

# APPENDIX A: BACKGROUND INFORMATION

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A.1 PROJECT SUMMARY

A.2 PROJECT MAP

A.3 GUIDELINE INTERPRETATION

A.4 METHODOLOGY

# APPENDIX A BACKGROUND INFORMATION

## A.1 PROJECT SUMMARY

The Level Crossing Removal Project (LXRP) will oversee the removal of dangerous and congested level crossings across Melbourne and perform vital rail corridor upgrades, including rail extensions and duplication works (refer to Figure 26).

The project is designed to:

- Improve the reliability and efficiency of transportation networks, through reducing overall congestion;
- Enhance the urban amenity of local areas; and
- Create safer, better connected, liveable and thriving communities.

The LXRP (formerly the Level Crossing Removal Authority) 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. LXRP's vision is *'delivering great change, by transforming the way Victorians live, work and travel'*. This vision is underpinned by 5 strategic objectives, including a commitment to creating great places.

LXRP and the AECOM-GHD Joint Venture (Technical Advisor), have led site investigations, functional and reference design packages, and the preparation of associated requirements and guidelines, to support the removal of level crossings at each nominated location. Stakeholder engagement and community consultation is an important part of this process, to ensure that stakeholder and community considerations are suitably addressed in the design and delivery of the project.

Further design development, construction and delivery works are now being delivered by LXRP through Program Alliance partnerships with leading industry specialists. Design and construction works for each site have been prioritised and staged to ensure that critical crossings are addressed as a priority and transport route delays and other impacts are minimised.

This project has the potential to set strong benchmarks and act as a catalyst for positive urban renewal that reinvigorates and reconnects communities. In order to create a lasting legacy, innovative and high quality urban design is key to the success of the project.

## A.2 PROJECT MAP

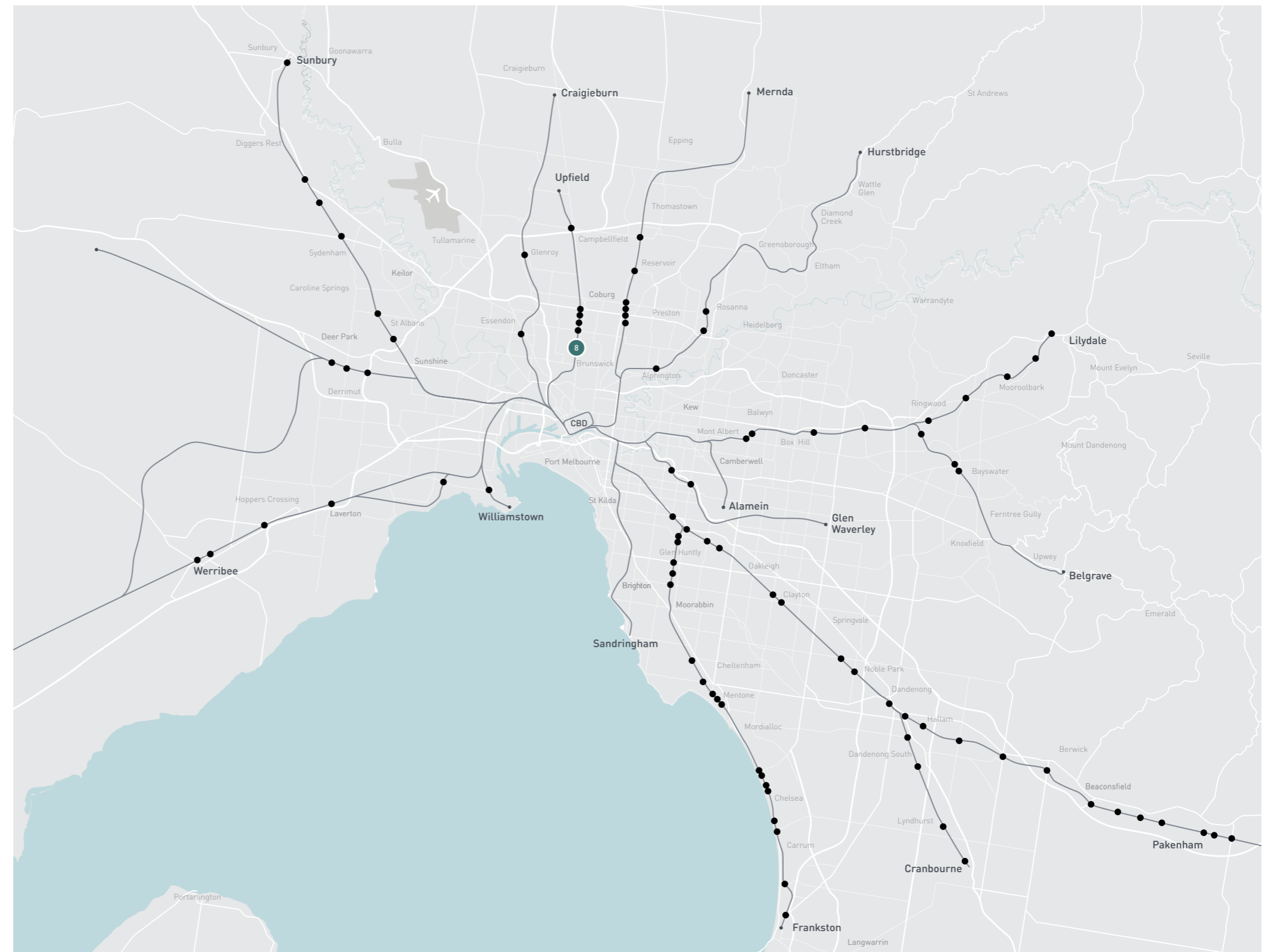


Figure 26 Level Crossing Removal - Project Map

### A.3 GUIDELINE INTERPRETATION

The Urban Design Guidelines represent performance based outcomes that should be achieved for the site(s). The guidelines embody three tiers, as below:

1. The **vision** statement, which sets out the overall ambition for the site and/or package of work, from an urban design perspective.
2. The **design intent**, which establishes the strategic objectives or broad design moves that should be achieved.
3. The **design guidelines**, which set out specific urban design requirements relating to each of the UDF principles.

The UDGs have not been drafted on the basis of a particular design option, but rather are intended to help inform both the functional solution and enhance urban amenity for the site(s).

These guidelines represent the State's interest and Alliance teams should endeavour to satisfy all relevant urban design requirements, within the briefing documents. In the event that guidelines cannot be achieved in the design response, this should be negotiated with UDAP, to achieve a satisfactory outcome.

Priority and mandatory urban design guidelines shall also form part of the Project Requirements Specification (PRS), before the TOC period is concluded.

### A.4 METHODOLOGY

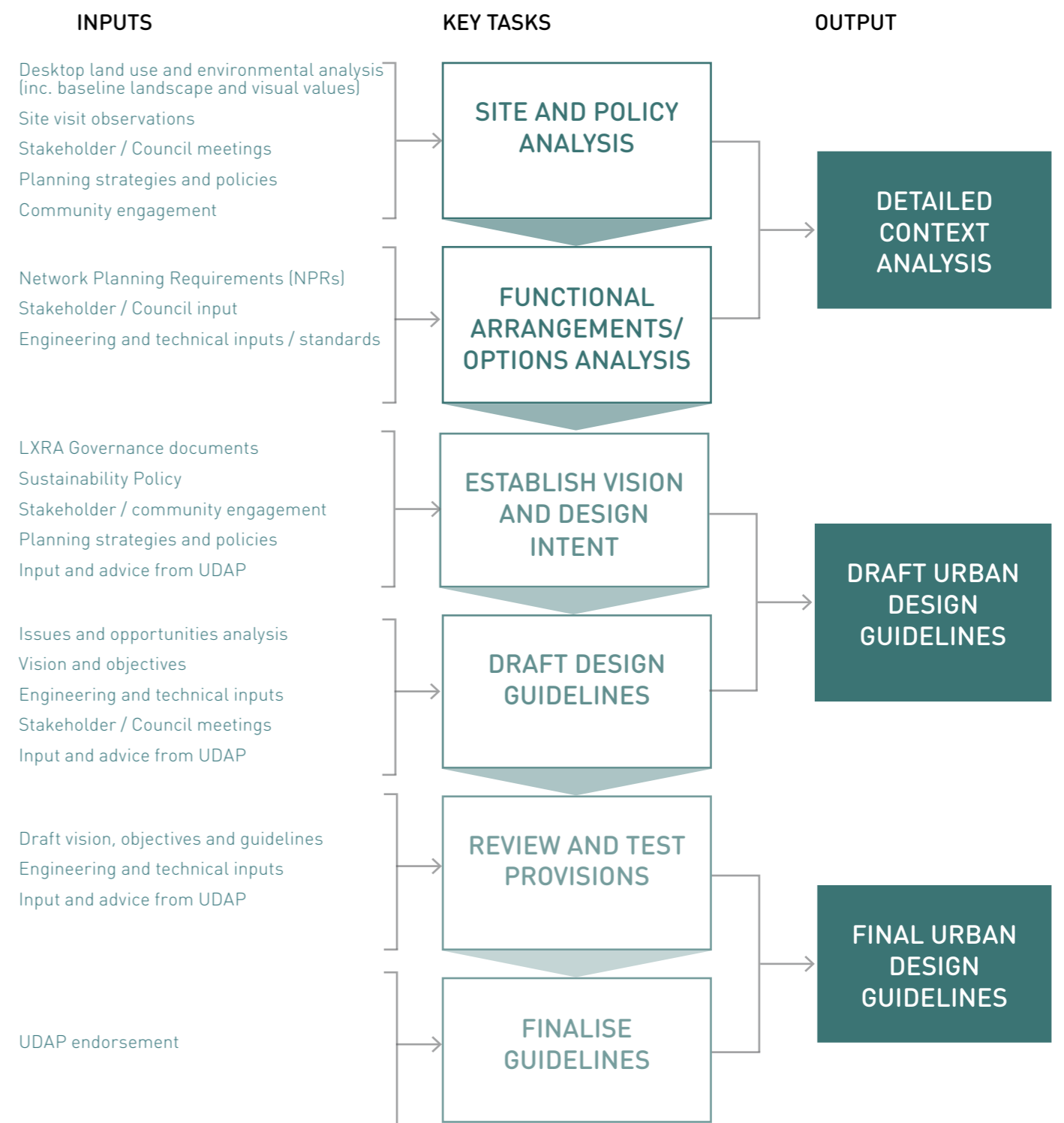
The methodology and approach that has been taken in preparing these Urban Design Guidelines, is illustrated in Figure 27.

A number of workshops, technical inputs and data sources have been used to inform the guidelines, including:

- Urban Design Advisory Panel (UDAP) and working group sessions;
- Council and key stakeholder workshops;
- Civil and transport engineering inputs, including high level traffic and movement analysis;
- Rail and structural engineering advice;
- Ground engineering and geotechnical engineering;
- Planning and environmental analysis, including a baseline landscape and visual values assessment; and
- Advice in relation to utility engineering, fire life safety and building services.

Periodic review and input from UDAP has been obtained throughout the development of the guidelines, to ensure the provisions satisfy the objectives and interests of the State.

Figure 27 Methodology



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# APPENDIX B: CONTEXT ANALYSIS

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B.1 BROADER AREA CONTEXT

B.2 HISTORICAL CONTEXT

B.3 LOCAL CONTEXT

B.4 DEMOGRAPHICS AND COMMUNITY PROFILE

B.5 SAFETY AND AMENITY

# APPENDIX B CONTEXT ANALYSIS

## B.4 BROADER AREA CONTEXT

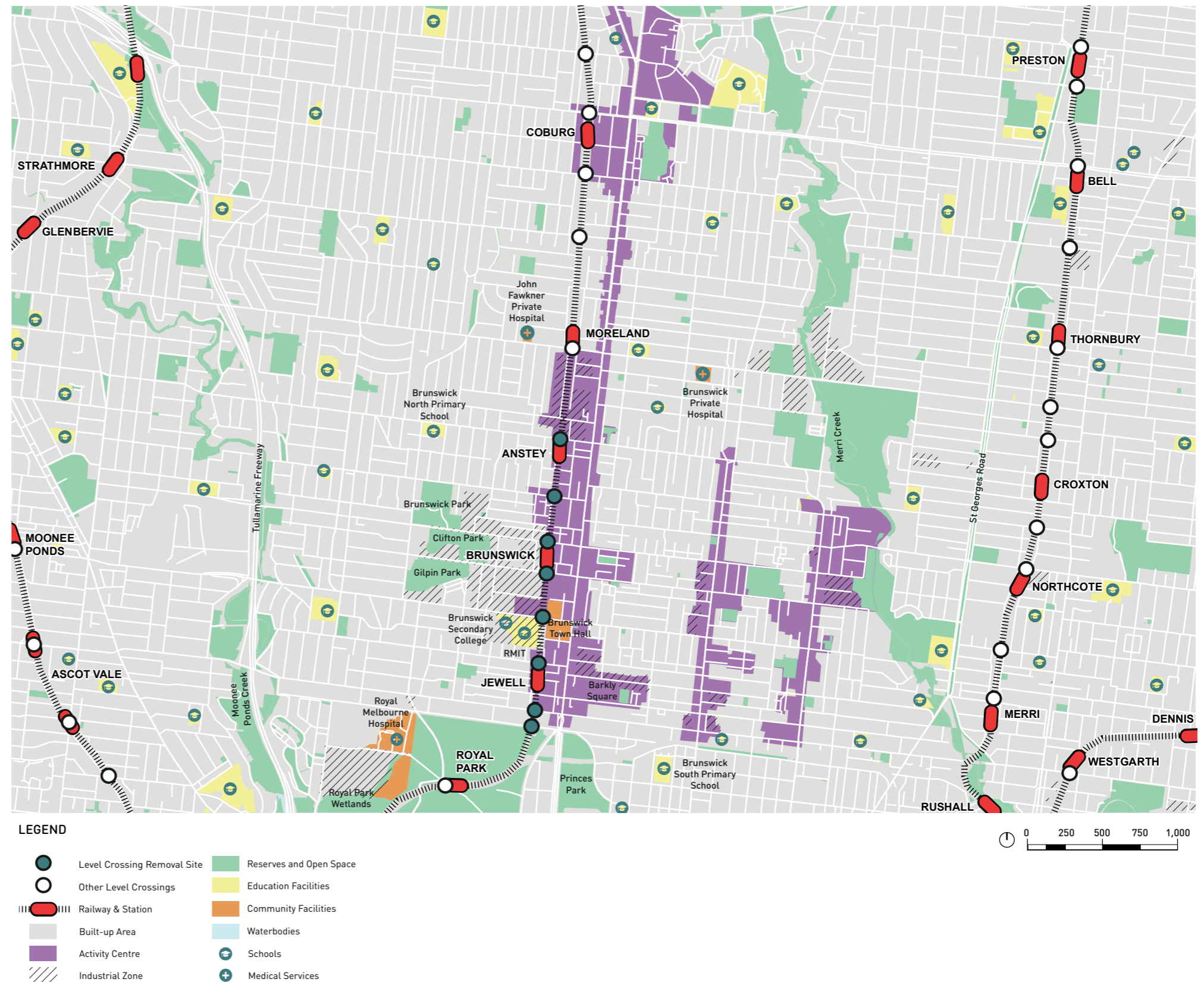
The Brunswick level crossing removal sites are located in the northern region of Melbourne, approximately five kilometres from the Central Business District (CBD). Located within the Merri-bek City Council and City of Melbourne local government areas (LGA), the level crossings sit within the suburbs of Brunswick and Parkville. Surrounding suburbs include Brunswick West, Brunswick East, Coburg, Princes Hill, and Parkville. The travel time via rail from Jewell, Brunswick and Anstey Station to Flinders Street Station is approximately 22 minutes. The corridor, encompassing Brunswick, Coburg, and the wider Merri-bek local government area, was among the earliest areas of Melbourne to be surveyed and still contains some of Victoria's oldest buildings. The area was originally subdivided for farming; however, quarrying, brickmaking industries and working-class housing soon came to characterise the area.

Many of Merri-bek's larger historical industrial complexes have been transformed into residential dwellings. The first road to be established through the area was Sydney Road, which developed into a thriving retail strip and became a major route to Sydney and the goldfields during the 1850s. This flourishing retail strip remains strong today and forms the spine of the Brunswick Major Activity Centre (MAC). This section of the Upfield rail corridor is predominantly surrounded by residential land with pockets of industrial land located adjacent to the rail corridor, on both the east and west dependent upon the area. The diversity of land use is greater to the east of the Upfield rail corridor, encompassing the Activity Centres along Sydney Road. The level crossing removal sites sit within the MAC.

Public transport in the form of trains and trams are central to the Merri-bek City Council's identity and transportation options. The train and tram lines connect the suburb, in a north-south manner, to the broader metropolitan area and CBD. Buses provide an east-west connection on specific routes. Sydney Road historically has been important for linking the main colonial settlements and today forms a major north-south axial thoroughfare. Conflicts between drivers, bike riders, trams, and parked cars cause congestion and accidents along the road daily. The region links with several major roadways, including the Tullamarine Freeway and the Calder Freeway to the west and the M80 Ring Road to the north.

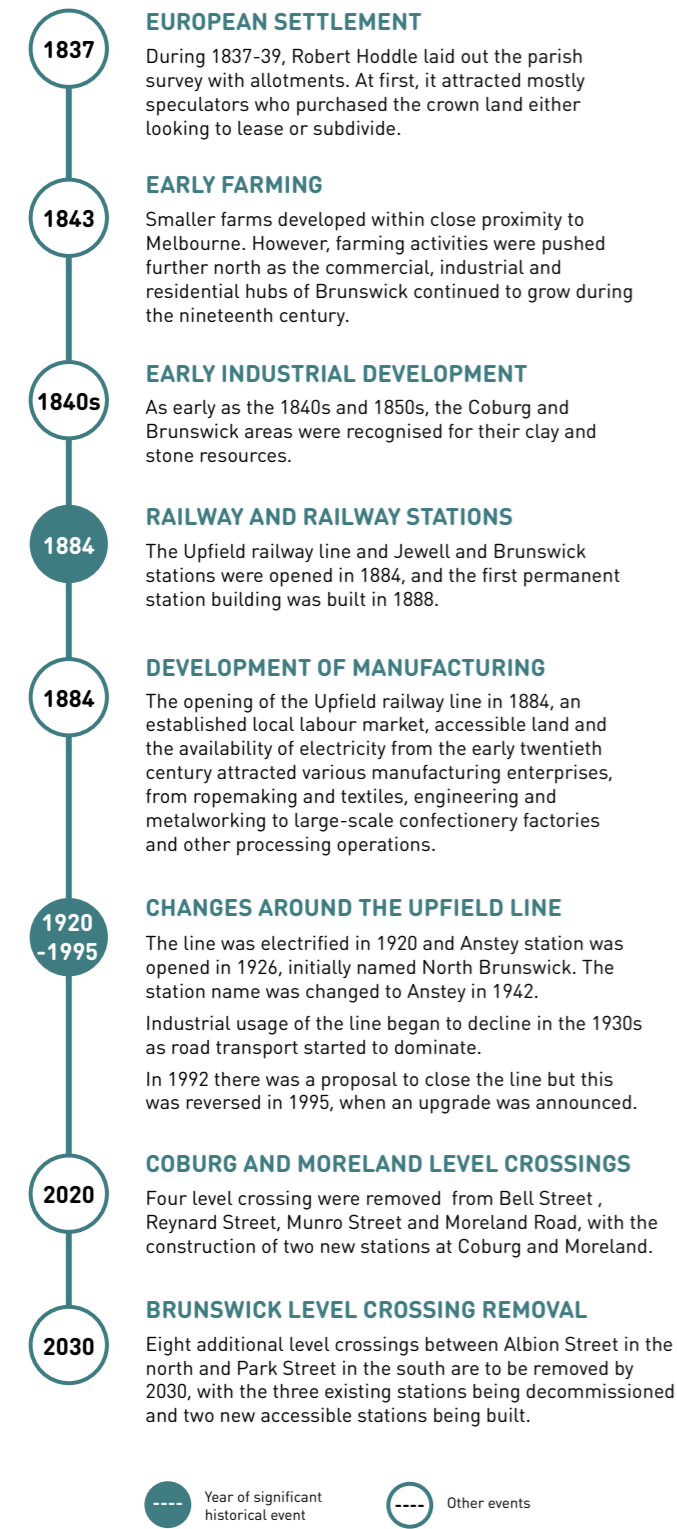
At the time of settlement, the area was a flat, open, and windswept plain. Notably, the area is traversed by Merri Creek to the east and Moonee Ponds Creek to the west, both tributaries of the Yarra River. The creeks are recognised as regional habitat corridors, and Merri Creek forms a significant regional open space network for recreation.

Figure 28 Regional Context Map



## B.5 HISTORICAL CONTEXT

Figure 29 Historical timeline



The traditional custodians of the land where the City of Merri-bek is located are the Wurundjeri-Willam, a clan of the Wurundjeri Woi Wurrung people of the Kulin Nation. This area was named 'Iramoo' for many thousands of years. The LGA recently changed its name to 'Merri-bek', a Woi-wurrung language term meaning 'rocky-country', in reference to the area's natural landscape formation. The arrival of the Europeans in the late 1830s and the rapid expansion of their activities gave rise to conflict with Traditional Owners, with the latter soon losing access to the land and their traditional way of life.

The Borough of Brunswick was formed in 1857. The municipality was elevated to the Town of Brunswick in 1888, subsequently becoming the city of Brunswick in 1908. While Coburg was surveyed with a township reserve allocated for public buildings, churches and amenities, Brunswick had no such provision. It was first surveyed in 1839. It provided 16 farming allotments with frontages to Moonee Ponds or Merri Creek and a north-south track known as Sydney Road. Soon after, the allotments were sold and subdivided. Hubs emerged around early activities instead of a designated village, and a network of streets developed in an east-west direction, namely Victoria Street and Albert Street.

The Brunswick area has long been an important centre of industry associated with building trades, quarrying and brick manufacturing predominantly. As early as the 1840s and 1850s, it was recognised that the district contained some of Victoria's best clay and stone resources in close proximity to Melbourne. The gold rush saw the Colony of Victoria expand rapidly, and between 1846 and 1865, Brunswick's population grew from 146 to 3,000 inhabitants. This increase created a strong demand for housing and improved access routes and public transport. From 1845 to the 1880s, the population more than tripled to 14,000 inhabitants as the suburb housed workers of various categories and as well as multiple social economic groups.

