LEVEL CROSSING REMOVAL PROJECT

18 - EDITHVALE ROAD, EDITHVALE

PRELIMINARY URBAN DESIGN CONCEPT REPORT

15 DECEMBER 2016

AECOM GHD JOINT VENTURE

LEVEL CROSSING REMOVAL PROJECT

VICTORIA State Government

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Prepared for

Level Crossing Removal Authority

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1.0 INTRODUCTION

1.1 PROJECT BACKGROUND

Over the next eight years, the Victorian State Government will deliver a coordinated program to remove 50 dangerous and congested level crossings in Melbourne, improving safety and urban amenity in local communities whilst improving the efficiency of transportation networks.

The Level Crossing Removal Authority (LXRA) was formed in May 2015 to oversee the delivery of the project and to ensure that level crossings are removed in a coordinated and efficient manner.

The LXRA has been involved in preliminary site investigations, preparation of design options, reference design and construction packages to support the removal of level crossings at each nominated location. Stakeholder engagement and community consultation is undertaken as a core part of every project process to ensure that community considerations are considered in proposed solutions.

Design and construction works for each site have been carefully prioritised and staged, to ensure that critical crossings are addressed as a priority, and transportation route delays and associated impacts are minimised.

A key objective of the project is to improve urban amenity through the incorporation of good urban design approaches, to ensure site responsive, locally relevant development. The project has the potential to set strong benchmarks for design quality in urban renewal and to serve as a catalyst for positive urban renewal that reinvigorates and reconnects communities.

The Level Crossing Removal Project has committed to the removal of 12 level crossings on the Frankston line. Three level crossing removals have been undertaken at North Road, McKinnon Road and Centre Road, with the remaining nine level crossings to be removed between Cheltenham and Frankston.

Figure 1 Level Crossing Removal Project Location Plan

1.2 DOCUMENT PURPOSE

The purpose of the Edithvale Road Preliminary Urban Design Concept Report is to:

1. Present a contextual analysis of the project,

2. Develop a vision and design intent for the project,

3. Explore the benefits and impacts of all options, and

4. Prepare preliminary concepts for viable options and assess their performance against the principles set out in the *Level Crossing Removal Project Urban Design Framework*.

1.3 DOCUMENT STRUCTURE

The Edithvale Road Preliminary Urban Design Concept Report has been structured in four main parts:

CHAPTER ONE: INTRODUCTION

Chapter One summarises background information on the overall Level Crossing Removal Project, and Edithvale Road, Edithvale level crossing removal project.

CHAPTER TWO: CONTEXT ANALYSIS

Chapter Two identifies the existing conditions information on the site at a corridor and local level.

It also provides a summary of opportunities and constraints, influencing the proposed urban and landscaping design concept and project scope requirement.

CHAPTER THREE: DESIGN DEVELOPMENT

Chapter Three outlines the key design considerations and influences that will inform the urban design outcomes. These include stakeholder requirements, consultation feedback and a vision for the Edithvale Road Level crossing removal project.

CHAPTER FOUR: PRELIMINARY URBAN DESIGN PERFORMANCE ASSESSMENT

Chapter Four identifies four possible crossing removal scenarios to arrive at two feasible options. Preliminary concept plans for each of the feasible options are presented along with an assessment of their urban design performance against the *Level Crossing Removal Project Urban Design Framework* principles.

1.4 THE SUBJECT AREA

This subject area of this Preliminary Urban Design Concept Report is the Edithvale Road level crossing, on the Frankston line. The project scope includes the redevelopment of Edithvale Station and the immediate station precinct.

Edithvale Station is located approximately 30 kilometres south-east of Melbourne CBD within the City of Kingston. The site is also within close proximity to Cheltenham/ Southland and Mordialloc Activity Centres. The station is a PTV designated local station.

The station sits within the Edithvale Neighbourhood Centre while the remainder of the rail corridor is generally surrounded by residential neighbourhoods, with the Port Phillip Foreshore nearby running parallel to the rail line. Additional detail on the surrounding context is provided in Chapter Two of this report.

1.5 URBAN DESIGN FRAMEWORK

The *Level Crossing Removal Project Urban Design Framework* outlines the expectations of the State and Local Governments for achieving high quality, context sensitive urban design outcomes at each level crossing removal site. The document plays a dual role by informing the design process as well as providing a basis for the evaluation of design solutions.

The Framework identifies eight key principles inherent to successful level crossing removal projects (refer right). The principles address identity, connectivity, urban integration, sustainability, amenity, vibrancy, safety and accessibility.

Stemming from these principles are the urban design objectives which outline what the project should achieve in relation to the broader principles.

Performance measures are also identified in the Framework. They describe more specific requirements which the design must meet and include qualitative benchmark images that illustrate the level of quality, materials and finishes that are expected.

The Framework has been referred to in the development of the Urban Design Concepts in this document and will continue to shape and refine these as the project continues.

Principle 1
IDENTITY
A well defined identity and sense of place are key to creating strong and vibrant communities.

Principle 2
CONNECTIVITY & WAYFINDING
Well connected and legible places contribute significantly to strong economies and healthy, inclusive communities.

Principle 3
URBAN INTEGRATION
Well-integrated environments provide a sound framework for the successful development of great places.

Principle 4
RESILIENCE & SUSTAINABILITY
Places must be sustainable, enduring and resilient in order to support and nurture current and future generations.

Principle 5
AMENITY
High quality urban amenity associated with access to services and the experience of great public places contributes to successful, equitable and prosperous communities.

Principle 6
VIBRANCY
Animation of key civic spaces, and diversity in the experience of urban places support prosperous and healthy communities.

Principle 7
SAFETY
Safe environments are essential for strong, connected and happy communities.

Principle 8
ACCESSIBILITY
Highly accessible and inclusive environments encourage positive activation and contribute to prosperity, well being and the perception of care within communities.

LEVEL CROSSING REMOVAL AUTHORITY
URBAN DESIGN FRAMEWORK:
PRINCIPLES & OBJECTIVES, MEASURES & QUALITATIVE BENCHMARKS

Version 3

31 August 2016

LEVEL CROSSING REMOVAL PROJECT
State Government Victoria

2.0 CONTEXT ANALYSIS

2.1 REGIONAL CONTEXT

2.2 LOCAL CONTEXT

2.3 PHOTOGRAPHIC SURVEY

2.0 CONTEXT ANALYSIS

2.1 REGIONAL CONTEXT

The *Level Crossing Removal Project Urban Design Framework* outlines the need for designs to address local considerations at each site. As such, a context analysis has been conducted for the Station Road, Bonbeach Level Crossing Removal Project to identify place specific issues and opportunities relevant to the project.

LAND USE AND ACTIVITY

A mix of land uses are located along the Frankston Rail Corridor, but predominantly comprise residential housing and retail centres near railway stations and along arterial roads. Generally the density and diversity of land use is greater at the northern end of the corridor.

Major activity centres located along the corridor running north to south, include Caulfield, Glenhuntly, Bentleigh, Moorabbin, Southland/Cheltenham, Mentone, Mordialloc, Chelsea and Frankston. A number of smaller neighbourhood centres are located along the corridor and are generally clustered around station precincts, while further mixed use and commercial centres are located along key arterial roads that intersect with the rail corridor.

Moorabbin Airport is located within close proximity to the east of the rail corridor. The Monash and Dandenong National Employment Clusters are major centres of employment in this part of metropolitan Melbourne and are located further east.

BUILT FORM AND HERITAGE

The Frankston Rail Corridor runs through an urbanised area with a mix of building types varying in height and setbacks creating a diversity of urban characters along its length. Generally taller and more built up urban form occurs along northern parts of the corridor with the exception of some activity centres further south.

Development north of Mordialloc generally dates back to pre-war and interwar eras with heritage sites of significant local and regional importance in these areas. Some rail infrastructure forms part of this heritage, such as the stations located at Mentone and Cheltenham. South of Mordialloc more recent development has occurred during or after the interwar period. This part of the corridor is typically more suburban in scale and style with recent infill redevelopment introducing more modern and taller built form.

Activity centres along the corridor typically contain taller and larger built forms, with multi-storey apartments, commercial offices and large format retail buildings such as Westfield Southland.

