

Urban Design Concept



Artist's impression: view along boardwalk over constructed wetlands
(Landscape shown at full maturity and is indicative only).



The Balmain peninsula and The Bays

4 Urban design concept

4.1 Urban design philosophy

The quality of urban and landscape design is becoming one of the accepted measures of a transport scheme's success in the urban and regional environment. Good design of the public domain is fundamental to quality of life in urban areas. Streets, roads, expressways and motorways constitute a large portion of public spaces and are one of the main ways that people interact with the living environment.

Infrastructure has the opportunity to deliver urban artefacts that define and give meaning to public space, in a way that is evocative, elegant, efficient and a celebration of our technology.

The Project's urban design philosophy is based on delivering high quality integrated design outcomes that display relevance, fit, durability and delight.

The urban design objectives and principles utilised on the adjoining WestConnex projects will also be incorporated to ensure consistency across the M4 East, New M5 and M4-M5 Main Tunnel Works projects in relation to urban design elements.

4.2 Urban design vision

WestConnex is a transformational 'city shaping' project for Sydney and will be delivered to the highest quality and to maximum community benefit.

The urban design vision for the Rozelle Interchange is to deliver infrastructure that is 'public' in nature, with people as the focus, leaving an enduring legacy for Sydney, the people who live in it and for future generations. As 'public' infrastructure, every opportunity will be espoused for the 'public good', providing places for people.

The approach is to develop contextual, refined and elegant design solutions that will benefit both road users and the wider community alike, setting a new benchmark for 'public' infrastructure development in this city.

The urban communities of Rozelle, Lilyfield, Annandale and White Bay will be re-connected by a new network of pedestrian and cycle links with the Rozelle Rail Yards Park at its heart.

The driver experience for the Rozelle Interchange will be centred on the integration of driver behaviour, safety and visual interest to relieve driver anxiety, through safe alignments and in-tunnel wayfinding.



Figure 4-1: Artist's impression over Rozelle Rail Yards



Artist's impression: Aerial view over Iron Cove
(Landscape shown at full maturity and is indicative only)

4.3 Overview of urban design proposal

The key urban and landscape design features of the project are outlined below with further detail provided in the following pages.

ROZELLE INTERCHANGE:

- City West Link Portals:
 - M5 portal
 - Western Harbour Tunnel portal
- Rozelle West Motorway Operations Complex
- Shared path bridges
 - Rozelle Rail Yards Pedestrian and Cycling Green Link (subject to approval of modification SSI-7485-Mod-2)
 - Brenan Street Shared User Path Bridge
 - New Victoria Road Bridge (also a traffic bridge)
 - Whites Creek Bridge
 - Victoria Road Shared User Path Bridge (east)
 - Victoria Road Shared User Path Bridge (west)
- Rozelle ventilation facility
- Rozelle Rail Yards parklands and landscaping
- M4-ANZAC portals

IRON COVE LINK:

- Iron Cove Link portals
- Iron Cove Link facilities
- Iron Cove Link landscaping

TUNNELS:

- Underground network of tunnels (not part of this UDLP)

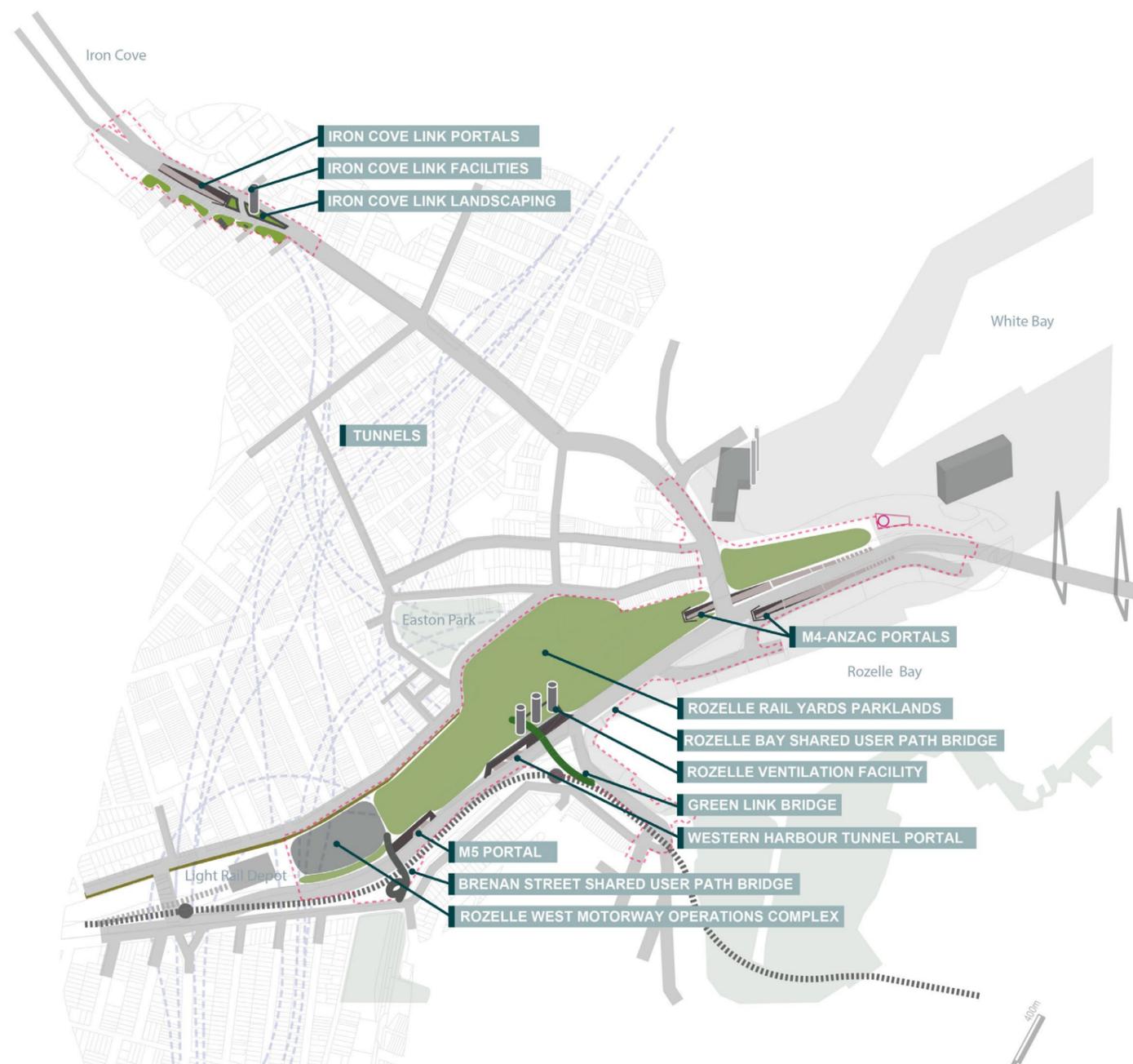


Figure 4-2: Overview of urban design elements (subject to approval of modification SSI-7485-Mod-2)

Rozelle Interchange

City West Link portals

Cut and cover portals constructed along the City West Link to cater primarily for traffic coming and going towards the M5 tunnels, and for the proposed future Western Harbour Tunnel.

Details of the City West Link portals are provided in Section 06 of the UDLP.

Rozelle operational facilities

Located in the western end of the Rozelle Rail Yards, the Rozelle West Motorway Operations Complex will comprise the majority of the motorway operations facilities for the Rozelle Interchange, including the following:

- Maintenance and operations facility
- Substation
- Fire water pumps and deluge tanks
- Water treatment plants; and
- Space-proofing for future Western Harbour Tunnel facilities.

Details of the Rozelle West Motorway Operations Complex facilities are provided in Section 7 of the UDLP.

Shared path bridges

A series of three primary north-south shared user path bridges providing the following connections over City West Link:

- Shared user path Bridge over City West Link at M5 portal, connecting Brennan Street and Whites Creek across City West Link to Rozelle Rail Yards and Lilyfield Road, and
- Green link over City West Link, connecting the southern side of The Crescent and Rozelle Bay Light Rail stop across City West Link to Rozelle Rail Yards and Lilyfield Road (subject to approval of modification SSI-7485-Mod-2).

Other shared user path bridges include: the New Victoria Road Bridge (also a traffic bridge), Whites Creek Bridge, Victoria Road Shared User Path Bridge (east) and Victoria Road Shared User Path Bridge (west). Details of the bridges are provided in Section 8 of the UDLP.

Rozelle ventilation facilities

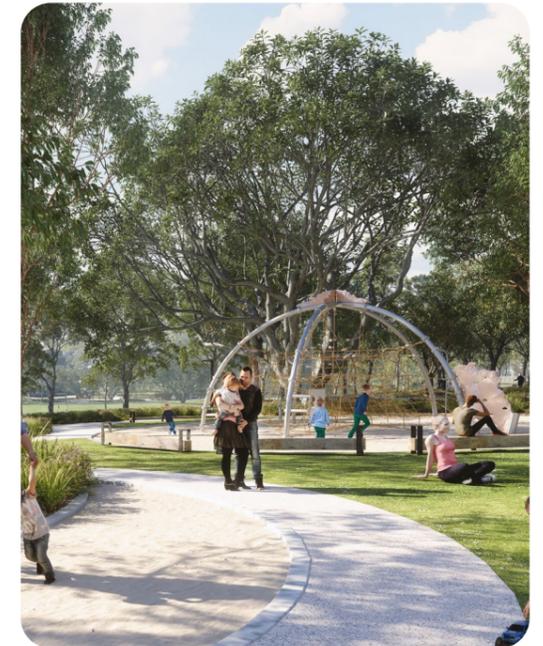
While the Rozelle ventilation facility is the largest above ground structure on the Project, it is partially immersed into the landscape. The trees and other planting in the parkland integrate with the vertical gardens installed on the ventilation outlet structures in an artistic and sculptural manner.

Details of the Rozelle ventilation facilities are provided in Section 7 of the UDLP.

Rozelle Rail Yards parklands and surrounds

Built on the former rail yards, the Rozelle Rail Yards park will feature a minimum of 9ha of public open space. The Rozelle Rail Yards will become an enduring legacy of the Project's commitment to green infrastructure.

Details of the parklands are provided in this section of the UDLP.



Iron Cove Link

M4 - Anzac portals

The M4 dive approaches and portals will be located on the eastern end of the Rozelle Rail Yards, providing connections to and from Anzac Bridge and the new M4 East tunnels.

The portals will be designed as architectural elements that are attractive, welcoming and are consistent with the designed stages of WestConnex M4 East and New M5 projects.

Details of the M4 East portals are provided in Section 6 of the UDLP.

Iron Cove Link portals

Within Iron Cove Link, the tunnel portals have been designed to fit within the existing Victoria Road corridor and present as a new, sleek and refined element within an existing crowded infrastructure environment which is bounded by Iron Cove, and the residential and commercial properties along Victoria Road.

The portals and dive structures are designed to blend with the surrounding topography, and provide a safe and legible transition between the surface, dive structures and the driven tunnel. The portal design will be integrated with the required signage and safety requirements.

Details of the Iron Cove Link portals are provided in Section 6 of the UDLP.

Iron Cove Link facilities

A ventilation facility will be constructed near the portals at Iron Cove Link. The design includes the electrical substation and ventilation facilities being provided underground, which reduces the visible impact of buildings above ground, increases available landscaped areas and minimises impacts on the surrounding community.

The ventilation outlet is the most prominent element of this facility and is located within the median of Victoria Road behind the tunnel portals. There will also be a maintenance building located on the corner of Toelle Street and Victoria Road.

Details of the Iron Cove Link facilities are provided in Section 7 of the UDLP.

Iron Cove Link landscaping

Landscaping will be provided at Iron Cove Link, primarily in the median area behind the tunnel portals, and adjacent the new shared path located next to the westbound carriageway of Victoria Road.

The landscaped areas within the median have been designed to minimise the impact of the portal and ventilation outlet infrastructure, whilst the landscaped corridor adjacent the new shared path will enhance the Victoria Road corridor and provide a series of small landscaped areas for path users and nearby residences.

Details of the landscaped areas at Iron Cove Link are provided in this section of the UDLP.

Tunnels

Mainline Tunnels

- The tunnels will include the following elements:
- Short sections providing architectural variation with patterned panel inserts at variable intervals
 - Suburb location identifiers with custom image panels at selected locations in each tunnel
 - Integrated wayfinding
 - Coloured lining panels within breakdown bays
 - All safety and emergency exit signage requirements.
 - Feature lighting will comprise a series of vertical LED strips mounted between the tunnel lining panels on the opposite side of the tunnel to the spine.

The design of the tunnels is not discussed further within this plan.





Artist's impression: Rozelle Rail Yards.
(Landscape shown at full maturity and is indicative only)

4.4 Rozelle

Design Intent - 'The Green Heart' of the Bays

As a major contribution to public open space in Sydney, the Project has developed a city-scale vision for the Rozelle Rail Yards, the 'green heart' of The Bays Precinct and an extension of the open space around the harbour. This vision will see this site transformed into a post-industrial landscape that responds to the ever-growing demand for quality open space in a rapidly growing city.

As a guiding principle, the Project has sought to preserve, enhance and activate the parkland as a refuge for people, connecting the various needs of the city with the needs of the community.

To achieve this, The Project has sensitively integrated infrastructure that is required to operate the motorway (including elements of the future Western Harbour Tunnel).

