# M4-M5 SSI-7485-Mod-2 ROZELLE INTERCHANGE COMMUNITY COMMENT



We would like to see better urban outcomes for its 100 year lifespan

Key issues:

Visual and other impacts from overpass. Far better urban outcomes from discarded option 2 underpass

Poor pedestrian connectivity.

No tree retention on the southern side of Buruwan Park.

Local traffic movement considerations.





Key outcomes:

Remove the overpass. Return to option 1 at grade intersection or solve underpass option 2 technical constraints as the preferred option.

Improve pedestrian connectivity.

Halt all further tree removal in Buruwan Park. Urgently review design to adjust roads for maximum tree retention on the southern side of Buruwan Park.

Consider local traffic



# Key outcome 1:

Remove the overpass. Return to option 1 at grade intersection or solve underpass option 2 technical constraints.

Review Option 1 in terms of traffic light phasing. This option provides maximum traffic movement options. Most of the issues stem from the width / heritage constraint at the Crescent/Johnston Street.

Review option 2 with objectives to:

Keep the tunnel shorter than 120m to avoid need for mechanical ventilation and emergency egress to reduce cost and complexity. The remaining areas to be open slots. This is a far better urban outcome.

Consider relocating bus stop south of Johnston Street to have underpass in middle lane to reduce tunnel length.

Ensure northbound tunnel entry starts after Johnston Street.

Solve waterproofing issues with precast box solution with waterstop joints or other appropriate means as has been applied to other Sydney tunnels (LCT and SHT).

# Key outcome 2: Improve pedestrian connectivity.

Provide for the direct grade separated connection between the Glebe Foreshore and the new Rozelle Parklands via the green bridge.

Simplification of the Johnston Street crossing of the Crescent. Change to a single traffic light crossing in the current location on the Northern side of Johnston Street as currently exists.

Ensure provision of easy "at grade" access from Railway Parade to the Glebe Foreshore. Route via Buruwan Park and the western side of the Crescent (adjacent the mural) with a direct connection to the simplified Johnston Street / The Crescent intersection note above.

# Key outcome 3:

Halt all further tree removal in Buruwan Park. Urgently review design to adjust roads for maximum tree retention on the southern side of Buruwan Park.

The EIS community response committed the consortium to "investigate measures to retain trees of high value adjacent to the Light rail corridor at the Crescent" Community response to the EIS stated under clause C13.2.1. It is essential that tree removal is halted while an urban and landscape design review takes place.

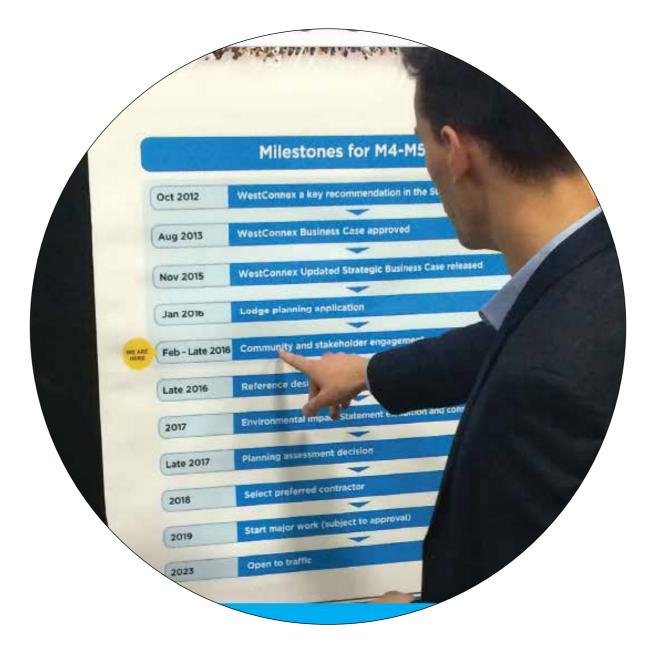
The trees in Buruwan Park against the light rail make a significant visual and environmental contribution - including urban cooling.

We urgently need the landscape architects and urban design team to review the design with the traffic planners to maximise the retention of these trees including the large 30m diameter fig. This can be made to work through good design. This needs urban design thinking "Beyond the Pavement" for pedestrians and urban outcomes. Minor changes to line marking across City West link, reduction in medians and revised curves can all make this happen.

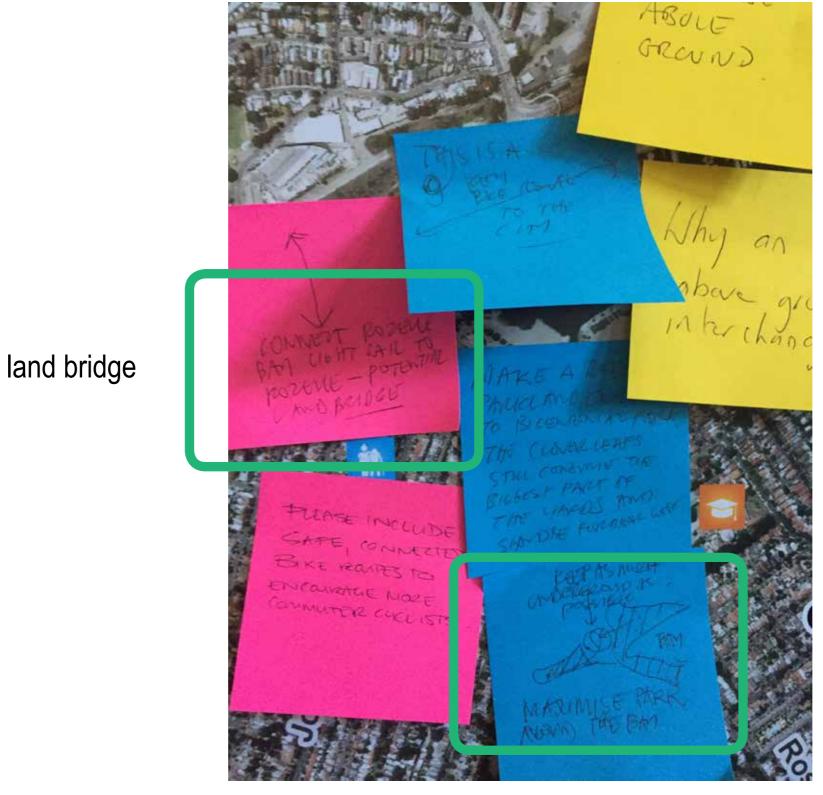


# Key outcome 4: **Consider local traffic**

Consider options to retain the right turn lane from Johnston Street to The Crescent in the redesign of the pedestrian intersection and location of the traffic lights.



# The process so far -Community engagement

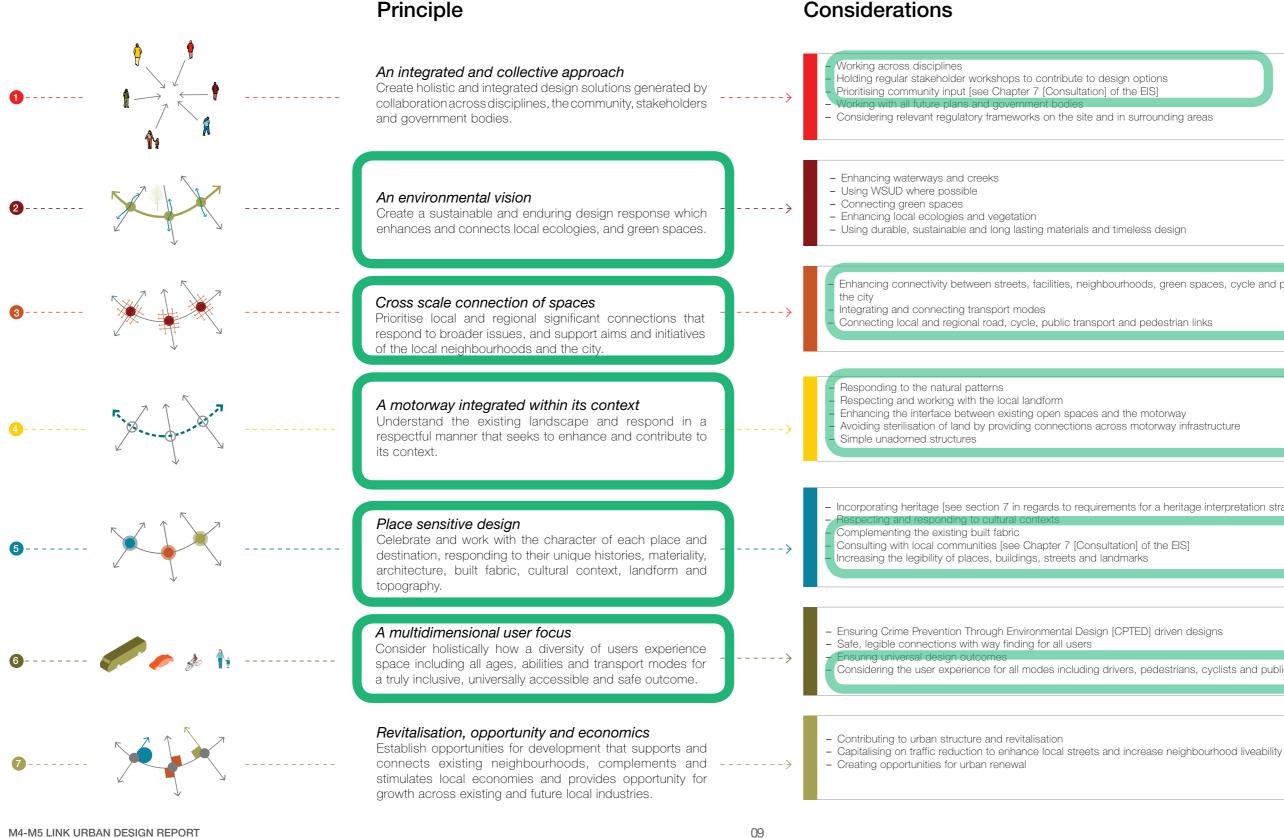


AUGUST 2016

**Rozelle Interchange** 2016 - Early public comment and input on above ground intersection

#### **3.2 URBAN DESIGN OBJECTIVES AND PRINCIPLES**

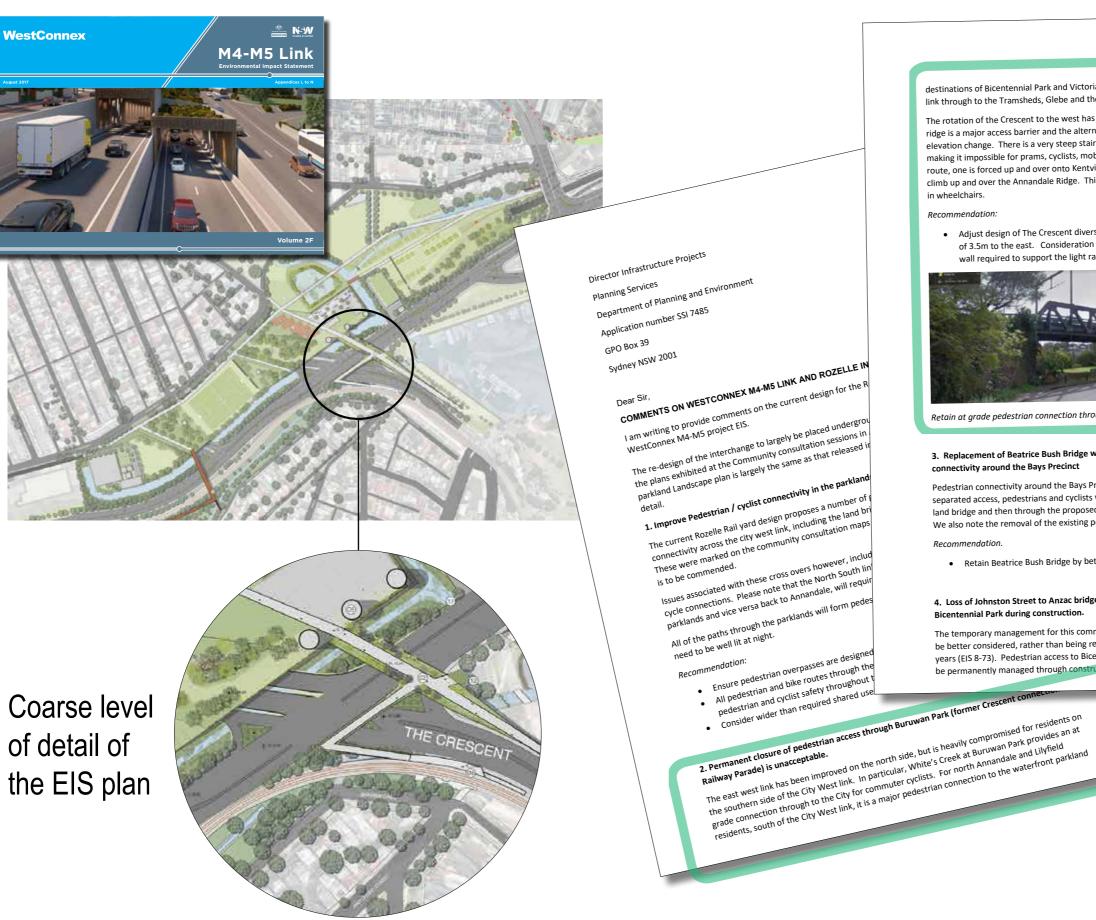
The principles, goals, objectives and opportunities from the key guidelines and policies are reflected in the following principles. The principles provide a platform from which the design concepts have been produced.



# EIS Urban design principles - not just car and traffic focused

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nding areas
lesign
green spaces, cycle and pedestrian connections across the site and estrian links
orway way infrastructure
heritage interpretation strategy]
ne EIS]
lriven designs
estrians, cyclists and public transport.

#### PRINCIPLES AND OBJECTIVES



#### **Rozelle Interchange** Public comment on 2017 EIS identifying all the issues raised here

destinations of Bicentennial Park and Victoria Park and the Blackwattle Bay foreshore. These also link through to the Tramsheds, Glebe and the fish markets.

The rotation of the Crescent to the west has removed this at grade pedestrian link. The Annandale ridge is a major access barrier and the alternate route through Bayview Crescent has a considerable elevation change. There is a very steep stair barrier at Johnston Street connecting Bayview Street making it impossible for prams, cyclists, mobility scooters and wheelchairs. To have a barrier free route, one is forced up and over onto Kentview avenue. This requires a considerable deviation and climb up and over the Annandale Ridge. This is not desirable for the elderly or people with prams or

 Adjust design of The Crescent diversion to retain this at grade link, by moving it a minimum of 3.5m to the east. Consideration will need to be given to the treatment of the retaining wall required to support the light rail station.



