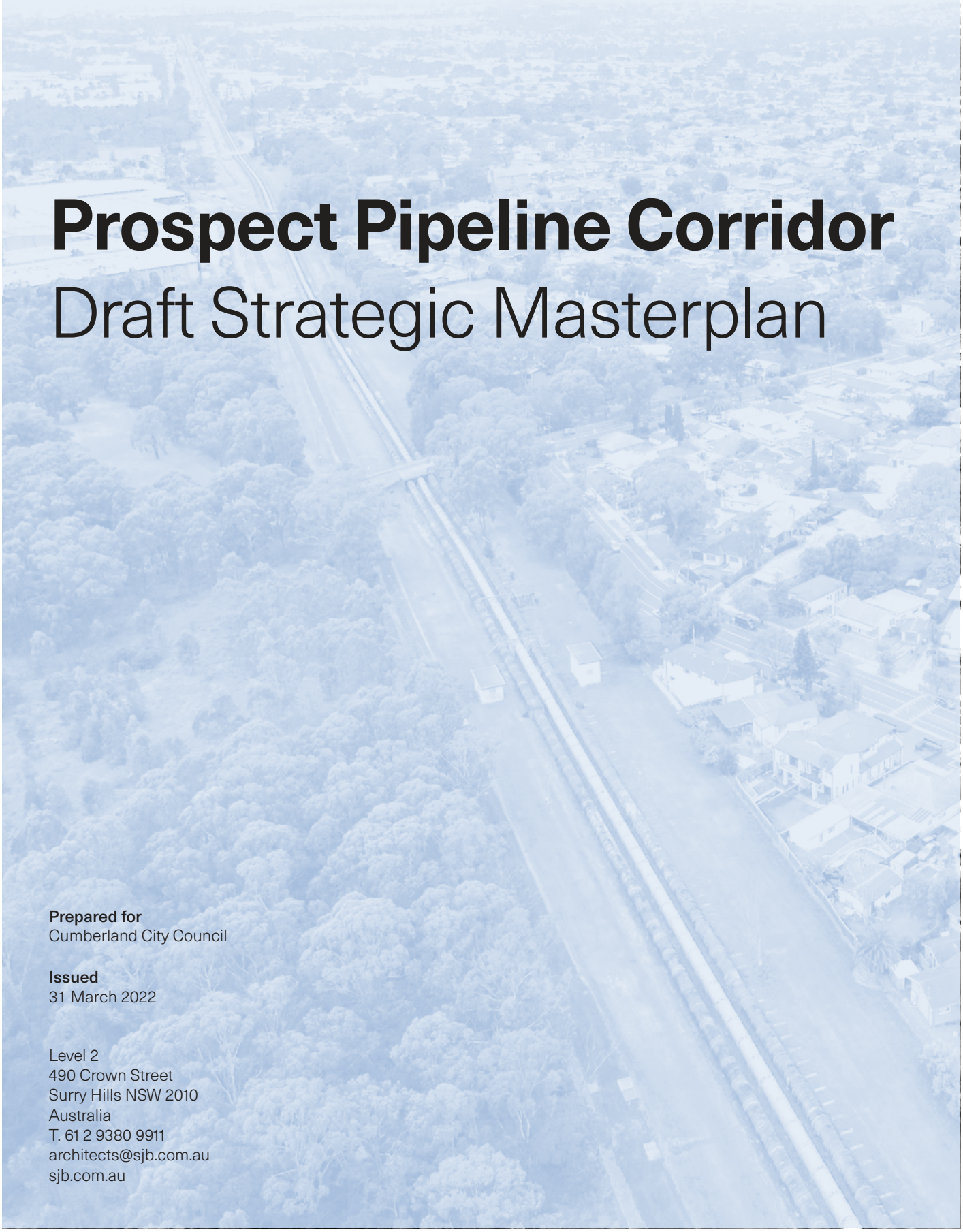
CUMBERLAND CITY COUNCIL

Prospect Pipeline Corridor
Draft Strategic Masterplan



Prepared for
Cumberland City Council

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Jumna ya wogal wal ya pemel jimna mingan jumna tamu
Ngalaringi wyanga pemal.
Ngalaringi babuna wal gnia ya pemal da lo-loley dice wara mooting humna banga nolla ya.
Pemal jumna wal gnia koi mund wal tati pemal jumna annagar dice.
Eorah wal mullana wal mingan jumna gai gnia bou gu-nu-gal ngalringi go-roong dyaralang.
Nglaringi go-roong dyaralang.
Ngalaringi bou ngalaringi jam ya tiati ngalraingi bubuna jumna.
Mittigar gurrung burruk gneene da daruga pemal
Didjeree goor.

We were the first carer's of this land, we took only what we needed from Mother Earth.
Our Ancestors knew how to take care of the land, so as to continue their survival.
We do not own the land, but we are charged with the care of it. As custodians of this land we ask that all people join us and preserve what we have left for future generations.
We must protect the few sites we have to ensure our culture continues.
In the language of our ancestors we welcome you to Darug lands.
Thank you.

Spoken by Darug Elder Aunty Edna at the Prospect Creek Plan of Management Launch Day (9 August 2002)
and the Prospect Creek Open Day (7 February 2004)

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Certified Management Systems

ISO 9001:2015	Quality Management System
ISO 45001:2018	Occupational Health & Safety Management System
ISO 14001:2015	Environmental Management System

Acknowledgement of Country

We acknowledge the Traditional Custodians of Country and their continuing connection to culture, community, land, waters and air. Specifically we acknowledge the Cennemegal, Welmaly, Bidjigal, Burramattagal, Wangal and Wategoro peoples of the Dharug nation who are the carers of the Ngura [Country] within which the Prospect Pipeline Corridor is located. We also acknowledge those from other groups with long relationships to this Country.

We pay our respect to Elders and Knowledge Holders and express our gratitude for their continued sharing of stories, knowledge and culture.

We express thanks to the First Peoples of the Sydney area, who have strived to retain and reclaim their cultures, languages, identities, and connections to Country despite colonial forces. We recognise the valuable contribution made by Aboriginal peoples in Sydney to community, narratives, spaces and places.

We acknowledge that sovereignty was never ceded and these lands remain a contested space for many First Peoples.

Designing with Ngura (Country)

The journey of Aboriginal and Torres Strait Islander people and their knowledge of this land is incredibly rich - its importance to the future of our country should never be underestimated. To this end, the NSW EP&A act 1979 requires development 'to promote the sustainable management of built and cultural heritage (including Aboriginal cultural heritage)'(1.3 [f]).

This project is being undertaken in engagement with Traditional Custodians of Ngura (Country) through which the Corridor extends and in collaboration with Djinjama Indigenous Corporation. The aim is to embed a respect for indigenous perspectives, knowledge, technology and 'care for Country' to create a shared vision for the future. This is consistent with Cumberland City Council's Reconciliation Action Plan 2019-21.

We acknowledge that engaging with Country is continuous process and extends well beyond the scope and program of this project.

Country

Country is the places from which Ancestors originated and still exist within as lifeforces. Country cannot be owned or tamed, as Country is also a relationship that must be honoured and nurtured. Country is alive and sentient. It is not just a place on a map or a boundary line, it is a lived experience and a heritage.

Country, for First Peoples, relates not only to the cultural group and land to which they belong, it is also their place of origin in cultural, spiritual and literal terms. Country incorporates the tangible and intangible, knowledges and cultural practices, identity and reciprocal relationships, belonging and wellbeing.

The Prospect Pipeline Corridor sits within Dharug (also sometimes written Darug, Daruk, Dharook, Oharruk) Country. Ngura is the Dharug word for Country. To be clear, when talking about Country, it is not the countryside or the area outside of metropolitan spaces being referred to, it is to the lands to which First Peoples belong, yearn for, find healing from and will return to. Country is the places from which Ancestors originated and still exist within as lifeforces. Country cannot be owned or tamed, as Country is also a relationship that must be honoured and nurtured. Country is alive and sentient. It is not just a place on a map or a boundary line, it is a lived experience and a heritage. The Dharug continue to hold a spiritual connection with the Prospect Pipeline Corridor.

For Aboriginal peoples, the landscape is the material embodiment of narratives embedded into the creation of a site, a monument and physical reminder of connections to sites and Ancestors. The Country Sydney is located within is bounded and shared by others, including the Dharawal (Darawal, D'harawal, Tharawal, Turuwal, Turrubul), Eora (Iyora, Lyora, Iora), Gundungurra (Gandangarra), Deerubbin (Dyarubbin, Dooraban, Deerabbun), Ku-ring-gai (Guringah, Guringai, Kurig-gai, Kuringgai), Yuin (Djuwin, Djuuwin, Juwin, Yuwin).

Country, as the holder of memory and narrative, space and place, and the relationships connecting all entities of the land, is key for First Peoples and for designers of space and professionals in the built environment. This project aims to embed an integrated approach to Country and engagement with First Peoples. (Hromek, D. 2021)

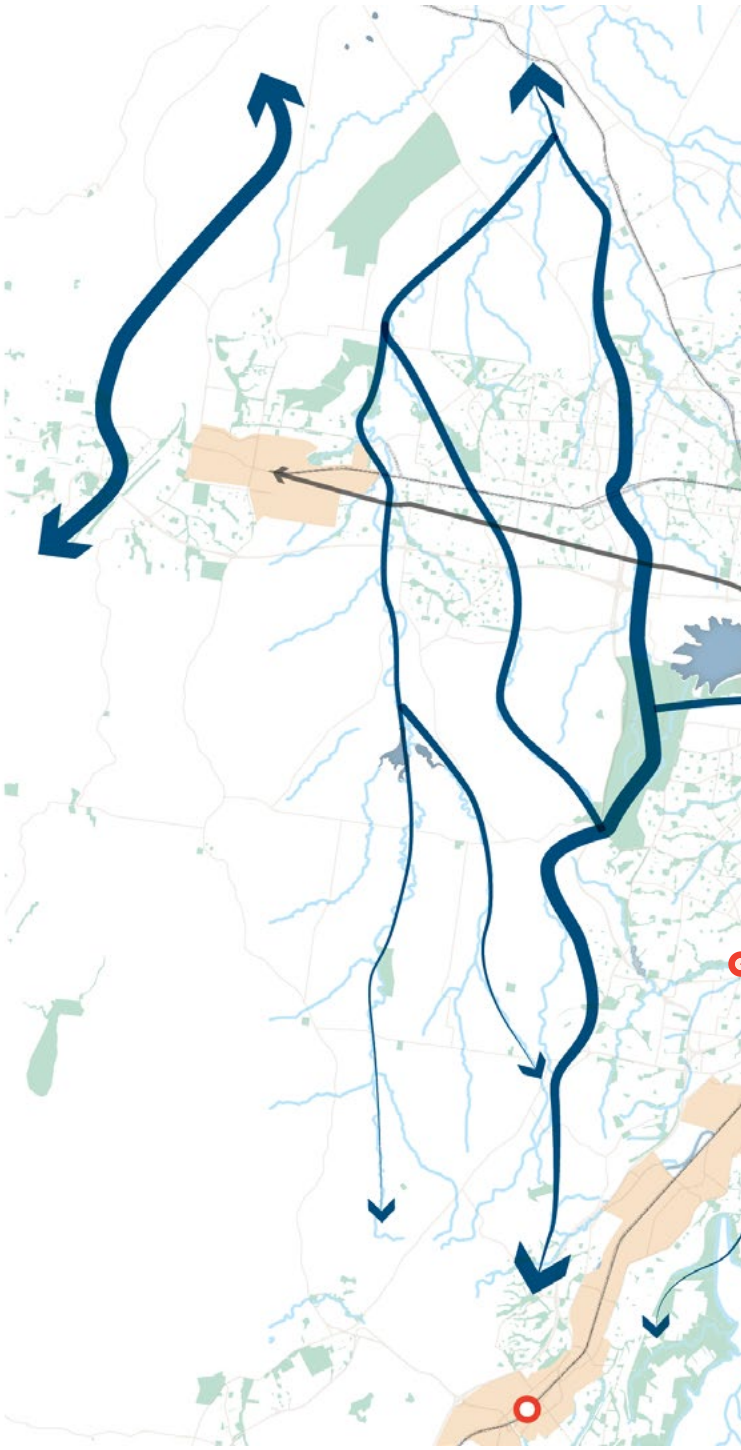
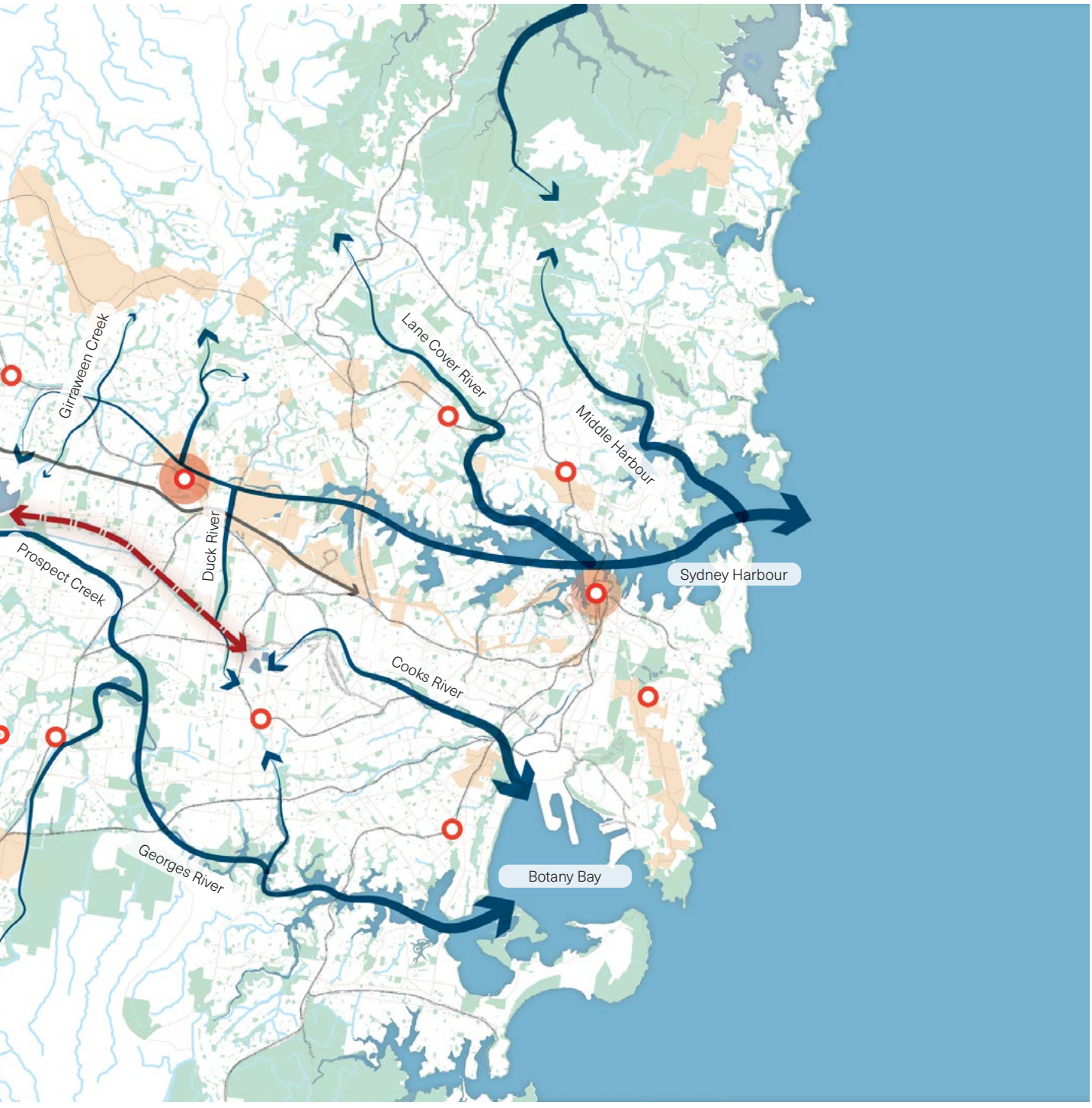


Figure 01: Country and Interconnectedness


Girraween Creek
Lane Cover River
Middle Harbour
Duck River
Prospect Creek
Sydney Harbour
Cooks River
Georges River
Botany Bay
Prospect Pipeline Corridor
Waterways
Great Western Highway Song
Train line
Major roads
Metropolitan Cluster
Strategic Centre

Executive Summary

Cumberland City Council has engaged the consultant team of SJB (Urban Design), Gallagher Studio (Landscape Architect), Djinjama Indigenous Corporation (Indigenous Consultant) and Cred Consulting (Social Planning) to prepare the Prospect Pipeline Corridor Spatial Framework ("The Framework"). The Framework will propose public domain improvements along a 16km corridor between Prospect Reservoir and Potts Hill Industrial Area. A key aim of this project is to establish a vision and principles for the corridor which supports the delivery of a safe and continuous cycleway along its length and new green grid connections.