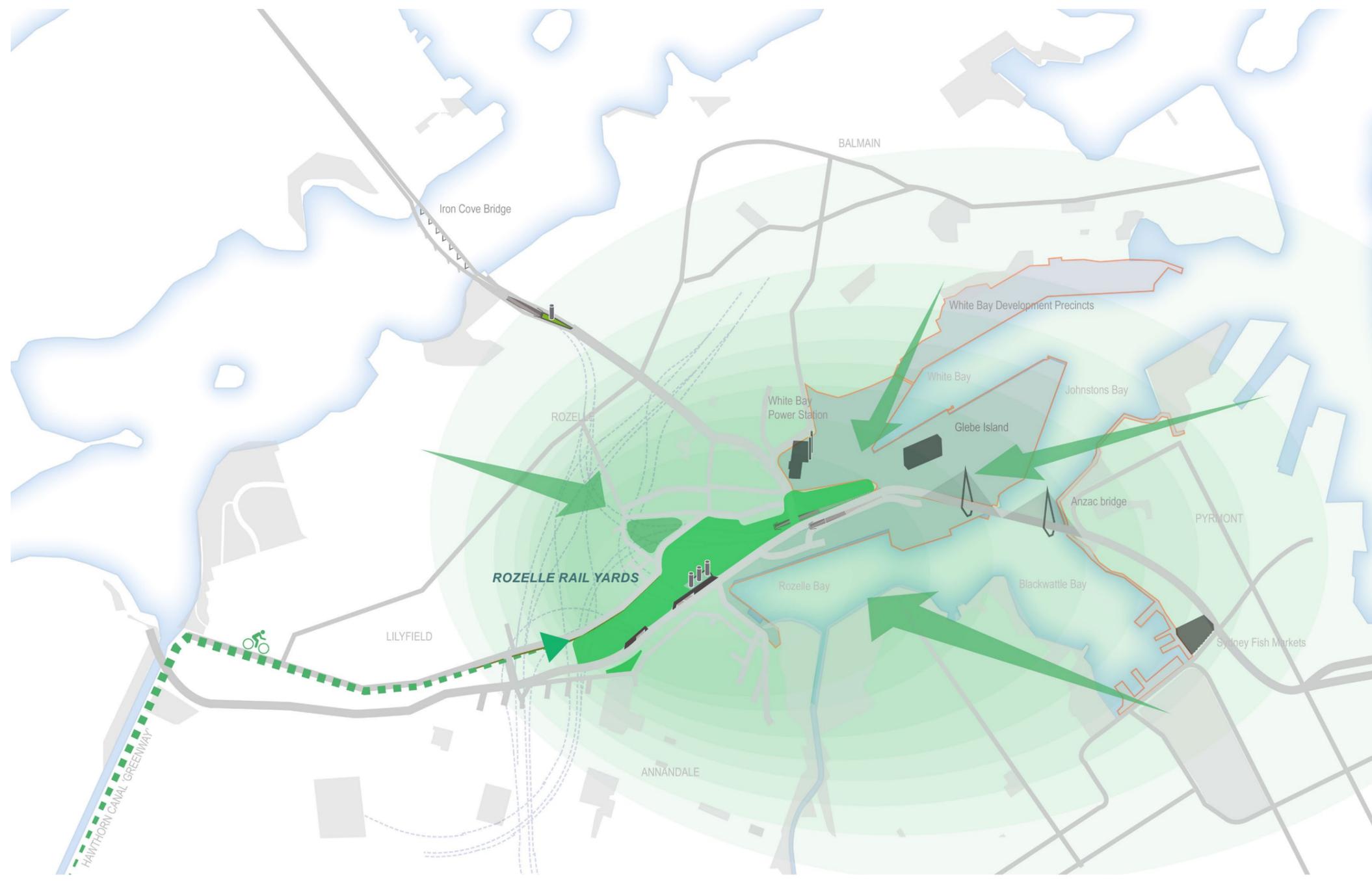


Figure 4-3: Rozelle Rail Yards - The 'Green Heart' of The Bays Precinct

Rozelle urban design strategies

The following urban design strategies demonstrate how the design solution aligns the vision for Rozelle, encompassing the Rozelle Rail Yards. Specific urban design strategies for the parkland at the Rozelle Rail Yards are provided in Section 4.6

Additional strategies relating to the landscape design approach (including water sensitive urban design) are provided in Section 5 of this UDLP.

Reconnect 'The Bays'

Existing infrastructure and development has created a major impediment to pedestrian movement between Glebe and Rozelle.

The Project provides an opportunity to reconnect the precinct and enable future connections to the White Bay area once developed.

The diagram illustrates the proposed pedestrian and cyclist connections which have been developed to comply with the requirements of the Active Transport Network that is described in Section 11 of this UDLP.

The Rozelle Rail Yards Pedestrian and Cycling Green Link will provide the major north-south connection from Easton Park to Jubilee Park via the Rozelle Bay Light Rail stop (subject to approval of modification SSI-7485-Mod-2). A new pedestrian bridge will connect Cohen Park to Lilyfield Road.

The at-grade signalised crossing at the intersection of Victoria Road and City West Link will be retained.

A new off-road commuter path near Lilyfield Road will provide east-west connectivity through the Rozelle Rail Yards and accommodate future links to the Greenway and The Bays Precinct.

Along Lilyfield Road, the entire length of the Rozelle Rail Yards parkland will connect to existing street levels, enabling an accessible and permeable park frontage for the local community.

Maximise public parkland and open space

As an enduring legacy for Sydney, the Project has sought to maximise every opportunity to increase public parkland and open space.

Operational facilities have been consolidated to avoid the fragmentation of opens space, and buildings footprints have been reduced and heights lowered to allow for landscaping above.

As a minimum, 9ha of publicly accessible parkland will be available at the Rozelle Rail Yards at the commencement of operation of the Project.

Where possible, wide landscaped verges have been provided along the local roads, providing opportunities for relief and connection to the foreshore.

The approach to landscape design, tree species and plant selection in these new areas of open space is provided in Section 5 of this UDLP.

- Legend**
- Existing local cycle route
 - Existing major cycle route
 - Existing cycle route (off-street)
 - Existing major pedestrian link
 - Major N-S pedestrian and cycle link
 - Major E-W pedestrian and cycle link
 - Footpath / minor street crossing/connection
 - Anzac bridge to Victoria road connections
 - Future cycle connection upgrade (by others)
 - Council proposed cycle route



Figure 4-4: Rozelle - Connectivity diagram

- Legend**
- Rozelle Rail Yards - publicly accessible open space and parkland
 - Non-publicly accessible revegetation areas
 - Non-publicly accessible Motorway Operational Areas
 - Retained heritage terraces (78-84 Lilyfield Road)
 - New public open space areas outside of the Rozelle Rail Yards.



Figure 4-5: Rozelle - Parkland open space diagram

Create a legible path network

A network of paths has been developed to provide the backbone for access and movement around Rozelle and reinforce the broader connectivity strategy.

A legible hierarchy of paths has been developed accompanied by public furniture, to provide variety and interest.

Path widths will be generally designed as follows:

- 5m wide separated pedestrian and cycle paths
- 4m wide shared paths
- 2m footpaths
- Main paths will be lit to the P2 lighting category to ensure safety and legibility at night.
- Paths will be constructed from high quality materials and finishes, drawing upon the character of the former rail yards.

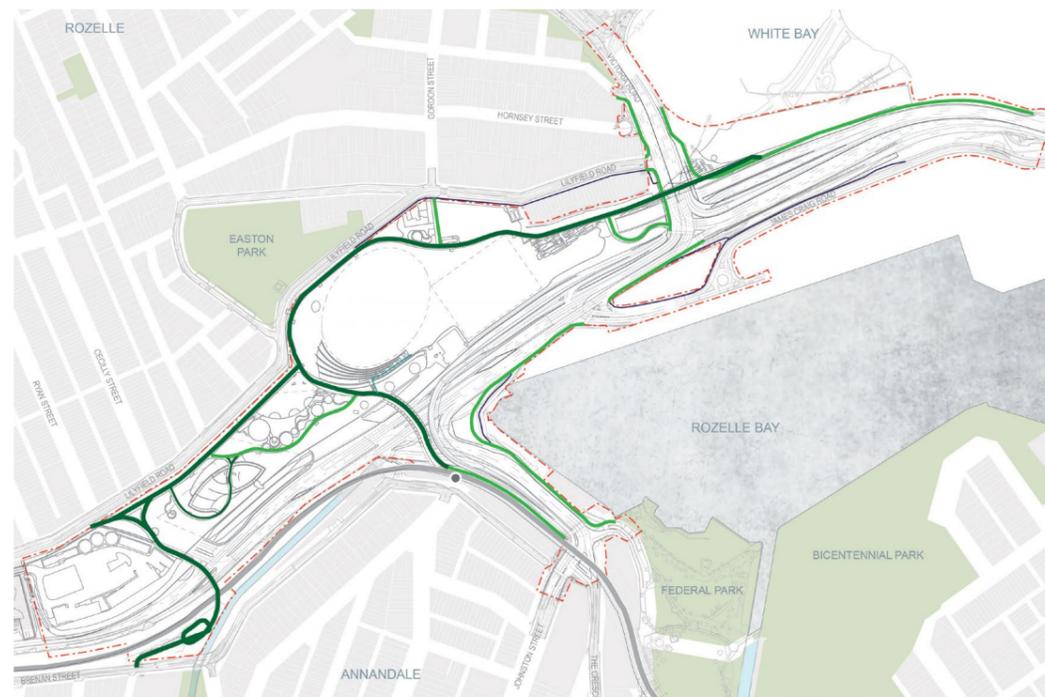
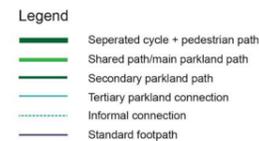


Figure 4-6: Rozelle - Path hierarchy diagram

Establish a vibrant and diverse parkland

Within Rozelle, the Rozelle Rail Yards will be transformed into a major regional public parkland.

As part of the 'Green Heart' vision for the parklands, a whole-of-park design approach to the Rozelle Rail Yards Park has been adopted to reinforce the identity of a single, continuous parkland supported by the use of consistent detailing, materiality, form and landscaping.

The Rozelle Rail Yards parkland has been arranged into five parkland precincts that responds to the varying site conditions, integrates with its surrounds and establishes the overall vision for the 'Green Heart'. The parkland precincts are described in further detail, later on in this Section.



Figure 4-7: Rozelle - Rail Yards parkland open space structure

Integrated operational facilities

The Project approach to infrastructure and motorway operational elements has been simple; consolidate or integrate with the purpose of maximising site area used for parkland and open space.

The motorway and tunnel operations facilities are, as far as practicable, located underground to improve the public parkland opportunities above ground. Consolidated operational facilities above ground are discretely located or partially subterranean wherever possible to enhance surface conditions and the parklands for the benefit of the community.

The majority of the above ground buildings have been consolidated within the Rozelle West Motorway Operations Complex. Access to this site has been provided via an existing access to the Sydney Light Rail Depot.

Due to the relative difference in level between Lilyfield Road and the Rozelle Rail Yards, these facilities will sit discretely, nestled between City West Link and the M5 cut and cover structure and screened by vegetation on all sides.

Outside of the Rozelle West Motorway Operations complex, the Project will construct a number of operational buildings that have been seamlessly integrated within the Rozelle Rail Yards parkland as possible by reducing footprints and lowering the building to allow for landscaping above as well as DDA compliant grades. In addition, a minimum 1000mm soil depth will be provided above all structures which is suitable for tree plantings.

Water quality basins will be incorporated into the parklands in the form of constructed wetlands, providing amenity for park users. These are described further in Section 5 of this UDLP.

M4 - ANZAC DIVE PORTALS

Portals will be refined, elegantly designed elements that are consistent with M4 East and New M5 projects. Details are provided in Section 6 of this UDLP.

CITY WEST LINK PORTALS

Cut and cover portals constructed along the City West Link to cater primarily for traffic coming and going towards the M5 tunnels, and for the proposed future Western Harbour Tunnel.

Details are provided in Section 6 of this UDLP.

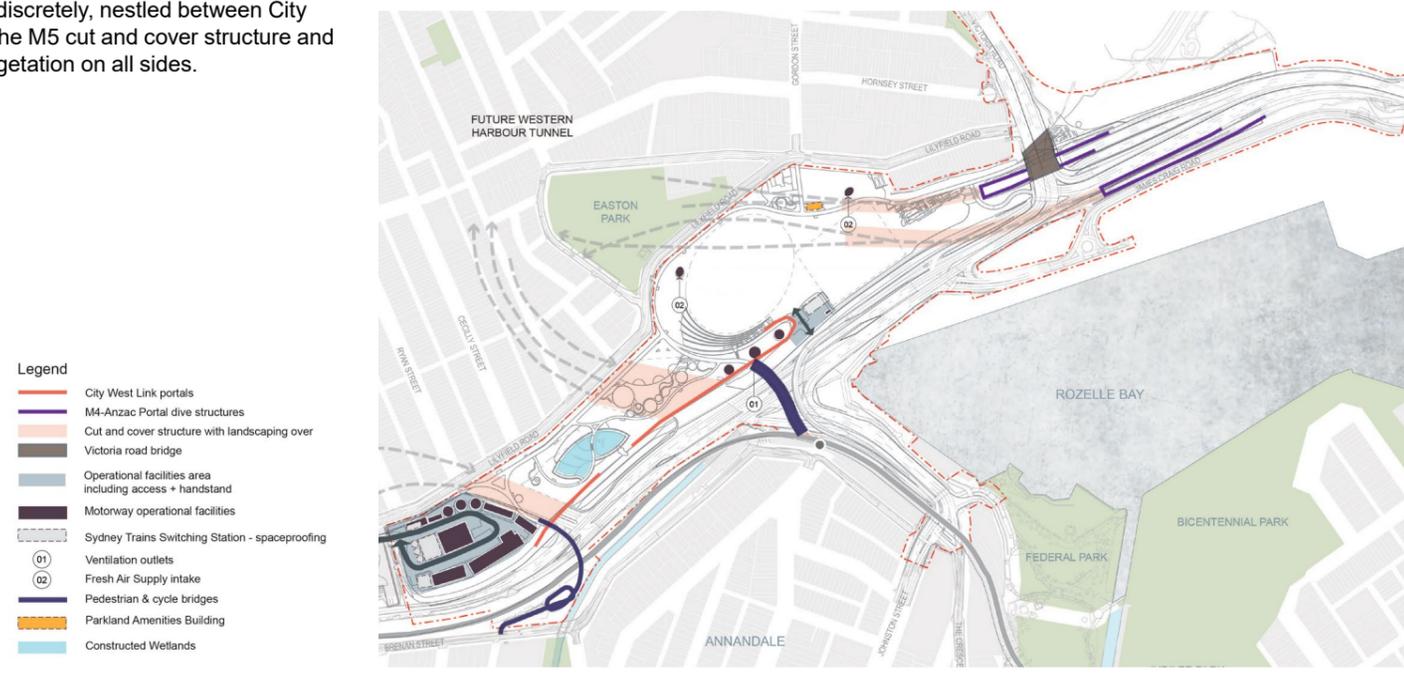
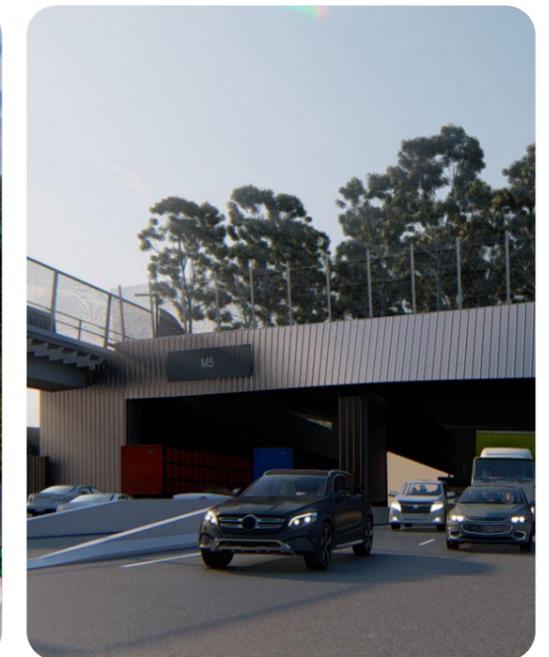


Figure 4-8: Rozelle - Operational infrastructure project elements



ROZELLE WEST MOTORWAY OPERATIONS COMPLEX

The Rozelle West Motorway Operations Complex (MOC) is co-located in the most westerly portion of the Project site alongside the Sydney Trains Inner West Light Rail facility. The facility is visually recessed below the surrounding street and parkland levels in an existing rail yard cutting, which reduces potential operational impacts on the surrounding neighbourhoods and the parklands. While the MOC contains utilities and related facilities, the structures are recessive as they are recessed in the landscape and have trees and landscape surrounding the facilities. This results in the whole facility being largely visually screened from public spaces.

The MOC is a high security area that includes man-proof fences and gates, illumination, and other security facilities. There is no public access to this area.