Retain at grade pedestrian connection through Buruwan Park

in wheelchairs. Recommendation

connectivity around the Bays Precinct

Bicentennial Park during construction.

be permanently managed through con

Recommendation

#### 3. Replacement of Beatrice Bush Bridge with at grade connection reduces long term pedestrian

Pedestrian connectivity around the Bays Precinct will be greatly reduced by this change. For grade separated access, pedestrians and cyclists will need to make a considerable diversion back to the land bridge and then through the proposed park to connect to Balmain or back to the Anzac bridge. We also note the removal of the existing pedestrian overpass on Victoria Road.

Retain Beatrice Bush Bridge by better intersection design or provide a new over bridge.

#### 4. Loss of Johnston Street to Anzac bridge cyclist connectivity and pedestrian access to

The temporary management for this commuter cyclist route, through staged construction needs to be better considered, rather than being removed from the "start of construction" - ie for several years (EIS 8-73). Pedestrian access to Bicentennial Park at the Bottom of Johnston Street needs to



#### C4.12.1 Active transport links at Rozelle

Submitters were concerned by the proposed active transport routes at Rozelle and made various suggestions on alternate routes to be considered. Specific issues include:

Concern about lost access through Buruwan Park and loss of the at-grade link at The Crescent • with the alternative route taking no account of the topography

#### Response

Around The Crescent, while Buruwan Park would be removed for the project, the active transport link between The Crescent and Railway Parade under the light rail bridge would be retained. The link along the west side of The Crescent and connection to the light rail stop would be retained and a connection would be provided to the new active transport bridge which crosses City West Link and The Crescent Connection to the Glebe Foreshore and Victoria Road/Anzac Bridge that currently exists from the active transport routes at Buruwan Park would be provided through the new land bridge between Rozelle Rail Yards and The Crescent and shared path along The Crescent. The

#### **Rozelle Interchange**

Response to community comment C13-9 to provide at grade link

# C13.2.1 Visual impacts during construction (general)

At The Crescent, investigate measures to retain the mature trees of high retention value adjacent to the light rail corridor at the corner of The Crescent and City West Link, and to provide screen planting alongside the retaining wall edge of the light rail corridor, to minimise landscape and visual impacts. Implement options where feasible and reasonable with consideration of site constraints. (see environmental management measure LV18 in Chapter E1 (Environmental management measures)).

**Rozelle Interchange** 

Promised tree retention response to community comment C13-9

terrestrial and aquatic biodiversity. Offsets and/or supplementary measures are assured which are equivalent to any remaining impacts of project construction and operation.	2. The Proponent must assess any impacts on biodiversity values not covered by the FBA. Impacts on species, populations and ecological communities that will require further consideration and provision of information specified in section 9.2 of the FBA include any identified through consultation with the OEH. Species specific surveys shall be undertaken for those species and in accordance with the survey requirements specified by the OEH. The Proponent must identify whether the project as a whole, or any component of the project, would be classified as a Key Threatening Process (KTP) in accordance with the listings in the <i>Threatened Species Conservation Act 1995</i> (TSC Act), <i>Fisheries Management Act 1994</i> (FM Act) and <i>Environmental Protection and Biodiversity Conservation Act 2000</i> (EPBC Act).	Policy and Guidelines for Fi Management – Update 201 Threatened Species Survey Why do Fish Need to Cross Requirements for Waterwa 2003) NSW Sustainable Design Gu 2013) Aquatic Ecology in Environm EIA Guideline (Marcus Linco
<ul> <li>7. Urban Design</li> <li>The project design complements the visual amenity, character and quality of the surrounding environment.</li> <li>The project contributes to the accessibility and connectivity of communities.</li> </ul>	<ol> <li>The Proponent must:         <ul> <li>identify the urban design and landscaping aspects of the project and its components to enhance the appearance of ventilation outlets, interchanges, potential connections to the Bays Precinct and transport linkages, tunnel portals, bridges, noise walls, ancillary buildings, and any additional surface infrastructure, 'cut and cover' arrangements;</li> <li>consider resulting residual land treatments, and demonstrate how the proposed hard and soft urban design elements of the proposal would be consistent with the existing and desired future character of the area traversed or affected by the proposal;</li> <li>identify opportunities to utilise surplus or residual land, particularly for the provision of community space (passive and recreational) and utilise key structures (such as ventilation outlets) for multiple uses i.e integration with other structures;</li> <li>evaluate the visual impacts and urban design aspects of the proposal</li> </ul> </li> </ol>	AS4282-1997 Control of the lighting Beyond the Pavement: RTA procedures and design prin Bridge Aesthetics: Design g appearance of bridges in N NSW Sustainable Design Ge 2013) Crime prevention and the a applications (DUAC, 2001) Crime Prevention through (CPTED) (Queensland Gove Disability (Access to Premis
NSW Department of Planning and Environment M4-M5 Link Secretary's Environmental Assessme Key Issue and Desired Performance Outcome	Requirement (specific assessment requirements in addition to the general requirement above)	Current Guidelines
	<ul> <li>and its components (such as the ventilation outlets and interchanges) on surrounding areas, taking into consideration the urban and landscape design of the M4 East and proposed New M5 Motorways and WestConnex Urban Design Corridor Framework;</li> <li>(e) explore the use of Crime Prevention Through Environmental Design (CPTED) principles during the design development process, including natural surveillance, lighting, walkways, signage and landscape;</li> <li>(f) identify urban design strategies and opportunities to enhance healthy, cohesive and inclusive communities; and</li> <li>(g) describe urban design and landscape mitigation measures, having regard to the urban design and landscape objectives for the proposal.</li> </ul>	2010 Technical guideline for Urb <u>Healthy Urban Developmer</u> 2009)

The Proponent must provide artist impressions and perspective drawings

of the project from a variety of locations along and adjacent to the route to illustrate how the project has responded to the visual impact through

1. The Proponent must assess social and economic impacts (of all phases of

urban design and landscaping.

### **Rozelle Interchar SEARS**

M4-M5 Link SSI-7485-Mod-2 applica

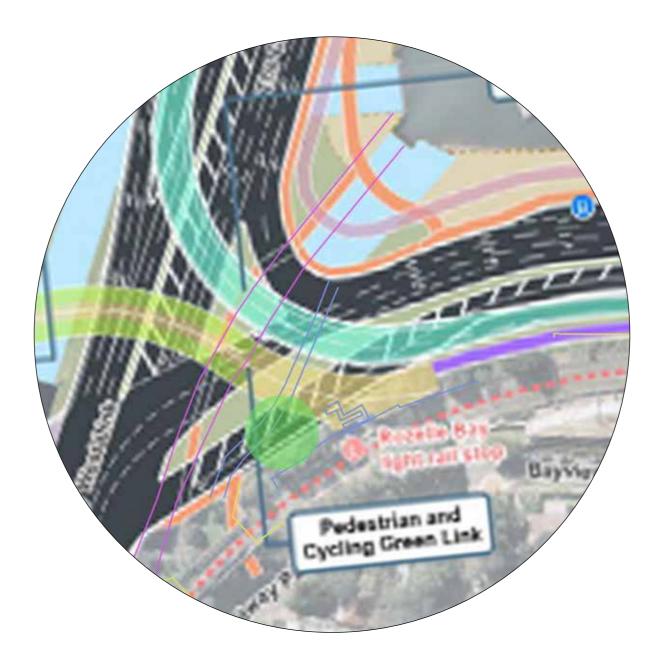
9. Socio-economic, Land Use and

Policy and Guidelines for Fish Habitat Conservation and Management – Update 2013 (DPI, 2013)	
Threatened Species Survey and Assessment Guidelines	
Why do Fish Need to Cross the Road? Fish Passage Requirements for Waterway Crossings (NSW Fisheries, 2003)	
NSW Sustainable Design Guidelines Version 3.0 (TfNSW, 2013)	
Aquatic Ecology in Environmental Impact Assessment – EIA Guideline (Marcus Lincoln Smith 2003)	
AS4282-1997 Control of the obtrusive effects of outdoor lighting	
Beyond the Pavement: RTA urban design policy, procedures and design principles (RMS, 2014)	
Bridge Aesthetics: Design guidelines to improve the appearance of bridges in NSW (RMS, 2012)	
NSW Sustainable Design Guidelines Version 3.0 (TfNSW, 2013)	
Crime prevention and the assessment of development applications (DUAC, 2001)	
Crime Prevention through Environmental Design (CPTED) (Queensland Government, 2007)	
Disability (Access to Premises – Buildings) Standards	
Current Guidelines	
2010	
Technical guideline for Urban Green Cover in NSW	
Healthy Urban Development Checklist (NSW Health, 2009)	
AS4282-1997 Control of the obtrusive effects of outdoor lighting	
Beyond the Pavement: urban design policy, procedures and design principles (RMS, 2014)	
Bridge Aesthetics: Design guidelines to improve the appearance of bridges in NSW (RMS, 2012)	
NSW Sustainable Design Guidelines Version 3.0 (TfNSW, 2013)	
Technical guideline for Urban Green Cover in NSW (OEH, 2015)	

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# Rozelle Interchange Genuine community concern



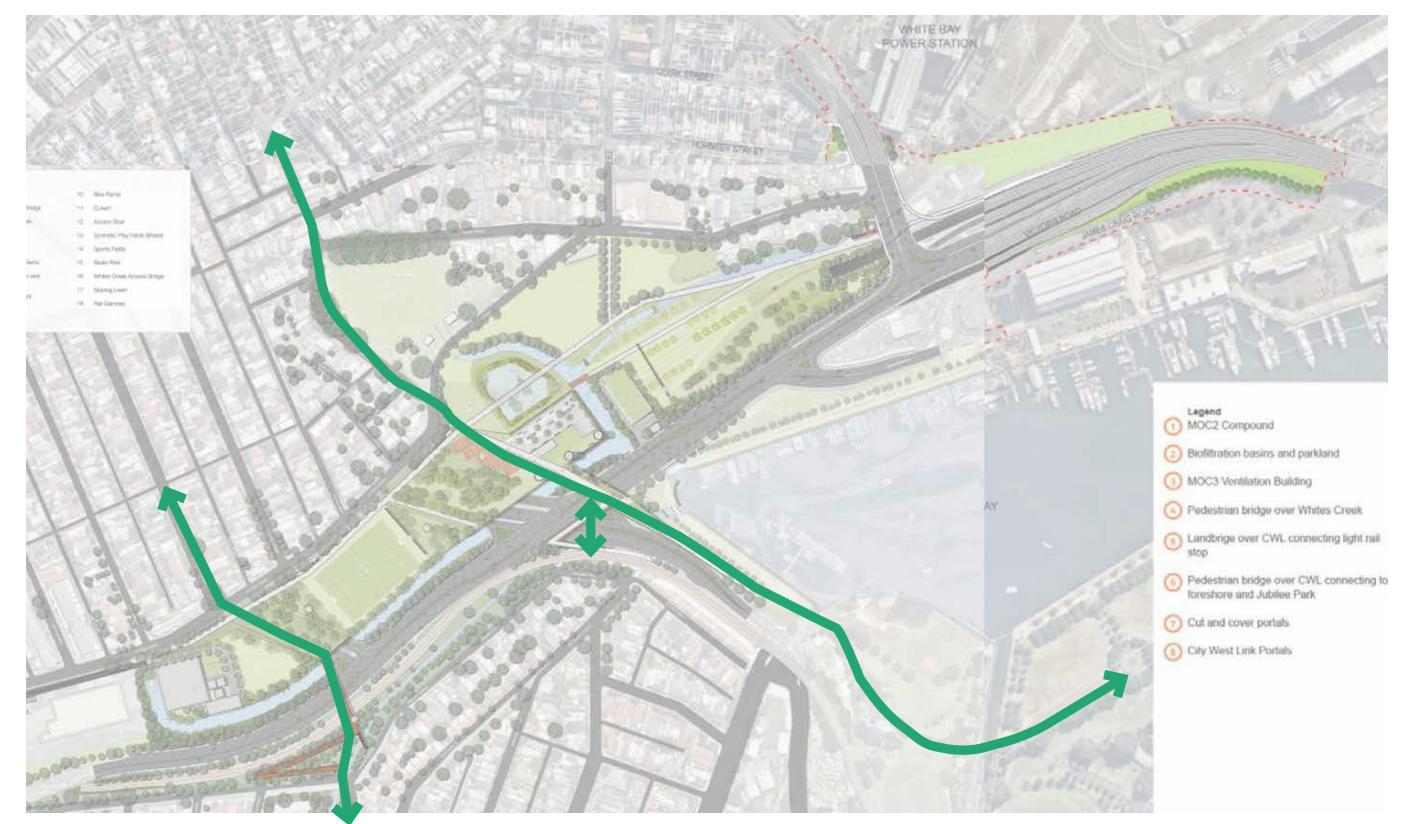
# Urban Design issues



## **Rozelle Interchange EIS exhibited scheme**



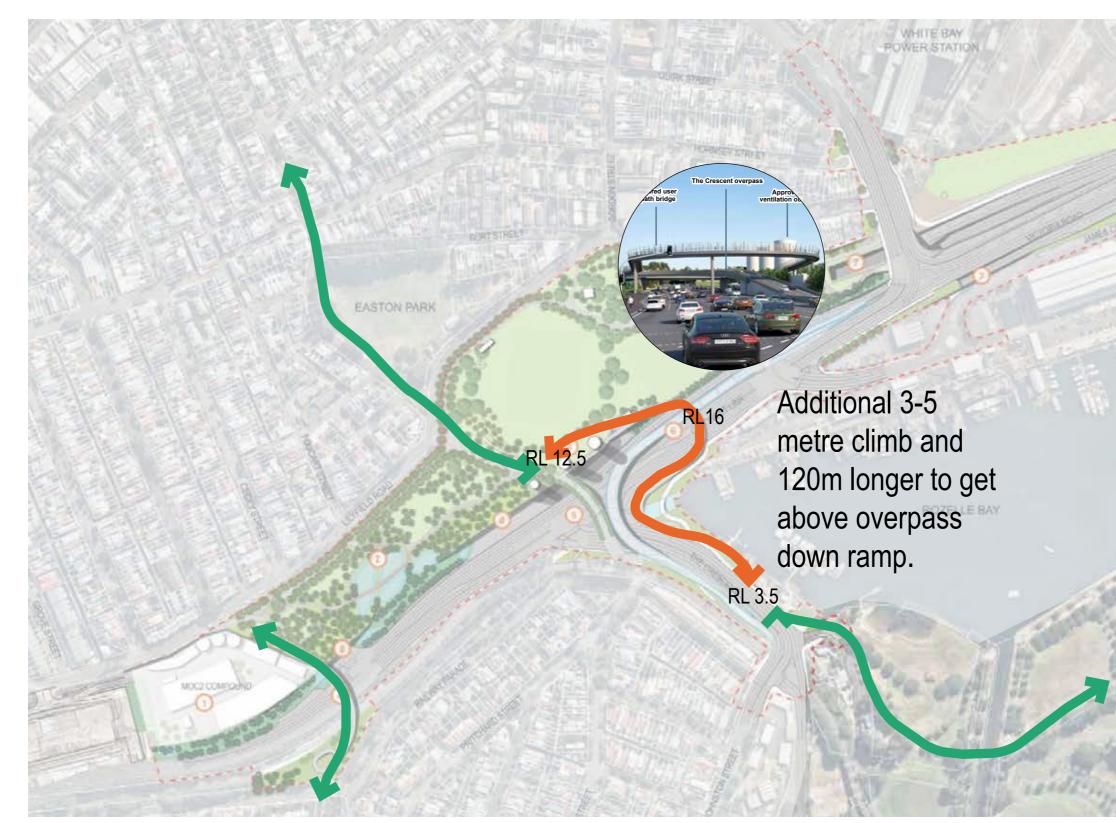
#### **Rozelle Interchange** MOD 2 scheme August 2019