The rail line to Coburg was established in 1884 and ran parallel to Sydney Road, crossing the series of east-west streets with the system of rail gates and signal boxes that remain in place today. The cable tram along Sydney Road was inaugurated in 1887, encouraging further lot subdivision and increased commercial activity.

Following the 1890s depression and World War I, the development came to half, as unemployment and financial distress rose. Development recommenced during the early twentieth century, fuelled by a boom in industrial activities and increased migration to the suburb.

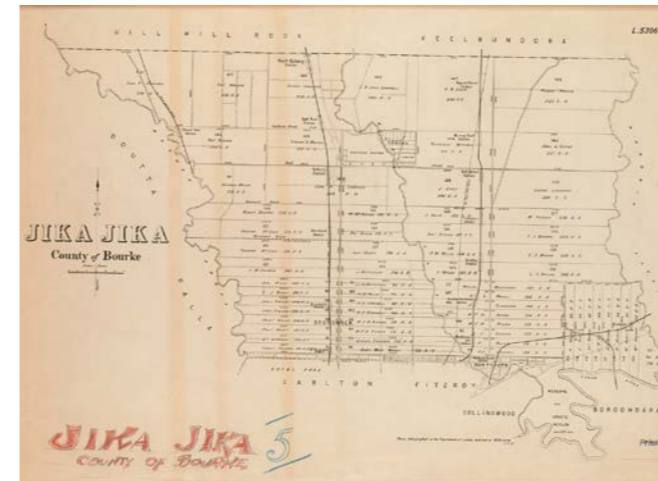


Image 60 Map of Jika Jika parish, County of Bourke, 1902 (Source: State Library of Victoria)

The Parish of Jika Jika which includes Brunswick and Coburg was formally named Pentridge in August 1840. Brunswick's parish land was divided into relatively narrow strips on either side of Sydney Road, giving Brunswick the tight grid of streets that characterise its urban setting today.



Image 62 Sydney Road, central Brunswick, 1866 (Source: State Library of Victoria)

A map drawn by surveyor Robert Hoddle in 1840 identified three routes to Sydney: Mickelham Road, Pascoe Vale Road and the present Sydney Road. However, Sydney Road stayed in an appalling condition and didn't become a principal route until mid-1850s when the gold rush traffic began to subside and local road boards were formed. By the mid-1860s much of Sydney Road had been improved with large dressed lengths of bluestone laid as kerbing, bluestone pitcher spoon drains along each side and wider asphalt footpaths.



Image 61 Brunswick's first Council chamber near Albion Street, 1866 (Source: State Library of Victoria)

The Borough of Brunswick was formed in September 1857. The first purpose-built council chamber opened in 1859 on Lobb's Hill in Sydney Road in a small bluestone and sandstone hall.



Image 63 Brunswick Rd (east) of Sydney Road, 1861 (Source: State Library of Victoria)

With the land booms of the mid 1800s and 1880s, hotels, shops, churches, council properties and houses replaced farms and open land. While Brunswick was predominately a working-class industrial suburb in the late nineteenth and early twentieth centuries, the precinct was inhabited by a significant proportion of middle-class residents. Brunswick Road was a desirable residential location because of its proximity to Royal Park.

## B.6 LOCAL CONTEXT

### LAND USE AND ACTIVITY

#### RESIDENTIAL

Brunswick contains a broad range of housing typologies, including detached housing, small workers' cottages, rear dwellings behind commercial buildings and an increasing number of medium-density apartments and townhouses. Brunswick is considered a typical inner-city suburb regarding its higher housing density.

Currently, there is an increasing number of high-density housing in Brunswick, as a response to metropolitan population growth. This suburb is undergoing rapid urban renewal, with many industrial sites being converted into mixed-use developments. The area surrounding Anstey Station contains significant potential for infill development in the MAC, where brownfield sites are being consolidated and redeveloped.

The Nightingale development adjacent to Anstey Station has added new apartments, retail spaces, open spaces, a playground, and an urban garden for its residents and the local community. The Jewell Station Village development is set to increase significantly housing opportunities at its completion, including gardens and other public facilities integrated with the train station.

#### COMMERCIAL / MIXED USE

Brunswick has been shaped by its history as an industrial hub close to Melbourne CBD, along with continuous migration and economic restructuring over time. Currently, there is a large stock of vacant or underperforming industrial spaces within the Brunswick MAC. The Brunswick Structure Plan and the Moreland Industrial Land Strategy are two key strategic documents that guide the redevelopment of industrial land within the MAC. The demand for industrial-zoned land has declined over the last 30 years due to more economical industrial land availability in the outer metropolitan areas. However, the projection of local industrial jobs suggests that inner city industrial precincts will still be required in the long term, albeit in a revised form.

Overall, the MAC offers a comprehensive variety of services, including numerous banks, grocers, health services, hospitality, homewares, clothing and specialty stores. Some of the retail premises in the MAC are presently vacant. According to an SGS Economics and Planning report (2018), an increase in the number of offices and services is expected, aiming for improved levels of employment self-sufficiency in the LGA.

#### COMMUNITY FACILITIES

From Albion Street to Park Street, there are a significant number of sites of religious worship, such as the Brunswick Uniting Church, the St Ambrose Catholic Parish and the St Vasilios Greek Orthodox Church, along with other numerous community facilities such as medical clinics, social clubs and childcare facilities.

Of particular note is the RMIT University Brunswick Campus, located west of the rail corridor between Dawson and Union streets, directly interfacing with VicTrack sites. The Brunswick Baths, Brunswick Town Hall, Brunswick Library and the Merri-Bek City Council buildings are also located in close proximity to the rail corridor, on Dawson Street, between Jewell and Brunswick stations.



Image 64 Varying residential densities and industrial uses on Breese Street

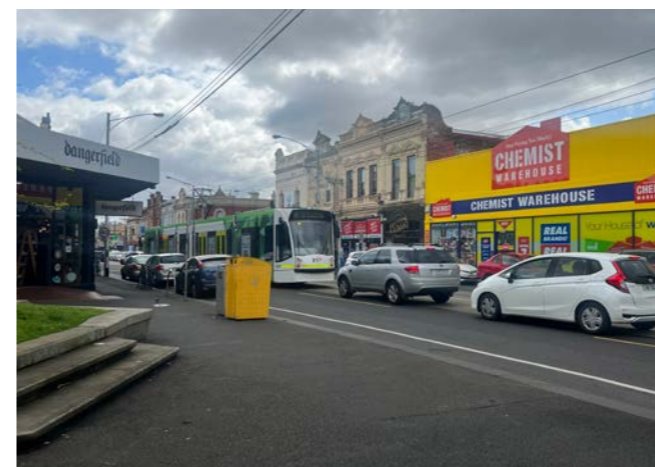


Image 66 Commercial area along both sides of Sydney Road



Image 68 Christ Church Anglican on Dawson Street



Image 65 High-density developments - Nightingale Village around Anstey Station

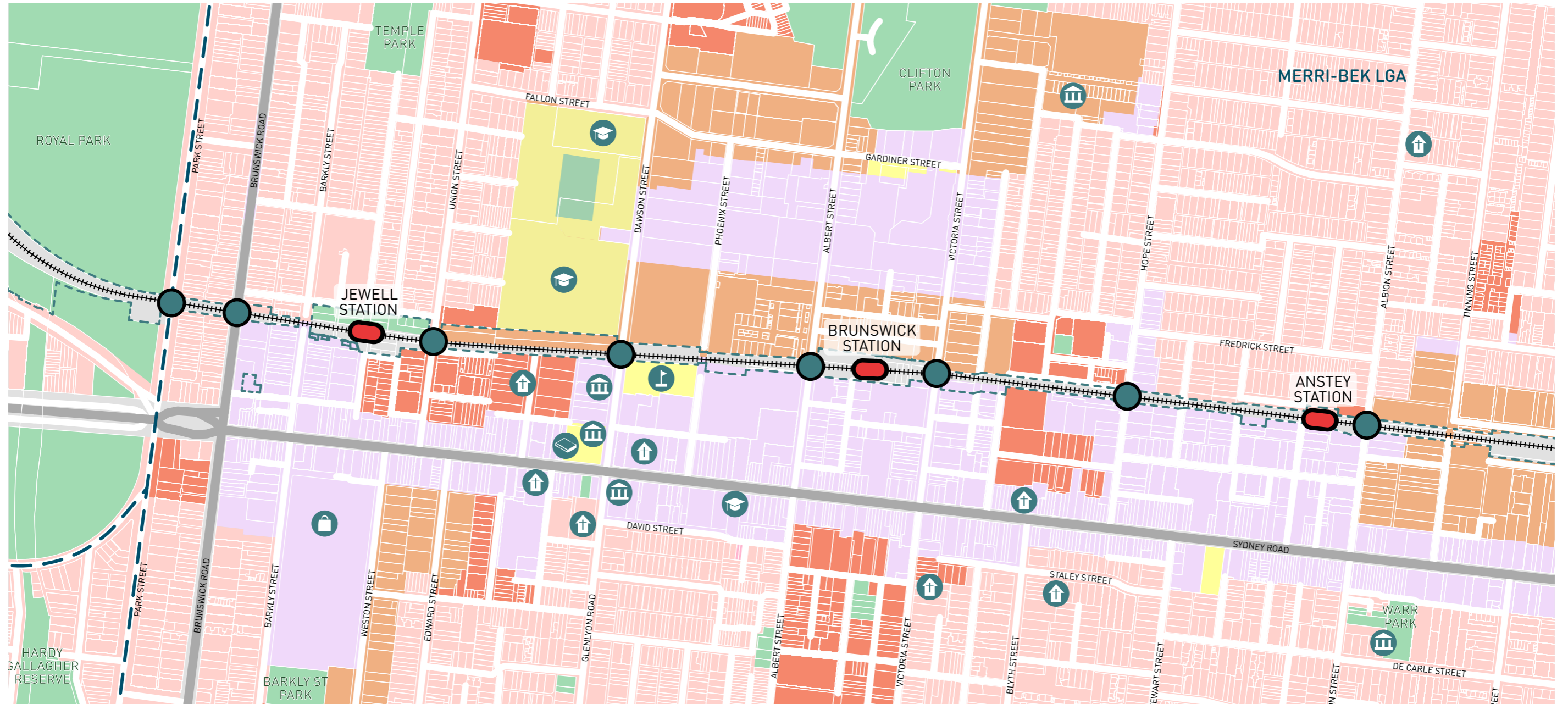


Image 67 Bulleke-bek Park on West Street near Anstey Station



Image 69 Jewell Station Reserve looking east

Figure 30 Land Use Analysis Plan



LEGEND

- |                             |                      |                           |
|-----------------------------|----------------------|---------------------------|
| Level Crossing Removal Site | Hospitals            | Residential Use           |
| Rail Station                | Civic Buildings      | Commercial Use            |
| Rail Tracks                 | Schools              | Industrial Use            |
| VicTrack Boundary           | Religious Facilities | Mixed Use                 |
| Major Road                  | Shopping Centre      | Public Park & Open Spaces |
| Waterbodies                 | Library              | Community Facilities      |
| Local Government Area       | Sporting Club        |                           |



## OPEN SPACE AND RECREATION

Significant population growth is predicted to occur in Brunswick and Brunswick East. This will result in higher densities in the Brunswick area. Merri-bek City Council's Open Space Strategy highlights the importance of securing land through Activity Centre planning to gain space in rezoned industrial use areas and the re-designation of spaces to ensure an adequate provision of open space. As per the historical development of the area, Brunswick was developed in an ad-hoc manner and allocation of public open space has been low since development.

The Merri-bek Open Space Strategy recommends open space to be provided within 500m of all residential properties and 300m of all activity centres, but also notes that some areas of the LGA are not adequately served. The rail corridor cuts through Royal Park and its extensive open space and recreational areas, but once into Brunswick open spaces are limited. Interfaces between industrial sites and public open spaces are particularly poor. The areas between Sydney Road and the rail corridor are particularly identified as not adequately served areas and are noted as priority for parks and improved linkages to open space. The report also notes the challenges climate change brings to the management of open spaces and the importance of an integrated approach to open space planning, sustainable solutions and future proof thinking.

The Merri-bek LGA has approximately 839 hectares of Council managed open space. These areas include parks, natural areas along creeks, sporting grounds, playgrounds, grasslands and reserves. Open spaces are used by the local community for picnics, gatherings, enjoying nature, active and passive recreation and other activities.

Brunswick has 80.3 hectares of public open space, a significant proportion being the Merri Creek Linear Reserve. The suburb has the highest provision in the municipality for social/family recreation open space, with major sites located at Gilpin Park and Jones Reserve.

A significant piece of open space for Brunswick is the Brunswick Central Parklands, made up of Gillon Oval, Reaburn Reserve, Brunswick Park, Clifton Park and Gilpin Park. The area is located to the west of the rail corridor and serves both the residential and industrial areas. It is a significant sporting precinct that also contain key passive recreation sites. Linkages through, to and around the whole precinct are critical for the functioning of the open space network. Other open spaces include Gillbrook Reserve and Temple Park.

Along the corridor there are a few opportunities of public open space, which include Jewell Reserve, Bulleke-bek Park adjacent to Anstey Station and Garrong Park to the northeast of Tinning Street. East of the corridor, open spaces are sparse and of reduced proportions, such as the Outdoor Family Space, Foletta Park, Randazzo Park and Warr Park. Barkly St Park provides a larger area of open space next to the shopping centre.

Greatest benefit for the community will come from improving the east-west active transport connections to maximise access to the Brunswick Central Parklands. West of Sydney Road and past the rail corridor there are very few parks and the area is dominated by industrial land and run-down housing stock.

The existing open spaces in Brunswick present varying primary functions including sport, heritage, social and family recreation as well as passive recreation. The landscape setting types vary between parklands, specialized sport surfaces and ornamental gardens and include local and district open spaces.



Image 70 Brunswick Park on Victoria Street

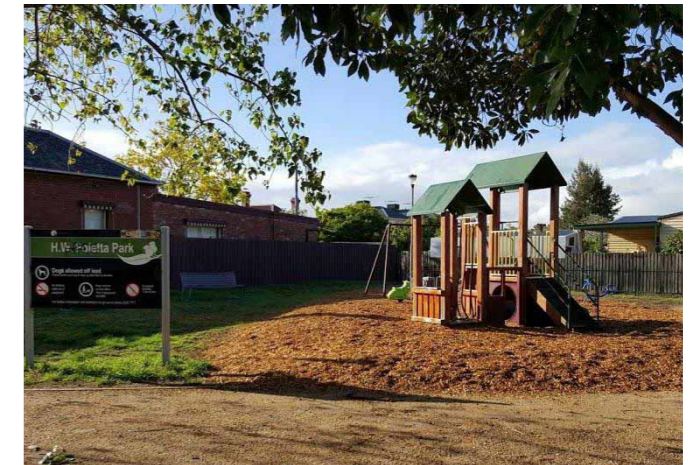


Image 71 Foletta Park at Glenlyon Road



Image 72 Temple Park on Hodgson Street



Image 73 Bulleke-bek Park at West Street



Image 74 Barkly Street Park on Barkly Street



Image 75 Randazzo Park at Albert Street

Figure 31 Analysis of existing open spaces within a walkable distance from the corridor



© Not to scale

## BUILT FORM AND HERITAGE

### BUILT FORM CHARACTER

There is an increase in the proportion of industrial sites in proximity to Anstey Station. The prominent Sydney Road streetscape is well-defined by predominantly two-storey heritage buildings. The residential properties to the west of Jewell and Anstey stations are low-rise with an open nature. They are fine-grained compared to the large-scale brownfield and light industrial in other specific locations along the corridor.

The MAC built form is a diverse mix of residential, industrial and retail areas clustered along the rail corridor. Brunswick is generally characterised by a mix of older industrial buildings, detached housing, townhouses and apartment buildings. The suburb is fast changing due to urban renewal, and future character will be affected by the conversion of many industrial sites into mixed-use developments.

Brunswick's nineteenth and early twentieth-century industrial and commercial legacy is today reflected in conversions of buildings that supported earlier industries (brickwork, textiles, clothing, footwear, cordage and rope works, and confectionery) and public places of entertainment such as cinemas.

Sites surrounding Anstey Station consist of coarse-grained industrial lots. Double to triple-storey warehouses dominate the landscape in heritage brick and bluestone and modern tilt-up pre-cast concrete. The rail corridor and Upfield SUP interface is primarily passive, with little to no passive surveillance and interaction. Facades are often recessed to allow vehicle parking and do not instigate interaction between private and public spaces.

The industrial character carries south to Brunswick Station. Sites abutting the rail corridor vary between single and double-storey warehouses on smaller lots, compared to sites next to Anstey Station. On Albert Street, the Railway Hotel stands as one of the six grand three-storey hotels built in Brunswick in the late 1880s and early 1890s. Along with the hotel and office-warehouse complex, a supermarket and parking lots interface with the rail corridor at the Albert Street crossing.

Moving south there is a mix in built form that includes multi-storey contemporary residential buildings, double and single-storey warehouses and educational facilities. Next to Jewell Station, new multi-storey developments overlook the station and rail corridor on the east. To the west, finer-grain residential sites interface with Jewell Reserve, allowing for a setback from the rail corridor and station facilities.

### HERITAGE

Heritage streetscapes and buildings are a major contributor to the character and feel of Brunswick. Brunswick's heritage assets range from Aboriginal archaeological sites to buildings of State significance. The heritage assets range from Hoffman's Brickworks and the former Hooper Building at 463-475 Sydney Road through more substantial structures, such as Lomond Hotel and East Brunswick, to heritage-listed workers' cottages. They also include historic parklands, such as Warr Park and Methven Park.

The Upfield rail line is included in the VHR (Victorian Heritage Register) as a place number H0952 and is of State historical, technological, architectural and social significance. The precinct encompasses the stations of Jewell, Brunswick, Moreland and Coburg and extends from south of Park Street through to Bell Street. The Upfield rail line is also identified as H0180 in the Schedule to the Heritage Overlay of the Merri-bek Planning Scheme. The extent of the Heritage Overlay is broader than the VHR registration. It applies to the entire rail corridor between Park Street and Bell Street in Coburg, including the Jewell, Brunswick and Anstey station precincts.

### ABORIGINAL CULTURAL HERITAGE

The area occupied by the Merri-bek LGA today was - for tens of thousands of years - a sparsely wooded forest with native grasslands that the Wurundjeri Woi Wurrung people governed. These sites will likely include scar trees, interments, shell middens, stone artefacts scatters, eel and fish traps, stone arrangements, and other ceremonial sites. Due to the intense land modification throughout the years post-contact most of the archaeological sites that have survived will occur in disturbed contexts in the form of stone artefacts scatters, the density of which is likely to increase along waterways. Deeply buried sites would be the exception to the above, which are most likely to occur in alluvial or pluvial deposits.

Contact between the Wurundjeri Woi Wurrung and European settlers occurred in 1835. The colonisation and dispossession that took place had devastating and ongoing consequences for the Wurundjeri Woi wurrung people and other Aboriginal groups.

The Merri-bek Post-Contact Aboriginal Heritage Study lists and describes important Aboriginal sites within the LGA. These include the Murray family home in Glenroy, the Ballerit Mooroop College in Glenroy, the Ronald Bull Mural in Pentridge Prison, and the Aboriginal Community Elders Services in Brunswick.

### EARLY SETTLEMENT AND GROWTH

This area of Melbourne was initially characterised by bluestone quarries, potteries and brick-making industries, with the first land sales held in 1839. The earliest European settlers were predominantly small-scale farmers and working-class people from England, Scotland and Ireland, who lived around these pioneering industries in workers' cottages. Much of Brunswick was used for farming and associated industries in the 1850s, with cattle grazing, dairy farming and market gardening common. The gold rush in the 1850s saw a significant increase in demand for sites and properties along Sydney Road as prospectors made their way to Bendigo. With the construction of the Upfield rail line in 1884, followed by the opening of the cable tram along Sydney Road in 1887, allowing for fast and efficient access to the city, the area was subdivided for residential and industrial uses.

The depression of the 1890s saw unemployed workers settle on land in the area, and the Brunswick Land Purchase Act of 1900 saw the division of many allotments into one to two acres. During the period up to World War II, most of the remaining open space was subdivided, save for a few areas of land locked up as potential quarrying sites. During the Post-War period, large allotments were redeveloped for the construction of flats. Since private enterprises carried out many early subdivisions, no provision was made for parks or open spaces. Therefore, most parks within Brunswick are built on top of former quarries. The lack of open space has carried through to the present day.