Details of the facilities are provided in Section 7 of this UDLP.

ROZELLE VENTILATION OUTLETS

To comply with Minister's Condition of Approval E118, the ventilation facility at Rozelle has been designed as a living, green system, integral to the 'Green Heart' vision of the Rozelle Rail Yards parkland.

Details of the ventilation facilities are provided in Section 8 of this UDLP.

ROZELLE VENTILATION INTAKE FACILITIES

Rozelle Interchange and Western Harbour Tunnel ventilation intake facilities are located in the Rozelle Rail Yard Parklands, providing fresh air supply to the tunnel system. The air intake structures are part of the language of parkland landscape and, with vegetated screening, they will form major landscaped elements within the parklands.

PARKLAND AMENITIES BUILDING

The Rozelle Rail Yards parklands amenities building is located centrally within the "active recreation" area of the park, on major circulation pathways to improve access to the facility. The amenities building incorporates toilets, hand washing and private space for changing clothes for public use.

The building has been designed to complement the parkland character and nearby Rozelle Ventilation Intake Facilities.





Artist's impression: View from the landscape lookout above the Rozelle Ventilation Facility
(Landscape shown at full maturity and is indicative only).

4.5 Rozelle concept plans

To achieve a lasting and cohesive design for Rozelle, an overall concept plan was developed to demonstrate the finished outcome for the Project.

The following concept plans illustrate the integrated urban design, architecture and landscaping approach. The plans highlight the location of main features such as buildings, facilities, paths and parkland elements.

Further detail relating to the parkland design at the Rozelle Rail Yards is provided in Section 4.6.

The concept plans also indicate the areas of the Project that have been designated as residual land which are subject to the Residual Land Management Plan as required under Ministers Condition of Approval E112.



Figure 4-9: Rozelle - Aerial view over City West Link
(landscape shown at full maturity and is indicative only).



Figure 4-10: Rozelle - Landscape Concept Masterplan
(The Green Link Bridge and Rozelle Bay Shared User Path Bridge area subject to approval of modification SSI-7485-Mod-2)



Key Project Elements

- 1 Rozelle West Motorway Operations Complex
- 2 Rozelle Ventilation Facility
- 3 M5 Portals
- 4 Western Harbour Tunnel Portal
- 5 Constructed wetland
- 6 Brenan Street Shared User Path Bridge
- 7 Nature inspired playground area
- 8 Western drainage channel
- 9 'Yarning Circle'

LEGEND

- Proposed tree planting
- Sand ground cover for play areas
- Gravel paths
- Publicly accessible turf areas
- Landscape revegetation areas
- Constructed wetland
- Concrete Path
- Softfall ground cover areas for fitness and play
- Project Boundary

Note: further detail description for parkland elements in Rozelle Rail Yards parkland is provided in Section 4.6



Figure 4-11: Rozelle - Concept Plan - Drawing 1 of 4



- Key Project Elements**
- 1 Rozelle Ventilation Facility
 - 2 Western Harbour Tunnel Portal
 - 3 Constructed wetland
 - 4 Green Link Bridge (subject to approval of modification SSI-7485-Mod-2)
 - 5 Residual Land (subject to the Residual Land Management Plan)
 - 6 Whites Creek Shared User Path Bridge
 - 7 Landscape terraces
 - 8 Sydney Trains Switching Station
 - 9 Maintenance access and hardstand area
 - 10 Rozelle Ventilation Facility - Fresh Air Inlet
 - 11 78-84 Lilyfield Road Terraces
 - 12 Western drainage channel
 - 13 Nature inspired playground area
 - 14 Infants playground area
 - 15 Amenities building
 - 16 Rozelle Bay Light Rail Stop connection
- LEGEND**
- Proposed tree planting
 - Sand ground cover for play areas
 - Gravel paths
 - Publicly accessible turf areas
 - Landscape revegetation areas
 - Constructed wetland
 - Concrete Path
 - Softfall ground cover areas for fitness and play
 - Project Boundary
- Note: further detail description for parkland elements in Rozelle Rail Yards parkland is provided in Section 4.6*



Figure 4-12: Rozelle - Concept Plan - Drawing 2 of 4



- Key Project Elements**
- 1 M4-Anzac Entry Portal
 - 2 M4-Anzac Exit Portal
 - 3 Victoria Road Bridge and Pedestrian Underpass (below)
 - 4 Victoria Road Shared User Path Bridge - East
 - 5 Victoria Road Shared User Path Bridge - West
 - 6 Public Access Stair
 - 7 Rail Park and plaza
 - 8 Residual Land (subject to the Residual Land Management Plan)
 - 9 Southern Penstock (heritage item)
 - 10 Existing Sandstone Rock Face
 - 11 Street pocket parks and landscaping
- LEGEND**
- Proposed tree planting
 - Sand ground cover for play areas
 - Gravel paths
 - Publicly accessible turf areas
 - Landscape revegetation areas
 - Constructed wetland
 - Concrete Path
 - Softfall ground cover areas for fitness and play
 - Project Boundary
- Note: further detail description for parkland elements in Rozelle Rail Yards parkland is provided in Section 4.6



Figure 4-13: Rozelle - Concept Plan - Drawing 3 of 4



Figure 4-14: Rozelle - Concept Plan - Drawing 4 of 4

Typical cross sections

Typical cross sections through Rozelle are provided within this section. Additional sections through the Rozelle Rail Yards parkland are provided in Section 4.6 of this UDLP.

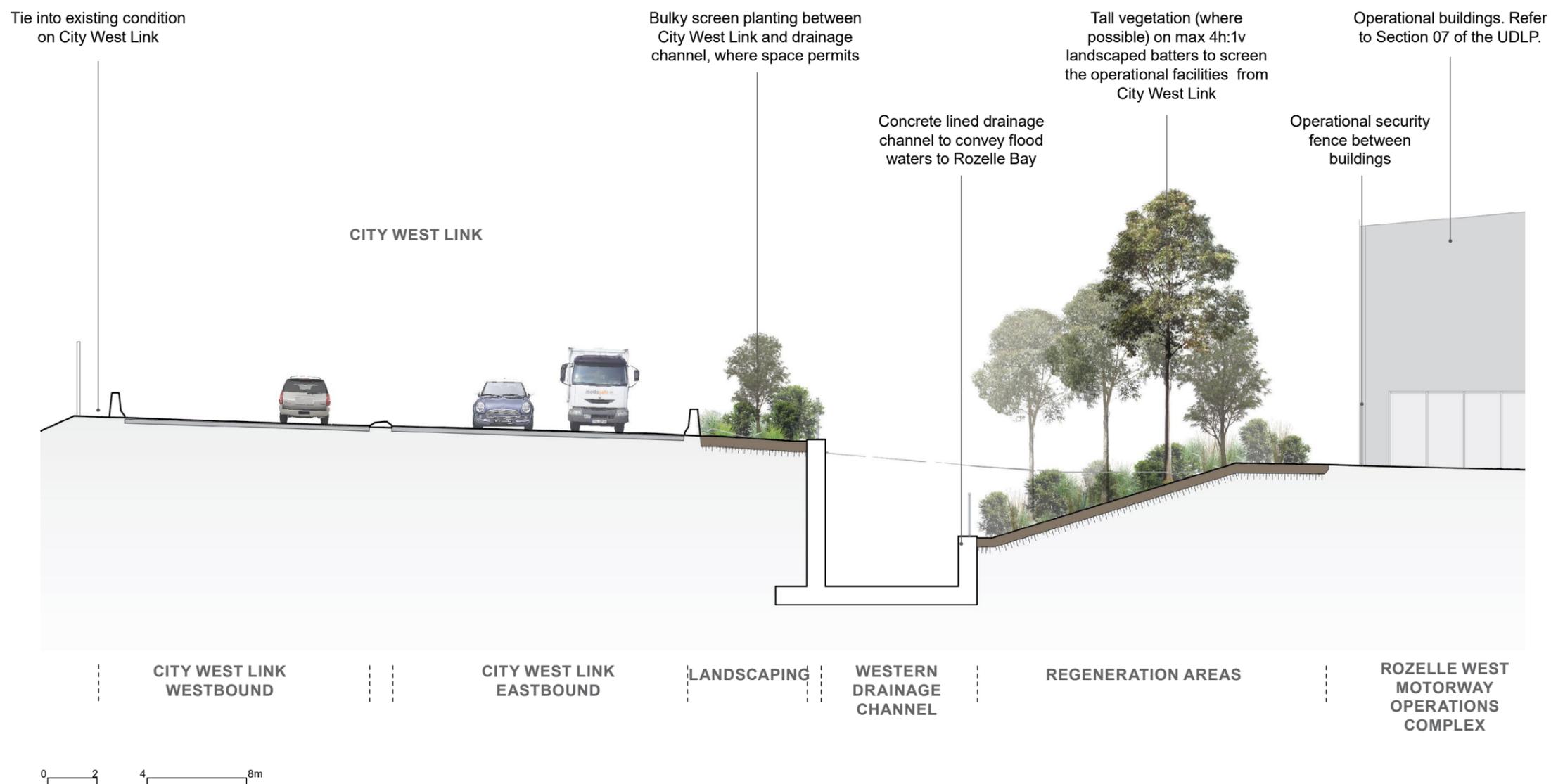


Figure 4-15: Rozelle - Typical section 01

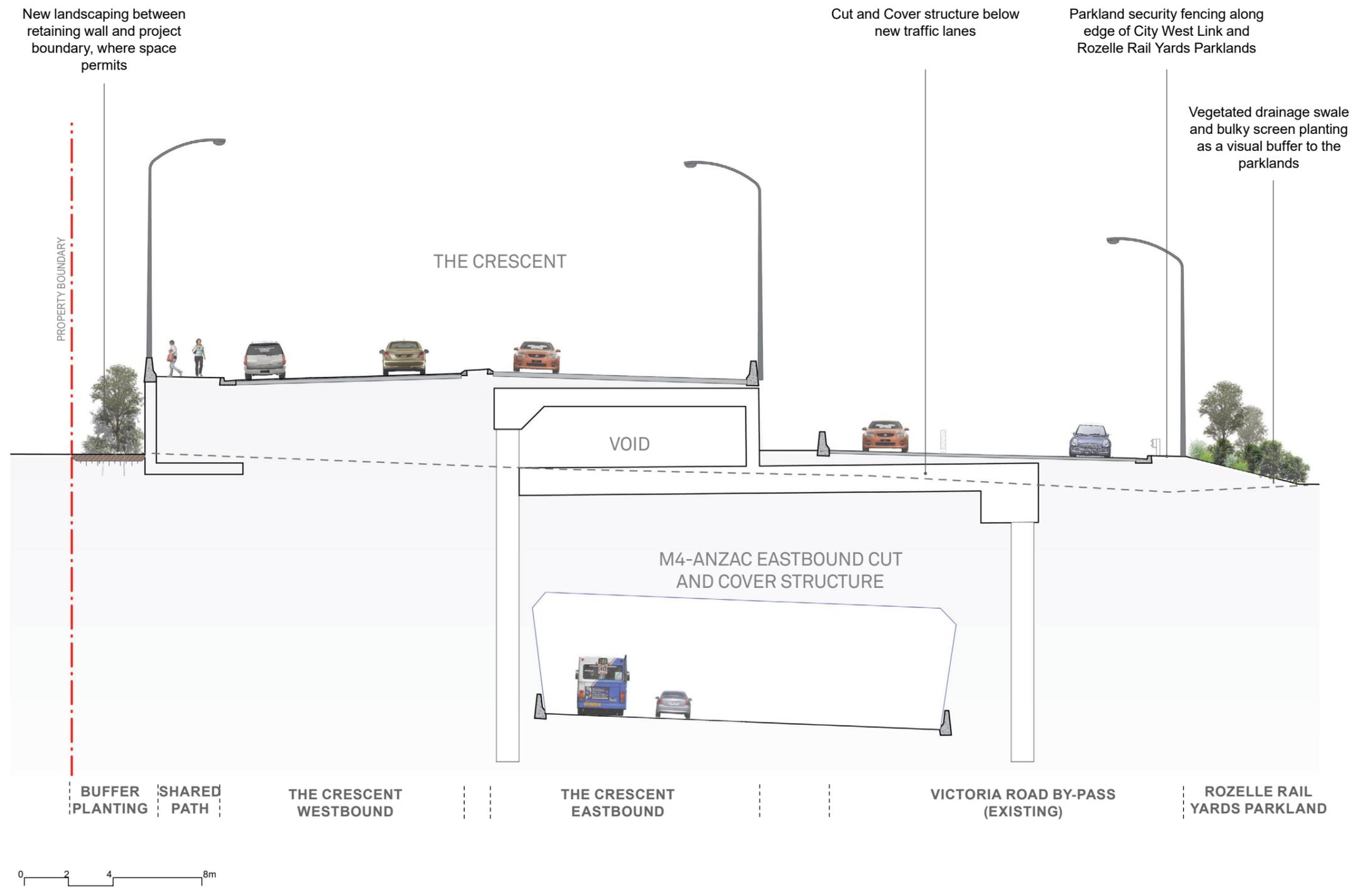


Figure 4-16: Rozelle - Typical section 02

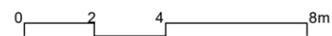
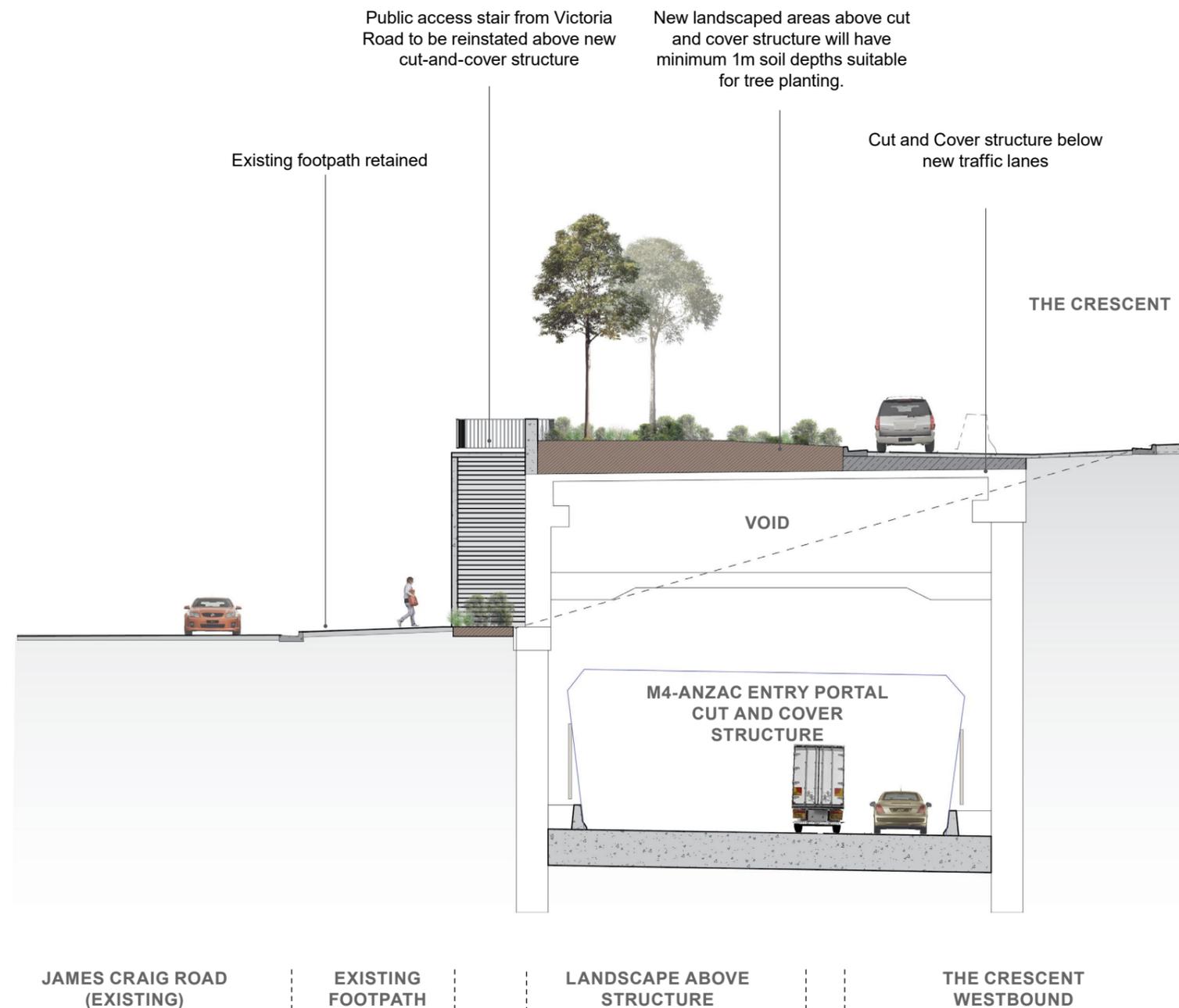