### Rozelle Interchange EIS – north south integration – grade separated pedestrian access



### Rozelle Interchange Green bridge link now - not grade separated plus four traffic lights



### Rozelle Interchange Non green bridge route





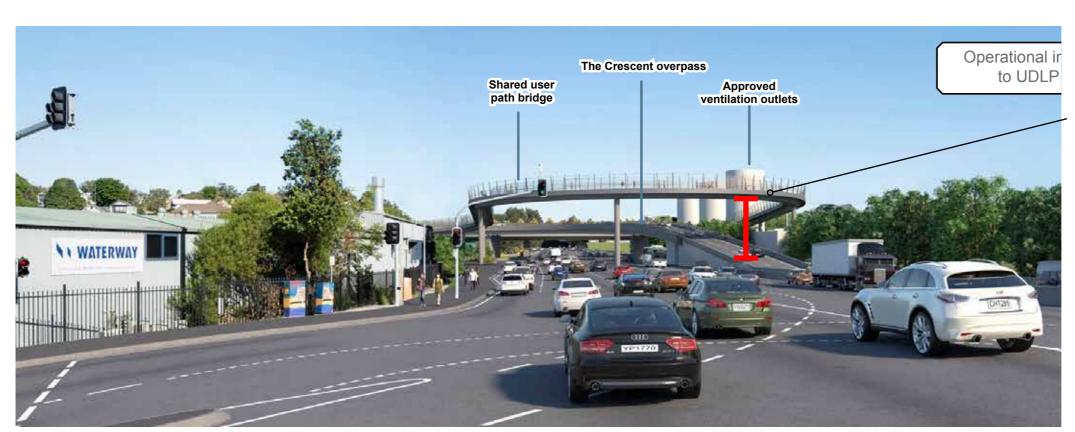
- Pedestrian bridge over CWL connecting to toreshore and Jubilee Park
- O Cut and cover portals
- (1) City West Link Portals



### **Rozelle Interchange** Shared user path bridge without overpass



6-8 Photomontage 5: Indicative view west from the corner of The Crescent and James Craig Road (without project)



### Rozelle Interchange City West link perspective MOD 2 August 2019

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To provide the necessary clearance over the overpass, the additional cycle / pedestrian bridge is elevated an additional say 3.0m. At 1:21 to include landings that is adding aprox 126m length to the overpass. [2x 63m]

Support beam is likely to look thicker than illustration given existing Beatrice Brush Bridge and similar recent bridges on Warringah Road





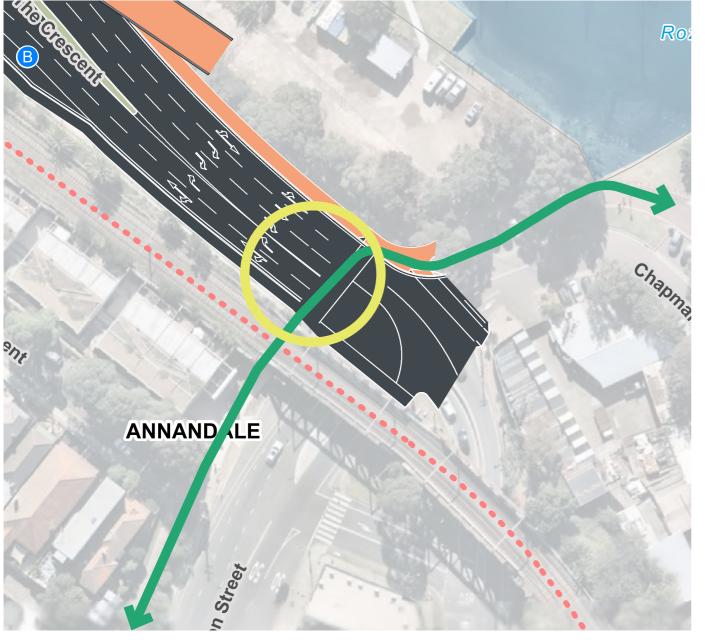
6-8 Photomontage 5: Indicative view west from the corner of The Crescent and James Craig Road (without project)



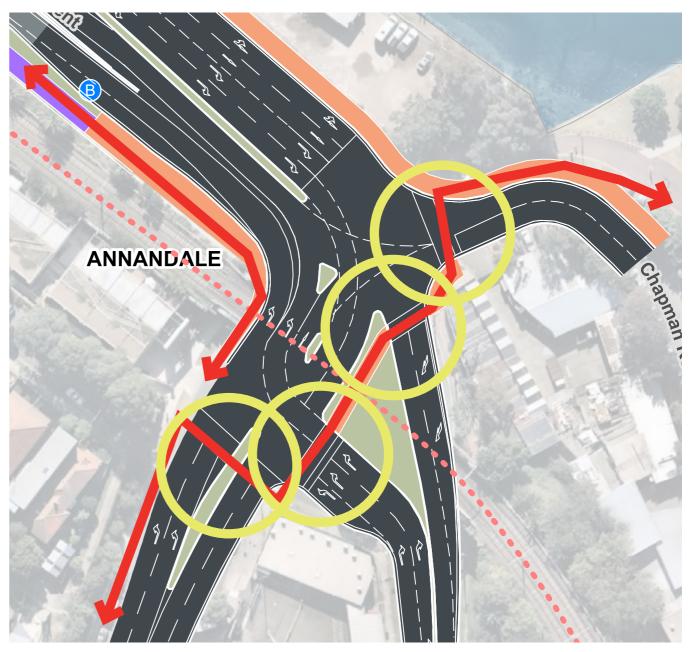
### Rozelle Interchange City West link perspective MOD 2 August 2019

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# Single green bridge



#### **APPROVED EIS - SINGLE TRAFFIC LIGHT**



**PROPOSED SCHEME** 

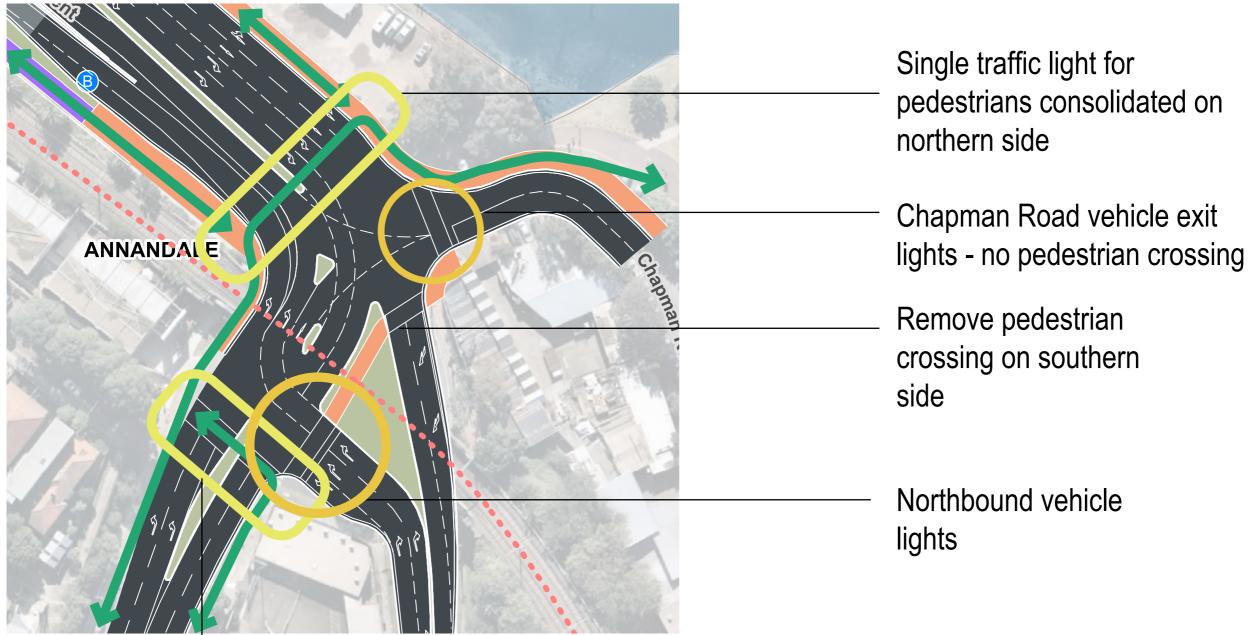
- FOUR TRAFFIC LIGHTS
- 5M CLIMB
- POTENTIAL SIX MINUTES TO CROSS (90 seconds x 4)

#### **Rozelle Interchange**

Johnston Street / The Crescent - Poor pedestrian connectivity



Rozelle Interchange The route



Northbound vehicle lights and pedestrian crossing

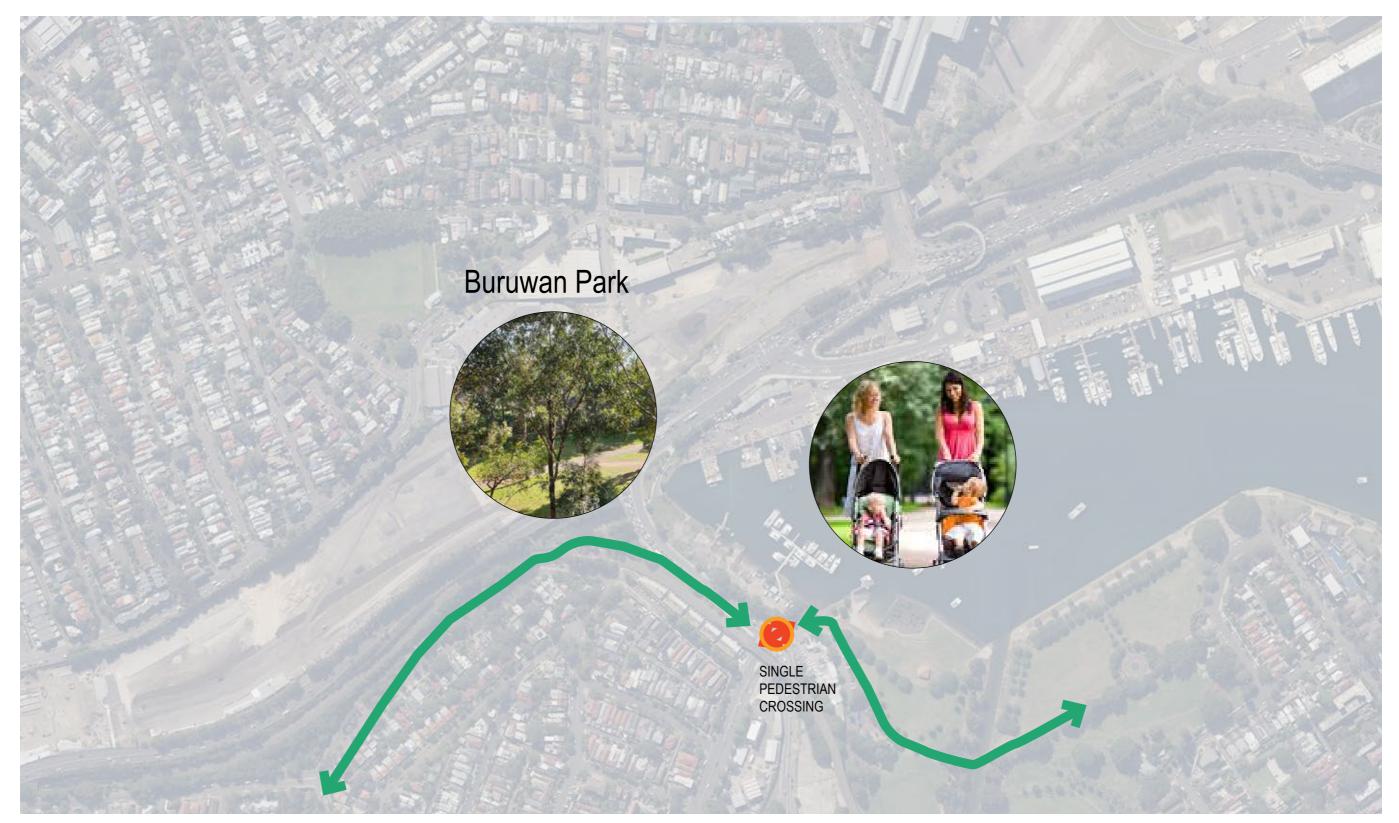
#### **Rozelle Interchange**

Johnston Street / The Crescent pedestrian crossings





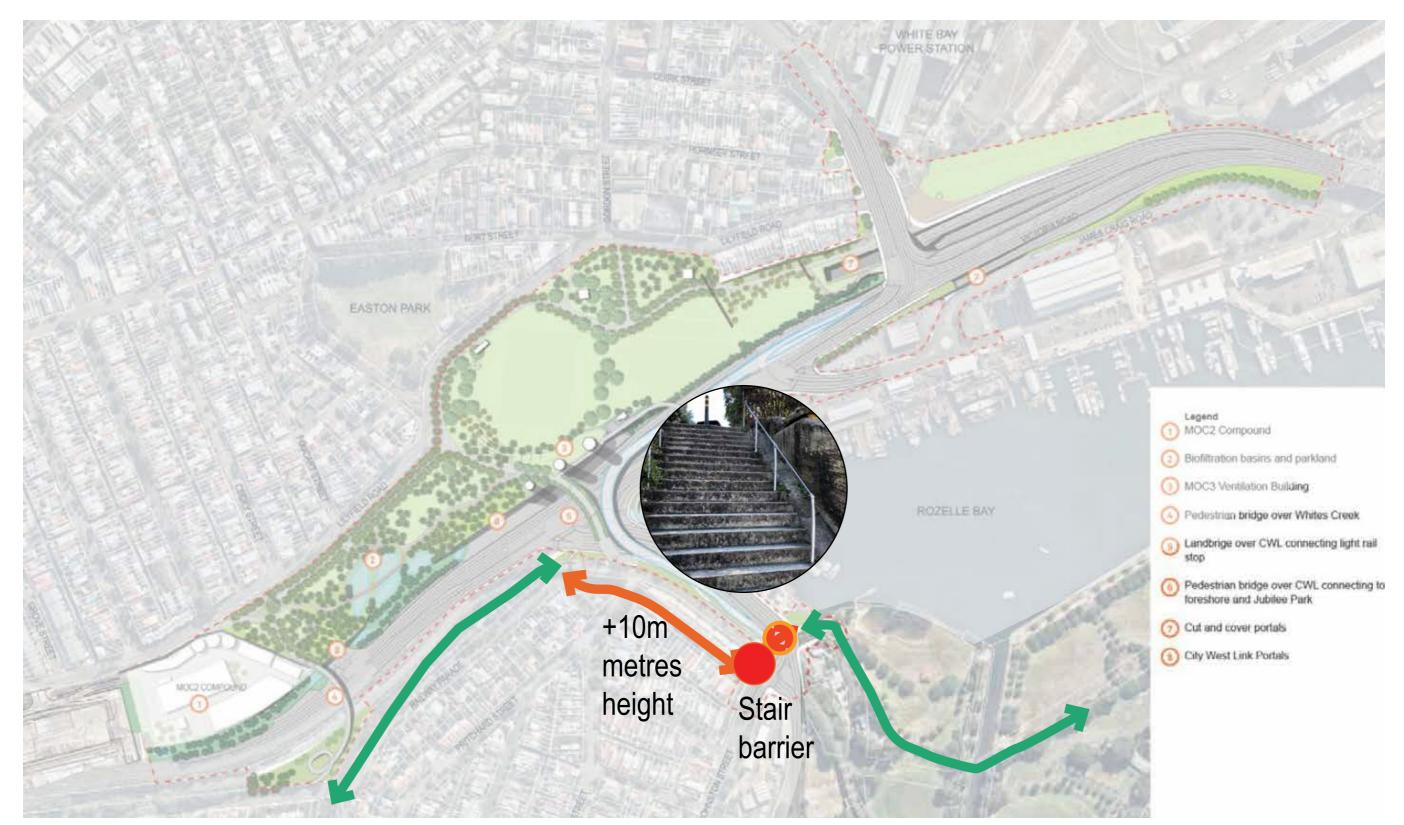
### **Rozelle Interchange** Preferred green bridge route