TRANSPORT AND ACCESS

The Frankston Rail Corridor provides access to Melbourne's rail network and the City Loop. Travel time to the city is approximately one hour from Frankston and 30 minutes from Cheltenham. In 2012 patronage of stations ranged from 8,000 people per weekday (Frankston) down to 1,100 people per weekday (Bonbeach). A new train station will shortly be constructed adjacent to Westfield Southland, north of Cheltenham Station.

The rail corridor runs largely parallel to Nepean Highway, from Moorabbin to Frankston (with a direct interface between Mordialloc to Carrum). Other arterial roads intersect this corridor providing road access to key employment destinations and surrounding residential areas.

The rail corridor creates a barrier to east-west pedestrian movement, which has in part been alleviated in places with the previous grade separated of crossings. Some parts of the corridor present more significant barriers where arterial road, rail and creek lines align.

Level crossing removals have been recently undertaken at North Road, McKinnon Road and Centre Road. The Caulfield to Dandenong Level Crossing Removal Project is located to the east along the Dandenong - Pakenham Railway Line.

Pedestrian and cyclist paths are intermittently located along the rail corridor. A number missing links limits connectivity of the wider corridor for cyclists and pedestrians.

LANDSCAPE AND PUBLIC REALM

The corridor traverses a mix of open space amenities including parklands, narrow linear reserves, sport fields, playgrounds, and golf courses. The rail corridor is generally vegetated along these interfaces, mitigating visual impacts and providing green links that contribute to the local landscape character.

From the Melbourne CBD, the corridor runs inland through Caulfield and Cheltenham until Mordialloc. The topography through these areas is varied and vegetation such as canopy trees are more established.

South of Mordialloc, the corridor is located within close proximity to the coast line, where topography is flat and views to the coast are prominent. Shrubby, low lying coastal vegetation is predominant in the area. This establishes two distinct landscape character precincts along the corridor - urban to the north and coastal to the south.

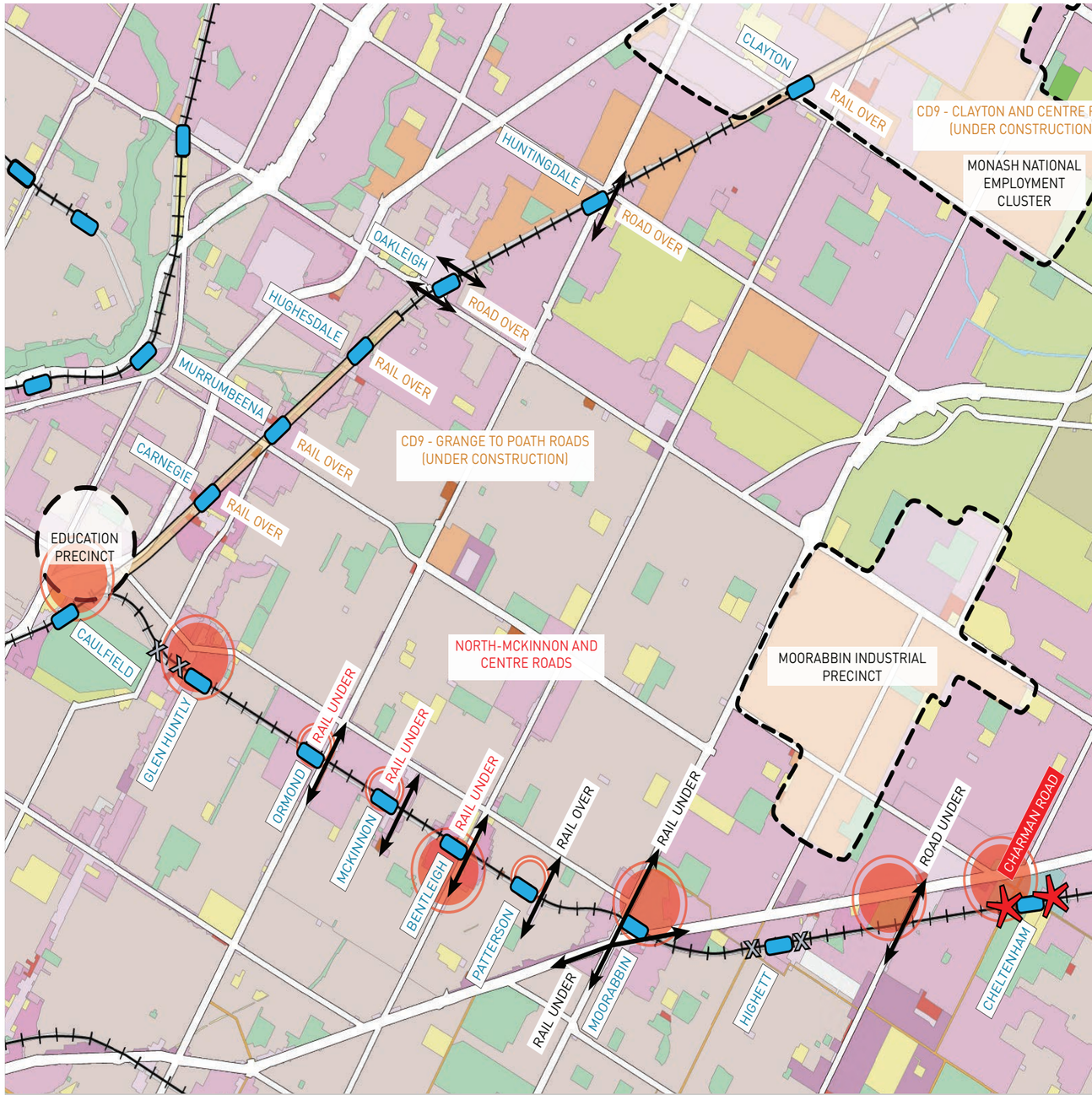

Figure 2 Frankston Corridor Existing Conditions Plan

Legend
Level Crossing to be Removed
Existing Level Crossing
Existing Grade Seperated Crossing
Rail Station
Railway
Level Crossing Removal Project Current
Freeway
Arterial Road
Employment Precinct
Neighbourhood Centre
Activity Centre
Metropolitan Activity Centre
Planning Zone
Activity Centre
Commercial 1
Commercial 2
Commonwealth Land
Comprehensive Development
Farming
General Residential
Green Wedge A
Green Wedge
Industrial 1
Industrial 2
Industrial 3
Low Density Residential
Mixed Use
Neighbourhood Residential
Public Conservation & Resource
Public Park and Recreation
Public Use
Public use - Transport
Road – Category 1
Road – Category 2
Residential Growth
Special Use
Urban Flood
BRAESIDE INDUSTRIAL PRECINCT
MOORABBIN AIRPORT
BALCOMBE ROAD
HYBRID
EDITHVALE ROAD
STATION STREET
STATION STREET
EEL RACE ROAD
SEAFORD ROAD
ROAD OVER
SKYE ROAD
ROAD OVER
ROAD OVER
MENTONE
PARKDALE
MORDIALLOC
ASPENDALE
EDITHVALE
CHELSEA
BONBEACH
CARRUM
SEAFORD
KANANOOK
FRANKSTON
N
0
1
2
4
Kilometres

2.2 LOCAL CONTEXT

LAND USE AND ACTIVITY

RETAIL/COMMERCIAL

The Edithvale Neighbourhood Centre serves the local area, and is located between larger activity centres including Chelsea to the south and Mordialloc to the north. The Neighbourhood Centre consists of small tenancies and a local supermarket with retail shop fronts along the Nepean Highway. Local services and uses range from cafés, small shops, and personal and professional services.

Nepean Highway forms a continuous 'high street' environment for the Neighbourhood Centre with active street frontages of retail shops and overhead canopies.

RESIDENTIAL

The land use immediately surrounding the Edithvale Road level crossing site is predominately residential in nature. Lots are generally 500-700 square metres in size, developed in the post war era (1960s).

There has been little recent redevelopment and no significant intensification of housing in the area, which retains a predominantly low lying coastal residential character.

EDUCATION

Edithvale Primary School sits 500m east (within walking distance) of Edithvale Station and services a local catchment.

OPEN SPACE

The level crossing site is located within close proximity to a number of locally and regionally significant open spaces and recreational amenities, including Edithvale Beach and Port Phillip Foreshore. Edithvale-Seaford Wetlands, Edithvale Common and golf courses are located to the east forming a cluster of regional open space and recreation destinations within the vicinity of the level crossing site.