Image 76 Jewell Station

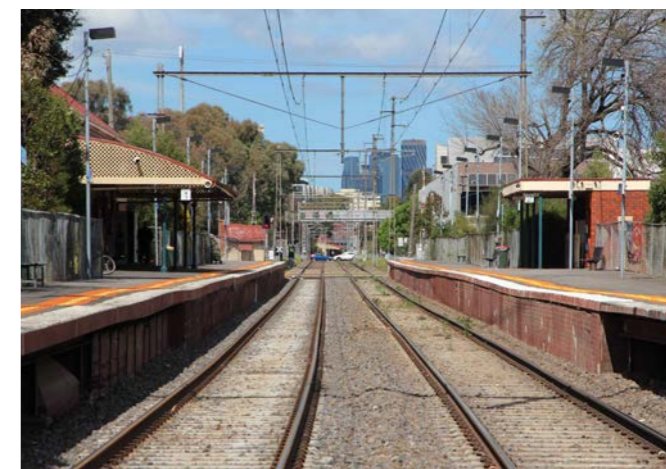
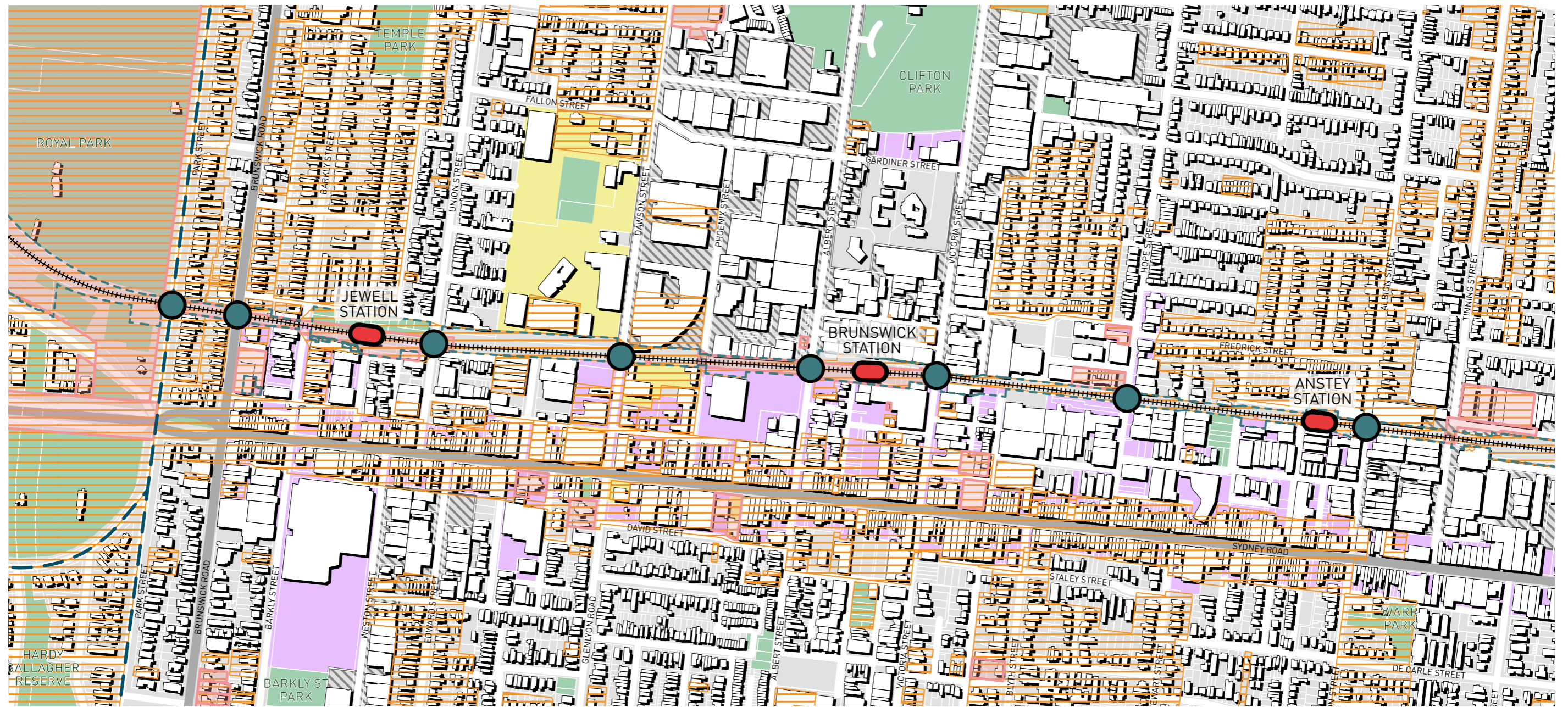


Image 77 Brunswick Station



Image 78 Albert Street signal box

Figure 32 Built Form and Heritage Analysis Plan



LEGEND

- Level Crossing Removal Site
- Rail Station
- Rail Tracks
- VicTrack Boundary
- Major Road
- Waterbodies
- Local Government Area
- Heritage Listed Sites
- Heritage Overlay
- Commercial
- Industrial
- Reserves and Open Space
- Community Facilities
- Building Footprint



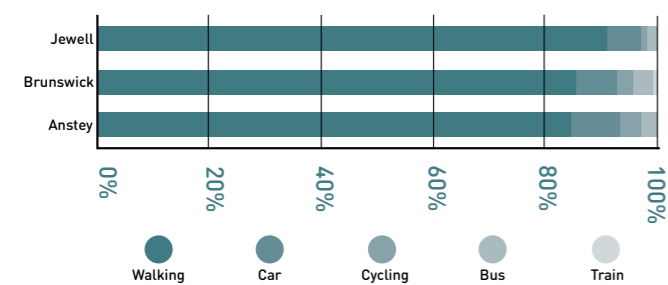
## TRANSPORT NETWORK AND ACCESS

Transport provision in Brunswick is characterised by regular train services along the Upfield rail line, a parallel shared path (Upfield Shared Path), tram route 19 along Sydney Road, tram route 58 along Grantham and Melville Roads, and multiple east-west bus routes. Brunswick Road and Sydney Road are the main arterial roads in the area, supporting an important movement function and catering for trips to and through the area. Active transport includes pedestrian footpaths along most roads and various formal and informal cycling routes. The Upfield Shared Path is a north-south Strategic Cycling Corridor (SCC) that connects to key cycling routes to the south. There is also an east-west SCC along Victoria and Blyth Streets connected by a short stretch of Sydney Road.

### STATION ACCESS

Anstey, Brunswick, and Jewell Stations are on the Upfield Line with regular services to and from Melbourne CBD. Peak direction service frequencies are approximately every 13-19 minutes in the AM peak period. Annual patronage data [Department of Transport, July 23 to June 24] shows approximately 1,150, 1,050, and 1,100 entries per normal weekday at Anstey, Brunswick and Jewell Stations respectively.

There are no commuter car parks provided in any of these three stations, which explains why walking is the main mode to access the station, as shown in Figure 33 (based on 2015 PTV patronage data).



**Figure 33** Station access by transport mode [PTV patronage data, 2015]

### BUS MOVEMENTS

There are six bus routes in the study area, including:

- Bus route 504 operates along Brunswick Road from Moonee Ponds to Clifton Hill Station, with stops located approximately 300 metres south of Jewell station.
- Bus route 509 operates along Hope Street, Victoria Street,

and Sydney Road from Brunswick West to Princes Hill, connecting Brunswick and Jewell stations.

- Bus route 506 operates along Dawson Street from Moonee Ponds to Northcote, with stops located approximately 400 metres north of Jewell station and 400 metres south of Brunswick station. This route shares a stop with the 951 night-bus service (eastbound).
- Bus route 508 operates along Blyth Street and Victoria Street from Moonee Ponds to Alphington Station, stopping at Brunswick station.
- Bus route 503 operates along Albion Street from Essendon to Brunswick East, stopping at Anstey station.
- Night bus route 951 operates from Brunswick station to Glenroy.

### TRAM ROUTES

- Tram 19 connects the CBD with Coburg North and runs parallel to the Upfield rail line along Sydney Road and in proximity to the three stations. Tram stops are located between 200-300 metres to the east of the three stations.
- Tram 58 connects the CBD to Bell Street, Pascoe Vale South, running along Grantham Street, 850 metres west of Jewell Station and Melville Road, 1.5 kilometres to the east of Brunswick Station.

### VEHICULAR MOVEMENTS AND PARKING

Eight level crossings are to be removed by the project to improve safety, reduce congestion and to pave the way for future upgrades including extra train services on the line in the future. About 71,000 vehicles travel through these crossings each day, with the boom gates down for up to 30 minutes of the morning peak. The function and cross section of the roads is described below:

- Albion Street - A local link road under the management of Merri-Bek City Council that caters for movement within the municipality and provides access to neighborhood destinations. East of the level crossing Albion Street has a two lane cross section with narrow bicycle lanes and no on-street parking. West of the level crossing no bicycle lanes are provided and on-street parking is permitted on the north side of the road.
- Hope Street - A local collector road under the management of Merri-Bek City Council that caters for movement within the municipality and provides access to neighborhood destinations. Near the level crossing Hope

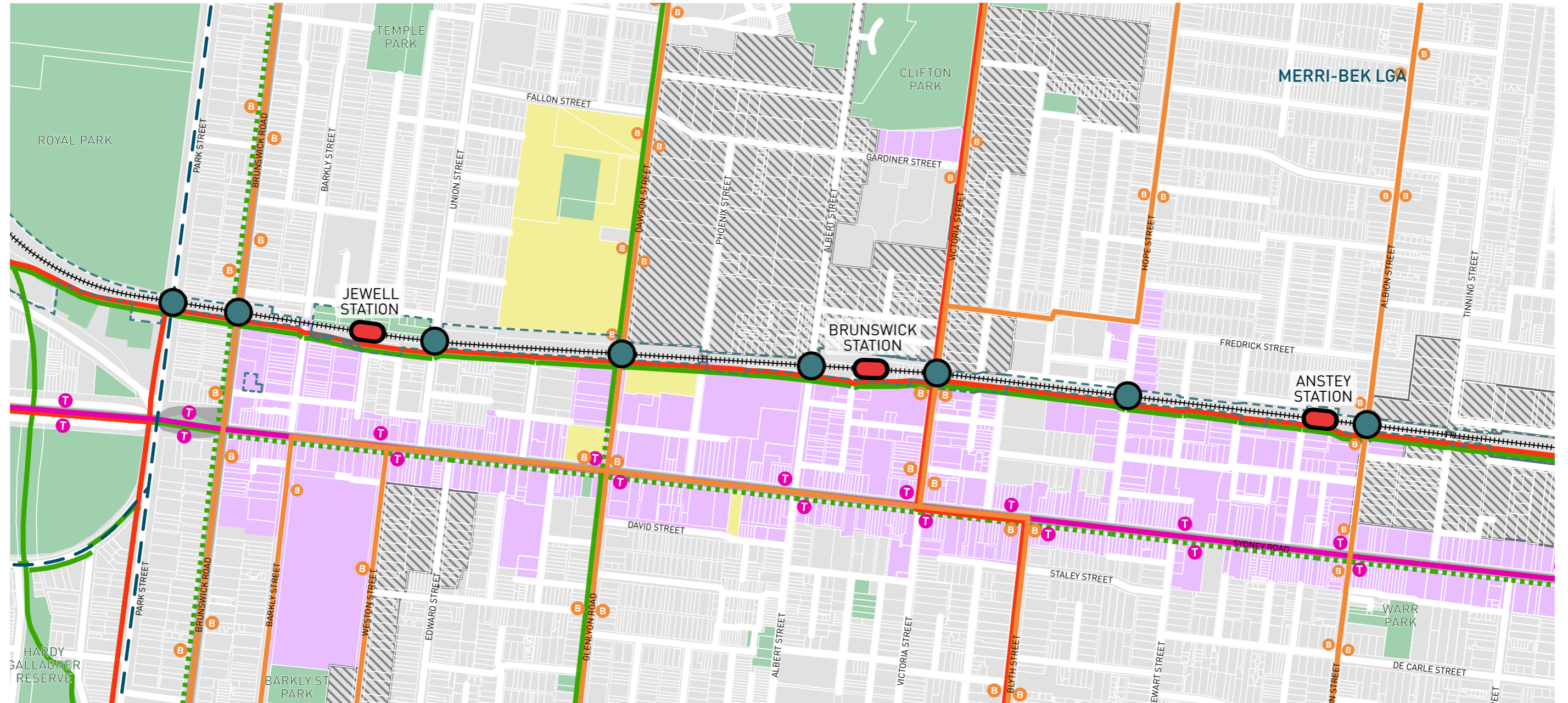
Street has a two lane cross section with on-street parking on the south side of the road.

- Victoria Street - A local link road under the management of Merri-Bek City Council that caters for movement within the municipality and provides access to neighborhood destinations. Near the level crossing Victoria Street is a two lane undivided road with bicycle lanes and on-street parking.
- Albert Street - A local link road under the management of Merri-Bek City Council that caters for the local movement of people. Near the level crossing Albert Street is a two lane undivided road with bicycle lanes and on-street parking.
- Dawson Street - A local link road under the management of Merri-Bek City Council that caters for movement within the municipality and provides access to neighborhood destinations. Near the level crossing Dawson Street is a two lane undivided road with bicycle lanes east of the level crossing and protected bicycle lanes west of the level crossing. On-street parking is provided further away from the level crossing.
- Union Street - A local access road under the management of Merri-Bek City Council that caters for the local movement of people. Near the level crossing Union Street is a two lane undivided road with on-street parking.
- Brunswick Road - A State-managed primary arterial that caters for the significant movement of people and goods between multiple municipalities. Brunswick Road has a four lane cross section, operating as a two lane undivided road with on-street parking occupying the kerbside lane. There are no clearways either side of the rail line.
- Park Street - A local road under the management of Merri-Bek and Melbourne City Councils that caters for movement within the municipalities and provides access to neighborhood destinations. Near the level crossing Park Street is a two lane undivided road with bicycle lanes and a service road on the north side. On-street parking is provided on the south side of Park Street and in the service road.

### ACTIVE TRANSPORT

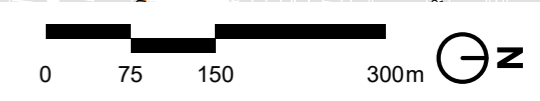
- There is one pedestrian overpass between Anstey and Jewell stations, via the Phoenix Street bridge.
- There are active pedestrian crossing points at Barkly Street, West Street-Orient Grove, and Tinning Street.
- Pedestrian access to the three stations is facilitated by road footpaths.
- The Upfield Shared Path runs parallel to the Upfield railway line. An SCC, it is a popular route for both cyclists and pedestrians, and one of Melbourne's busiest commuter paths. It provides a convenient walking route to various destinations along Sydney Road, access to train stations, and a recreational link to Royal Park in the south. For cyclists, the path offers access to local destinations and central Melbourne via Royal Parade or the Capital City Trail. Infill residential development and recent and planned upgrades to the path are anticipated to boost its usage over time.
- Victoria Street is also classified as an SCC, though the current bicycle infrastructure (on-road bicycle lanes) is not the preferred treatment for an SCC where traffic speeds and volumes are at the levels experienced by Victoria Street.

Figure 34 Transport Networks and Access Analysis Plan



**LEGEND**

Level Crossing Removal Site	Commercial	Strategic Cycling Corridor Existing	Bus Stops
Rail Station	Industrial	Principal Bicycle Network Existing	Bus Routes
Rail Tracks	Reserves and Open Space	Proposed	Tram Stops
VicTrack Boundary	Community Facilities		Tram Routes
Major Road			
Waterbodies			
Local Government Area			



## MOVEMENT AND PLACE

Movement and Place (M&P) is a concept that seeks to balance the dual roles of transport networks: facilitating movement and serving as destinations. It emphasises moving people and goods over vehicles, fostering discussions on future transport challenges, and aligning with the Department of Transport and Planning's (DTP) legislative requirements. Benefits of M&P include:

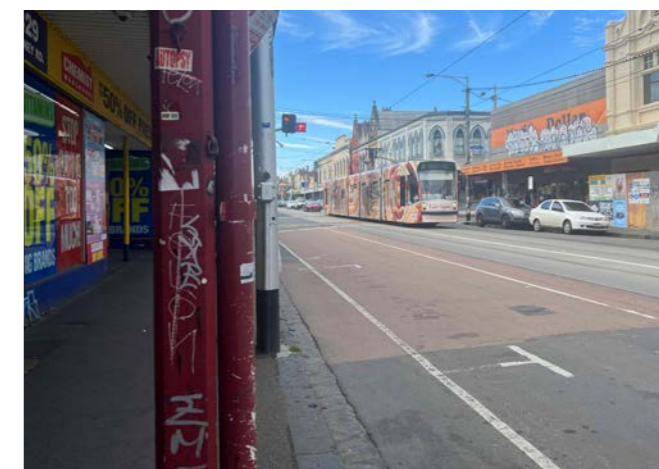
- Holistic planning: Integrates transport and land use planning for cohesive decision-making.
- People-centric: Prioritises people and goods over vehicles.
- Common language: Facilitates meaningful stakeholder discussions.
- Future vision: Guides transport projects towards a unified vision.

The M&P Framework maps the network's aspirational vision and evaluates performance in movement, place, environment, and safety, assisting to create uniformity in transport decisions. It seeks to balance movement demands with place significance, safety, and environmental considerations, aiming to achieve the future vision for transport networks.

Figure 35 shows the M&P modal classification assessment completed by DTP for the road network in vicinity of the Project.

**Figure 35** Movement & Place modal classifications

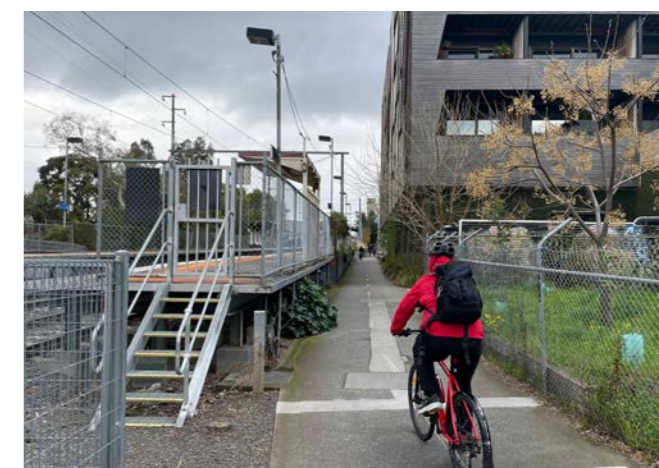
Classification	Definition
Place PA3	Significant place of activity, municipal level
Place PA4	Significant place of activity, neighbourhood level
Place PA5	Significant place of activity, local level
Walking W2	Regionally significant walking links in close proximity to key activity generators with existing and/or potential demand
Walking W3	Municipal walking links that support pedestrian movements to and around activity generators such as activity centres, schools and transport interchanges
Cycling C1	Primary routes provide a core network of Strategic Cycling Corridors that connect places of state significance
Cycling C2	Main routes are Strategic Cycling Corridors that provide additional connections to state significant destinations, as well as connections to major activity centres and key railway stations within metropolitan Melbourne
Cycling C3	Municipal routes support mostly local, short trips to activity centres, including important links to stations and other interchanges. They also feed to C1 and C2 routes (SCCs)
Cycling C4	Neighbourhood and local links that make up the balance of the cyclable road network and provide short connections to C1-C3 routes and nearby activity centres.
Cycling CD	Direct cycling routes provide a more direct alternative route to C1-C2 routes. These routes are expected to be used by cyclists who are comfortable riding in higher traffic stress environments
Cycling CH	High traffic stress routes make up the balance of the legally cyclable arterial road network (GT1-3)
Tram T2 and Bus B2	Movement of people by higher frequency bus and tram to access higher order places
Tram T3 and Bus B3	Movement of people by moderate frequency bus and tram
Bus B4	Movement of people by lower frequency local bus
Bus B5	Movement of people by low/irregular frequency bus
General Traffic GT2	Significant movement of people by private vehicle on routes connecting multiple municipalities or providing primary access to Regional level places
General Traffic GT3	Moderate movement of people by private vehicle on routes connecting municipalities or providing primary access to Municipal level places
General Traffic GT4	Movement of people by private vehicle within a municipality or providing primary access to Neighbourhood level places
General Traffic GT5	Local people movement by private vehicle
Freight F3	Freight access routes where provision for freight vehicles is important however freight is not a priority movement



**Image 79** Sydney Road and tram route 19



**Image 80** Albert Street level crossing



**Image 81** Shared path at Anstey Station



Image 82 Albion Street between Sydney Road and Anstey Station looking north-west



Image 83 Brunswick Road and Sydney Road



Image 84 Shared path within the forecourt at Jewell Station

Figure 36 Movement and Place Map



## ENVIRONMENTAL ATTRIBUTES

### GEOMORPHOLOGY

The Brunswick level crossing removal sites are located on predominately newer Volcanic Group - Basalt Flows of Pleistocene age. Geomorphology in the general area is largely determined by the character of the lava flows and subsequent incision of the Merri Creek into the lava surface. These have been subject to extensive weathering, and many significant geological features in the area, described in early geological texts, have since been destroyed by a long history of residential and industrial development.

### TOPOGRAPHY

The topography is generally flat within the local area and along the rail corridor, which sits approximately 60 metres above sea level. From the north of the site, the area gradually slopes down to the east and south towards the Merri Creek and Port Philip Bay. Parts of the alignment, adjacent to Victoria Street, also gently slope towards Moonee Ponds Creek where existing stormwater drainage runs.

### LOCAL CLIMATE

Merri-bek LGA suffers from urban heat island effect. Mapping undertaken by the Department of Transport and Planning (DTP) provides a Heat Vulnerability Index (HVI) map for Metropolitan Melbourne. The HVI provides heat vulnerability by postcode on a range of 1 to 5, with pink areas (1) having low vulnerability and dark red areas (5) having high vulnerability. This shows which suburbs are most vulnerable to heat-wave conditions based on risk factors that include lack of tree cover and housing types.

The Upfield Corridor level crossing removal site is in an area with an HVI of 5. The suburb of Brunswick has a HVI of 2-3 with less than 10% tree coverage across the site. Industrial areas of impervious surfaces, limited shade/canopy vegetation and limited open space reserves have contributed significantly to the high heat vulnerability of the area. Urban trees are an effective and cost-efficient solution for mitigating urban heat in built environments, providing shade and thermal comfort for pedestrians.

### NATURAL ENVIRONMENT

In the 1830s, the Wurundjeri Country in this area consisted of grassland dotted with trees and bounded by tree-lined watercourses carved through the basalt plains.

The Brunswick area has notable environmental benefits as a result of the proximity to the Merri and Moonee Ponds Creeks. These creeks are recognised as regional habitat corridors and as part of the regional open space network. Due to the limited nature of open space in the corridor and adjacent areas, the proximity to both creeks gives them more value than other areas of the Merri-bek LGA.

### HABITAT CONNECTIVITY

Although there are limited green spaces along the corridor, Royal Park and Brunswick Central Parklands play a significant role in the larger open space connections across Brunswick. Royal Park sits on the periphery of the Upfield Corridor and is of state significance due to its historical significance along with the extensive remnant vegetation retained on site. The retention and replanting of indigenous vegetation is a key feature of Royal Park as well as the preservation and development of the natural landscape and wildlife habitat in proximity to the city centre.

### LANDSCAPE CHARACTER

Jewell, Brunswick and Anstey station precincts occur within a highly modified urban landscape, where ecological values within the corridor have been significantly impacted by modified land uses. Despite the continued land use, patches of indigenous vegetation and scattered trees continue to exist in the area. There are no listed vulnerable or endangered flora species, while there is one threatened fauna specie. The Grey-headed Flying Fox, *Pteropus poliocephalus*, may be intermittently present around Brunswick as the main population in Melbourne and Yarra Bend Park forages across the greater Melbourne area.