Figure 4-17: Rozelle - Typical section 03

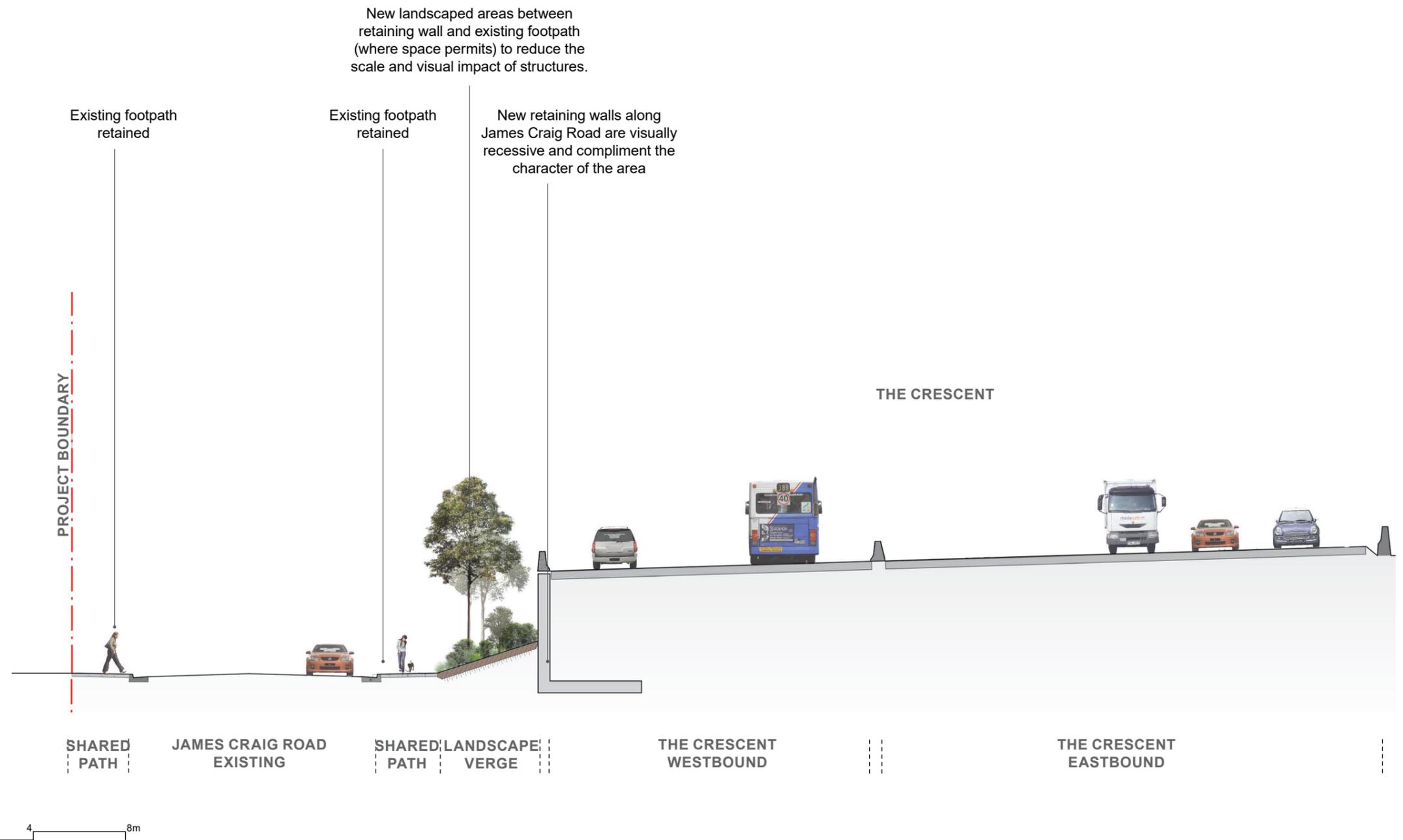


Figure 4-18: Rozelle - Typical section 04

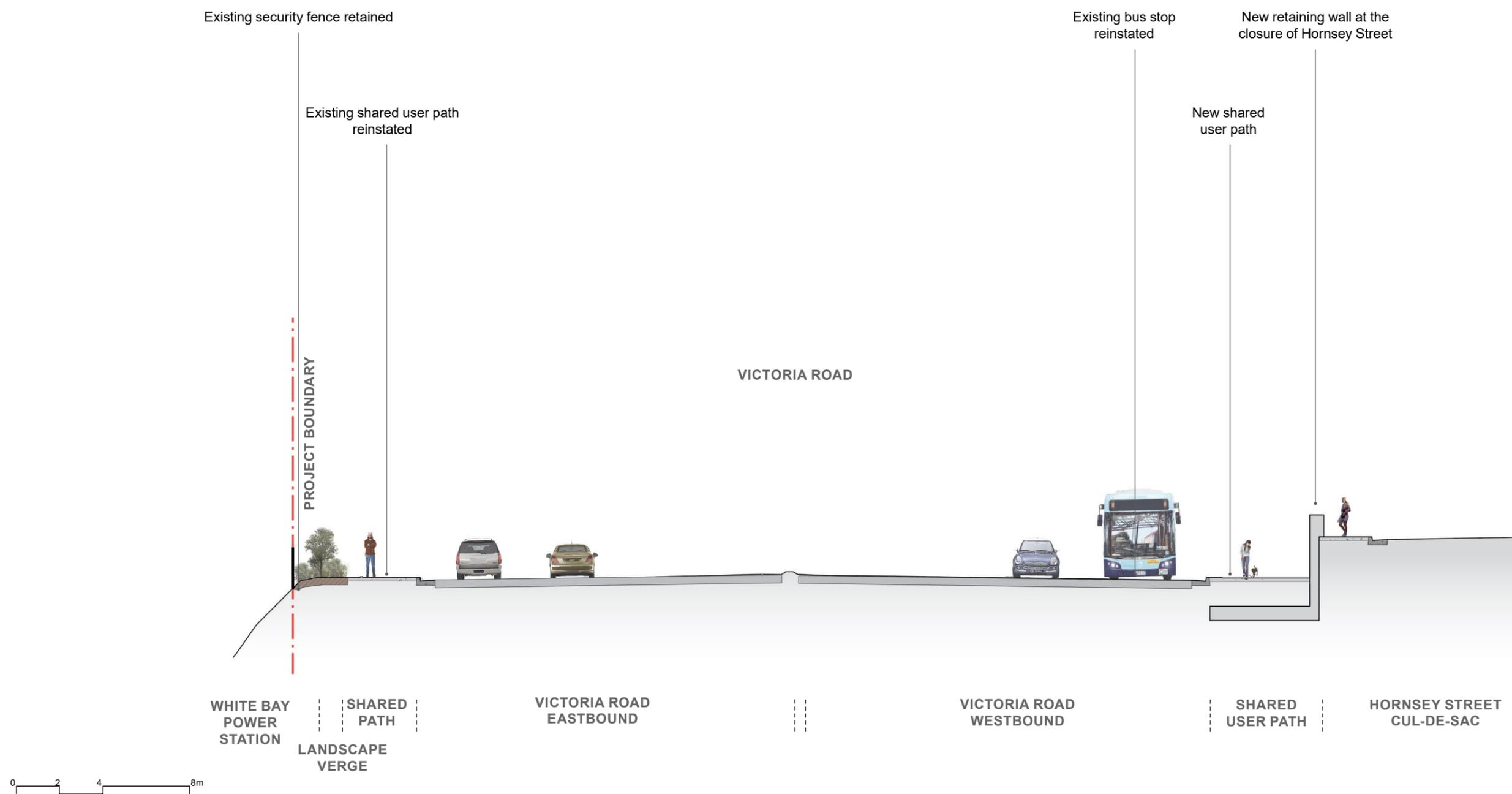


Figure 4-19: Rozelle - Typical section 05

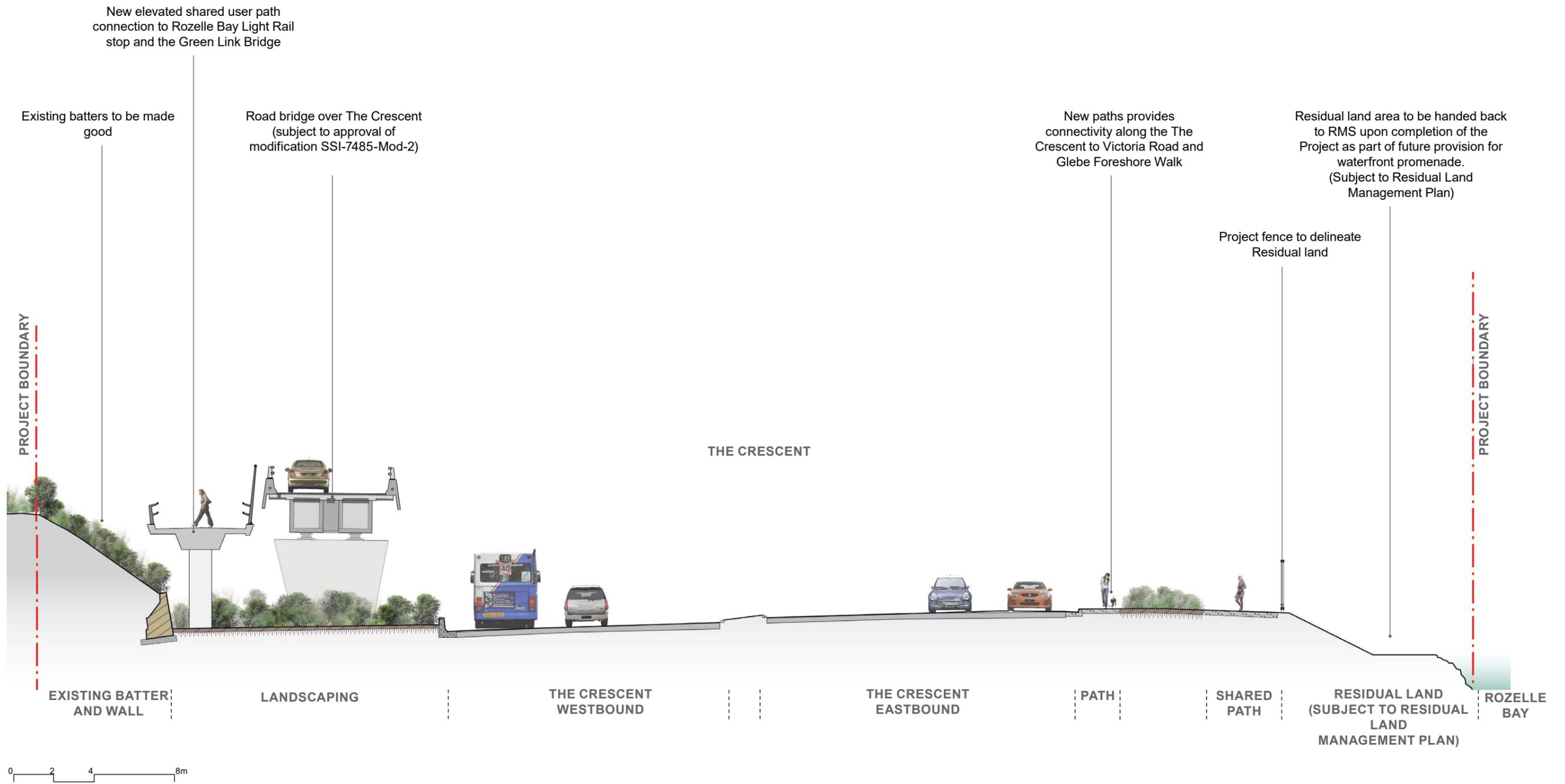


Figure 4-20: Rozelle - Typical section 06

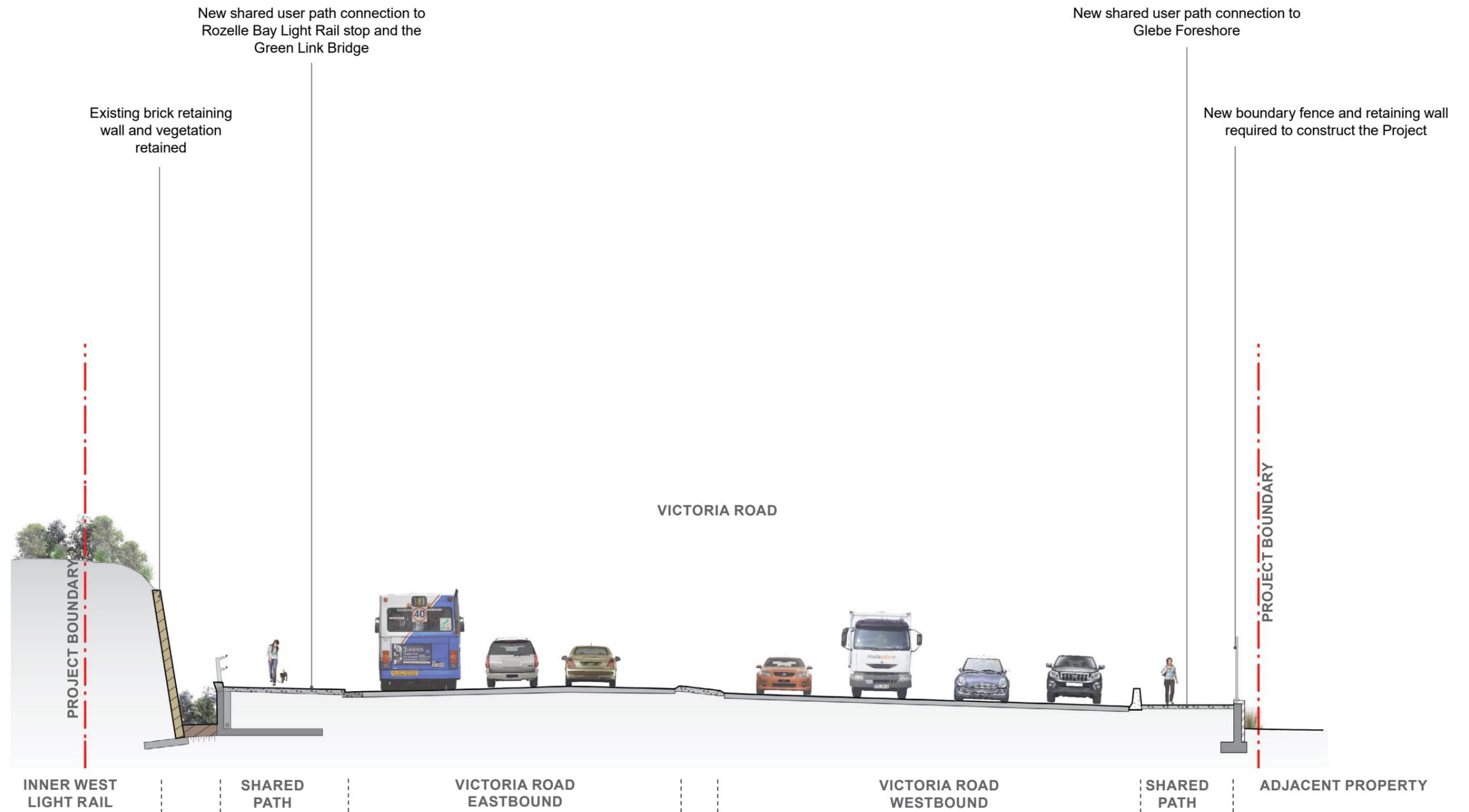


Figure 4-21: Rozelle - Typical section 07

4.6 Rozelle Rail Yards

Within Rozelle, the Rozelle Rail Yards will be transformed into a major regional public parkland.