Located in closer proximity to the station precinct, Regents Park and Edithvale Recreation Reserve provide passive and recreational facilities. Beeson Reserve is located adjacent to Edithvale Station and forms an important small open space link between the station and the foreshore and lifesaving club.

COMMUNITY

A basic range of community facilities are located in the local area. This includes Edithvale Primary School, Edithvale Family and Children's Centre, and Edithvale Bowling Club.

Further south, the Edithvale Life Saving Club is a key community focal point, with the club incorporating a community room and a cafe. An aged care facility is located at Northcliffe Road.

OPPORTUNITIES

- Provision of better local access to the Neighbourhood Centre.
- Provision of complementary active uses at the station opposite the Neighbourhood Centre.
- Better visual and physical links to existing open space and recreational amenities.
- Integration and enhancement of connections between the station precinct and Beeson Reserve.

CONSTRAINTS

- Sensitive residential use that interfaces with the rail corridor will require management and mitigation measures.
- The configuration of Station Street and Nepean Highway either side of the rail line.
- Existing pedestrian disconnection between the majority of the residential community on the east of the rail corridor and major local destinations to the west.

Figure 3 Edithvale Land Use and Activity Analysis Plan - Local Context

2.2 LOCAL CONTEXT

BUILT FORM AND HERITAGE

RETAIL/COMMERCIAL BUILT FORM

Retail and commercial built form is clustered to the west of Edithvale Station along the Nepean Highway and is generally single or double storey in height and built to the front boundary.

Existing overlays maintain a maximum building height of two storeys between the railway line and the foreshore. The Kingston Planning Scheme does not specify a maximum building height for land east of the railway line. Nepean Highway and Station Street have predominantly one and two storey built form.

RESIDENTIAL BUILT FORM

Residential housing predominately interfaces the rail corridor at Edithvale. Constructed during the 1950s-1960s, dwellings are generally detached and single or double storey in height, even where redevelopment has occurred. Side and front built form setbacks create well-landscaped coastal suburban character.

Residential interfaces with the railway beyond the Neighbourhood Centre are exclusively indirect (facing a street that interfaces with the railway line).

COMMUNITY BUILT FORM

The Surf Life Saving building at the end of Beeson Reserve is a more recent local architectural landmark with a two-storey built form, responding to the local coastal environment through form and materials.

STATION BUILT FORM

The existing Edithvale Railway Station building is functional in form. While the station is a local landmark along the Nepean Highway, the building itself is not identified as being of architectural or historical significance.

FORESHORE STRUCTURES

Small boat sheds and bathing boxes, which have existed since the suburbs earliest days, line the nearby beach. While modest in scale, and not directly adjacent to the rail corridor, they are an integral part of the neighbourhood identity.

OPPORTUNITIES

- Enhancement of the existing streetscape character of the area that is considerate of the existing built form and streetscape of the Neighbourhood Centre.
- Improvement to the entry into the Edithvale Neighbourhood Centre along Nepean Highway.
- Provision of an architecturally significant landmark that strengthens the quality of the local built form.
- Potential to better manage built form interfaces with the surrounding low-rise built form sitting beyond adjacent parallel streets.

CONSTRAINTS

- The surrounding low-rise built form will need to be managed to ensure visual impacts are limited.

Figure 4 Edithvale Built Form and Heritage Analysis Plan - Local Context

2.2 LOCAL CONTEXT

TRANSPORT AND ACCESS

RAIL

Edithvale Station operates as a Local Station (unstaffed) on the Frankston railway line and connects to Melbourne CBD and other employment and education precincts, including Caulfield and Frankston. Services run at approximately 4-16 minute intervals during the AM peak period and at approximately 9-22 minute intervals during the PM peak. Travel time from Edithvale to the CBD is approximately 50 minutes.

Average weekday patronage of the station is 1,364 passengers (2012). Of these passengers 60.9% walk to the station, 24.5% travel by car, 11.8% by bus and 2.7% by bicycle.

BUS

Edithvale Station has three connecting bus services located to the east of the station precinct on Station Street and Edithvale Road, being routes 902 SmartBus, 858 and 706 (off peak).

VicRoads designates Edithvale Road and Station Street (south of Edithvale Road) as a bus priority route.

ROAD

Edithvale Road is an arterial road with a single traffic lane running in each direction. It connects Nepean Highway, a major arterial road and primary route to central Melbourne, with Springvale Road and the Frankston Freeway. Station Street, which runs along the east of the rail corridor, provides a localised connection for cars, buses and cyclists with a similar arrangement from Mordialloc to Carrum. VicRoads is the responsible authority for both Edithvale Road and Nepean Highway.

PARKING

The station currently accommodates 34 commuter car spaces to the east of the rail reserve. There are more informal car park spaces on the east and west side of the rail reserve on surrounding roads and streets. Car parking for the Neighbourhood Centre is on-road along Nepean Highway.

BICYCLE

VicRoads' Principal Bicycle Network (PBN) is designated along Station Street and Edithvale Road. Nepean Highway is used by cyclists even though there are no dedicated bicycle lanes.

Currently there is no dedicated Shared Use Path located within the rail corridor. Station Street and Edithvale Road both have painted on-road cycling/parking lanes but no other dedicated cycling space is provided along Nepean Highway.

PEDESTRIAN

The rail corridor is bisected by a series of pedestrian crossings. These are located at Denman Avenue, Berry Avenue, Fraser Avenue, and Lochiel Avenue. These crossings are at grade with the railway line and are predominately aligned with existing beach access points.

There are existing pedestrian crossing associated with the Edithvale Road, Nepean Highway and Station Street intersections on the north side only. A crossing is also located south of Denman Avenue across Nepean Highway.

VicRoads designates Nepean Highway, between Derrybeg Lane and Natal Avenue as a pedestrian priority route.

OPPORTUNITIES

- Improvement to the quality and number of pedestrian crossings of the rail corridor.
- Improvement to the Edithvale Road/Station Street/ Nepean Highway intersection to provide improved crossing opportunities for pedestrians.
- Improvement to the railway station and bus stop facilities at the station.
- Potential to improve bicycle facilities along the rail corridor.
- Potential improvement to the safety, location, access and number of car parking spaces.

CONSTRAINTS

- The narrow road and rail corridors restrict the amount of space available for all modes of transport, particularly pedestrians.
- Existing road intersections provide poor pedestrian crossing amenity and safety.

Figure 5 Edithvale Transport and Access Analysis Plan - Local Context

2.2 LOCAL CONTEXT

LANDSCAPE AND PUBLIC REALM

GEOMORPHOLOGY AND TOPOGRAPHY

The topography is generally flat within the local area and along the rail corridor, which is characteristic of the coastal character of the area. Edithvale Station sits 7m above sea level. The area gradually slopes down to the east and west of the rail corridor to Port Philip Bay. The geomorphology along the railway line at Edithvale Road features Coastal Dune Deposits consisting of sand and silt.

ECOLOGICAL VEGETATIVE CLASSES (EVC) AND LANDSCAPE

The streetscapes of the local area are sparsely landscaped with canopy tree vegetation, however, continuous planting means the rail corridor itself is largely screened from the view of adjacent residential and retail/commercial areas.

Surrounding recreational parks and reserves and the Edithvale-Seaford Wetlands contribute to the green landscape character of the area.

The Edithvale-Seaford Wetlands are located to the east of the rail corridor. Listed as a Wetland of International Importance under the Ramsar Convention, it is recognised as an important natural habitat for a range of flora and fauna species, it. This includes over 190 bird species and 14 plant communities, with many of these being of State and regional significance.

Plains Grassy Wetland ecosystems, listed as endangered, provides open-grassland/herbland of up to 1m in height along the rail corridor to the north and south.

Coastal Dune Scrub, listed as vulnerable, predominates along the foreshore of Edithvale Beach. Coast Banksia Woodland, also listed as vulnerable, can be found throughout Edithvale Wetlands and the Rossdale Golf Club.

PUBLIC SPACE

Existing local public space is limited to Beeson Reserve, which provides for passive recreation, and Edithvale Recreation Reserve and Regents Reserve, which are located further from the site and cater to a range of sporting uses.

Public space within the Edithvale Neighbourhood Centre is limited to footpaths outside retail/commercial businesses. However, Edithvale Beach and Foreshore/Port Philip Bay Foreshore provides a popular destination for passive recreation for the local community and broader public.