Between Jewell and Anstey stations, the rail corridor is narrow and interfaces with residential housing and industrial sites. Street trees are primarily small to medium size species, including established and newly planted. Planting in the private property is diverse and generally in good condition. However, industrial sites with warehouse-type buildings are dominant along the corridor. In these areas, street trees and nature strips are non-existent, and only limited low planting can be seen within the boundary of some commercial sites.

Sections of the rail corridor have been planted by the community members, opportunistically planting screening trees and shrubs to provide shade, habitat and amenity within the corridor. These plantings are in close proximity to the native species.



Image 85 Jewell Station precinct



Image 86 Royal Park, Parkville

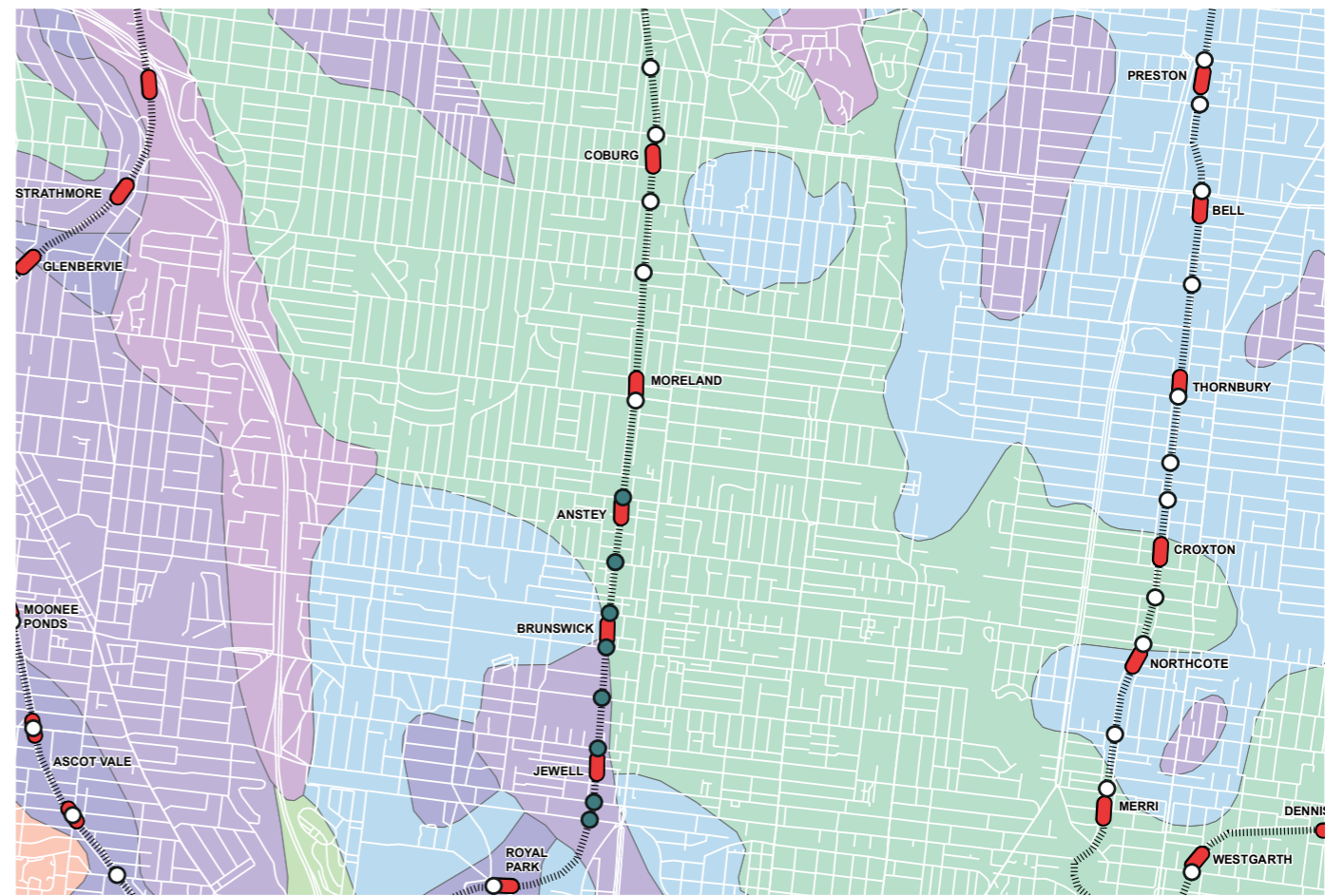
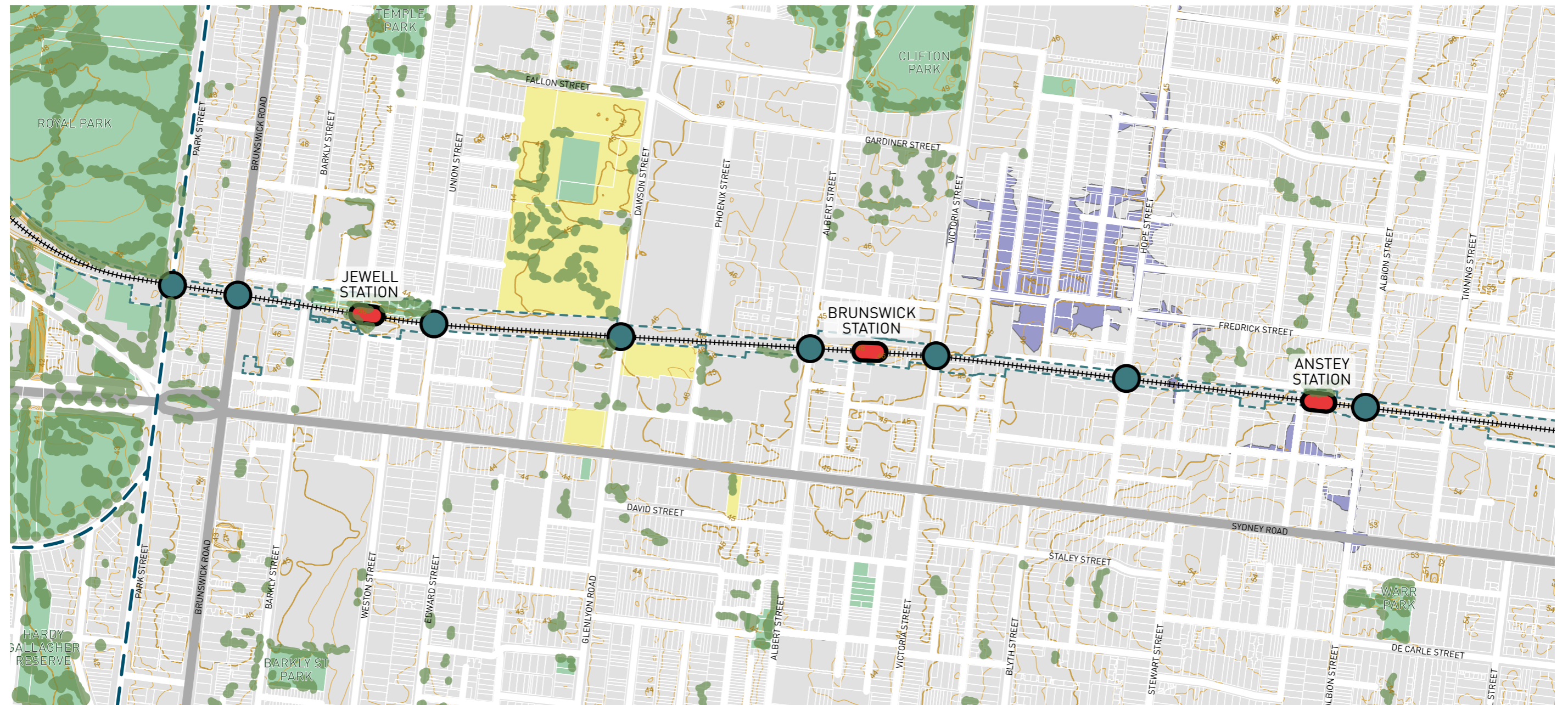


Figure 37 Geomorphological map of area

0 250 500 750 1,000

Figure 38 Analysis of Environmental Attributes



**LEGEND**

- Level Crossing Removal Site
- Rail Station
- Rail Tracks
- VicTrack Boundary
- Major Road
- Waterbodies
- Local Government Area
- Special Building Overlay
- Reserves and Open Space
- Community Facilities
- 1m Contour Line
- 5m Contour Line
- Tree Canopy



## LANDSCAPE AND VISUAL VALUES

This section describes the landscape character and visual values within the study area, including a general description and detailed descriptions of the key character areas, including residential, commercial, industrial, community and educational facilities, reserves and open spaces and transport corridors.

### GENERAL

The Upfield rail line runs north-south at-grade through the suburb of Brunswick, interfacing a number of adjacent land uses, building types with varying densities and architecture. The topography within the corridor and surrounding area is flat between Tinning Street in the north and Park Street in the south. South of Park Street, the rail corridor slopes downward into a rail cutting as it passes McAlister Oval and Royal Park Tennis Club.

The built form surrounding the Upfield corridor is a mix of both fine grain, and medium grain buildings with a diverse mix of residential, commercial and industrial land uses.

Key landscape features within the study area include historical elements associated with rail infrastructure, pockets of established trees along the corridor, parks and open space, the Upfield Shared Path and varying single and multi-storey residential properties, including smaller detached residential dwellings and large multi-storey apartment buildings.

### LANDSCAPE AND URBAN CHARACTER ASSESSMENT

Landscape character units (LCUs) 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, historical elements and other characteristic features. The following landscape character units have been identified within the study area.

### HERITAGE LCU

A Heritage Overlay (HO180), in Schedule to the Heritage Overlay of the Moreland Planning Scheme, applies to the Upfield Railway Line Precinct and includes the rail stations at Jewell, Brunswick, Anstey and Moreland. HO180 also includes associated rail infrastructure within the rail corridor and includes registered buildings, structures, gates and signals within the study area.

Additionally, some structures and elements are also included in the VHR. Items within the investigation that have historical and visual value include:

- Park Street gatekeeper's cabin (refer to LV Image 1);
- Barkly Street gatekeeper's cabin;

- Brunswick Station on the up direction;
- Union Street signal box;
- Victoria Street signal box; and
- Jewell Station building on the up direction (refer to LV Image 2).

These items are scattered throughout the rail corridor and are visual references to the area's past rail history and are strong contributors to the area's overall character and sense of place. As a result, this LCU has a high landscape and visual value.

### RESIDENTIAL LCU

The residential LCU within the study area consists of a broad range of housing typologies, including detached housing, small workers' cottages, rear dwellings behind commercial buildings and recently, an increased number of townhouses and medium-density apartments. Detached dwellings and multi-storey apartments are the most common housing type.

Residential properties west of the corridor are predominantly fine grain and detached and are most commonly located to the southwest of Jewell Station and northwest of Anstey Station. Properties are commonly Edwardian brick and weatherboard dwellings with north/south facing façades and backyards.

The majority of these residential properties are aligned parallel to the rail corridor, with fewer properties having façade-facing views towards the rail corridor. A small portion of fine-grain, detached houses are located along Orient Grove and have direct façade-facing views towards Anstey Station and the rail corridor (refer to LV Image 3). This interface is considered a sensitive residential interface.

Along Colebrook Street is a large two storey residentially converted grain storage facility, originally built in 1888. Today the property is characterised by structural blue-stone walls and an arched doorway which is visually prominent from the surrounding streetscape (refer to LV Image 4). The residential property has a number of views towards the rail corridor and the Upfield Shared Path.

The Nightingale development Wurru wurru biik is comprised of four residential communities - Wurru-wurru, Laak, Yambook, and Ngawan - located adjacent to Albion and Tinning Streets on the east side of the station and rail corridor. Yambook and Ngawan face north to Tinning Street, and Laak and Wurru wurru are located to the north of Albion Street.

Directly South of Albion Street is the Nightingale development called Anstey, comprised of two communities - Anstey and



LV Image 1 Park Street signal box (VHR).



LV Image 2 Jewell Station, eastern side (VHR).



LV Image 3 Residential properties (left) along Orient Grove with views to the rail corridor (right).



LV Image 4 Former grain storage facility on Colebrook Street, now residential apartments.



LV Image 5 Nightingale Village apartment buildings facing Duckett Street, looking west to the rail corridor.



LV Image 6 Looking east toward Brunswick Yard and 4 Ballarat Street developments, east of the rail corridor.

Laneway. These properties are directly behind the station building, and orientated to directly access the city-bound platform.

Further south, centred around Breese, Florence, West and Duckett Streets, are multiple residential apartment communities. Nightingale Village, on Duckett Street, is comprised of Nightingale Evergreen, Leftfield, CRT + YRD, Parklife, Urban Coup and Skye House (refer to LV Image 5). Nightingale 1 and the Commons are located on Florence Street, adjacent to several other residential apartment blocks. Along with Nightingale Village, the majority of these apartments are sensitive sites, but are deliberately orientated in a north-south direction for views, with secondary views to the rail corridor and generally with non-habitable windows facing west.

There are other residential apartments on Breese Street and Hope Street, such as 12-14 Hope Street, which are set back from the rail corridor and orientated to the streetscape, and will have mid-range views to the elevated rail corridor.

South of Hope Street has several new apartment developments, including Brunswick Yard and 4 Ballarat Street (refer to LV Image 6), which are set back from the rail corridor and orientated to the streetscape on Ballarat Street and Ovens Street. These new developments are deliberately oriented either north-south or to the streetscapes, and have blank party walls to the west. A new Nightingale project currently under development is proposed for the property at 17-19 Hope Street.

On the west side of the rail corridor are several multi-storey residential developments that front onto Lux Way. Between Lux Way and the rail corridor is a four-storey residential apartment building. A one storey brick and precast concrete wall screens the abutting rail corridor for the ground level properties, however the upper storey properties have views across the rail corridor to the east.

Between Victoria Street and Albert Street is the main retail centre of the Brunswick Activity Centre, which is currently a mix of fine and medium grained retail, with existing single and double storey free-standing residential properties located along Wilkinson Street and Rosser Street. A proposed development at the former Australian Liquorice Company site at 342-348 Victoria Street includes approximately 250 new apartments and mixed use zoning. To the south, at 284-294 Albert Street, are multiple mixed-used residential apartment developments which have views in all directions but are set back from the rail corridor by a supermarket carpark. There are also some finer grained residential townhouses and apartments located on Saxon Street.

Dawson Street has a civic function with the Brunswick Town Hall, Brunswick Library, and Brunswick Baths all fronting it. The lot at 8-14 Michael Street is the seven storey Archer development, an apartment building orientated north-south for the views. Through Michael Street, Saxon Street, Manallack Street, and Railway Place, adjacent to Union Street and the rail corridor, is a mix of one and two storey townhouses, with those on Railway Place facing the rail corridor and being sensitive to development (refer to LV Image 7).

Opposite Railway Place is 34 Union Street, a four storey residential apartment building, facing the rail corridor and overlooking the proposed Brunswick South station site.

From Union Street through to Brunswick Road, on the east side of the rail corridor, are multiple recently constructed residential apartment blocks. Flux (15 Union Street) is an eight storey development, facing north-south onto Union Street. 17 Union Street, located immediately adjacent to the rail corridor behind Jewell Station, is an eight storey apartment and mixed use development with views north-south and to the west across the rail corridor (refer to LV Image 8). Located slightly further south are other apartment developments with similar orientation and height at 27 Wilson Avenue, 325 Barkly Street and 15 Wilson Avenue, all constructed to maximise north-south and westerly views where possible, over the existing rail corridor and station precinct.

These areas have a sensitivity to visual changes due to the proximity of residential properties to the rail corridor, particularly where highly visible infrastructure (such as elevated roads and rail lines) would be visible from well frequented spaces such as living rooms and outdoor areas.

This LCU is considered sensitive and to have high landscape visual value as it contributes to the area's residential character.

### COMMERCIAL LCU

The majority of the commercial areas are located to the east of the rail corridor, where the land use tends to mix with the large scale residential developments.

The businesses within the commercial precinct tend to follow Sydney Road which runs parallel to the rail corridor and includes banks, grocers, health services, restaurants, cafés, offices, homewares, clothing and large format stores such as Woolworths. Smaller, finer grain commercial properties line east west streets that form the level crossing sites, such as Hope Street, Victoria Street (refer to LV Image 9), Albert Street, Dawson Street and Union Street. These commercial properties are a mix between single and two-storey fine grain



**LV Image 7** Existing two storey residences on Railway Place facing west to the Upfield Shared Path and rail corridor.



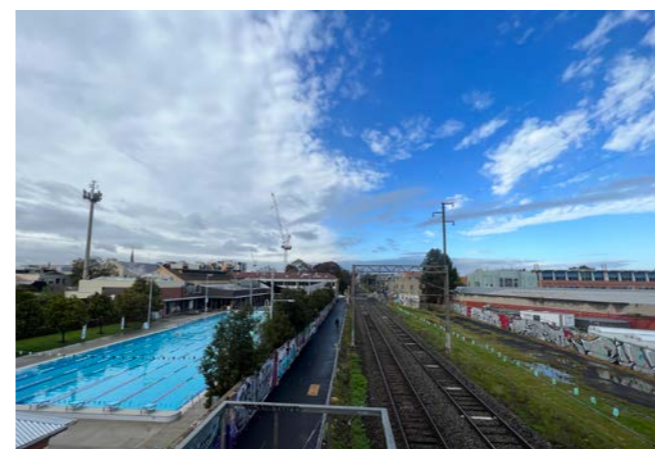
**LV Image 8** Multi-storey residential development at 17 Union Street with views and balconies that interface with the corridor.



**LV Image 9** Commercial properties along Victoria Street.



**LV Image 10** View looking south from shared path to RMIT buildings (right).



**LV Image 11** View atop pedestrian bridge looking south with Brunswick Baths (left), shared path (middle) and rail corridor to the west (right).



**LV Image 12** Hope Aged Care interface with the rail corridor.

exposed brick buildings, and larger-grain converted industrial warehouses with sawtooth roofs. Commercial properties along these perpendicular streets are a mix of newer, early 2000 rendered brick buildings and older exposed brick building associated with post-World War II developments. Commercial façades typically have awnings and shopfronts that address their respective adjacent streets.

Mid-block commercial properties also interface the rail corridor and tend to be internally facing with back-of-house functions addressing the rail and the Upfield Shared Path (refer to LV Image 7). Due to the internal facing arrangement of the commercial properties, the back-of-house interface, as well as large extends of brick, pre-cast concrete and boundary walls and are heavily graffitied and postered.

There are some buildings that have a historical appearance along the Upfield rail corridor. However, there is generally no distinctive architectural style that is common to the entire commercial precinct. Many commercial properties are in various states of disrepair and heavily graffitied.

Although the commercial properties within the investigation contribute to the area's character and sense of place, due to the disrepair, graffiti and interfacing back of house, the commercial LCU has been given a low landscape quality rating, with few sensitive interfaces.

#### INDUSTRIAL LCU

Industrial areas are located both east and west of the Upfield rail corridor and vary in both building type and size.

Many larger grain two storey industrial sheds can be found on the western side of the rail corridor. These industrial properties typically have gabled roofs and are clad with worker/customer parking adjacent to road facing façades.

Industrial properties between Ballarat Street and Hope Street are large properties with open storage yards and car parking that interfaces the Upfield Shared Path and rail corridor. A chainlink fence runs along the entirety of the interface allowing views into the industrial properties.

Other industrial buildings include post-World War II exposed brick buildings, ranging between one and two storeys in height. The industrial buildings generally have saw-tooth roofs with externally facing walls that are heavily graffitied. These industrial properties typically have larger material storage yards and/or car parking which are dominated by hardstand and concrete.

This LCU has a low landscape visual value due to the various inactive interfaces that are heavily graffitied.

#### COMMUNITY AND EDUCATIONAL FACILITIES LCU

There are only a few community and educational facilities located throughout the investigation area. These include the RMIT University Brunswick Campus, Brunswick Baths and Hope Aged Care.

RMIT University is located on the western side of the rail corridor and is characterised by multi-storey modern buildings with occasional views over the rail corridor, as well as the renovated James Miller and Co historical building that has limited viewlines towards to the east. Buildings interface a campus car park that directly abuts the rail corridor (refer to LV Image 10).

Brunswick Baths are located on Dawson Street on the eastern side of the rail corridor. The baths directly abut both the Upfield Shared Path and the rail corridor. The baths are characterised by a two-storey building with windows towards Dawson Street and a large open air swimming pool that runs parallel to the rail corridor. This interface is considered sensitive (refer to LV Image 11).

Hope Aged Care is a multi-storey aged care facility with views and balconies overlooking the eastern side of the corridor. This interface is considered sensitive (refer to LV Image 12).

This LCU is considered to have low landscape visual value, however is considered a sensitive interface.

#### PARKS AND RESERVES LCU

This LCU is located where the rail corridor interfaces McAlister Oval, Ryder Oval and the Royal Park Tennis Club south of Park Street, Jewell Park adjacent to Anstey Station and Bulleke-bek Park Playground located along West Street.

McAlister Oval and Ryder Oval are located on the western side of the rail corridor in Royal Park and are both screened by large mature trees and lower-lying shrubs. The oval is used by the community for passive recreational activities as well as local sporting events on weekends.

Directly east of McAlister and Ryder Oval, located on the western side of the corridor, is the Royal Park Tennis Club. The tennis club can be characterised by a small clubhouse and five tennis courts. Sightlines towards the corridor and the Upfield Shared Path are predominantly open from the sporting facility, with only a small number of mature eucalyptus species with high canopies providing screening.

Jewell Park is located on the western side of the rail corridor, adjacent to Jewell station. The park is a small linear park with a passive-recreational grassed area with pockets of tree and shrub planting. The park interfaces with neighbouring

residents along Watson Street as well as Jewell Station and the rail corridor. The park provides an important leafy-green outlook for residents, including residents of the multi-storey property on the western side of the corridor.