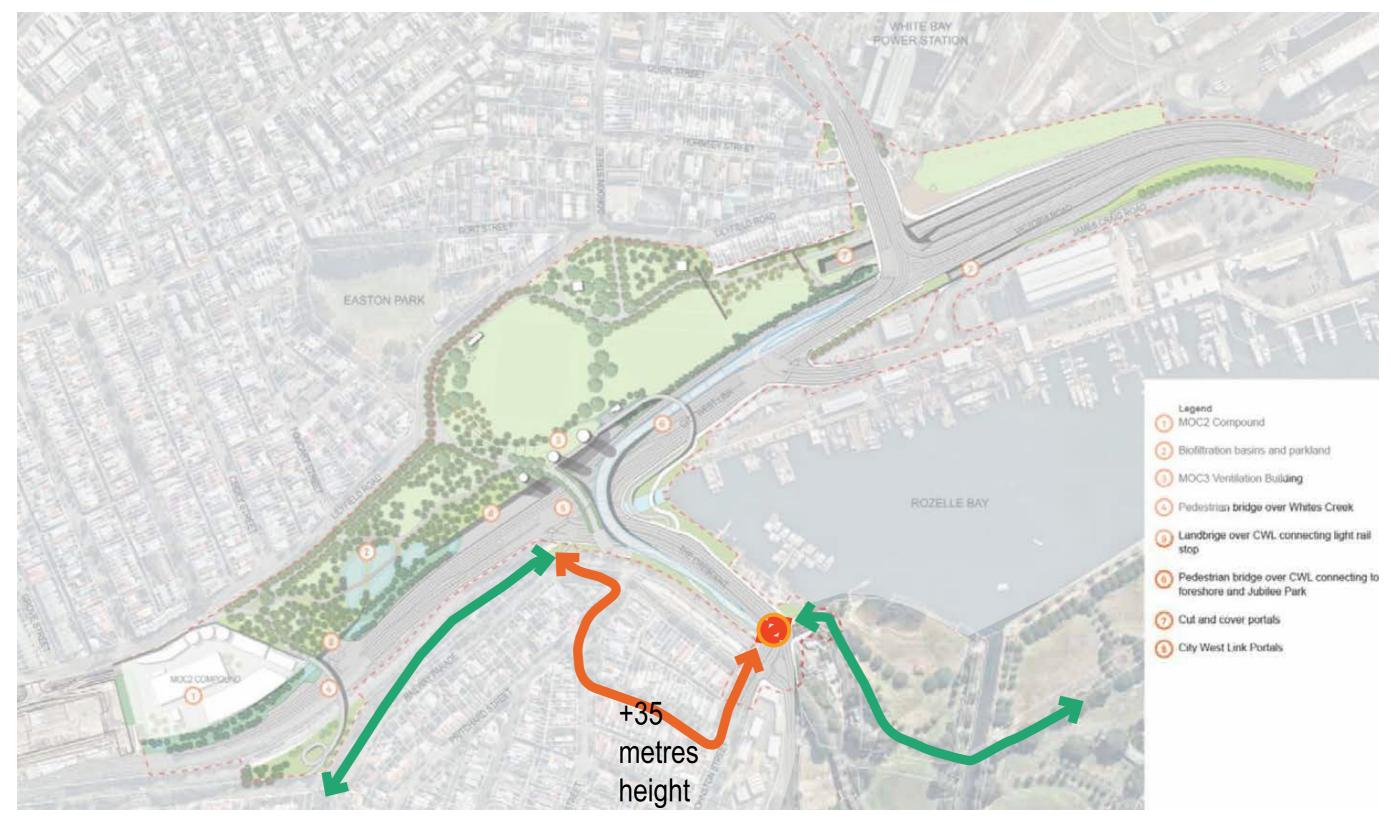
# Rozelle Interchange Current at grade route - Retention noted in C4-12



### Rozelle Interchange At grade pedestrian connectivity now via a freeway environment



### Rozelle Interchange Alternative route is a 3 storey climb with steep stair barrier



### Rozelle Interchange Barrier free pram route is a long 10 storey climb up and down



### **Rozelle Interchange** Preferred at grade route - west side of The Crescent



# Vehicle Overpass issues

**Rozelle Interchange** 

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# Key issues with the overpass The introduction of the overpass has had multiple flow on effects, including moving the green bridge, poor pedestrian connectivity, and visual impact issues.

The overpass has been driven by level of service issues. However it is only improving it from F to C, and is likely to degrade further over time. Both option 1 and 2 were better urban outcomes.

It has forced the relocation of the green bridge impacting all the related connectivity issues outlined in the previous section. It has also forced the introduction of a second bridge that is very long and high to get over the down ramp.

It has significant visual impact issues itself. Its design speed is making it higher than the Green bridge. It blocks views to the harbour from the relocated green bridge. Light poles will further add to its visual height. It also impacts the mural.

The 165m tunnel option 2 was discarded due to constructability and other concerns. Options to simplify it by limiting the tunnel to 120m should be addressed. The long length drives a requirement for mechanical ventilation, and therefore a deeper trench and a longer tunnel, all adding greatly to the cost. Option 2 needs to be revisited.



6-5 Photomontage 2: Indicative view east from Rozelle Bay light rail stop (without project)



### **Rozelle Interchange** Rozelle Bay Light Rail Station - Green Bridge MOD 2 August 2019

M4-M5 Link SSI-7485-Mod-2 application • Martin O'Dea submission - Issue D - 15/09/2019

Overpass blocks views from Green Bridge to water



6-6 Photomontage 3: Indicative view north from Rozelle Bay light rail stop (without project)



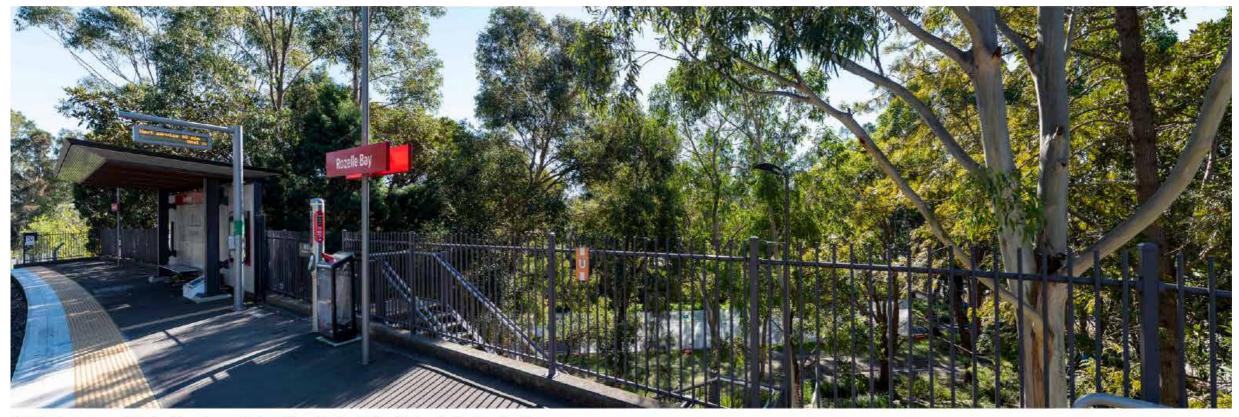
### **Rozelle Interchange** Rozelle Bay Light Rail Station - Green Bridge MOD 2 August 2019

M4-M5 Link SSI-7485-Mod-2 application • Martin O'Dea submission - Issue D - 15/09/2019

#### Green Bridge removes edge vegetation

#### Green Bridge not very green

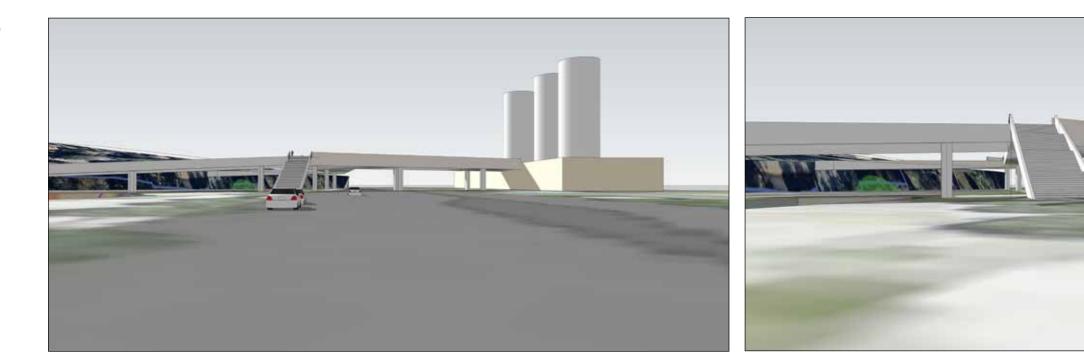
Overpass blocks views from Green Bridge



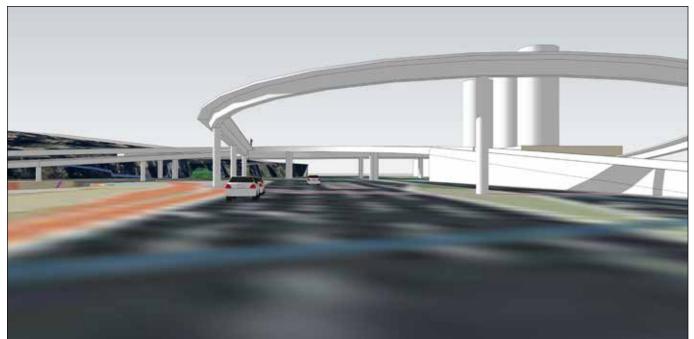
6-6 Photomontage 3: Indicative view north from Rozelle Bay light rail stop (without project)



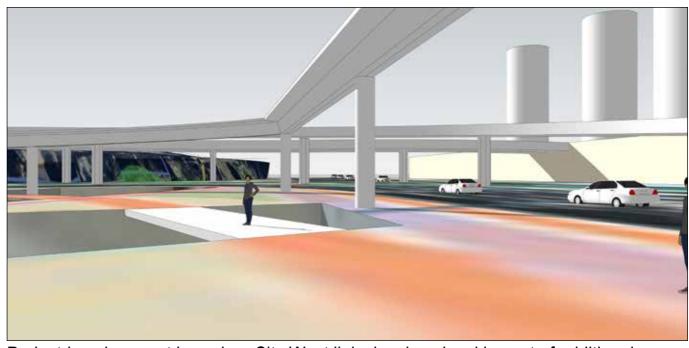
### Rozelle Interchange Embankment trees retained



MOD 2



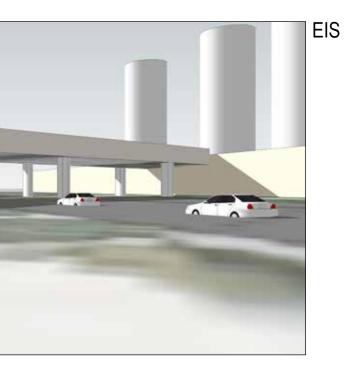
View west bound on City West link showing visual impact of additional overpass and footbridge



Pedestrian view west bound on City West link showing visual impact of additional overpass and footbridge