STATION PRECINCT PUBLIC REALM

There is no station forecourt at Edithvale Station and there is limited circulation space around the station entry. Some landscaping is located along Nepean Highway.

OPPORTUNITIES

- Provision of additional open space and linear green space along the rail corridor.
- Provision of additional planting to support the landscape character of the local area.
- Opportunity to enhance visual and physical links to open space and recreational amenities.
- Opportunity to better integrate the rail reserve with surrounding open space.
- Potential improvement to footpath space at the Neighbourhood Centre.
- Integration and enhancement of connections between the station precinct and Beeson Reserve.

CONSTRAINTS

- Limited space available within the rail corridor to accommodate significant planting.
- Operational and design standards of road and rail infrastructure that may limit additional planting opportunities.
- Protection of groundwater flows and landscape values related to the Edithvale-Seaford Wetlands.

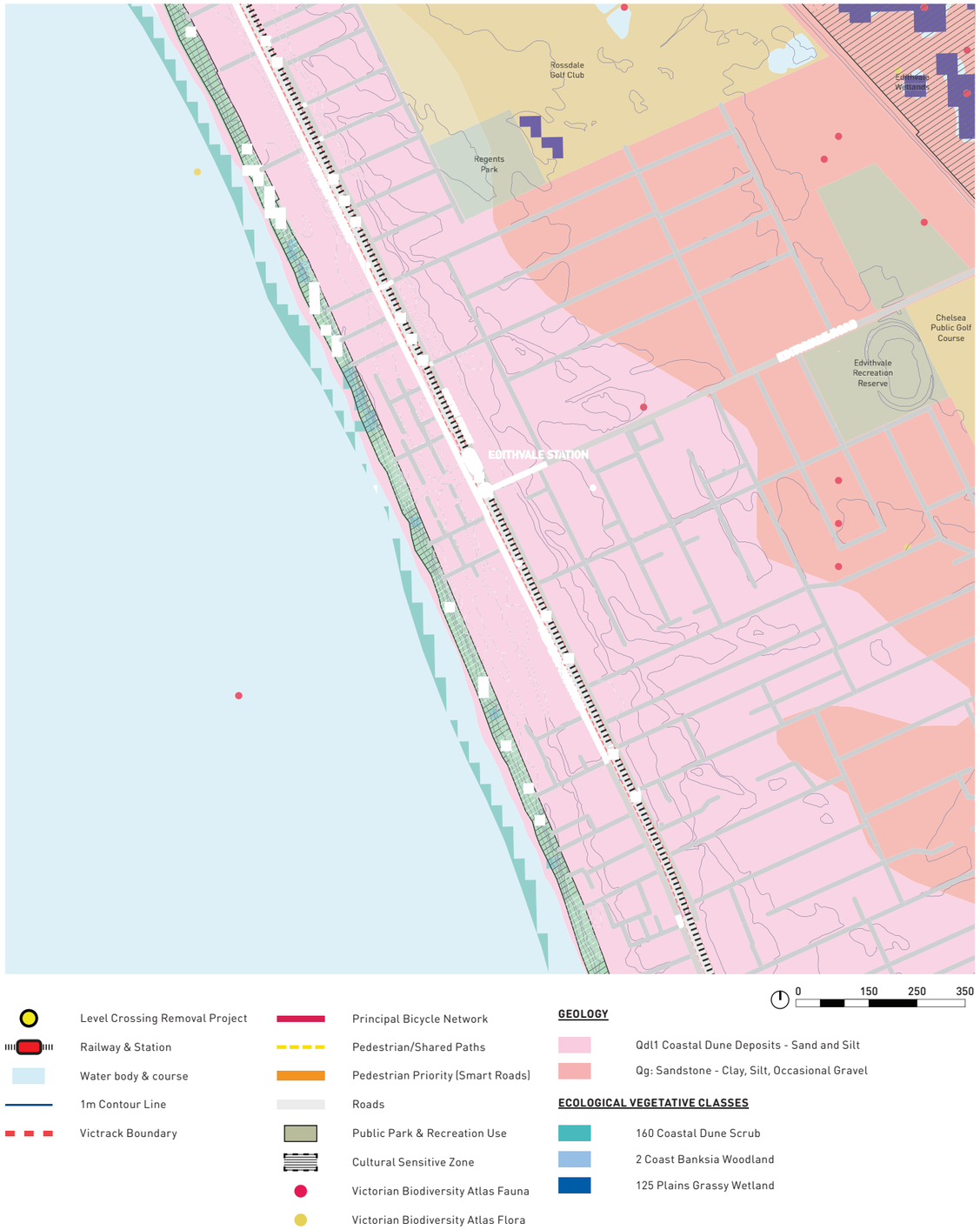

Figure 6 Edithvale Landscape and Public Realm Analysis Plan - Local Context

2.3 PHOTOGRAPHIC SURVEY

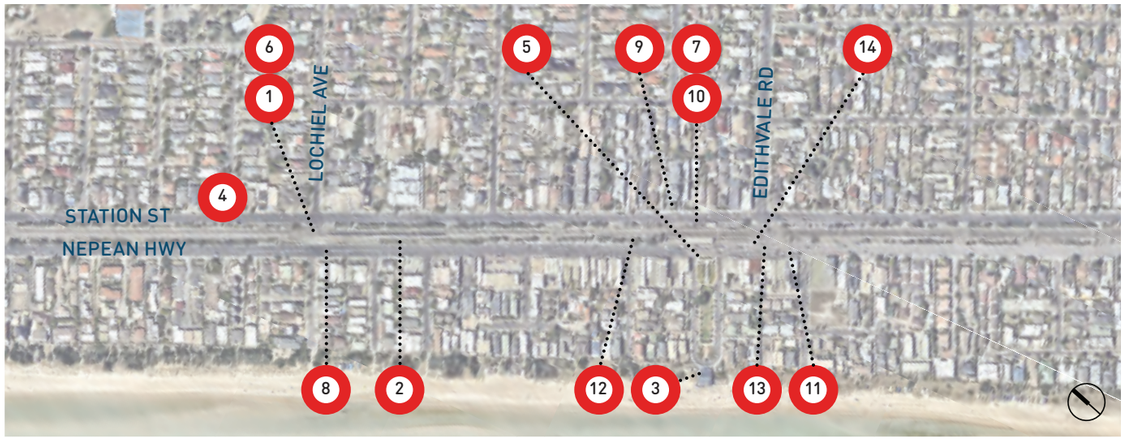

Figure 7 Photographic Survey Location Plan

Lochiel Avenue level crossing, from Station Street

Typical informal coastal vegetation along rail corridor

Edithvale Surf Life Saving Club

Station Street looking towards Lochiel Avenue and rail corridor

Beeson Reserve at The Esplanade and Nepean Highway, opposite Edithvale Station

Lochiel Avenue level crossing, from Nepean Highway

Bus stop and trees at Edithvale Station, Station Street

Nepean Highway pedestrian crossing near Lochiel Avenue

Residential built form, Station Street

Edithvale Station, Station Street

Nepean Highway looking south, at Edithvale Road intersection

Edithvale Station, Nepean Highway looking north

Edithvale Road level crossing, looking towards Station Street

Nepean Highway pedestrian crossing and shops opposite Edithvale Station

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3.0 DESIGN DEVELOPMENT

3.1 DESIGN CONSIDERATIONS

3.2 KEY DESIGN INTENTIONS

3.3 VISION STATEMENT

3.0 DESIGN DEVELOPMENT

3.1 DESIGN CONSIDERATIONS

KEY STAKEHOLDERS

Key stakeholders continue to be engaged throughout the development of project options. Each stakeholder has a particular area of technical interest as well as formal standards and requirements that will influence the urban design opportunities for this project. Key considerations for major stakeholders are outlined below.

METRO TRAINS MELBOURNE (MTM) AND PUBLIC TRANSPORT VICTORIA (PTV)

MTM and PTV are responsible for rail infrastructure in metropolitan Melbourne and have developed preliminary patronage forecasts and a range of policies that influence station design. These include vertical transportation, station layout, car parking provision and service vehicle standards. Other elements that effect the urban design quality of the project include landscape guidelines, fence and barrier and other safety requirements along the rail corridor.