Bulleke-bek Park is located on the eastern side of the corridor just south of Anstey station. The park was recently built as part of Merri-bek City Council's A Park Close to Home program and is characterised by a grassed area for passive recreation, a shelter, barbeque facilities, play equipment and lower-storey planting (refer to LV Image 13).

This LCU is typically used for the enjoyment of outdoor activities with a focus on the visual qualities of the natural landscape setting. It is, for this reason, that the LCU is of high visual value with sensitive interfaces.

#### TRANSPORT CORRIDORS LCU

This LCU consists of the rail corridor and the Upfield Shared Path, which both run parallel to one another.

The Upfield rail corridor contains various overhead rail gantries and rail infrastructure equipment along its length (refer to LV Image 14).

The Upfield Shared Path is situated east of the rail line and is a shared-use path for cyclists and pedestrians. The path is typically constrained on either side by the rail corridor and back-of-house commercial properties. Views along the path are confined, with limited long-range views due to the adjacent residential back-of-house fences, commercial back-of-house walls and fences, and rail gantries and associated infrastructure. Structures such as fences and walls along the corridor are typically heavily graffitied and covered in dirt and grime (refer to image 15).

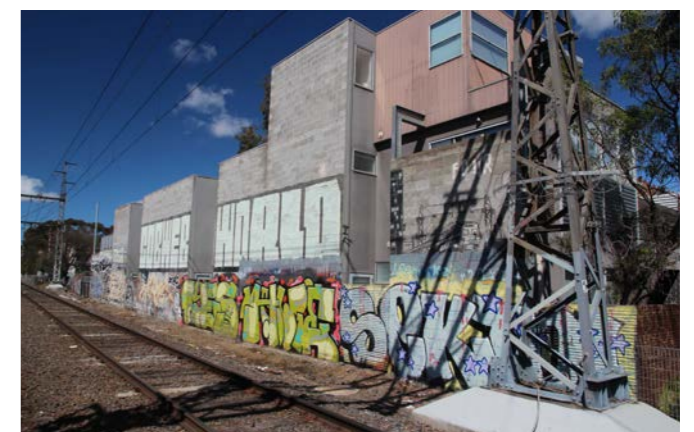
The Transport Corridors LCU has low landscape and visual value due to the presence of highly visible overhead infrastructure and lack of vegetated or naturalistic environments along both the rail corridor and Upfield Shared Path.



LV Image 13 Bulleke-bek Park Playground that interfaces the rail corridor.



LV Image 14 View from the shared path and Tinning Street at-grade crossing towards gantries and rail corridor fencing.



LV Image 15 Typical back-of-house interface along the rail corridor and the shared path.

## EXPECTED LEVEL OF CHANGE

There is an increasing pressure for this area to accommodate a substantial number of dwellings in response to metropolitan-wide population growth. As a result, the area is currently seeing an increase in multi-storey residential developments both along the corridor and throughout the surround area.

Any elevated road and rail infrastructure may negatively impact multi-storey developments. However, higher density-multi-storey developments also have the capacity to visually accommodate elevated road and rail structures as the solution would be seen against the context of a more highly built-up environment as opposed to smaller low-rise developments.

## COMMUNITY VALUE

The key aspects of community value would include the parks and open space, large mature trees, heritage rail buildings, as well as the Upfield Shared Path, which is an important active transport asset.

## VIEWER SENSITIVITY

Consideration should be given to how the development is viewed with respect to the following user group hierarchy:

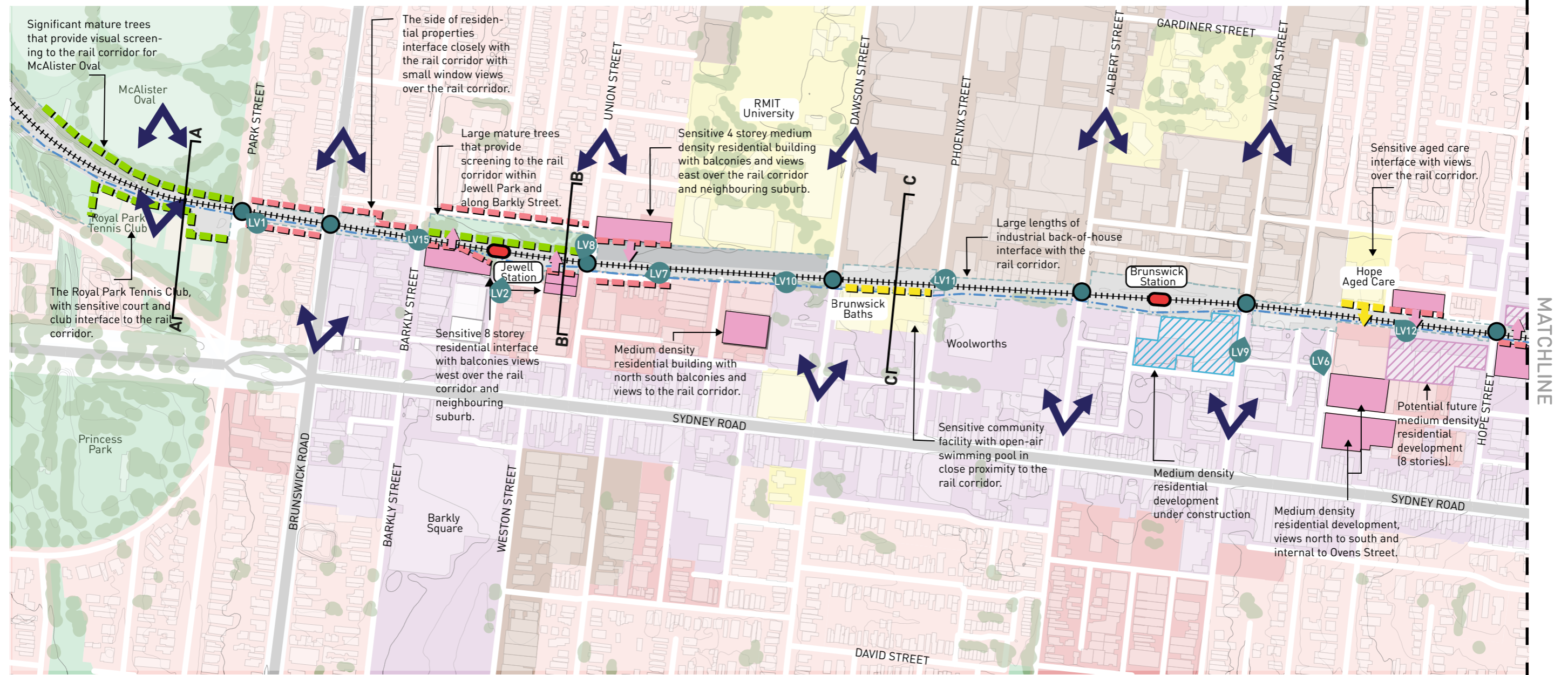
- Residents – from adjacent single and multi-storey developments.
- Retail/commercial users
- Commuters, including:
  - Active transport (pedestrian, cycling)
  - Sustainable transport (train, bus and coach)
  - Private transport (accessible car parking, staff and maintenance car parking, park and ride car parking).

These considerations would have an impact on the acceptability of the proposed development depending on the type of user group and how they would interact with the proposed development. View locations and types have been broadly identified on the accompanying plan.

## SIGNIFICANT VIEWS

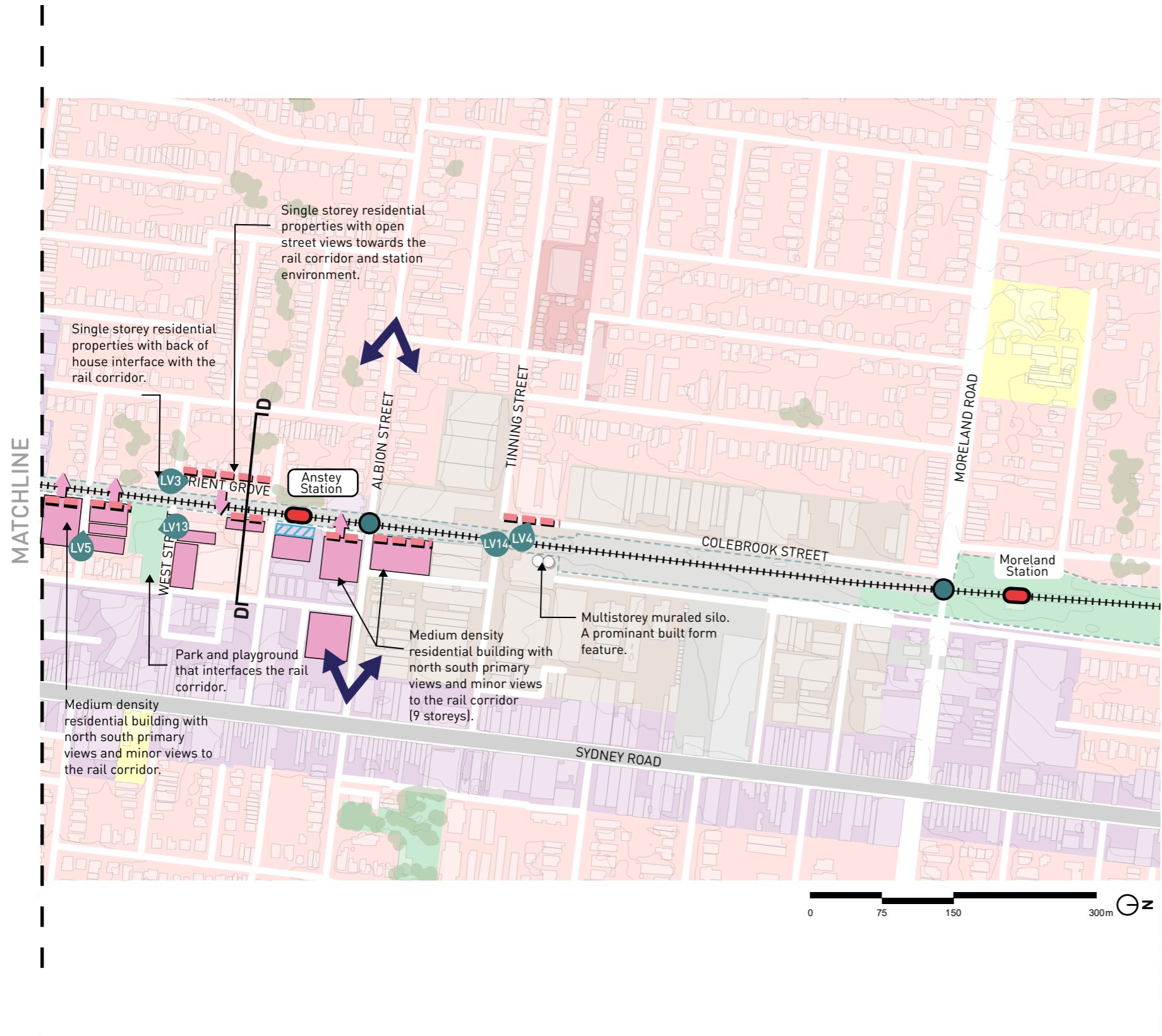
Significant views within the study area include views from streets running east-west to the rail corridor, such as Victoria Street, Dawson Street, Brunswick Road and Park Street, which currently provide long-range cross-suburb views to distant residential and commercial areas.

Figure 39 Landscape and Visual Values - Analysis Plan

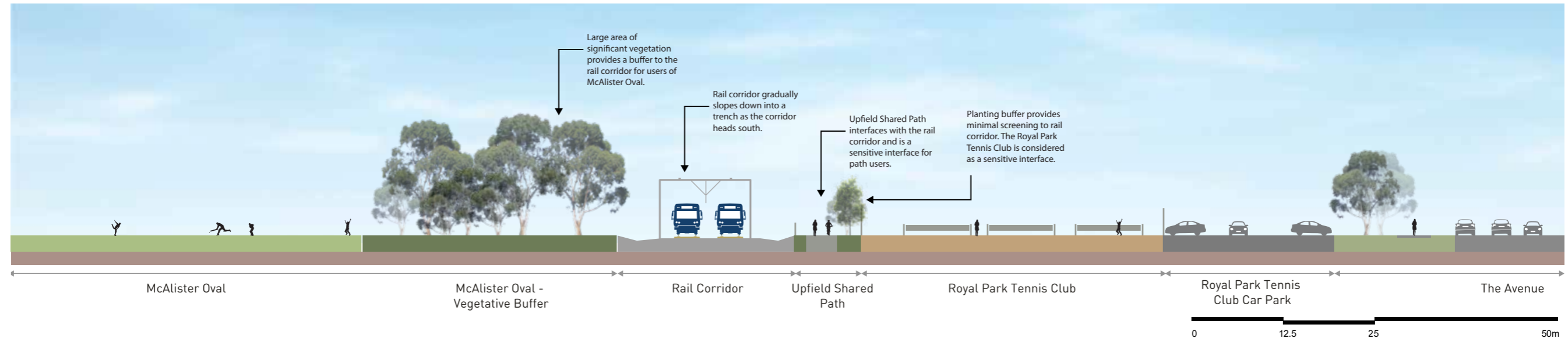


Legend

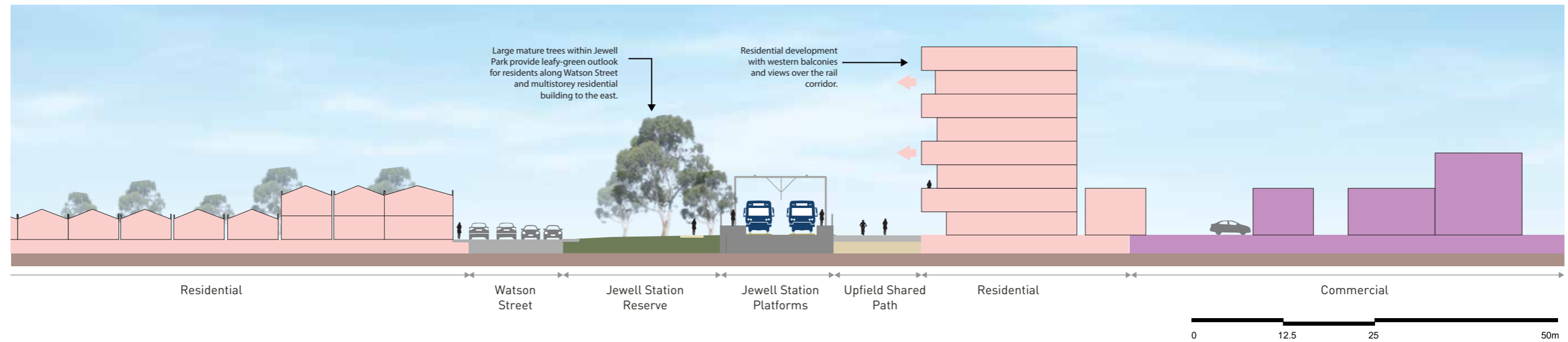
- |                 |  |   |  |                      |                                    |           |
|-----------------|--|---|--|----------------------|------------------------------------|-----------|
| Train Station   | Existing Trees                           | Existing Multistorey Residential Building           | <b>Sensitive Interfaces</b>                  | Residential          | Community and Educational Facility | Mixed Use |
| Level Crossing  | Key Views                                | Potential Future Multistorey Residential Building   | Residential Interface                        | Parks and Open Space | Car Parking                        |           |
| Train Corridor  | Views from Adjacent Sensitive Interfaces | Multistorey Residential Building Under Construction | Parkland Interface                           | Commercial           | Industrial                         |           |
| Major Road      | Upfield Shared Path                      |   | Community and Educational Facility Interface |                      |                                    |           |
| 1m Contour Line |  |   |  |                      |                                    |           |
| 5m Contour Line |  |   |  |                      |                                    |           |



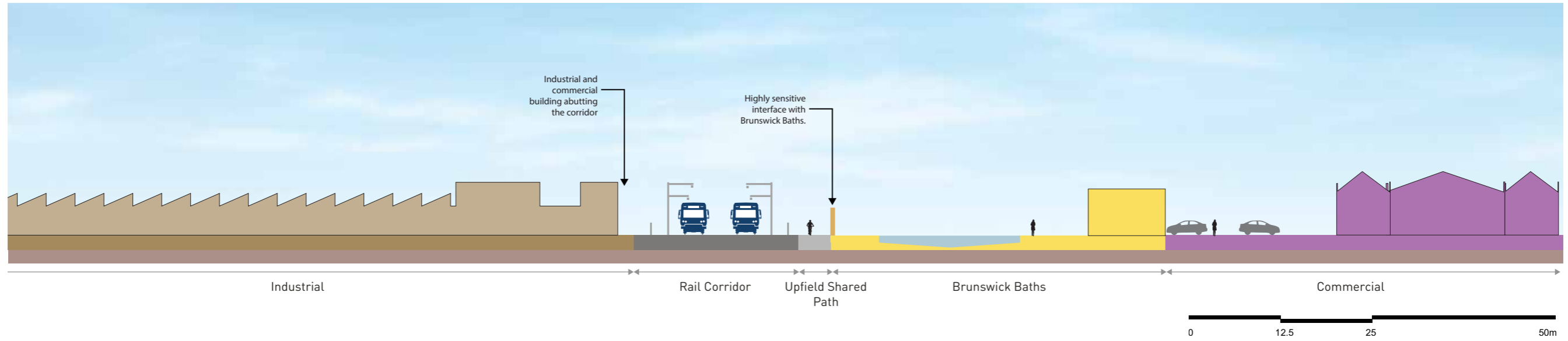
**Figure 40** Section A - Section through McAlister Oval, Rail Corridor, Upfield Shared Path, Royal Park Tennis Club and The Avenue.



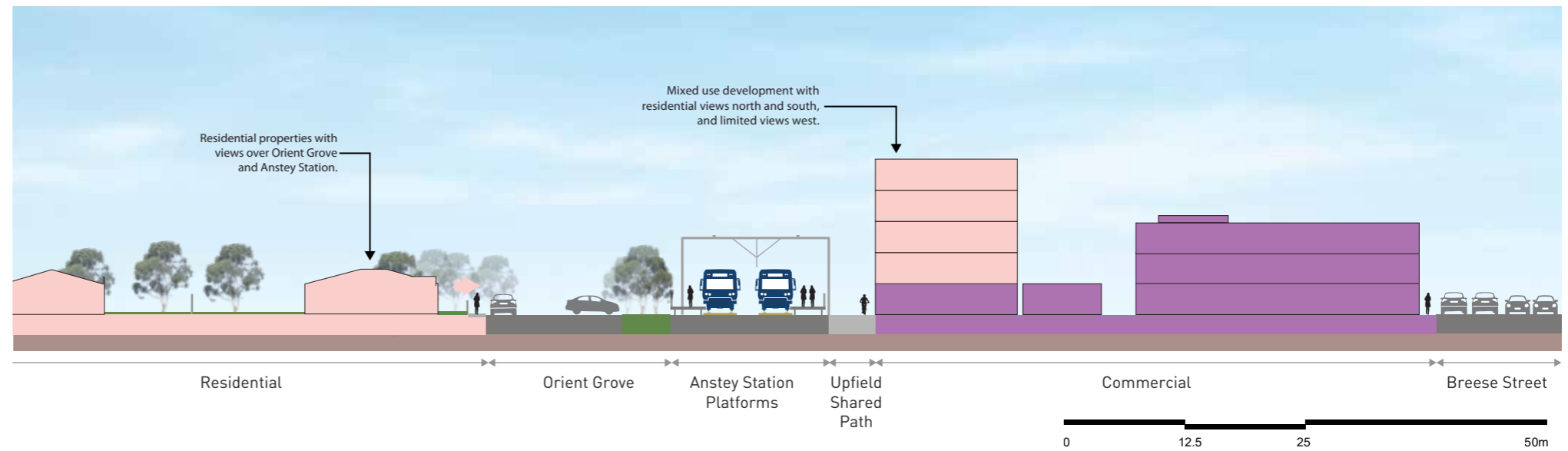
**Figure 41** Section B - Section through residential properties, Watson Street, Jewell Station Reserve, Jewell Station, Upfield Shared Path, Residential development and Commercial properties.



**Figure 42** Section C - Section through industrial property, the rail corridor, Upfield Shared Path, Brunswick Baths and commercial properties.

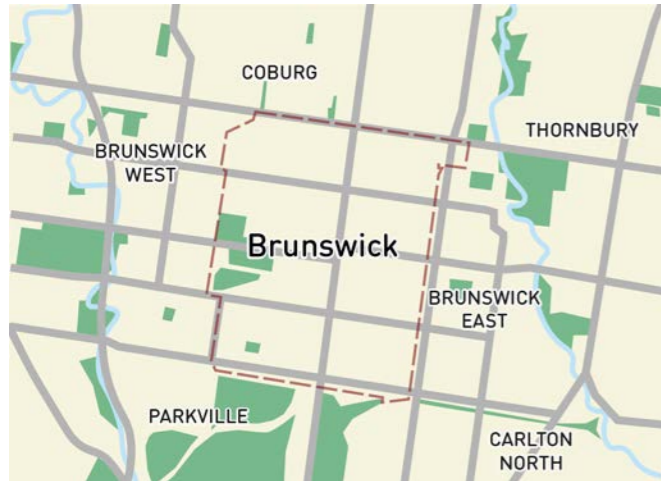


**Figure 43** Section D - Section through residential properties, Orient Grove, Anstey Station, Upfield Shared Path, residential and commercial properties.



## B.7 DEMOGRAPHICS AND COMMUNITY PROFILE

Figure 44 Key map



The following info graphics represent a summary of the demographic characteristics of the Brunswick (SAL20361) suburb, which sits south of Moreland Road and north of Park Street. The data has been derived from the 2001, 2011 and 2021 Australian Bureau of Statistics Quick Stats. The local population and demographic profile should be duly considered when developing the design solution.

### POPULATION PROFILE

At the time of the 2021 Census, Brunswick had a population of 24,896 people. The area's population has consistently grown from 2001 to 2021 and is expected to continue to grow according to the Brunswick Strategic Plan.

In 2021, the population of Brunswick had a relatively even split between female (51.6%) and male (48.4%) residents. The median age was 34, which was lower than the Greater Melbourne median age of 37. In further comparison with Greater Melbourne, Brunswick has significantly smaller percentages of individuals aged between 0-14, 45-64 and 65 and over and a similar rate between the 15-24 group. Most notably, the percentage of individuals aged 25-44 is significantly larger in Brunswick (46.9%) than in both the LGA (38.3%) and Greater Melbourne (30.9%).