#### **Rozelle Interchange**

comparitive views of EIS scheme and Modification



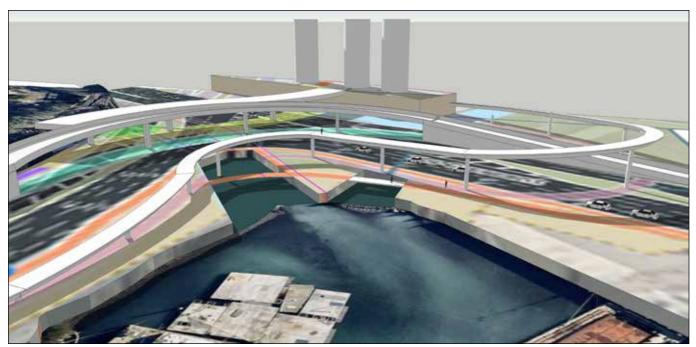
MOD 2



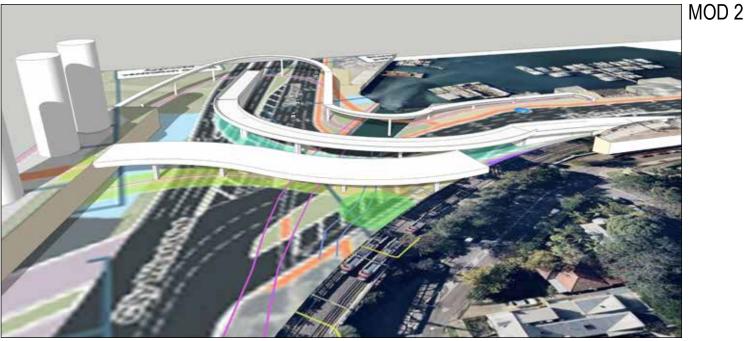


MOD 2

EIS



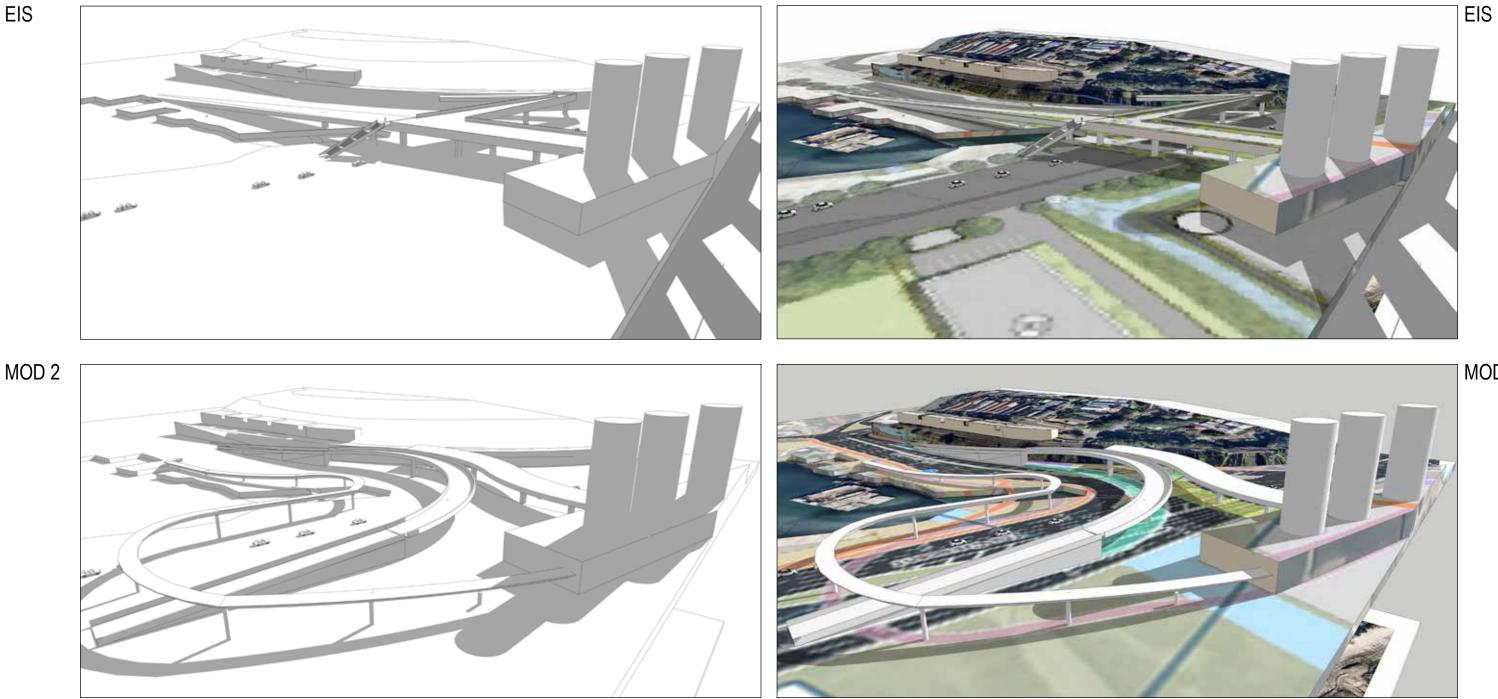
Aerial view looking north west Illustrating complexity and Ingth of new footbridge



Aerial view looking east showing additional viaual impact of the overpass and additional footbridge

### Rozelle Interchange comparitive views of EIS scheme and Modification





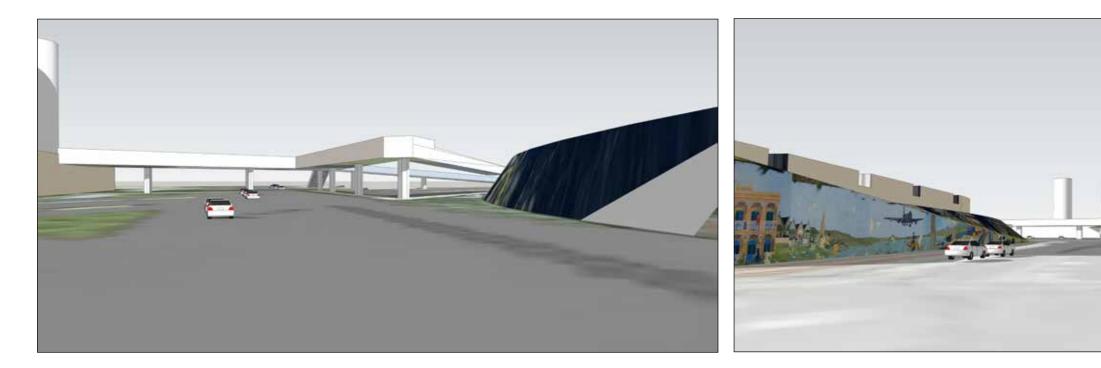
White model Aerial view looking south west showing additional visual impact of new overpass and footbridge

Same Aerial view looking south west

#### **Rozelle Interchange** comparitive views of EIS scheme and Modification

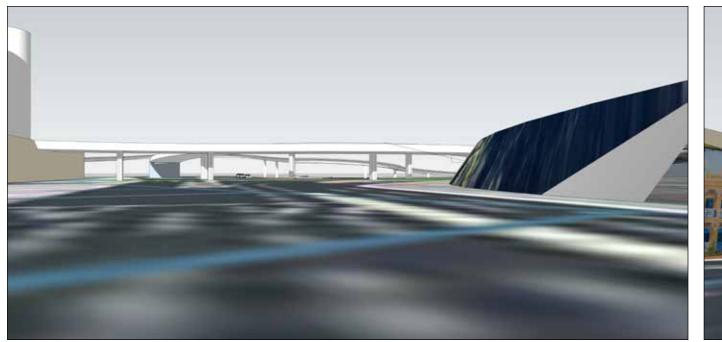
EIS

MOD 2



MOD 2

EIS



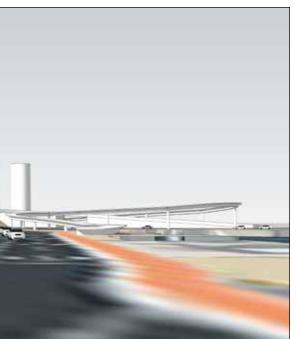
View eastbound on City West link

View northbound on The Crescent

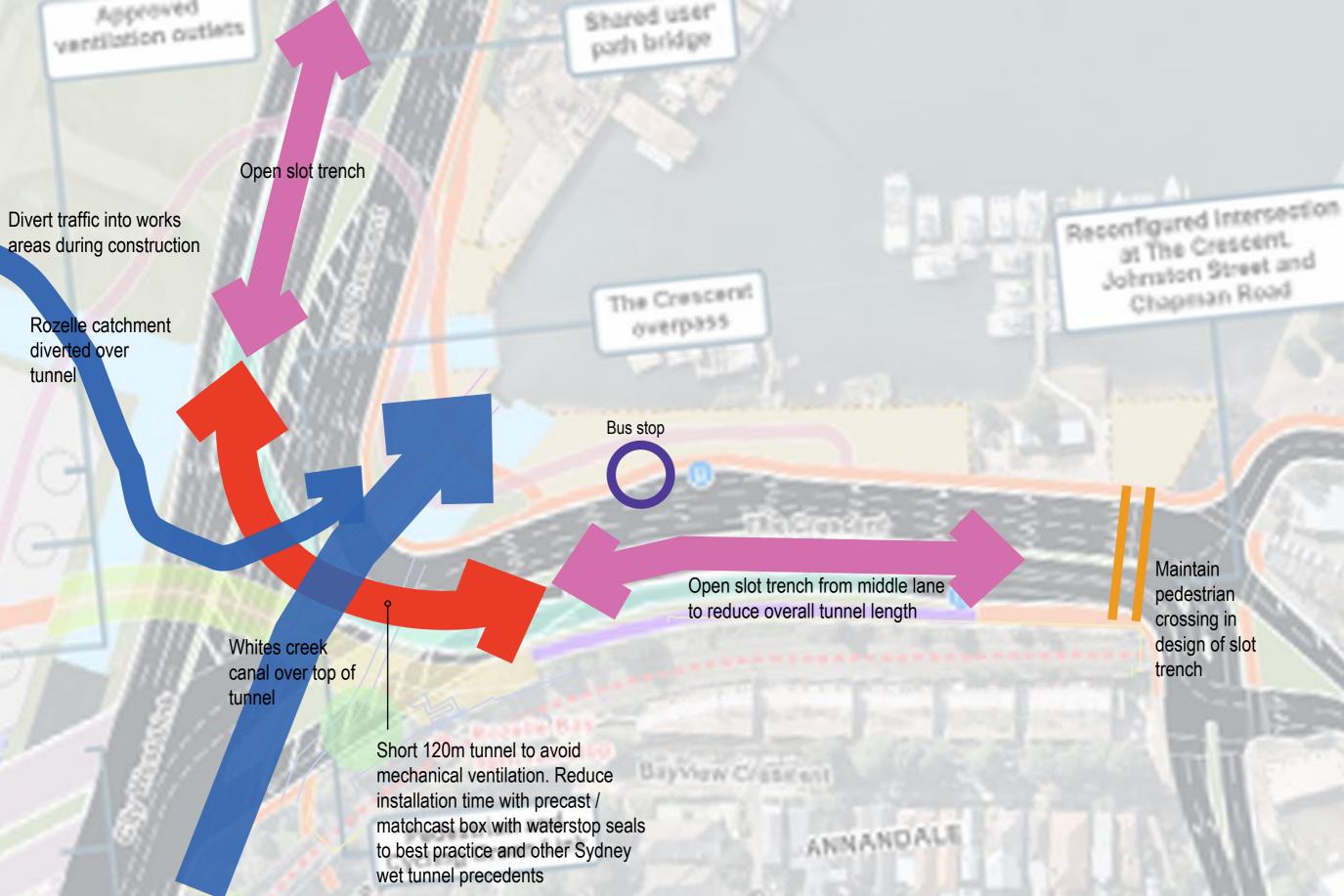
### Rozelle Interchange comparitive views of EIS scheme and Modification

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#### MOD 2



### **Rozelle Interchange Option 2 is a better urban outcome**

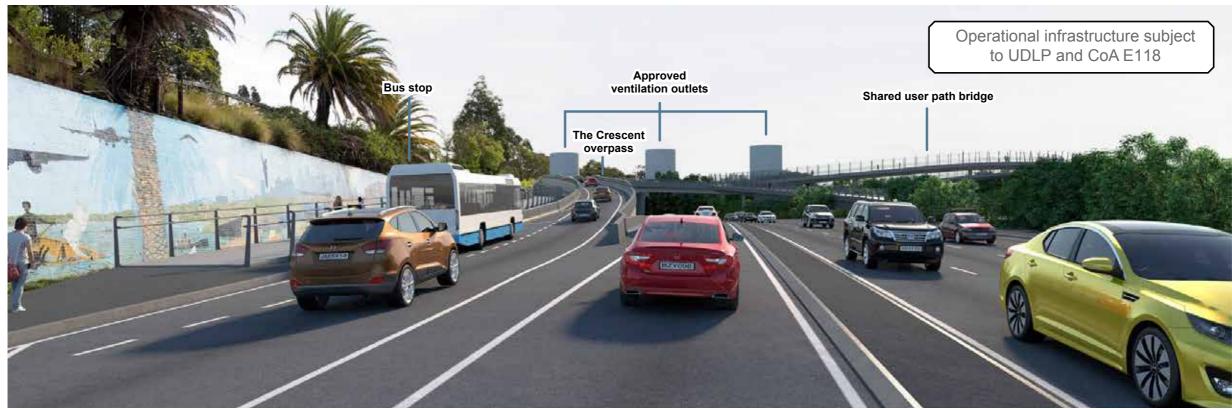
M4-M5 Link SSI-7485-Mod-2 application • Martin O'Dea submission - Issue D - 15/09/2019

Maintain pedestrian crossing in design of slot trench

Bus stop relocated adjacent to TAFE to allow slot to be in middle lane



6-4 Photomontage 1: Indicative view north-west from the corner of The Crescent and Johnston Street (without project)

