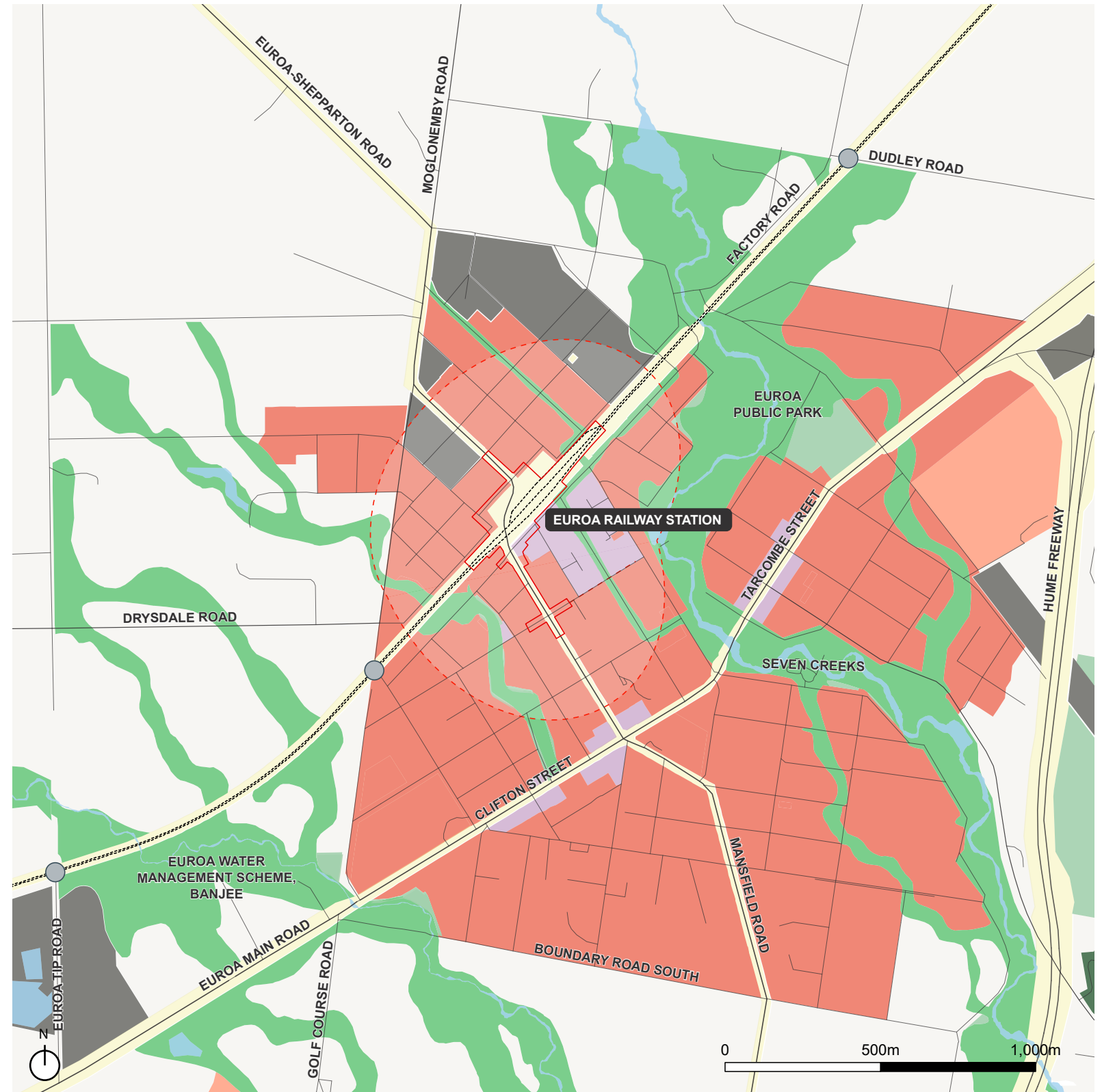
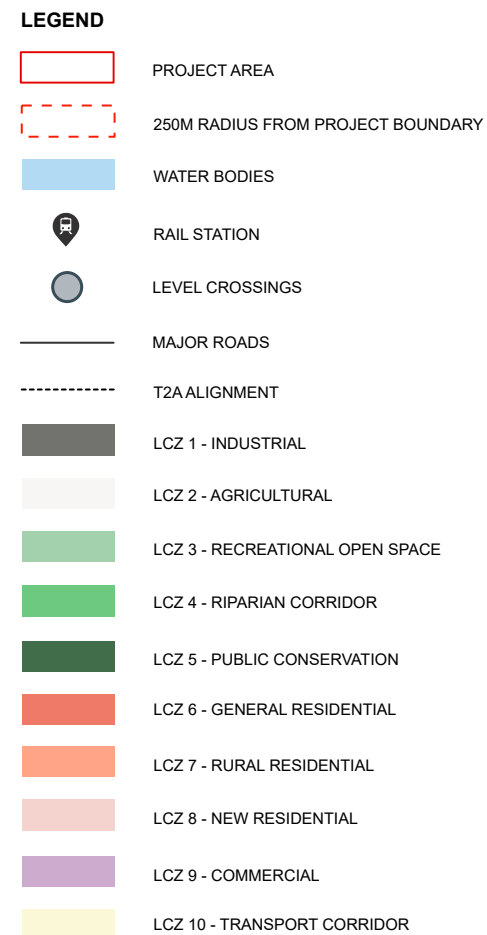


Figure 22 : Euroa Landscape Character Zones Map

Preliminary Landscape Character Impact Assessment

Strategic Conclusion

The most sensitive Landscape Character Zone (LCZ) is LCZ 6 (General Residential) due to the proximity of properties immediately adjacent to the existing bridge and Anderson Street.

The character of the area in proximity to Handbury, Elliot, Hinton, Railway and Station Streets (LCZ6) and the railway station precinct (LCZ10) are particularly sensitive with a bridge option, however with a road underpass option, these areas would have low or negligible sensitivity, while it would be expected that Anderson Street (LCZ6) would be highly impacted.

In regards to the proposed pedestrian underpass, the most sensitive Landscape Character Zone will be LCZ 9 (Commercial), particularly along Railway street where adjacent businesses will have a new structure altering the appearance of the landscape.

Potential mitigation measures to minimise these visual impacts could include but are not limited to:

- Replacement and augmentation of removed tree vegetation within the impacted project area.
- The addition of strategic planting to provide visual screening and to minimise the visual impacts to adjacent sensitive receptors.
- Enabling quality urban design outcomes to both road solutions and the pedestrian underpass structure.

Magnitude of Impact

Negligible
Low
Moderate to Low / Moderate
High to Moderate / High

Landscape Character Zone	Sensitivity	Magnitude	Landscape Character Impact
 LCZ 1 - Industrial	Low Due to its proximity of the proposed extent of works.	Low The proposed works will have minimal impact	Low The proposed works are outside this zone. Impacts can be mitigated through revegetation measures.
 LCZ 2 – Agricultural	Low Due to its proximity of the proposed extent of works.	Low The proposed works are outside this zone but within 250m	Low Impacts can be mitigated through revegetation measures.
 LCZ 3 – Recreational Open Space	Negligible Due to its proximity of the proposed extent of works	Negligible The proposed works are outside this zone	Negligible Impacts can be mitigated through revegetation measures.
 LCZ 4 – Riparian Corridor	Moderate Due to its proximity of the proposed extent of works.	Moderate The proposed works are outside this zone but are within a 250m radius	Moderate The proposed works will have minimal impact on this LCZ provided appropriate sediment control measures are in place during construction and water runoff is managed appropriately.
 LCZ 5 – Public Conservation	Negligible Due to its proximity of the proposed extent of works	Negligible The proposed works are outside this zone	Negligible The proposed works will not be visible from this LCZ
 LCZ 6 – General Residential	High The proposed extent of works adjoins nearby sensitive residencies	High The proposed works will have the greatest impact on this LCZ	High For both a road bridge or underpass option, roadside clearing of vegetation and new road configuration mean proposed works will be prominent.
 LCZ 7 – Rural Residential	Negligible Due to its proximity of the proposed extent of works	Negligible The proposed works are outside this zone	Negligible Impacts can be mitigated through revegetation measures.
 LCZ 8 – New Residential	-	-	-
 LCZ 9 – Commercial	High The proposed extent of works adjoins nearby sensitive residencies	Moderate (road underpass) The proposed works will have visual impacts for commercial at the end of Railway Street	Low- Moderate (road underpass) Impacts can be mitigated through revegetation measures
		High (bridge) The bridge option will have the potential to impact adjacent residencies	Moderate (bridge) The bridge option will be visible from this LCZ. Impact could be minimised through revegetation measures.
 LCZ 10 – Transport Corridor	Moderate The proposed extent of works Directly overlays with this LCZ	High The road bridge option will change the characteristics of this LCZ due to changes in road configuration, grading, and vegetation clearing.	Moderate-High Impacts can be mitigated through revegetation measures.

Environment

Topography

The natural topography within the immediate project area is relatively flat, however does slightly rise towards the intersection of Scott Street, Anderson Street and Railway Street. Beyond the project area, the land is also relatively flat, only slightly sloping downwards as it meets with Seven Creeks towards the east.

Landscape Features

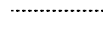
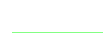
Prominent landscape features include Seven Creeks, which traverses in a general north-south direction to the east of the project area. Castle Creek is another water body located close to the project area's south west.

The site context's Environmental Vegetation Class number (EVC) is 55 (Plains Grassy Woodland) which can be found bordering the northern end of the project area, which is commonly present on flat, fertile soils

Geologically, the project area sits upon alluvial deposits – namely clays, silts, sands and gravels which are identified as the 'Shepparton Formation'

The project area is floodprone. Under the Strathbogie Planning Scheme, the project area is affected by the Floodway Overlay and the Land Subject to Inundation Overlay. These overlays identify waterways, major floodpaths, drainage depressions and high hazard areas which have the greatest risk and frequency of being affected by flooding, as well as identify land in a flood storage or flood fringe area affected the the 1 in 100 year flood.

LEGEND - ENVIRONMENT

	PROJECT AREA
	LEVEL CROSSINGS
	MAJOR ROADS
	TRAIN LINE
	TRAIN STATION
	MAJOR RESERVES & OPEN SPACE
	URBAN FLOODWAY ZONE
	1M CONTOUR LINE
	EVC 55 PLAINS GRASSY WOODLAND
	EVC 56 FLOODPLAIN RIPARIAN WOODLAND
	EVC 68 CREEKLINE GRASSY WOODLAND
	LAND SUBJECT TO INUNDATION OVERLAY
	FLOODWAY OVERLAY

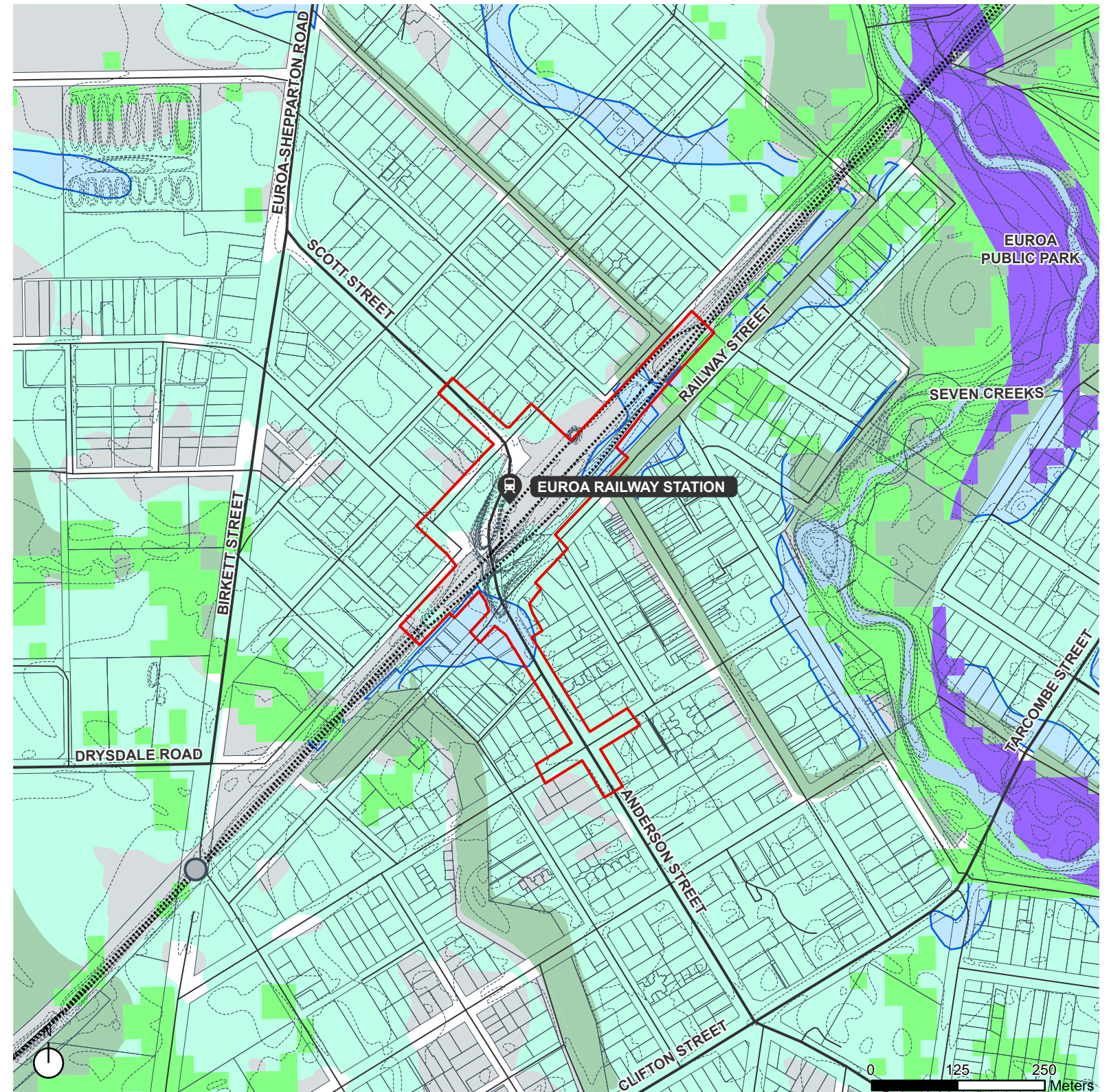


Figure 23 : Euroa Environmental Attributes Map

Site Character



31



32



33

31 Euroa Hotel and the Soldier's Memorial Hall directly interface with the Euroa Railway Station car park. The Soldiers Memorial Hall is also of local heritage significance.

32 Built in the 1880s, the North Eastern Hotel holds great local heritage significance and is a key feature and landmark building within Euroa.

33 Mature trees line either side of Anderson Street leading up to the road bridge ramp.

34 Entrance to the pedestrian underpass from Railway Street is well vegetated, however, limits visibility and natural surveillance.



34



35



36

35 The pedestrian underpass provides access to the railway station and connects Elliot, Hinton and Railway Streets, however, it presents a convoluted and relatively unsafe route for pedestrians.

36 Entrance to the pedestrian underpass from Hinton Street.

37 Entrance to the pedestrian underpass from Elliot Street.

38 Established vegetation provides visual screening between the station platform, the Euroa Hotel and the Soldiers Memorial Hall.

39 Pedestrian pathway leading from underpass to Euroa Railway Station.



37



38



39

Land Use Context

Residential

Low density, single detached residential properties can be found surrounding the project area, predominantly in the north, south and west. The immediate environs of the project site to the north west includes disused and undeveloped land that was formerly residential.

Commercial/Mixed Use

The Euroa Town Centre is located to the immediate east of the project area, with shopping strips running along either side of Binney Street, comprising of restaurants and cafes, supermarkets, a bank and other retail stores.

Warehouses and sheds containing light industry businesses can be found along Railway Street, bordering the north-eastern boundary of the project area, much of which is disused, as well as further to the north.

Community Facilities and Recreation










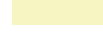



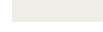









Euroa has an abundance of community and recreational facilities. Within the town centre, to the east of the project area is the Euroa library. Further east is the Euroa football club, bowls club and tennis club. Other community facilities include the Euroa community swimming pool and golf club, located to the south of the project area.

Euroa has a primary and secondary school, both located to the south of the project area along Clifton Street.

Open Space

The main public open spaces close by are predominantly located to the east of the project area and include the Euroa Apex Park and Seven Creeks Park (adjacent to Seven Creeks), the Euroa Memorial Oval and Recreation Reserve, Euroa Memorial Oval and Euroa Friendly Societies Reserve, which offer generous open green spaces for community sports and activities.

LEGEND - LAND USE

	PROJECT AREA
	LEVEL CROSSINGS
	MAJOR ROADS
	TRAIN LINE
	MAJOR RESERVES AND OPEN SPACE
	MAJOR WATERBODIES
	COMMERCIAL ZONE
	PUBLIC USE - EDUCATION
	PUBLIC USE - OTHER
	PUBLIC USE - LOCAL GOVERNMENT
	PUBLIC USE - SERVICE & UTILITY
	INDUSTRIAL USE
	RESIDENTIAL
	FARMING/RURAL USE
	RAIL STATION
	EDUCATION CENTRE
	EMERGENCY SERVICE
	COUNCIL BUILDING
	HEALTH SERVICE
	PARK/RESERVE & GARDENS
	SPORTING FACILITY/GROUNDS
	ACCOMMODATION
	COMMUNITY CENTRE

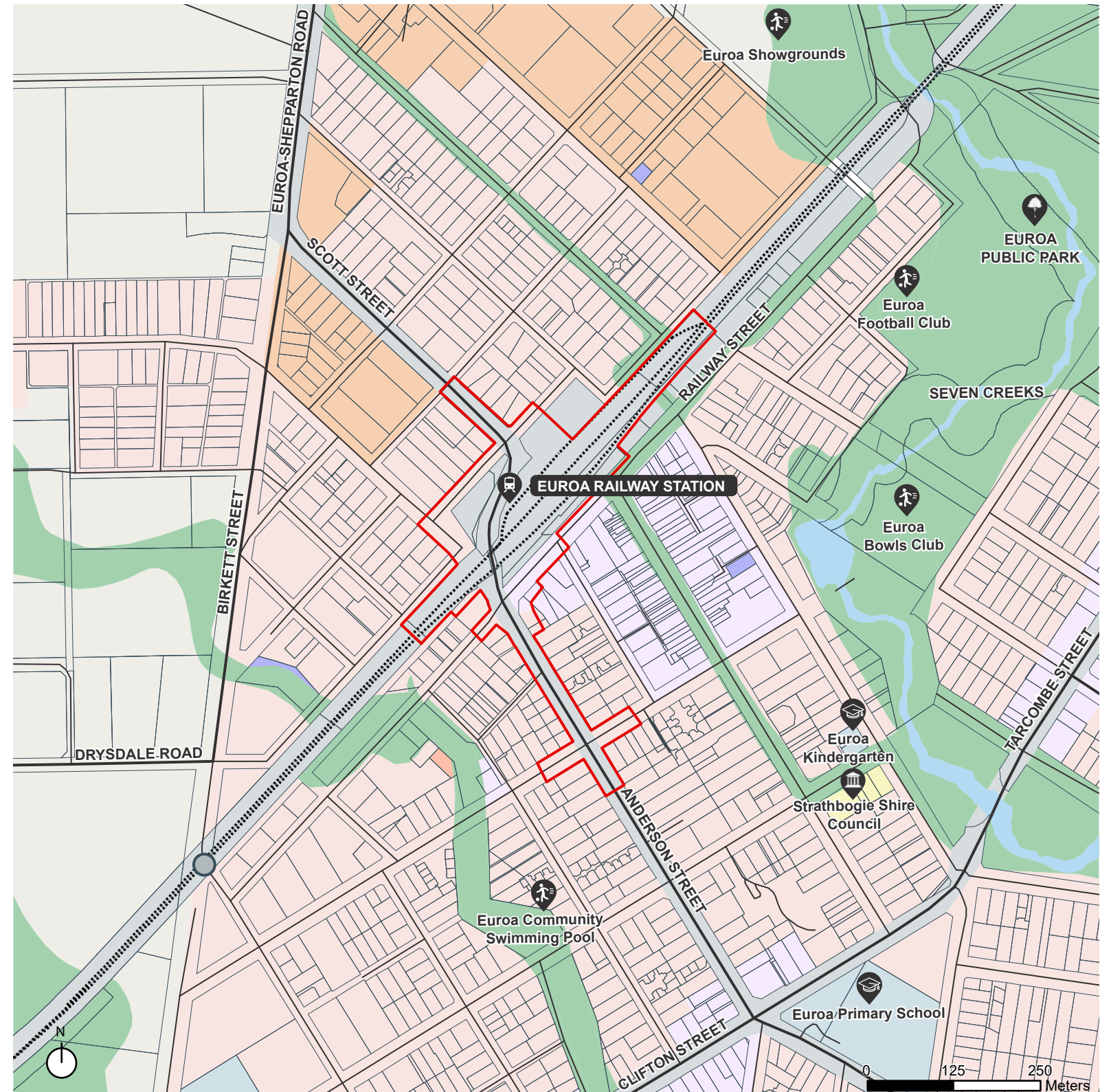


Figure 24 : Euroa Land Use Map

Built Form and Heritage

Built Form and Character

The character of the project area and its surrounds is considered to be relatively developed and holds a sense of history and tradition, reinforced by state significant buildings such as the Court House and National Bank within the town centre.

The built form can largely be characterised by one storey brick or weatherboard detached residential dwellings that are set back from the street and one storey commercial buildings within the town centre. Large imposing retaining walls that support the structure of the road bridge can be found along Hinton Street and Railway Street. These walls abut residential properties, as well as surround Euroa Railway Station to the west.

The street layout surrounding the project area follows a rectangular grid. Building footprints are relatively small, with the exception of the town centre to the east, and a number of industrial sheds and warehouses adjacent to the project area towards the north-west and north-east.

Built form is less prominent towards the west of the project area; much of the land beyond Birkett Street is used for agricultural purposes, where residential properties are sited on larger parcels of land spaced relatively far apart. Residential properties to the west are typically accompanied by farming sheds and outhouses that are of a similar height and size.

Aboriginal Cultural Heritage

Prior to European settlement, the Taungurung Clan of the Kulin Nation were the first inhabitants of Wandong. Traditionally, the Taungurung people typically relied upon the rich resources of the rivers, creeks and floodplains such as Dry Creek for fish and other wildlife including birds, kangaroo, koala and emu. The Taungurung People migrated through their Country dependent upon the seasonal variations of weather and the availability of food. European settlement first occurred in the region in the early 1800's.

Many Taungurung people still live on their country and participate widely in the community as Cultural Heritage Advisors, Land Management Officers, artists and educators, and are a ready source of knowledge concerning the Taungurung people from the central areas of Victoria.

Heritage

There are a number of places within the vicinity of the project area that are of local or state heritage significance. The North-Eastern Hotel, the Soldiers Memorial Hall and Broad Gauge Rail Bridges are all places of local heritage significance located in close proximity to the project area. The Euroa Court House and former National Bank are located along Binney Street and are of State Heritage significance. The former National Bank is particularly significant for its ties to Ned Kelly and the Kelly gang, being the target of their bank robbery in 1878. The original National Bank was demolished in the 1970s and the current building was constructed re-using the hand made bricks from the previous building.

LEGEND - BUILT FORM & HERITAGE












	PROJECT AREA
	LEVEL CROSSINGS
	MAJOR ROADS
	TRAIN LINE
	MAJOR RESERVES AND OPEN SPACE
	MAJOR WATERBODIES
	HO - HERITAGE OVERLAY
	VHR - HERITAGE REGISTER
	ABORIGINAL CULTURAL SENSITIVITY
	TRAIN STATION
	HERITAGE SITE



Figure 25 : Euroa Heritage Map

Transport and Access

Public Transport

Public transport to the project area is limited to rail services accessible at Euroa Railway Station, located in the middle of the project area.

The station is a V-Line station and services the North East Line with up to 10 services a day. The station has two platforms and two rail tracks

The project area has one bus stop at the train station and services the Shepparton to Euroa via Kialla bus route.