The suburb has social and demographic characteristics that generally align with inner Melbourne suburbs. The population is characterized by a significantly younger age structure than both the LGA and Melbourne as a whole.

In Brunswick English ancestry is predominant at 31.1%, followed by Australian at 25.2%. As for languages spoken at home, other than English, a diverse variety of languages is present, including Greek (4.5%), Italian (3.9%), Mandarin (1.8%), Arabic (1.8%) and Spanish (1.4%).

Figure 47 Population profile and growth projections

**TOTAL POPULATION: 24,896**  
**MEDIAN AGE: 34**

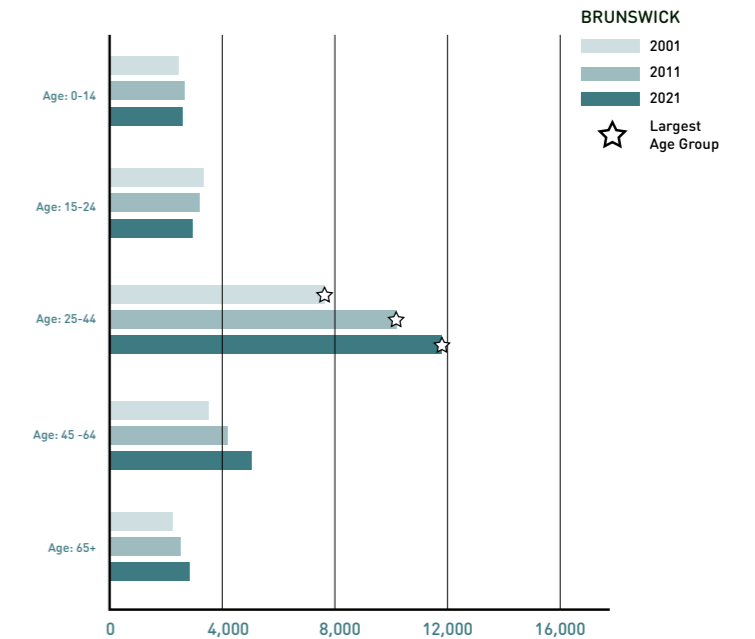
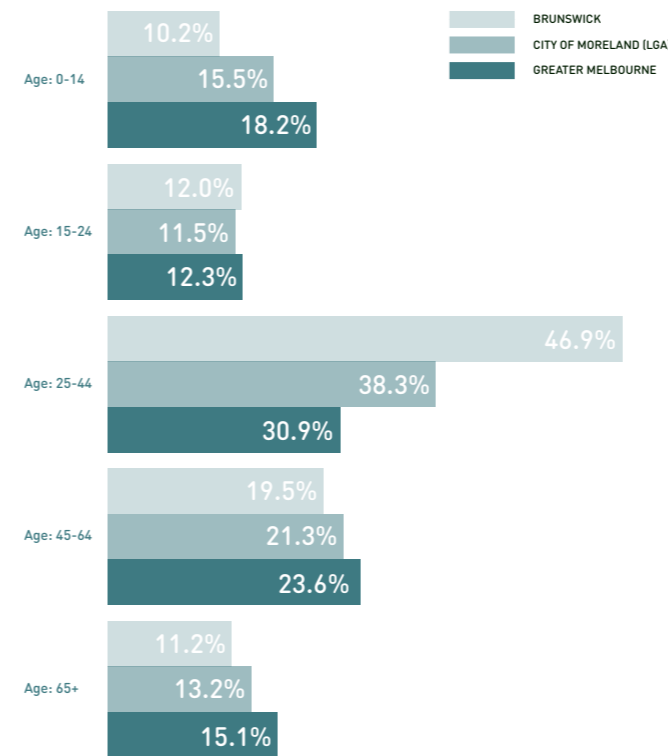
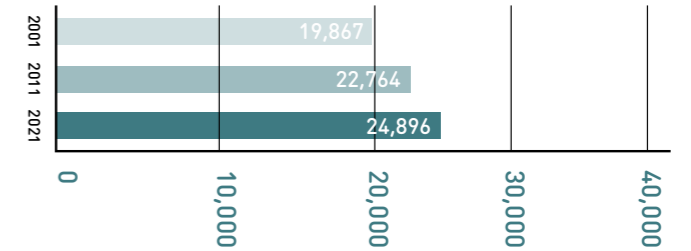
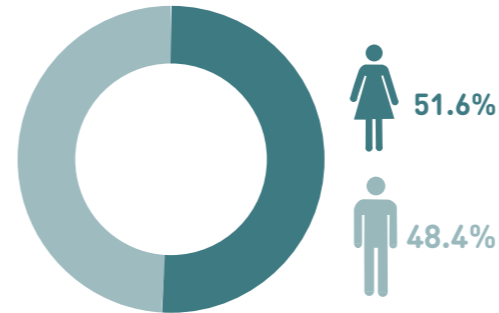


Figure 45 Language spoken at home (other than English)

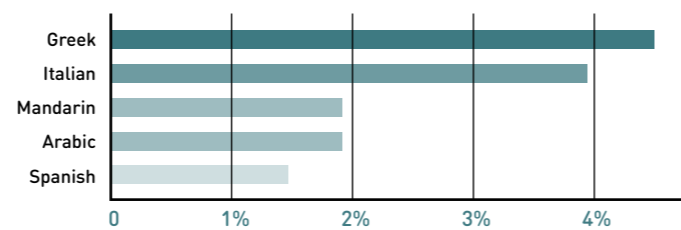
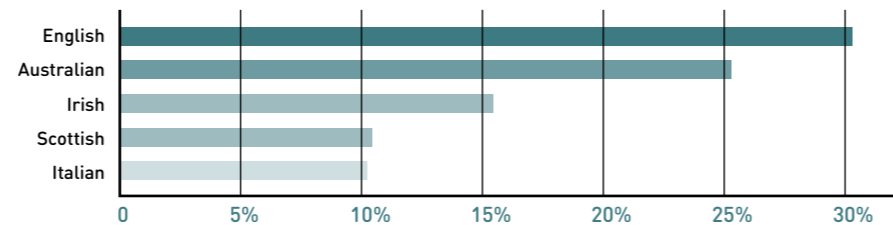


Figure 46 Ancestry



## DWELLING CHARACTERISTICS

Most dwellings in Brunswick are occupied, at a rate of 87.4%, with only 12.6% unoccupied at the time of the 2021 Census. The number of dwellings in the suburb increased from 9,329 in 2001, to 10,169 in 2011 and 13,043 in 2021. This indicates a consistent growth in the number of dwellings being constructed in Brunswick.

Of the occupied private dwellings, 35.3% were separated houses, which is significantly lower than the wider LGA (53.4%) and Greater Melbourne (67.8%) rates. A further 29.3% were semi-detached, terrace or townhouses and 34.1% were flats, units or apartments. The later higher than the wider LGA (18.5%) and double the average rates of Greater Melbourne (15.6%).

In comparison to Greater Melbourne, the LGA has a greater proportion of higher density dwellings in place of separate houses and the suburb of Brunswick has yet an even greater proportion.

Figure 48 Dwelling profile and growth over time

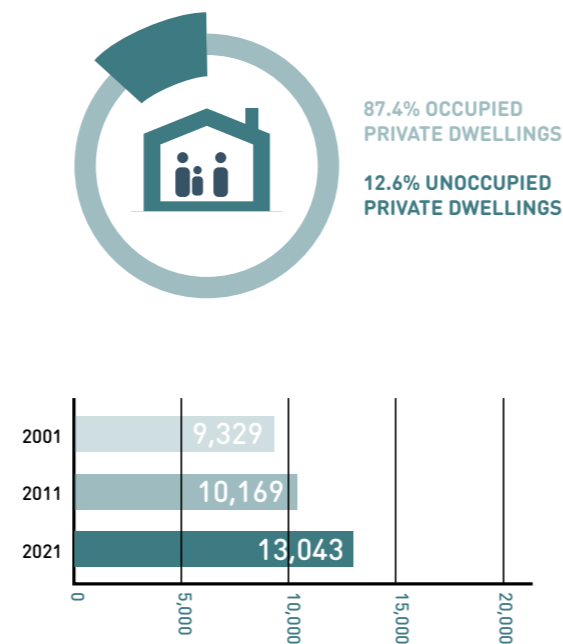
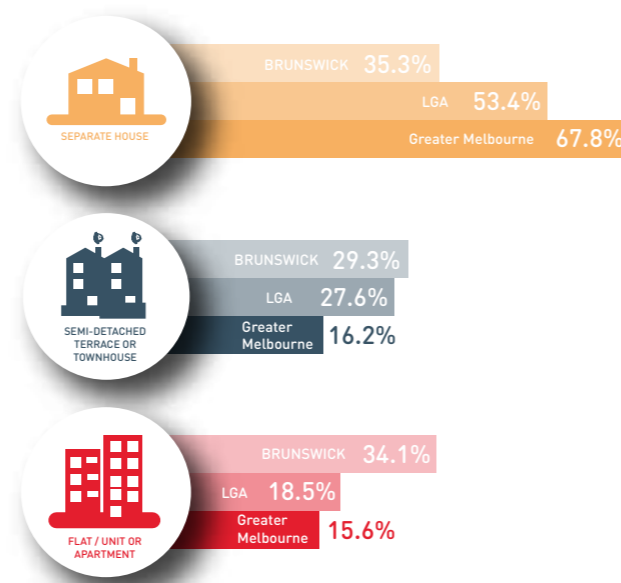


Figure 49 Dwelling profile comparative analysis



## MODE OF TRAVEL

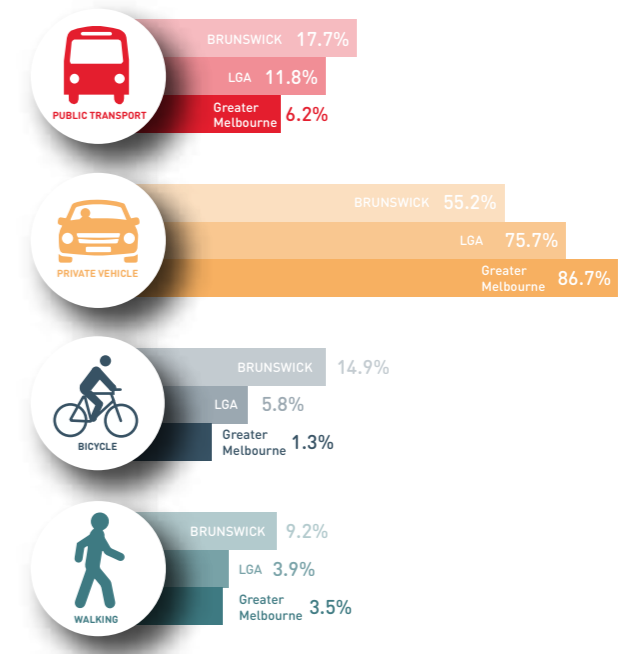
On an average weekday, 55.2% of the population in Brunswick drive to work. This is comparatively lower than the wider LGA and Greater Melbourne, at 75.7% and 86.7% respectively.

Of the population using private vehicles to travel to work, only 2.8% were passengers, which indicates that the majority of vehicles were solo occupied.

Public transport was the mode of travel for 17.7% of the population, which is a higher rate than the wider LGA and almost triple the rate of Greater Melbourne. This indicates that the residents of Brunswick rely significantly on public transport services.

Cycling in Brunswick was significantly higher than across the wider LGA and Greater Melbourne, at 14.9%. Walking also displayed higher rates in comparison, at 9.2%. This demonstrates that integrated and improved public and active transport routes would be beneficial for the local commuters.

Figure 50 Modal share comparative analysis



## EMPLOYMENT

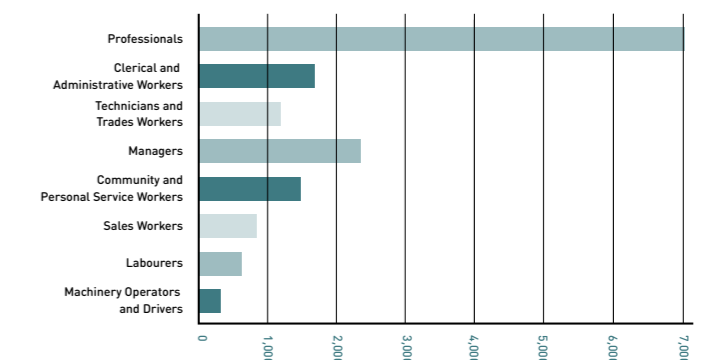
The percentage of the total working population employed in Brunswick, based on the 2021 Census, was at 89.5%. Unemployment was at 4.7%, which is lower than the LGA at 6.9% and Greater Melbourne at 6.8%.

The predominant occupations were professionals, managers, clerical/administrative workers, community/personal service workers and technicians/trades workers.

Figure 51 Employment rate



Figure 52 Industry by occupation profile



## B.8 SAFETY AND AMENITY

### PERCEPTION OF SAFETY

Brunswick is well known for its vibrant diurnal and nocturnal activities, creating generally safe and diverse surroundings. However, the built environment plays an essential role in the perception of safety in public spaces for pedestrians, cyclists and residents experience, particularly for women and gender-diverse people.

XYX Lab a research group who addresses the complex intersections of space, gender and identity through design practice. CrowdSpot is a digital consultancy specialised in map-based community engagement and data collection. In collaboration between the two entities YourGround was created as a social research project that surveys women and gender diverse people to map their perceptions of safety in Victoria's open spaces.

YourGround's findings reveal that places are seldom perceived as wholly safe or unsafe for all people at all times. It reveals the complex experiences of the built environment through which women and gender-diverse people pass. YourGround analysed Brunswick and other inner-outer suburbs to measure equity and access from and to public spaces. The report indicates that improvement to perception of safety would include:

- Improved lighting strategies to allow for extended hours of outdoor activities into dusk and dawn, especially during winter when natural light is scarce. Appropriate maintenance and careful consideration into scheduling of sensors were noted as viable solutions instead of simply an increase of the amount of lighting elements or lighting levels.
- Amenities designed for and with local women and gender-diverse people have the potential of helping people feel welcome and accommodated for, which adds to the improved safety perception. Elements that attract users and therefore passive surveillance are recommended and include public toilets, play equipment, seats and resting places as well as maintenance of vegetation with CPTED principles applied.

Although public transport was not a direct point of observation of the research, 7% of all pins were placed around public transport in Victoria with a safe to unsafe rating of 7 to 93. This constitutes one of the lowest rates of safe pin placement on the Victoria YourGround map. Primarily participants were walking to or from public transport or on the transportation itself. Comments on the pins noted concern for the anti-social behaviour, lack of other people around and entrapment areas.

More than in any location, women and gender-diverse people changed their journey plans and routes and minimised their use at certain times of the day. In addition, public transport carparks were also raised as problematic areas due to lack of PSO presence and poor lighting infrastructure.

The area between the rail corridor and Sydney Road a recorded most of the main issues, particularly around Jewell Station, Anstey Station and the underpass at Royal Park. Several issues are located along the rail line between stations and across the side streets between Victoria Street and Albion Street. These issues range from very unsafe places to unsafe within the safety category. However, most of them are related to an existing building and urban fabric conditions, such as narrow streets, lack of street lights, dense vegetation and blind spots. These factors create poor visibility to and from the rail corridor, SUP and surroundings. Linked to the passive interfaces from the industrial areas and car parks adjacent to the corridor the perception of safety decreases significantly.

Few locations are prone to violence and harassment issues in the area. These are located mainly along Sydney Road, as well as traffic issues, where more night activity happens.

According to the Crime Statistics Agency, the number of criminal incidents within the Merri-bek LGA between 2021 and 2022 has declined from 10,104 to 8,912 incidents, a decrease of 11.8%. Brunswick also recorded a decreased from 2,061 incidents in 2021 to 2,011 incidents in 2022. In comparison to the Victorian rate of criminal incidents per 100,000 population at 5,177.9, the Merri-bek LGA scores just below with a rate of 5,167.3.



Image 87 Rail corridor between Albion Street and Hope Street



Image 88 Jewell Station forecourt (Platform 1)

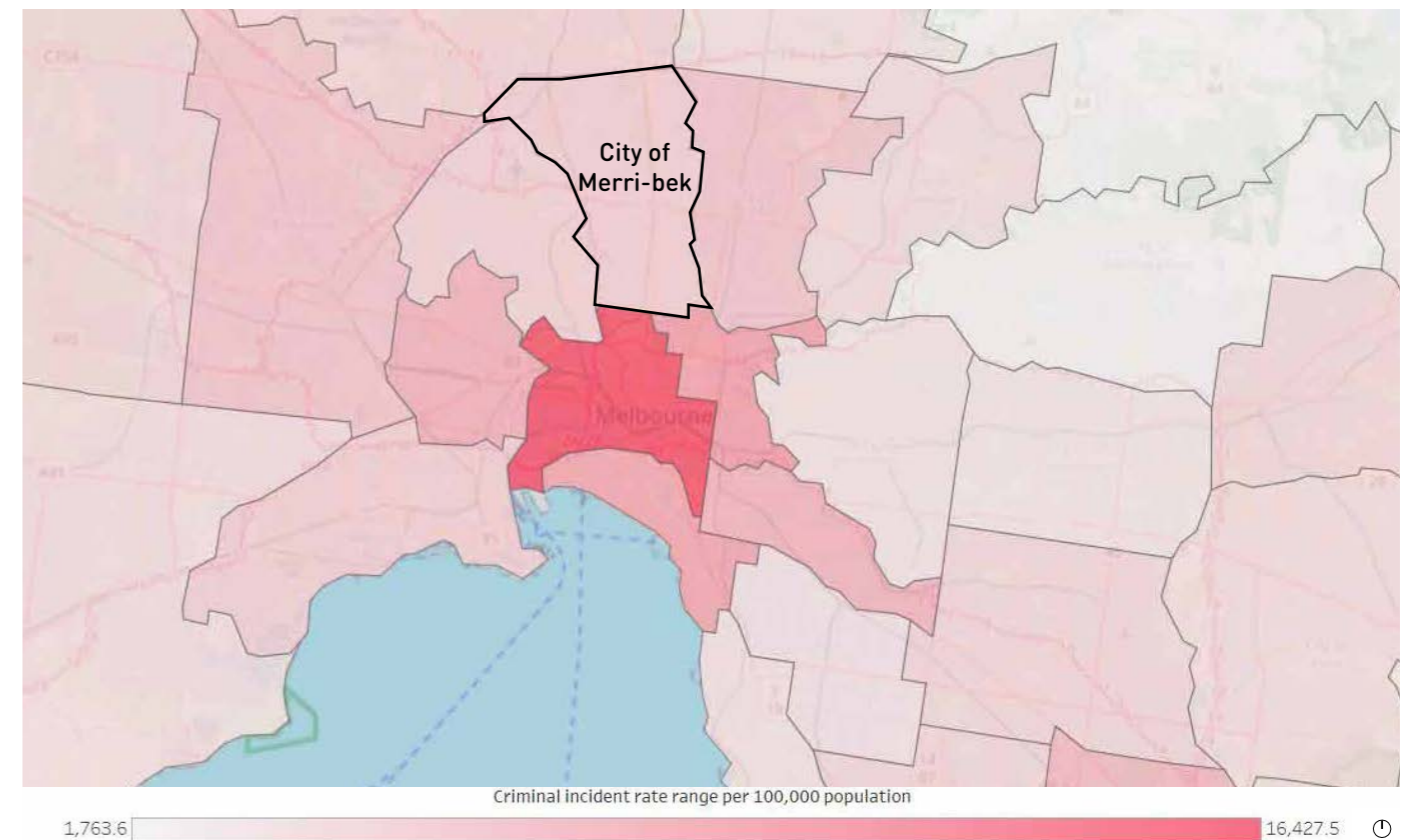
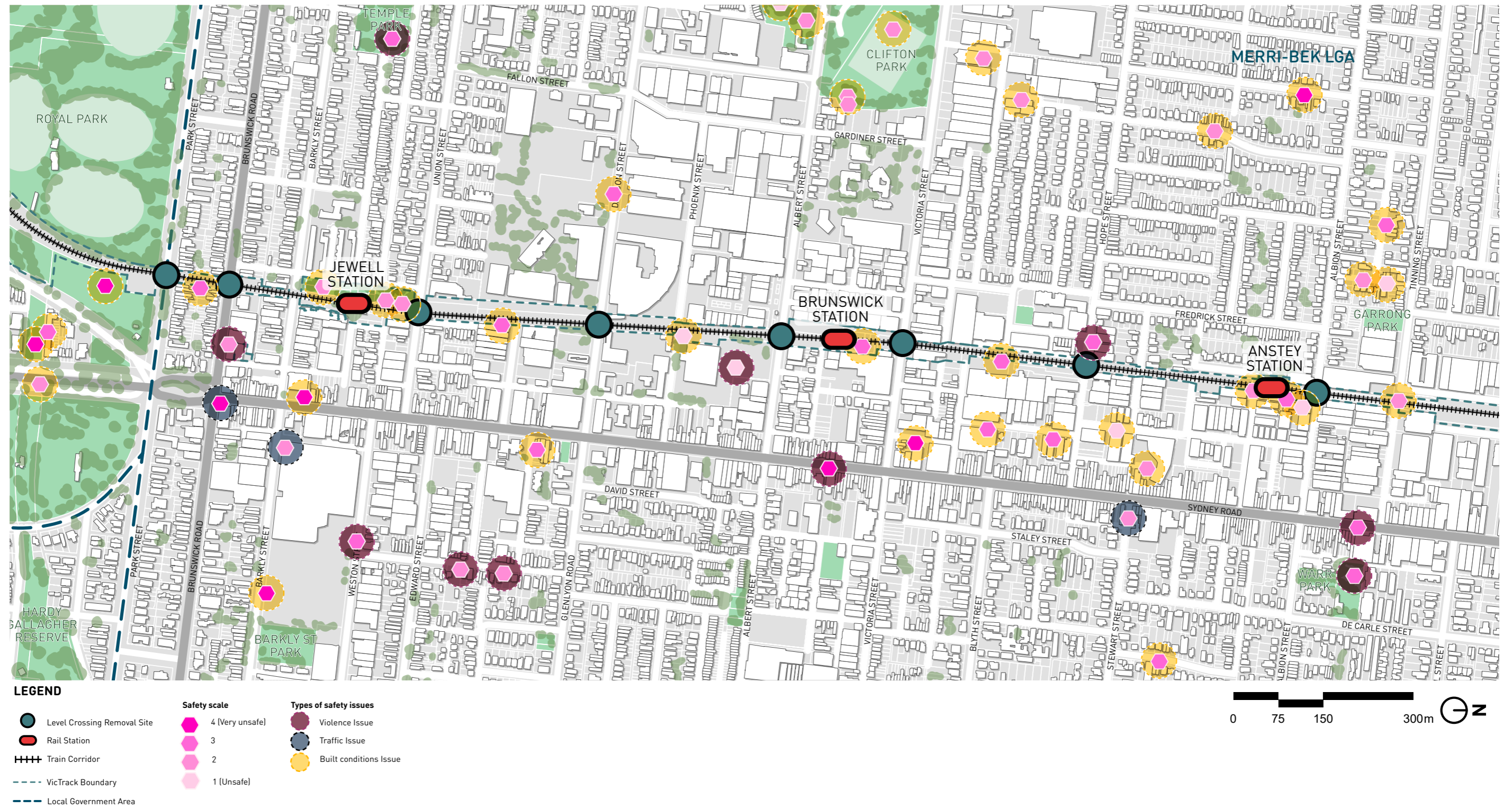


Figure 53 Crime by Local Government Area, 2022

Figure 54 Perception of Safety Issues



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# APPENDIX C: STRATEGIC PLANNING AND POLICY ANALYSIS

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C.1 STATE PLANNING POLICY

C.2 LOCAL STRATEGIES AND POLICY

C.3 STRATEGIC TRANSPORT DIRECTIONS

C.4 MAJOR PROJECTS

# APPENDIX C STRATEGIC PLANNING AND POLICY ANALYSIS

## C.1 STATE PLANNING POLICY

### PLAN MELBOURNE 2017 - 2050

Plan Melbourne (2017-2050) is the Victorian Government's long-term planning strategy which seeks to manage Melbourne's future growth and to achieve the vision of Melbourne continuing to be a global city of opportunity and choice. The strategy identifies the key infrastructure, services and major projects that are required to support the sustainable growth of Metropolitan Melbourne.