As part of the 'Green Heart' vision for the parklands, The Project has developed a number of parkland specific urban design strategies, which build upon those outlined in Section 4.4, to ensure that the parkland provides an enduring legacy for Sydney.

The whole-of-park design approach to the Rozelle Rail Yards Park has been adopted to reinforce the identity of a single, continuous parkland supported by the use of consistent detailing, materiality, form and landscaping.

Parkland precincts

An over arching framework was developed for the parkland, as the principal rationale for organising the site and arranging all Project elements to support a diverse parkland program.

A number of zones were considered based on:

- Compatible, functional requirements such as buildings, structures and drainage
- Changes in topography, both natural and man-made
- Compatible, adjacent land uses such as major roads, residential areas and open space.
- Historical significance, such as the former rail yards and the original shore line
- Existing natural features, and micro climatic conditions

The Rozelle Rail Yards parkland has been arranged into five parkland precincts that responds to the varying site conditions, integrates with its surrounds and establishes the overall vision for the 'Green Heart'.

The parkland precincts have influenced all aspects of the parkland design including the derived character/s, location of parkland elements, and buildings.

The parkland precincts have also influenced the vegetation typologies including tree canopy and planting selection, that draw upon the vegetation communities that would have existed in the area. Further detail is provided in Section 5 of this UDLP.

A general description of each precinct is provided on the following page.



Figure 4-22: General open space structure at Rozelle Rail Yards

- Legend**
- Motorway Operational Zone
 - Parkland Forest
 - Village Green
 - The Rail Park
 - Riparian corridor

MOTORWAY OPERATIONAL COMPLEX

This area, referred to the Rozelle West Motorway Operations Complex, comprises all necessary infrastructure required for a functioning motorway system.

The siting of these buildings has been considered in response to adjacent land uses, such as the Sydney Light Rail Depot, so they can be topographically concealed or visually screened from sensitive receivers.

Further details are provided in Section 7.

PARKLAND FOREST

Focused primarily on landscape restoration within a passive parkland setting, this precinct will draw on the character of former vegetation communities to create an urban forest that supports a diverse community program. This includes barbecue areas, picnic areas, playgrounds.

The constructed wetlands will be a focal point in this precinct, located near the 1788 foreshore line.

VILLAGE GREEN

As the heart of the Rozelle Rail Yards Park that hinges off the main north-south connection from Rozelle Bay, this precinct will extend the existing recreation and Village Green character across from Easton Park.

This precinct will combine active recreation in the form of organised sports and play opportunities, also allowing for temporary uses such as community-based events and/or market gardens.

RAIL PARK

Reflecting on the legacy of former rail yards, this precinct will have a strong post-industrial urban language that will enable a consistent parkland transition into the future White Bay Cultural Precinct.

RIPARIAN CORRIDOR

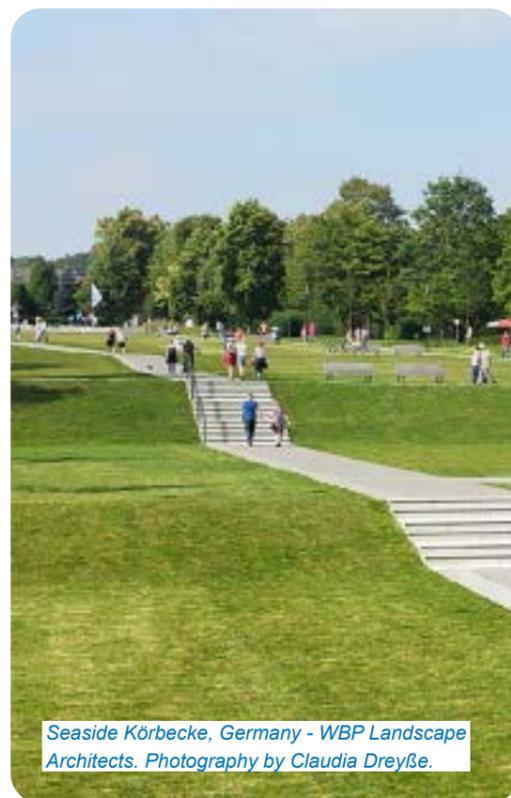
Primarily catering to the overland flow and drainage requirements across the site, this area will serve as a revegetated riparian corridor and landscape buffer to the parkland from City West Link.



Chalmers Street Substation, Sydney.
Source: Transport for NSW.



Sydney Park. Photography by Turf Design.



Seaside Körbecke, Germany - WBP Landscape Architects. Photography by Claudia Dreyße.



Landscape Park Duisburg Nord in Duisburg, Germany - Latz + Partners. Photography by The High Line.



Paperbark Trail, Agnes Water, Queensland. Source: Reddit - Camping and Hiking.

Figure 4-23: Rozelle Rail Yards - Precinct Characters - precedent images only

Parkland activities and elements

Much like all parks of this scale and those along Sydney Harbour, Rozelle Rail Yard park will become a destination for locals and broader Sydney.

Creating a park that people desire to come to for leisure, play and respite requires a diversity of uses and elements that appeal to the local and regional demographics.

The Project team has developed a diverse program for a vibrant, attractive and usable parkland, and is outlined in this section.

Organisation of parkland activities

In conjunction with the parkland precincts described earlier, the Project has organised and grouped the various parkland activities into three general categories, to align complimentary activities and parkland uses to enrich the user experience.

The three activity groups generally relate to the type of recreation and quantum of people generally involved. They are:

- Active - Organised; catering for large groups (greater than 20 people) and potential organised sports, events and intensive uses
- Semi Active - Communal; activities that are less intensive, more communal and/or family oriented in nature and can allow for a varied number of patrons (up to 20 people)
- Passive - Personal; activities that are generally undertaken by individuals and small groups that are passive in nature and also include free space.

The activity groups are a guiding principle for the parkland but are not mutually exclusive. The diagram below illustrates how the activity groups have been broadly applied to the Rozelle Rail Yards parkland.

The spheres demonstrate how the active uses are generally concentrated in the centre of the parkland, and transition to semi-active and passive uses moving outwards to the edge of the parkland.

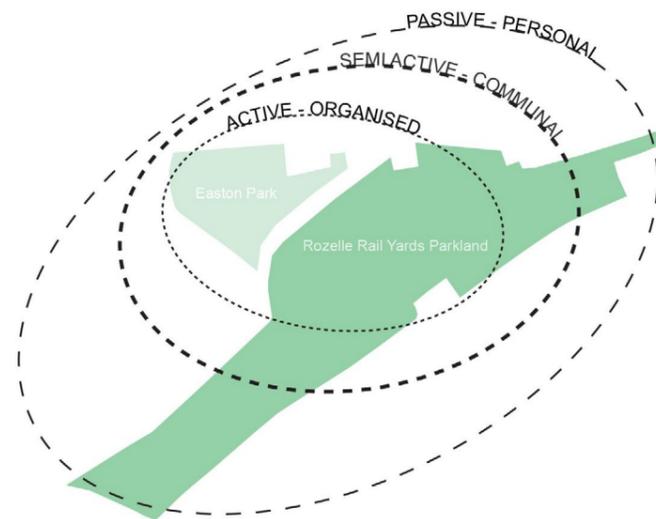


Figure 4-24: Rozelle Rail Yards - spheres of activity

Activities that support Connection to Country

The Project has developed the design of the parklands to incorporate Connection to Country.

Overall, the Connection to Country begins with the 'healing' the landscape through the re-establishment of broad revegetation areas and habitat creation in the parklands derived from the native vegetation communities that once existed in the area.

Within the revegetated parkland forests, bush tracks will link to main pedestrian and cycle paths offering different experiences of the landscape.

Access to the waters edge has been an important part of the design process with the location of the constructed wetlands located on the original shore line. Not far from the constructed wetlands, Yarning circles and the provision for fire pits have been included to enable social cohesion as places for gathering, ritual, ceremony and education.

The parkland will also include opportunities for integrated public art. An indigenous artwork will be provided in the Victoria Road Pedestrian Underpass drawing upon the shared history of the site. Details of the artwork are subject to further consultation with Inner West Council and the local community.

The locations of specific parkland elements are shown on the following page.

Rozelle Rail Yard parkland elements

The adjacent plan outlines the general configuration of all major parkland elements that will be constructed by the Project, and provide a diverse park outcome.

1 THE VILLAGE GREEN, ACTIVE SPORTS AND RECREATION AREAS

At the centre of the park, the open fields provide opportunity for active recreation and facilitate opportunities for large outdoor community events.

2 LANDSCAPE TERRACES

A series of landscape terraces will provide spectating opportunities across the Village Green and seamlessly connect the parkland located above the building structures.

3 FREE, UN-PROGRAMMED SPACE

'Free Space' does not have a specific use other than to provide flexibility and opportunity for a broad range of activities.

4 CONSTRUCTED WETLANDS AND BOARDWALK

The wetlands will be the focal point of the parkland forest, connected by boardwalks and parkland paths.

5 NATURE PLAY & INFANT PLAY AREAS

Two play areas will be constructed by the Project and is described further in Section 10.

6 BARBECUE GROUNDS

Barbecue facilities will be provided in close vicinity to the nature play area.

6 FITNESS STATIONS AND FITNESS TRAIL

A number of fitness stations will be located along a fitness trail to promote active, healthy lifestyles. Further detail is provided in Section 10.

7 YARNING CIRCLE

A yarning circle will be provided in the parkland forest near Lilyfield Road as an opportunity for local community gatherings or outdoor class room.

- 8 **DISCOVERY BUSH TRAIL**
Meandering paths through the parkland forest will provide a range of different native landscape experiences.
 - 9 **PARKLAND AMENITIES BUILDING**
The amenities building has been strategically located to service the entire park, and provide convenience for active recreation and Infants Play.
 - 10 **RAIL PARK**
The rail park is located at the same location and level as the former rail yards and will comprise of passive seating and gathering opportunities.
 - 11 **VICTORIA ROAD PEDESTRIAN UNDERPASS**
A new 15 metre wide pedestrian underpass will enable east-west connectivity to Anzac Bridge and the future White Bay precinct.
 - 12 **RETAINED HERITAGE TERRACES ON LILYFIELD ROAD**
The two heritage listed terraces (78-84 Lilyfield Road) have been retained by the project. They will be safeguarded for potential future adaptive re-use (by others).
 - 13 **THE HEADLAND LOOKOUT**
The roof of the Rozelle Ventilation Facility will be an accessible part of the parkland providing a lookout over the park and towards Rozelle Bay.
- INTERPRETIVE ART AND HERITAGE OPPORTUNITIES**
- Opportunities for art and heritage interpretation elements will be organised and curated by the final operator of the Rozelle Rail Yards parklands.
- A strategy for potential public art is provided on the following page.



Figure 4-25: Rozelle Rail Yards - parkland elements and activities

Not to scale

Public art opportunities

The Rozelle Rail Yards Parklands urban design has been developed to provide opportunities for integrated public art.

This section describes the art strategy that has been prepared for the Project which is set in the context of the Rozelle Rail Yard Parklands 'green heart' and its cultural and environmental framework, and respects the evolution of past social and landscape interventions.

Inherent in this art strategy, is its changeability. Historically, art in parklands provides a legacy of monuments or objects, art of past eras and encrusts a patina across the parkland experience.

This strategy looks beyond and to the changing attitudes of society and the needs of a parkland space and responds accordingly. It promotes the principles of temporary or transient artworks which delight and stimulate, and are then replaced with the new; it is at its heart evolving and from the earth.

PERMANENT INTEGRATED ART - EMBEDDED PROJECT ELEMENTS

Embedded artworks provided by the Project are created as part of the development of the establishment stages of the project, they are inherent in the set up and operations of the project, and are listed below:

- 1 **The Rozelle Ventilation Facility;** celebrates the ecological restoration of the project through plant growth and dynamic, fluid architectural expression. The ventilation outlets are the largest visible structures of the project (Refer section 7).
- 2 **The constructed wetlands feature lighting;** atmospheric 'reed' lighting, artistically illuminating the waters edge at night, taking environmental considerations into account (Refer Section 12).
- 3 **Victoria Road Pedestrian Underpass Mural Wall;** celebrates Connection to Country and interprets the shared indigenous and industrial past of the site that brought economic support to a range of communities in the working harbour.
- 4 **Re-use of heritage rail gantries and light tower;** potential adaptive re-use of stockpiled material subject to further validation and assessment. Refer to Section 13.

Embedded artworks are generally kept to a minimum to allow space for the ephemeral works to be developed throughout the remaining spaces, taking into consideration the functionality of the parkland space.

TEMPORARY / TRANSIENT ART OPPORTUNITIES

There are a number of locations which provide opportunities for temporary artworks or installations which would not be provided by the Project.

For the purpose of this strategy, they have generally been located at key entry locations to the park; other inner park locations may be suitable dependent on the works and locations.

At each location, the artworks form designated points of arrival that traverse the parklands. One of these entry locations includes the Victoria Road underpass, which provides an opportunity to interpret the rail history of the site.

The identified locations could change over time and in response to demands.

All temporary art would be organised and curated by the final operator of the Rozelle Rail Yards parklands.