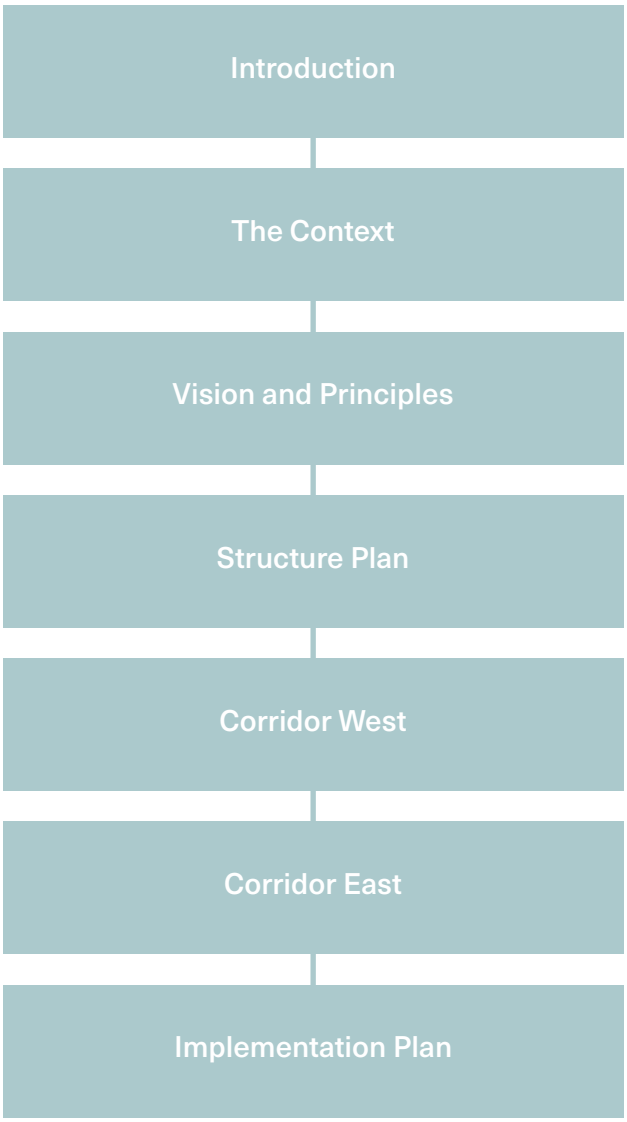
The Prospect Pipeline Corridor is a significant piece of infrastructure which will have ongoing significance in the delivery essential drinking water to Sydney.

The Draft Spatial Framework document has been informed by detailed analysis completed in previous stages.

This work is being completed in consultation with representatives from the following government agencies:

- City of Canterbury Bankstown (CBCity)
- Fairfield City Council (FCC)
- Blacktown City Council (BCC)
- Strathfield Council
- Transport for New South Wales (TfNSW)
- Sydney Water
- NSW Department of Planning and Environment (DPIE)

The Framework supports the aspirations outlined within the NSW Government Architect (GANSW) Sydney Green Grid West Central Area and is funded through the NSW Government Metropolitan Greenspace Program (MGP).



The corridor near Campbell Hill Road

Contents

Lower Prospect Canal Reserve

Introduction

1

1.1 PROJECT BACKGROUND

The Corridor

The Prospect Pipeline Corridor is located in the Western Sydney region, approximately 13km to the south-west of the regional centre of Parramatta CBD. The corridor runs between two key pieces of Sydney Water infrastructure: the Prospect Reservoir in the West and Potts Hill Reservoir to the east.

The corridor is strategically positioned within the West Central and South-West District of the Sydney Green Grid, which has been identified as one of the fastest growing areas in greater Sydney and Australia. The Corridor will be a key link in the implementation of the Green Grid, as well as further facilitating key hydraulic and biodiversity connections to the regionally significant waterways, such as the Parramatta River.

Infrastructure within the corridor

The Sydney Water-owned Pipeline Corridor houses critical infrastructure for Sydney's drinking water supply, supplying up to 2 million people with drinking water. These pipeline services areas including Sydney CBD, Eastern Suburbs and the Inner West. About 40% of Sydney's water supply travels through these pipes. Given the growing city's growing water needs, further water infrastructure will likely need to be built in the corridor in future.

The corridor also houses important electricity and communications infrastructure underground. This may impact potential building and planting opportunities above.

1.2 HOW TO USE THIS MASTERPLAN

This Strategic Masterplan outlines the project vision, principles, design strategies for the Prospect Pipeline Corridor. The masterplan establishes a framework to enable Council to:

- continue discussions with key stakeholders and engage with the local community
- undertake detailed design and feasibility studies
- seek funding for projects along the corridor

The structure plans within this document have been prepared in consultation with Cumberland City Council and the project Working Party. This has been undertaken to:

- ensure the corridor delivers beneficial community and transport infrastructure which is complementary to the strategies and projects proposed in adjacent areas
- ensure future works complement the ongoing, safe and secure operation of water, telecommunications and electrical infrastructure within the corridor

Potential projects within the corridor or beyond the study area may require detailed testing, inputs from specialist consultants and/or wider stakeholder discussions. These have been included within the Prospect Pipeline Corridor Implementation Plan in Chapter 8 for future discussion and exploration.

Introduction

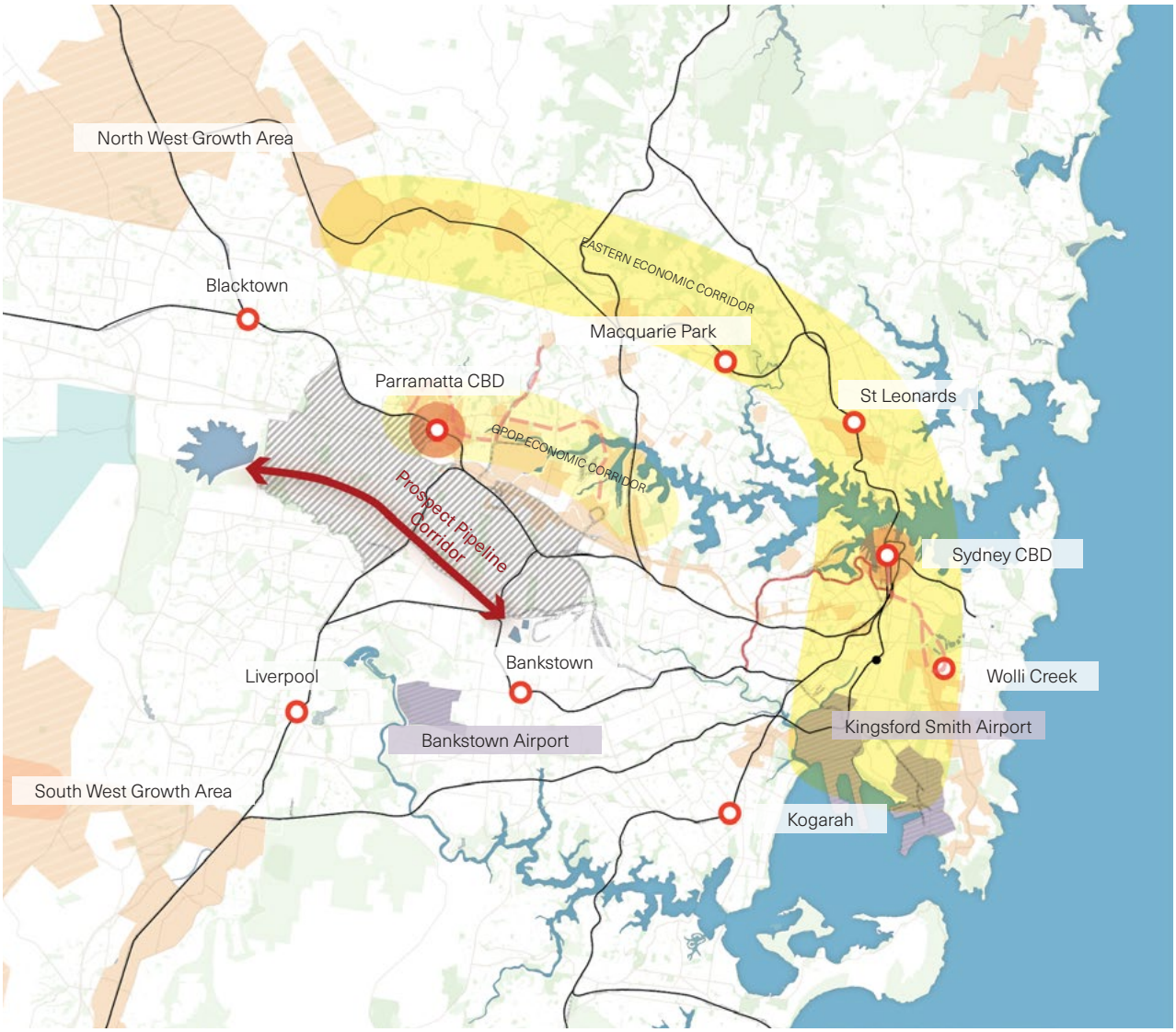


Figure 02: Sydney Context

Prospect Pipeline Corridor
Cumberland Council LGA
Metropolitan Centre (GSC)
Health and Education Precinct (GSC)
Rail and Metro
Light Rail
Proposed Light Rail
Urban Renewal Areas
Growth Areas
Western Sydney Priority Growth Area Precinct
Eastern Economic Corridor
GPOP Economic Corridor
Transport and Intermodal Hubs

1.3 STRATEGIC SIGNIFICANCE/ALIGNMENT

The Prospect Pipeline Corridor is highlighted across both State and local policies as a strategic opportunity to deliver additional transport and community infrastructure.

A Metropolis of Three Cities, Central City District Plan and the Greater Sydney Green Grid

A Metropolis of Three Cities published by the Greater Sydney Commission (GSC) locates the Prospect Reservoir Pipeline Corridor and the surrounding Cumberland LGA within the Central River City. The aspirations for this area are outlined within the Central City District Plan (GSC) and the Greater Sydney Green Grid (Green Grid), published by the Government Architect NSW (GANSW).

The Green Grid is a long-term vision for a network of high quality green spaces that are able to connect communities to the natural environment. It is envisioned to link tree-lined streets, waterways, parks and open spaces to town centres, public transport and public spaces. The Green Grid builds on the District's established open space, the Regional Tracks and Trails Framework and the Principal Bicycle Network (in development by Transport for NSW).

The long-term vision for the Green Grid in the Central City District is shown in Figure 02. This vision will be delivered incrementally over time, as opportunities arise and as detailed plans for connections are refined.

The Prospect Reservoir Pipeline Corridor has been identified as a Green Grid Priority Project, selected to provide district-scale connections that link open space, waterways and bushland. This connection is envisioned as "a connected open space corridor linking Prospect Reservoir and Western Sydney Parklands through Pemulwuy, Greystanes, Merrylands West, Smithfield, Guildford, Chester Hill and Regents Park". This project will also connect with other projects including the Duck River Open Space Corridor, recognised for its connected areas of parklands, including Auburn Botanical Garden, the Duck River Walk and several parks and reserves for both active and passive recreation.

Cumberland City Council Local Strategic Plan and Open Space and Recreation Strategy 2019-2029

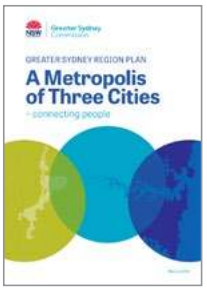
The *Cumberland City Council Local Strategic Planning Statement* (LSPS) and Open Space and Recreation Strategy 2019-2029 recognises that the natural environment in Cumberland LGA is highly valued. The "green heart" of the Duck River, along with other community and tourism assets exist along the corridor, including the Auburn Botanic Gardens and various sporting fields and parks are specifically highlighted.

- *The Cumberland Open Space and Recreation Strategy* recognises the need to plan for connections on a regional scale in consideration of neighbouring LGAs, acknowledging that the community does not organise their lives by Council boundaries
- The strategy identifies the Sydney Green Grid projects as a priority for Cumberland, specifically the Duck River Open Space Corridor, Prospect Reservoir Pipeline Corridor and Duck Creek projects, in order to develop a connected network of open space, recreation facilities and other infrastructure.
- Open space and recreational lands presents opportunities to celebrate the community profile of Cumberland, in particular the Aboriginal heritage and history of the areas surrounding Pemulwuy, Prospect Creek and along the Duck River
- The Lower Prospect Canal Cycling trail in the south of Greystanes is recognised as an open space of regional significance. The reserve along with the Boothtown Aqueduct are heritage listed items.