VICROADS

VicRoads is responsible for the management of the metropolitan road network, with specific responsibility for Nepean Highway and Edithvale Road as arterial roads and their intersections and any road signals. Strict standards exist for road alignment design, maximum gradients, traffic visibility and height clearances. Standards that strongly influence the urban design opportunities include minimum clearances between the traffic lanes and roadside hazards, and separation of intersections and signals along arterial routes.

KINGSTON CITY COUNCIL

Kingston City Council has been active in developing strategic plans and projects in the Edithvale Neighbourhood Centre, including works to Beeson Reserve and landscaping in the surrounds of the rail corridor.

Council maintains an interest in supporting and promoting a wider mix of commercial, residential and retail uses in the Edithvale Neighbourhood Centre and encouraging a consistent built form as the centre develops. Council is also a strong advocate for prioritising and promoting walking and cycling through the design of more attractive and safer environments.

OTHER KEY STAKEHOLDERS

Other key stakeholder groups, whose particular interests and needs have been considered in the development of options, include:

- Local residents,
- Friends of Edithvale-Seaford Wetlands,
- Service Authorities ,
- Local traders,
- Local schools,
- Pacific National (freight rail operator),
- Department of Environment, Land, Water, and Planning (DELWP),
- Victorian Planning Authority (VPA), and
- Office of the Victorian Government Architect (OVGA).

COMMUNITY CONSULTATION

Community members have been invited throughout the project to review, discuss and share their feedback in relation to the level crossing removals. A number of themes have emerged from the community consultation exercises undertaken to date, which have included community information sessions, feedback forms and direct engagement with residents and local traders. Consultation will continue through 2017 as the project options are developed and refined in preparation for tender.

COMMUNITY CONSULTATION PROCESS

From February 2016 to June 2016, awareness-raising and feedback gathering activities created opportunities for local communities to learn about the level crossing removal project and to share what is important to them in their local area.

During this period, nine community information sessions were held with 500 community feedback forms, 4,500 pieces of online feedback and over 200 phone/email enquiries received from local residents, community groups and traders.

This feedback, alongside the technical investigations, has helped to identify viable options for the level crossing removals. Further community feedback on these options were sought through the next phase of consultation carried out in September/October, 2016.

The feedback from both sessions will be considered, along with the key stakeholder requirements and other criteria in the development of a recommended option and in early 2017 one recommended option will be presented to the community. Further feedback and local knowledge will be sought to shape the details of the option ahead of the tender process.

It is noted that an Environmental Effects Statement (EES) may be required at Edithvale, Bonbeach, Seaford. This may influence timing of recommended option beyond the date listed above.

EMERGING THEMES

Whilst the community consultation process is ongoing, a range of themes emerged during the inital rounds of consultation that have been considered in the development of design options. These include:

- Concern that a rail over solution would impact on views, access to daylight, increase noise, and attract anti-social behaviour and graffiti.
- Desire to see the retention and enhancement of the existing retail uses and vibrancy of the Edithvale neighbourhood centre.
- Importance and value of the landscape character and further enhance planting along the whole of the rail corridor.
- Desire to ensure that all users and all transport modes are catered for equitably to ensure the solution benefits a broad cross section of the community.
- The use of design and materials to reflect the low-lying coastal setting, valued natural environment of the foreshore and the local coastal architecture that is emerging.

3.2 KEY DESIGN INTENTIONS

Taking into consideration the requirements of stakeholders and emerging themes from the community consultation, a series of design intentions and a vision statement have been prepared to guide the development of design options for the Edithvale Road level crossing removal.

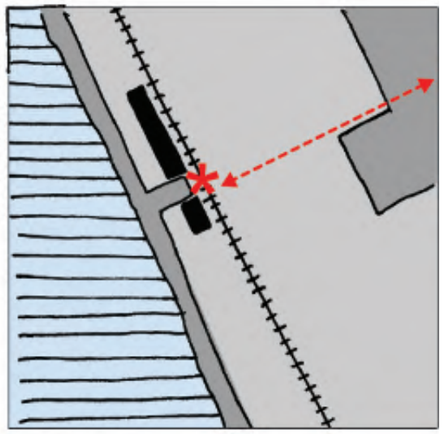

Figure 22

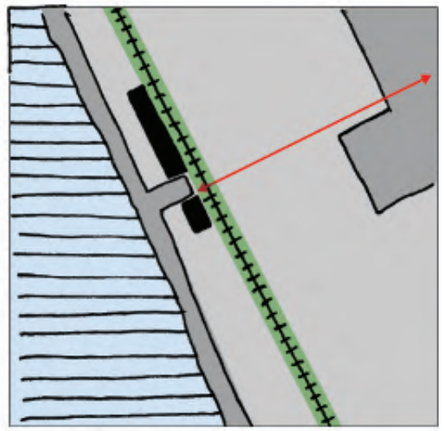

Figure 23

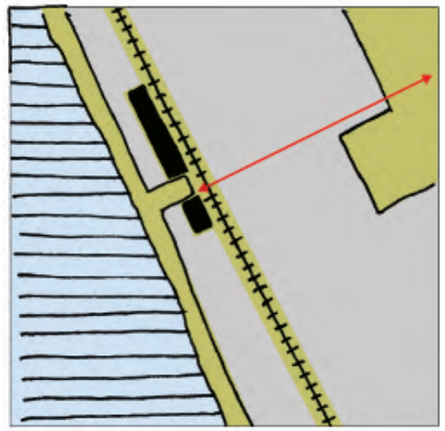

Figure 24

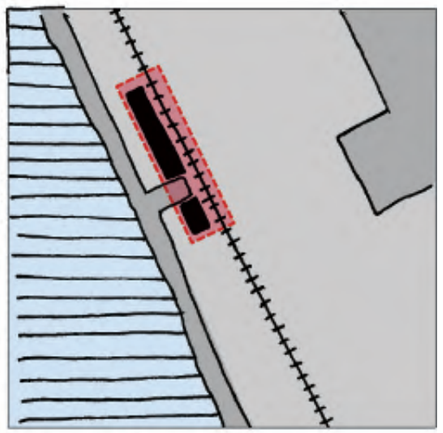

Figure 25

CREATING A LASTING AND VALUED LOCAL LANDMARK

Edithvale Station is in a highly visible location and will continue to be an important landmark and a signifier of the Edithvale Neighbourhood Centre.

The level crossing removal project should not only replace the station functionally but also better anchor the east end of Beeson Reserve and create a positive and distinctive architectural built form that is strongly tied to its coastal setting.

This should be done in a way that responds to the scale and character of the surrounding streets, open spaces and built forms. It may be reflected in the way that materials and finishes are selected and used, and the way the physical components are brought together and how it relates to both the immediate scale of the Neighbourhood Centre and the broader corridor scale.

STRENGTHENING THE GREEN CORRIDOR

The rail corridor is currently well-planted with mature vegetation, particularly where it is visible along street fronts. This is a valued element of the existing local character.

The level crossing project should protect and strengthen this characteristic. This may include introducing tree planting in parts of the corridor, as well as more continuous and significant planting along already highly visible sections of the corridor.

CONNECTING PUBLIC SPACES

The nearby foreshore and Beeson Reserve are important local (and regional) open spaces that are closely related to the transport corridor.Further afield, the Edithvale Recreation Reserve and Edithvale-Seaford Wetlands lie along the Edithvale Road Corridor.

The level crossing project should aspire to better connect the communities east of the rail corridor with these local destinations by ensuring public spaces associated with the station building provide enhanced visual and physical access connections.

This could include extending the landscape qualities of Beeson Reserve across the rail corridor, exploring opportunities to increase the visibility of these spaces at ground level, using integrated wayfinding devices that tie these spaces together and considering the role of the station forecourt as part of this broader network of public spaces.

ENHANCING THE NEIGHBOURHOOD CENTRE'S ATTRACTIVENESS

Edithvale Neighbourhood Centre serves both a social and economic role as an important hub for convenience shopping and local activity.

The level crossing project should integrate with, and further improve, the immediate environment of the Neighbourhood Centre. This could include improving the interface the rail corridor has with the centre, improving pedestrian access and parking arrangements, potentially also creating more space for commercial activity.