Active Transport

Cross corridor pedestrian connectivity around Euroa Railway Station is provided, however limited. Pedestrians can reach the Station via a pedestrian underpass that can be accessed from Railway Street, Hinton Street and Elliot Street. While the underpass receives a fair amount of daylight, it has a convoluted layout with blind corners, making for an uncomfortable environment.

There is another pedestrian underpass towards the northern end of the project area, however, it is sited relatively far from the station. Pedestrians could potentially utilise the road underpass at Charles Street to cross the rail corridor, however there is no existing formalised pedestrian pathway.

The existing road overpass along Scott Street does not have pedestrian footpaths and is only utilised by private vehicles. The project area does not encompass any designated bicycle routes.

Road Transport

A number of vehicle crossings of the rail line exist, a level crossing to the south-west of the project area and two road underpass to the north-east. The project area currently provides vehicle access across the bridge over the rail line and is the principal route within Euroa.

The bridge currently provides vehicle access to Railway Street and the station, however its geometry limits safe access for all vehicle types.

LEGEND - TRANSPORT & ACCESS

- PROJECT AREA
- LEVEL CROSSINGS
- ARTERIAL ROADS
- TRAIN LINE
- BUS ROUTES
- BUS STOPS
- MAJOR RESERVES AND OPEN SPACE
- MAJOR WATERBODIES
- TRAIN STATION

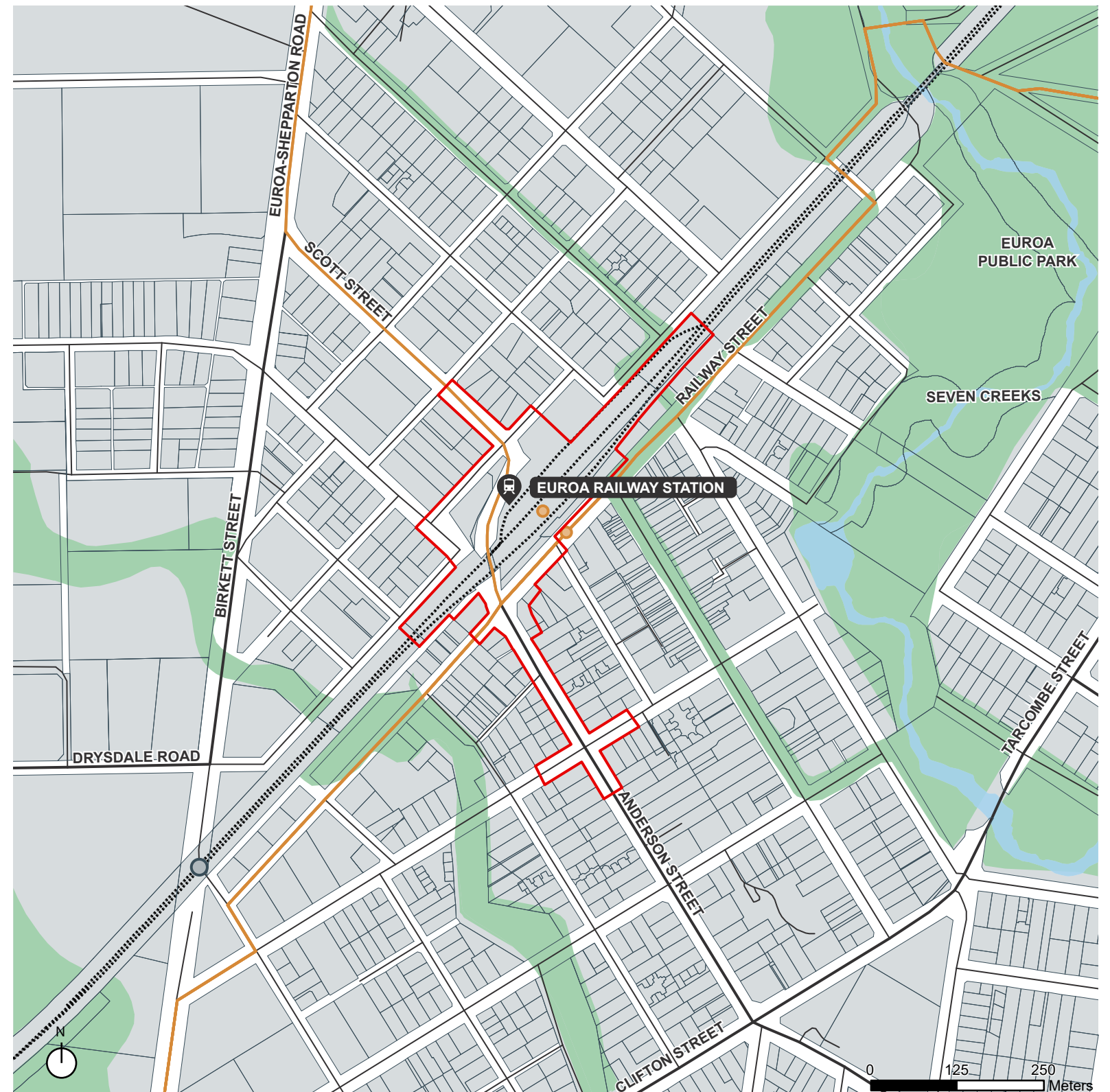


Figure 26 : Euroa Transport Map

Euroa

Opportunities and Constraints

Opportunities

- a. Improvement to the Euroa Railway Station Precinct to address and engage both Railway and Elliot Street interfaces, as well perform as a visual landmark upon approach from both Scott and Anderson Streets.
- b. Strengthening of active transport connections across the railway corridor through the provision or enhancement of pedestrian paths.
- d. The rearrangement of road infrastructure provides the opportunity to improve the infrastructure and its interface with abutting residential properties, providing for better visual amenity and built form design outcomes.
- e. Upgrade and formalise carparking surrounding the station precinct to better meet car parking demands.
- f. Enhancement of station address to northern interface, creating a more positive experience for station arrivals whilst fostering pride amongst the local community.

Constraints

- 1. The project area abuts sensitive residential interfaces along Anderson Street and Scott Street where works may change the street layout and entryways to residential properties.
- 2. Heritage buildings such as the North-Eastern Hotel, Former Soldiers Memorial Hall and the Former National Bank are located adjacent to the project area.
- 3. Existing trees along Anderson Street may be affected as a result of the project.
- 4. The land on which the project area is sited is affected by the Floodway Overlay and the Land Subject to Inundation Overlay indicating flood prone grounds, which may prove to be challenging in regards to grade changes and ground disturbances during construction.
- 5. Mediums for existing community artwork throughout the pedestrian underpass system will be impacted by the works. These mediums include faces to concrete free-standing and retaining walls. Existing artwork within the pedestrian underpass network is valued by parts of the community and likely to be impacted.

LEGEND - OPPORTUNITY & CONSTRAINTS

	PROJECT AREA
	LEVEL CROSSINGS
	MAIN ROADS
	LOCAL ROADS & STREETS
	TRAIN LINE
	RAIL STATION
	OPPORTUNITY
	CONSTRAINT
	KEY/INFORMAL PEDESTRIAN MOVEMENT
	EXISTING PEDESTRIAN GRADE SEPARATED CROSSING
	KEY VEHICLE MOVEMENT
	SENSITIVE INTERFACE
	ACTIVE INTERFACE
	HERITAGE OVERLAY
	EXISTING MATURE VEGETATION
	KEY VIEWS
	MAJOR WATERBODIES



Figure 27 : Euroa Opportunities and Constraints Map

Euroa

Key Objectives

The Euroa project area lies at the heart of town however it currently magnifies the visual and physical barrier effects of the station precinct.

Key objectives for the Euroa project area are outlined below. Note that all key objectives are considered to be of equal importance and significance and are therefore not listed in a hierarchical order.

- 1 A highly permeable precinct that provides visual and physical connection that improves pedestrian access to both sides of town.
Relevant Urban Design Principles: 3, 5, 6
- 2 A reimagined station forecourt that reinstates the former setting of the railway station and visually addresses Binney Street to aid orientation and provide a positive arrival experience for rail passengers.
Relevant Urban Design Principles: 1, 5, 10
- 3 A safe and secure walking environment that maintains high visibility of all pedestrian paths to and through the rail corridor and provides for convenient and comfortable movement for all abilities.
Relevant Urban Design Principles: 3, 5, 6
- 4 A proud historic precinct that celebrates the heritage of the station and surrounding buildings and spaces, and facilitates the integration and repurposing of the goods shed.
Relevant Urban Design Principles: 1, 9, 10
- 5 A recognisable and positive gateway for the northern approach to the town centre to form a new experience when viewed from Scott Street.
Relevant Urban Design Principles: 1, 2, 8
- 6 A precinct ready for further regeneration of safe and comfortable public spaces and developed, facilitated and expedited through the careful arrangement and integration of rail infrastructure.
Relevant Urban Design Principles: 2, 7, 11
- 7 An enjoyable and convenient cross-town connection that encourages use by all users to further grow economic activity in Euroa.
Relevant Urban Design Principles: 1, 3, 6

LEGEND - OBJECTIVES

- PROJECT AREA
- LEVEL CROSSINGS
- MAIN ROADS
- LOCAL ROADS & STREETS
- TRAIN LINE
- R RAIL STATION
- 1 OBJECTIVE
- MAJOR WATERBODIES
- KEY PEDESTRIAN MOVEMENT
- KEY PUBLIC REALM INTERFACE
- KEY VISUAL LINE
- KEY GATEWAY LOCATION
- KEY PRECINCT FOCUS

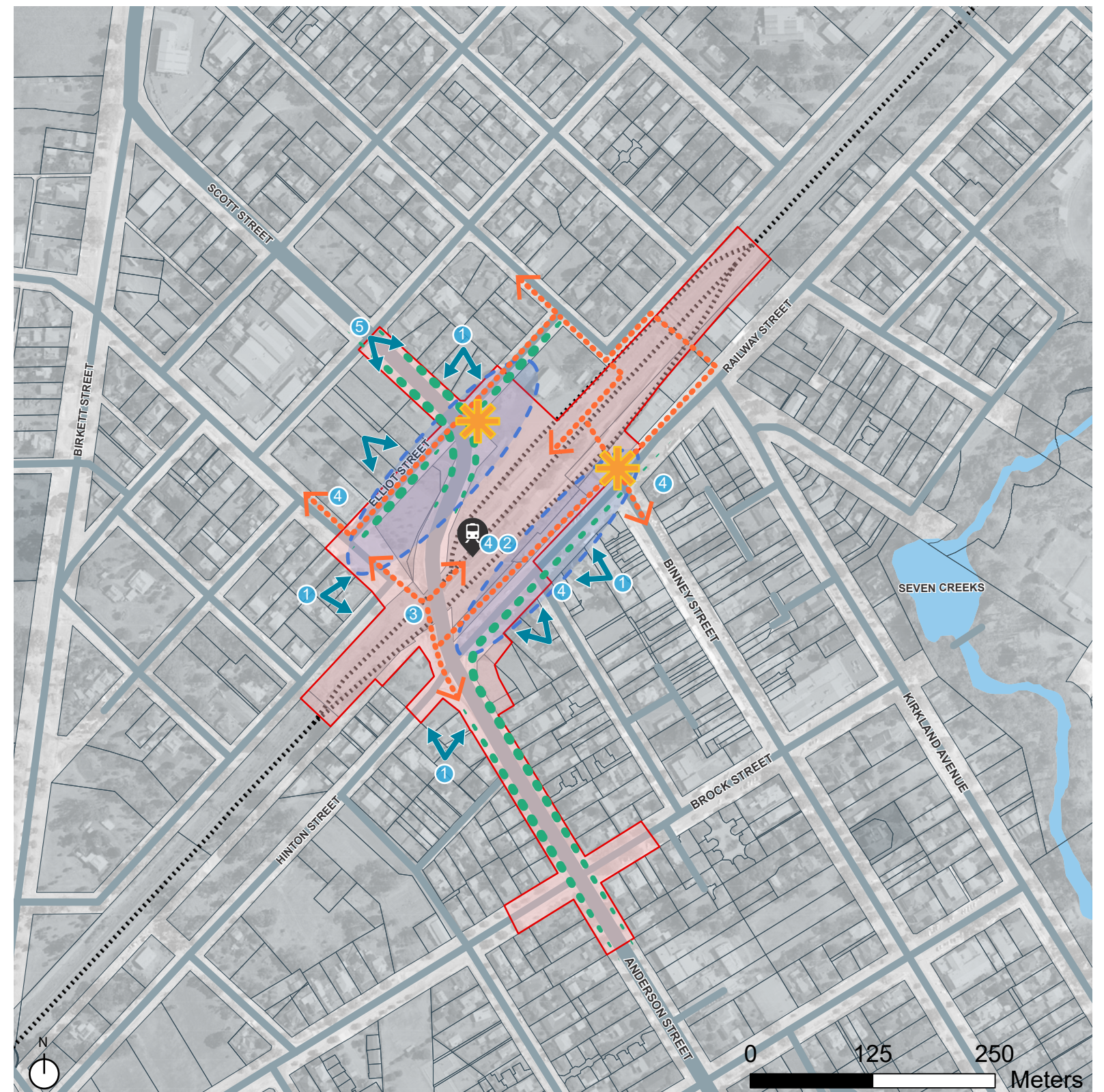


Figure 28 : Euroa Urban Design Objectives Map

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06

Benalla

- Context Analysis
- Opportunities and Constraints
- Urban Design Objectives

Benalla

Context Analysis

Geographic Context

Benalla is a thriving rural city located approximately 212km north east of Melbourne CBD. Benalla has a population of approximately 14,037.

Benalla is the major town centre for the Benalla Rural City Municipality and supports a network of smaller surrounding towns. Much of the city's economy is focussed around its regional centre role, agricultural production, tourism and manufacturing. Local residents are well serviced by a large variety of community and recreational facilities, and public open spaces.

Benalla is well known for its beautiful public gardens, with the rural Botanical Gardens being a popular tourist attraction. The city is also surrounded by rich farmlands and has a number of prominent waterways running through the town such as Broken River, Winton Wetlands and Lake Benalla, contributing to the rural character and setting of the city.

LEGEND - GEOGRAPHIC CONTEXT

- PROJECT AREA
- TRAIN STATION
- LEVEL CROSSINGS
- MAJOR ROADS
- TRAIN LINE
- MAJOR RESERVES AND OPEN SPACE
- MAJOR WATERBODIES
- COMMERCIAL ZONE
- PUBLIC USE ZONE
- INDUSTRIAL USE ZONE
- RESIDENTIAL ZONE
- FARMING/RURAL USE ZONE
- MIXED USE ZONE
- TRANSPORT USE ZONE



Figure 29 : Benalla Geographic Context Map

Historical Context

Historical Snapshot

1824

Area was first sighted by Europeans during an expedition of Hamilton Hume and William Hovell to find new grazing land for the colony.

1838

The 'Battle of the Broken River' is a battle that took place between 20 Aboriginal people and 18 European settlers. The site of the incident was re-discovered in 1907.

1839

A police station was established on the river and named the Broken River Crossing Place. Around the same time, a grazier named William McKellar established a pastoral run which he named 'Benalta', thought to have come from an Aboriginal word for musk duck.

1848

The town was officially surveyed and named Benalla by the Port Phillip District superintendent, Charles La Trobe.

1873

Benalla Railway Station opened.

1962

The North East standard gauge line opens.

1965

Benalla was proclaimed a city.

1970

Lake Benalla constructed to assist reduce flood risk and impacts.



40 Broken River, Benalla, 1901.

41 Benalla Railway Station, Victoria 1905-1928.

42 Bridge Street, Benalla (Unknown).

43 Aerial View of Benalla, looking West, 1925-1940.

Preliminary Landscape Character and Impact Sensitivity Assessment

A preliminary Landscape Character Impact Sensitivity Assessment was undertaken for the Benalla site. Landscape character impacts for land within and surrounding the project area have been assessed according to their assigned Landscape Character Zones (LCZ).

LCZs are areas which can be defined in terms of level of development, urban character, land use, landform, vegetation coverage, presence of water, road and street configuration and other characteristic features. A summary of terms and a description of each LCZ can be found at Appendix C.

Project Assumptions for Assessment

Two feasible options are being considered at Benalla:

Track Realignment, Pedestrian Underpass and Bridge Removal (Feasible Option A)

This option includes the removal and realignment of the existing east rail track to the west of the station with a new west platform, pedestrian underpass and the removal of the bridge along Mackellar Street.

Road Bridge Replacement (Feasible Option B)

This option includes retaining the existing tracks and station platforms and replacing the existing bridge along Mackellar Street with a taller and longer bridge that would provide the necessary rail clearance over the existing east track.

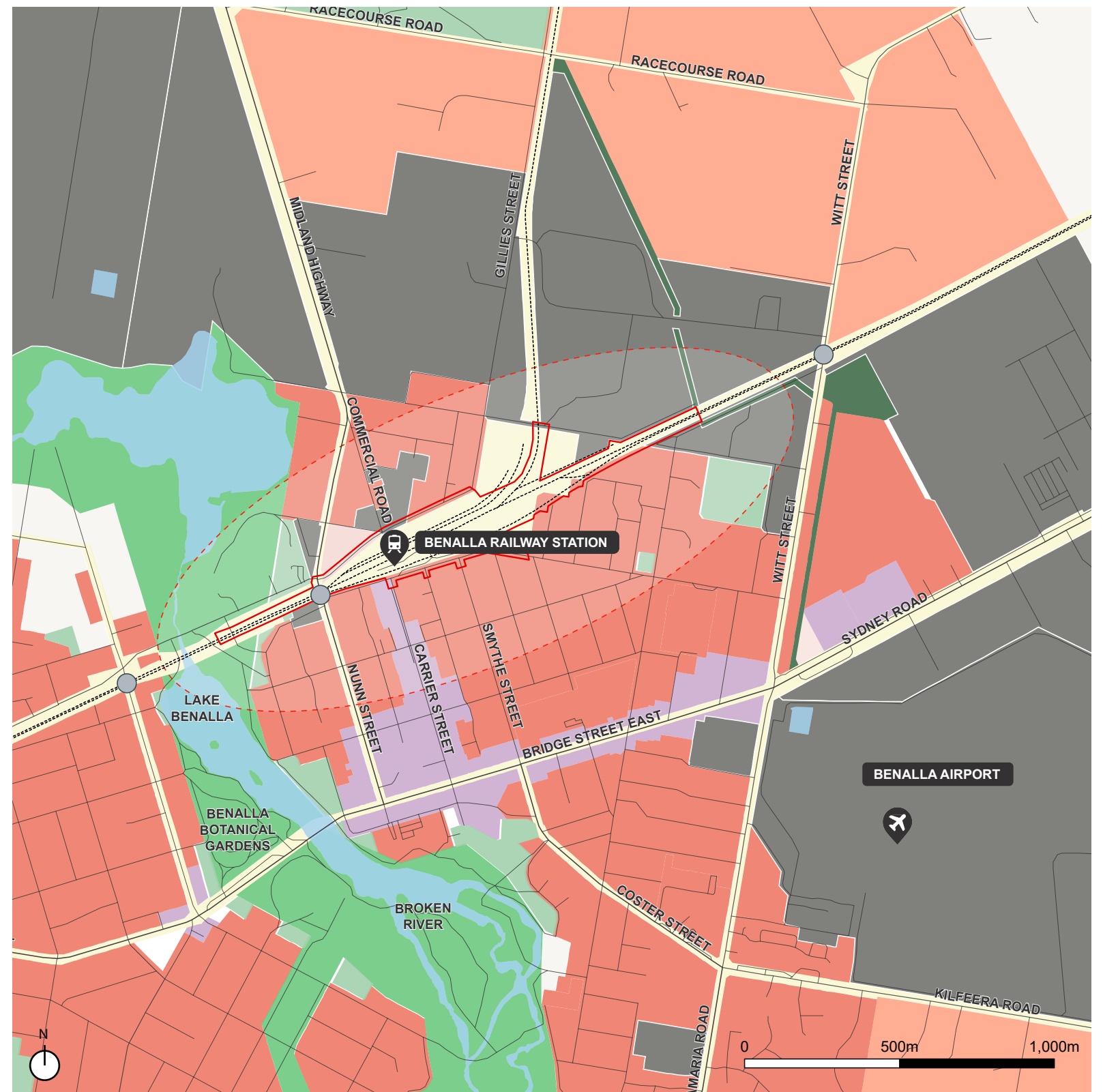
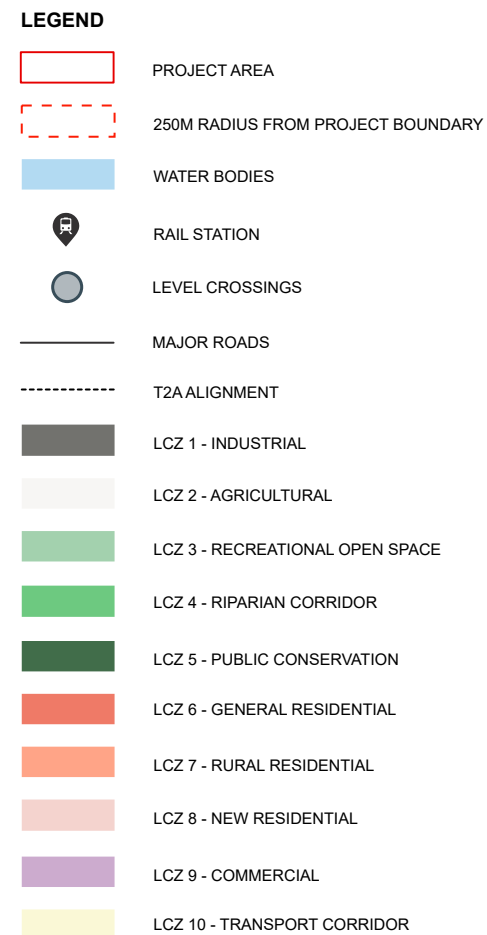


Figure 30 : Benalla Landscape Character Zones Map

Preliminary Landscape Character Impact Assessment

Strategic Conclusion

The most sensitive Landscape Character Zone (LCZ) is the LCZ6 (General Residential) due to the proximity of the properties along Mackellar Street to the current bridge.

The rail realignment and pedestrian underpass option would have a low-negligible impact to this part of the LCZ6, however a bridge option would produce a high impact for a large proportion of Mackellar Street due to the required height and length of the bridge and the associated retaining structure. This would likely have a significant negative visual impact to the residences along Mackellar Street, with limited options for vegetated screening due to spatial constraints.

Aside from LCZ10 (Transport Corridor), all other LCZs are minimally affected by either option and impacts can be mitigated by revegetation and rehabilitation of the site surrounds.

Potential mitigation measures to minimise the visual impacts for the bridge option would need to incorporate methods that are viable in the constrained street space where tree planting cannot be accommodated for. This could include:

- Comprehensive community consultation that explores an open structure that permits visibility.
- The use of textured surfaces and other surface treatments for increased visual interest and to act as a deterrent to graffiti.
- The use of creeping vegetation that can screen the structure.

Given the significant scale and visual impact of the bridge option, the more likely rail realignment and pedestrian underpass option would provide the preferred landscape character outcome.