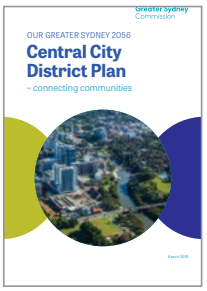
Introduction

State and Regional

Future Transport 2056 (TfNSW)



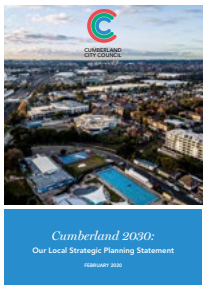
Greater Sydney Region Plan (GSC)



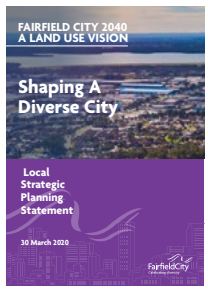
Central City District Plan (GSC)

Sydney Green Grid - West Central and South West

Local

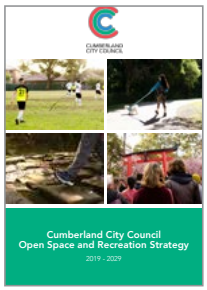


Cumberland 2030 Local Strategic Planning Statement (CCC)

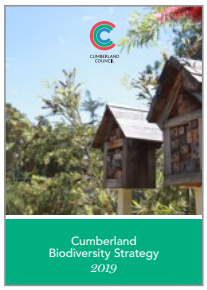


Fairfield City 2040 Local Strategic Planning Statement (FCC)

Connective City 2036 Local Strategic Planning Statement (CBCC)



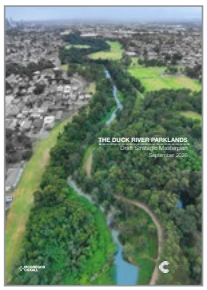
Open Space and Recreation Strategy 2019-2029 (CCC)



Cumberland Biodiversity Strategy 2019 (CCC)

Draft Active Transport Action Plan 2020-2030 (CBCC)

In progress



Duck River Parklands Draft Strategic Masterplan (CCC)

NSW GOVERNMENT Transport for NSW

Principal Bicycle Network (TfNSW - In progress)

Introduction

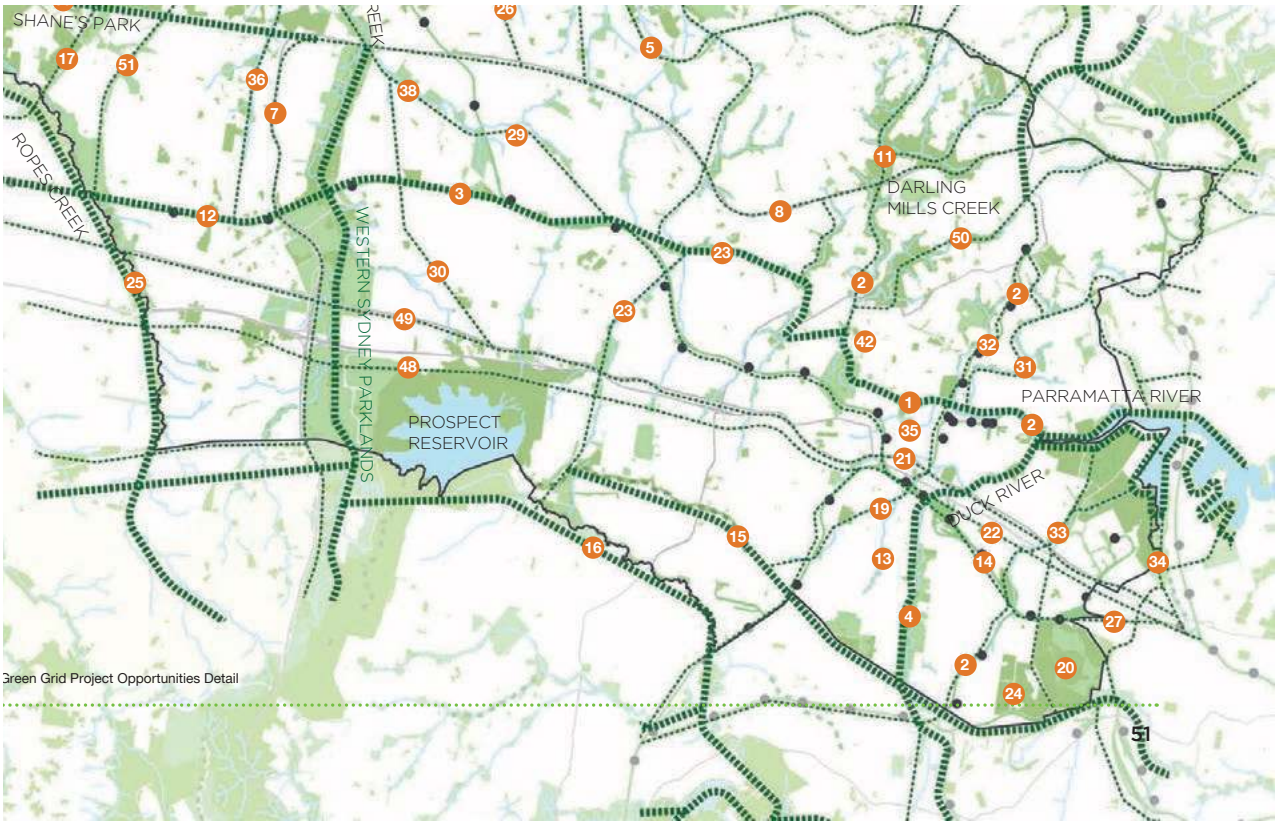


Figure 03: West Central Green Grid, Project Opportunities Detail, West Central District Sydney Green Grid Spatial framework and project opportunities

PROJECT OPPORTUNITY	DOMINANT GRID LAYER
1. Parramatta River Foreshore	HYDROLOGICAL
2. Parramatta Light Rail	TRANSPORT
3. Great West Walk: Parramatta to Penrith	TRANSPORT
4. Duck River Corridor	HYDROLOGICAL
5. Sydney Metro Northwest	TRANSPORT
6. Sydney Metro Northwest Potential Extension	TRANSPORT
7. M7 Motorway Pedestrian and Cycle Link	TRANSPORT
8. M2 Motorway Pedestrian and Cycle Link	TRANSPORT
9. Western Sydney Parklands and NW Link	RECREATIONAL
10. Cattai and Caddies Creek Corridors	HYDROLOGICAL
11. Darling Mills Creek Corridor	HYDROLOGICAL
12. Parramatta to Penrith Rail Corridor	TRANSPORT
13. Little Duck Creek Corridor	HYDROLOGICAL
14. Parramatta to Bankstown Rail Corridors	TRANSPORT
15. Prospect Reservoir Water Pipeline	UTILITIES
16. Prospect Creek Parklands	RECREATIONAL
17. Sydney Metro Northwest to T1 Western Line	TRANSPORT
18. Windsor Road Active Transport Corridor	TRANSPORT
19. Duck Creek	HYDROLOGICAL
20. Rookwood Cemetery	UTILITIES
21. M4 Overpass and A'Beckett Creek	HYDROLOGICAL
22. Parramatta Road Urban Transformation	TRANSPORT
23. Toongabbie and Blacktown Creeks	HYDROLOGICAL
24. Lidcombe TAFE, Sydney Uni Precinct	RECREATIONAL
25. Ropes Creek Corridor	HYDROLOGICAL
26. Second Ponds Creek and The Ponds	HYDROLOGICAL
27. Parramatta to Strathfield Rail Corridor	UTILITIES
28. Blue Gum, Scaly Bark and Guppy Creek	HYDROLOGICAL
29. Blacktown Creek and Rail Corridor	HYDROLOGICAL
30. Prospect to Seven Hills Elec Easement	UTILITIES
31. North Parramatta and Dundas Creeks	HYDROLOGICAL
32. Carlingford Rail Line	TRANSPORT
33. Upper Haslams Creek and Wyatt Park	HYDROLOGICAL
34. Powells Creek and Mason Park	HYDROLOGICAL
35. Clay Cliff Creek and Jubilee Park	HYDROLOGICAL
36. Bells Creek, Marsden Park	HYDROLOGICAL
37. Killarney Chain of Ponds and Ponds Ck	HYDROLOGICAL
38. Breakfast Ck and Nth Blacktown CBD	HYDROLOGICAL
39. Shane's Park and Wianamatta Nature Res	ECOLOGICAL
40. Marramarra National Park and Trails	ECOLOGICAL
41. Rural Area: Pitt Town to Dural	RURAL
42. North Parramatta Urban Renewal	DEVELOPMENT
43. South Creek	HYDROLOGICAL
44. First Ponds Creek	HYDROLOGICAL
45. Hawkesbury River to Wisemans Ferry	HYDROLOGICAL
46. Old Northern Road to Wisemans Ferry	TRANSPORT
47. Little Cattai Creek	HYDROLOGICAL
48. M4 Motorway Corridor	TRANSPORT
49. Great Western Highway Corridor	TRANSPORT
50. Lake Parramatta and Hunts Creek	ECOLOGICAL
51. Marsden Park Elec Easement	UTILITIES

Eucalypt, Prospect Reservoir

1.4 THE PROSPECT PIPELINE CORRIDOR

The study area for the Prospect Pipeline Corridor Strategic Masterplan is indicated in Figure 04, generally delineated by a 800m buffer around the length of the Pipeline Corridor. The study area begins at Prospect Reservoir and Prospect Hill (Marrong) to the west, and ends at Potts Hill Reservoir to the east; two pieces of significant water infrastructure. It traverses the four Local Government Areas (LGA) of Cumberland City Council, Fairfield City Council and City of Canterbury Bankstown.

The Corridor consists of two distinctive zones demarcated by the Guildford Pipehead Complex. The Lower Prospect Canal Reserve forms the western portion of the study area. This is a naturalised corridor with mature landscape connected via continuous shared path connected to Prospect Reservoir. An existing shared path is located adjacent to the pipeline between the Guildford Pipeline Complex and Guildford Town Centre. There are no cycle or pedestrian paths along Corridor East from Guildford Town Centre to Potts Hill Reservoir.

Figure 04: Study Area


PARRAMATTA
SOUTH WENTWORTHVILLE
HARRIS PARK
CITY OF PARRAMATTA LGA
CUMBERLAND CITY COUNCIL LGA
GRANVILLE
MERRYLANDS WEST
MERRYLANDS
BLAXCELL
WOODPARK
Guildford Pipehead Complex
WETHERILL PARK
GUILDFORD WEST
DELWOOD
GUILDFORD WEST
GUILDFORD
SOUTH GRANVILLE
YENNORA
OLD GUILDFORD
Duck River
AUBURN
Corridor East
FAIRFIELD
BERALA
FAIRFIELD EAST
CHESTER HILL
REGENTS PARK
SEFTON
VILLAWOOD
CARRAMAR
BIRRONG
Potts Hill Reservoir
CITY OF CANTERBURY BANKSTOWN LGA
LANDSDOWNE
LANSVALE
BASS HILL
YAGOONA

1.5 KEY FEATURES - CORRIDOR WEST

01

Prospect Reservoir

In the west, the corridor connects to parkland on the south-eastern edge of the Prospect Reservoir. Prospect Reservoir and the surrounding area is a heritage item of state significance. The reservoir currently serves an integral water storage role. It is particularly important in times of high water demand or when other water sources are taken offline for maintenance. While the reservoir itself is not publicly accessible, some of the lands on its eastern edge are accessible.

The reservoir is surrounded by native bushland including Cumberland Plain Woodland which serves as a home for native fauna. Views west across the reservoir and Western Sydney are available from George Maunder Lookout. Existing cycleways around the southern edge of Prospect Reservoir connect to the Lower Prospect Canal Reserve, providing access to Wetherill Park. Future aspirations include an extension of cycleways further west to connect to Western Sydney Parklands.

02

Prospect Hill (Marrong)
Prospect Hill is a place of Indigenous cultural significance as an important marker, navigational element and vantage point in the landscape. The hill provides 360° district views from Marrong Reserve (Pemulwuy Lookout). It is a listed item on the NSW State Heritage Register and subject to the Cumberland City Council *Prospect Hill Plan of Management (POM) March 2019*.

Landscape improvements including the provision of new pedestrian and shared paths, endemic planting, bush foods and a play spaces are outlined within the POM to support engagement with Indigenous knowledge and opportunities for public recreation.

03

Lower Prospect Canal Reserve
The corridor follows the alignment of the Lower Prospect Canal Reserve, a naturalised landscape and recreation corridor following the former Lower Prospect Canal. It extends through the suburbs of Greystanes, Merrylands West, Woodpark, Smithfied and Guildford West.

Lined with mature trees and grassland, an off-road shared path supports uninterrupted movement along its length. The shared path utilises existing canal underpasses that enable pedestrians and cyclists to bypass cross-roads including the Cumberland Highway, Greystanes Road and Sherwood Road.

03

Guildford Pipehead Complex
Owned by Sydney Water, the Guildford Pipehead Complex is made up a series of buildings and water infrastructure which distributes water to Greater Sydney. The complex is not publicly accessible.

Existing cycleways extend from the Lower Prospect Canal Reserve around the complex's northern edge connecting to cycleways running parallel to the pipeline.

Areas in the north of the complex were recently approved for medium scale residential flat buildings. These will create a new, more dense residential interface along the corridor.

04

Guildford Town Centre
Guildford Town Centre is a local centre anchored by Guildford Train Station and the Guildford Road high street. It is highlighted as a principal local centre within the Cumberland LSPS, and supports day-to-day services, food and beverage outlets which service the local community. The area is seeing some densification through the delivery of town houses and apartment buildings in the blocks surrounding the town centre, no doubt taking advantage of public transport connections and amenity. Shared cycle and pedestrian paths along the rail line connect this centre to existing cycleways along the pipeline.

Introduction

View north west over Prospect Reservoir

View west towards Prospect Hill (Marrong)

View west along Lower Prospect Canal Reserve

View south east over Guildford Pipehead Complex

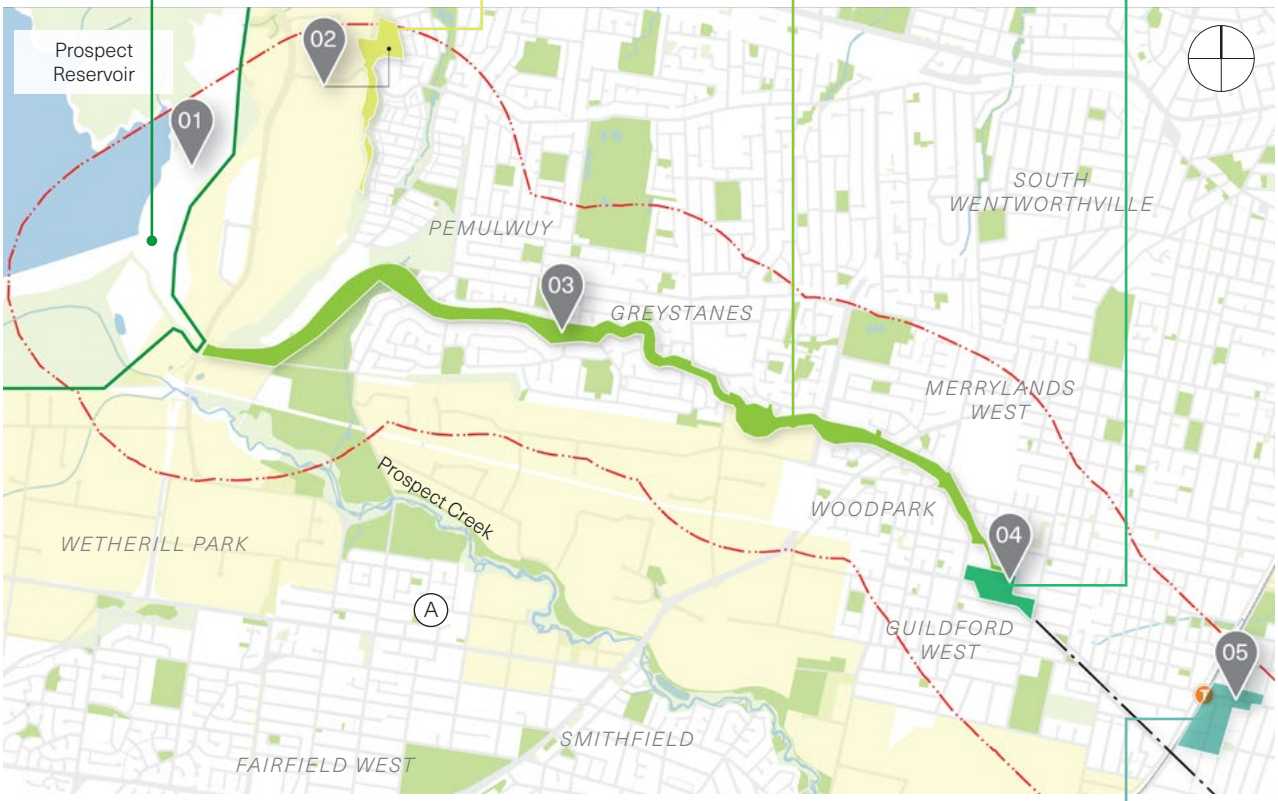


Figure 05: Key features, corridor west

Study area
Prospect Pipeline
Waterways
Public recreation
Bushland and civic
Industrial
Train line
Train station

Guildford Road

1.6 KEY FEATURES - CORRIDOR EAST

05

Waddangalli Woodland Reserve & Campbell Hill Pioneer Reserve

Waddangalli Woodland Reserve & Campbell Hill Pioneer Reserve are large landscaped open spaces bordering the corridor to the north at Campbell Hill Road, Guildford. Both Reserves feature large stands of the ecologically endangered communities of Cumberland Shale Plains Woodland which are formally protected under the *NSW Biodiversity Conservation Act 2016*. These spaces are important habitats for birds and serve as stopping points for birds moving between Roockwood, Newington Forest in the east and Prospect Reservoir in the west.