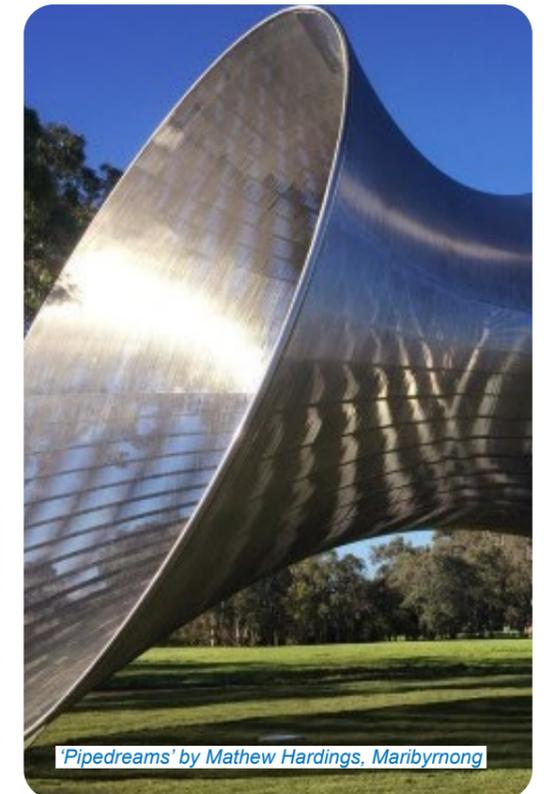


Figure 4-26: Rozelle Rail Yards - Temporary art opportunities - precedent images only

ROZELLE RAIL YARDS PUBLIC ART STRATEGY

The adjacent diagram represents the approach for public art that has been adopted by the Project.

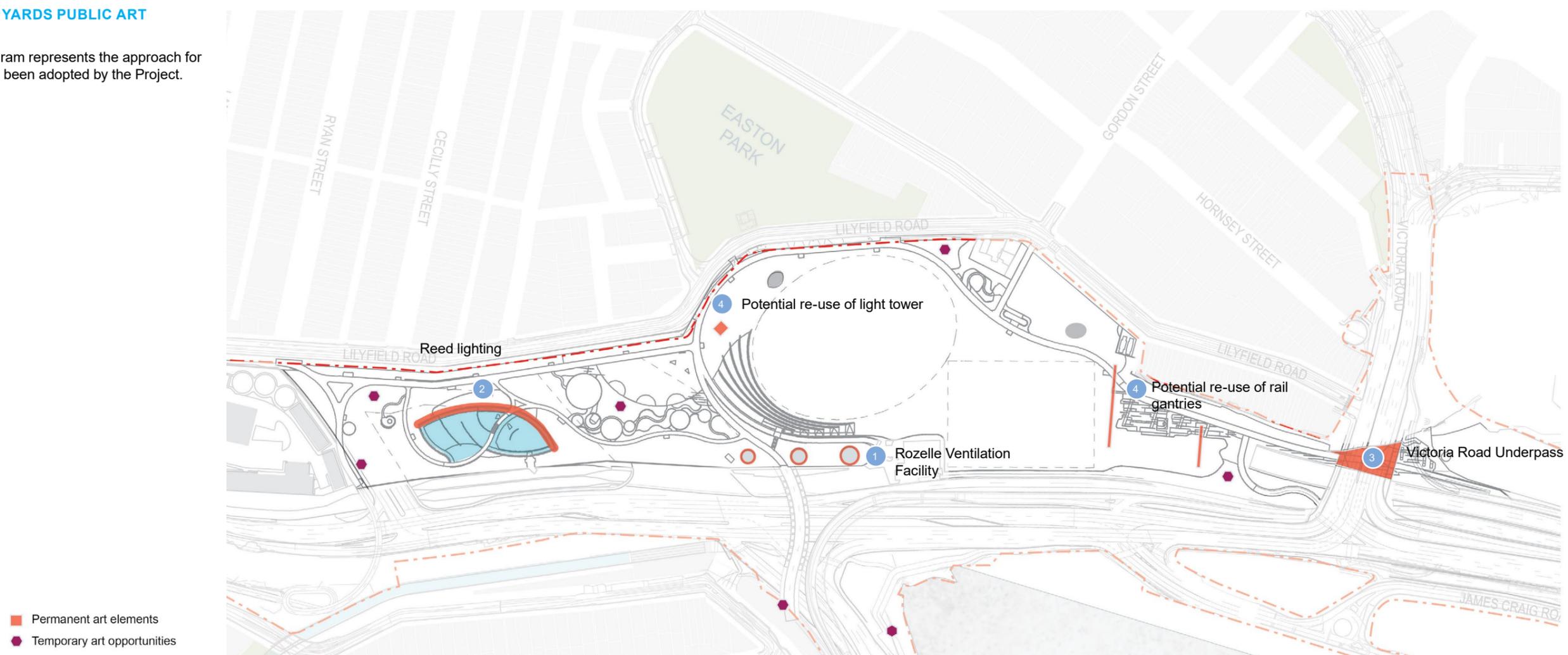


Figure 4-27: Rozelle Rail Yards - public art opportunities

Not to scale

Parkland precinct characters

The whole-of-park design approach to the new Rozelle Rail Yards Park has been adopted to reinforce the identity of a single, continuous parkland supported by the use of consistent detailing, materiality, form and landscaping.

In support of this, three parkland precinct character areas have been developed for the publicly accessible areas to inform the whole-of-park character. Each of these areas respond to the varying functional, environmental, social, programmatic requirements and former uses across the site.

The adjacent concept plan illustrates the overall structure of the parkland. Details for the urban design intent of each precinct are provided on the following pages.

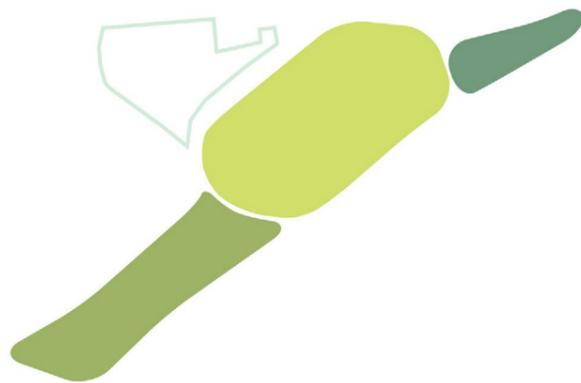


Figure 4-28: Landscape typologies

Parkland character typologies

For each of the parkland precincts, character typologies were developed drawing upon the key design themes outlined in Section 3 of the UDLP.

The themes of the original shore line, industrialisation and land reclamation are recognised in the following three character typologies and have guided the overall arrangement and design of the parkland:

- Ridge and escarpment
- Tidal flats
- Rail and industry

Each character typology will blend and transition across the parkland.

ROZELLE RAIL YARDS PARKLAND PRECINCTS

<p>PARKLAND FOREST</p>	<p>VILLAGE GREEN</p>	<p>RAIL PARK</p>
<p>RIDGE AND ESCARPMENT</p> <p>Supporting the naturalisation of the forest parkland precinct, the character will comprise of organic and sinuous forms, free-flowing lines and meandering paths.</p>	<p>TIDAL FLATS</p> <p>Drawing on the character of the tidal flats that may have been in the Rozelle Rail Yards, the village green will comprise of broad, sweeping arcs and smooth flowing lines, to create a relaxed and open character.</p>	<p>RAIL AND INDUSTRY</p> <p>Reflecting the utilitarian character and the former industrial uses of the site, this precinct will comprise and linear, industrial character.</p>

Figure 4-29: Rozelle Rail Yards - Parkland character typologies

The adjacent plan and section illustrates how the character zones transition across the Rozelle Rail Yards parkland and respond to the varying natural and engineering features.

A detailed description of each parkland precinct is provided on the following pages.



Figure 4-30: Rozelle Rail Yards - Parkland character zones plan and long diagrammatic section

PARKLAND FOREST

Focused primarily on landscape restoration within a passive parkland setting, this precinct will draw on the character of the coastal sandstone forests that would have once been in the area.

In this precinct, the parkland will match existing street levels along Lilyfield Road as it undulates over the M5 and Western Harbour Tunnel (WHT) cut-and-cover structures.

In between the M5 and WHT structures, the constructed wetland will provide a focal point for the parkland connected by a network of timber boardwalks, meandering paths and seating opportunities.

The constructed wetland will feature a permanent body of water that is maintained by the constant flow of treated tunnel water and stormwater that is pumped from the Water Treatment Plant within the Rozelle West Motorway Operations Complex. (described in Section 7).

Key elements in this zone include:

- Parkland plantings of trees and native understory/s that draw on native vegetation communities (refer to Section 5)
- The constructed wetlands which are required to treat tunnel and stormwater, which is a major component of the Projects water sensitive urban design approach (refer Section 5)
- A timber boardwalk across the constructed wetlands (refer Section 5)
- Feature 'reed' lighting around the perimeter of the wetland, to provide interest and delineate the waters edge at night (refer to Section 12)
- Nature inspired playground (refer to Section 10)
- 'Yarning' circle for outdoor education opportunities and local community gatherings
- Active Transport Network pedestrian and cycle connections (refer Section 11). All major paths will be lit (refer Section 14)

- A network of DDA compliant parkland paths allowing for safe, equitable access across the precinct.
- A 'Discovery Trail, comprising a network of informal, meandering paths, providing various landscape experiences.
- Fitness stations (refer Section 10)
- General seating and rest opportunities (refer Section 10).

The section below illustrates the general topography and arrangement of parkland elements in this precinct, supported by artist's impressions on the following page.

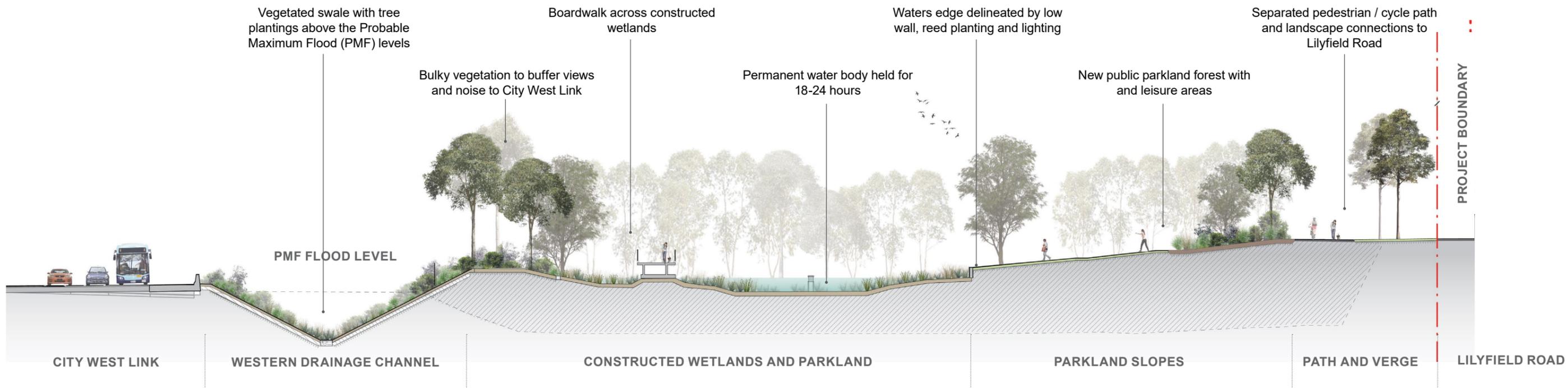


Figure 4-31: Rozelle Rail Yards - Parkland Forest - typical section



Artist's impression: The constructed wetlands in the Parkland Forest precinct of the Rozelle Rail Yards
(Landscape shown at full maturity and is indicative only).

THE VILLAGE GREEN

At the junction of east-west and north-south Active Transport Network (ATN) paths, The Village Green will support the ever-growing need for active recreation and community events.

Grand parkland trees will extend from the character of Easton Park 'wrapping around' open fields to provide continuous shade and canopy.

The Rozelle Ventilation Facility has been sensitively integrated within the parkland to mitigate visual impact and will be screened and 'greened' with vegetation. The northern facade has been designed to incorporate a series of flowing, landscape terraces to reduce the visual scale of the building, and provide a variety of seating and spectating opportunities for the parkland users.

A network of soft, shallow, grassed swales will incorporate overland flow paths from Easton Park, to Rozelle Bay.

Key elements in this zone include:

- Active Transport Network pedestrian and cycle connections (refer Section 11). All major paths will be lit (refer Section 14)
- The Rozelle Ventilation Facility, which includes two fresh air supply inlets nestled within the parkland (refer Section 7)
- A parkland amenities building (refer section 7)
- Infant playground (refer to Section 10)
- Landscape terraces, which have been designed to face a northerly aspect and cater for a broad range of community activities
- A network of DDA compliant parkland paths allowing for safe, equitable access across the precinct
- Fitness stations (refer Section 10)
- General seating and rest opportunities (refer Section 10)
- Parkland plantings of grand fig trees with a predominantly turf understorey. Native grasses and bulky shrubs have been provided along boundaries only, where vegetation screening is necessary (refer to Section 5).

The section below illustrates the general topography and arrangement of parkland elements in this precinct, supported by artist's impressions on the following page.



Figure 4-32: Rozelle Rail Yards - Village Green - typical section



Artists impression: Aerial view over the Village Green precinct
(Landscape shown at full maturity and is indicative only).

RAIL PARK

The Rail Yard precinct is nestled between the existing sandstone cutting (which will be retained), City West Link and the M4 exit portal to Anzac Bridge (refer Section 6).

Reflecting on the legacy of the former rail yards, this precinct will draw on the linearity of the former rail yards and feature reclaimed materials, such as rail tracks and gantries, that are embedded within the public domain, resulting in a fine tapestry of interwoven materials, finishes and plantings.

Paved areas have been designed as flexible 'outdoor rooms' that cater for small groups or gatherings and potentially outdoor learning spaces.

A wide, pedestrian underpass will be constructed under Victoria Road to facilitate the Active Transport Network, and enable the rail park character to become a unifying element once the White Bay Precinct is developed in the future (by others).

Key elements in this zone include:

- Active Transport Network pedestrian and cycle connections (refer Section 11). All major paths will be lit (refer Section 14)
- A network of DDA compliant paths and paved areas allowing for safe, equitable access across the precinct
- M4-Anzac exit portal and approach (refer Section 6)
- Existing sandstone cutting which will be lit with feature lighting at night (refer Section 12)
- Linear, paved areas that are staggered amongst planting areas to create a number of 'outdoor rooms'
- Rain gardens set within paved areas and reclaimed rail track edges
- Victoria Road Pedestrian Underpass (refer following pages for further detail)
- General seating and rest opportunities (refer Section 10)
- Planting design that responds to the gully-like environment industrial character of the precinct (refer to Section 5).

The section below illustrates the general topography and arrangement of parkland elements in this precinct, supported by artist's impressions on the following page.



Figure 4-33: Rozelle Rail Yards - Rail Park - typical section



View along the Major Active Transport Network Park in the Rail Park precinct - Artist's impression
(Landscape shown at full maturity and is indicative only).