Magnitude of Impact

Negligible
Low
Moderate to Low / Moderate
High to Moderate / High

Landscape Character Zone (LCZ)	Sensitivity	Magnitude	Landscape Character Impact
 LCZ 1 - Industrial	Low Due to its proximity of the proposed extent of works.	Low The proposed works will have minimal impact	Low The proposed works are outside this zone Impacts can be mitigated through revegetation measures.
 LCZ 2 – Agricultural	Negligible Due to its proximity of the proposed extent of works.	Negligible The proposed works are outside this zone	Negligible Impacts can be mitigated through revegetation measures.
 LCZ 3 – Recreational Open Space	Low Due to its proximity of the proposed extent of works.	Low The proposed works are outside this zone but are within a 250m radius	Low Impacts can be mitigated through revegetation measures.
 LCZ 4 – Riparian Corridor	Moderate Due to its proximity of the proposed extent of works.	Low The proposed works are outside this zone but are within a 250m radius	Moderate - Low The proposed works will have minimal impact on this LCZ provided appropriate sediment control measures are in place during construction and water runoff is managed appropriately.
 LCZ 5 – Public Conservation	Negligible Due to its proximity of the proposed extent of works	Negligible The proposed works are outside this zone	Negligible The proposed works will not be visible from this LCZ
 LCZ 6 – General Residential	High The proposed extent of works adjoins nearby sensitive residences	High The proposed works will have the greatest impact on this LCZ	High (bridge) Bridge height and extent of retaining wall will not be able to be mitigated through conventional methods. Low (realignment) Impacts can be mitigated through revegetation measures.
 LCZ 7 – Rural Residential	Negligible Due to its proximity of the proposed extent or works	Negligible The proposed works are outside this zone	Negligible Impacts can be mitigated through revegetation measures.
 LCZ 8 – New Residential	Moderate Due to its proximity of the proposed extent of works.	Moderate The pedestrian underpass option will have visual impacts for residences along Railway Place.	Moderate Impacts can be mitigated through revegetation measures.
 LCZ 9 – Commercial	Moderate The proposed extent of works adjoins nearby sensitive residences	Moderate The proposed works will have visual impacts for commercial at the end of Carrier Street	Moderate The rail realignment and pedestrian underpass option will be visible from this LCZ.
 LCZ 10 – Transport Corridor	Moderate The proposed extent of works Directly overlays with this LCZ	High (bridge) The bridge option will have the greatest impact on this LCZ. Low (realignment) The realignment option will have minimal impact on this LCZ.	High (bridge) Bridge height and extent of retaining wall will not be able to be mitigated through conventional methods. Low (realignment) Impacts can be mitigated through revegetation measures.

Environment

Topography

Benalla is a relatively flat township, whereby the natural topography within and surrounding the immediate project area is quite even and flat.












Landscape Features

The Broken River is a prominent landscape feature to the west of the project area that flows through Benalla, and supports diverse and significant flora and fauna.

The encompassing Environmental Vegetation Class number (EVC) is 55, (Plains Grassy Woodland). This is scattered across the project area.

Geologically, the project area sits upon alluvial deposits – namely clays, silts, sands and gravels - identified as the 'Shepparton Formation'.

LEGEND - ENVIRONMENT

	PROJECT AREA
	LEVEL CROSSINGS
	MAJOR ROADS
	TRAIN LINE
	TRAIN STATION
	MAJOR RESERVES & OPEN SPACE
	MAJOR WATERBODIES
	1M CONTOUR LINE
	EVC 55 PLAINS GRASSY WOODLAND
	EVC 56 FLOODPLAIN RIPARIAN WOODLAND
	EVC 235 PLAINS WOODLAND/ HERB-RICH GILGAI WETLAND MOSAIC

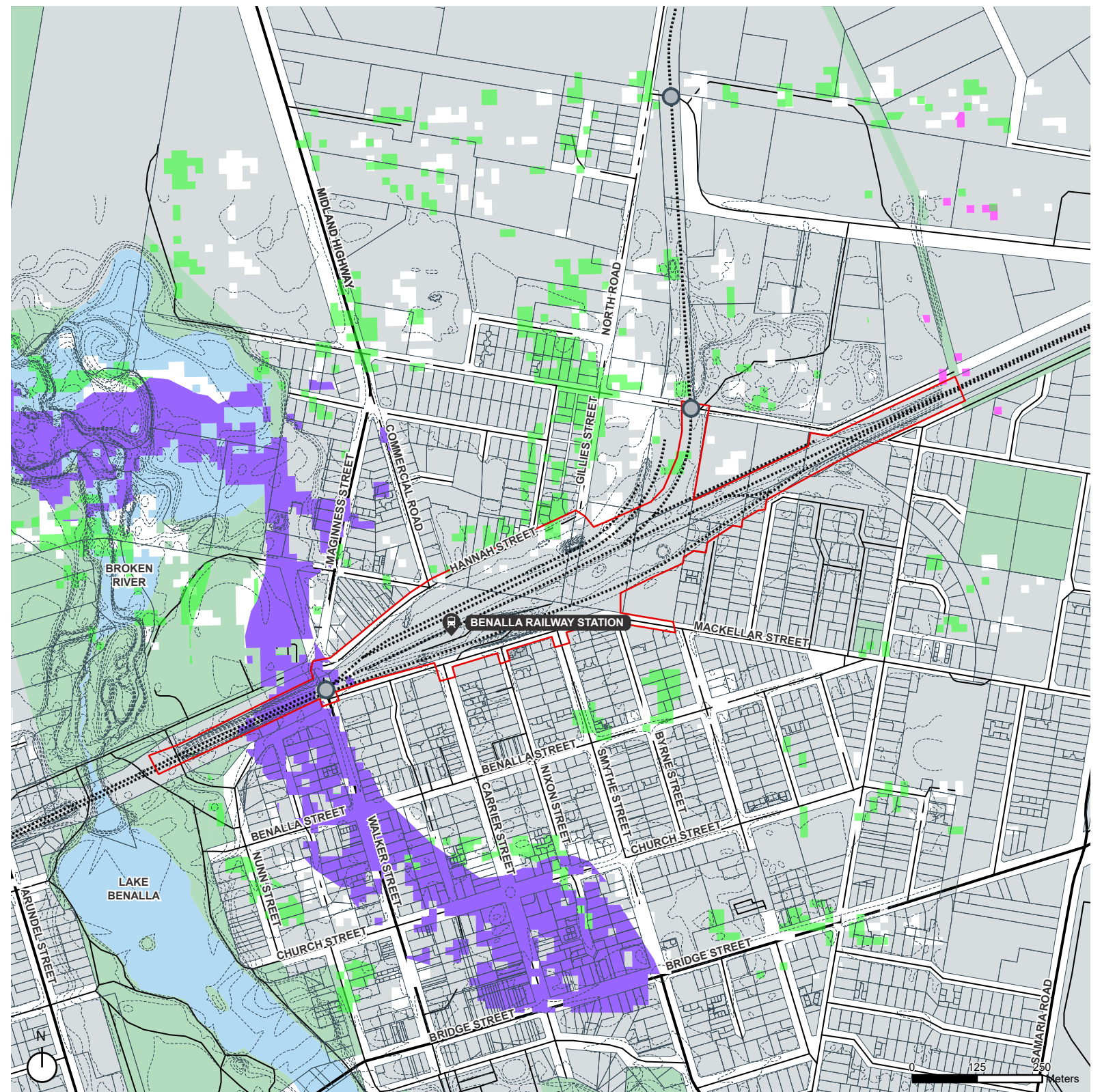


Figure 31 : Benalla Environmental Attributes Map

Site Character

- 44 View north west of Mackellar Street observing the road bridge ascent and shared urban interface with the rail station and the suburban setting.
- 45 The urban interface created by the existing road bridge structure. The retaining wall directly abuts the northern kerb of Mackellar Street, and causes a drainage trap point during high intensity rain events.
- 46 Elevated view south east observing Nixon Street from the Benalla road bridge
- 47 The Benalla Station building facade and passenger entry and egress. Observed from the asphalt carpark.
- 48 A coach attempting a U-Turn manoeuvre south of the station. The lack of sufficient space for bus circulation results in a dangerous impediment upon the station's northern platform. As a result, commuters are put at risk despite visual and tactile warnings.
- 49 View south towards the station from the northern land expanse. The expanse comprises of disorganised, unused or wasted rail assets, which are observed upon arrival to Benalla.
- 50 Pedestrian ramp and associated retaining wall structures when ascending from the underpass connecting Railway Place and Mackellar Street.
- 51 Ramp and associated stabilised embankments upon descent into the pedestrian underpass from Railway Place.
- 52 View east observing the existing platform south of the station. The platform's width has been cited as a safety concern due to poor visibility as a result of it's width.



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Land Use Context

Residential

Low density single detached residential properties can be found surrounding the project area, predominantly to the north, south and east. Residential properties are also located on the other side of the Broken River to the west.

Commercial/Mixed Use

The Benalla City Centre is located to the south of the project area along Carrier Street and Bridge Street East. The centre hosts a large variety of restaurants and cafes, retail stores, supermarkets, banks and post offices. A small section of land abutting the north-western section of the project area is designated for mixed use, however currently, only residential properties and several vacant sheds and buildings are sited on this land.

Industrial

Industry exists on the corner of Hannah Street and Commercial Road, abutting the northern boundary of the project area. Further north, beyond Roe Street and abutting the rail corridor, there are large expanses of land used for more heavier industry such as a lumber store, seed, fertiliser and farm equipment suppliers, and excavating contractors.

Community Facilities and Recreation

Several community and recreational facilities can be found to the project area's west and include the Benalla croquet, football, netball and tennis clubs and an indoor recreation centre.



























Further to the south-west of the project area along Broken River is the Benalla Aquatic Centre, Benalla Art Gallery, local library and an Information Centre for visitors to the area.

Open Space

Towards the western end of the project area is the large football field, which provides a space for the community to play football as well as to utilise as a walking or running track. There is an unnamed public open space to the east of the project area, however the space does not seem to be frequently used by the community.

Other public open spaces areas flank Lake Benalla and Broken River, whereby a pedestrian footpath is provided along both banks.

LEGEND - LAND USE CONTEXT

	PROJECT AREA
	LEVEL CROSSINGS
	MAJOR ROADS
	TRAIN LINE
	MAJOR RESERVES AND OPEN SPACE
	MAJOR WATERBODIES
	COMMERCIAL ZONE
	HEALTH ZONE
	MIXED USE ZONE
	PUBLIC USE - EDUCATION
	PUBLIC USE - OTHER
	INDUSTRIAL USE
	PUBLIC USE - SERVICE & UTILITY
	PUBLIC USE - LOCAL GOVERNMENT
	RESIDENTIAL
	FARMING/RURAL USE
	TRAIN STATION
	EDUCATION CENTRE
	EMERGENCY SERVICE
	COUNCIL BUILDING
	HEALTH SERVICE
	INFORMATION CENTRE
	SHOPPING CENTRE
	RESTAURANT
	PARK & GARDENS
	ARTS & CULTURE

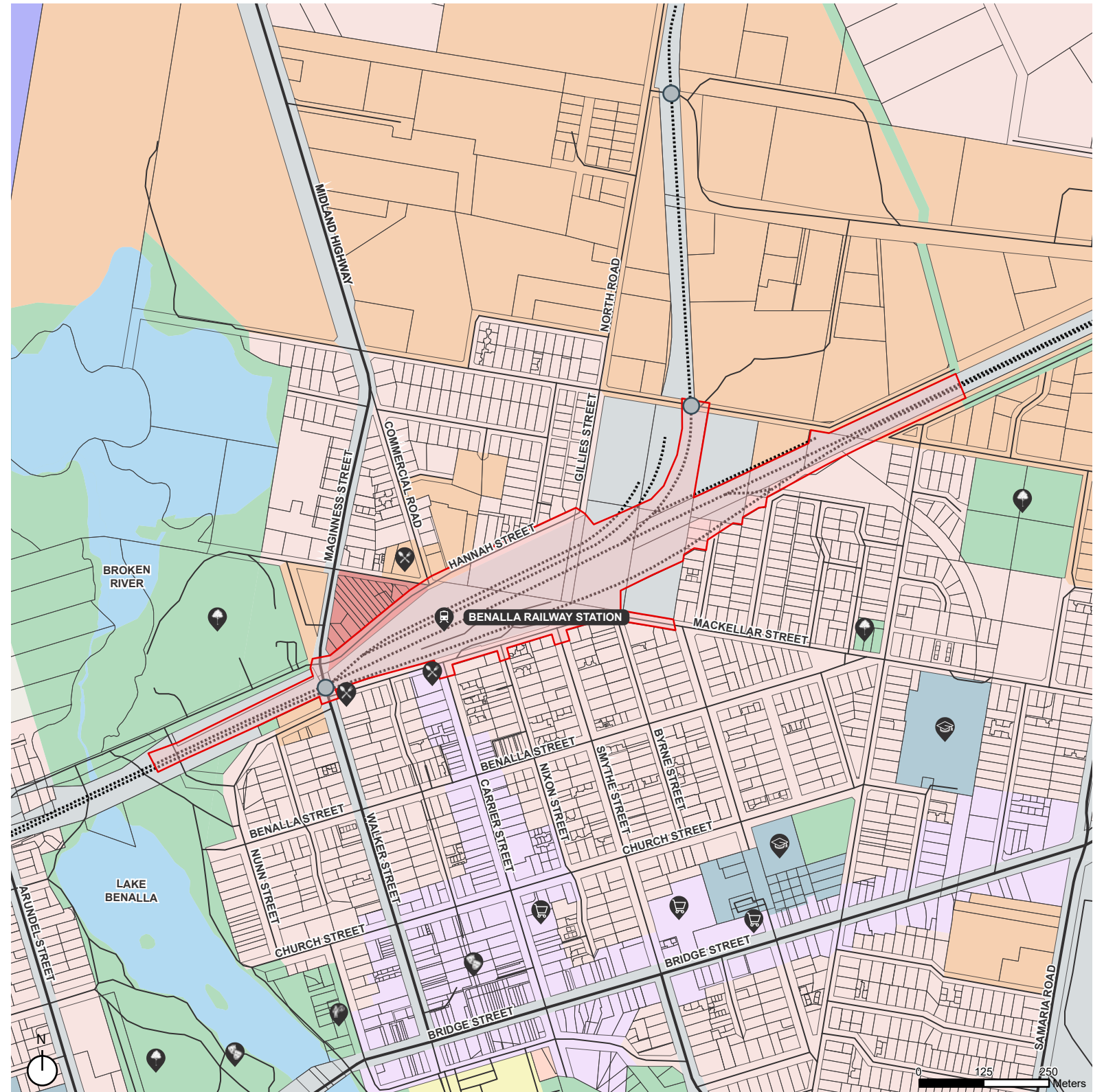


Figure 32 : Benalla Land Use Map

Built Form and Heritage

Built Form and Character

Benalla is an attractive small rural city, noted for its public gardens and artwork. While the project area is surrounded by a variety of different uses, built form remains at a height of 1-3 storeys. Residential properties are largely in the form of one storey brick or weatherboard houses and have smaller building footprints. Industrial warehouses and sheds are of a larger building footprint and are typically made from aluminium, steel or wood.

The existing road bridge to the station presents and substantial retaining wall along Mackellar Avenue, for which it's face is exposed to opposite residential properties.

The street layout surrounding the project area follows an almost rectangular gridded nature, however some roads to the are more organic in alignment to accommodate for the larger industrial and agricultural blocks.

Aboriginal Cultural Heritage

Prior to European settlement, the Yorta Yorta people were the first inhabitants of Benalla. Yorta Yorta People's lifestyle and culture was based on hunting, fishing and collecting food from the variety of food sources provided by the Country, coming from the extensive network of rivers, lagoons, creeks, and wetlands which are still regarded as the life source and the spirit of the Yorta Yorta Nation.

The Yorta Yorta people strongly advocate for the survival of the ancestral land to make sure that their timeless connection to the Yorta Yorta land is continued. They continue to exercise their rights as indigenous occupants and owners of Yorta Yorta Country within local communities, focusing on protecting the social, spiritual, economic and cultural links with the land.












Heritage

Benalla has a number of buildings and places that are of local heritage significance, with some of these located within the project area. The western half of the project area is within the Benalla Central Urban Conservation Area. Within this Conservation Area, the two signal boxes on either side of Benalla Railway Station as well as the Station itself is of local heritage significance.

Benalla also has strong ties to the historical figure Ned Kelly. The town played host to Kelly's formidable bushranging history where he experienced his first encounters with the law, as well as where his final court trial was held in 1880 at the Old Benalla Courthouse on Arundel Street.

The North Eastern Hotel, the Victoria Hotel and Stables and the Farmers Arms Hotel are all abutting the project area and are also of local heritage significance.

LEGEND - BUILT FORM & HERITAGE

	PROJECT AREA
	LEVEL CROSSINGS
	MAJOR ROADS
	TRAIN LINE
	MAJOR RESERVES AND OPEN SPACE
	MAJOR WATERBODIES
	HO - HERITAGE OVERLAY
	VHR - HERITAGE REGISTER
	ABORIGINAL CULTURAL SENSITIVITY
	TRAIN STATION
	HERITAGE SITE

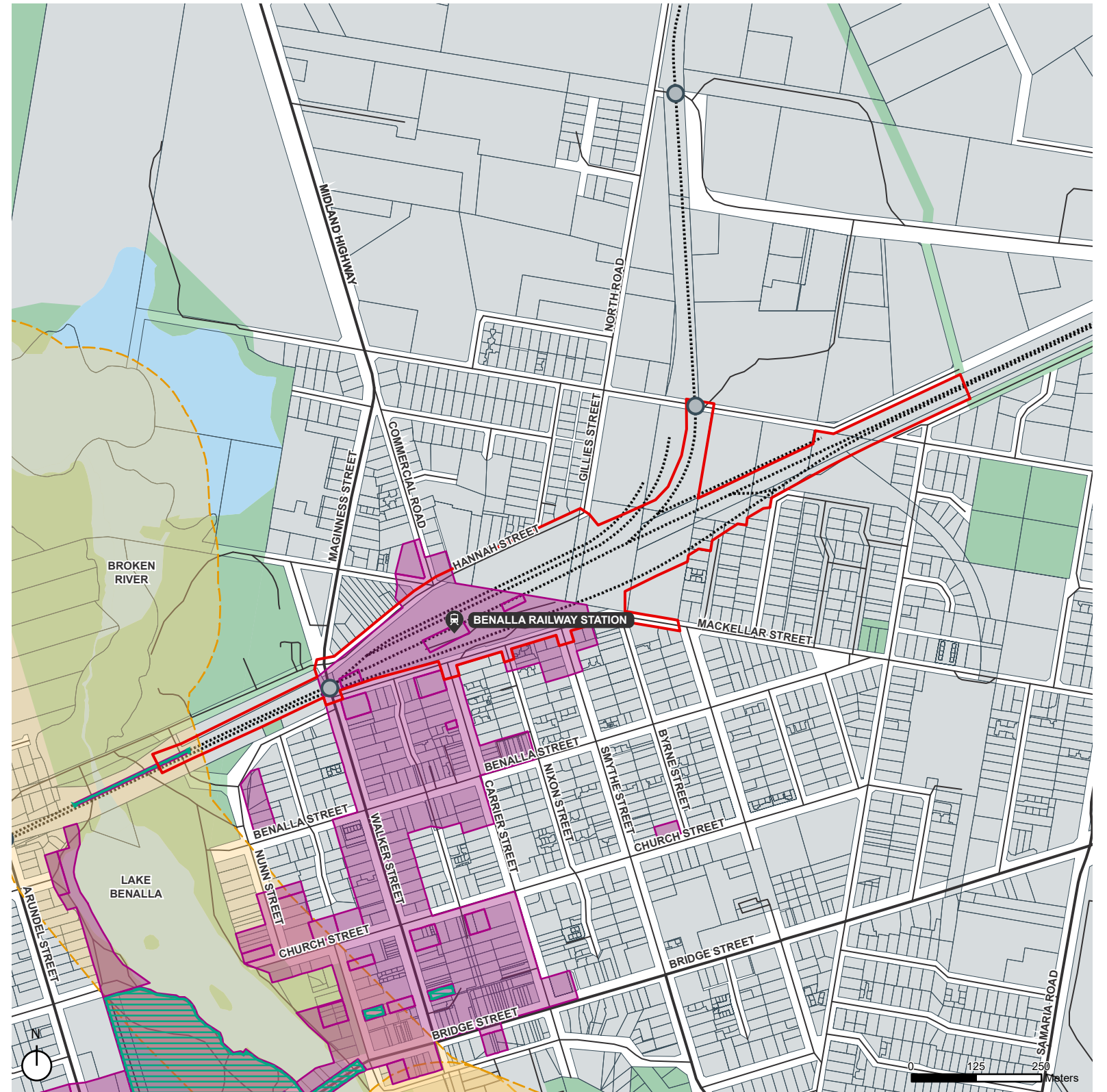


Figure 33 : Benalla Heritage Map

Transport and Access

Public Transport

While the dominant form of transport is via private vehicle, the project area can be accessed by bus via the No. 2 Route travelling from to Benalla East. Benalla Railway Station also has a small bus interchange located between the two platforms and accessed by the existing bridge, which services four bus routes; Albury to Bendigo via Wangaratta and Shepparton, Albury to Melbourne via Seymour, Melbourne to Mulwala via Seymour and Benalla and Sydney to Adelaide via Albury.

Benalla Railway Station is situated within the western portion of the project area. It is a V-Line Station and services three rail lines: the North East Line, the Tatong Line and the freight-only Oaklands Line. The station has two platforms and five rail tracks.

Active Transport

Cross corridor pedestrian connectivity around the project area is limited. To access the station, there is a long and narrow pedestrian underpass, providing a link between Railway Place and Mackellar Street. The access between Mackellar Street and the station via the underpass is relatively short and is significantly more open to the sky than the access from Railway Place.

Towards the west, there is an at-grade pedestrian crossing at the level crossing along Midland Highway.

The project area does not have any designated bicycle routes within close proximity.

Road Transport

A number of vehicle crossings of the rail line exist, including level crossings to the south-west and north-east of the project area.

The bridge currently provides vehicle access to the station and it's carpark, however its geometry limits safe circulation access for coaches.

LEGEND - TRANSPORT & ACCESS

- PROJECT AREA
- LEVEL CROSSINGS
- ARTERIAL ROADS
- TRAIN LINE
- BUS ROUTES
- BUS STOPS
- WALKING TRACK
- MAJOR RESERVES AND OPEN SPACE
- MAJOR WATERBODIES
- TRAIN STATION

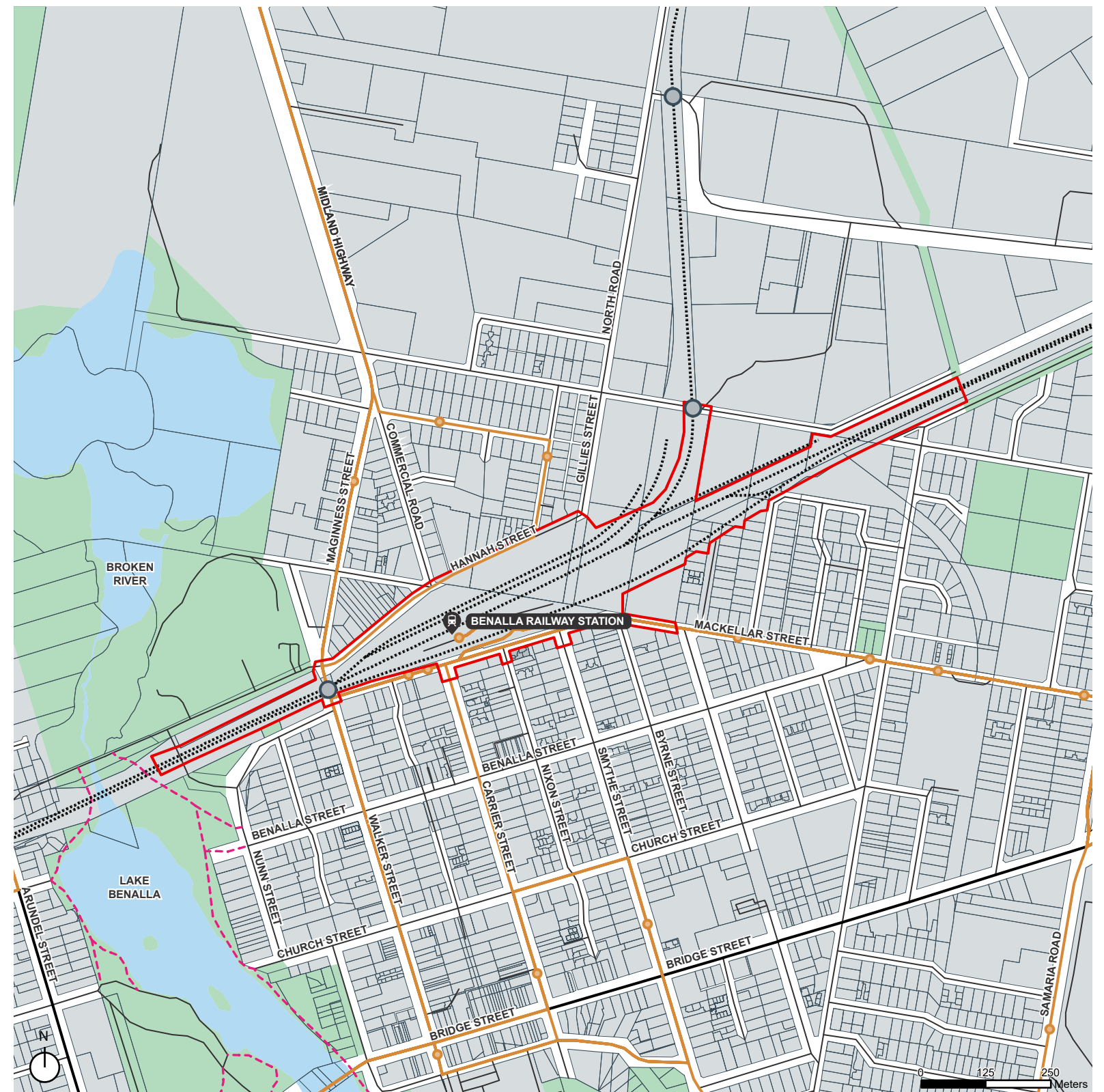


Figure 34 : Benalla Transport Map

Benalla

Opportunities and Constraints

Opportunities

- A. Improvement to the Benalla Railway Station Precinct to address and engage both Mackellar and Hannah Street interfaces, as well perform as a landmark upon approach from both Carrier Street and Commercial Road.
- B. Provision for safer, more direct and inclusive access to Benalla Railway Station and it's platforms.
- C. Enhancement and improvement to cross corridor pedestrian access and provide for a safer pedestrian environment, particularly along Hannah Street, Mackellar Street and the Nunn Street level crossing.
- D. Integration with Benalla's arts and culture community, and to engage with local artists during the design process.
- E. Provision of built infrastructure that responds to the interfacing historic assets and inherent viewsheds, thus strengthening the overall quality of the local character.
- F. Enhancement of the visual and physical integration of the built infrastructure within the local residential area.
- G. Potential for facilitation of future activation of railyard buildings and infrastructure for community benefit and use.
- H. Opportunity to enhance the station's northern interface and its surrounding public realm, creating a more positive experience for station arrivals whilst fostering pride amongst the local community.