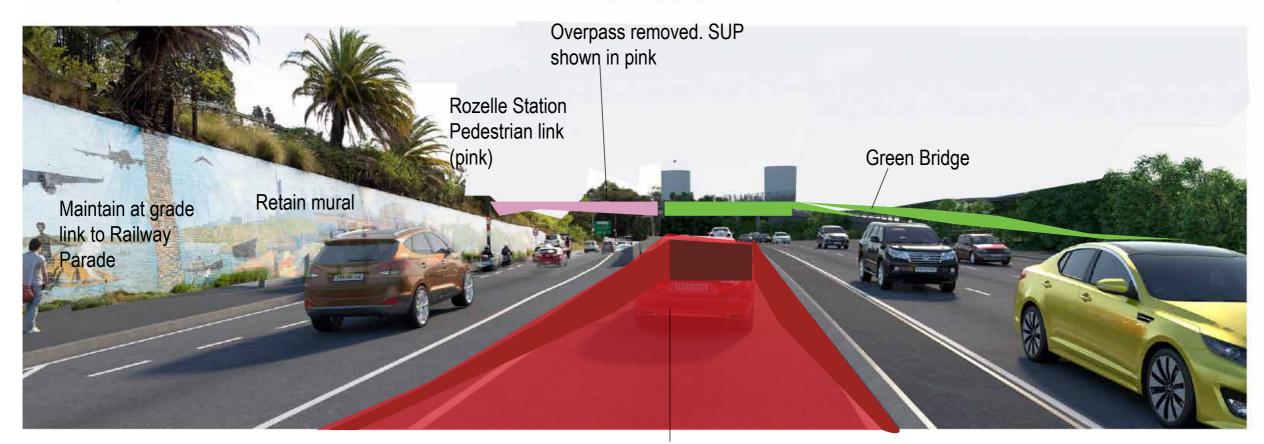


#### **Rozelle Interchange**

# Crescent perspective views MOD 2 illustrations August 2019



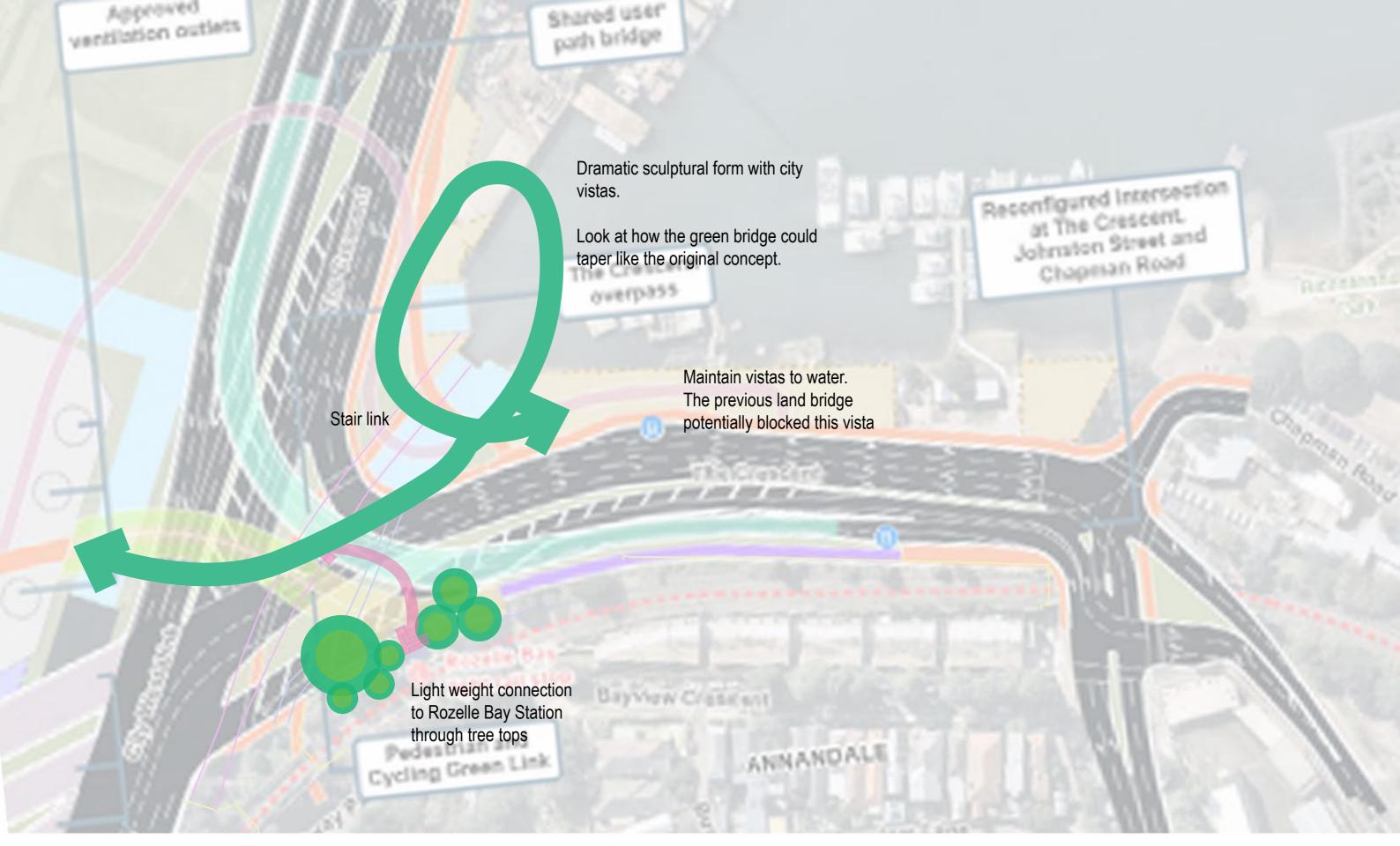
6-4 Photomontage 1: Indicative view north-west from the corner of The Crescent and Johnston Street (without project)



#### **Rozelle Interchange**

Cut trench

# Proposed Slot trench in centre to short tunnel



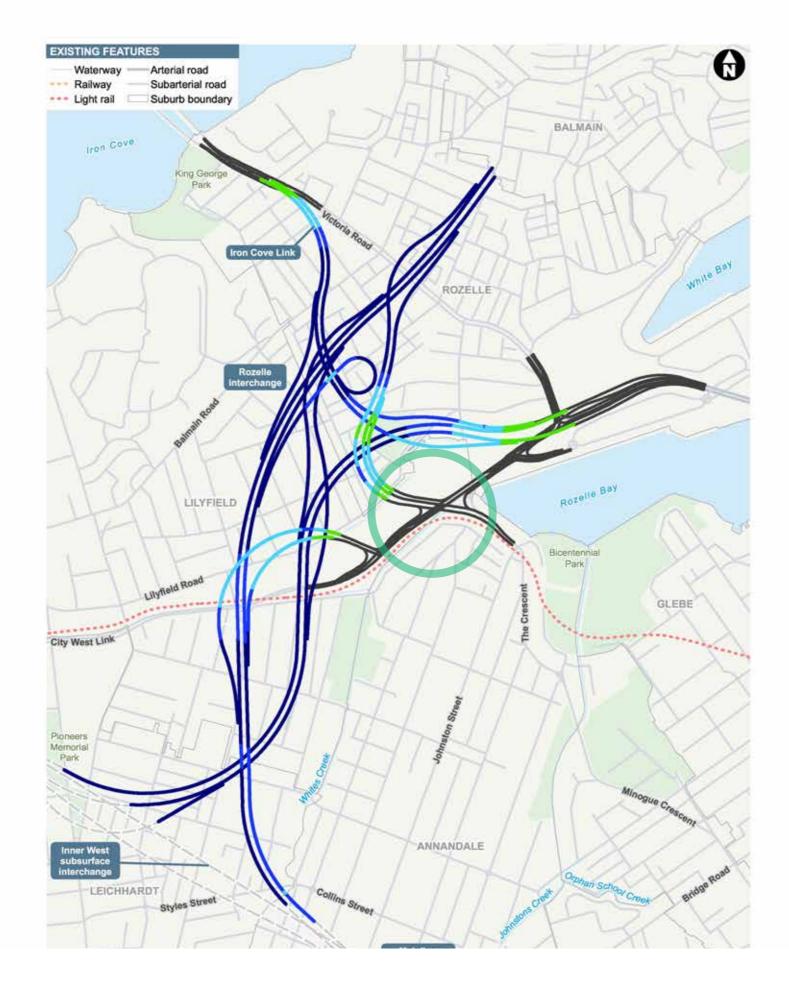
#### Rozelle Interchange Allows Green bridge to connect park to park



# Buruwan Park edge tree retention

**Rozelle Interchange** 

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#### **Rozelle Interchange**

# Above ground tunnel portal alignment is driving tree loss in park

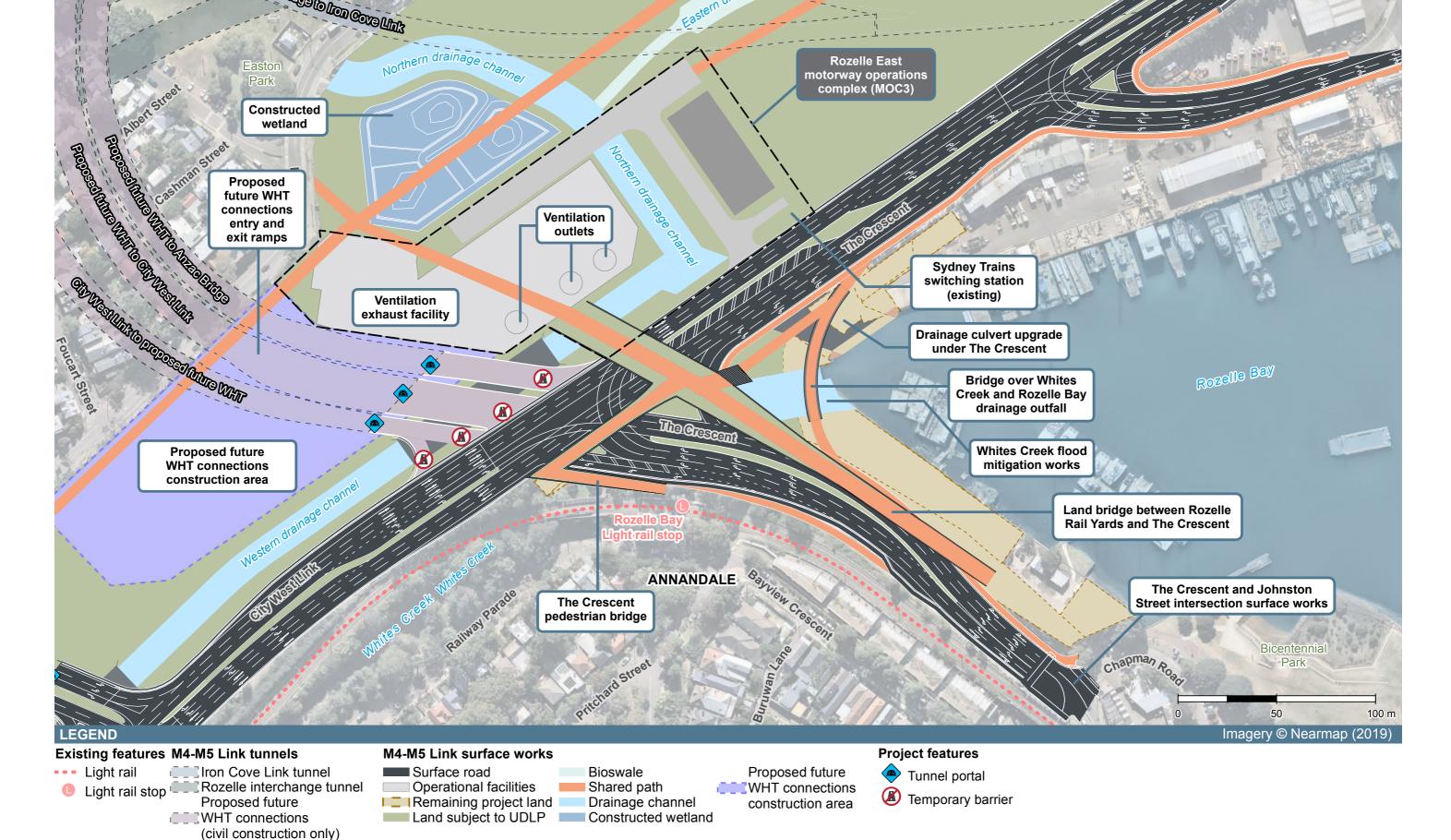
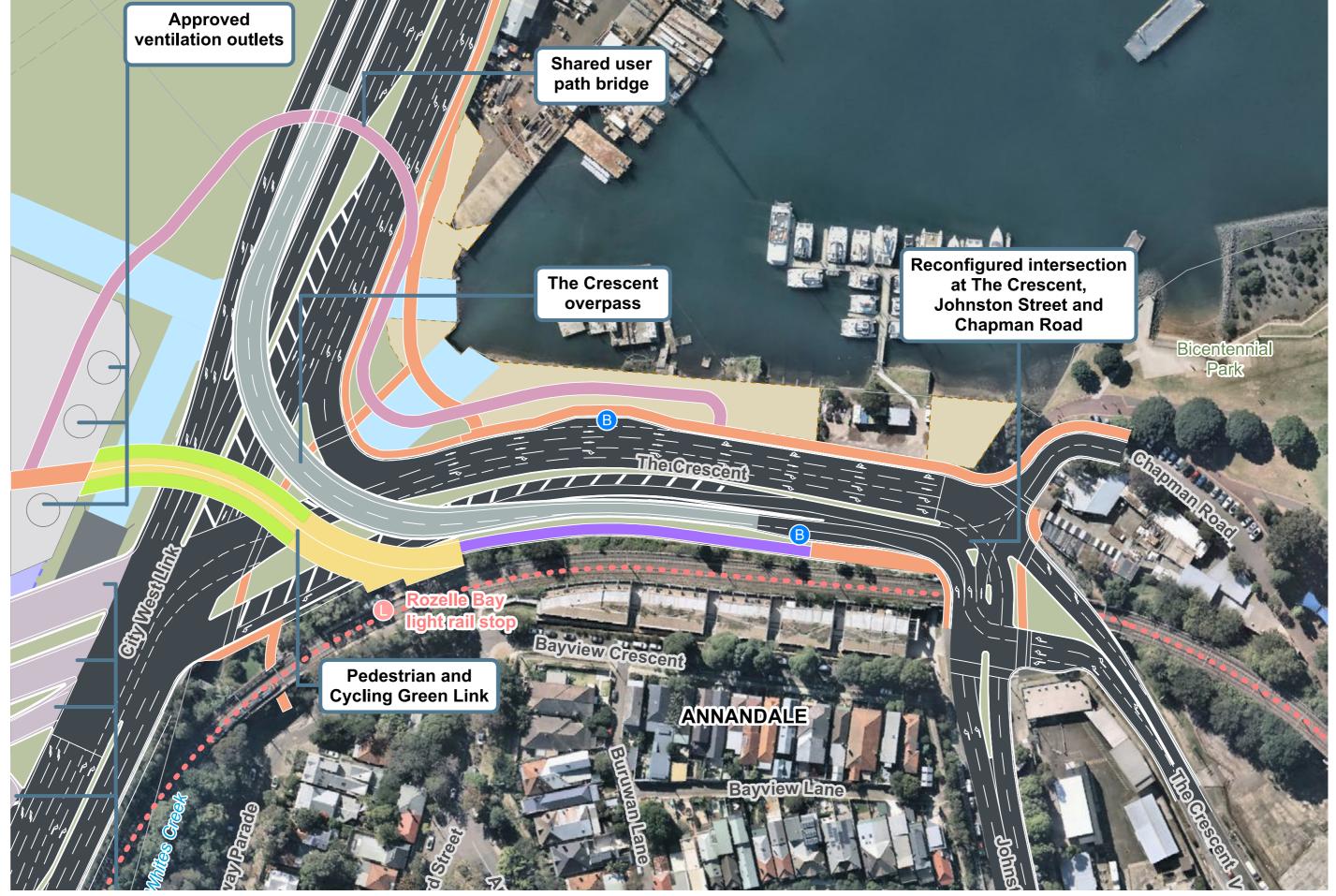
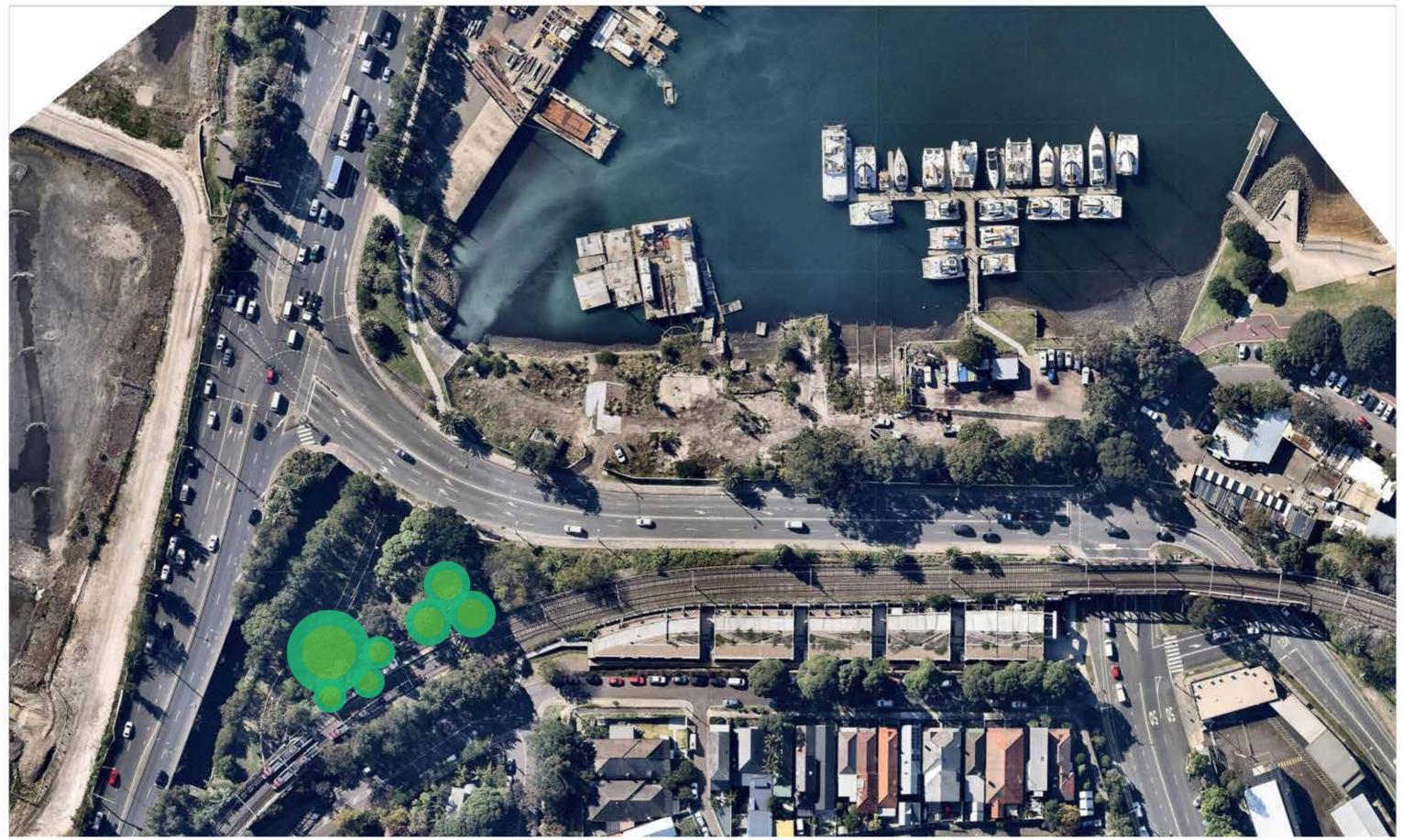