Victoria Road Pedestrian Underpass

The Victoria Road Pedestrian Underpass is a signature element within the Rail Park precinct. The purpose of the underpass is to promote the Active Transport Network connectivity for pedestrians and cyclists that is described in Section 11 of this UDLP. Provision for future connectivity to White Bay and Metro-West have also been fundamental considerations during the design process.

At its narrowest, the underpass is 15 metres wide on the western side of Victoria Road and 4.5 metres in height, widening to 28 metres on the eastern end. Further description on the bridge design is provided in Section 8.

The underpass has been designed to be safely lit to a level of P10 in accordance with AS/NZ AS 1158.7. CCTV will also be provided (refer to Section 14).

The design of the underpass has also carefully considered safe sight lines for pedestrian and preserved important contextual views to the harbour.

DESIGN INTENT

To create a safe, attractive and dynamic urban environment, the Project team has developed a contemporary design approach that interprets the former Rail Yards.

The notion of 'convergence' interprets the linearity, and dynamic sense of movement from goods passing under the bridge.

Both sides of the underpass have utilised perforated metal cladding to create a dynamic pedestrian experience.

On the northern abutment, a folded metal facade has been designed to reflect the idea of 'convergence'. The facade has integrated LED strip feature lighting, which converges onto the ground plane and incorporates senses which can detect and change with pedestrian movement.

On the southern wall, a mural wall made of perforated metal cladding has been considered as an opportunity for integrated public art.

INTEGRATED PUBLIC ART OPPORTUNITIES

The Victoria Road Pedestrian Underpass provides an opportunity for integrated public art that draws upon the cultural and industrial heritage of the site.

The mural wall has been developed by the Project to facilitate public art, with perforations in the metal cladding which can be adjusted to convey an image or artwork. The outcome for the perforated mural is subject to further detailed design and consultation.

The Project has considered a potential theme and 'shared histories' for the mural which may reflect on the migration of Aboriginal communities back into the cities as a result of jobs that were only available to them in places such as the Rozelle Rail Yards. Jobs, such as these, became the genesis for Aboriginal communities in Inner Sydney, such as Redfern.

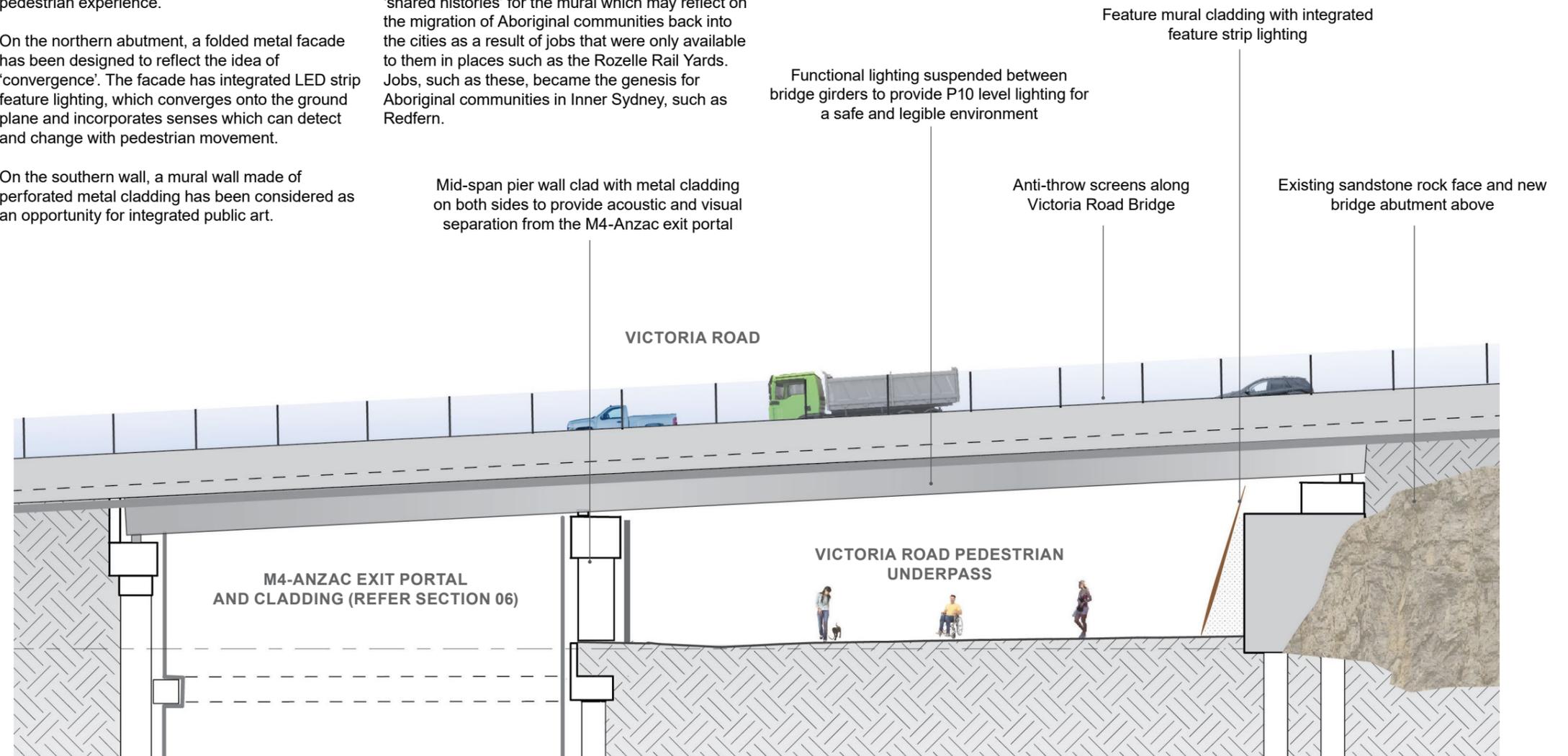


Figure 4-34: Rozelle Rail Yards - Victoria Road Pedestrian Underpass - typical cross section



Artist's impression of the Victoria Road Pedestrian Underpass (mural artwork shown indicatively)
(Shown at full maturity and is indicative only)



Artist's impression: Aerial perspective of the Iron Cove Link
(Landscape shown at full maturity and is indicative only).

4.7 Iron Cove Link

Design intent - The Iron Cove 'Green' Link

Victoria Road has historically been a vehicle-dominated environment, hostile to pedestrians and cyclists.

As part of the Iron Cove Link, the Project will establish a 'Green Link' along the southern verge that will create an attractive, well-landscaped boulevard that will provide much needed amenity and relief for all users.

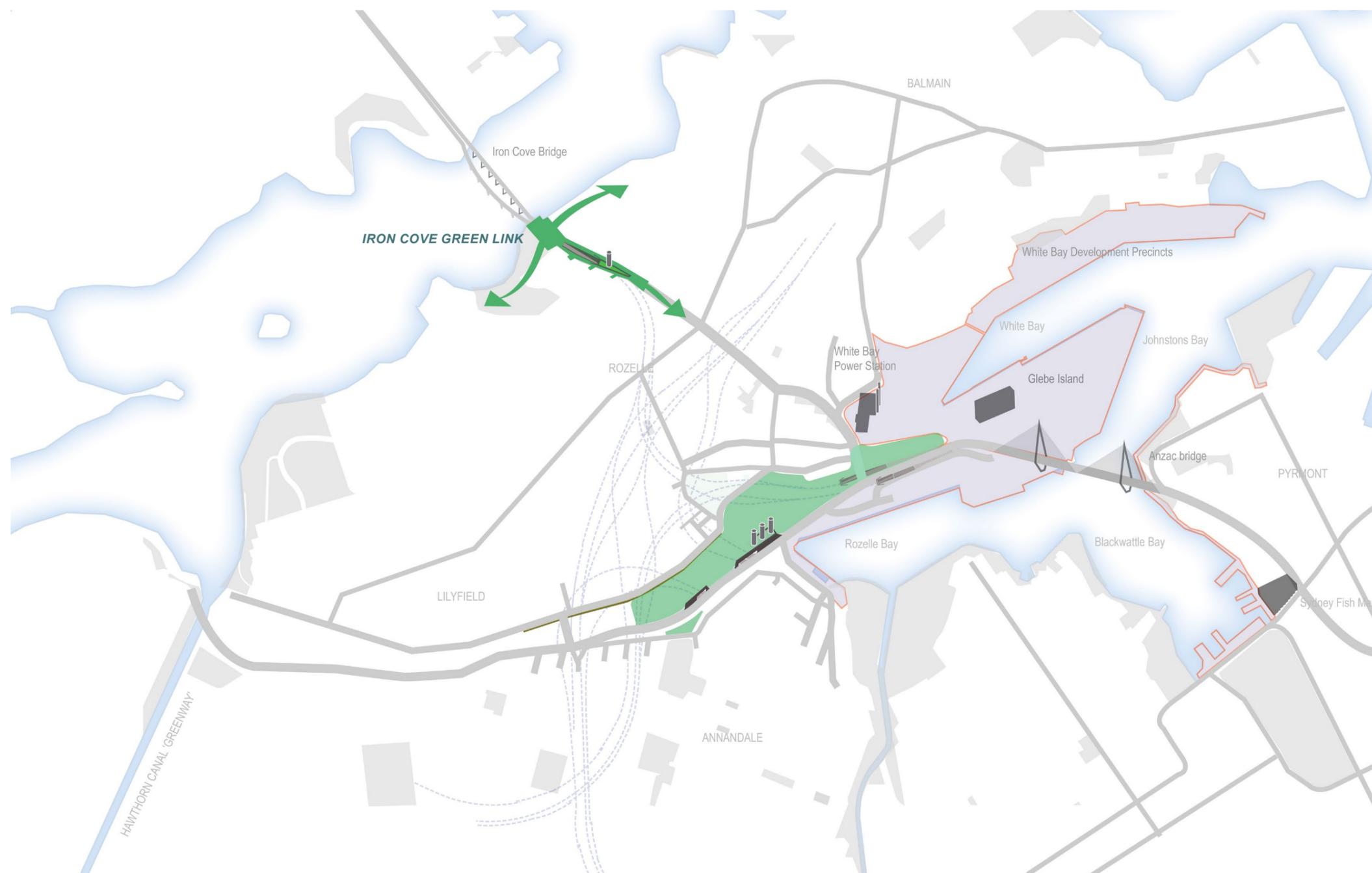


Figure 4-35: Iron Cove - 'The Green Link'

Urban design strategies

The following urban design strategies demonstrate how the design solution aligns the vision for the Iron Cove Link.

Additional strategies relating to the landscape design approach are provided in Section 5 of this UDLP.

Connect to the Bay Run

The approach to connectivity has sought to adopt the requirements of the Active Transport Network as described in Appendix N of the EIS.

The existing shared path will be upgraded and reconnected to the existing foreshore parklands including the Bay Run.

The existing signalised crossing will be reinstated at Toelle and Terry Streets maintaining the key north-south connection between the communities of Rozelle and Balmain. Pedestrians and cyclists will be able to cross within a wide, landscape median situated above the cut and cover structure.

As part of the Project, Clubb Street will no longer allow for vehicular access onto Victoria Road; Byrnes Street will continue to be a cul-de-sac.

To reinforce the urban design outcomes for the Green Link, the Project will utilise the new cul-de-sac's as shared pedestrian and vehicular zones, enabling safe and effective pedestrian and cyclist connections.

A continuous green link

The quality of available open space allows for the connection of passive green spaces and canopy as a linear parkland along Victoria Road and the remaining land with King George Park and Callan Park.

The primary objective of these spaces is to provide 'green relief' and offset the scale of the infrastructure as part of a pedestrian-friendly environment.

The design approach to tree canopy, species and plant selection is described in Section 5 of the UDLP.



Figure 4-36: Iron Cove Link - pedestrian and cyclist connectivity



Figure 4-37: Iron Cove Link - Green Link open space connections

Integrated operational facilities

The general approach to buildings in this area is to seamlessly integrate them into the urban context of Rozelle and Victoria Road.

The motorway and tunnel operations facilities are, as far as practicable, located underground to improve the public parkland opportunities above ground. Consolidated operational facilities above ground are discretely located or partially subterranean wherever possible to enhance surface conditions of the Green Link for the benefit of the community.

A combination of trees, and low and bulky massed planting areas will be utilised to soften their appearance behind 'filtered' views.

IRON COVE LINK PORTALS

Portals will be refined, elegantly designed elements that are consistent with M4 East and M5 New projects. Details are provided in Section 6 of this UDLP.

IRON COVE SURFACE FIXED FACILITY

The majority of the ventilation and operational facilities are located underground while the major above ground structures include the Iron Cove ventilation outlets and an operational electrical and control room located on the western side of Victoria Road, between Toelle and Callan Streets.

The buildings have been designed as discrete elements that will be fenced off and surrounded by landscaping.

Details of the operational buildings are provided in Section 7 of this UDLP and are subject to approval of modification SSI-7485-Mod-3.

IRON COVE LINK VENTILATION FACILITIES

To comply with Minister's Condition of Approval E118, the ventilation facility at Iron Cove Link has been designed as a living, green system.

The Iron Cove ventilation outlet emerges from Victoria Road as a dynamic sculptural form, integrating with the Green Link.

Details of the ventilation facilities are provided in Section 7 of this UDLP.

- Iron Cove Link portals
- Dive structure
- Cut and cover structure
- Iron Cove Ventilation Facility
- Iron Cove Surface Fixed Facility



Figure 4-38: Iron Cove Link - Operational infrastructure elements



Artist's impression: View along shared user path and pocket parks along Victoria Road
(Landscape shown at full maturity and is indicative only).

4.8 Iron Cove Link concept plans

To achieve an integrated and cohesive design for Iron Cove, an overall concept plan was developed to demonstrate the finished outcome for the Green Link.

A series of concept plans have been provided in this section to illustrate the integrated urban design, architecture and landscape approach. The plans highlight the location of main features such as buildings, facilities, paths and parkland elements. Typical cross sections are also provided within this section.



Figure 4-39: Iron Cove Link - Artist's impression - view from wide landscaped median crossing
(Landscape shown at full maturity and is indicative only).