New cycle and pedestrian paths along the corridor will provide new opportunities to provide better access to these spaces and share the knowledge about the significance of these spaces.

06

Duck River

Duck River is a significant riparian corridor and Indigenous site which connects into the City of Canterbury Bankstown (CBCity) LGA to the south and into City of Parramatta (CoP) LGA in the north.

It is an Aboriginal site of ritual battles, ceremony and law, one bank was a special place for women giving birth. Skilled midwives practised in women's knowledge here, while the place for men was across the river. Marriages were arranged on islands. The Silverwater area of Duck River used to be a meeting place for trade between the forest people and the coastal people.

The existing parkland within the Cumberland City Council (CCC) is subject to the Duck River Strategic Masterplan which seeks to retain and enhance existing recreation facilities, deliver new cycle and pedestrian paths and rehabilitate the environment around the river. Works along the corridor should seek to align and deliver on the aspirations outlined within that masterplan. Opportunities to traverse the Prospect Pipeline Corridor at this point has been previously discussed with CBCity to unlock access to this parkland for residents to the south.

07

Regents Park Town Centre

Regents Park Town Centre is anchored by Regents Park Train Station. Retail and commercial uses predominantly located along Amy Street, provide day-to-day services to surrounding residential and industrial areas. Access to and around the Town Centre is heavily constrained by the convergence of road, rail and water infrastructure. Connections from the corridor into Regents Park will need to consider this complexity and seek to provide safe opportunities for cyclists and pedestrians to move through this area.

08

Potts Hill Reservoir

Potts Hill Reservoir is an integral piece of Sydney Water Infrastructure. Originally constructed as an "integral part of the Upper Nepean Water Supply Scheme, which was crucial to the development and growth of Sydney from the late 19th Century" (Sydney Water, sydneywater.com.au). The Reservoir is not publicly accessible and includes a number of heritage items of state significance including the reservoirs themselves and the remains of the pumping station.

Sections of the original reservoir on its east and west have been sold in the last decade for residential and industrial development.

View south east over Waddangalli Woodland Reserve

View north over the Duck River, Norford Park, Everley Park and Princes Park

Park Road entry (west) to Regents Park Train Station

View south over Potts Hill Reservoir

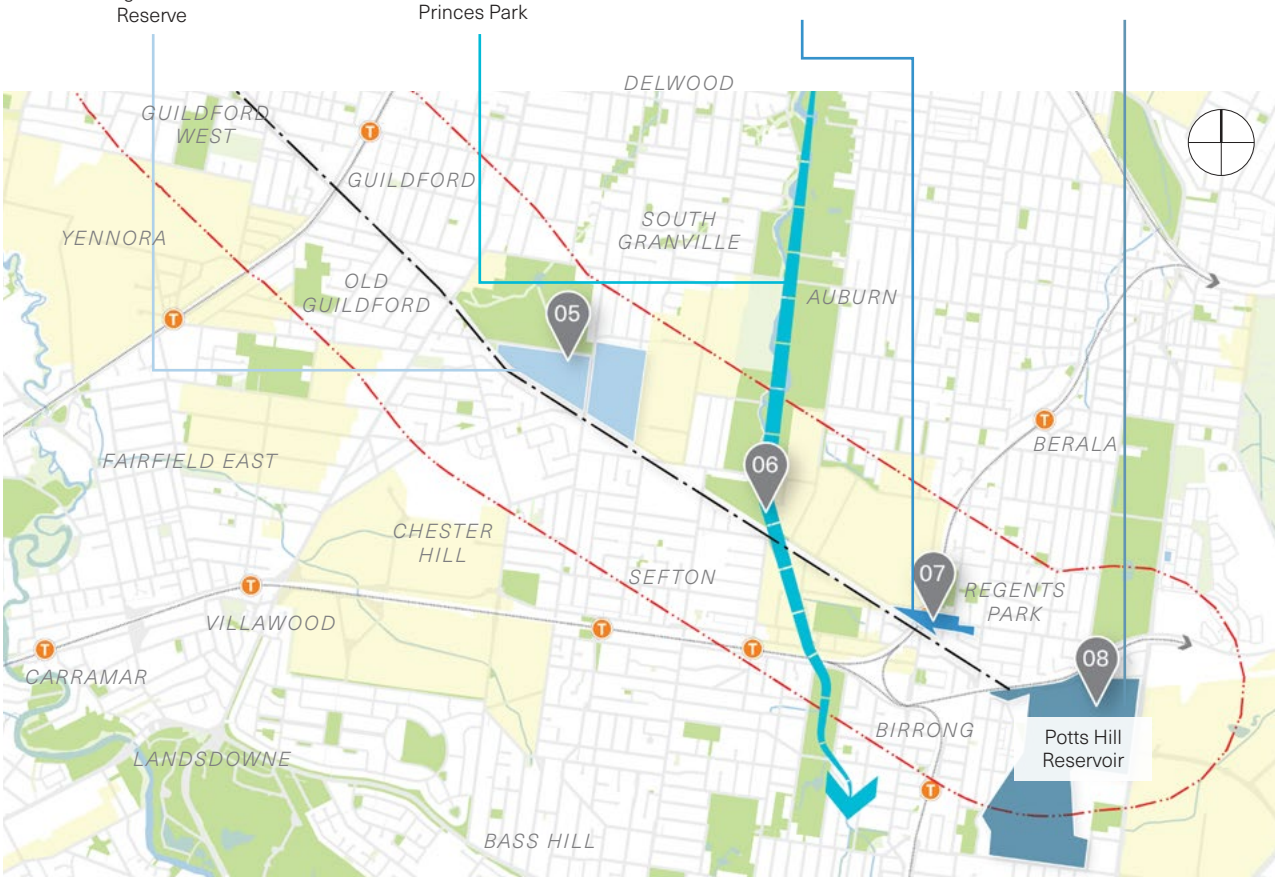


Figure 06: Key features, corridor east

Study area
Prospect Pipeline
Waterways
Public recreation
Bushland and civic
Industrial
Train line
Train station

The Context

2

2.1 DESIGNING WITH COUNTRY

Professionals working in the built environment need to have their own relationship with Country in order to respond to it in a respectful manner, and to ensure Country is cared for long into the future.

Country can inform the design of spaces through understanding and responding to the tangible and intangible aspects of Country. Tangible elements of Country include the natural environment, structures, buildings, geography, biodiversity, or resources, whereas intangible aspects of Country are the traditions, beliefs, ontologies, lifestyles, knowledges, ceremonies, beauty, or cultural memories that accompany a location. From a spatial design perspective this might be considered, for instance, through the materials used to construct (tangible) and the methods used to undertake the construction (intangible).

Designing with Country is a NSW Government Architect (GANSW) program that asks built environment professionals to work together with First Peoples to respect and protect sensitive sites of Country and to strengthen culture. Professionals working in the built environment need to have their own relationship with Country in order to respond to it in a respectful manner, and to ensure Country is cared for long into the future. GANSW's *Connecting with Country framework* provides guidance on how First Peoples' knowledges can be used in the design and planning of places. The framework stresses that "good design" in Australia be informed by Aboriginal ways of understanding Country through connections to Country and co-design practices. It recommends project life cycles be considered through four steps: Sensing, Imagining, Shaping and Caring for Country. This report specifically responds to the Sensing – Start with Country (project formation) and Imagining – Listen to Country (project design and conceptualisation) stages.

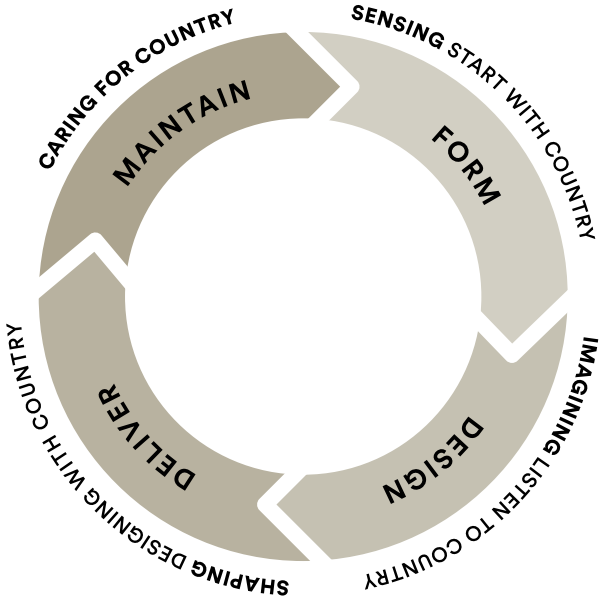


Figure 07: Excerpt, Project lifecycles through an Indigenous perspective, GANSW Draft Connecting with Country framework, p.27

2.2 INDIGENOUS CULTURAL MAPPING

There is a ongoing relationship between Indigenous people and Country within which Sydney is located. There are a number of places of cultural significance across Sydney, some of which have retained their indigenous language names. Shown to the right is a selection of these places.

Places of cultural significance are not only significant due to their names, but in the stories and knowledge they pass to future generations. These stories are outlined on the following pages.

Label Key

Category	Example
Country	DHARUG COUNTRY
Indigenous place name in western use	PARRAMATTA
Indigenous group	BURRAMATTAGAL
Meaning of place name	Burra - eels; matta - place (water)
Meaning under investigation	(?)
Indigenous place name	*Mar-ray-mah*

- Open space
- Waterway
- Roads
- Railway line
- Western Sydney Parklands
- Study area
- Key waterways
- Greater Western Highway/Parramatta Road Songline

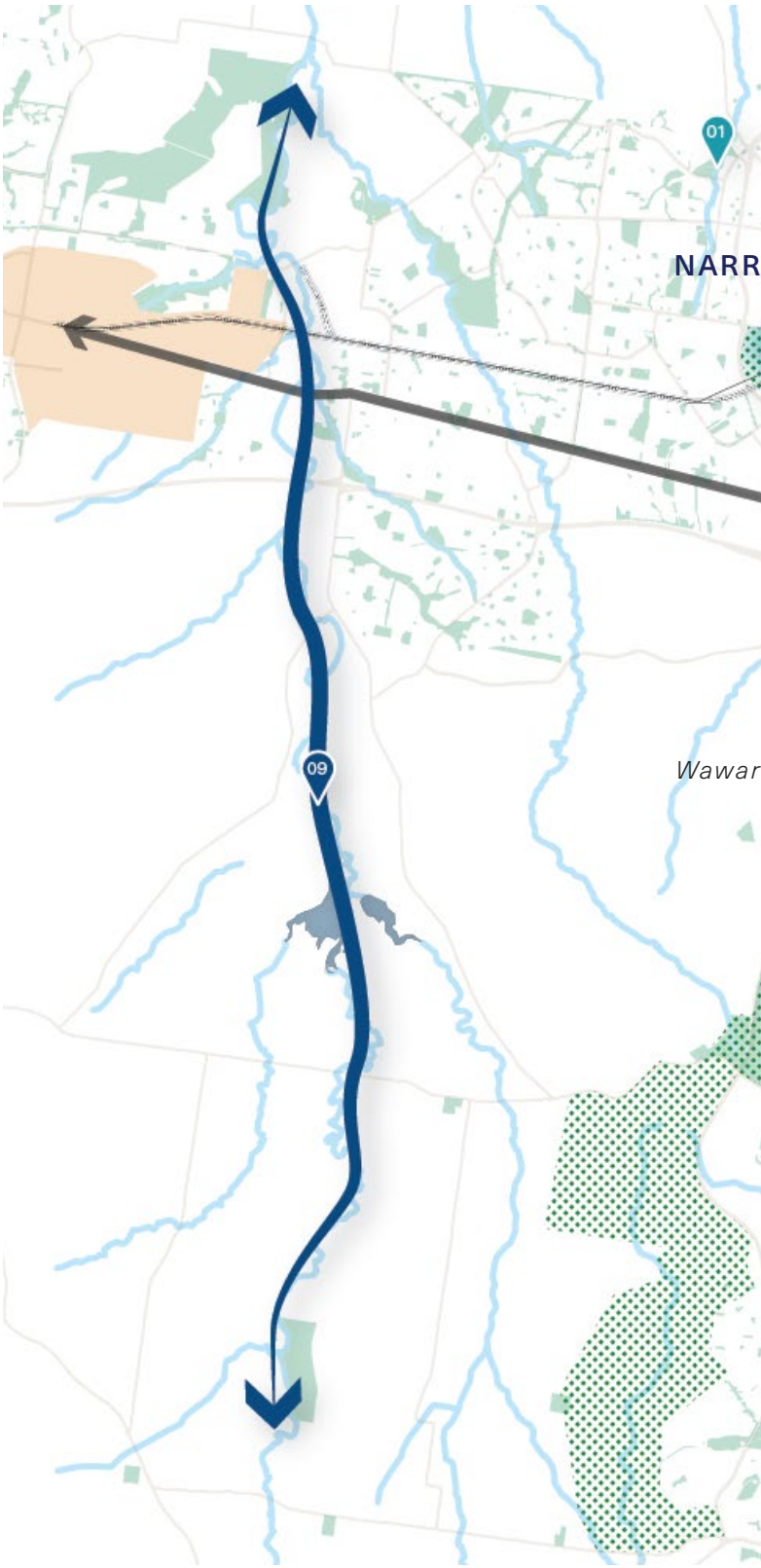
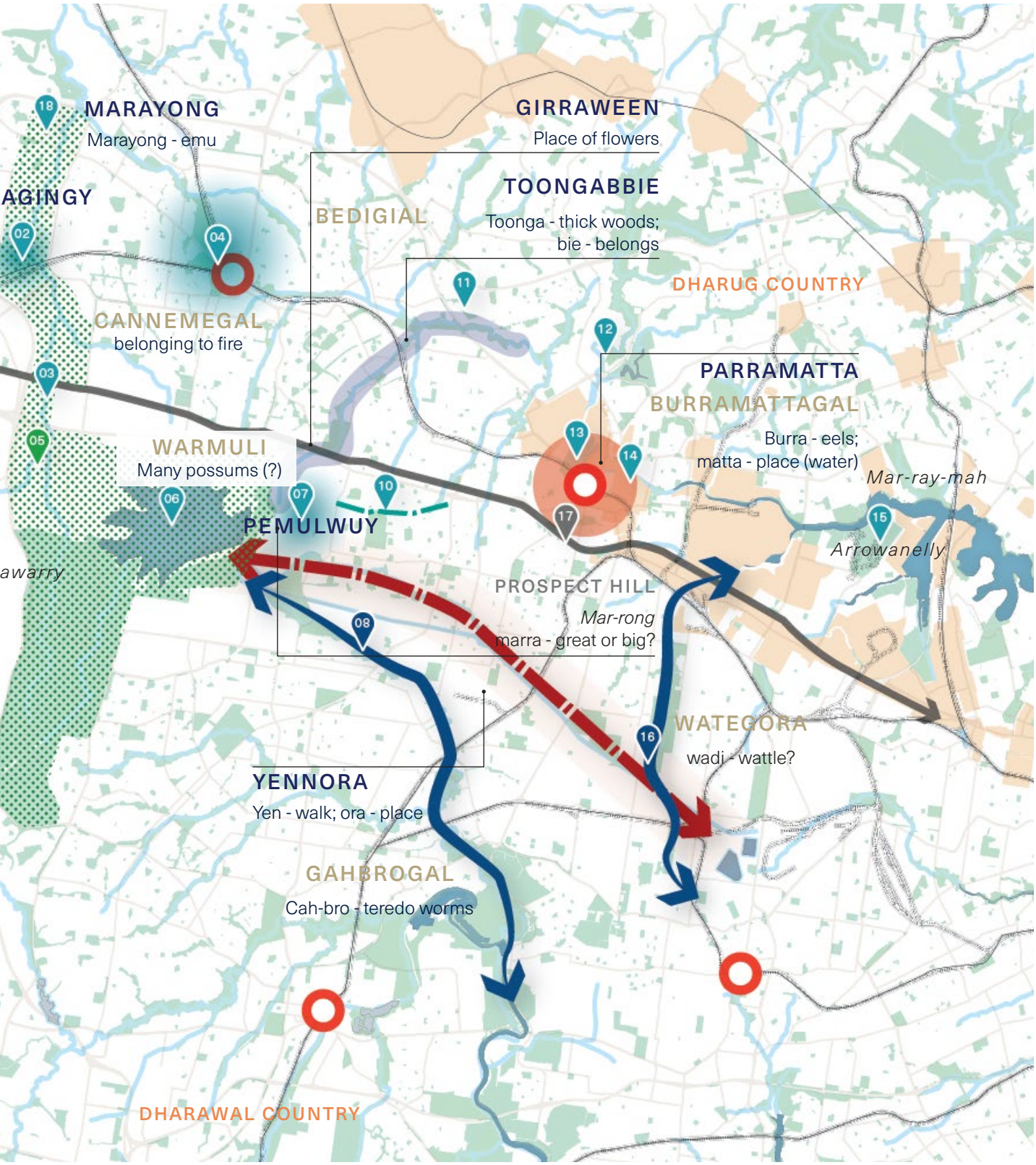