Constraints

- 1. Proximity of sensitive residential interfaces which are visually impacted on Mackellar Street.
- 2. Poor pedestrian and vehicle access, amenity and safety to Benalla Station and car parking.
- 3. The proximity of the Nunn Street level crossing to the project area which has poor vehicle and pedestrian crossing amenity and safety.
- 4. Existing mature canopy trees with high landscape value and contribution.
- 5. Established, street tree structure situated south along Mackellar Street, providing a vegetative buffer to ease the visual impact of the existing road bridge structure.
- 6. Drainage concentration at the intersection of Mackellar and Nixon Streets.
- 7. Only a single entry/exit point into the Benalla Station Precinct from Mackellar Street.
- 8. The desire for a bus connection within close proximity to the station entry and exits.

LEGEND - OPPORTUNITY & CONSTRAINTS

- PROJECT AREA
- LEVEL CROSSINGS
- MAIN ROADS
- LOCAL ROADS & STREETS
- TRAIN LINE
- RAIL STATION
- BUS ROUTES
- BUS STOPS
- OPPORTUNITY
- CONSTRAINT
- EXISTING AT GRADE PEDESTRIAN CROSSING
- EXISTING PEDESTRIAN GRADE SEPARATED CROSSING
- KEY VEHICLE MOVEMENT
- SENSITIVE INTERFACE
- ACTIVE INTERFACE
- HERITAGE OVERLAY
- EXISTING MATURE VEGETATION
- BUFFER ZONE/VEGETATION CORRIDOR
- KEY VIEWS
- MAJOR WATERBODIES

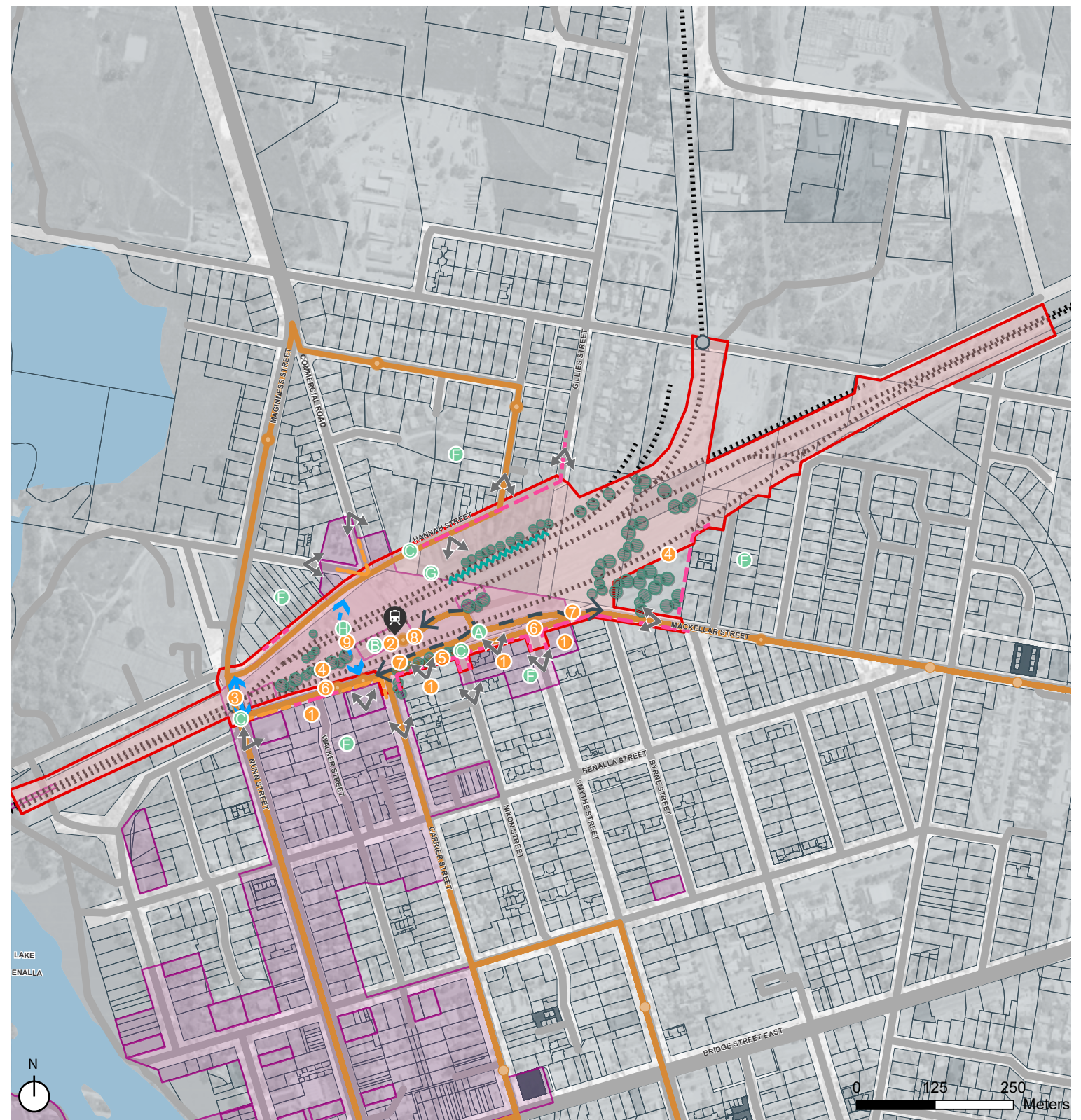


Figure 35 : Benalla Opportunities and Constraints Map

Benalla

Key Objectives

The Benalla project area lies just beyond the core of the town centre and has lay relatively dormant, hiding its heritage character and former presence within the town.

Key objectives for the Benalla project area are outlined below. Note that all key objectives are considered to be of equal importance and significance and are therefore not listed in a hierarchical order.

- 1 A station that is visually and physically connected to Carrier Street and Benalla's town centre, promoting its pedestrian accessibility and facilitating activity and vibrancy.
Relevant Urban Design Principles: 1, 3, 10
- 2 A safe and accessible station that provides for prioritised, safe and secure pedestrian access between Mackellar Street, the station, car parking and bus stops for all abilities, and future connection to the north of the rail corridor.
Relevant Urban Design Principles: 3, 5, 6
- 3 A precinct that has removed, minimised and mitigated the visual impacts of infrastructure to Mackellar Street, adjacent properties and integrates seamlessly with the residential character of the area.
Relevant Urban Design Principles: 1, 7, 9
- 4 A heritage precinct that increases the prominence of the existing heritage buildings and celebrates the heritage character of central Benalla.
Relevant Urban Design Principles: 1, 9, 10
- 5 A precinct readied for further growth and facilitating future investment into cross-town connections, regeneration and development of the precinct itself and areas north of the railway line.
Relevant Urban Design Principles: 2, 4, 11
- 6 A station precinct that strengthens the landscape character of Benalla.
Relevant Urban Design Principles: 1, 9, 12

LEGEND - OBJECTIVES

- PROJECT AREA
- LEVEL CROSSINGS
- MAIN ROADS
- LOCAL ROADS & STREETS
- TRAIN LINE
- RAIL STATION
- OBJECTIVE
- MAJOR WATERBODIES
- KEY PEDESTRIAN MOVEMENT
- KEY PUBLIC REALM INTERFACE
- KEY VISUAL LINE
- * KEY GATEWAY LOCATION
- KEY PRECINCT FOCUS

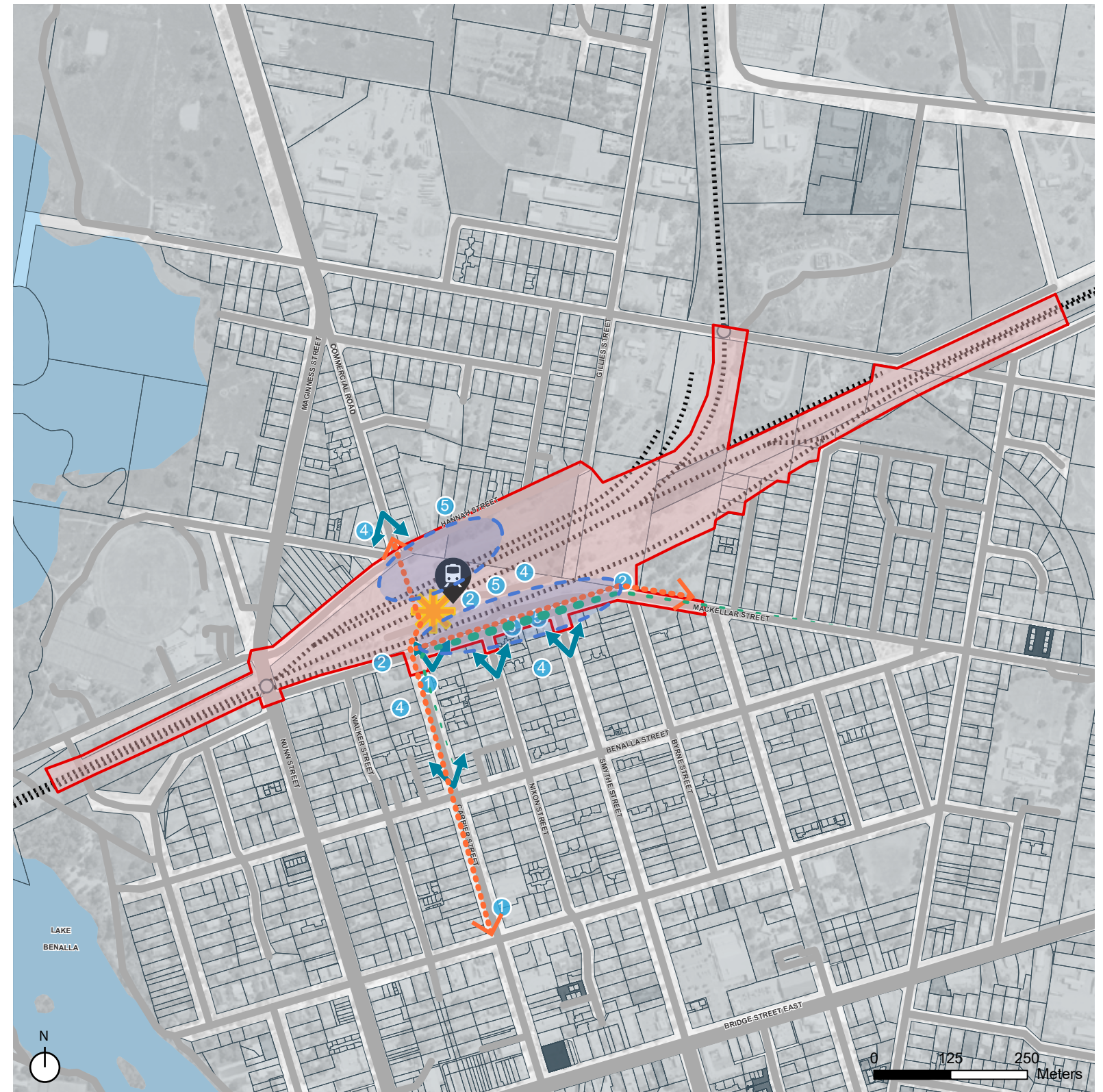


Figure 36 : Benalla Urban Design Objectives Map

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07

Glenrowan

- Context Analysis
- Opportunities and Constraints
- Urban Design Objectives



Glenrowan

Context Analysis

Geographic Context

Glenrowan is a small rural town located within the City of Wangaratta, approximately 236km north-east of Melbourne, holding a population of approximately 963.

Commonly associated with the 1880 Ned Kelly siege, Glenrowan is a popular tourist town and has a distinctive 'Ned Kelly' theme, with historic sites, statues and markers located in and around the township. Other recreational and tourism sites and activities include the nearby Winton Wetlands and Warby Ovens National Park.

The township is surrounded by bushland, with the Warby Ranges to the north and a large quarry to the south east. These natural features are highly valued for its biodiversity and landscape amenity.

LEGEND - GEOGRAPHIC CONTEXT

- PROJECT AREA
- LOCAL GOVERNMENT AREA
- TRAIN STATION
- LEVEL CROSSINGS
- MAJOR ROADS
- TRAIN LINE
- MAJOR RESERVES AND OPEN SPACE
- MAJOR WATERBODIES
- COMMERCIAL ZONE
- PUBLIC USE ZONE
- TOWNSHIP ZONE
- RESIDENTIAL ZONE
- FARMING/RURAL USE ZONE

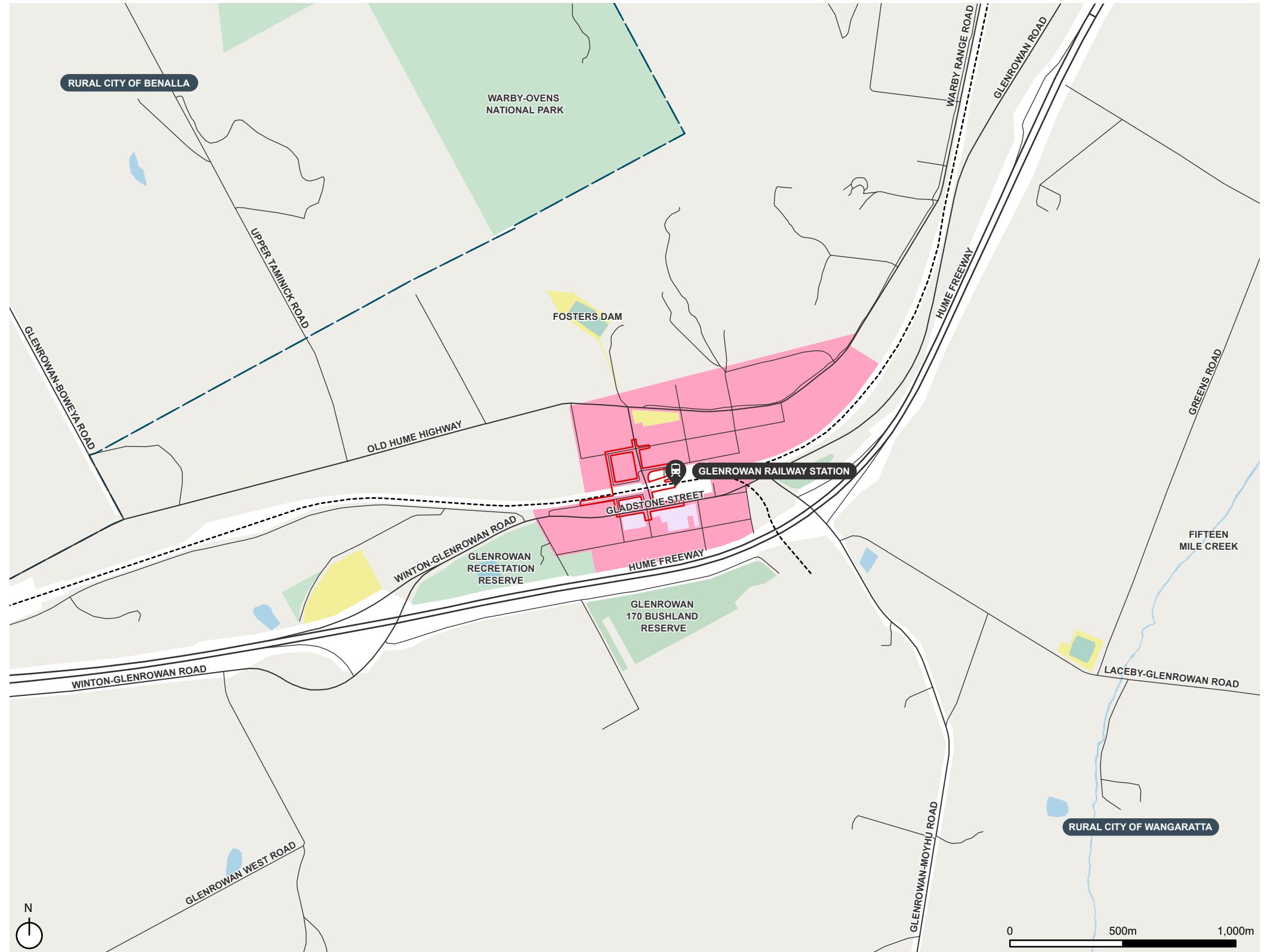


Figure 37 : Glenrowan Geographic Context Map

Historical Context

Historical Snapshot

Glenrowan was named after farmers James and George Rowan, who farmed the land between 1846 and 1858.

1860s

Early settlement commenced, with the post office opening at the end of the decade.

1870s

Early wine production began within the region as it's environment was deemed to provide suitable conditions.

1874

Glenrowan Railway Station opens.

1880

Ned Kelly and his gang made their last stand and were eventually stormed and apprehended by police in Glenrowan.

1962

The North East standard gauge line opens.

1981

As part of the Victorian 'New Deal' timetable for country passengers, Glenrowan Railway Station closes due to minimal patron usage.



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53 View towards Glenrowan Township, looking North, 1890.

54 Morgan's Lookout and ruins of Jones's Hotel, 1880.

55 Glenrowan Railway Station and Jones's Hotel, 1880.

56 Aerial view of Glenrowan, looking North, 1935.

Preliminary Landscape Character Impact Sensitivity Assessment

A preliminary Landscape Character Impact Sensitivity Assessment was undertaken for the Glenrowan site. Landscape character impacts for land within and surrounding the project area have been assessed according to their assigned Landscape Character Zones (LCZ).

LCZs are areas which can be defined in terms of level of development, urban character, land use, landform, vegetation coverage, presence of water, road and street configuration and other characteristic features. A summary of terms and a description of each LCZ can be found at Appendix C.

Project Assumptions for Assessment

The likely project scope for Glenrowan is to raise and realign the existing road bridge at Beaconsfield parade with associated ancillary works such as the truncation of Siege street, realignment of services.

This would require the raising of the Beaconsfield bridge and would likely require retaining walls on either side to support the structure at the bridge approaches.

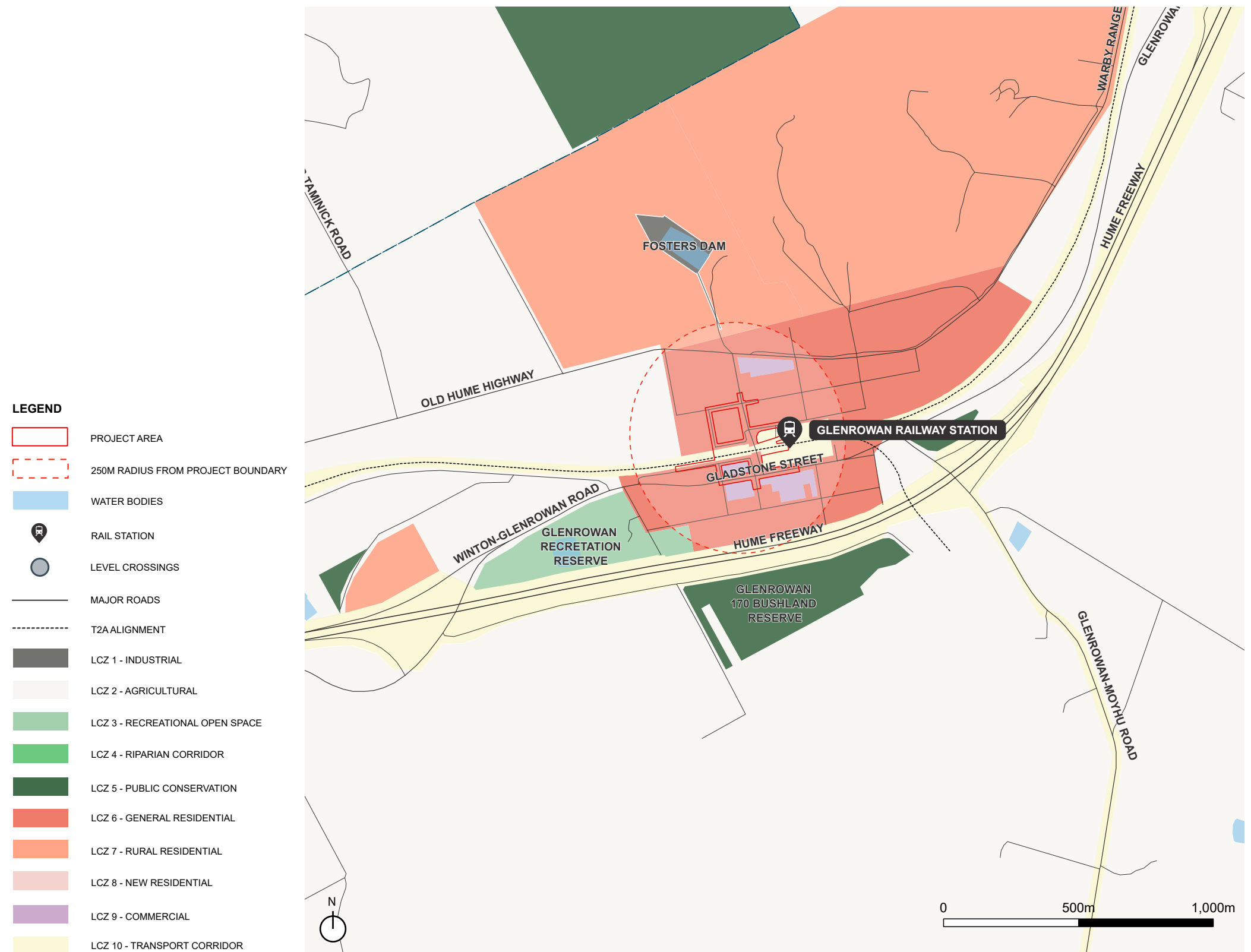


Figure 38 : Glenrowan Landscape Character Zones Map

Preliminary Landscape Character Impact Assessment

Strategic Conclusion

The two most sensitive Landscape Character Zones for the Beaconsfield road bridge extension is the LCZ 6 – General Residential and LCZ 9 – Commercial due to adjacent residencies and property boundaries within and around the proposed extent of works. Although the extent of vegetation clearing remains unclear the probability of established vegetation needing to be removed in the construction of these works combined with the increase in bridge height and span lends itself to the assumption that nearby residencies are likely to have negative visual impacts due to these works. New retaining walls associated with the bridge should be dealt with in a sensitive manner due to their visibility and proximity to adjacent residencies.