3.3 VISION STATEMENT

The Edithvale Road Level Crossing Removal Project will:

1. **Create a lasting local landmark,**
2. **Strengthen the landscape character of the rail corridor,**
3. **Connect the surrounding public spaces,**
4. **Enhance the attractiveness of Edithvale Neighbourhood Centre, and**
5. **Improve walking and cycling connections and other transport access.**

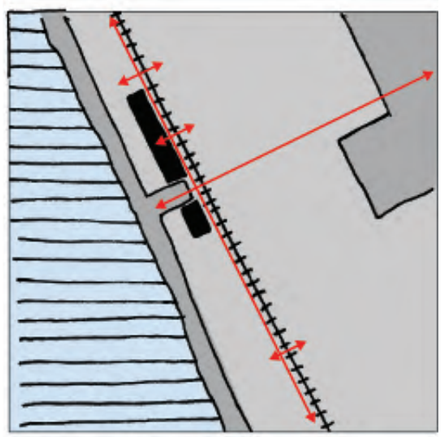

Figure 26

IMPROVING ACCESS FOR THE COMMUNITY

Edithvale Railway Station provides an intermodal transport node for a local catchment. The level crossing project should aim to improve the accessibility arrangements at the site to magnify the benefits to the community that uses them.

This should include improvement to walking and cycling routes (including shared use path provision) and the pedestrian proximity of rail, bus and taxi services and their proximity to key travel journey generators such as the Neighbourhood Centre and surrounding schools.

Pedestrian and cycling access across the rail corridor should be maximised to further improve both access to transport facilities and facilitate local trips being undertaken by active transport modes.

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4.0 PRELIMINARY URBAN DESIGN PERFORMANCE ASSESSMENT

4.1 PROJECT OPTIONS

4.2 RAIL OVER ROAD CONCEPT

4.3 RAIL UNDER ROAD CONCEPT

4.0 PRELIMINARY URBAN DESIGN PERFORMANCE

4.1 PROJECT OPTIONS

The benefits and impacts of four possible scenarios were evaluated to determine which options would be considered viable for further functional design development.

ROAD OVER RAIL

BENEFITS

- Retention of existing rail alignment and station.

IMPACTS

- Significant land acquisition required including the Neighbourhood Centre.
- Major impact on all surrounding roads requiring vertical realignment of Nepean Highway, Edithvale Road, The Esplanade, Bank Road and possibly additional roads.
- Significant visual impact to all surrounding properties.
- Significant barriers created for pedestrians and cyclists using the road network.
- Station and bus stop access severely impacted and requiring long ramps to provide pedestrian access.
- Loss of all on street car parking for the station and the Neighbourhood Centre.

OPTION NOT PROGRESSED DUE TO THE SIGNIFICANT ECONOMIC AND SOCIAL IMPACTS THAT WOULD COME FROM ACQUISITION AND DEMOLITION OF MUCH OF THE EDITHVALE NEIGHBOURHOOD CENTRE.

ROAD UNDER RAIL

BENEFITS

- Retention of existing rail alignment and station.
- Reduced visual impact to surrounding property.

IMPACTS

- Significant land acquisition required including the Neighbourhood Centre.
- Major impact on all surrounding roads requiring vertical realignment of Nepean Highway, Edithvale Road, The Esplanade, Bank Road and possibly additional roads.
- The need for lowering of roads and surrounding land below sea level .
- Significant additional barriers created for pedestrian and cycling use of the road network.
- Station and bus stop access severely impacted and requiring long ramps to provide pedestrian access
- Loss of all on street car parking for the station and the Neighbourhood Centre.

OPTION NOT PROGRESSED DUE TO THE SIGNIFICANT ECONOMIC AND SOCIAL IMPACTS THAT WOULD COME FROM ACQUISITION AND DEMOLITION OF MUCH OF THE EDITHVALE NEIGHBOURHOOD CENTRE.

RAIL OVER ROAD

BENEFITS

- No property acquisition required.
- Additional space available for car parking under the structure.
- Provision of additional width to provide better pedestrian/cycling facilities.
- No changes to existing road arrangements and existing bus routes and intersections maintained.

IMPACTS

- Visual impact to Nepean Highway and Station Street streetscapes, but with potential to mitigate some impacts with more significant landscape.
- Retaining walls and bridge piers may be subject to graffiti.
- Potential overshadowing by the bridge structure to public realm and surrounding sensitive interfaces.

RAIL UNDER ROAD

BENEFITS

- No property acquisition required.
- Limited visual impact to Nepean Highway and Station Street streetscapes, however with little landscape opportunities.
- No changes to existing road arrangements and maintaining existing bus routes and intersections.

IMPACTS

- Less overall width available to improve pedestrian/cycling facilities.
- Pedestrian paths across the rail corridor requiring ramps to cross over the emerging rail line.
- Landscape along the rail corridor will be removed and only limited landscape can be reinstated.
- Crash barriers and fencing required along the rail trench may have visual impacts to the streetscape and create graffiti opportunities.

4.2 RAIL OVER ROAD CONCEPT

This section presents a preliminary concept design for a rail over option. The concept has been assessed against the principles in the *Level Crossing Urban Design Framework*. Refer plan below and performance assessment summary on page 26-27.

Provision of a new shared use path

Space for additional landscape along the rail corridor

Increased bus stop space in the station precinct

Visible structure above Edithvale Road

Figure 27 Edithvale Road - Rail Over Road Concept Plan

Potential for additional landscape along the corridor

Retaining walls require treatment to minimise graffiti and create outlook for adjacent residential areas

Maintained ground level pedestrian crossing at Denham Avenue

Visual impact along the rail corridor to Station Street and Nepean Highway

Proposed station building beneath elevated bridge structure

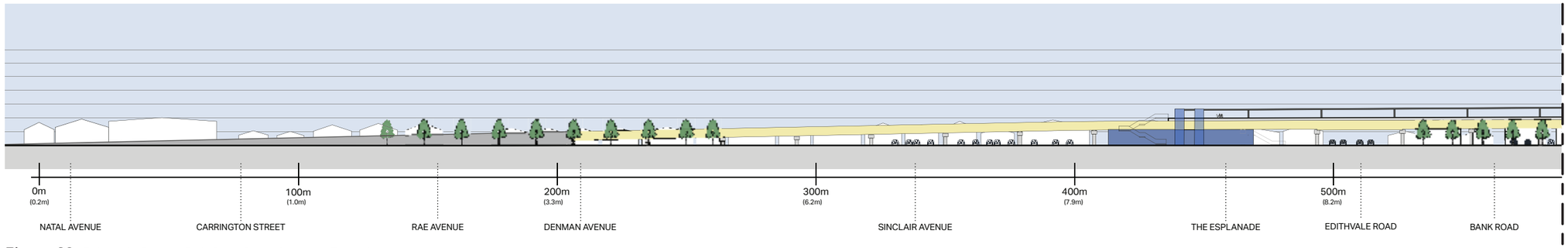


Figure 28 Edithvale Road - Rail Over Road Concept Elevation

LEGEND
STATION PRECINCT
STATION BUILDING / PLATFORMS
FOOTPATH
POTENTIAL CYCLING AND WALKING PATH
CAR PARKING
NO NET LOSS OF CAR PARKING
POTENTIAL LANDSCAPING
PROPOSED TREE COVER
PEDESTRIAN CROSSING
BARRIER/FENCE
RETAINING WALL
BUS STOP
Surface car parking to be provided beneath the elevated bridge structure
Possible shared use path extension to Berry Avenue
FRASER AVENUE
NORTHCLIFFE ROAD
BAYSIDE AVENUE
BERRY AVENUE
BUPA AGED CARE EDITHVALE
STATION STREET
NEPEAN HIGHWAY
BAPAUME AVENUE
LILLIPUT LANE
CORREA STREET
BRISTOL AVENUE
0 10 20 30 40 50m
Additional pedestrian crossing locations at the intersection
Improved and additional pedestrian paths across the corridor
Retaining walls require treatment to minimise graffiti and create outlook for adjacent residential areas
Additional landscape along the corridor
600m (8.5m)
700m (6.7m)
800m (5.2m)
900m (3.7m)
1000m (1.3m)
1100m (0.1m)
FRASER AVENUE
BAPAUME AVENUE
LILLIPUT LANE
NORTHCLIFFE ROAD
CORREA STREET

4.2 RAIL OVER ROAD CONCEPT

URBAN DESIGN PERFORMANCE

PRINCIPLES

IDENTITY

A well defined identity and sense of place are key to creating strong and vibrant communities.