Figure 08: Cultural Mapping


MARAYONG
Marayong - emu
AGINGY
GIRRAWEEN
Place of flowers
TOONGABBIE
Toonga - thick woods;
bie - belongs
BEDIGIAL
DHARUG COUNTRY
CANNEMEGAL
belonging to fire
PARRAMATTA
BURRAMATTAGAL
Burra - eels;
matta - place (water)
Mar-ray-mah
WARMULI
Many possums (?)
PEMULWUY
Arrowanelly
awarry
PROSPECT HILL
Mar-rong
marra - great or big?
WATEGORA
wadi - wattle?
YENNORA
Yen - walk; ora - place
GAHBROGAL
Cah-bro - teredo worms
DHARAWAL COUNTRY
02
03
04
05
06
07
08
10
11
12
13
14
15
16
17
18

The Context

Indigenous Cultural Mapping

01

Blacktown Native Institute
The Parramatta Native Institute was moved to the Black Town settlement in 1823. In 2018, the State government handed the land on which the Blacktown Native Institution was built back for the Dharug people.

02

Nurragingy Reserve
Colebee was one of two Aboriginal men captured and held at Government House in Sydney in 1789 until he escaped. In 1816, in return for working with the colonial government, he and a man named Nurragingy received one of the first-ever land grants to Aboriginal people. While Colebee did not remain long, Nurragingy stayed on to farm the land, and it became an important centre for Aboriginal life in the area. The Nurragingy Reserve was claimed by two of Nurragingy's sons and Colebee's younger sister, Maria Locke. The Locke family lived there until around 1917, when it was acquired by the Aborigines Protection Board.

03

Bungaribee Homestead
Within the Bungaribee Homestead Precinct are 52 recorded sites with a total of 5,535 artefacts and 1,083 cultural lithics consisting of mudstone artefacts including formalised tool types were recovered in the areas surrounding Bungaribee and Eastern Creek.

04

Blacktown
Blacktown earned its name during Governor Macquarie's time, as 'the Black Town'. Today, Blacktown is home to the largest Aboriginal population in the Greater Sydney region. Some of these people are descended from the original Darug occupants of the area.

05

Western Sydney Parklands
These parklands include important cultural and ceremonial places, hunting grounds and a significant stone artefact scatter at Rooty Hill. This was a camp and meeting place for people travelling over the Blue Mountains and into Parramatta and Sydney, even after colonial times.

06

Marrong (Prospect Hill)
Governor Phillip led an expedition in 1788 to Prospect Hill. During this journey, the party saw evidence of Aboriginal encampments in the form of huts, camp fires, burning trees and kangaroo carcasses. Subsequently the hill was associated with colonial conflict and Aboriginal resistance, and an important early place of reconciliation. On 3 May 1805, on the suggestion of local Aboriginal groups, mediated by a group of Aboriginal women and John Kennedy, a free settler, Reverend Samuel Marsden facilitated a meeting here. An agreement was reached which brought an end to this particular period of violence.

07

Pemulwuy
The suburb on Pemulwuy was created in 2004. Named in honour of the Bidjigal clan leader who fought against the European colonists for his people's right to live on their land. Pemulwuy carried out a guerilla war against settlers from 1790 to his death in 1802. In March 1979, Pemulwuy led 100 warriors on a raid causing the third settlement of Toongabbie to be evacuated. This concluded with the Battle of Parramatta, in which Pemulwuy was shot 7 times and captured. He later escaped and continued this way until his death in June 1802. His son Tedbury continued the struggle for their Country. Pemulwuy used Marrong (the area now called Marrong Reserve) in his struggles as it is the highest point in the Sydney basin.

The Context

08

Prospect Creek
Prospect Creek was a traditional travel route connecting the Dharug and Dharawal people. To highlight its significance, in 2005, a series of interpretive Inigenous artworks were installed along the banks of Prospect Creek as part of the Warali Wali Trail. The project consisted of 4 sets of artworks and path markers, showing the flora and fauna of Prospect Creek, as seen by the Dharug.

09

Wianamatta (South Creek)
Wiannamatta means place of the Mother Creek. It is an important birthing place for Aboriginal women and for campsites, tools and as a food resource area.

10

Old Prospect Road
For about 45 years after settlement, it was common for Aboriginal peoples to re-enact specific conflicts during rituals and Corroborees, near Old Prospect Road. These were recorded by Reverend James Hassell in 1833 and reflected in conflict records from the 1790s.

11

Third Settlement Reserve
This Reserve is all that remains of Australia's third European settlement. It became the site of the Battle of Parramatta when Aboriginal resistance leader Pemulwuy, a Bidjigal man, led an attack, backed by 100 fierce fighters.

12

Lake Parramatta
The Burramatta people lived here well before the creek was dammed to become Lake Parramatta. There are hand stencilled paintings, cave shelters, stone flakings, scar trees and shell deposits.

13

Old Government House
Within this World Heritage listed Georgian house and surrounding parkland is evidence of Burramatta culture; in the scarred trees, whose bark was removed to create canoes, shelters and containers, and in the mortar made from ground-down shell middens, that once lay in enormous heaps along the Parramatta River. This part of the river provided a rich source of food and is possibly the site of a ceremonial ground.

14

Parramatta Native Institute
The government policy of removal of Aboriginal children from their parents in order to assimilate them into white society began fairly early in the colony's history. It was epitomised by the development of the Native Institution in Parramatta in 1814, which housed Aboriginal children away from their families.

15

Scar Trees
Evidence of Aboriginal settlement, where four scar trees are preserved in Milllenium Parklands, Sydney Olympic Park

16

Duck River
A site of ritual battles, ceremony and law, one bank was a special place for women giving birth. Skilled midwives practised in women's knowledge here, while the place for men was across the river. Marriages were arranged on islands. The Silverwater area of Duck River used to be a meeting place for trade between the forest people and the coastal people.

17

Great Western Highway
Original Aboriginal pathway from across the Blue Mountains to the coast.

18

Ironbark Range
A high campsite well above the flooding of Eastern Creek and a significant silcrete stone quarry.

2.3 CULTURAL CONTEXT

Cultural landscapes are recognised to be the collective works of environment and humankind expressing a lengthy and close relationship between peoples and the natural environment. In terms of understanding Country in relation to site, when considering it as part of a landscape understood culturally, the extent of a site is as far as you can see from the site. Despite the developed nature of the built environment of the Sydney Basin, it lies within a broad cultural landscape as understood by local First Peoples.

The Dharug people are the keepers of the Cumberland Plain.

Prospect Hill is a nodal point of the Cumberland Plain and Sydney's largest body of igneous rock of volcanic origin. The Cumberland Plain is structurally defined by a saucer-shaped tectonic depression that underlies most of western Sydney. The Cumberland Plain features gently undulating plains and low hills. Prospect Hill is described by First Peoples as being connected to many other parts of the landscape.

Figure 09: Aboriginal linguistic groups in 1788 according to James L Kohen (Prehistoric settlement in the western Cumberland Plain, 1986)

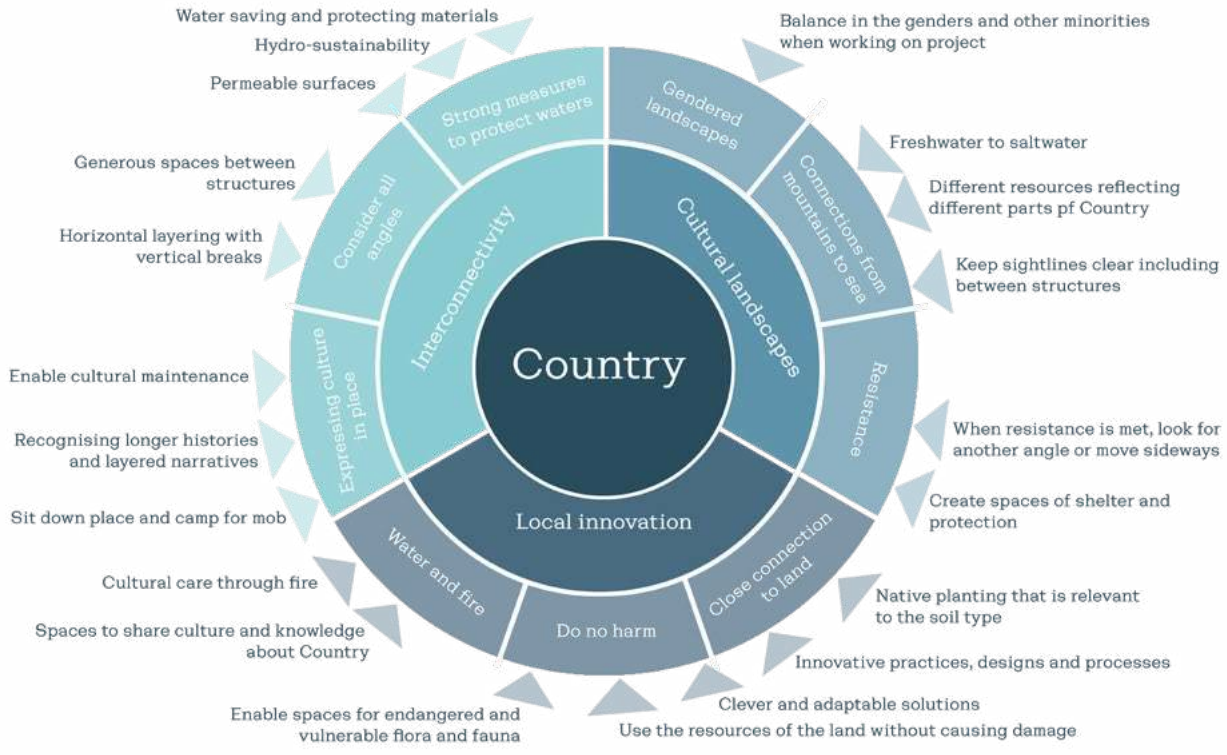


Figure 10: Prospect Pipeline Country Principles

2.4 THEMES AND NARRATIVES

It is evident this Country has always been well loved and the resources of the land utilised by Aboriginal peoples. According to early colonists (Attenbrow, 2010), the land between Rose Hill (Parramatta) and Prospect Hill is distinguished by eight different names, although the distance is only 6.4 kilometres:

In going to the Westward from Rose Hill [Burra-matta] you walk in ten minutes to War-mul [Wau-maille], in nineteen to Mal-gra-mattar [Malgray-matta], in seven to A-rar-woo-rung [Era-worrong], in eighteen to Car-rar-mattar [Carra-matta], in five to Bul-barn-mattar [Boolbane-matta], in twenty-nine to Kar-rar-wo-tong [Carro-wotong], and in seventeen to Mur-rong [Mararong] — Prospect Hill.

Aboriginal peoples are innovative, in particularly in their use of local resources. This enables them to become intimately connected to the landscape, and use the resources of the land without creating lasting damage. In the Prospect Pipeline Corridor it is important local innovations are used in any development. Part of First Peoples' innovation was the use of fire. Fire was used to manage the land, to ensure that the understorey did not develop into impenetrable jungle, and trees were widely spaced (Kohen, 1986). This points to a culturally managed landscape, a value this project should aspire towards.

Traditional stories

The cultural values of Prospect Pipeline Corridor can be found in the traditional stories of the area, many of them passed down through generations of Aboriginal peoples.

Uncle Dennis Foley *(Gai-mariagal/Guringah and Capertee/Turon River/Wiradjuri)* says if you look at an aerial photo of Sydney where the Nepean runs along the Blue Mountains, there is a shape that cuts around slightly to the east that looks like a person in the foetal position. This is the outline of the Cumberland Plain, and where Baiame slept when the world was created before life began, snuggled into the land. Foley describes how, when Baiame began to stir and roll around, the soil and rocks were pushed into a ridge to become the Blue Mountains, the flat land to the south was pushed into low hills and waterholes.

As Baiame was thrashing around her fingers found a digging stick, a gift from the land. Using the digging stick, she thrust up the sky and held it in place with the stick. When the stick was removed for the first time it was so hot that the blue stone bubbled up to form the first penis, a special men's site now called Prospect Hill. The stone continued to melt and joined up with a second place near Hornsby, a sacred women's place (Foley & Read, 2020).

As the highest point in the Sydney Basin, Prospect Hill has a unique contribution of being able to see a long way, and in every direction. It invites us to ensure we are seeing every angle of a project both literally and figuratively. Prospect Hill was a look out and also refuge during colonial times for people like warrior Pemulwuy.

Key opportunity:
- Consider how the corridor can remain a refuge, not only for people but non-humans as well.

The Context

Water

The waters of the Cumberland Plains are all interconnected, including those relating to the Prospect Pipeline Corridor. Rain falling on the southern slopes of Prospect Hills flows into Prospect Creek and then via the Georges River into Botany Bay. The northern slopes drain into Greystanes and Blacktown Creeks and eventually into the Parramatta River and Sydney Harbour. Close by to the west is Prospect Reservoir and beyond it, Eastern Creek which flows north-west into the Hawkesbury River, the mighty river that encircles Sydney forming the boundary of the Cumberland Plain and eventually flowing into Broken Bay. Duck River flows into Parramatta River, with tributaries such as Duck Creek and A'Becketts Creek.

Many entities of Country, including human and non-human, plant and animal rely on these interconnected waters. If one part of the system is damaged, they all become damaged. Therefore, it is imperative the waters and all systems related to the site are carefully considered and protected.

Key opportunity:
- Protect and consider the waters and all systems related to the Prospect Pipeline Corridor

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Office of Environment and Heritage. (2020b). Sydney Turpentine-Ironbark Forest in the Sydney Basin Bioregion - profile. Retrieved from https://www.environment.nsw.gov.au/threatenedspeciesapp/profile.aspx?id=10789

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Ecology

Cumberland Plain Woodland (Office of Environment and Heritage, 2020a) and Turpentine Ironbark Forest (Office of Environment and Heritage, 2020b) are ecological communities found in the Cumberland Plain, including along the Lower Prospect Canal Reserve and Prospect Pipeline Corridor. The Cumberland Plain Woodland typically occurs on heavy clay soils derived from Wianamatta Shale. Well adapted to drought and fire, the understorey plants often rely on underground tubers or profuse annual seed production to survive adverse conditions. Cumberland Plain Woodland is habitat for threatened species such as the Cumberland land snail (Meridolum corneovirens). Turpentine Ironbark Forest occurs close to the shale/sandstone boundary on the more fertile shale influenced soils, in higher rainfall areas on the higher altitude margins of the Cumberland Plain, and on the shale ridge caps of sandstone plateaus. A transitional community, between Cumberland Plain Woodland in drier areas and Blue Gum High Forest on adjacent higher rainfall ridges. These ecological communities are both critically endangered due to colonial behaviour including land clearing, introduced weeds and other plants, grazing and run off. Both flora and fauna related to this site are now critically vulnerable due to the impacts of colonisation, and are susceptible to invasive species.