Proposed works will also have landscape impacts upon adjacent Heritage places and indigenous vegetation communities, which are covered by planning overlays in the Wangaratta Planning Scheme. Project works will encroach and impact upon the Glenrowan Heritage Precinct (State significant) and the Kelly Gang Siege Precinct, as well as require potential clearing of vegetation protected under the Vegetation Protection Overlay.

Potential mitigation measures to minimise these visual impacts could include, but are not limited to:

- Replacement of removed vegetation within the effect works area.
- Additional vegetation to help screen and minimise the visual impacts to adjacent sensitive residencies (to be in consultation with affected landowners).
- Close consultation with the community and heritage authorities to devise a satisfactory urban design solution for the bridge.

Magnitude of Impact

Negligible

Low

Moderate to Low / Moderate

High to Moderate / High

Landscape Character Zone	Sensitivity	Magnitude	Landscape Character Impact
 LCZ 1 - Industrial	Negligible Due to its proximity of the proposed extent of works.	Negligible The proposed works will have minimal impact	Negligible The proposed works are outside this zone Impacts can be mitigated through revegetation measures.
 LCZ 2 – Agricultural	Low Due to its proximity of the proposed extent of works.	Low The proposed works are outside this zone but within 250m	Low Impacts can be mitigated through revegetation measures.
 LCZ 3 – Recreational Open Space	High The proposed extent of works adjoins nearby sensitive spaces.	High The proposed works will have the potential to impact adjacent spaces	High Clearing of vegetation and an increased bridge height will alter interface with Lions Park.
 LCZ 4 – Riparian Corridor	-	-	-
 LCZ 5 – Public Conservation	Negligible Due to its proximity of the proposed extent of works	Negligible The proposed works are outside this zone	Negligible The proposed works will not be visible from this LCZ
 LCZ 6 – General Residential	High The proposed extent of works adjoins nearby sensitive residencies	High The proposed works will have the greatest impact on this LCZ	High Roadside clearing of vegetation and an increased in bridge height will mean the proposed works will be visible. New retaining walls will also add a new element.
 LCZ 7 – Rural Residential	Low Due to its proximity of the proposed extent or works	Low The proposed works are outside this zone	Low Impacts can be mitigated through revegetation measures.
 LCZ 8 – New Residential	-	-	-
 LCZ 9 – Commercial	High The proposed extent of works adjoins nearby sensitive residencies	High The proposed works will have significant impact on this LCZ	Moderate-High Impacts can be mitigated through revegetation measures
 LCZ 10 – Transport Corridor	Moderate The proposed extent of works Directly overlays with this LCZ	High The proposed works will have significant impact on this LCZ	Moderate-High Significant loss of mature vegetation due to assumed extent of works, can be mitigated through revegetation measures

Environment

Topography

The natural topography within the immediate project area is gently undulating, sloping upwards towards Church Street. Beyond the project area, land gradually rises as it meets with farmland to the north and Hume Freeway to the south.

Landscape Features

Prominent landscape features include Mount Glenrowan, located to the project area's north. Return hikes up Mount Glenrowan offer spectacular views of the Victorian Alps. Other features include the Glenrowan 169 Bushland Reserve, and the 170 Bushland Reserve, which are located to the project area's south-west and south respectively.

The site context's Environmental Vegetation Class number (EVC) is 175 (Grassy Woodland) which can be found bordering the western boundary of the project area, commonly present on gentle hills and plains.

Geologically, the project area predominantly sits upon an unnamed colluvium, with a small southern portion of the project area located on Glenrowan granite.

Under the Glenrowan Planning Scheme, the Vegetation Protection Overlay - Schedule 1 (VPO1) affects the entire project area. The VPO1 is in relation to the 'Glenrowan Township Vegetation Protection Area', and seeks to ensure indigenous trees, shrubs and vegetation communities are maintained and enhanced as a landscape feature of the Glenrowan township environment.

LEGEND - ENVIRONMENT
















	PROJECT AREA
	MAJOR ROADS
	TRAIN LINE
	TRAIN STATION
	MAJOR RESERVES & OPEN SPACE
	MAJOR WATERBODIES
	1M CONTOUR LINE
	EVC 20 HEATHY DRY FOREST
	EVC 22 GRASSY DRY FOREST
	EVC 47 VALLEY GRASSY FOREST
	EVC 68 CREEKLINE GRASSY WOODLAND
	EVC 72 GRANITIC HILLS WOODLAND
	EVC 80 SPRING SOAK WOODLAND
	EVC 175 GRASSY WOODLAND
	EVC 288 VALLEY GRASSY FOREST/ GRASSY WOODLAND COMPLEX



Figure 39 : Glenrowan Environmental Attributes Map

Site Character



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57 Lions Park provides a small public open space for the community adjacent to the road bridge across the rail line. This space is also designated for the future Ned Kelly Interpretive Centre.



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58 Glenrowan Historic Precinct, including a small public open space for the community and visiting tourists, which is linked to the road bridge via a pedestrian connection and contains sculptural and landscape elements.

59 Glenrowan town centre, where tourist attractions and information centres are located.

60 Open space in Glenrowan Historic Precinct, running parallel to the rail corridor.

61 A former building structure occupied the location of where Ned Kelly's capture occurred on Seige Street.

62 Location of the Historic Glenrowan Train Station.

63 The rail corridor and the Beaconsfield Parade raised pedestrian and vehicle crossing

64 The Glenrowan Hotel found within the Town Centre on Gladstone Street.

65 The intersection of Gladstone Street, Woolshed Road and



63



64



65

Land Use Context

Residential

Typical small town character, single detached residential properties can be found surrounding the project area, predominantly to its north and south.

Commercial/Mixed Use

The Glenrowan Town Centre is located to the south of the project area, with shops running along either side of Gladstone Street, comprising of restaurants, cafes, hotels, a post office, grocery store and other retail stores.

Known for its strong ties to Australia's historical figure Ned Kelly, Glenrowan also has a host of tourist attractions and museums dedicated to Ned Kelly and a tourist centre, bordering the southern boundary of the project area.

Community Facilities and Recreation

Much of the land composition in Glenrowan is residential or rural in nature, therefore community facilities are scarce. The Glenrowan Recreation Reserve, located to the project area's south-west, offers a football field for sports and other recreational activities. Glenrowan also hosts the Wangaratta Rifle Club and has a rifle range located to the south of the project area.

Glenrowan has a kindergarten and primary school, located to the project area's north along Old Hume Highway.

Open Space

Lions Park and the open park space abutting Glenrowan Railway Station to the north are within the Glenrowan Heritage Precinct, providing not only public open space for locals and visitors, but also offering a tourist experience as being where Ned Kelly and his Gang experienced their last stand.

The pedestrian traverse between Lions Park and the Historic Precinct is linked with urban design 'moments' which contribute to the tourist and local experience. The Lions Park open space is connected via a pedestrian walkway situated on the eastern side of the road bridge, providing views to the former station, the Historic Precinct, as well as the site of Ned Kelly's last stand. The open space in Lions Park is also anticipated to house the future Ned Kelly Interpretive Centre. The pedestrian link provides direct access from the road bridge to the historic precinct, where sculptural, artistic elements, as well as dry creek beds, contribute to the landscape environment of the open space's northwest corner.

Glenrowan Spring Creek Reserve is also located in close proximity, adjacent to the project area's northern boundary. Other public open spaces within the vicinity of the project include the Glenrowan Recreation Reserve to the south west, and Fosters Lake Reserve to the east.

LEGEND - LAND USE



















	PROJECT AREA
	MAJOR ROADS
	TRAIN LINE
	MAJOR RESERVES AND OPEN SPACE
	MAJOR WATERBODIES
	COMMERCIAL ZONE
	TOWNSHIP
	PUBLIC USE - EDUCATION
	PUBLIC USE - SERVICE & UTILITY
	FARMING/RURAL USE
	RAIL STATION
	EDUCATION CENTRE
	EMERGENCY SERVICE
	HISTORICAL SITE
	HEALTH SERVICE
	INFORMATION CENTRE
	RESTAURANT
	PARK & GARDENS



Figure 40 : Glenrowan Land Use Map

Built Form and Heritage

Built Form and Character

Glenrowan is a small rural town surrounded by an open landscape and is rich in heritage and history, with its association as being the place where Ned Kelly was sieged deeply embedded within the town. The Glenrowan Heritage Precinct is located to the project area's east and includes the road bridge along Beaconsfield Parade. To preserve its heritage significance, much of the heritage precinct's land and topography remain undeveloped however, the township has grown and developed around it, largely in the form of one storey brick or weatherboard detached residential dwellings that are set back from the street and one storey commercial buildings within the town centre.

The street layout within and surrounding the project area follows an almost rectangular gridded nature, with the exception of main roads and the Hume Freeway, which are more curved and organic as the topography changes.

Built form is less prominent towards the western end of the project area. Much of the land beyond Kelly Street is used for agricultural purposes, where residential properties are sited on larger parcels of land, albeit spaced apart. Residential properties to the west are typically accompanied by farming sheds and outhouses that are of a similar height and size.

Aboriginal Cultural Heritage

Prior to European settlement, the Yorta Yorta people were the first inhabitants of Glenrowan. The Yorta Yorta People's lifestyle and culture was based on hunting, fishing and collecting food from the variety of food sources provided by the Country, coming from the extensive network of rivers, lagoons, creeks, and wetlands which are still regarded as the life source and the spirit of the Yorta Yorta Nation.

The Yorta Yorta people strongly advocate for the survival of the ancestral land to make sure that their timeless connection to the Yorta Yorta land is sustained. They continue to exercise their rights as indigenous occupants and owners of Yorta Yorta Country within local communities, focusing on protecting the social, spiritual, economic and cultural links with the land.












Heritage

Much of Glenrowan's heritage is centred around Ned Kelly, with this being recognised as a significant part of Glenrowan's history and reflected in the town's character today.

There are several places within the vicinity of the project area that are of local or state heritage significance. The Glenrowan Heritage Precinct, the Kelly Gang Siege Precinct Environs, St. Pauls Anglican Church, Former Post Office and the Former Public House are all located to the project area's east along Beaconsfield Parade and hold local heritage significance.

The Glenrowan Heritage Precinct is of local, State and National heritage significance, being listed within the National Heritage List, Victorian Heritage Inventory and Victorian Heritage Register.

LEGEND - BUILT FORM & HERITAGE

	PROJECT AREA
	LEVEL CROSSINGS
	MAJOR ROADS
	TRAIN LINE
	MAJOR RESERVES AND OPEN SPACE
	MAJOR WATERBODIES
	HO - HERITAGE OVERLAY
	VHR - HERITAGE REGISTER
	ABORIGINAL CULTURAL SENSITIVITY
	TRAIN STATION
	HERITAGE SITE

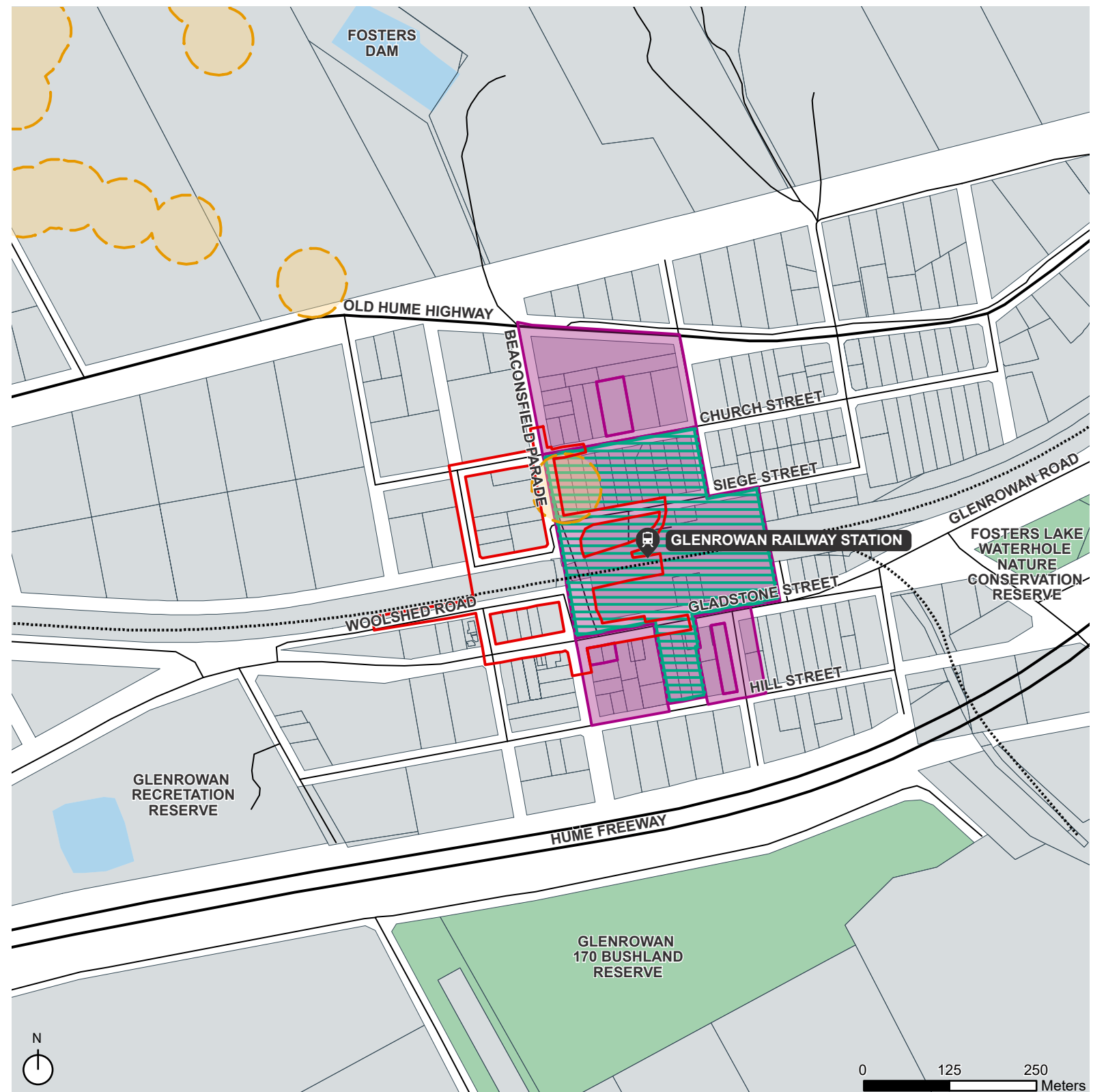


Figure 41 : Glenrowan Heritage Map

Transport and Access

Public Transport

Public transport to the project area is limited and access is predominantly via private motor vehicle.

Glenrowan Railway Station is currently decommissioned, and is located to the immediate east of the project area. Being located within the Glenrowan Heritage Precinct, the station is a historical landmark to commemorate the last stand of Ned Kelly and his gang.

There is one bus stop adjacent to the south-western corner of the project area and services the Glenrowan to Wangaratta via Wangaratta Road route.

Active Transport









Cross corridor pedestrian connectivity around the project area is limited. The only formal connection is the one narrow pedestrian footpath provided along the Beaconsfield Parade road bridge, and it's connection to the open spaces surrounding the Glenrowan Historic Precinct.

The project area does not have any formal bike routes within close proximity.

Road Transport

Whilst relatively low volumes of road traffic are present in Glenrowan, Beaconsfield Parade also provides access to truck traffic.

LEGEND - TRANSPORT & ACCESS

	PROJECT AREA
	LEVEL CROSSINGS
	TRAIN LINE
	BUS ROUTES
	BUS STOPS
	MAJOR RESERVES AND OPEN SPACE
	MAJOR WATERBODIES
	TRAIN STATION

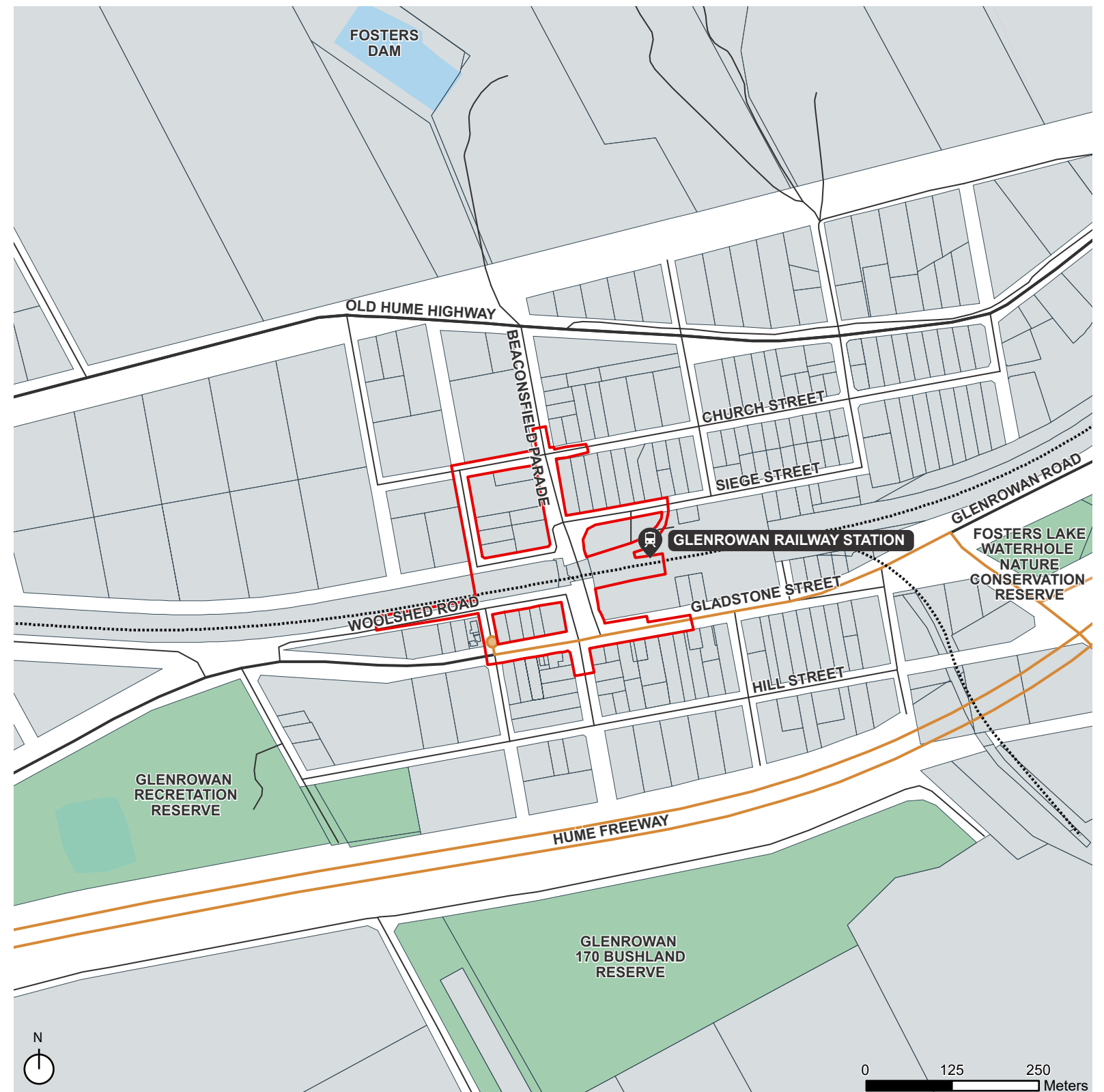


Figure 42 : Glenrowan Transport Map

Glenrowan

Opportunities and Constraints

Opportunities

- A. Enhancement of the visual and physical integration of the existing historic infrastructure within the Glenrowan Historic Precinct.
- B. Provision of new built infrastructure that responds to existing heritage and civic elements, as well as strengthens the quality of the overall local character.
- C. Improvement to cross corridor pedestrian access, and provide for a safer pedestrian environment, particularly along Beaconsfield Parade.
- D. Strengthening of the relationship to local bushland reserves, national parks and framing of views to Mount Glenrowan and Warby-Ovens National Park.
- E. Further improvements to local identity and character by complimenting future potential infrastructure projects.

Constraints

- 1. The project area interfaces and encompasses a substantial area subject to heritage overlays.
- 2. Beaconsfield Parade is the only pedestrian and vehicular connection running north/south within Glenrowan between Gladstone Parade and Old Hume Highway.
- 3. The proximity and interface of Lions Park and associated playground to the rail corridor and project area.
- 4. Established canopy trees situated within the rail corridor, with a concentration to the northwest.
- 5. The proximity of the Glenrowan Historic Precinct to the rail corridor and project area, particularly 'The Big Ned Kelly' and Woolshed Road to the project's south west.
- 6. The proximity of the Glenrowan Town Centre to the rail corridor and project area.
- 7. Poor pedestrian amenity, safety and associated connections provided along the Beaconsfield Parade road bridge.
- 8. The proximity of sensitive residential interfaces which are visually impacted on Gladstone Street facing north and Seige Street looking south.
- 9. Existing mature canopy trees protected by the Vegetation Protection Overlay - Schedule 1, with high landscape value and contribution to Glenrowan township.

LEGEND - OPPORTUNITY & CONSTRAINTS

	PROJECT AREA
	LEVEL CROSSINGS
	MAIN ROADS
	LOCAL ROADS & STREETS
	TRAIN LINE
	RAIL STATION
	OPPORTUNITY
	CONSTRAINT
	KEY/INFORMAL PEDESTRIAN MOVEMENT
	EXISTING PEDESTRIAN GRADE SEPARATED CROSSING
	KEY VEHICLE MOVEMENT
	SENSITIVE INTERFACE
	ACTIVE INTERFACE
	HERITAGE OVERLAY
	EXISTING MATURE VEGETATION
	BUFFER ZONE/VEGETATION CORRIDOR
	KEY VIEWS
	GATEWAY / LANDMARK
	MAJOR RESERVES AND OPEN SPACE



Figure 43 : Glenrowan Opportunities and Constraints Map

Glenrowan

Key Objectives

The Glenrowan project area lies at the heart of the heritage precinct that is at the core of the town's identity and economic life.

Key objectives for the Glenrowan project area are outlined below. Note that all key objectives are considered to be of equal importance and significance and are therefore not listed in a hierarchical order.

- 1 A new bridge that sensitively responds to the heritage and natural environment in which it sits and provides a new element to the visitor experience at Glenrowan.
Relevant Urban Design Principles: 1, 2, 9
- 2 An improved pedestrian network that encourages walking as the primary means to visit, explore and access Glenrowan's town centre, heritage precinct and historic sites.
Relevant Urban Design Principles: 5, 6, 8
- 3 A reinstatement of and strengthening of Glenrowan's 'Kelly Country' character that draws on the landscape and topographic characteristics that are synonymous with the town's past.
Relevant Urban Design Principles: 9, 10, 12
- 4 The restoration of former road alignments and networks and the leveraging of the surrounding topography and landscape to seamlessly integrate the whole of the town.
Relevant Urban Design Principles: 3, 9, 10
- 5 A precinct that is readied to accommodate further development of its tourist potential and anticipates the access needs of visitors and residents alike.
Relevant Urban Design Principles: 2, 4, 11

LEGEND - OBJECTIVES

- PROJECT AREA
- LEVEL CROSSINGS
- MAIN ROADS
- LOCAL ROADS & STREETS
- TRAIN LINE
- R RAIL STATION
- 1 OBJECTIVE
- MAJOR WATERBODIES
- KEY PEDESTRIAN MOVEMENT
- KEY PUBLIC REALM INTERFACE
- KEY VISUAL LINE
- KEY GATEWAY LOCATION



Figure 44 : Glenrowan Urban Design Objectives Map

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08

Wangaratta

- Context Analysis
- Opportunities and Constraints
- Objectives

Wangaratta

Context Analysis

Geographic Context

Wangaratta is a significant rural city in regional Victoria, located approximately 252km north-east of Melbourne CBD with a population of approximately 18,839. Wangaratta is an important and major rural service centre, popular for its annual Jazz and Blues Festival, surrounding wineries and beautiful natural landscapes.

Wangaratta contains a large variety of recreational, educational and community facilities and supports smaller surrounding towns.