Figure 3-1 Overview of the approved project

#### Rozelle Interchange EIS scheme – Routed road through Buruwan Park



## Rozelle Interchange MOD 2 scheme has not adequately reviewed landscape opportunities



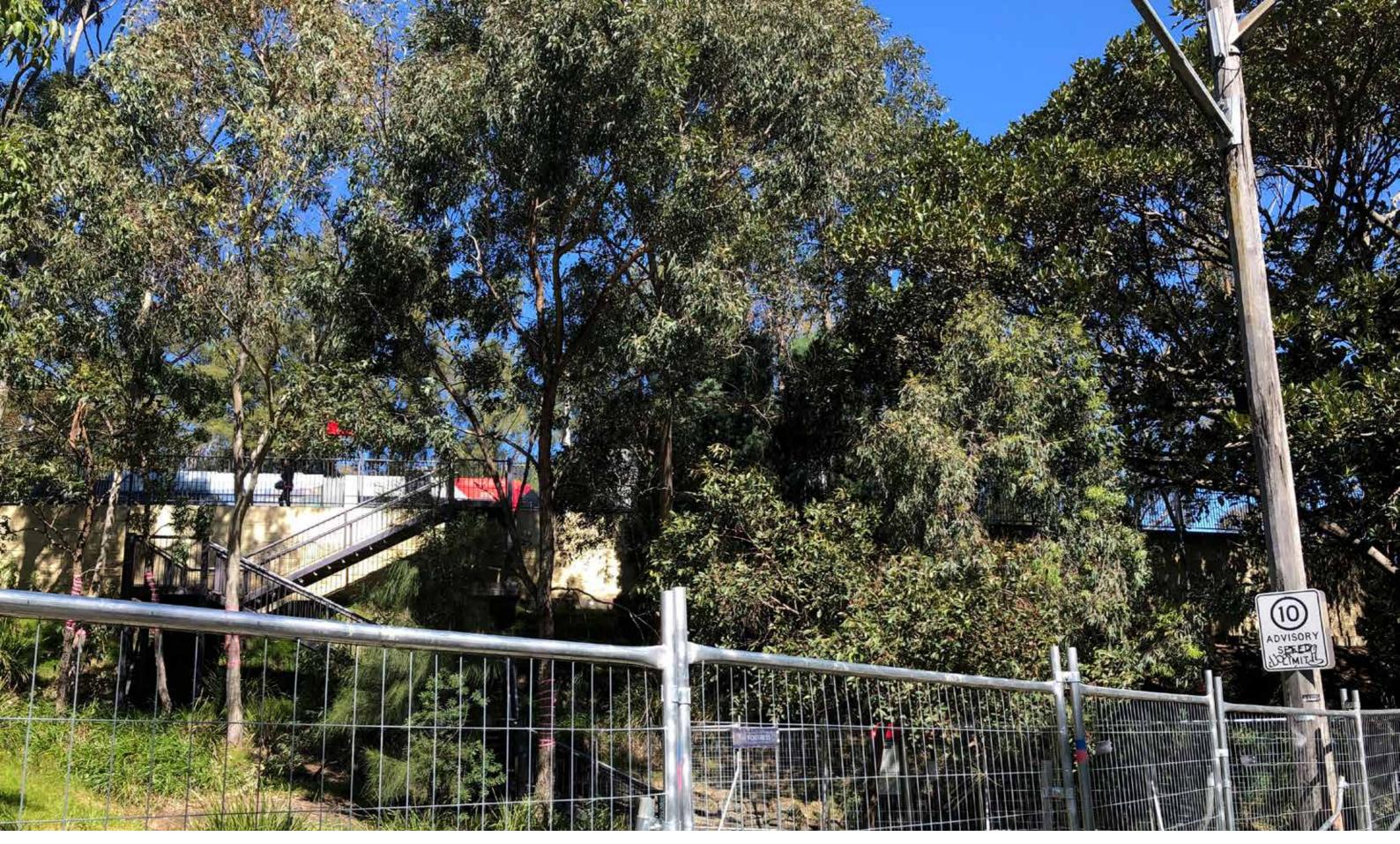
## Rozelle Interchange Significant embankment trees and fig that could be retained

1:1000 @ A3 Nearmap aerial image 2019

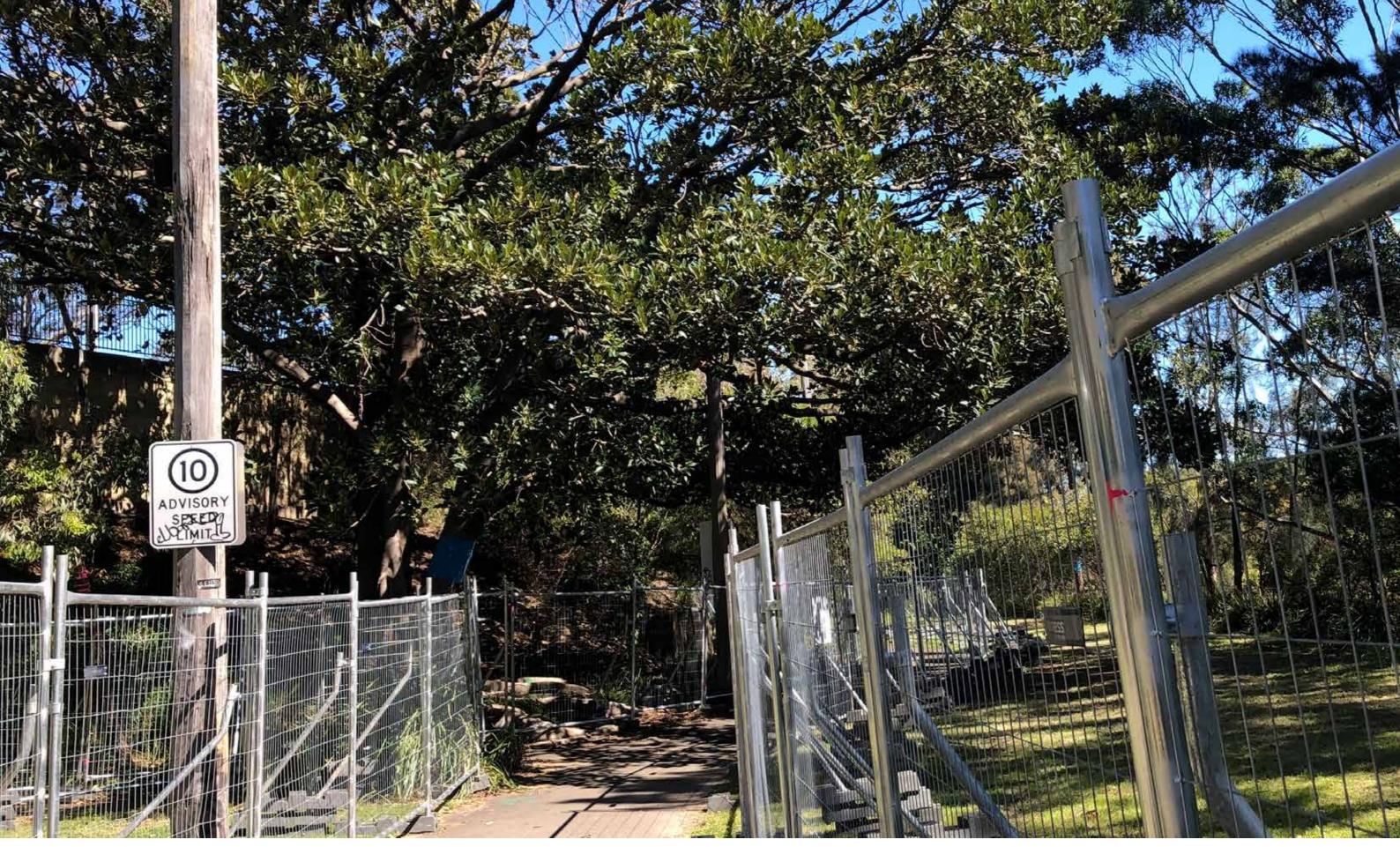


## Rozelle Interchange Modification 2 overlay

1:1000 @ A3 Nearmap aerial image 2019



### Rozelle Interchange Light rail embankment trees



#### **Rozelle Interchange**

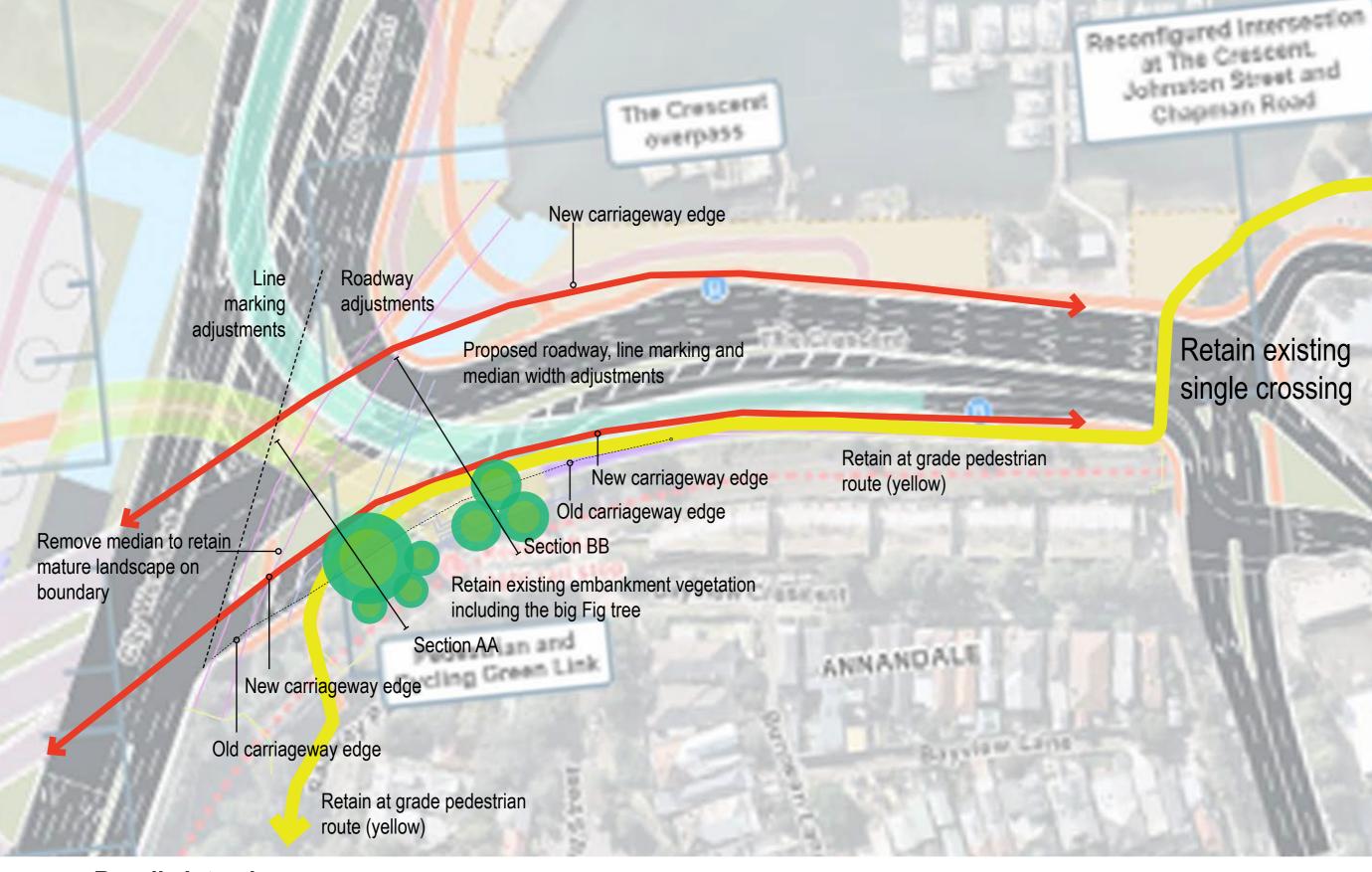
# Large Ficus macrophylla - 30m diameter 15m tall