This implies that great care and sensitivity must be taken in regard to this place, especially not to perpetuate colonial ways of being, doing and thinking. There is a unique opportunity to re-establish clusters of these ecological communities and extend them further east.

Despite experiencing the first impacts of colonisation, Aboriginal peoples in Western Sydney still care for Country and express culture through cultural practices such as:

- application of appropriate fire regimes through the engagement of Aboriginal people to use cultural fire management, and
- allowing waterways to flow and be protected from pollutants and agricultural pressures.

Key opportunity:
- Incorporate cultural maintenance as an antidote to colonial practices and spaces to share culture and knowledge about Country.

View over Prospect Reservoir from George Mauder Lookout

2.5 HERITAGE

Lower Prospect Canal and later above-ground pipelines, which comprise the study area are a product of the broader system of water provision for the city.

The Lower Prospect Canal was finished in 1888 as a part of the Upper Nepean water scheme which collected water from a series of dams on the top of the Illawarra Escarpment, transmitted it to Prospect Reservoir and then eastwards via a system of channels and pipes to urban distribution reservoirs throughout Sydney. The Lower Prospect Canal was a notable feat of engineering because as it was designed to fall only 2 degrees over 7.7km which is approximately 1 in 10,000 (source WaterNSW).

As part of a broader renewal of Sydney's water system the Canal was de-comissioned in 1995 and was considered as potential saleable land by the government of the time. Local residents formed the Canal Reserve Action Group (CRAG) which promoted a series of plans to various government bodies. The former canal was successfully transformed into a shared bicycle and walking path which was opened between 2001 and 2003 (Source: OEH & CRAG).

The pipelines which extend along the corridor are themselves heritage items.

No.	Name	Heritage reference no.
1	Prospect Reservoir & Surrounds - Old Prospect Outlet Tower	SHR01370
2	Prospect Reservoir & Surrounds - Lower Valve House	SHR01370
3	Lower Prospect Canal	SHR01945
4	Boothtown Aqueduct	LEP152/A2
5	Pipehead Complex	SHR 01629
6	Potts Hill Reservoir	SHR 01333
7	Pipehead to Potts Hill Pipelines	4570097
8	Water supply pipelines, part of the Upper Nepean Scheme	4575806

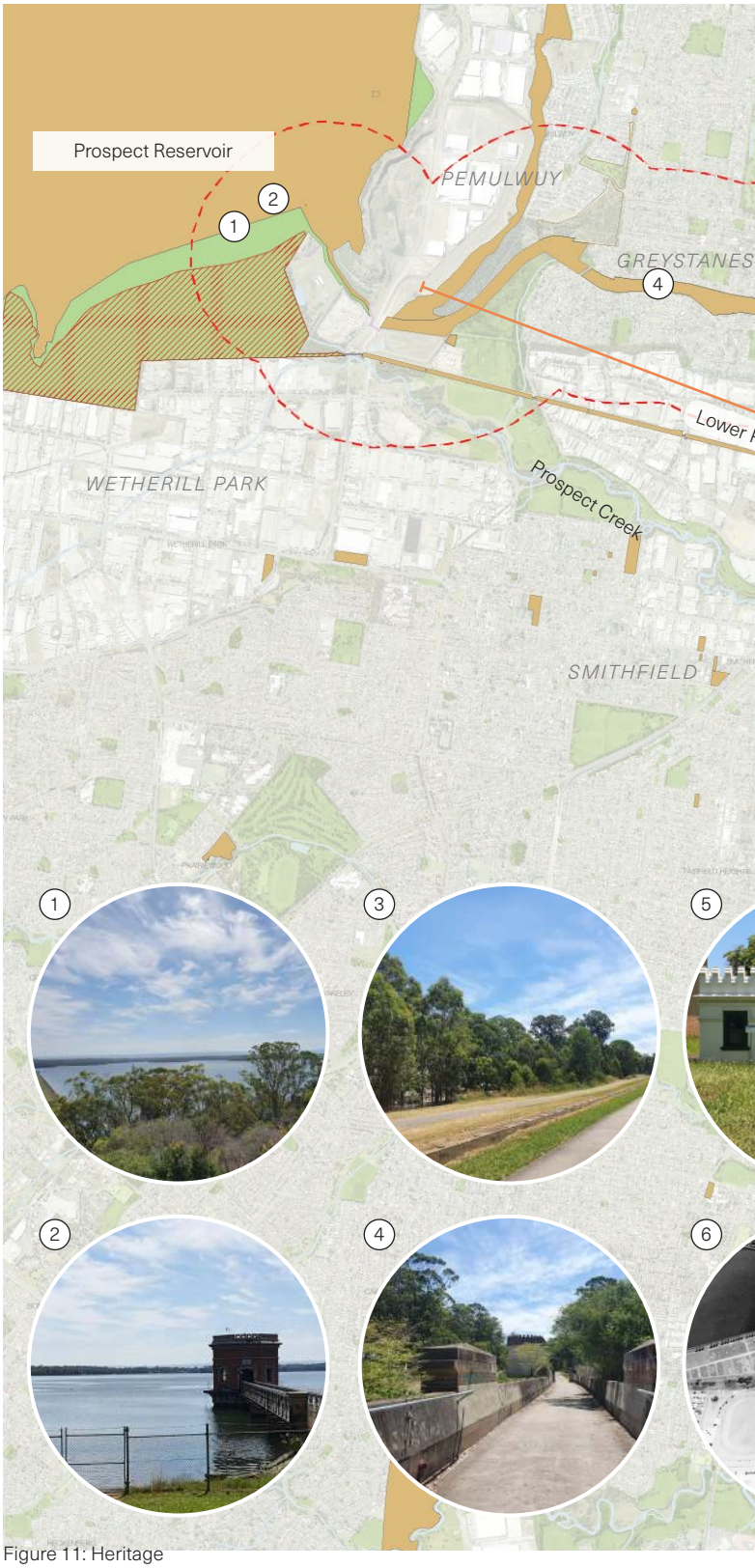


Figure 11: Heritage

The Context


SOUTH WENTWORTHVILLE
MERRYLANDS WEST
MERRYLANDS
Prospect Canal
GUILDFORD WEST
GUILDFORD
DELWOOD
YENNORA
SOUTH GRANVILLE
OLD GUILDFORD
Duck River
AUBURN
BERALA
REGENTS PARK
SEFTON
BIRRONG
3
5
7
8
6

2.6 PEOPLE

The Prospect Pipeline Corridor traverses the three Local Government Areas (LGAs) of Cumberland City Council, Fairfield City Council and City of Canterbury Bankstown, all of which are characterised by highly culturally diverse community and significant forecast population growth.

Public open space plays a critical role in creating liveable, productive, sustainable and resilient places. It can provide space for important social connections, allowing the community to meet each other and interact, come together to share and celebrate, as well as connect with the natural environment. The COVID-19 pandemic particularly highlighted the important role high quality public open spaces play in our communities.

The importance of quality and accessible public open space is well recognised across all levels of Government in Australia and internationally. At the Council level, open space and recreation planning has identified a lack of comfortable open space within the Study Area.

Population characteristics can provide an indication of open space and recreation needs. The following pages provide a summary of demographic indicators for open space needs, including Figure 21 - Spatial population characteristics - a map of demographic indicators (by suburb) within the Study Area.

The key aim of Cumberland's Council's strategic planning in relation to open space and recreation planning is ensuring that Cumberland is a great place to live that encourages healthy and active lifestyles, supported by a variety of high quality community facilities, public, green and open spaces, services and activities that are in line with community expectations, population growth and intended uses.

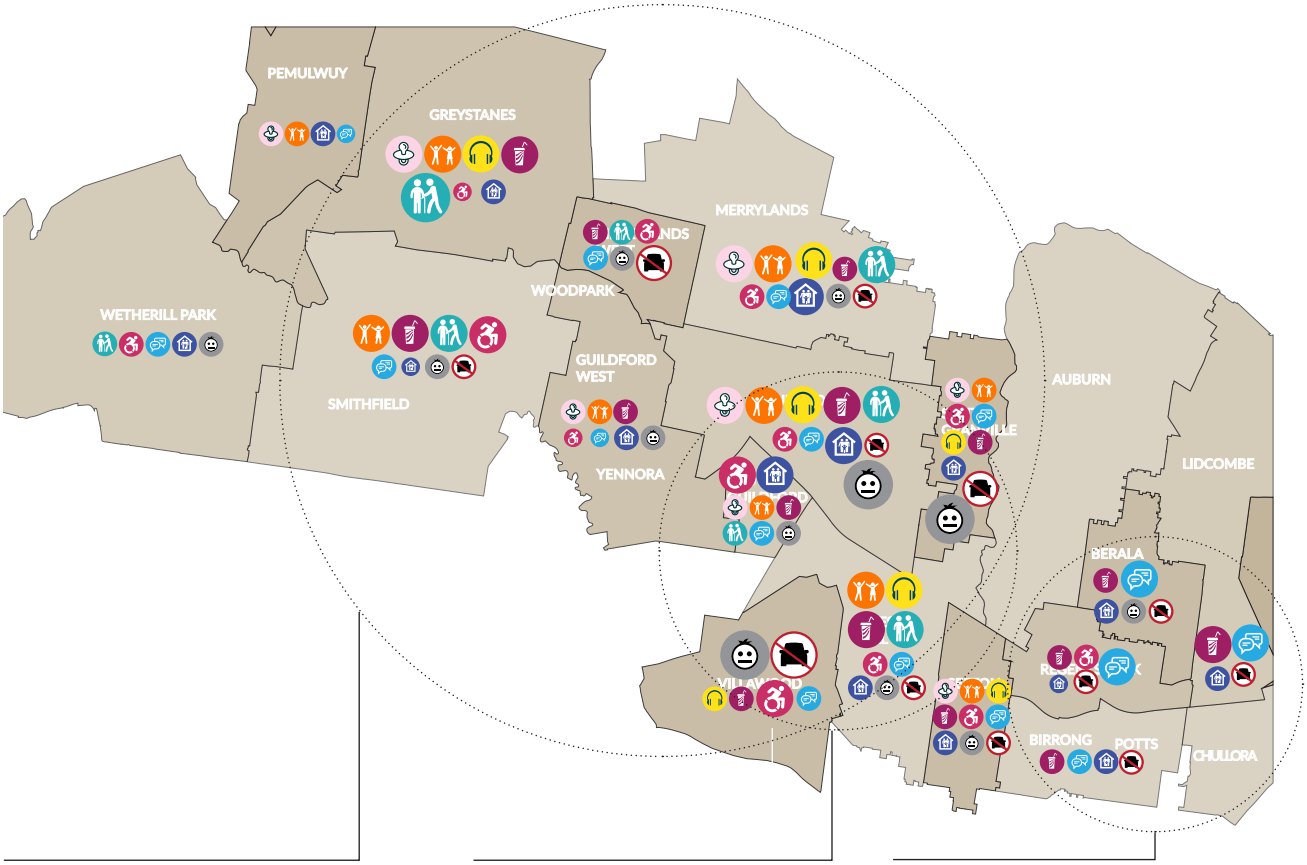
- Cumberland Open Space and Recreation Strategy 2019 - 2029

Universal open and recreation needs

Some open space needs are universal. All residents, visitors, pedestrians and cyclists around the Prospect Pipeline Corridor would benefit from the following:

- **Active, green, walkable streets** to better connect the residential and employment zones, local parks, train stations, schools and community destinations into the corridor, particularly high growth areas with low provision of open space.
- **Off-road walking routes** could be delivered along the Corridor to create a continuous, comfortable recreational corridor through upgraded comfort, amenity and quality of access along the length of the pipeline.
- **More places to exercise** such as attractive and safe walking circuits along streets and in open space areas and outdoor gyms.
- **Safe spaces for use throughout the day** and night to encourage higher levels of use and activity after dark (e.g. after dinner walks or post work exercise).
- **Shaded and comfortable spaces** through provision of increased tree canopy and places to stay along the Corridor.
- **More places to relax** - The Cumberland Parkscape Survey found that the community like using the parks for relaxing, meditation and mindfulness, and to enjoy the 'peace and quiet', as well as walking, jogging and cycling.
- **Increased permeability and visual corridors from surrounding areas into the corridor** to improve passive surveillance and access.
- **Improved access to and enjoyment of local destinations along the corridor,** including Boothtown Aqueduct (in Greystanes) is a State Heritage listed, hidden gem that is bikefriendly. There is an opportunity to better celebrate this asset and raise awareness about the recreational offer there.

The Context



Distinctive characteristics:
- High proportions and numbers of babies, children and teenagers and young workforce
- Higher proportion and numbers of seniors and elderly
- Higher proportions of people in need of assistance

Distinctive characteristics:
- Very high levels of youth disengagement (up to 20%)
- Higher proportion of households that don't own a car

Distinctive characteristics:
- Language other than English at home
- Students and young workforce (18 to 24)
- Larger household sizes
- Lower car ownership
- Less children, families and older people

Figure 12: Spatial population characteristics

Babies and pre-schoolers (0 to 4) (Over 7.4% or over 1,000 people)

Primary schoolers (5 to 11) (Over 9.8% or over 1,000 people)

Secondary schoolers (12 to 17) (Over 7.8% or over 1,000 people)

Tertiary education and independence (18 to 24) (Over 9.6% or over 1,000 people)

Seniors and Elderly (70+) (Over 8.1% or over 1,000 people)

Need for assistance due to disability (Over 5.6%)

Speak a language other than English at home (Over 43.6%)

Average household size (Over 3 people)

Disengaged youth (over 9.9%)

Households without a car (over 7.8%)

Age profile

Infants
Suburbs like Pemulwuy, Sefton and Old Guildford have 10% more children (0-4 years) than Greater Sydney area. Suburbs with over 1,000 babies are Greystanes, Merrylands Central and Guildford East.

Priorities in these areas:
- Accessible pathways for prams, scooters
- Access to public toilets

Opportunities in these areas:
- For play and exploration in nature - which is important for children's growth and development

Children
Suburbs with the highest *proportion* of children (5 to 11) are Old Guildford (13.1%), Pemulwuy (12%), and Guildford West-Woodpark-Smithfield (10.9%).

Suburbs with the highest *number* of children are Greystanes and Merrylands Central, which are each home to over 2,000 children.

Priorities in these areas:
- Rich and layered play and learning experiences such as adventure or nature play, outdoor classrooms and bike trails

Young people
Suburbs with high *proportions* of young people (12 to 24) (more than 12%) include Guildford West-Woodpark-Smithfield, Guildford West-Yennora, Merrylands East, Guildford(East) and Villawood.

Suburbs with over 1,000 *number* of young people include Greystanes, Merrylands Central, Guildford East and Chester Hill.

In addition, all suburbs along the corridor have higher than WSROC average rates of disengaged youth (15-24yr olds, not employed or studying). Suburbs with particularly high proportions are Villawood, Guildford East and South Granville.