The rural city is located amidst prominent landscape features such as the One Mile Creek, Ovens River and King River, providing for good visual amenity and greenery throughout the city.

LEGEND - GEOGRAPHIC CONTEXT

- PROJECT AREA
- TRAIN STATION
- LEVEL CROSSINGS
- MAJOR ROADS
- TRAIN LINE
- MAJOR RESERVES AND OPEN SPACE
- MAJOR WATERBODIES
- COMMERCIAL ZONE
- PUBLIC USE ZONE
- INDUSTRIAL USE ZONE
- RESIDENTIAL ZONE
- FARMING/RURAL USE ZONE
- MIXED USE ZONE

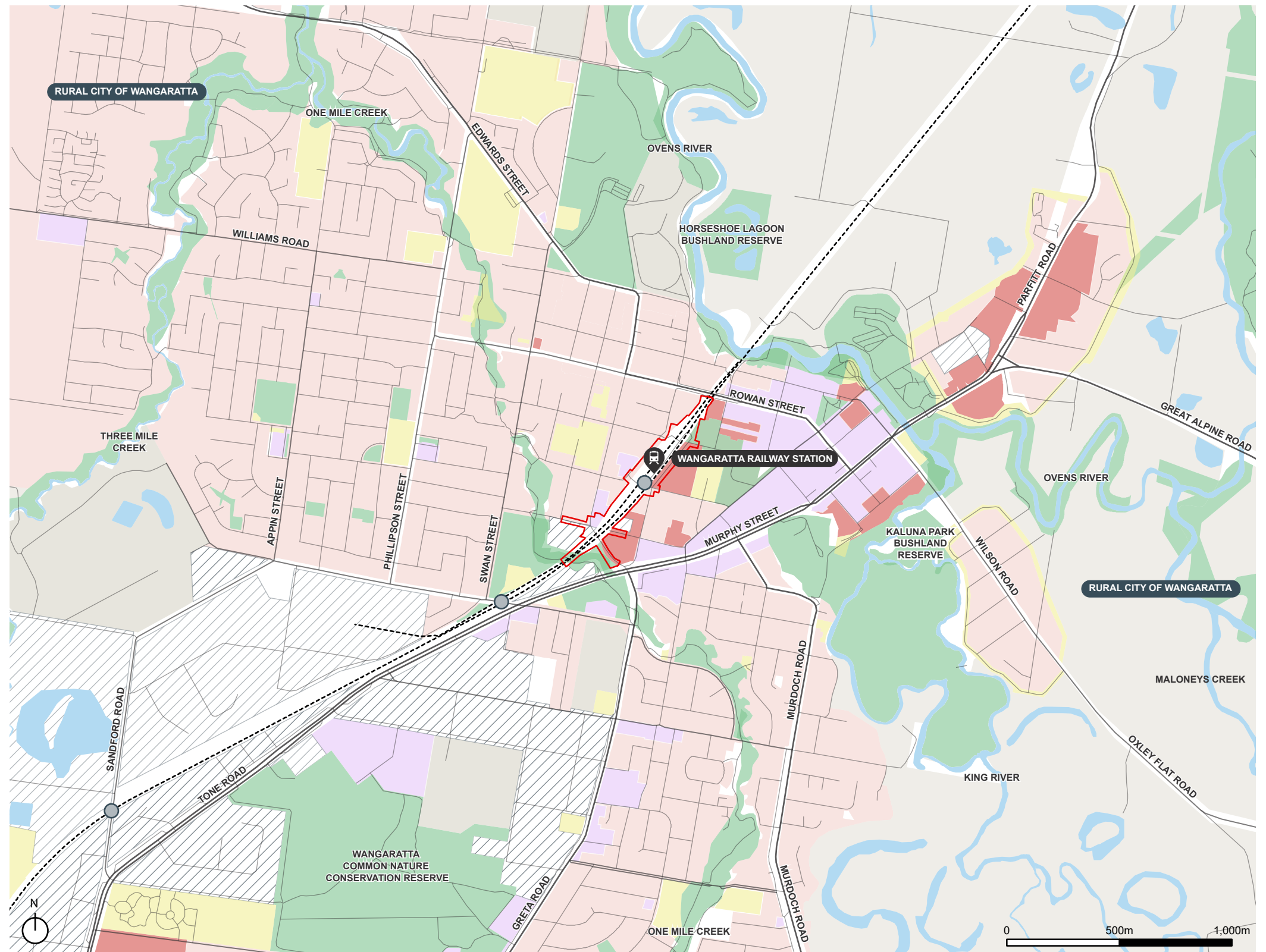


Figure 45 : Wangaratta Geographic Context Map

Historical Context

Historical Snapshot

The name 'Wangaratta' comes from the Pangerang word for the long neck of the Cormorant (bird species), as the bird was a common sight within the area.

1824

Hume and Hovell were the first European explorers to pass through the land.

1838

The first settlers arrived on the land, and the settlement of the Wangaratta district commenced.

1849

The land had its first formal survey conducted.

1850s

The gold rush era began, helping to establish the town as a major centre within Victoria.

1855

The first bridge across Ovens River was built. A wider bridge was built in 1886, followed by an even wider one (at the present site) built in 1934. This bridge was named the Mitchell Bridge, after the explorer Major Thomas Mitchell.

1873

Wangaratta Railway Station was opened.

1923

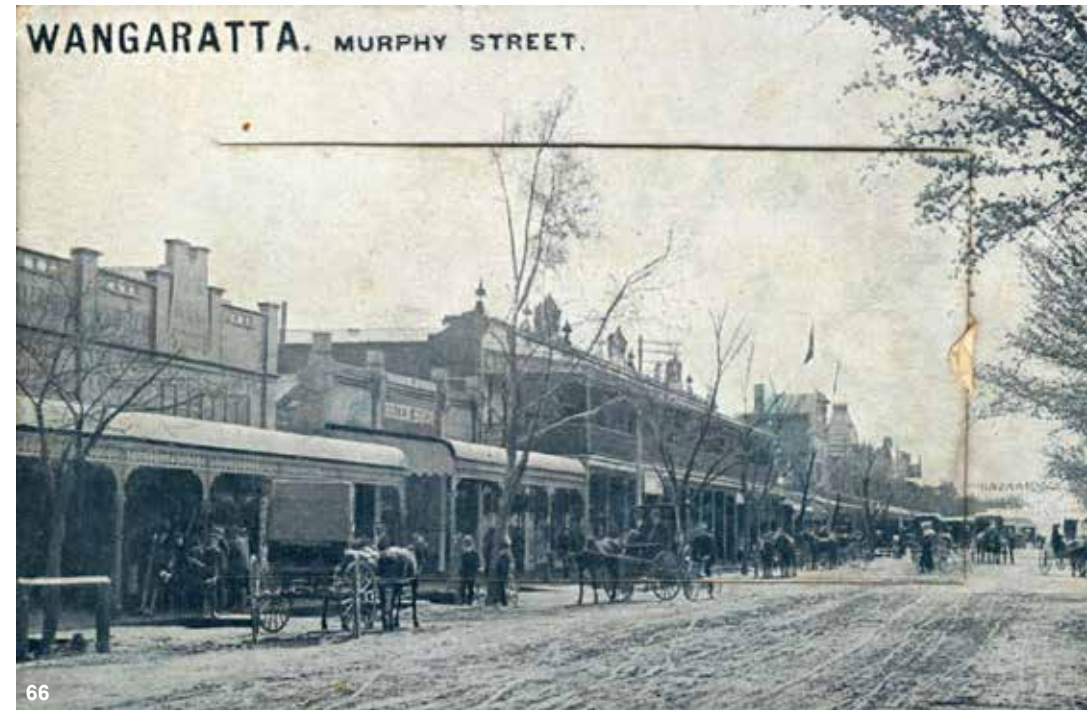
The first wool processing mill opened, with several other mills and textile manufacturers opening over the next 30 years, forming an important part of the town's economy.

1959

Wangaratta was officially declared a city.

1962

The North East standard gauge line opens.



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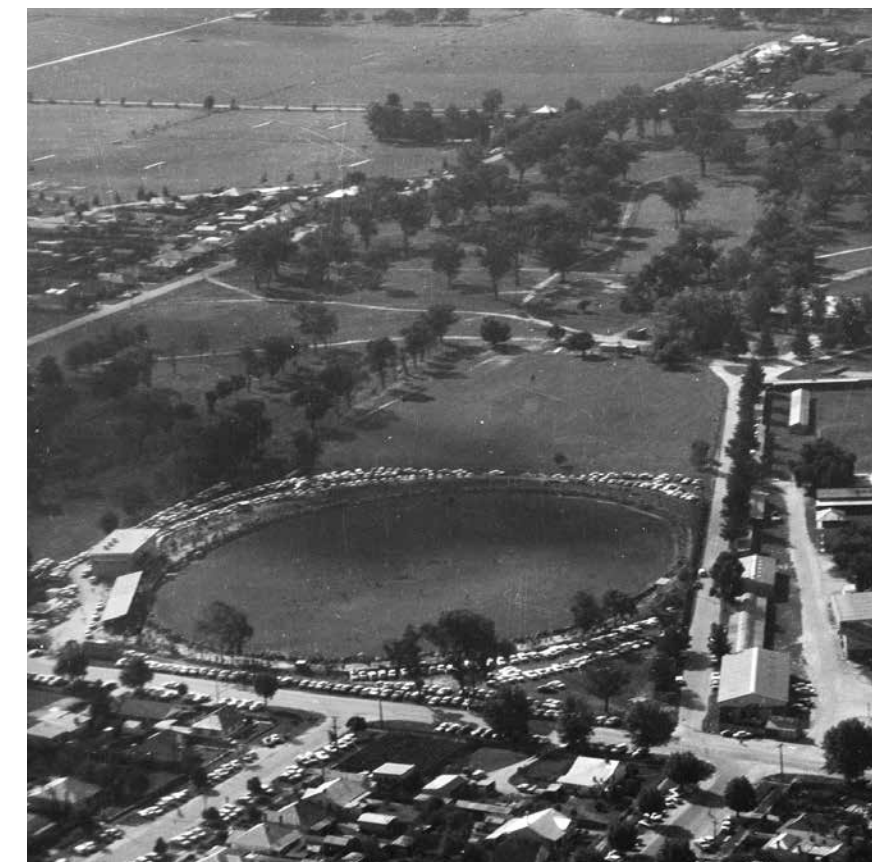


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66 Murphy Street, Wangaratta, 1908.

67 Wangaratta Railway Station, 1910.

68 The Commercial Hotel, Murphy Street, Wangaratta, 1941.

69 Aerial View of Wangaratta, looking North East, 1970.

Preliminary Landscape Character Impact Sensitivity Assessment

A preliminary Landscape Character Impact Sensitivity Assessment was undertaken for the Wangaratta site. Landscape character impacts for land within and surrounding the project area have been assessed according to their assigned Landscape Character Zones (LCZ).

LCZs are areas which can be defined in terms of level of development, urban character, land use, landform, vegetation coverage, presence of water, road and street configuration and other characteristic features. A summary of terms and a description of each LCZ can be found at Appendix C.

Project Assumptions for Assessment

The likely project scope for Wangaratta includes the lowering of the train line entering the station from the south-west. This work will require additional earthwork batters and ground plain alterations around the relevant section of rail. The road bridge at Green Street will likely require replacement of the bridge span to accommodate a greater rail clearance in this location.

The project scope will also likely include the replacement of the existing pedestrian overpasses at the railway station with a pedestrian underpass, and changes to station to accommodate a realignment of tracks and new platform that make the dive structure redundant.

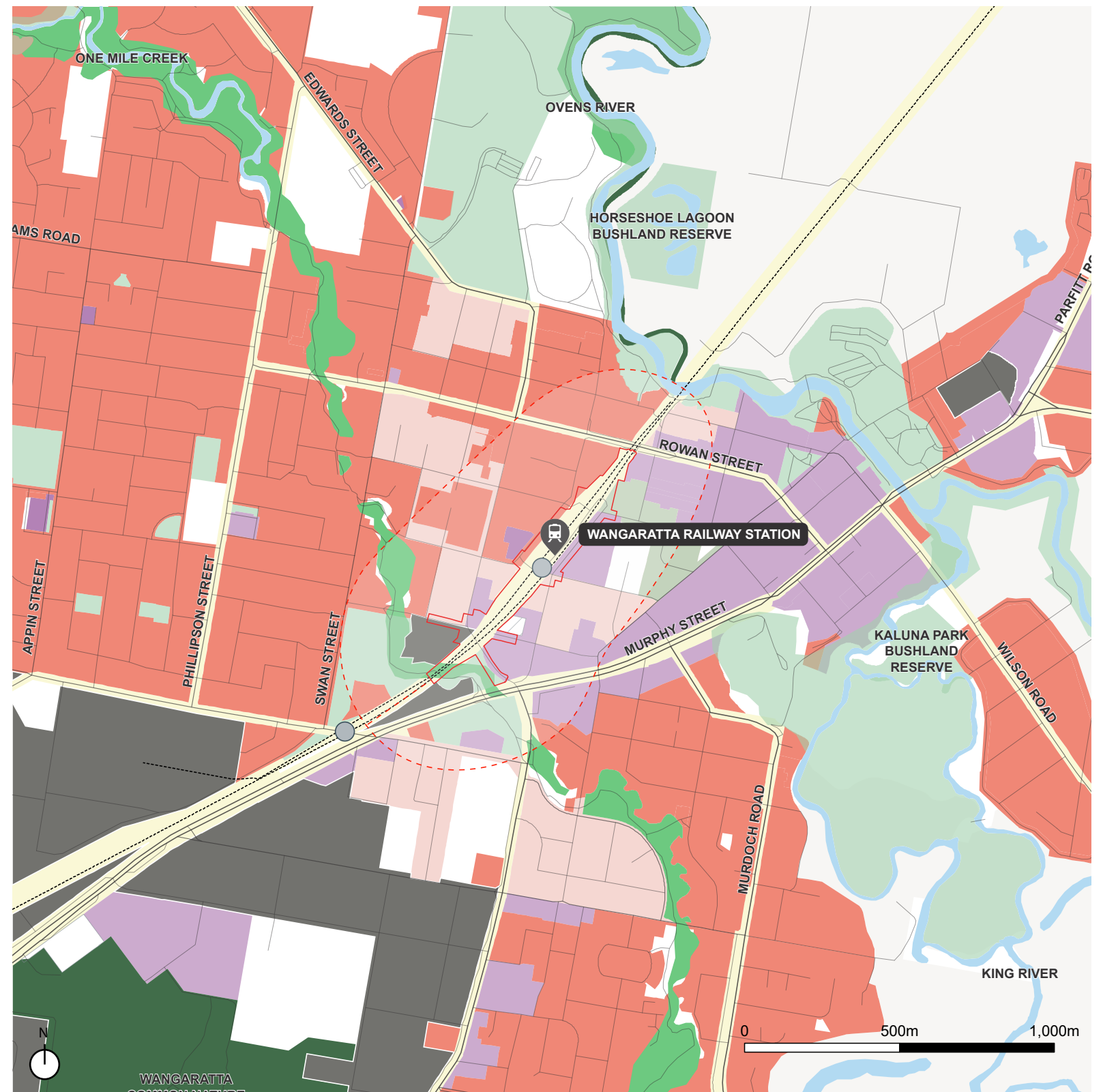
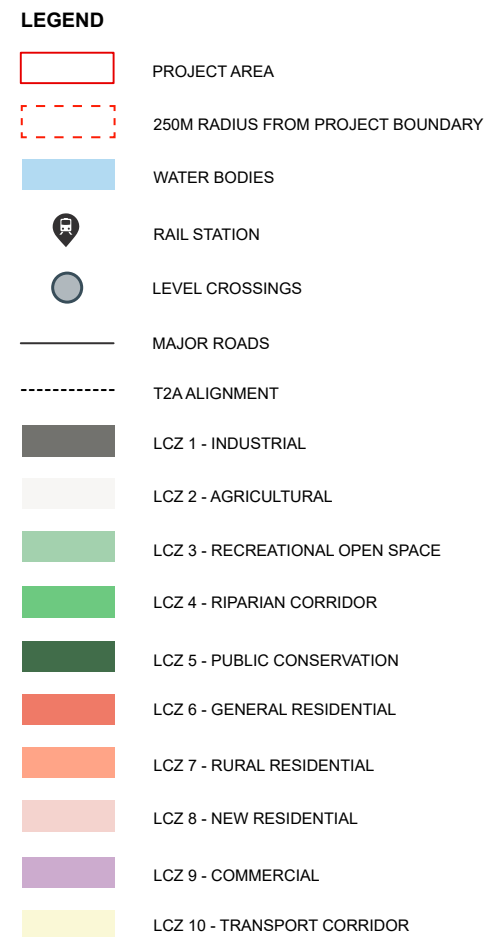


Figure 46 : Wangaratta Landscape Character Zones Map

Preliminary Landscape Character Impact Assessment

Strategic Conclusion

The reconstruction of the Green Street road bridge is likely to impact the landscape characters of several sites converging in this location with the site boundary overlapping with LCZ 1,3,4,8 and 9. Although the extent of vegetation clearing remains unclear the probability of established vegetation needing to be removed in the construction of these works due to the new bridge construction along with battered slopes due to lowering of the track is likely to lead to negative visual impacts to these LCZ's.

The extent of works boundary also overlaps with LCZ 3 at the corner of Norton and Cusack street where a significant amount of mature vegetation provides screening to the existing pedestrian overpass, if this vegetation is to be removed this will adversely affect the park as well as neighbouring sensitive residences.

Potential mitigation measures to minimise these visual impacts could include but are not limited to

- Sediment control measures, as well as the minimisation of land take and disturbance during construction.
- Replacement and augmentation of removed tree vegetation within the impacted project area.
- The addition of strategic planting to provide visual screening and to minimise the visual impacts.
- Strong urban design principles for pedestrian underpass construction.

Magnitude of Impact

Negligible
Low
Moderate to Low / Moderate
High to Moderate / High

Landscape Character Zone	Sensitivity	Magnitude	Landscape Character Impact
 LCZ 1 - Industrial	Moderate The proposed extent of works adjoins nearby industrial areas.	Moderate Loss of vegetation along access roads abutting industrial areas.	Moderate Potential for moderate vegetation loss. Impacts can be mitigated through revegetation measures.
 LCZ 2 – Agricultural	Low Due to its proximity of the proposed extent of works.	Low The proposed works are outside this zone but within 250m	Low Impacts can be mitigated through revegetation measures.
 LCZ 3 – Recreational Open Space	High Extent of works overlaps with LCZ	High The proposed works are within this site and will result in vegetation loss	High Some mature vegetation loss. Impacts can be mitigated through revegetation measures.
 LCZ 4 – Riparian Corridor	Moderate The proposed extent of works adjoins nearby residential areas.	Moderate Potential loss of vegetation along access roads abutting residential areas.	Moderate Potential for moderate vegetation loss. Impacts can be mitigated through revegetation measures.
 LCZ 5 – Public Conservation	Negligible Due to its proximity of the proposed extent of works	Negligible The proposed works are outside this zone	Negligible The proposed works will not be visible from this LCZ
 LCZ 6 – General Residential	Moderate The proposed extent of works adjoins nearby sensitive residences	Moderate Loss of significant vegetation along road corridor as well as new access roads abutting residences	Moderate Vegetation clearing as a result of the proposal, will make the corridor and new pedestrian overpass more prominent can be mitigated with revegetation and urban design measures
 LCZ 7 – Rural Residential	Negligible Due to its proximity of the proposed extent of works	Negligible The proposed works are outside this zone	Negligible The proposed works will not be visible from this LCZ
 LCZ 8 – New Residential	Moderate The proposed extent of works adjoins nearby sensitive residences	Moderate Loss of significant vegetation along road corridor as well as new access roads abutting residences	Moderate Vegetation clearing as a result of the proposal, will make the corridor and new pedestrian overpass more prominent can be mitigated with revegetation and urban design measures
 LCZ 9 – Commercial	Moderate The proposed extent of works adjoins nearby sensitive residences	Moderate Loss of significant vegetation along road corridor as well as new access roads abutting residences	Moderate Vegetation clearing as a result of the proposal, will make the corridor and new pedestrian overpass more prominent can be mitigated with revegetation and urban design measures
 LCZ 10 – Transport Corridor	Moderate The proposed extent of works Directly overlays with this LCZ	High The proposed works will have significant impact on this LCZ	Moderate-High Vegetation clearing as a result of the proposal, will make the corridor and new pedestrian overpass more prominent can be mitigated with revegetation and urban design measures

Environment

Topography

The natural topography within and surrounding the immediate project area is relatively flat, however the land does rise towards the road bridge at Green Street, and descends towards both One Mile Creek and Owen's River.
















Landscape Features

Prominent landscape features in the vicinity of the project area include One Mile Creek, Owens River and King River. Two kilometres from the Wangaratta city centre is the East Wangaratta Nature Conservation Reserve where a River Red Gum Reserve remains of state significance.

Where the project area meets One Mile Creek, the Environmental Vegetation Class number (EVC) 68 (Creek line Grassy Woodland) can be found all along the banks of the creek.

Geologically, the project area sits upon alluvial deposits – namely clays, silts, sands and gravels - identified by as the 'Shepparton Formation'.

LEGEND - ENVIRONMENT

	PROJECT AREA
	LEVEL CROSSINGS
	MAJOR ROADS
	TRAIN LINE
	TRAIN STATION
	MAJOR RESERVES & OPEN SPACE
	MAJOR WATERBODIES
	1M CONTOUR LINE
	EVC 55 PLAINS GRASSY WOODLAND
	EVC 56 FLOODPLAIN RIPARIAN WOODLAND
	EVC 68 CREEKLINE GRASSY WOODLAND
	EVC 172 FLOODPLAIN RIPARIAN WOODLAND
	EVC 803 PLAINS WOODLAND
	EVC 992 WATER BODY - FRESH
	EVC 1040 RIVERINE GRASSY WOODLAND/ RIVERINE SWAMPY WOODLAND MOSAIC

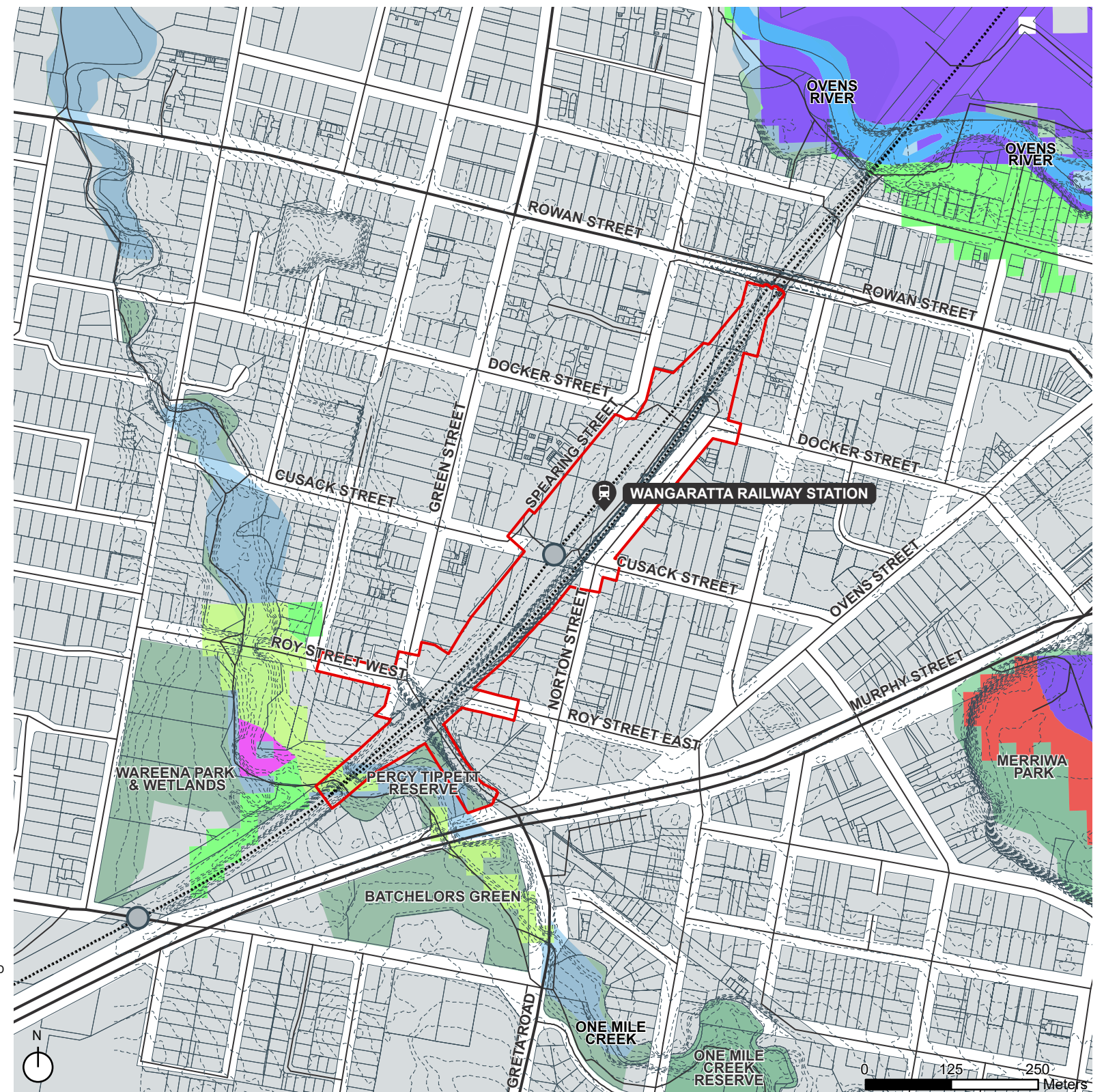


Figure 47 : Wangaratta Environmental Attributes Map

Site Character

- 70 Infrastructure interface on the northern side of Roy Street West observing the intersection with Green Street in a north eastern direction.
- 71 Green Street road bridge observed from a south west direction, north up Green Street from the Roy Street West intersection.
- 72 Views to iconic structures whilst traversing the northern Docker Street overpass.
- 73 View south west along the newly constructed station forecourt addressing Norton Street. The view captures a footbridge connecting users from the forecourt to the station entry, whilst traversing the station's sole rail dive structure.
- 74 View southwest capturing the an existing V-Line platform, observed from the Cusack Street pedestrian footbridge.
- 75 View south down Gray Street, observing the station's iconic water tower from the Docker Street intersection.
- 76 View south down Gray Street, observing the station's iconic water tower from the Docker Street intersection. The newly constructed station forecourt providing enhancements to the Norton Street address, enabling a fresh landscape experience upon station entry and egress.
- 77 View south west observing the Cusack Street pedestrian footbridge with an iconic silo structure beyond.
- 78 Wangaratta Station and water tower structure viewed from the centre of the Cusack Street footbridge.