URBAN INTEGRATION

Well-integrated environments provide a sound framework for the successful development of great places.

AMENITY

High quality urban amenity associated with access to services and the experience of great public places contributes to successful, equitable and prosperous communities.

SAFETY

Safe environments are essential for strong, connected and happy communities.

PERFORMANCE

Can ensure the design of the station and public realm spaces contribute positively to the existing local character.

Can draw from the palette of materials of the existing public realm, surrounding coastal architecture and natural environment.

Can support the reinforcement of the existing landscaping character along Nepean Highway and Station Street and the surrounding open spaces.

Does impact the identity of the place through the introduction of a new bridge along the rail corridor.

Provides additional opportunities for ground level pedestrian crossings that access the Neighbourhood Centre, the foreshore and the surrounding community, however complementary works on Nepean Highway and Station Street would be required.

Can accommodate more spaces for pedestrians and parking that would attract more activity to the Neighbourhood Centre.

Can improve the pedestrian and cycling experience through high visibility with safer and dedicated access ways.

May create overlooking and overshadowing opportunities to sensitive residential interfaces that require mitigation.

Does have impacts on the visual amenity from surrounding streets and residential properties.

Can maintain high levels of visibility for users of the station forecourt, shared use path, station platforms, and car parks.

Can ensure the undercroft spaces are designed to maximise perceptions of safety for users during the day and at night.

Minimises potential conflict points between movement modes.

Reduces the perception of safety for pedestrians and cyclists through the obstruction of views by retaining walls.

CONNECTIVITY & WAYFINDING

Well connected and legible places contribute significantly to strong economies and healthy, inclusive communities.

Enhances the connectivity to Edithvale Railway Station, the Edithvale Neighbourhood Centre, as well as the surrounding open space and local recreational destinations for pedestrians and cyclists.

Ensures connections from Nepean Highway and Station Street to the station forecourt are direct, efficient and legible.

Enhances station user access to existing public transport networks, bicycle routes and retail uses in the surrounding area.

RESILIENCE & SUSTAINABILITY

Places must be sustainable, enduring and resilient in order to support and nurture current and future generations.

Can use sustainable materials and minimises the need for ongoing maintenance and repairs.

Minimises overall embodied energy in materials used for construction (compared to rail under).

Avoids the need for any mechanical stormwater pumping.

Reduces energy use by locating rail platforms at the highest point of the rail corridor, enabling gravity to assist train braking and acceleration.

Can integrate stormwater management into the landscape response.

VIBRANCY

Animation of key civic spaces, and diversity in the experience of urban places support prosperous and healthy communities.

Can enliven the Edithvale Neighbourhood Centre through the creation of better pedestrian space along existing footpaths and on-street and off-street car parking opportunities for the centre.

Enhances public space provision and quality around the station entry and improves connections between existing open spaces.

Maintains and improves visual connectivity across the rail corridor from Nepean Highway shop fronts at Neighbourhood Centre to Station Street.

Can improve the landscape interface properties along Nepean Highway and Station Street currently enjoy.

ACCESSIBILITY

Highly accessible and inclusive environments encourage positive activation and contribute to prosperity, well being and the perception of care within communities.

Ensures pedestrians and cyclists are afforded safe, more generous and comfortable space along streets and at public transport access nodes.

Enhances the accessibility of the station and facilities by active transport modes.

Ensures connections between the station and other transport modes are clear and efficient.

Can accommodate the provision of a shared use path along Station Street from Lochiel Avenue to Berry Street.

Provides the potential for more car parking with increased visibility/surveillance (outside of peak commuter periods).

4.3 RAIL UNDER ROAD CONCEPT

This section presents a preliminary concept design for a rail under option. The concept has been assessed against the principles in the *Level Crossing Removal Project Urban Design Framework*. Refer plan below and performance assessment summary on page 30-31

No accommodation of shared use path due to space constraints

Limited space to provide indented bus stop space in the station precinct

Station plaza oriented to front Station Street

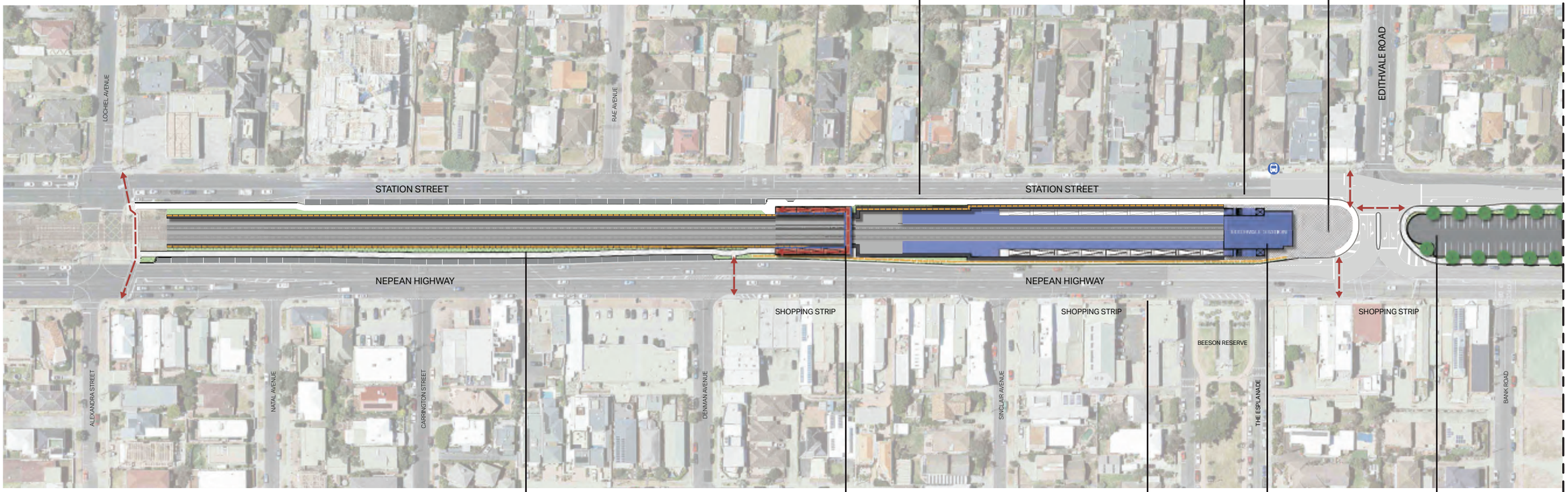


Figure 29 Edithvale Road - Rail Under Road Concept Plan

Limited potential for landscape along the corridor

Provision of pedestrian overpass with approach ramps to bridge over partially submerged rail corridor

Visual impact along the rail corridor to Station Street and Nepean Highway created by crash barriers and throw screens

Proposed station building

Reinstated commuter car park as decking over part of the rail corridor.