Priorities in these areas:
- Youth recreation spaces in locations with good passive surveillance, social seating areas, free public WiFi, creative lighting at night, connections to shops, public transport and community facilities

Older people
Areas with high proportions of older people (70+) (more than 10%) include:
- Greystanes - has almost twice as many people aged over 75 than any other suburb along the corridor•
- Smithfield
- Merryland West

Priorities in these areas:
- Comfort and amenity upgrades such as places to sit, shade, toilets and accessible pathways

Figure 14: Active recreation corridor in Brisbane's West End - a linear park along the river overlooked by mid rise apartment blocks (Source: Cred Consulting)

Figure 13: Barbara Street Children's Playground is an example of a Local Level 2 park that services the needs of Children living in High Density (Source: Fairfield City Council)

Family size

A significant proportion of suburbs along the corridor have a higher than average proportion of larger families, particularly in Merrylands East, Guildford East, South Granville-Chester Hill, Guildford West-Woodpark- Smith field, Lidocombe South-Rockwood, Sefton, Birrong-Regents Park-Potts Hill, Wetherill Park, Smithfield and Old Guildford.

Priorities in these areas:
- Places for larger group gatherings in open spaces supported with seating and BBQ areas to encourage socialisation and adoption of the corridor open space as extension of the backyard

Cultural diversity

All areas along the pipeline have more than 50% of residents who speak a language other than English at home. The main places of birth outside of Australia are Lebanon, Iraq, China, and India.

Berala, Regents Park, Lidcombe North and Lidcombe South-Rockwood have 70% or more population who speaks a language other than English at home.
In areas like Guildford West-Yennora, Merrylands Central, Merrylands East, Berala, Regents Park, Lidcombe North, Lidcombe South-Rookwood there are over 10% of the population who arrived in Australia between 2011-2016.

Priorities in these areas:
- Design public spaces that reflect and welcome a range of different cultures
- Consideration of more frequent use of streets and public spaces at night by diverse cultural groups through the provision of creative lighting, after dark exercise opportunities, safety and passive surveillance
- Visual or multi language information signage

Socio-economics

There is socio-economic disadvantage for many households along the corridor, particularly in Cumberland LGA. Some areas are more significantly disadvantaged such as Villawood, Guildford East and West, Yennora, Merrylands West, and Chester Hill which have more than 25% of households earning less than $650 per week.

Priorities in these areas:
- Free recreation and learning opportunities

People in need of assistance

The corridor has high proportions of people reporting a need for assistance. The suburbs of Merrylands West, Villawood, Chester Hill, Smithfield, Old Guildford have 8% of higher of the population with this need.

Priorities in these areas:
- Accessible pathways, walking loops, disabled toilets, pick up/drop off zones and universal play (children and adult)

Figure 15: Informal recreation along the Duck River corridor] (Source: Cumberland City Council)

Figure 16: Creative lighting and wayfinding, Ishoj Station, Denmark

2.7 LANDSCAPE

Landscape Character

The landscape along the Prospect Pipeline Corridor varies markedly across its length.

The western portion of the pipeline largely follows the Lower Prospect Canal Reserve and is dominated by the vast Prospect Reservoir at its western end. It is typified by large established trees and the dramatic topography of Prospect Hill. The existing shared path, shaded by established tree canopy, weaves through suburban residential areas within Greystanes and Merrylands West. The corridor is generous, and adjoins public open spaces including Walder Park at Prospect Reservoir, Boothtown Reserve, Hopman Street Reserve and Canal Road Reserve.

This section of the corridor includes Boothtown Aqueduct, a unique local landmark. Constructed in 1883, this masonry arched structure stretches approximately 225m over the gully below with decorative valve houses at each end.

A dramatic shift in the landscape character occurs at the Guildford Pipehead Complex, around the centre of the corridor. It is at this point where the underground water supply pipes appear above ground. Access from the Guilford Pipehead Complex further east is highly restricted. Shared paths are diverted around the corridor, onto streets or adjacent to back fences. The path crosses multiple road crossings. Tree canopy cover is sparse, creating a hot and hostile environment for pedestrians and cyclists.

Corridor West
Corridor East
Study area
Waterways
Public recreation
Train line
Train station
LGA Boundaries

Figure 17: Image Reference Plan

The Context


PARRAMATTA
SOUTH WENTWORTHVILLE
HARRIS PARK
CITY OF PARRAMATTA LGA
CUMBERLAND CITY COUNCIL LGA
Corridor Central
GRANVILLE
MERRYLANDS WEST
MERRYLANDS
BLAXCELL
4
11
WOODPARK
Guildford Pipehead Complex
10
WETHERILL PARK
GUILDFORD WEST
DELWOOD
GUILDFORD WEST
GUILDFORD
SOUTH GRANVILLE
YENNORA
OLD GUILDFORD
Duck River
AUBURN
FAIRFIELD
BERALA
FAIRFIELD EAST
CHESTER HILL
REGENTS PARK
SEFTON
12
6
VILLAWOOD
CARRAMAR
CITY OF CANTERBURY BANKSTOWN LGA
BIRRONG
LANDSDOWNE
Potts Hill Reservoir
LANSVALE
BASS HILL
YAGOONA

The Context

The central area of the corridor has a high concentration of schools directly adjacent or near the Pipeline corridor. These include Sherwood Grange Public School, Merrylands High School, Cerdon College, St Patricks, Guildford, and Guildford Public School. The provision of safe, accessible, and active transport connections within this corridor would be highly beneficial for students and parents.

East of Guildford Town Centre, the corridor is dominated by the supply pipes that cut through the suburbs of Old Guildford, Chester Hill, Auburn, Sefton, and Regents Park. This portion of the corridor is not publicly accessible. There are several major roads which cross the corridor, posing a challenge to providing a continuous cycleway along the corridor's length.

Tree canopy is limited and occurs mainly within adjoining areas of green space including Woodville Golf Course (private land), Waddangalli Reserve, Campbell Hill Pioneer Reserve, at the intersection of Duck Creek.

Duck River, includes a series of public parks, trails, and nature reserves that extend from the northern edge of the pipeline corridor stretching north towards the Parramatta River. The future vision for Duck River developed by McGregor Coxall and Cumberland City Council, proposes enhanced recreational uses with an emphasis on improved linkages to the Pipeline Corridor. vision for Duck River proposes enhanced recreational uses with an emphasis on improved linkages to the Pipeline Corridor.

Key opportunities:

- Retain and enhance the existing landscape character where landscape has a significant presence
- Establish a complementary landscape character along the corridor itself

Vegetation

Originally the area would have been dominated by Cumberland Plain Woodland and its sub communities. Today, much of the original vegetation that has been cleared for mining and agriculture and only 9% of the original extent remains intact. This community is listed as a Critically Endangered Ecological Community in NSW.

Native vegetation communities are apparent in the western portion of the corridor, with patches along the existing pipeline corridor shared path, possibly planted during its construction around 2000. The eastern portion of the corridor around Regents Park features primarily industrial lands with limited vegetation.

Key areas of vegetation include:

- Re-establishing Cumberland Swamp Oak Riparian Forest, evident along Prospect Creek.
- Remnant Cumberland Shale Plains Woodland along the pipeline corridor in Greystanes and Merrylands West, Boothtown Reserve, Alpha Rd Park, Nemesia St Park and Cumberland Country Golf Club.
- Large patches of remnant Cumberland Plain Shale within Central Gardens Nature Reserve and Sherwood Grange Public School.

The Duck River offers an opportunity to enhance and connect vegetation communities that exist along this waterway. Key areas of vegetation within Corridor East include:

- Large areas of both Cumberland Shale Plains Woodland and Urban Exotic/Native species within Woodville Golf Course and Waddangalli Woodland Reserve
- Large patch of remnant Castlereagh Turpentine Ironbark Forest in Campbell Hill Pioneer Reserve along with patches of Cumberland Shale Plains Woodland.
- Potts Hill Reservoir consists of multiple vegetation communities including patches of Castlereagh Ironbark and Sydney Turpentine Ironbark Forest.

Key opportunities:

- Protect and enhance critically endangered vegetation
- Enhance and connect vegetation communities along Duck River

Figure 18: Prospect Reservoir from George Mauder Lookout

Figure 21: Corridor West - Boothtown Aqueduct, Greystanes

Figure 19: Mature feature trees and undulating topography at Prospect Reservoir

Figure 22: Cumberland Shale Plain Woodland species planting alongside Lower Prospect Canal Reserve

Figure 20: District and city views from Prospect Hill

Figure 23: Supply pipes and road crossings at Regents Park

The Context

Canopy Cover

Urban heat and climate change are major issues that face Western Sydney. Increased tree canopy is an effective way to reduce the effects of urban heat. Urban tree cover not only cools the local environment, it also improves air quality, provides wildlife habitat and offers an attractive urban setting Increasing tree canopy and green cover across Greater Sydney is an priority for the NSW State Government. The GANSW *Draft Urban Tree Canopy Guide* establishes a target of 40% tree canopy cover in suburban areas to combat urban heat.

Within the Prospect Pipeline Corridor, canopy cover varies greatly with a higher concentration of canopy cover evident towards the west and low canopy to the centre and east.

Generally, there are higher concentrations canopy cover (40% and above) within local parks, schools, nature reserves and golf courses adjoining the corridor. The surrounding residential areas also contribute to local canopy cover to a lesser scale, offering between 10-30% canopy cover. Industrial areas including Smithfield, Regents Park and Chester Hill. perform poorly delivering less than 10% canopy cover.

In the east, little to no canopy cover exists within the corridor itself with most trees occurring within adjoining streets and green spaces. Woodville Gold Course and Carnarvon Golf Club provide good canopy cover with more than 40%, although this land is privately owned and inaccessible to the general public. Waddangalli Reserve and Campbell Hill Reserve also provide over 40% canopy cover, as does areas around Duck Creek, highlighting the potential to create a linked canopy stretching to the north and south of the corridor.

Key opportunities:

- Provide tree canopy along the corridor to shade new cycle and pedestrian paths
- Connect to existing areas of tree canopy to extend canopy north and south of the corridor.

Amenity

Public amenity within the corridor is poor, with limited public seating on the shared path in the the western portion of the corridor. There is a dual opportunity for the corridor design; to not only provide more facilities in the corridor, but to improve connections between neighbouring parks and open spaces.

There is an opportunity to substantially improve amenity by introducing new rest stops, lighting, public toilets, and outdoor fitness stations along the corridor. Rest stops can include seating co-located with water fountains and shade trees for quite spaces for rest and respite. Lighting can allow residents to walk and exercise after dark, in the early morning or evenings. New wayfinding and interpretive signage and outdoor learning spaces can make the corridor more accessible as well as provide diverse educational opportunities for residents and users.

A range of public facilities can be found within the adjoining parks and reserves including playgrounds at Boothtown Reserve, Greystanes Sports Ground, Central Gardens Nature Reserve and Jensen Park, sporting facilities at Greystanes Oval, Nemesia Street Park and along Duck Creek as well as recreational picnic spaces at Central Gardens Nature Reserve. Improved connections from these parks to the Pipeline Corridor will assist in providing a more accessible open space network for this community.

Key opportunity:

- Substantially improve amenity by introducing new rest stops, lighting, public toilets and outdoor fitness stations along the corridor

References

Source:
The Native Vegetation of the Sydney Metropolitan Area - Version 3.1
VIS_ID 4489, NSW Office of Environment and Heritage 2016

Figure 24: Cumberland Swamp Oak Riparian Forest

Figure 27: Native regeneration planting within Greystanes

Figure 25: Endemic Trees at George Maunder Lookout, Prospect Hill

Figure 28: Stands of mature specimen trees within Guildford Pipehead Complex

Figure 26: Endemic trees along existing shared path

Figure 29: Land is cleared around the corridor where there is only private access

Boothtown Aqueduct

Vision and Principles

3

3.1 PROJECT VISION

The Prospect Pipeline Corridor will be an active transport and recreation link with new opportunities to move, engage and enjoy.

Structured around a continuous 16km pedestrian path and cycleway connecting Prospect Reservoir to Potts Hill Reservoir, it will be a shaded, safe and inviting space that provides respite from the car-dominated streets of the surrounds and intense heat in the height of summer. While the corridor can be utilised end-to-end, recreation loops and links to existing assets will be designed to support daily informal use by the area's diverse community. This will establish an accessible and visible network of spaces for children, older people, exercise and relaxation. These spaces will also provide recreation opportunities for workers in adjacent Town Centres and Industrial areas.

As part of the Sydney Green Grid, the corridor will become an integrated piece of public domain, unlocking new connections to Town Centres, schools, riparian and open space corridors. New connections to Prospect Creek and Duck River will be key priorities in the short to medium term. To facilitate this, new access points into the corridor and opportunities to safely traverse busy roads will be delivered as part of the project. These will be supported by increased tree canopy and streetscape upgrades leading into and along the corridor to provide cool and comfortable public domain spaces. In time, the corridor will be connected open spaces and cycleways along Cooks River in the east and Western Sydney Parklands to the west.

A unique identity will be established for the corridor which builds upon the existing landscape, social and cultural character of the surrounding areas. This will encourage a sense of community ownership and civic pride which will support the ongoing use, activation and care for the corridor and Country.

The Corridor will seek to "Heal Country" through the rehabilitation of existing waterways, increased tree canopy and enhancement of endemic ecologies. The incorporation of Indigenous knowledges and approaches will embed the values of environmental and social sustainability at the heart of the project.

New publicly accessible zones will co-exist with important water, energy and communications infrastructure above and below ground. The corridor will continue to enable their ongoing maintenance, future upgrades and the management of asset and public safety.

The key project objectives are to:
- Connect to and Heal Country
- Stitch together existing open spaces and ecosystems
- Bring together communities
- Support active and equitable modes of movement
- Embed resilience to extreme heat and climate change
- Retain existing infrastructure uses

The project vision and objectives inform the project principles. These are delivered through the design strategies.