Land Use Context

Residential

Low density single detached residential properties can be found surrounding the project area, predominantly to its north and south.

Commercial/Mixed Use

The Wangaratta Central Activity Centre is located to the east of the project area and hosts a large variety of restaurants and cafes, retail stores, supermarkets, a cinema, banks and post offices. Office buildings and small warehouses for light industry can be found around the edges of the city centre.

Wangaratta Health Precinct

The Wangaratta Health Precinct is located on the western side of the rail corridor, adjacent to the project area. The precinct is loosely bound by Rowan Street to the north, the rail corridor to the east, Roy Street West to the south and Swan Street to the west. The precinct contains several health facilities and residential uses and is proposed to be further enhanced and developed in the near future.

Industrial

To the project area's south-west, there are large expanses of land used for industrial purposes where manufacturers, auto-body shops, concrete and building material suppliers (to name a few) are situated.

Community Facilities and Recreation

Wangaratta has an abundance of community and recreational facilities. In proximity to the south-western end of the project area is the Wangaratta Olympic outdoor pool and Wareena Park Bowls Club. Other facilities are predominantly located to the project area's north and include the Wangaratta Indoor Sports and Aquatic Centre, skate parks, bowls, rifle and table tennis clubs and showgrounds, clustered together adjacent to Ovens River.

To the project's east and south-east is Wangaratta Racecourse and the Avian Park Recreation Reserve for horse harness racing.

Wangaratta has many education centres ranging from kindergarten to tertiary education. The closest education centres to the project area include St Patrick's School to the east and Wangaratta Rural Clinical School to the west.

Open Space

Towards the south-western end of the project area is the Percy Tippet Reserve and Wareena Park and Wetlands. To the north, Norm Minns Oval, W. J. Findlay Oval and the HP Barr Reserve provide open green spaces for community and recreational activities.

LEGEND - LAND USE



























	PROJECT AREA
	LEVEL CROSSINGS
	MAJOR ROADS
	TRAIN LINE
	MAJOR RESERVES AND OPEN SPACE
	MAJOR WATERBODIES
	COMMERCIAL ZONE
	HEALTH ZONE
	MIXED USE ZONE
	PUBLIC USE - EDUCATION
	PUBLIC USE - OTHER
	INDUSTRIAL USE
	PUBLIC USE - LOCAL GOVERNMENT
	PUBLIC USE - SERVICE & UTILITY
	RESIDENTIAL
	FARMING/RURAL USE
	RAIL STATION
	EDUCATION CENTRE
	EMERGENCY SERVICE
	COUNCIL BUILDING
	HEALTH SERVICE
	INFORMATION CENTRE
	SHOPPING CENTRE
	RESTAURANT
	PARK & GARDENS
	ARTS & CULTURE



Figure 48 : Wangaratta Land Use Map

Built Form and Heritage

Built Form and Character

Wangaratta is a highly developed and established city that manages to hold a sense of rural charm through its low density living, well-kept natural landscape features and expansive farmland surroundings. While the project area is surrounded by a variety of different uses, built form remains at a height of 1-2 storeys. Residential properties are largely in the form of one storey brick or weatherboard houses, and commercial and office spaces are typically Victorian, Edwardian or post-war style buildings at 1-2 storeys in height.

Retail, office, medical and community facilities include larger and more contemporary built form and design that has responded to the built character of the town. The water towers at the railway station and the Green Street road bridge do remain highly visible from surrounding streets.

Built form is less prominent towards the east of the project area; much of the land beyond Owens River is used for agricultural purposes.

Aboriginal Cultural Heritage












Prior to European settlement, the Yorta Yorta people were the first inhabitants of Wangaratta. The Yorta Yorta people's lifestyle and culture was based on hunting, fishing and collecting food from the variety of food sources provided by the Country, coming from the extensive network of rivers, lagoons, creeks, and wetlands which are still regarded as the life source and the spirit of the Yorta Yorta Nation.

The Yorta Yorta people strongly advocate for the survival of the ancestral land to make sure that their timeless connection to the Yorta Yorta land is sustained. They continue to exercise their rights as indigenous occupants and owners of Yorta Yorta Country within local communities, focusing on protecting the social, spiritual, economic and cultural links with the land.

Heritage

Wangaratta has several places that are of local and State significance, some of which are located within the project area. The Docker Street East and West Precincts (HO8 and HO9 respectively) are located adjacent to the project area whereby many of the dwellings and buildings are still intact from the early settlement days of Wangaratta. The Railway Station Precinct and Complex is historically and architecturally significant to the State of Victoria and is listed on the Victorian Heritage Register (No.H1597). The heritage station building is complemented by other significant structures within the precinct such as the footbridge, timber signal box, the goods shed, water column and the circular four-level brick base to the cast iron water supply tank system.

LEGEND - BUILT FORM & HERITAGE

	PROJECT AREA
	LEVEL CROSSINGS
	MAJOR ROADS
	TRAIN LINE
	MAJOR RESERVES AND OPEN SPACE
	MAJOR WATERBODIES
	HO - HERITAGE OVERLAY
	VHR - HERITAGE REGISTER
	ABORIGINAL CULTURAL SENSITIVITY
	TRAIN STATION
	HERITAGE SITE

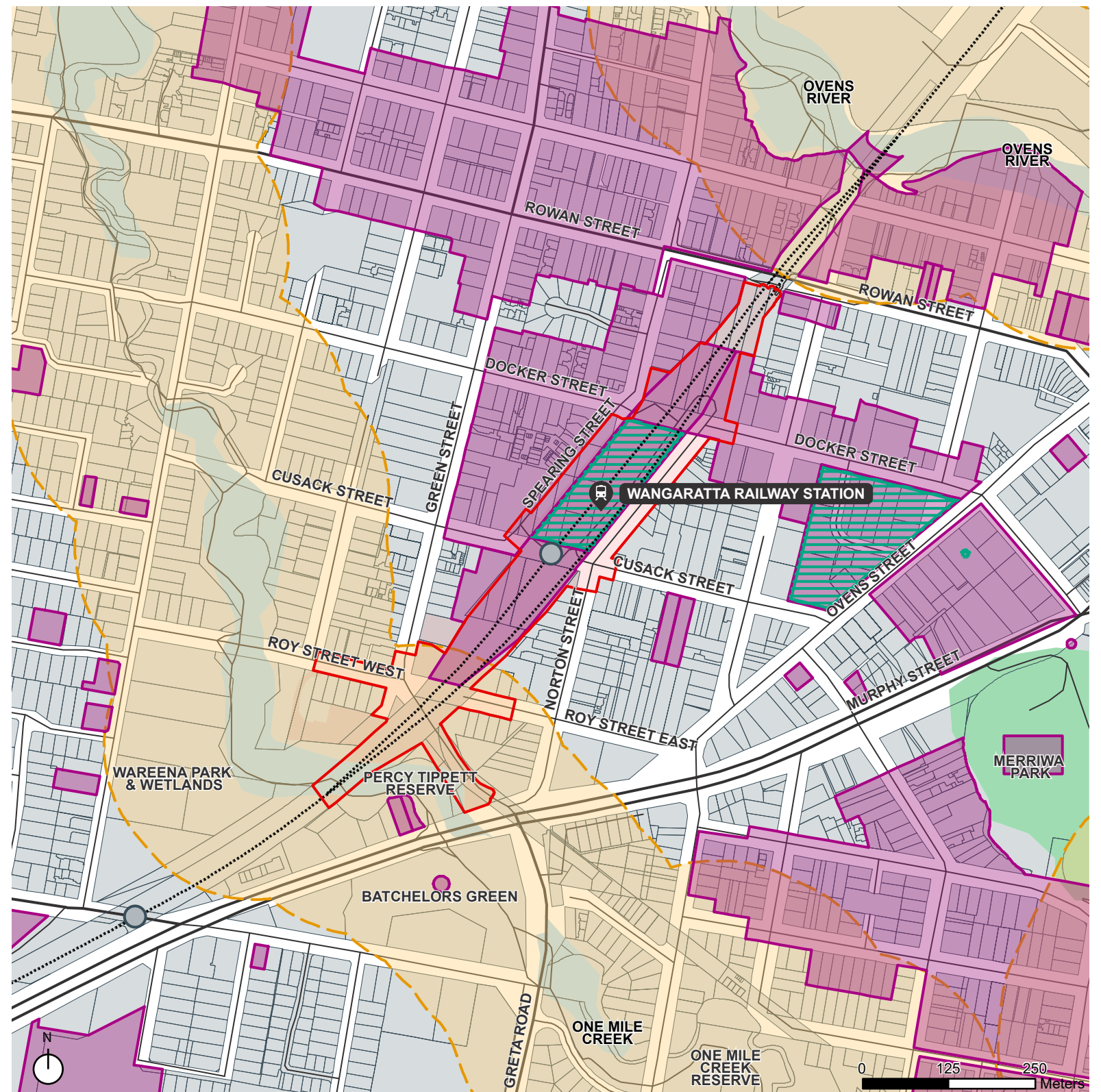


Figure 49 : Wangaratta Heritage Map

Transport and Access

Public Transport

While the dominant form of transport is via private vehicle, the project area can be accessed via bus, with three bus stops located within the project area near the Wangaratta Railway Station.

Wangaratta Railway Station is in the middle of the project area. It is a V-Line station and services the North East Line, with up to 10 services per day. The station has two platforms and two rail tracks.

Access Transport

Within close proximity to the Railway Station, pedestrian bridges at Cusack and Docker Streets link the hospital precinct to the town centre, providing cross corridor pedestrian access, as well as direct access to the Station. A pedestrian footpath is also provided along the road bridge at Green Street. At the project's northern end, a pedestrian underpass is provided along Rowan Street.

A shared path traverses alongside One Mile Creek through the rural city, beginning at Cribbes Road to the south and travelling north towards Appin Street where it joins the Three Mile Creek Path. The path is a major tourist trail traveling through the centre of Wangaratta, and offers many opportunities to join or leave the path as users travel through the city.

LEGEND - TRANSPORT & ACCESS

- PROJECT AREA
- LEVEL CROSSINGS
- ARTERIAL ROADS
- TRAIN LINE
- BUS ROUTES
- BUS STOPS
- WALKING TRACK
- CYCLING TRACK
- MAJOR RESERVES AND OPEN SPACE
- MAJOR WATERBODIES
- TRAIN STATION

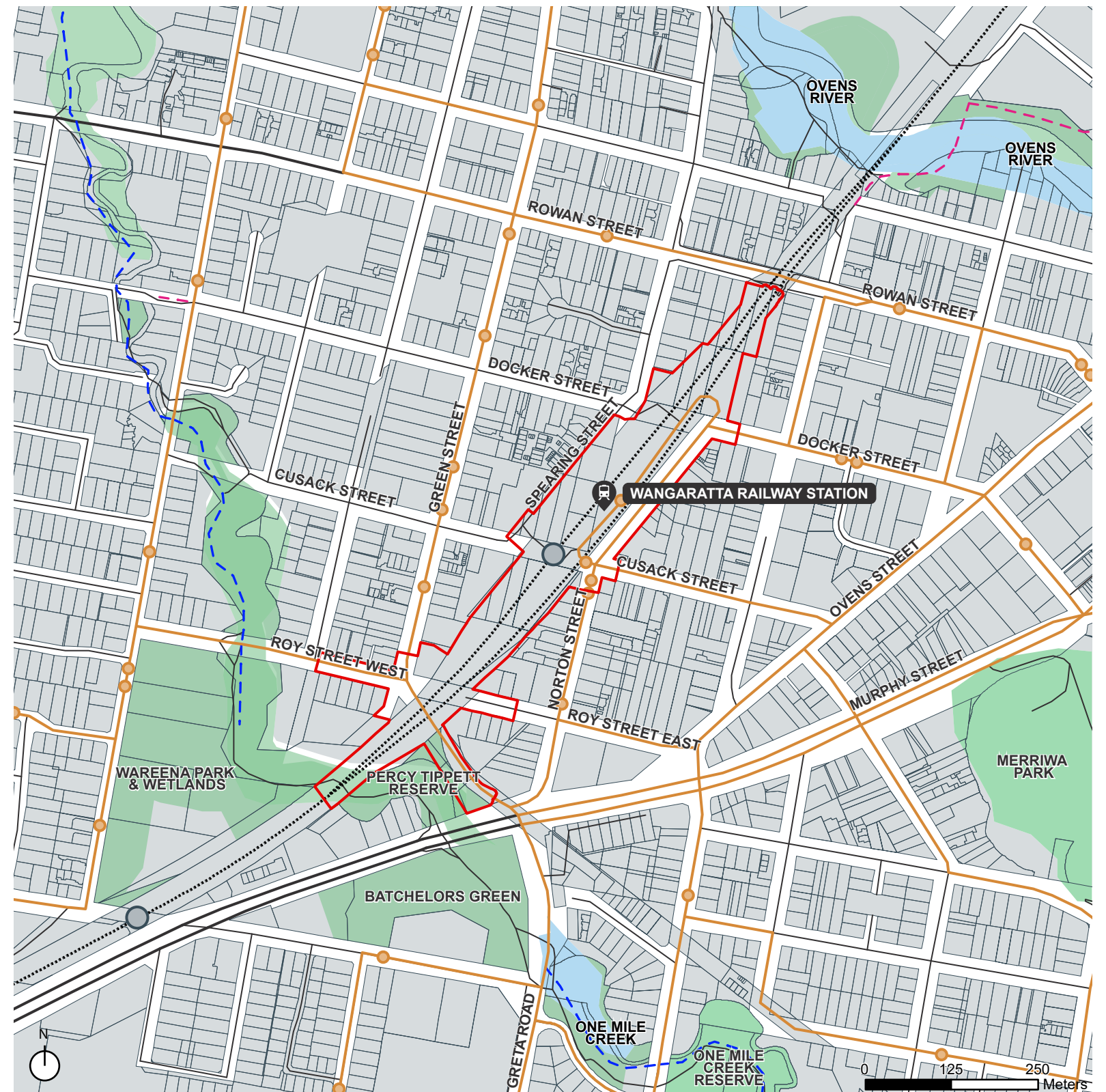


Figure 50 : Wangaratta Transport Map

Wangaratta

Opportunities and Constraints

Opportunities

- A. Provision of better local access to the station precinct, Wangaratta Health Precinct (east) and town centre (west).
- B. Enhancement of pedestrian and cyclist environment around station precinct through improved security and lighting and the provision of cross corridor active transport links.
- C. Provision of built infrastructure that responds to the heritage and civic elements in the area, and strengthens the quality of the overall local character.
- D. Enhancement to the visual and physical integration of the built infrastructure where interfacing with residential properties.
- E. Stronger and safer pedestrian connection across the underpass to facilitate stronger connections across rail corridor to/from health precinct and town centre.
- F. Potential for future activation of railyard buildings and associate infrastructure for community benefit and appreciation.

Constraints

- 1. Proximity of residential interfaces at the intersection of Green Street and Roy Street West, which are sensitive to visual and functional impacts.
- 2. Poor pedestrian crossing amenity and safety at Green Street, Cusack Street and Docker Street.
- 3. Proximity of residential and commercial properties along the length of the rail corridor interface, which may be sensitive to further visual and noise impacts.
- 4. Integration of the newly developed Wangaratta Rail Station precinct works.
- 5. Overall lack of pedestrian and vehicular permeability to Health Precinct, thus pressurising the Green Street road bridge and Rowan Street Underpass/Bridge.
- 6. Poor cycling infrastructure and amenity at key rail crossing intersections.
- 7. Existing mature canopy trees with high landscape value and contribution to Wangaratta township.

LEGEND - OPPORTUNITY & CONSTRAINTS

- PROJECT AREA
- LEVEL CROSSINGS
- MAIN ROADS
- LOCAL ROADS & STREETS
- TRAIN LINE
- R RAIL STATION
- A OPPORTUNITY
- 1 CONSTRAINT
- KEY/INFORMAL PEDESTRIAN MOVEMENT
- ↔ EXISTING AT GRADE PEDESTRIAN CROSSING
- - - EXISTING PEDESTRIAN GRADE SEPARATED CROSSING
- ← - - - KEY VEHICLE MOVEMENT
- SENSITIVE INTERFACE
- ACTIVE INTERFACE
- WANGARATTA HEALTH PRECINCT
- EXISTING MATURE VEGETATION
- BUFFER ZONE/VEGETATION CORRIDOR
- ↖ KEY VIEWS
- MAJOR WATERBODIES
- MAJOR RESERVES AND OPEN SPACE

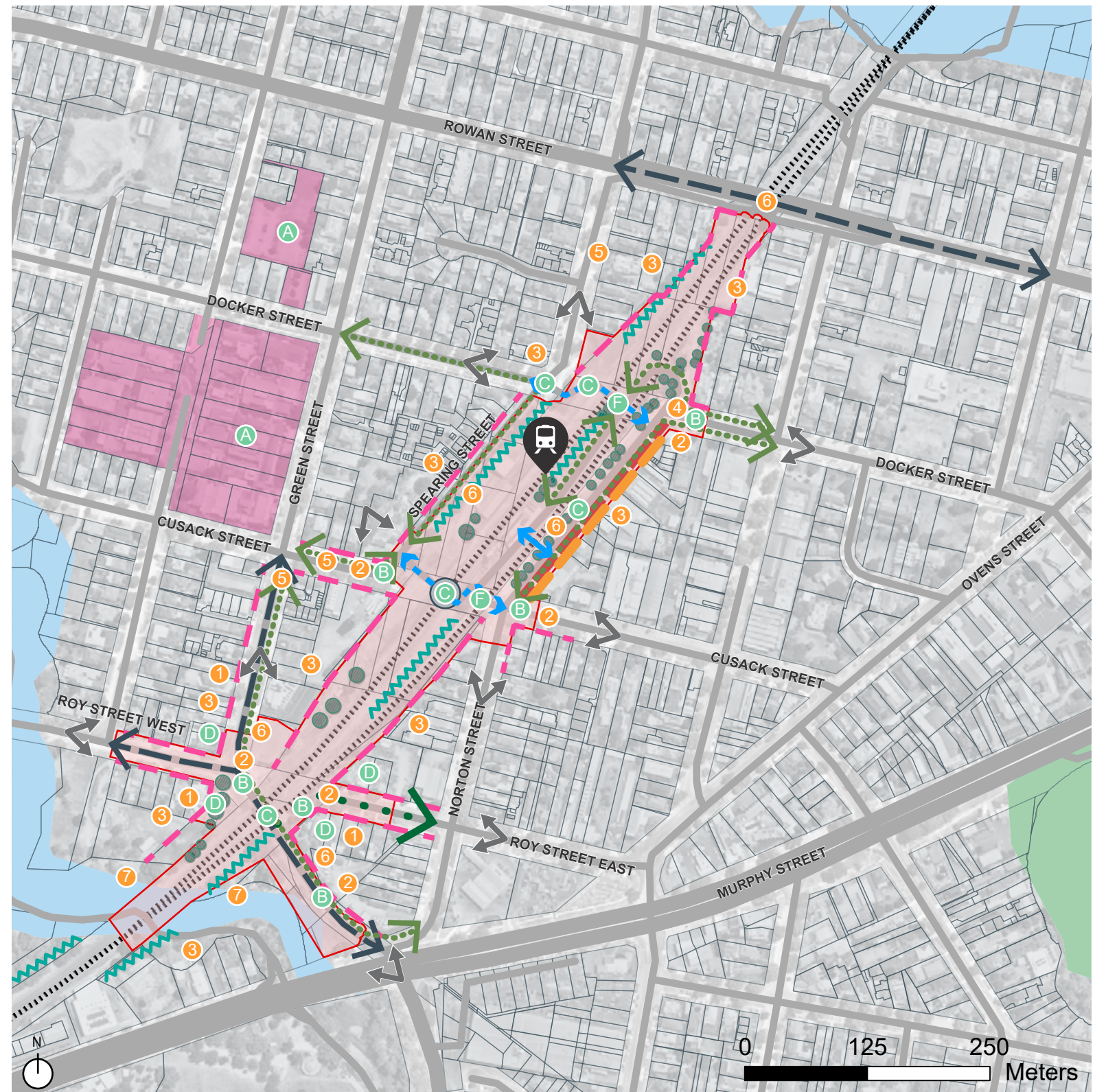


Figure 51 : Wangaratta Opportunities and Constraints Map

Wangaratta

Key Objectives

The Wangaratta project area surrounds the station and sits between the town centre and health precinct and pivotal to local movement and access to the regional trail network.

Key objectives for the Wangaratta project area are outlined below. Note that all key objectives are considered to be of equal importance and significance and are therefore not listed in a hierarchical order.