Plan Melbourne recognises that the level crossing removal project will improve the efficiency and safety of the arterial road network across Melbourne and will better connect people to job opportunities in key areas. It also identifies that the level crossing removal project will create opportunities for urban renewal and development. Plan Melbourne designates Brunswick as a northern Major Activity Centre. MACs are suburban centres that provide access to a wide range of goods and services.

The level crossing for this Project is located north of Royal Park, from Park Street to Albion Street to the north, along the Upfield railway line. Plan Melbourne highlights the CityLink Tullamarine Widening as a transport infrastructure project constructed in proximity to the level crossing sites. Plan Melbourne references the Level Crossing Removal Project as a direction under Outcome Three 'Melbourne has an integrated transport system that connects people to jobs and services and goods to market'.

### PLANNING POLICY FRAMEWORK

The Planning Policy Framework (PPF) seeks to ensure that land use and development policies in Victoria meet the objectives of planning in Victoria as set out in the Planning and Environment Act 1987. The PPF provides direction on matters to be considered in all planning decisions and seeks to ensure that the needs of existing and future communities are appropriately planned having regard to a range of factors. The Project sites are subject to the Merri-bek Planning Scheme.

Relevant clauses of the Moreland Planning Scheme include:

- Clause 02.01 - Context

The City of Merri-bek is identified as one of Melbourne's most populous municipalities. It notes the diversity of population and land uses present in the LGA as well as the strong population growth accompanied by structural changes in the economy and urban fabric. Mention is made to the natural features of the municipality and notes the deficient distribution of open space through the suburbs.

- Clause 02.02 – Vision

Merri-bek City Council's vision is to plan for and manage population growth and associated development by creating sustainable neighbourhoods of well-designed environmentally sustainable projects. These neighbourhoods will place emphasis on the social, cultural, physical and economic well-being of the community.

- Clause 02.03-1 - Settlement

Majority of Merri-bek's population growth is expected to occur in Brunswick, Brunswick East and Coburg, accounting for 53% of the LGA's growth. Council seeks to manage growth by focusing on residential growth around areas close to public transport, shops and services. The Brunswick MAC is noted to play an instrumental role by containing the greatest increase of new dwellings in the municipality.

- Clause 02.03-2 - Environmental and landscape values

The natural landscape within Merri-bek City is under pressure from growing population, urban densification and climate change. Council seeks to improve and protect its environmental and landscape values in the following ways:

- Creating and protecting a diverse, connected and resilient environment of trees and other vegetation that will enhance urban ecology and greening

- Encouraging development to be sensitive to all open space

- Clause 02.03-4 - Built environment and heritage

The Clause aims to improve the design quality of the built environment in Merri-bek by managing development associated with population growth. Good design is intrinsically linked to safety, health and well-being and environmental sustainability. Council seeks to protect heritage assets and improve the built environment by:

- Encouraging development that is designed to respond to and contribute to its context and any relevant heritage significance

- Encouraging development that is designed to integrate with landscape design to improve aesthetic quality and amenity for occupants and the public domain

- Clause 02.03-7 – Transport

Merri-bek aims to be a connected city through a transport system that is diverse, progressive and sustainable that also achieves a shift towards sustainable modes of travel, including zero emissions transport modes. Objectives which seek to create a diverse transport system include:

- Connecting people to local jobs and services

- Catering for population and employment growth

- Focusing on transport safety

- Clause 02.03-8 - Infrastructure

Open space is required to support a growing and changing population and is important to the liveability of Merri-bek as well as the health of people living, working and recreating in the municipality. This clause is of significant through the following Council objectives:

- Supporting the provision of a diverse open space network for amenity, recreational and ecological reasons

- Prioritising new open space in areas where there is a deficiency in the open space provision as identified on Strategic Framework Plan: Open Space

In addition, the PPF section includes:

- Clause 11.03-1S – Activity centres

Strategies in this Clause seek to encourage the concentration of major retail, residential, commercial, administrative, entertainment and cultural developments into activity centres that are highly accessible to the community.

- Clause 11.03-1R – Activity centres - Metropolitan Melbourne

Strategies in this section aim to support the development and growth of Metropolitan Activity Centres by ensuring they are supported with appropriate infrastructure and are hubs for public transport services.

- Clause 15.01-1S – Urban design

Strategies under this Clause aim to create urban environments that are safe, healthy, functional, and enjoyable and that contribute to a sense of place and cultural identity.

- Clause 15.01-2S – Building design

Strategies under this Clause seeks to achieve building outcomes that contribute positively to the local context and enhance the public realm while minimising detrimental impact on neighbouring properties.

- Clause 15.03-1S – Heritage

The objective of this Clause is to ensure the conservation of places of heritage significance. Strategies include provide for the conservation and enhancement of heritage places that are of aesthetic, archaeological, architectural, cultural, scientific or social significance.

- Clause 18.01-1S – Land use and transport integration

This Clause seeks to facilitate access to social, cultural and economic opportunities by effectively integrating land use and transport. Strategies aim to plan and develop a transport system that facilitates:

- Clause 18.01-2S – Transportation system

This Clause seeks to facilitate the efficient, coordinated and reliable movement of people and goods by developing an integrated and efficient transport system. Strategies aim to plan and develop a transport system integrated across all movement networks that:

- Facilitates the efficient, coordinated and reliable movement of people and goods at all times

- Optimises transport system capacity. Maximises access to residential areas, employment, markets, services and recreation.

- Is legible and enables easy access and movement between modes.

- Clause 18.02-3S – Public transport

This Clause seeks to facilitate an efficient and safe public transport network and increase the proportion of trips made by public transport. Strategies aim to plan and develop public transport to:

- Connect activity centres, job-rich areas and outer suburban areas

- Enable people to not have to rely on cars for personal transport

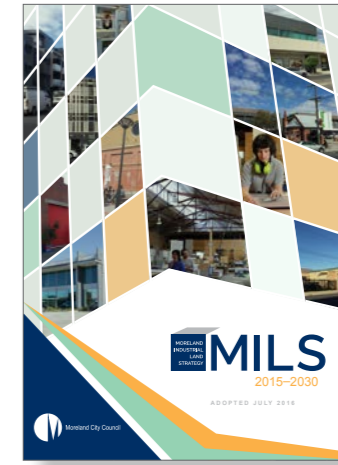
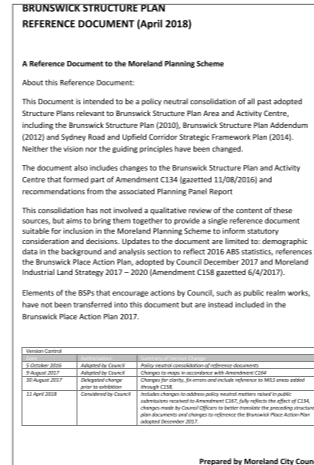
- Integrate bus and tram networks and stops and public transport interchanges in new development areas, including key urban renewal precincts and outer-suburban areas

- Integrate with land use and development in outer suburban and growth areas

- Clause 19.02-6S 0 Open space

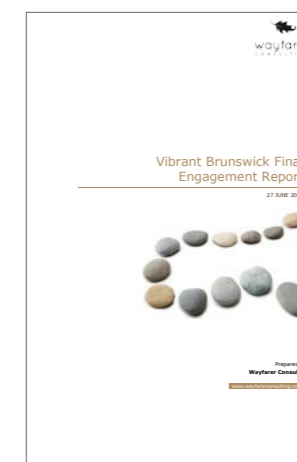
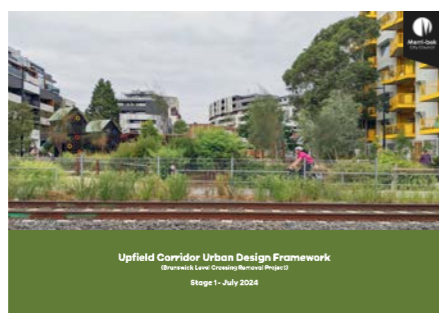
The Clause aims to establish, manage and improve a diverse and integrated network of public open space that meets the needs of the community.

## C.2 LOCAL STRATEGIES AND POLICY



TITLE	Brunswick Structure Plan	Brunswick Structure Plan Reference Document	Moreland Industrial Land Strategy (MILS)
YEAR	2010	2018	2015-2030
SUMMARY	The Brunswick Structure Plan (BSP) outlines a vision for the future of Brunswick through a detailed strategic framework to guide the implementation of the intended outcomes. These strategies are centred around themes such as land use planning, transport, built form and public realm. Through these themes the plan identifies Council's intentions to promote urban consolidation in strategic locations, build on transport integration and connectivity and encourage development of mixed-use buildings to accommodate a range of uses as the Merri-bek City grows and becomes a hub for economic activity and residents.	This report was released by Merri-bek City Council in 2018 and highlights the policy position adopted by Council to intensify redevelopment into the three defined corridors of Sydney Road/ Upfield Corridor, Lygon Street and Nicholson Street. This document supersedes several major policy documents from Council, and is intended as a policy neutral consolidation of key information from The Brunswick Structure Plan 2010, The Brunswick Structure Plan Addendum 2012 and The Sydney Road and Upfield Corridor Strategic Framework Plan 2014, along with gazetted changes under Amendment C134 of the Brunswick Structure Plan and Activity Centre in 2016.	The Moreland Industrial Land Strategy 2015-2030 (MILS) was adopted by Council in 2016 and incorporated in the Merri-bek Planning Scheme via Amendment C158. The MILS recognises land which should be retained for industrial purposes and which are suitable for rezoning from industrial to commercial, mixed use or residential. It sets the foundation for further increased development, to support the population increase projected in Merri-bek.
KEY SECTIONS	Building upon the strategies identified, Council aims to provide infrastructure and pedestrian priority as larger urban renewal areas redevelop, establish links and circuits between and through open spaces, identify areas for priority employment uses over residential and optimise public spaces for informal, social and leisure interactions.	Planning policies informed at both local government and state levels which have identified the Brunswick Activity Centre as an area which will be a focus for significant change. Broadly, intentions are centred around driving employment in the area and transforming Sydney Road into a thriving economic hub.	There are a number of objectives to help support the overall strategy such as encouraging industrial businesses to locate within Core Industry and Employment Areas (Category 1), or Employment Areas (Category 2), where support will be given in these areas to grow businesses. Additionally, Council aims to prioritise employment uses first and foremost before residential is considered in these areas.

### C.3 LOCAL STRATEGIES AND POLICY



TITLE	Upfield Corridor Urban Design Framework	Moreland Urban Forest Strategy	Vibrant Brunswick Engagement Report
YEAR	2024	2017-2027	2022
SUMMARY	<p>The Upfield Corridor Urban Design Framework (UDF) showcases opportunities for improving public spaces surrounding the planned Brunswick Level Crossing Removal Project (the Project). This framework explores how Council owned land can contribute to making the area greener and cooler through WSUD strategies while identifying ways to extend the public benefit from the Level Crossing Removal Project. The UDF also serves as a tool to guide the design of the interfaces along the rail corridor.</p>	<p>The Moreland Urban Forest Strategy aims to promote and encourage the transformation of Merri-bek into a municipality where healthy trees and vegetation are a core part of the urban environment. The area around Anstey Station has been highlighted as a priority hot spot location due to its significant lack of trees. Key actions of relevance are highlighted below</p> <ul style="list-style-type: none"> <li>• Doubling canopy cover across Merri-bek to 29% by 2050 to mitigate impacts of heatwaves;</li> <li>• Improving the health and successful establishment of Council trees;</li> <li>• Continuing to plant canopy trees in Merri-bek’s streets and parks to fill vacant sites and replace under-performing trees;</li> <li>• Improving tree health and cooling through the integration of water-sensitive urban design.</li> </ul>	<p>The Vibrant Brunswick Engagement Report, encompassing Phases 1 and 2 was prepared on behalf of the City of Merri-bek by Wayfarer Consulting and finalised in 2022. It is a community survey which responds to Merri-bek’s endeavours to restructure planning controls and understand the broad community sentiment around what the future trajectory of Merri-bek City should be like. Further inputs for a draft structure plan for the area will from Part 3 of the community engagement.</p>
KEY SECTIONS	<p>Council provides a set of public realm principles and solutions that respond to the potential upgrades that will be part of the Level Crossing Removal Project along the interfaces of the project with council jurisdiction area. These principles respond to the community vision for the project to extend and guarantee the revitalisation of Brunswick.</p>	<p>Objectives of focus are enhancing urban forest in both the public and private realm, monitoring and reviewing progress to measure success and best practice and managing and mitigating urban forest risks.</p>	<p>Residents showed support for a multi-use precinct combining commercial and residential uses. Additionally, housing precincts with increased density were noted as favourable. There was strong support for updated design requirements for new buildings in the Brunswick Activity Centre. These results provide valuable community consensus which can help drive key decisions around the anticipated revision of planning controls in Merri-bek.</p>

## ZONING AND OVERLAYS

### TRANSPORT ZONE - SCHEDULE 1 (TRZ1)

The Brunswick Level Crossing Project is located within Transport Zone - Schedule 1 (TRZ1). TRZ1 is for the purposes of State Transport Infrastructure. This covers the Upfield rail corridor. The application of this zone recognises the use of this land for transport services and facility purposes and to provide for the use and development of land that complements, or is consistent with, the transport system or public land reservation.

### PUBLIC PARK AND RECREATION ZONE (PPRZ)

Located to the west of the project site is Jewell Reserve, directly adjacent to the Upfield rail corridor and Jewell Station. The Reserve is of project significance and is situated within a Public Park and Recreation Zone (PPRZ). The application of this zone recognises areas for public recreation and open space, to protect and conserve areas of significance and to provide for commercial uses where appropriate.

### COMMERCIAL 1 ZONE (CZ1)

Land to the east of the project site is predominately within Commercial 1 Zone (CZ1) running in a north-south manner. The application of this zone recognises its purpose to create vibrant mixed use commercial centres for retail, office, business, entertainment and community uses and to provide for residential uses at densities complementary to the role and scale of the commercial centre.

### INDUSTRIAL 1 ZONE (IN1Z)

Industrial 1 Zone (IN1Z) is located central and to the west of the rail corridor, centred between Dawson and Victoria streets. The application of this zone recognises its purpose to provide for manufacturing industry, storage and distribution of goods and associated uses in a manner which does not affect the safety and amenity of local communities.

### NEIGHBOURHOOD RESIDENTIAL ZONE - SCHEDULE 1 (NRZ1)

Land adjacent to the west of the project site, aside from the central and Industrial Zone - Schedule 1 (IN1Z), is predominantly within the Neighbourhood Residential Zone - Schedule 1 (NRZ1). The application of this zone recognises areas of predominantly single and double storey residential development, ensures that development respects the identified character and allows for educational, recreational, religious and community needs at appropriate locations.

### MIXED USE ZONE (MUZ)

Land adjacent to the project to the north and south section is within the Mixed Use Zone (MUZ). This zone recognises its purpose to provide for a range of residential, commercial, industrial and other uses which complement the mixed-use function of the locality, provide for housing at higher densities and encourage development and redevelopment of land in accordance with the objectives specified in the schedule.

### HERITAGE OVERLAY - SCHEDULE 8, 180, 386 AND 952 (H08, H0180, H0386, H0952)

H0180 applies to the Upfield Railway Precinct and includes Jewell and Brunswick stations. H0180 covers other registered buildings, structures, gates and signals, including the Gatekeepers Cabin and Gates at Albert Street. The Upfield Railway Precinct is included on the Victorian Heritage Register under H0952. It is noted that the Precinct is considered historically, architecturally, scientifically and socially important to the State of Victoria. South west of the site H08 includes terrace houses 323-299 Barkly Street, close to Jewell Station. To the north H0386 includes terrace houses at 23-9 Michael Street, H061 includes the Brunswick Baths on Dawson Street.

### ENVIRONMENTAL AUDIT OVERLAY (EAO)

The Environmental Audit Overlay (EAO) applies to various parcels of land to the east of the Upfield railway corridor. This overlay applies to land potentially contaminated, including Little Gold Street, Union Street and Michael Street.

### DESIGN AND DEVELOPMENT CONTRIBUTIONS OVERLAY - SCHEDULE 1 (DCPO1)

The Design and Development Contributions Overlay - Schedule 1 (DCPO1) applies to the project and its surrounding parcels. This overlay identifies areas which require the preparation of a development contributions plan for the purpose of levying contributions for the provision of works, services and facilities before development can commence.

### DESIGN AND DEVELOPMENT OVERLAY - SCHEDULE 18 (DDO18)

The Design and Development Overlay - Schedule 18 (DDO18) covers land along the rail corridor to the east and extends over Jewell Station and Reserve. It refers to the development of the Brunswick Activity Centre between Sydney Road and the rail corridor. It aims to encourage mid-rise built form, complement existing and heritage character, establish cohesive streetscape and protect amenity in public spaces.