Figure 4-40: Iron Cove Link - Landscape Concept Masterplan



Key Project Elements

- 1 Iron Cove Link Portals
- 2 Iron Cove Link surface fixed facility
(subject to approval of modification SSI-7485-Mod-3)
- 3 Green Link pocket parks and landscaping
- 4 Foreshore parklands and The Bay Run
- 5 Iron Cove Bridge
- 6 Shared zone cul-de-sac
- 7 Landscaped median crossing behind portal

LEGEND

- Proposed tree planting
- Road
- Publicly accessible turf areas
- Landscape revegetation areas
- Concrete paths
- Project Boundary





- Key Project Elements**
- 1 Iron Cove Link Portals
 - 2 Iron Cove Link Ventilation Facility
 - 3 Iron Cove Link surface fixed facility
(subject to approval of modification SSI-7485-Mod-3)
 - 4 Green Link pocket parks and landscaping
 - 5 Landscaped median crossing behind portal
 - Residual land subject to the Residual Land Management Plan
- LEGEND**
- Proposed tree planting
 - Road
 - Publicly accessible turf areas
 - Landscape revegetation areas
 - Concrete paths
 - Project Boundary

Figure 4-41: Iron Cove Link - Landscape Concept Plan - Drawing 2 of 2

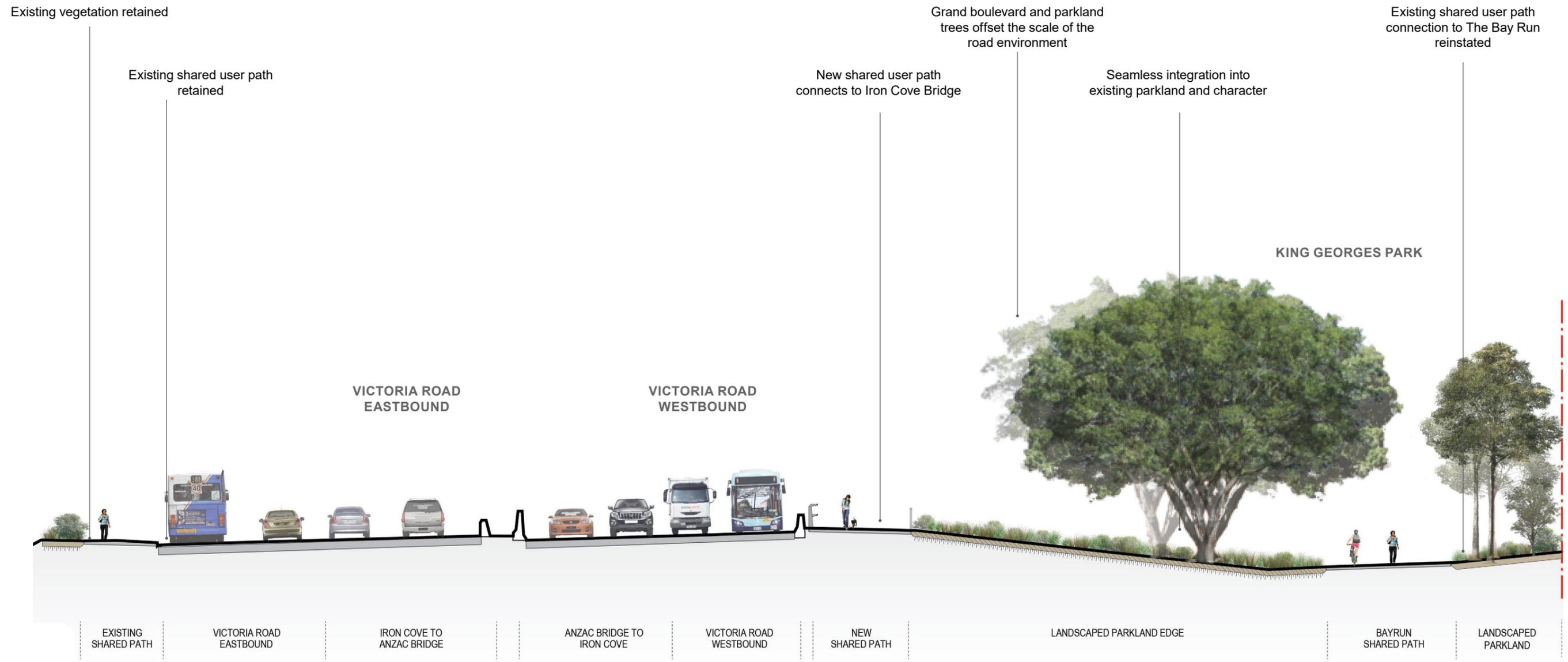


Figure 4-42: Iron Cove Link - Typical section 01

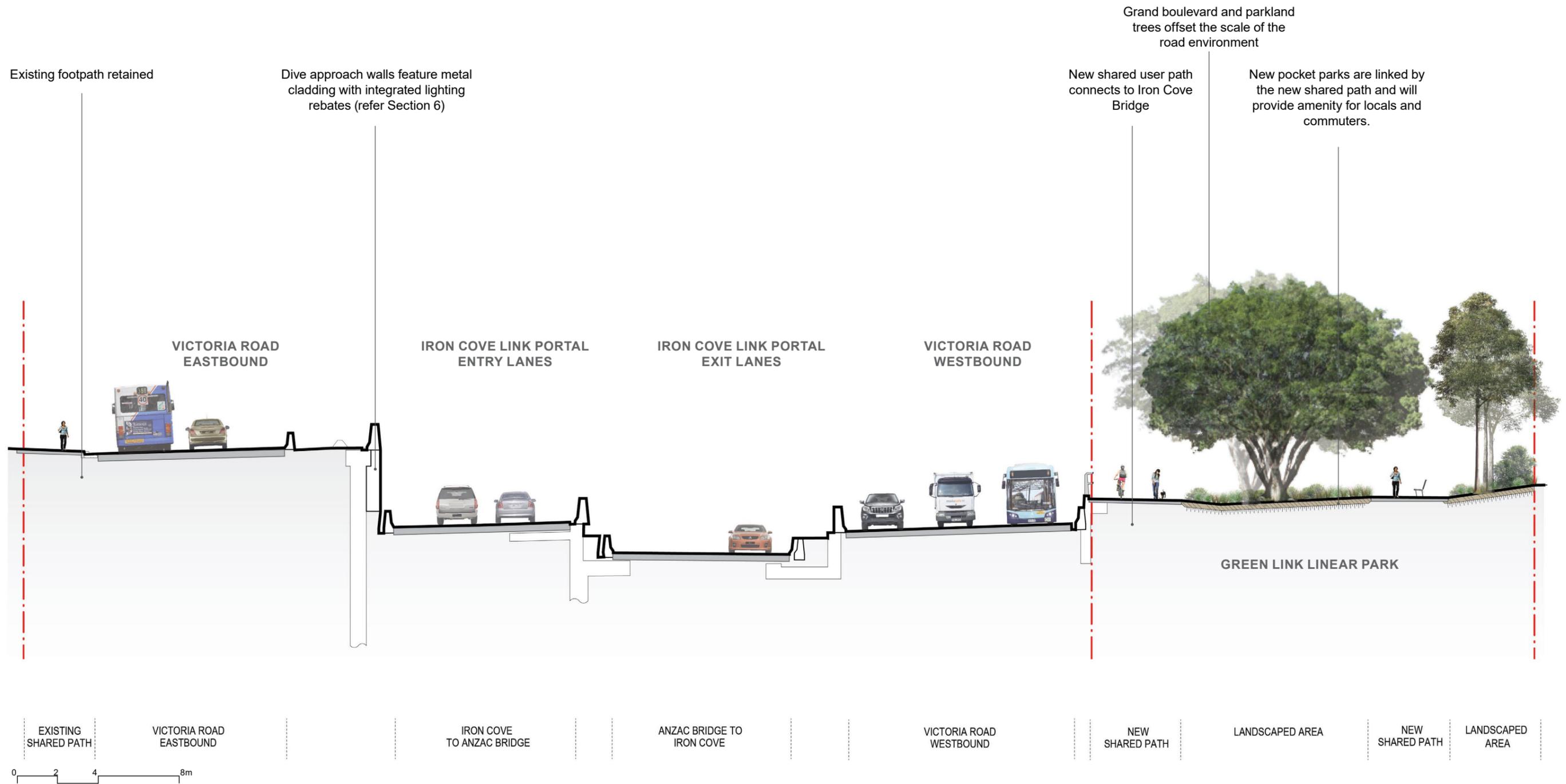
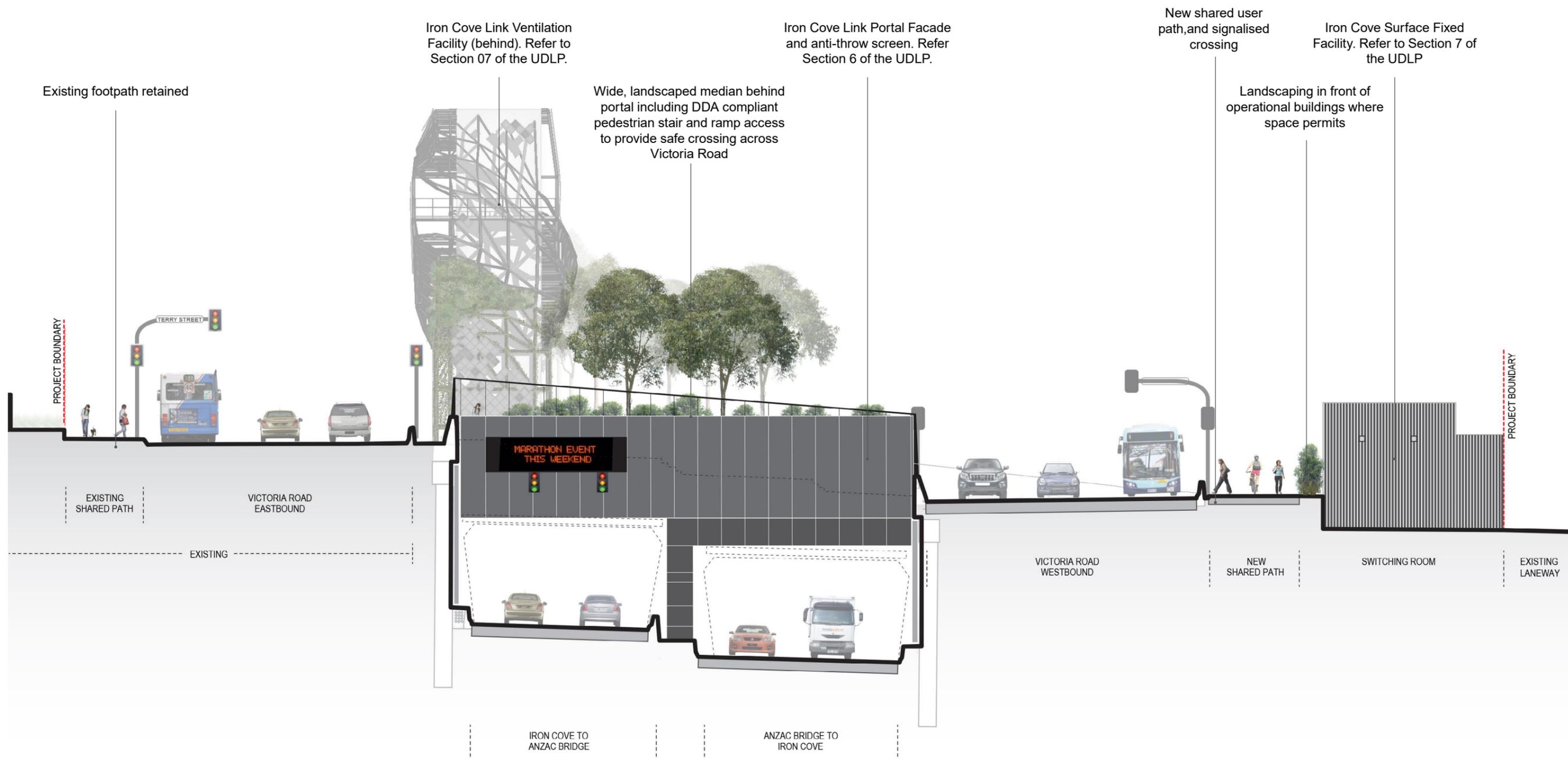


Figure 4-43: Iron Cove Link - Typical section 02



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Figure 4-44: Iron Cove Link - Typical section 03

Typical cross sections

Typical cross sections through Iron Cove Link are provided within this section.

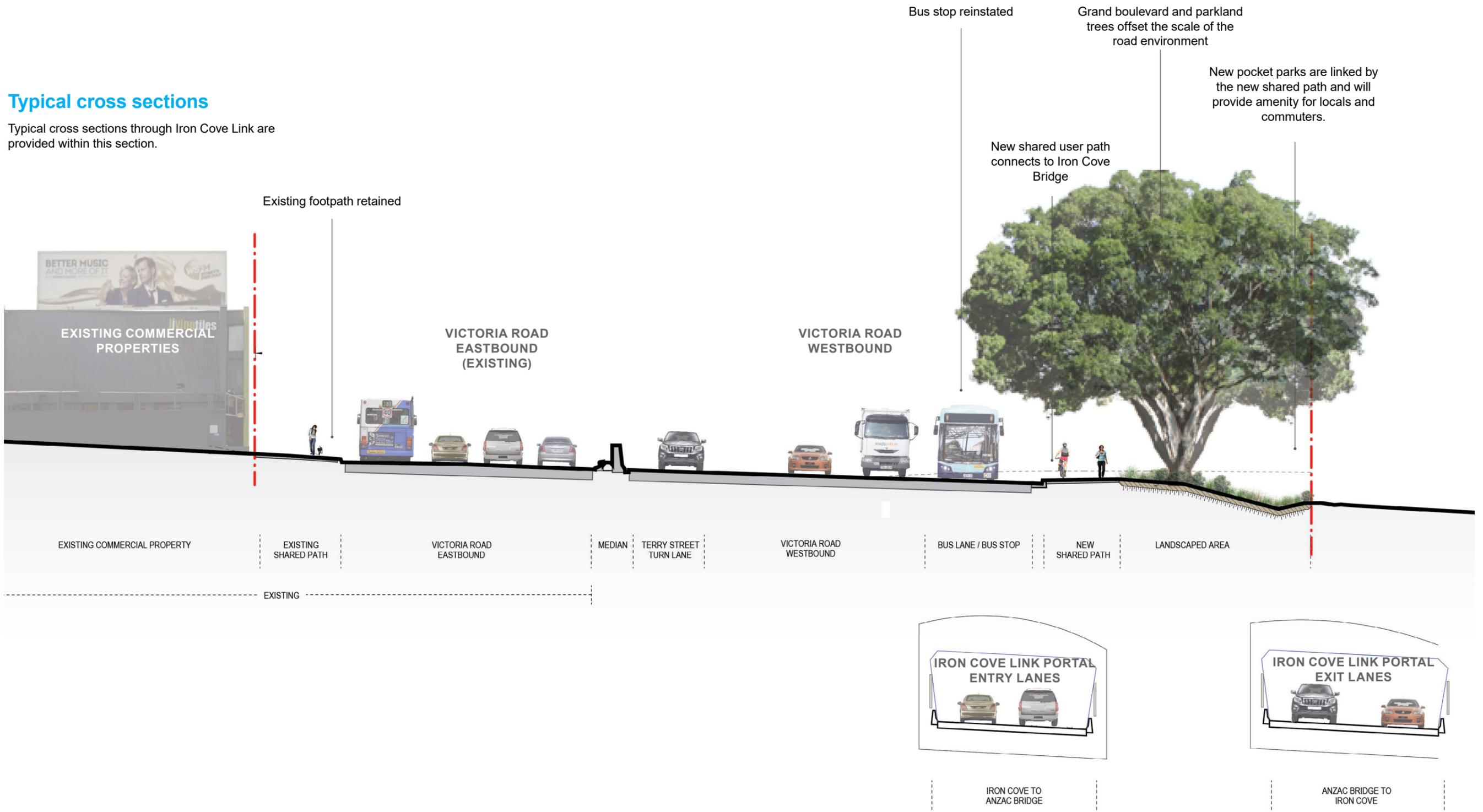


Figure 4-45: Iron Cove Link - Typical section 04



Artists impression: Aerial view over Victoria Road
(Landscape shown at full maturity and is indicative only)

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