- 1 A strengthening of the heritage value of the station precinct that retains, protects and adapts elements of the heritage fabric to further celebrate Wangaratta's history.
Relevant Urban Design Principles: 1, 9, 10
- 2 An efficient and continuous pedestrian and cycling network and convenient and safe pedestrian underpass that connects the town centre, health precinct, creek trails and the station.
Relevant Urban Design Principles: 3, 5, 6
- 3 Broadened and integrated station forecourts that seamlessly join Spearing Street, Norton Street and the station to create safe and comfortable spaces to use and move through.
Relevant Urban Design Principles: 1, 2, 7
- 4 A highly visible and easy to navigate pedestrian environment that manages vehicle, bicycle and pedestrian movement safely and provides a high level of visibility and personal security for all users.
Relevant Urban Design Principles: 5, 6, 8
- 5 A precinct that is readied and can attract further investment and more active and intensified use that will contribute to personal safety and the economic life and tourist experience of Wangaratta.
Relevant Urban Design Principles: 2, 7, 11

LEGEND - OBJECTIVES

- PROJECT AREA
- LEVEL CROSSINGS
- MAIN ROADS
- LOCAL ROADS & STREETS
- TRAIN LINE
- R RAIL STATION
- 1 OBJECTIVE
- MAJOR WATERBODIES
- KEY PEDESTRIAN MOVEMENT
- KEY PUBLIC REALM INTERFACE
- KEY VISUAL LINE
- KEY GATEWAY LOCATION
- KEY PRECINCT FOCUS

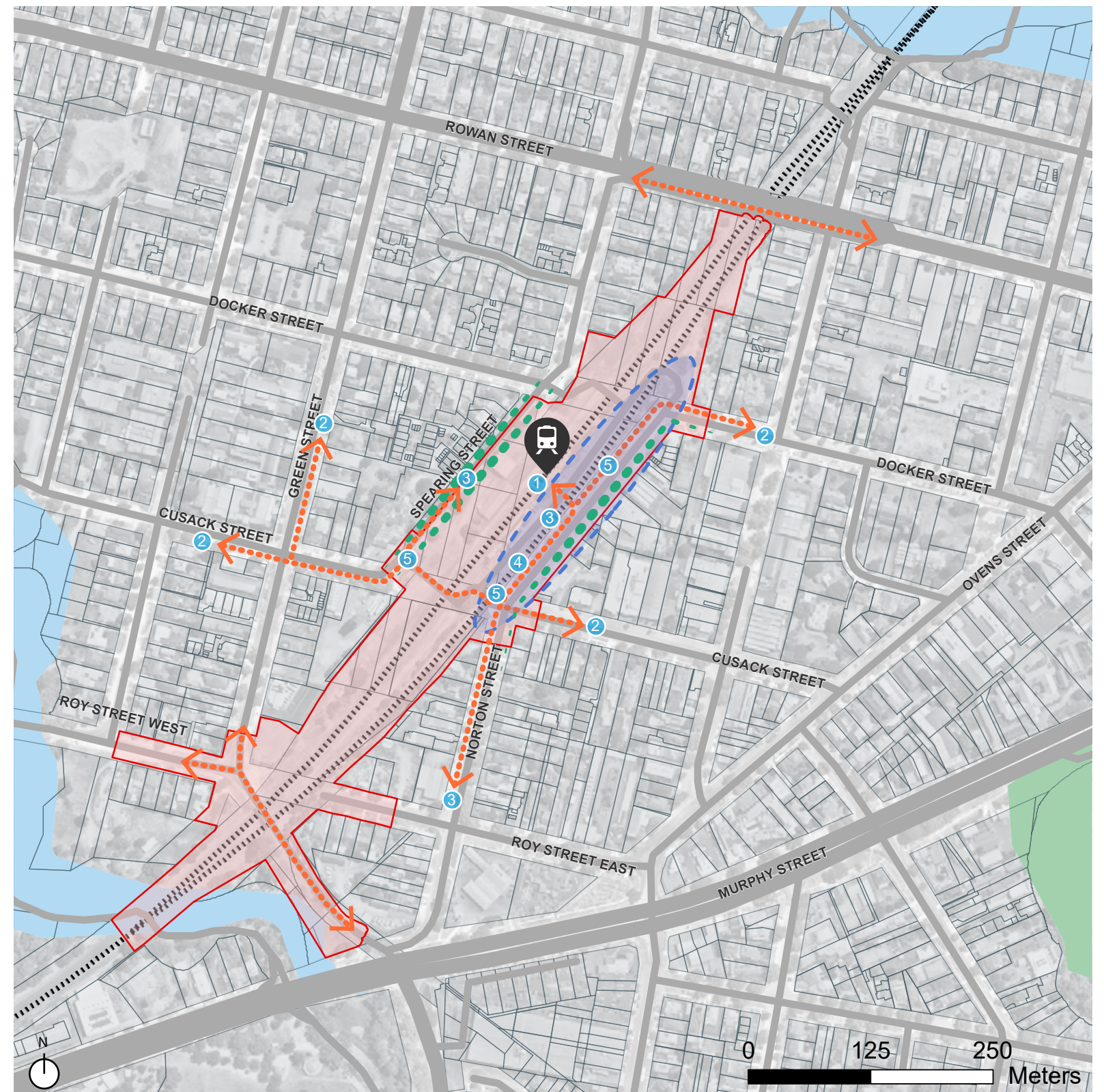


Figure 52 : Wangaratta Urban Design Objectives Map

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Appendix

**Strategic Planning
and Policy Analysis**

Strategic Planning and Policy Analysis

Wandong

Wandong-Heathcote Junction Structure Plan (2016)

The Wandong-Heathcote Junction Structure Plan contains a series of objectives, strategies and actions that guide urban development, policy making and investment for Wandong and Heathcote Junction. The Structure Plan seeks to ensure future development reinforces Wandong's character and identity as a rural lifestyle township.

The following points directly relate to the Wandong project area:

- The rail bridge along Broadford-Wandong Road is a gateway location
- Emphasize street tree planting along Epping-Kilmore Road
- Enhance pedestrian walking trails and pedestrian cross-corridor connectivity
- Improve streetscape links through tree planting and verges and delivery of a connect open space network.

Mitchell Planning Scheme

Within the Mitchell Planning Scheme, the following objectives, strategies and policies are of relevance to the Wandong project area:

Clause 21.06 – Built Environment and Heritage

- Attention should be paid to any opportunities to landscape railway station areas that have a significant impact on the townscape of Wandong.

Clause 21.11-10 – Wandong-Heathcote Junction

- Ensure new development incorporates and protects natural features such as topography, view lines, remnant vegetation, roadside vegetation and watercourses.
- Support the creation of a network of footpaths and shared off road trails between neighbourhoods and the town centre, recreation facilities and public open spaces.

Broadford

Broadford Structure Plan (2020, DRAFT)

The Broadford Structure Plan sets out the planning framework for the future development and growth of the Broadford township and its surrounds. The Structure Plan aims to do the following:

- Significantly improve the appearance of the public realm around Broadford Railway Station, High Street and Short Street.
- Bridge upgrades and on-road cycle paths at Hamilton Street and Short Street, and in particular, improving the existing shared pathway along the Hamilton Street bridge.
- Intersection upgrades where High Street intersects with Hamilton and Short Street.
- Enhance pedestrian and cyclist connectivity along High Street through the provision of a continuous pedestrian path and bicycle lane.

The Structure Plan explicitly mentions the ARTC Inland Project within its Movement Network and Transport Section, whereby Council hopes to see bridge and intersection upgrades along Hamilton and Short Street delivered through the ARTC works.

Broadford Urban Design Framework (2018)

The Broadford Urban Design Framework identifies opportunities to improve the Broadford town centre. The Urban Design Framework recognises the Hamilton Street and Short Street bridges as important transport links that provide cross corridor connectivity for the township. The Urban Design Framework acknowledges that the Hamilton Street bridge will be upgraded and advocates for a 3-metre-wide shared use path and pedestrian footpaths on either side to be included within the upgrade. The bridge upgrade may also present a town gateway and branding opportunity. To provide greater east-west active transport connectivity, the Urban Design Framework proposes a shared use path along the southern side of High Street.

Mitchell Planning Scheme

Within the Mitchell Planning Scheme, the following objectives, strategies and policies are of relevance to the Broadford project area:

Clause 21.06 – Built Environment and Heritage

- Attention should be paid to any opportunities to landscape railway station areas that have a significant impact on the townscape of Broadford.

Clause 21.11-2 – Broadford

- Improvement of the pedestrian orientation of the High Street retail environment.

Euroa

Euroa Township Strategy (2020)

The Euroa Township Strategy sets out long-term planning, design and community vision for the Euroa township. The Strategy aims to do the following:

- Enhance and upgrade all north-south connections across the rail corridor. More specifically, upgrade Kirkland Avenue underpass to be DDA compliant and to provide for better north-south pedestrian cross-corridor connections.
- Improve Euroa Station Precinct and surrounds as a part of the ARTC Inland Rail project.
- Upgrade and formalise parking around the Railway Street/Kirkland Avenue intersection.
- Improve the permeability of the town centre by enhancing existing connection points.

Strathbogie Planning Scheme

Within the Strathbogie Planning Scheme, the following objectives, strategies and policies are of relevance to the Euroa project area:

Clause 21.03-2 – Euroa

- Maintain and enhance the Euroa 'village' character.
- Manage parking demand and provision to support the activity, streetscape and economic competitiveness of the village centre.
- Encourage people to move around the town centre by foot or bicycle.

Benalla

Benalla Planning Scheme

Within the Benalla Planning Scheme, the following objectives, strategies and policies are of relevance to the Benalla project area:

Clause 21.03-3 – European and Aboriginal Heritage

- Only the Benalla township has been formally studied in detail and has been found to be rich in natural, cultural and built heritage. New development should protect, enhance and retain heritage buildings and places.

Glenrowan

Glenrowan Township Development Plan (2016)

The Glenrowan Township Development Plan provides guidance and strategic direction in relation to key land use and planning issues. The Development Plan aims to do the following:

- Improve upon pedestrian amenity and links through the provision of wider pedestrian zones.
- Maintain the site at the corner of Gladstone Street and Beaconsfield Parade for the future Ned Kelly Interpretive Centre.
- Strengthen the heritage integrity of the Core Heritage Precinct by reinforcing the Siege Precinct as the public open space and heritage core of Glenrowan.
- Improve linkages to heritage places and features through the re-alignment of roads to key view lines and the provision of pedestrian connections.
- Protect the special character of Glenrowan's physical environment, principally by reflecting the character of 'Kelly Country'.

Glenrowan

Glenrowan Heritage Precinct - Conservation and Landscape Management Plan (2018)

The Conservation and Landscape Management Plan (CLMP) addresses the heritage place known as the 'Glenrowan Heritage Precinct' and seeks to provide direction and guidance on the conservation and management of the site.

The Heritage Precinct is included in the National Heritage List (105729), Victorian Heritage Register and Heritage Inventory (VHR2000/HI H8125-0015) and is covered by the Rural City of Wangaratta Heritage Overlay (HO170). A portion of the Glenrowan Heritage Precinct is located within the project area.

The CLMP goes into depth about the history of the Heritage Precinct and details buildings and places of heritage significance. Of particular relevance to the Project is Section 6.0 of the CLMP, whereby a Conservation Policy has been developed and should form the basis of consideration of future works, development and uses within the Heritage Precinct area. Objectives from the Conservation Policy of relevance to the Project include improving the conservation and presentation of the Precinct, including its landscape character, enhancing visitor experience to the Precinct and ensuring the current and future interpretation of the Precinct is of the highest quality.

Wangaratta Planning Scheme

Within the Wangaratta Planning Scheme, the following objectives, strategies and policies are of relevance to the Glenrowan project area:

Clause 21.02-4 – Townships and Rural Townships

- Develop a sense of place that is unique to Glenrowan by protecting heritage that reveals the many layers of the Kelly story and the Siege Site.
- Minimise any visual clutter that is within the vicinity of the Siege Site and the Glenrowan Commercial Precinct.
- Protect and preserve the Siege Site.
- Preserve the landscape character of Glenrowan by retaining existing vegetation and improving landscape amenity. Planting should reflect the landscape characteristics of the 1880's.

Wangaratta

Wangaratta Health Precinct Structure Plan (2019)

The Draft Wangaratta Health Precinct Structure Plan provides a long-term guiding framework for land use and built form within the Wangaratta Hospital and Health Precinct, which encompasses the western section of the Wangaratta Inland Rail project area. The Structure Plan seeks to do the following:

- Enhance access and legibility to the Wangaratta Central Activities Area through the Inland Rail Project and improve the railway frontage along Norton Street.
- Recognise and respect key landmark heritage assets within and surrounding the station precinct.
- Improve the safety, visual amenity and priority of pedestrian connections and facilities.
- Proposed cycling path and enhanced pedestrian footpath connections along Spearing Street.
- Potential pedestrian underpass at Cusack Street.
- Continue advocacy to ARTC for the provision of an all access pedestrian and cyclist underpass connecting the Health Precinct to Wangaratta Railway Station and the Central Activities Area as part of the Inland Rail Project.
- Develop cycling connections between Northeast Health Wangaratta, One Mile Creek, Central Activities Area and Ovens River.

Wangaratta Urban Design Framework (2018)

The Wangaratta Urban Design Framework covers the Central Activities Area and includes the eastern portion of the Wangaratta Inland Rail project area. The Urban Design Framework sets out an integrated vision for both private and public land and guides its future use and development.

Key opportunities and strategies outlined in the Urban Design Framework include:

- Opportunity to provide clear pedestrian priority crossing locations and to improve cycling connections and safety.
- Increase pedestrian comfort through streetscape upgrades that reinforce the role and identity of Wangaratta
- Improve arrival experience by providing appropriate cycle and footpath facilities that enhance pedestrian amenity along entry roads
- Provide shading upgrades and a cycling connection along Norton Street.

The Wangaratta Project - CBD Masterplan (2016)

The Wangaratta Project CBD Masterplan can be thought of as a framework that guides development within Wangaratta CBD now and into the future. It recognises that currently, Wangaratta CBD offers a minimal sense of welcome or arrival by both road and train and that there is poor wayfinding through the CBD area. The CBD Masterplan advocates for the following ideas and outcomes:

- Enhance the experience and character of Wangaratta Railway Station and Norton Street by creating a positive arrival experience when arriving at Wangaratta Railway Station, improved landscaping treatments and installing a pedestrian crossing from the station forecourt to Norton Street.
- Increase bike usage by filling in the missing links in cycling infrastructure.
- Improve streetscapes along Norton Street to better link cultural and civic functions and to create interesting and engaging pedestrian experiences.
- Enhance the pedestrian street network, which includes creating a safe connection between the railway station and Norton Street.
- Increase shade and comfort by enhancing the streetscape through planting and other landscaping upgrades, with Norton Street being designated a priority location.

Wangaratta Walking and Cycling Strategy (2020)

The Wangaratta Walking and Cycling Strategy seeks to increase the number of walking and cycling journeys made by people of all ages and abilities. The Strategy leverages the extensive networks of tracks, trails and paths already within the Municipality to further develop key connections and enhance active transport.

One of the key strategic directions include taking a 'user-experience' approach to walking and cycling development through enhanced wayfinding and signage, provision of amenity (seating, shade, lighting etc.) and ensuring destinations are safe and secure. Another key strategic direction seeks to provide an easy and accessible off-road cycling network by linking gaps in the network, and linking and providing improved connections to other parts of the network.

The Strategy recognises Docker Street and Rowan Street as key 'gateway approach' locations into the main city centre. Gateway approach locations should be designed to ensure that walking and cycling is an attractive and convenient method of travel into the area. In particular, Pedestrian crossings should be located on pedestrian desire lines, to ensure sight-lines are maintained.

The Strategy seeks to increase the permeability of the Health Precinct by providing publicly accessible through block links between Docker and Rowan Street, and between Spearing and Green Street.

Wangaratta Railway Precinct Enhancement Project (2018)

The Wangaratta Railway Precinct Concept Report provides a record of the design development process for the Railway Precinct Enhancement Project. The Report focusses on Norton, Docker and Cusack Streets, with these streets having been identified by Council as a key precinct opportunity that can provide a gateway experience for both visitors and the local community.

The Report provides a concept plan with key initiatives and actions for each street. Actions and initiatives of importance to the Project include:

- Increased tree planting, enhanced streetscape and shaded seating areas for better pedestrian amenity.
- Reduction in asphalt surfaces to combat urban heat island effects.
- Expanded pedestrian edges through the widening of footpaths to provide opportunities for occupation and activation.
- Better active transport connections to and from the Station, and better connections to existing pedestrian and cycling trails.
- Additional parking and a pick up zone outside the Station to meet demands.
- Paved arrival plaza outside the Station.

Wangaratta Planning Scheme

Within the Wangaratta Planning Scheme, the following objectives, strategies and policies are of relevance to the Wangaratta project area:

Clause 21.11-1 – Wangaratta Central Activities Area

- Provide adequate car parking in the Wangaratta Central Activities Area.
- Provide enhanced, well defined and attractive pedestrian and bicycle routes and streetscapes.
- Improve permeability and connectivity for pedestrians and cyclists through strengthening physical and visual connections between the Transport Hub and the Town Centre.

Clause 22.06 – Heritage Places and Precincts

- Encourage new development to acknowledge and be respectful of the scale, form, siting and setbacks of nearby significant heritage places and precincts.

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Appendix **B**

Glossary and Figure Sources

Glossary and Figure Sources

Glossary

ARTC	Australian Rail Track Corporation
CBD	Central Business District
CLMP	Glenrowan Heritage Precinct - Conservation and Landscape Management Plan
CPFP	Creating Places for People: An Urban Design Protocol for Australian Cities
EVC	Environmental Vegetation Class
HI	Heritage Inventory
HO	Heritage Overlay
ISCA	Infrastructure Sustainability Council of Australia
LCZ	Landscape Character Zone
OVGA	Office of the Victorian Government Architect
VHR	Victorian Heritage Register
VPO	Vegetation Protection Overlay

Image Sources

Image	Description	Source
Front Cover	Benalla aerial image	AECOM Photography
1	Wandong Saw Mill Tram, 1875	https://www.victoriasforestryheritage.org.au/showcase/galleries/tramlines.html
2	Sydney Express Train Leaving Wandong Railway Station, 1900s	https://www.victoriasforestryheritage.org.au/showcase/galleries/tramlines.html
3	Wandong Town, 1898	https://cdn.mitchellshire.vic.gov.au/agendas-minutes.attachments/Item-7.1-Wandong-Heathcote
4	Mount Disappointment Tramways, 1888	http://www.wandong.vic.au/history/photo-history-wandong-heathcote-junction/
5	Site photography	AECOM Photography
6	Site photography	AECOM Photography
7	Site photography	AECOM Photography
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9	Site photography	AECOM Photography
10	Site photography	AECOM Photography
11	Site photography	AECOM Photography
12	Site photography	AECOM Photography
13	Site photography	AECOM Photography
14	High Street looking south, 1906.	https://au.fotonail.com/b/broadford/broadford.html
15	Broadford township 1906	https://au.fotonail.com/b/broadford/broadford.html
16	Broadford express train heading for Melbourne, 1908.	https://au.fotonail.com/b/broadford/broadford.html
17	Alluvial gold was found along Reedy Creek to the east of the Broadford township, with alluvial mining peaking in 1864.	https://au.fotonail.com/b/broadford/broadford.html
18	Site photography	AECOM Photography
19	Site photography	AECOM Photography
20	Site photography	AECOM Photography
21	Site photography	AECOM Photography
22	Site photography	AECOM Photography
23	Site photography	AECOM Photography
24	Site photography	AECOM Photography
25	Site photography	AECOM Photography
26	Site photography	AECOM Photography
27	Euroa Township, including the Euroa Hotel 1887.	https://www.victorianplaces.com.au/node/64255
28	Railway Street, Euroa 1958	http://digital.slv.vic.gov.au/
29	Euroa Township shot from the railway semaphore signal, 1912	https://www.facebook.com/LostCountryVictoria/photos

30	Dukes Crescent, Euroa, which was removed in the 1960s for the standard gauge line.	https://www.victorianplaces.com.au/node/69678	64	Site photography	AECOM Photography
31	Site photography	AECOM Photography	65	Site photography	AECOM Photography
32	Site photography	AECOM Photography	66	Murphy Street, Wangaratta, 1908	https://www.victorianplaces.com.au/node/71754
33	Site photography	AECOM Photography	67	Wangaratta Railway Station, 1910	http://vhd.heritage.vic.gov.au/search/nt_search?nspn=Railway+Station+Complex
34	Site photography	AECOM Photography	68	The Commercial Hotel, Murphy Street, Wangaratta, 1941	https://www.slv.vic.gov.au/pictoria/gid/slv-pic-aab74976
35	Site photography	AECOM Photography	69	Aerial View of Wangaratta, looking North East, 1970	https://unimelb.libguides.com/c.php?g=402933&p=2741720
36	Site photography	AECOM Photography	67	Site photography	AECOM Photography
37	Site photography	AECOM Photography	68	Site photography	AECOM Photography
38	Site photography	AECOM Photography	69	Site photography	AECOM Photography
39	Site photography	AECOM Photography	70	Site photography	AECOM Photography
40	Broken River, Benalla, 1901	https://www.slv.vic.gov.au/pictoria/gid/slv-pic-aab62436/1/b20362	71	Site photography	AECOM Photography
41	Benalla Railway Station, Victoria 1905-1928	http://home.vicnet.net.au/~benmus/local-history/	72	Site photography	AECOM Photography
42	Bridge Street, Benalla (Unknown)	http://home.vicnet.net.au/~benmus/local-history/	73	Site photography	AECOM Photography
43	Aerial View of Benalla, looking West, 1925-1940	https://www.pinterest.com.au/jessieburnell/history-benalla-and-district/	74	Site photography	AECOM Photography
44	Site photography	AECOM Photography	75	Site photography	AECOM Photography
45	Site photography	AECOM Photography	76	Site photography	AECOM Photography
46	Site photography	AECOM Photography	77	Site photography	AECOM Photography
47	Site photography	AECOM Photography	78	Site photography	AECOM Photography
48	Site photography	AECOM Photography			
49	Site photography	AECOM Photography			
50	Site photography	AECOM Photography			
51	Site photography	AECOM Photography			
52	Site photography	AECOM Photography			
53	View towards Glenrowan Township, looking North, 1890	https://timegents.com/2020/01/19/the-untold-story-of-mrs-jones-ned-kelly-and-the-glenrowan-inn/			
54	Morgan's Lookout and ruins of Jones's Hotel, 1880	https://timegents.com/2020/01/19/the-untold-story-of-mrs-jones-ned-kelly-and-the-glenrowan-inn/			
55	Glenrowan Railway Station and Jones's Hotel, 1880	https://www.benallaensign.com.au/local-news/2019/08/22/763212/ned-kelly-site-to-remain-unaltered			
56	Aerial view of Glenrowan, looking North, 1935	https://www.victorianplaces.com.au/taxonomy/term/975			
57	Site photography	AECOM Photography			
58	Site photography	AECOM Photography			
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Appendix **C**

Preliminary Landscape Character Impact Assessment - Summary of Terms

Preliminary Landscape Character Impact Assessment - Summary of Terms

Summary of Terms

Magnitude

The measurement of the scale form and character of the development proposal when compared to the existing condition.

Sensitivity

Is defined by the LCZ's ability to absorb the changes put forward by the proposal. This takes into consideration location, the quality of the assets and current conditions. This combined with the magnitude of change provides a measurement of the impact.

Landscape Character Zone (LCZ)

An area of landscape with similar properties or strongly defined spatial properties, distinct from areas immediately nearby.

LCZ 1 - Industrial

Large areas set aside for industrial use characteristically they have limited vegetation mainly concentrated around the periphery with limited built forms.

LCZ 2 – Agricultural

Farmland for primary production with sparse rural dwellings. Vegetation is characterised by a cleared understory with scattered trees and undulating foothills.

LCZ 3 – Recreational Open Space

Public parks and open space often associated with drainage lines. Typically, well maintained turf with minimal understory and larger trees.

LCZ 4 – Riparian Corridor

Natural waterways that are more densely vegetated with a mix of native grasses shrubs and trees.

LCZ 5 – Public Conservation

Natural bushland that is heavily vegetated with a large variety of native grasses, shrubs and trees.

LCZ 6 – General Residential

Urban residential dwellings characterised by medium sized lots from a variety of architectural styles with associated streetscape plantings of turf and trees.

LCZ 7 – Rural Residential

Low density living on larger acreage with undulating topography, minimal understory with a propensity for larger more density forested areas.

LCZ 8 – New Residential

Urban residential dwellings characterised by small sized lots, new dwellings with associated streetscape plantings of turf and trees.

LCZ 9 – Commercial

Commercial activity centres with associated business' characterised by higher density buildings of various forms with associated streetscape plantings of turf and trees.

LCZ 10 – Transport Corridor

The major road and rail corridors both possess changing characteristics as they journey through the landscape from open views to tight densely vegetated corridors. They are both utilitarian in design and are strong linear elements sitting within the landscape.

ARTC

INLAND
RAIL