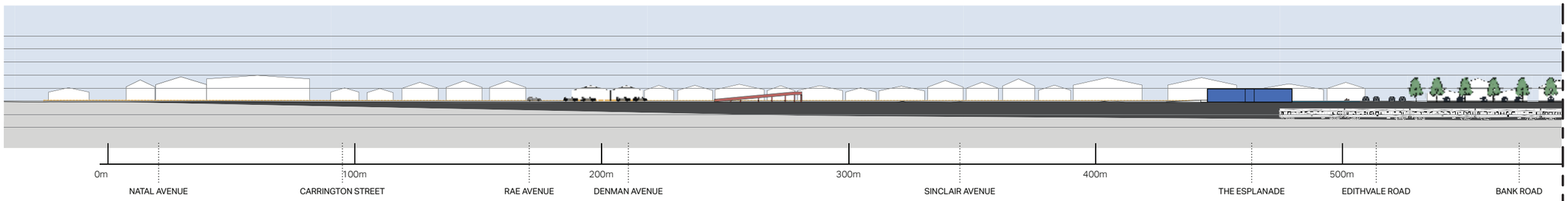


Figure 30 Edithvale Road - Rail Under Road Concept Elevation

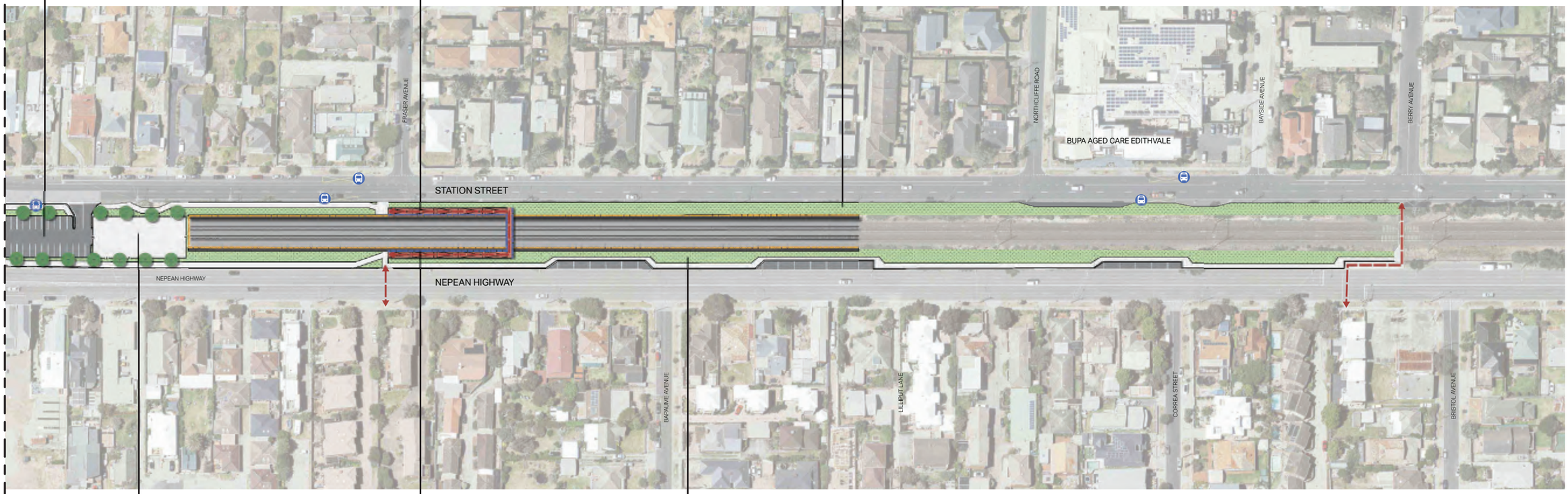
LEGEND

- STATION PRECINCT
- STATION BUILDING / PLATFORMS
- FOOTPATH
- CARPARKING NO NET LOSS OF CAR PARKING
- POTENTIAL LANDSCAPING
- PROPOSED TREE COVER
- PEDESTRIAN CROSSING
- SCREEN
- BARRIER/FENCE
- RETAINING WALL
- BUS STOP

Neighbourhood Centre car parking relocated south of Edithvale Road

Visual impact along the rail corridor to Station Street and Nepean Highway created by crash barriers and throw screens

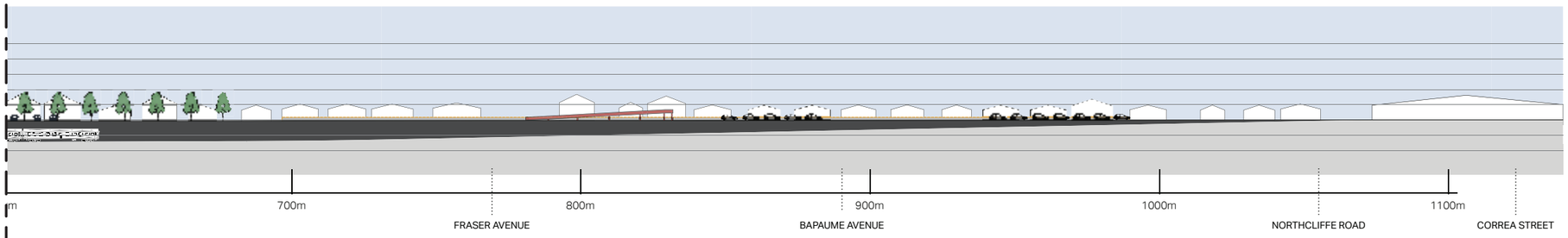
No accommodation of shared use path due to space constraints



Proposed substation location

Provision of pedestrian overpass with approach ramps to bridge over partially submerged rail corridor

Limited additional landscape along the corridor



4.3 RAIL UNDER ROAD CONCEPT

URBAN DESIGN PERFORMANCE

PRINCIPLES	IDENTITY	URBAN INTEGRATION	AMENITY	SAFETY
	A well defined identity and sense of place are key to creating strong and vibrant communities.	Well-integrated environments provide a sound framework for the successful development of great places.	High quality urban amenity associated with access to services and the experience of great public places contributes to successful, equitable and prosperous communities.	Safe environments are essential for strong, connected and happy communities.
PERFORMANCE	Can ensure the design of the station and public realm spaces contribute positively to the existing local character. Can draw from the palette of materials of the existing public realm, surrounding heritage buildings and streetscapes. Cannot maintain the existing landscape character along Nepean Highway and Station Street due to loss of vegetation along rail corridor. Does impact the identity of the place through the introduction of crash barriers and throw screens along much of the rail corridor.	Creates physical and visual barriers due to large pedestrian ramps and crash barriers.	Reduce overshadowing to sensitive retail and activity centre uses. Does not provide substantial additional opportunities for public space or connections to existing public spaces. Does not improve the pedestrian and cycling experience with a reduction in visibility across the rail corridor and the removal of substantial tree planting.	Reduces the potential conflict point between movement modes at Edithvale Road and the rail corridor. Does not create high levels of visibility where crash barriers and throw screens are required. Requires substantial ramps and elevated overpass structure to retain access across the rail corridor at Fraser Avenue and Denman Street, which may impact sense of safety for users. Reduces the perception of safety for pedestrians and cyclists through the obstruction of views by crash barriers.

CONNECTIVITY & WAYFINDING

Well connected and legible places contribute significantly to strong economies and healthy, inclusive communities.

Enhances the connectivity to Edithvale Railway Station, and the Edithvale Neighbourhood Centre from surrounding residential properties.

RESILIENCE & SUSTAINABILITY

Places must be sustainable, enduring and resilient in order to support and nurture current and future generations.

Can use sustainable materials and minimise the need for ongoing maintenance and repairs.

Increases overall embodied energy in materials used for construction (compared to rail over).

Requires energy to power mechanical stormwater pumping and drainage.

Increases energy use by locating rail platforms at the lowest point of the rail corridor requiring more energy for train braking and acceleration.

Can integrate some stormwater management into the landscape response.

Significant soil removal also creates the potential need to treat and remove contaminated soils.

VIBRANCY

Animation of key civic spaces, and diversity in the experience of urban places support prosperous and healthy communities.

Can enhance public space provision and quality around the station entry.

Does not enliven Edithvale Neighbourhood Centre with limited opportunity to provide additional public space adjacent to the station.

Alters the existing landscape character of the rail corridor through the removal of established vegetation.

ACCESSIBILITY

Highly accessible and inclusive environments encourage positive activation and contribute to prosperity, well being and the perception of care within communities.

Reduces the amount of space pedestrians and cyclists are afforded along the rail corridor.

Improves the accessibility of the station and bus facilities by active transport modes.

Limits accessibility across the rail corridor with the need for long ramps that provide access over the partial trench of the rail corridor.

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5.0 REFERENCES

FIGURE	TITLE	PAGE	REFERENCE
Figure 1	Level Crossing Removal Project Location Plan	2	http://levelcrossings.vic.gov.au/__data/assets/pdf_file/0020/17912/LXRA-50-Map_WEB.pdf
Figure 2	Frankston Corridor Existing Conditions Plan	6	AECOM GHD Joint Venture
Figure 3	Edithvale Land Use and Activity Analysis Plan - Local Context	8	AECOM GHD Joint Venture
Figure 4	Edithvale Built Form and Heritage Analysis Plan - Local Context	9	AECOM GHD Joint Venture
Figure 5	Edithvale Transport and Access Analysis Plan - Local Context	10	AECOM GHD Joint Venture
Figure 6	Edithvale Landscape and Public Realm Analysis Plan - Local Context	11	AECOM GHD Joint Venture
Figure 7	Photographic Survey Location Plan	12	AECOM GHD Joint Venture
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Figure 30	Edithvale Road - Rail Over Concept Elevation	28	AECOM GHD Joint Venture

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