Figure 55 Planning zones map

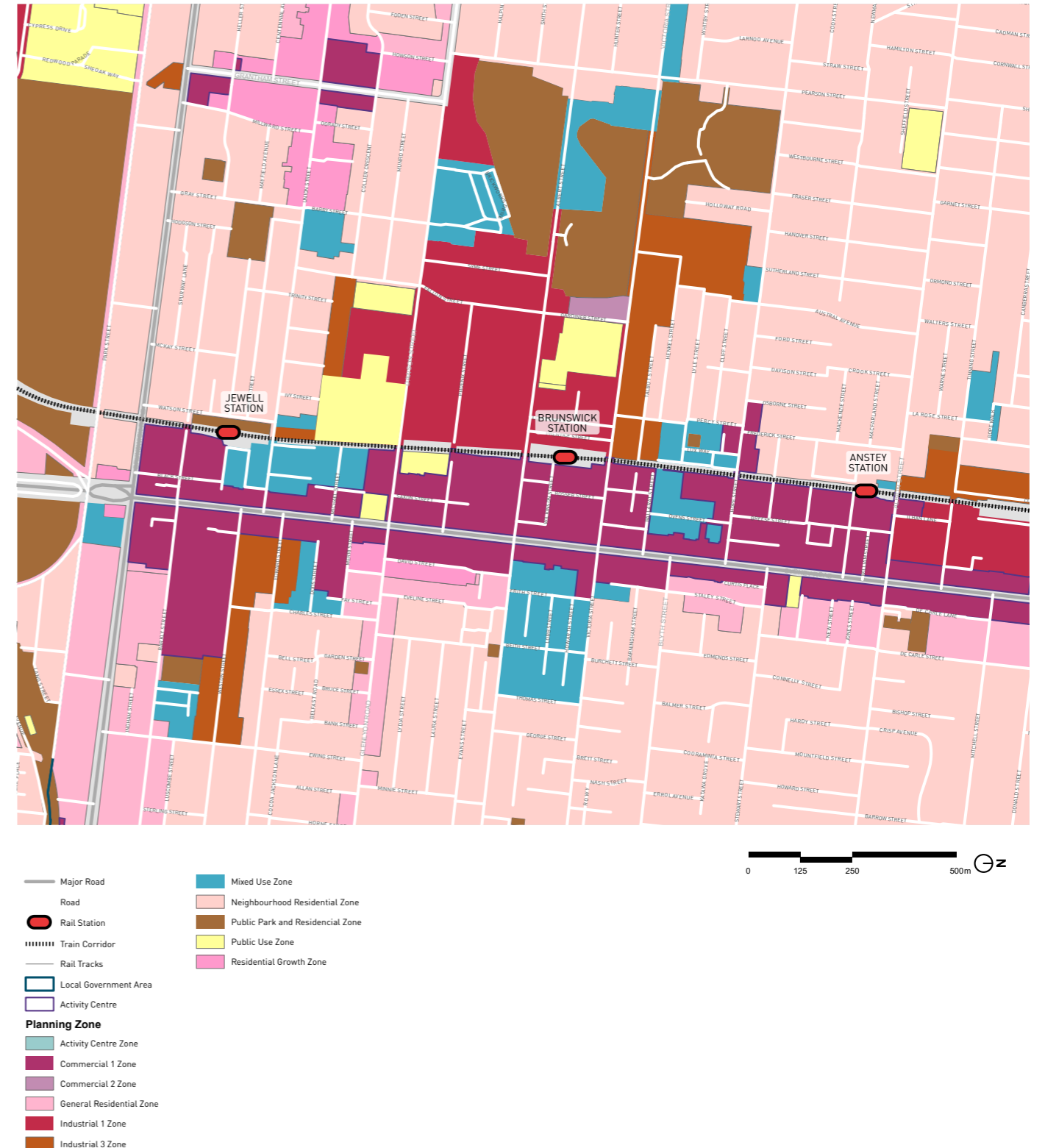
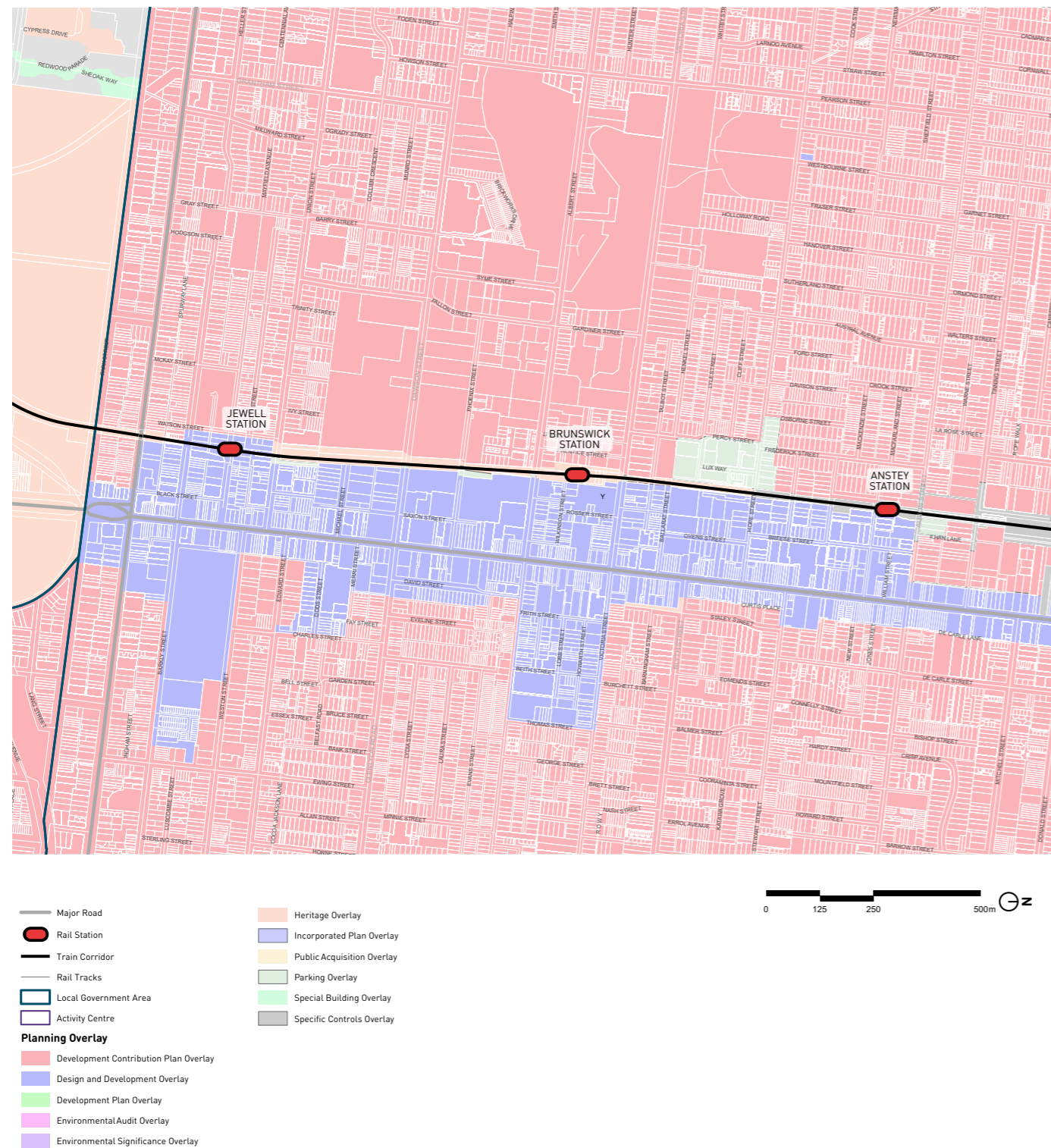


Figure 56 Planning overlays map



## C.4 STRATEGIC TRANSPORT DIRECTIONS

### STRATEGIC CYCLING CORRIDOR (SCC)

The SCC network supports the needs of commuter trips (to work or education) and other important trips, such as to stations, shops or schools. The network links up important destinations, including central Melbourne city, employment and activity centres, and other destinations of metropolitan and regional significance. The five principles of SCCs are destination focused, safe, direct, connected and integrated. The Upfield Shared Path forms part of the strategic cycling network where it runs in a north south direction, directly adjacent to the rail corridor.

Please refer to the Transport Network and Access section for more detail on the SCC.

### MORELAND INTEGRATED TRANSPORT STRATEGY (2019)

The Moreland Integrated Transport Strategy (2019) sets out Council's strategic direction for integrated transport planning for the next decade and beyond. It aims to achieve a reduction in car use, and allow for an increase in public and active transport to become more accessible. Key strategies identified within the document are to improve active transport facilities, and improve the safety and amenity of state transport projects. This document seeks to increase the use of active transport for local trips to jobs, services and facilities coupled with more frequent, reliable and accessible public transport in Merri-bek.

### MORELAND CYCLING STRATEGY 2011-2021

The Moreland Bicycle Strategy 2011-2021 shows how Council will promote sustainable travel by making Merri-bek City a better place to ride a bike in by creating an attractive bicycle network that is safe, direct, comfortable, continuous and legible, connecting bicycle routes to vibrant local destinations including shops and schools and linking bicycle and public transport routes to create a sustainable travel network.

Funding will come from car parking revenues, estimated at \$66.5 million for public and \$182.5 million for private parking. Collaboration with developers and refined funding models will support these initiatives, ensuring they meet community needs within the Place Framework Strategy.

## C.5 MAJOR PROJECTS

### ALBION STREET BRUNSWICK - IMPROVED CYCLIST SAFETY

A 200 metre section of Albion Street Brunswick, between the Upfield rail corridor and Sydney Road within the northern section of the Project site, was identified by Merri-bek City Council for cycling infrastructure improvement. Changes include the removal of five parking spaces and the addition of rubber delineation and separation kerb to make the bicycle lane more visible and enhance cycling safety.

### BALAM BALAM PLACE - CREATIVE AND COMMUNITY FACILITY SITE REDEVELOPMENT

Balam Balam Place is a new community facility that was redeveloped by Merri-bek City Council. Part of the Saxon Street project, it is located on Phoenix Street just north of Dawson Street. The project will be opened in early 2025, and will provide a creative space associated with the existing Blak Dot Gallery, a meeting place for community groups, and maternal and child health services. The redevelopment will also have commercial office spaces and a more civic entry re-orientated to 15 Phoenix Street. The new street orientation will better address the activity centre and provide improved access for east west connections between Sydney Road and the rail corridor with its associated shared path.

### NIGHTINGALE APARTMENTS

Architect-led developer Nightingale Housing has a current planning application for the development of 17-19 Hope Street Brunswick, located on Hope Street's south side with the rail corridor on the site's western boundary. This development is proposed to have five eight-storey buildings and approximately 282 apartments, with a mix of studio, and one/two/three bedroom dwellings. Designed by different architectural firms, the intention is to create a 'village' with different building styles and a fine grained streetscape facade. The development will have a 20 metre setback from the rail corridor to create a linear park, with private open space within a central courtyard for residents' use. The project is proposed to commence in 2025.

### WILSON AVENUE STREETSCAPE IMPROVEMENT

Merri-bek City Council is preparing a new streetscape design for Wilson Avenue between Jewell Station and Sydney Road. This work aims to improve pedestrian safety, amenity and walkability between the two areas, following completion of several adjacent residential developments. The project includes street tree planting, water sensitive urban design, and designated seating and outdoor dining. This follows on from prior work that closed Wilson Street's eastern section to vehicular access from Sydney Road and created a pocket park in the area.

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# APPENDIX E: REFERENCE LIST

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# APPENDIX E REFERENCE LIST

## E.1 REFERENCES

*Creating Places for People*, Australian National Urban Design Protocol

*Creative Strategy Guidelines*, Level Crossing Removal Authority

*Good Design and Transport*, Issue 05, Office of the Victorian Government of Architects

*Plan Melbourne 2014*, Victorian Planning Authority

*Public Transport Guidelines for Land Use and Transport User Needs Guidelines*, Department of Economic Development, Jobs, Transport and Resources

*Public Transport Precincts, Design Requirements and Guidance*, PTV

*Sustainability Policy*, Level Crossing Removal Authority

*Transport Integration Act 2010*

*Urban Design Framework*, Level Crossing Removal Authority

*Victorian Urban Design Charter 2009*

## E.2 FIGURE SOURCES

FIGURE NO.	FIGURE CAPTION	SOURCE
1	Urban design requirements	AECOM GHD JV
2	Design development review process	AECOM GHD JV
3	Context highlights - Corridor context	AECOM GHD JV
4	Context highlights - Site aerial	AECOM GHD JV
5	Heritage issues and opportunities analysis	AECOM GHD JV
6	Landscape and open spaces issues and opportunities analysis	AECOM GHD JV
7	Connectivity issues analysis	AECOM GHD JV
8	Connectivity opportunities analysis	AECOM GHD JV
9	Built form and land uses issues and opportunities analysis	AECOM GHD JV
10	Safety and built environment issues and opportunities analysis	AECOM GHD JV
11	Issues and opportunities analysis for Brunswick South Station Precinct	AECOM GHD JV
12	Issues and opportunities analysis for Brunswick North Station Precinct	AECOM GHD JV
13	Diagram noting celebration of the heritage significance of the Station buildings and built form along the corridor	AECOM GHD JV
14	Diagram showing the east-west connectivity and north-south link transition	AECOM GHD JV
15	Diagram showing the green link across the corridor and east-west green connectivity	AECOM GHD JV
16	Diagram showing the activation of different interfaces along the corridor	AECOM GHD JV
17	Diagram showing the Identity and character of each precinct across the rail corridor	AECOM GHD JV
18	Urban Design Framework	AECOM GHD JV
19	Urban Design Framework application table	AECOM GHD JV
20	Urban Integration and Vibrancy Guidelines	AECOM GHD JV
21	Connectivity, Wayfinding and Accessibility Guidelines	AECOM GHD JV
22	Safety and Amenity Guidelines	AECOM GHD JV
23	Resilience and Sustainability Guidelines	AECOM GHD JV
24	Brunswick South Station Precinct Guidelines	AECOM GHD JV
25	Brunswick North Station Precinct Guidelines	AECOM GHD JV
26	Level Crossing Removal - Project Map	AECOM GHD JV
27	Methodology	AECOM GHD JV
28	Regional context	AECOM GHD JV
29	Historical timeline	AECOM GHD JV
30	Land Use Analysis Plan	AECOM GHD JV
31	Analysis of existing open spaces within a walkable distance from the corridor	AECOM GHD JV

32	Built Form and Heritage Analysis Plan	AECOM GHD JV
33	Station access by transport mode	PTV Patronage data 2015
34	Transport Networks and Access Analysis Plan	AECOM GHD JV
35	Movement and Place modal classification	AECOM GHD JV
36	Movement and Place Plan	AECOM GHD JV
37	Geomorphological map of area	AECOM GHD JV
38	Analysis of Environmental Attributes	AECOM GHD JV
39	Landscape and Visual Values - Analysis Plan	AECOM GHD JV
40	Section A - Section through McAlister Oval, Rail Corridor, Upfield Shared Path, Royal Park Tennis Club and The Avenue.	AECOM GHD JV
41	Section B - Section through residential properties, Watson Street, Jewell Station Reserve, Jewell Station, Upfield Shared Path, Residential development and Commercial properties.	AECOM GHD JV
42	Section C - Section through industrial property, the rail corridor, Upfield Shared Path, Brunswick Baths and commercial properties.	AECOM GHD JV
43	Section D - Section through residential properties, Orient Grove, Anstey Station, Upfield Shared Path, residential and commercial properties.	AECOM GHD JV
44	Key Map	AECOM GHD JV
45	Language spoken at home (other than English)	AECOM GHD JV
46	Ancestry	AECOM GHD JV
47	Population profile and growth projections	AECOM GHD JV
48	Dwelling profile and growth over time	AECOM GHD JV
49	Dwelling profile comparative analysis	AECOM GHD JV
50	Modal share comparative analysis	AECOM GHD JV
51	Employment rate	AECOM GHD JV
52	Industry by occupation profile	AECOM GHD JV
53	Crime by Local Government Area, 2022	<a href="https://www.crimestatistics.vic.gov.au/crime-statistics/latest-crime-data-by-area">https://www.crimestatistics.vic.gov.au/crime-statistics/latest-crime-data-by-area</a>
54	Perception of Safety Issues	AECOM GHD JV
55	Planning zones map	AECOM GHD JV
56	Planning overlays map	AECOM GHD JV

### E.3 IMAGE SOURCES

FIGURE NO.	FIGURE CAPTION	SOURCE
N/A	Front Cover - Rail Crossing	AECOM GHD JV
1	Jewell Station forecourt at Wilson Avenue	AECOM GHD JV
2	Brunswick Station and shared path	AECOM GHD JV
3	Anstey Station at Albion Street	AECOM GHD JV
4	Sydney Road and Tram Route 19	AECOM GHD JV
5	RMIT University Brunswick Campus	AECOM GHD JV
6	Brunswick Town Hall on Sydney Road	Henk Vrieselaar - stock.adobe.com
7	Jewell Station heritage building	AECOM GHD JV
8	Victoria Street signal box at Brunswick Station	AECOM GHD JV
9	Brunswick Town Hall	Henk Vrieselaar - stock.adobe.com
10	Heritage residential buildings at Park Street	AECOM GHD JV
11	Jewell Station Reserve	AECOM GHD JV
12	Screening vegetation along the shared path adjacent to Brunswick Station	AECOM GHD JV
13	Guerrilla gardening next to Anstey Station	
14	Rail level crossing at Hope Street	AECOM GHD JV
15	West side of the rail corridor at Phoenix Street	AECOM GHD JV
16	Albert Street level crossing and shared path	AECOM GHD JV
17	Shared path adjacent to the rail corridor at Hope Street	AECOM GHD JV
18	Shared path between Anstey Station and residential development at Albion Street	AECOM GHD JV
19	Residential buildings with different design styles and an active interface	AECOM GHD JV
20	Car parks facing the corridor considered a passive interface	AECOM GHD JV
21	Diverse land uses and densities around the rail corridor	AECOM GHD JV
22	Active and passive interfaces and diverse land uses adjacent to the corridor	AECOM GHD JV
23	Industrial building facing the corridor with no passive surveillance and shared path, adjacent Phoenix Street	AECOM GHD JV
24	Industrial uses on Phoenix Street	AECOM GHD JV
25	Narrow corridor and fencing interface at Anstey Station	AECOM GHD JV
26	At-grade car parks along the corridor adjacent to Ballarat Street	AECOM GHD JV
27	Existing pedestrian, cyclist and vehicular crossing at Union Street	AECOM GHD JV
28	Gatekeeper's cabin, which is part of the heritage elements located on the station precinct	AECOM GHD JV
29	RMIT interface with the rail corridor	AECOM GHD JV
30	Michael Street ending with the corridor and the shared path	AECOM GHD JV

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31	Narrowest section of the corridor at the north side of Hope Street	AECOM GHD JV
32	Presence of diverse uses and built forms on the surrounding areas at the east side of the corridor	AECOM GHD JV
33	Shared path and rail corridor at the end of Duckett Street surrounded by high-density residential and mix uses	AECOM GHD JV
34	Bulleke-bek Park next to Nightingale Village, which is on the east side of the station precinct	AECOM GHD JV
35	Moreland Station building re-purposed and integrated into the corridor to maintain and celebrate the historical character of the site.	AECOM GHD JV
36	Creative reinterpretation of heritage elements at Moreland-Coburg supports and celebrates the historical significance of the corridor.	AECOM GHD JV
37	Reintegration of heritage elements into the landscape at Moreland Station	AECOM GHD JV
38	Direct views to the CBD from the platforms at Preston Station	AECOM GHD JV
39	The creation of a new complementary space at Mentone Station, which has a civic open space role.	AECOM GHD JV
40	The design of viaduct screening responds to the sensitive residential areas adjacent to the corridor at Bell Station.	AECOM GHD JV
41	The design of the open space adjacent to Carnegie Station responds to the current needs of the community and future urban growth	AECOM GHD JV
42	The linear park between Coburg and Moreland Stations provides multiple functions for the community	AECOM GHD JV
43	The open space adjacent to the Oakover Road level crossing removal site was co-designed with Wurundjeri Traditional Custodians and includes a yarning circle and play area for younger children	AECOM GHD JV
44	Bell to Moreland separated cyclist and pedestrian path.	AECOM GHD JV
45	Integrated bus stop within Mernda Station precinct .	AECOM GHD JV
46	Monumental signage at Clayton Station assists in wayfinding and promotes a sense of place.	AECOM GHD JV
47	Improved east-west connectivity on Munro Street south of Coburg Station	AECOM GHD JV
48	View of Moreland Station through Allen Street supports local wayfinding	AECOM GHD JV
49	An activity area beneath the rail line contributes to a sense of safety near the Toorak Road level crossing removal site	AECOM GHD JV
50	Street art titled 'A Graffiti for Jina' at the Phoenix Street entrance to the Brunswick Baths created by the Feminista Melbourne Collective	AECOM GHD JV
51	Stepped embankment at Bell Station allows people to rest, socialise, and provide passive surveillance	AECOM GHD JV
52	Swale with diverse planting mix that is appropriate to the local climate. Coburg Station	AECOM GHD JV

53	Streetscape improvements incorporating WSUD raingardens on Dawson Street Brunswick	AECOM GHD JV
54	Significant trees along Jewell Station Reserve.	AECOM GHD JV
55	Caulfield to Dandenong active transport connection	AECOM GHD JV
56	Moreland Station has a high visibility from the side streets around, which highlights the presence of the station precinct	AECOM GHD JV
57	Repurposing of heritage elements and buildings at Moreland Station precinct	AECOM GHD JV
58	Appropriate plant species used to suite local climate; maximising successful plant growth. Hawkstowe Station	AECOM GHD JV
59	Strong visual corridor identity through distinct screening design, Mernda Station precinct	AECOM GHD JV
60	Map of Jika Jika parish, County of Bourke, 1902	State Library of Victoria
61	Brunswick's first Council chamber near Albion Street, 1866	State Library of Victoria
62	Sydney Road, central Brunswick, 1866	State Library of Victoria
63	Brunswick Rd (east) of Sydney Road, 1861	State Library of Victoria
64	Varying residential densities and industrial uses on Breese Street	AECOM GHD JV
65	High-density developments - Nightingale Village around Anstey Station	AECOM GHD JV
66	Commercial area along both sides of Sydney Road	AECOM GHD JV
67	Bulleke-bek Park on West Street near Anstey Station	AECOM GHD JV
68	Christ Church Anglican on Dawson Street	AECOM GHD JV
69	Jewell Station Reserve looking east	AECOM GHD JV
70	Brunswick Park on Victoria Street	AECOM GHD JV
71	Foletta Park at Glenlyon Road	AECOM GHD JV
72	Temple Park on Hodgson Street	AECOM GHD JV
73	Bulleke-bek Park at West Street	AECOM GHD JV
74	Barkly Street Park on Barkly Street	AECOM GHD JV
75	Randazzo Park at Albert Street	AECOM GHD JV
76	Jewell Station	AECOM GHD JV
77	Brunswick Station	AECOM GHD JV
78	Albert Street signal box	AECOM GHD JV
79	Sydney Road and tram route 19	AECOM GHD JV
80	Albert Street level crossing	AECOM GHD JV
81	Shared path at Anstey Station	AECOM GHD JV
82	Albion Street between Sydney Road and Anstey Station looking north-west	AECOM GHD JV
83	Brunswick Road and Sydney Road	AECOM GHD JV

84	Shared path within the forecourt at Jewell Station	AECOM GHD JV
85	Jewell Station precinct	AECOM GHD JV
86	Royal Park, Parkville	AECOM GHD JV
87	Rail corridor between Albion Street and Hope Street	AECOM GHD JV
88	Jewell Station forecourt (Platform 1)	AECOM GHD JV
LV1	Park Street signal box (VHR).	AECOM GHD JV
LV2	Jewell Station, eastern side (VHR).	AECOM GHD JV
LV3	Residential properties (left) along Orient Grove with views to the rail corridor (right).	AECOM GHD JV
LV4	Former grain storage facility on Colebrook Street, now residential apartments.	AECOM GHD JV
LV5	Nightingale Village apartment buildings facing Duckett Street, looking west to the rail corridor.	AECOM GHD JV
LV6	Looking east toward Brunswick Yard and 4 Ballarat Street developments, east of the rail corridor.	AECOM GHD JV
LV7	Existing two storey residences on Railway Place facing west to the Upfield Shared Path and rail corridor.	AECOM GHD JV
LV8	Multi-storey residential development at 17 Union Street with views and balconies that interface with the corridor.	AECOM GHD JV
LV9	Commercial properties along Victoria Street.	AECOM GHD JV
LV10	View looking south from shared path to RMIT buildings (right).	AECOM GHD JV
LV11	View atop pedestrian bridge looking south with Brunswick Baths (left), shared path (middle) and rail corridor to the west (right).	AECOM GHD JV
LV12	Hope Aged Care interface with the rail corridor.	AECOM GHD JV
LV13	Bulleke-bek Park Playground that interfaces the rail corridor.	AECOM GHD JV
LV14	View from the shared path and Tinning Street at-grade crossing towards gantries and rail corridor fencing.	AECOM GHD JV
LV15	Typical back-of-house interface along the rail corridor and the shared path.	AECOM GHD JV





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