## Rozelle Interchange Valuable Green edge



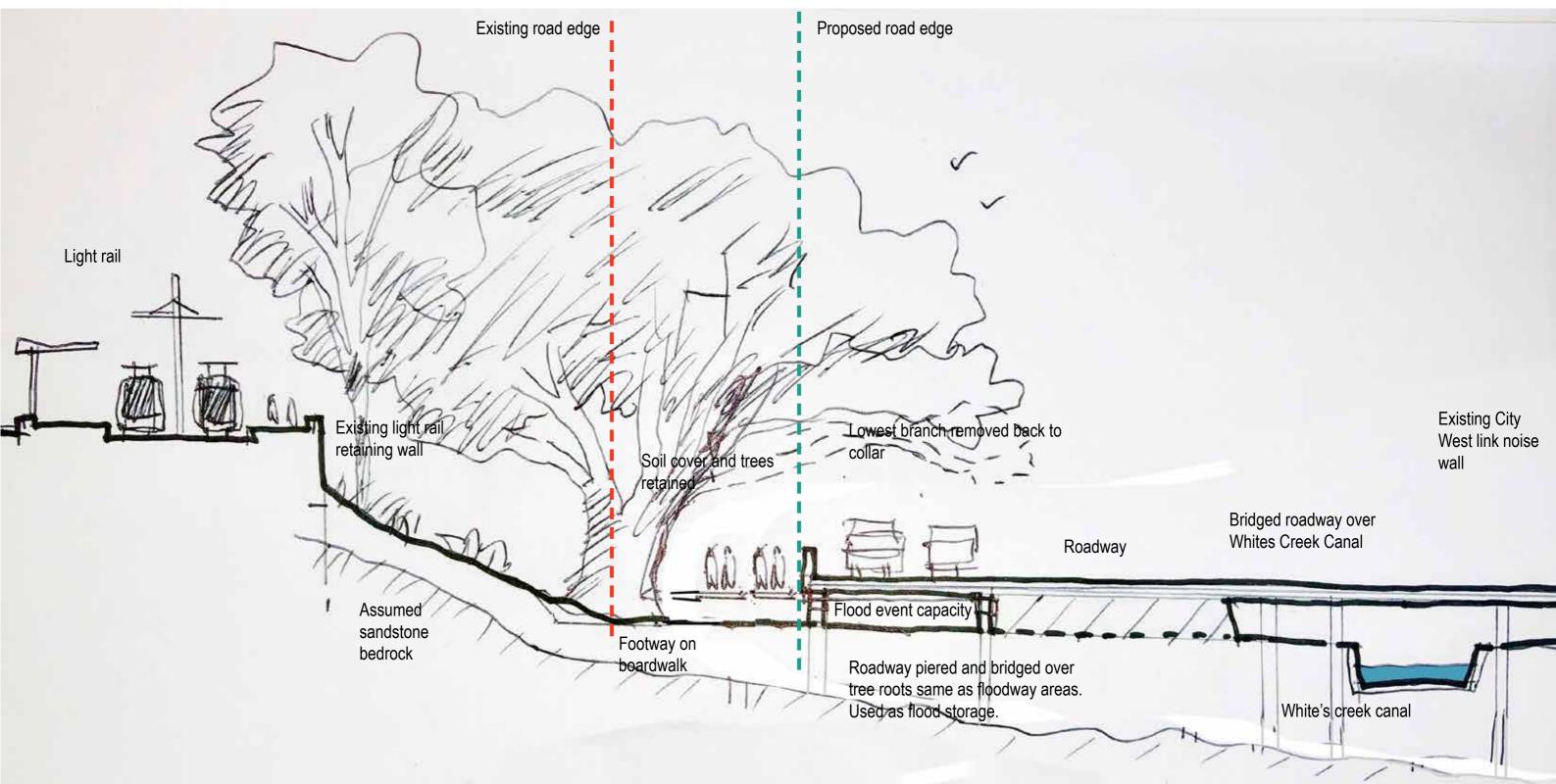
## Rozelle Interchange Light rail embankment trees – 15m tall Sydney Blue Gums

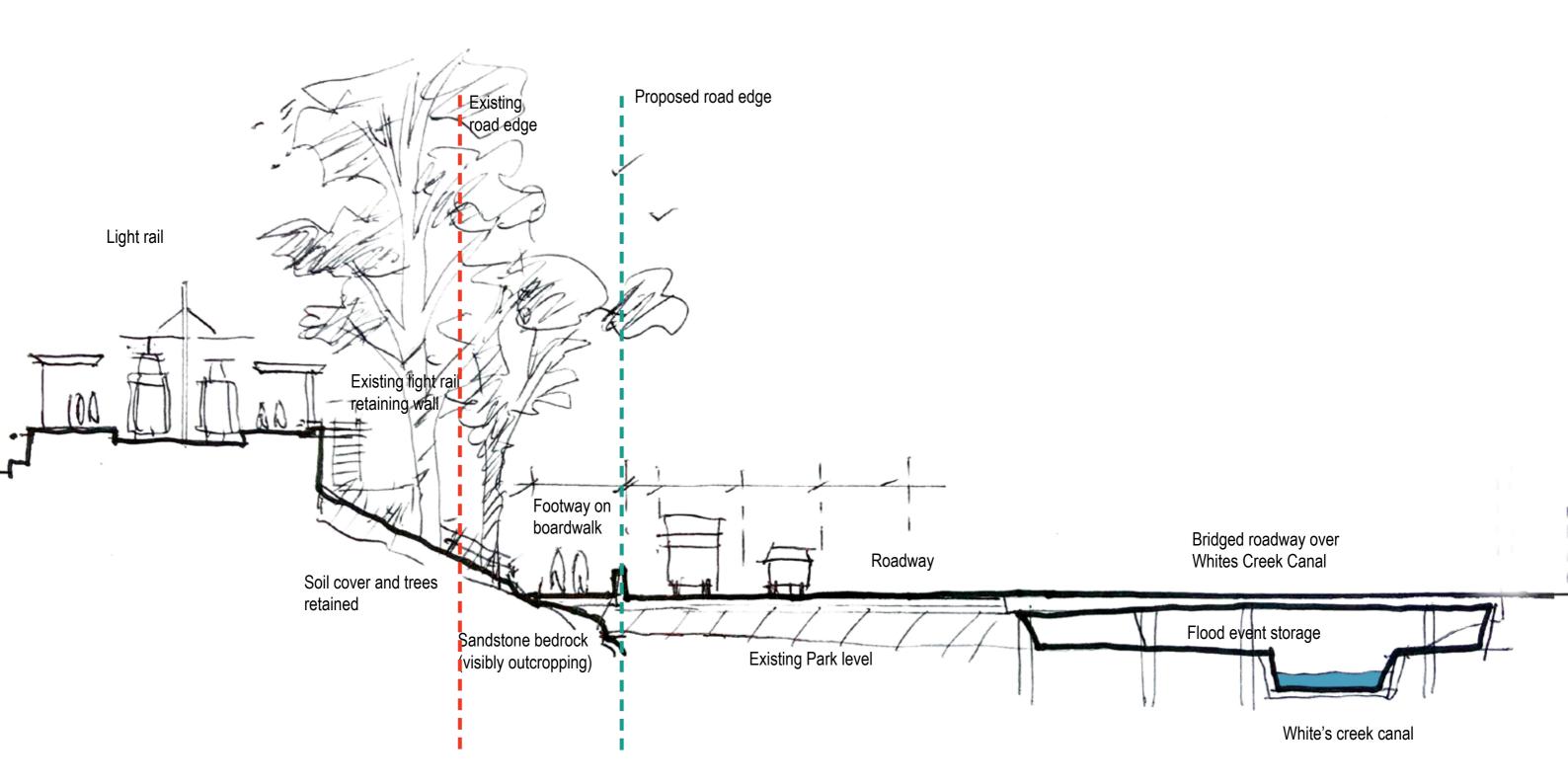


#### **Rozelle Interchange** Road alignment and line marking adjustments to retain trees

**Retain existing** single crossing

1:1000 @ A3



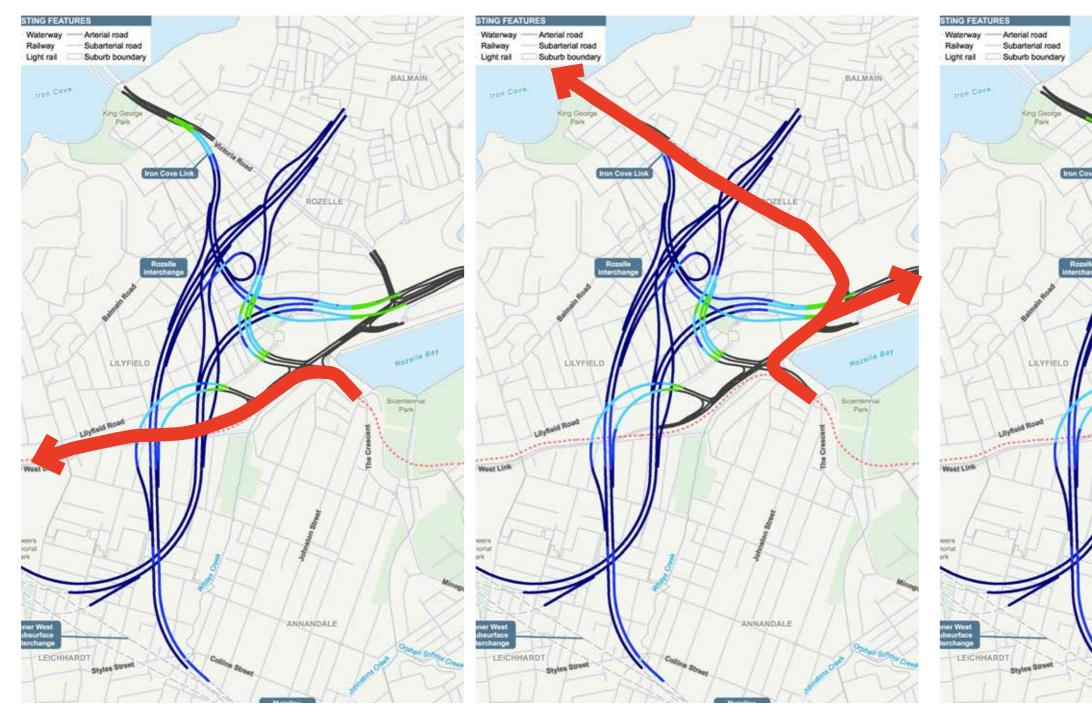


#### Rozelle Interchange Section BB - east of stairs



# **Traffic movements**

#### **Rozelle Interchange**



To Habberfield / Parramatta. City west link to Wattle street West connex tunnel

To Victoria Road / Anzac Bridge (currently only via the overpass)

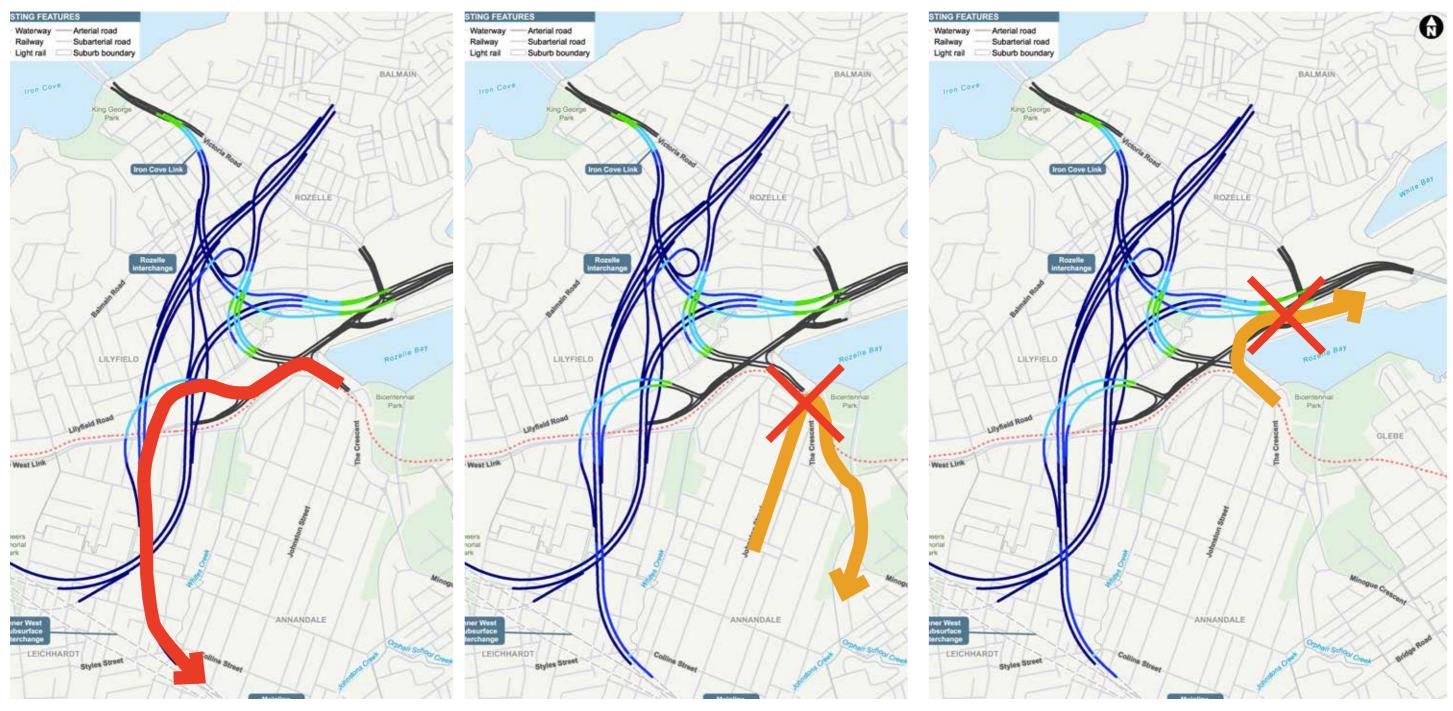
future tunnel built

### **Rozelle Interchange** From Annandale / Glebe

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# To Northern beaches - if and when



To St Peters / Airport via West **Connex Tunnels** 

Now no right turn from Johnston Street Now no right turn from The Crescent to the Tram sheds, Glebe, Sydney University and other destinations.

This should be reinstated

### **Rozelle Interchange** From Annandale / Glebe

M4-M5 Link SSI-7485-Mod-2 application • Martin O'Dea submission - Issue D - 15/09/2019

# into James Craig Drive and possible future residential communities.

#### Only option 1 maintained this

We would like to see better urban outcomes for its 100 year lifespan

## Key outcomes:

Remove the overpass. Return to option 1 at grade intersection or solve underpass option 2 technical constraints so it is the preferred option.

Improve pedestrian connectivity.

Halt all further tree removal in Buruwan Park. Urgently review design to adjust roads for maximum tree retention on the southern side of Buruwan Park.

**Rozelle Interchange** 

Consider local traffic

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