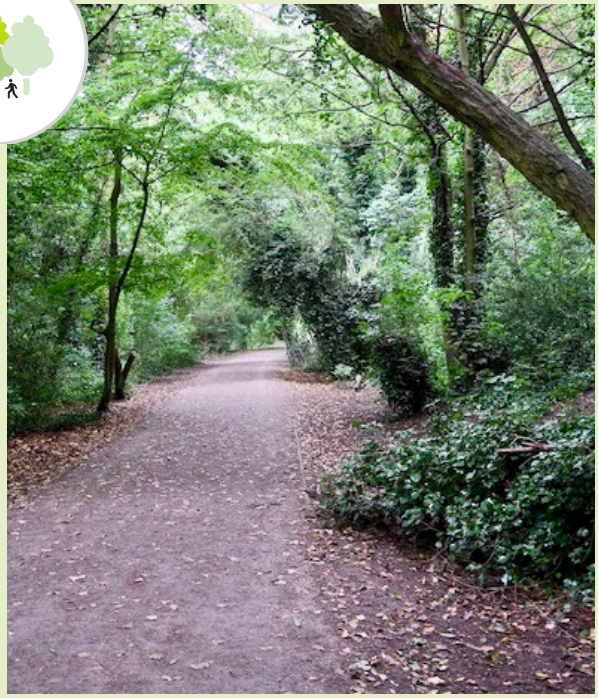
View over Waddangalli Woodland Reserve and Campbell Hill Pioneer Reserve

3.2 PRINCIPLES

Active transport and the Green Grid

- Integrate active transport and associated facilities such as bicycle parking, creating safe and efficient modes of transfer
- Ensure that cyclists and other road users are provided with safe, separated facilities
- Provide cyclists with the most direct route, enabling them to reach destinations easily via paths that are connected across the network
- Ensure that riders of all ages and abilities are able to utilise the corridor at a speed at which they are comfortable
- Incorporate flexibility in design to accommodate changes in user needs over time
- Create recreation loops and links which support daily use by local residents

Image: Tallow Creek Pathway, Byron Bay



Ecology and waterways

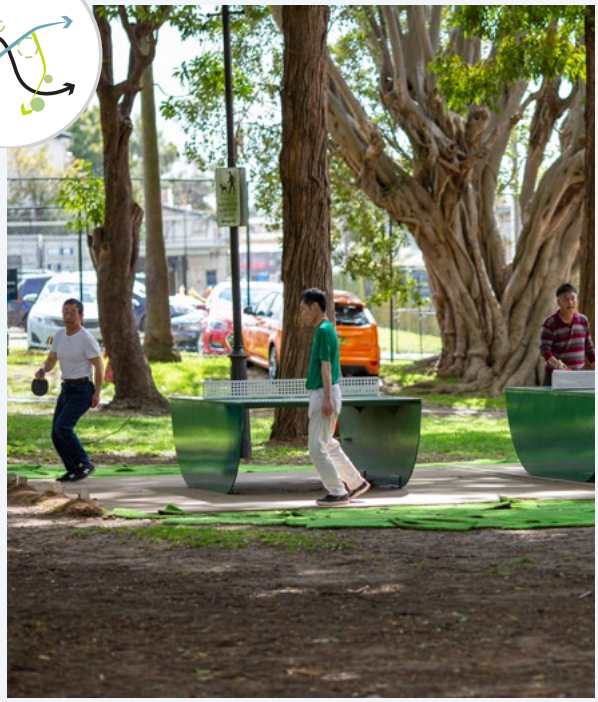
- Retain and enhance the existing tree canopy
- Create and facilitate habitats for flora and fauna, ensuring the preservation of important biodiversity corridors
- Rehabilitate and naturalise existing waterways, promoting safe access to enjoy previously inaccessible zones
- Connect the corridor to existing networks of open space, parks, golf courses and community and leisure centres that can facilitate active and passive recreation. This will include new connections to the Cooks River, Prospect Creek, Duck River and Western Sydney Parklands
- Expand and restore existing ecologies by increasing tree canopy where permitted, creating cool and comfortable spaces
- Manage bushfire risk where necessary

Image: Parkland Walk, Haringey, UK

Connecting to Country

- Hollistically consider the impact of the corridor on Country with an understanding that flora, fauna, landscape, waterways, climate and waterways are all interconnected
- Incorporate Indigenous knowledges, stories and their interpretations into the design of facilities and amenities
- Utilise local innovation and circular economies
- Seek out spaces to share cross-cultural stories and knowledge about Country, embedding a continuous educational focus along the corridor that can be accessed by the community
- Investigate opportunities to celebrate sites of Indigenous significance and heritage

Image: Artwork depicting the D'harawal story of women making string for hunting and fishing nets from Casuarina trees, along the Warali Wali Trail, Propsect Creek



Open space and recreation

- Create safe and playful recreation loops and links to existing open space and recreation destinations
- Improve connections to existing clusters of open space and recreational facilities and facilitate new links where required
- Improve the public domain and surrounding infrastructure to support social connections and provide opportunities to meet and gather
- Create 'places for people' in the street network with wider footpaths and pedestrian zones in key locations
- Repurpose under-utilised areas and flanking zones that can be used to provide increased amenity
- Locate potentially louder community uses and amenities adjacent to major roads

Image: Burwood Park, Burwood

Character and identity

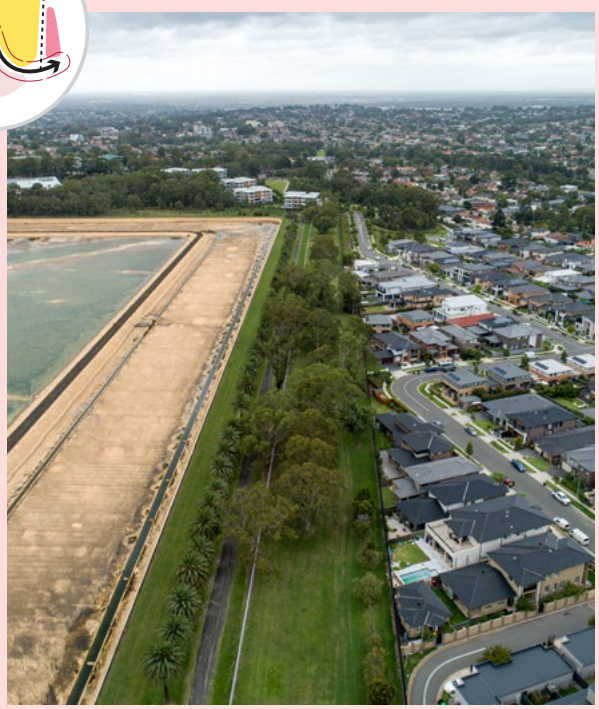
- Celebrate the existing social and cultural diversity in the communities present along the corridor
- Establish distinctive character areas and precincts that build upon the existing established character of the local areas
- Seek out opportunities to connect to existing services and offerings, such as local schools/ colleges, town centres and community facilities that facilitate social connection
- Protect and enhance existing heritage assets and conservation areas in and surrounding the corridor. such as the Boothtown Aqueduct
- Share the history of the provision of secure drinking water to Sydney with the community

Image: Guildford Town Centre

Placemaking and branding

- Frame the corridor as a destination and community focal point that is able to bolster local engagement and attract a wider visitation catchment
- Embed shared values and knowledge from Cumberland and adjacent councils to create a holistic and coherent vision for the corridor
- Consider opportunities to rename the parts, or the entirety of the corridor to elevate its status as a community asset, fostering a sense of civic pride. This could involve input from the community and could also include opportunities to connect back to Country
- Seek out opportunities to locate public art along the corridor

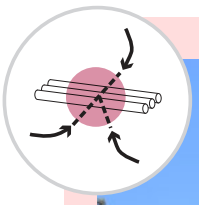
Image: Parkland Walk, Haringey, UK



Custodianship, management and cooperative governance

- Create a shared vision for the corridor that includes Cumberland the adjacent councils, in order to enable the best outcome for the public
- Establish a clear staging plan that provides a framework and road map to the delivery of the corridor over time, accounting for the fragmented jurisdiction over the Sydney Water-owned land
- Foster collaboration and positive working relationships with surrounding local agencies and government entities, ensuring a coordinated and committed approach to the delivery of the corridor and its parts

Image: Potts Hill Reservoir



Movement and access

- Deliver new intersections that allow both pedestrians and cyclists to traverse busy roads and traffic in a safe and continuous manner
- Seek out alternative short-term interventions and opportunities for new links and connections that build upon existing infrastructure and access points
- Improve existing streets, footpaths and surrounding public domain connected to the corridor in the interim where longer-term solutions are staged
- Integrate the corridor with public transport

Image: Cycleway intersection near Guildford Pipehead Complex

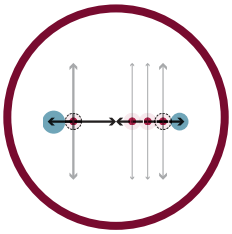
Regents Park

Design Strategies

4

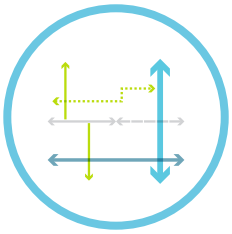
4.1 OVERVIEW

The interventions proposed within the structure plan have been structured around six design strategies. These enable the project vision and principles to be translated into tangible potential projects or inform future collaboration and studies.

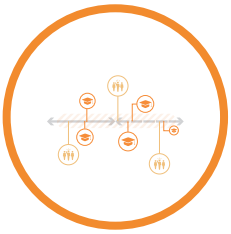


Active Transport Corridor

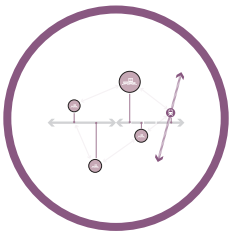
Green spine and fingers



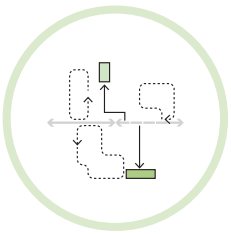
District Connections



Outdoor classroom



Connections to town centres and public transport



Recreation loops and links

Prospect Pipeline Corridor at Regents Park

4.2 ACTIVE TRANSPORT CORRIDOR

Balancing the needs of commuting cyclists with the recreational needs of the surrounding community.

The delivery of this active transport infrastructure will support the aspirations of the GANSW *Greater Sydney Green Grid* and Cumberland City Council's *Open Space and Recreation Strategy 2019-29*, TfNSW *Principle Bicycle Network* (in progress).

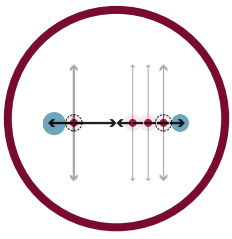
When connected into existing cycleways along the Cooks River and future cycleways in Western Sydney Parklands, the corridor will unlock over 30km of continuous cycleway from Wolli Creek to Western Sydney Parklands. As noted in discussions with surrounding Councils and TfNSW, the delivery of missing cycleway links support increased commuter use, even if that use seems minimal at present. In essence, "if you build it, they will come".

Additionally noted by local councils surrounding the corridor, shared paths along riparian corridors and through parks are highly utilised on weekends by families with generally less use during the week. The increased use of cycle infrastructure by food delivery services was also highlighted.

Understanding the diversity of potential users, active transport infrastructure will need to maximise safety and minimise modal conflict while also facilitating the ongoing maintenance requirements of the important water, electrical and communications services within the corridor.

The delivery of cycle paths and pedestrian paths along the corridor will support a number of key objectives outlined within the TfNSW 2020/21 Walking and Cycling Program.

- Reduce congestion on our roads and public transport networks by delivering projects that encourage walking and cycling mode shift
- Deliver projects that make walking and cycling safe, comfortable and convenient transport modes that are accessible to a wide range of users
- Enable positive health, wellbeing, social and environmental outcomes



Focus projects

The corridor cycleway

To support this design strategy, delivery of infrastructure to support cycling and walking will be a key focus along the corridor.

This will include:

- Generously sized, dual, separated cycle paths to accommodate cyclists travelling at different speeds and the ability to overtake
- A separate pedestrian path to support day-to-day recreation use
- Integrated seating, landscaping, drinking fountains and lighting to create a cool and comfortable space at all times of the day. Seating and drinking fountains will be provided away from residential areas to minimise potential noise impacts. Low level lighting will be provided to enable use of the corridor at night while minimising potential light spill to residential areas.
- Maintenance of good visibility along which supports the safety of the public, residents and businesses alongside the corridor

Any proposed works along the corridor must be designed to enable continued access to the pipeline for maintenance and upgrades by Sydney Water.

Figure 30: The Bay Run, Haberfield

Intersection upgrades and bridges

The delivery of intersection upgrades and new bridges for pedestrian and cyclists will form part of this design strategy, delivering a continuous cycleway along the corridor.

This will include:

- New pedestrian (zebra crossings) or traffic lights at points where the corridor meets roads with local traffic
- Pedestrian and cycle bridges where the corridor meets high traffic roads to support continuous movement and reduce conflict between transport modes. Key bridges for delivery will be at Woodville Road and adjacent to Regents Park Station
- Pedestrian and cycle bridges to traverse the corridor north/south to provide increased permeability and access to park, schools, local centres and train stations. Key bridges for delivery will be at Duck River, at Regents Park.

Figure 31: Elizabeth Quay, Perth

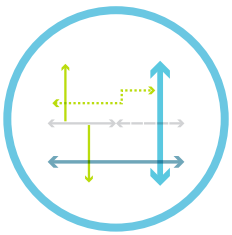
4.3 DISTRICT CONNECTIONS

District connections will link the Prospect Pipeline Corridor into an interconnected network of open spaces and riparian corridors across Sydney.

The inclusion of these within the structure plan supports the aspirations of the GANSW *Sydney Green Grid* and the NSW Government Greater Sydney Region and District Plans. This will also be supported by the other project priorities which will draw people into and across the greater open space and public domain network.

The Prospect Pipeline Corridor will form an important part of an approximately 30km east-west active transport corridor proposed to connect Western Sydney Parklands through to Wolli Creek via the Cooks River.

This connection will unlock opportunities for:
- Commuter and long distance cycling and link into a wider network of cycling and walking paths across Sydney
- Extensive tree canopy and planting providing access to comfortable shaded spaces and habitat for local fauna
- Embedding of indigenous knowledge and engagement of Aboriginal rangers/land care groups to maintain and rehabilitate the riparian areas



Focus projects

Wolli Creek to Western Sydney Parklands District Connection

The Cooks River Strategic Framework is being prepared concurrently by City of Canterbury Bankstown (CBCity) and Strathfield Councils. The study area for that work and the Prospect Pipeline Corridor Strategic Masterplan are separated by an approximately 3km stretch of rail and infrastructure land. Understanding that future work will need to be undertaken to connect these two areas, interventions proposed within this Framework should not preclude extension of cycleways and include links to existing on and off-road cycleways to enhance movement in the short term.

Delivery of this district connection will be subject to ongoing discussion and coordination with adjacent Councils, stakeholders and project teams working on interconnected corridors. Work along this strategic connection should also include:

- Identification of potential wildlife corridors and establish appropriate vegetation habitat and animal access pathways such as land or sky bridges for native species such as possums, gliders etc. Small birds and insects also use native plantings and corridors for movement across the landscape.
- The use of signage and cultural mapping outlining the the open spaces and riparian areas. Using known Aboriginal language names for areas will provide users with an entry point to understand and learn more about local Aboriginal culture, stories, connections and land use of the area.

Figure 34: Link to waterways, Cooks River

Duck River and Prospect Creek Riparian Corridors

Prospect Creek connects to the corridor in the west adjacent to Lower Prospect Canal Reserve and forms the boundary between Cumberland City and Fairfield CIty Council LGAs. It features continuous shared pedestrian and cyclepaths from Lower Prospect Canal Reserve through to Fairfield Road Yennora.

The Duck River extends north-south through Cumberland City and CBCity and City of Parramatta LGAs.

Proposed works along the corridor will:

- Support the aspirations outlined within the Duck River Spatial Framework including:
  - Rehabilitation and naturalisation of Duck River
  - Delivery of a new north/south cycle and pedestrian connection over the pipeline between Cumberland and CBCity LGAs connecting into future cycleways up to Parramatta River
- Explore opportunities to connect the Prospect Pipeline Corridor to shared paths along Prospect Creek

Opportunities to engage Aboriginal rangers/land care groups to maintain and rehabilitate the riparian areas along Duck and Prospect Creek should be explored. This can provide ongoing work opportunities for local Aboriginal youth.

Figure 35: Duck River riparian corridor

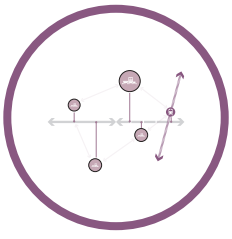
4.4 LOCAL CONNECTIONS TO TOWN CENTRES AND PUBLIC TRANSPORT

Connections between the corridor, town centres and public transport will be important in supporting access to employment, business and key services for the local community.

This aligns with the TfNSW *2020/21 Walking and Cycling Program* objective to "Ensure walking and cycling are the most convenient option for short trips to key destinations and within centres."

This provides an opportunity to increase daily walking and cycling, reduce short car trips and the demand on parking within town centres. As the corridor is integrated into the wider cycle network, town centres may also serve as destinations for meal and rest stops for those traversing longer distances.

Paths into Yennora, Smithfield, Granville and Regents Park Industrial Areas will support active transport commutes for workers and unlock access to spaces for lunch or rest along the corridor.



Focus projects

Streetscape upgrades and cycleways on adjacent streets

Streetscape upgrades and cycleways on adjacent streets are important to supporting safe and inviting routes into and out of the corridor. These will build upon the existing character of these areas.

This design strategy will be delivered through:

- Streetscape upgrades including increased tree canopy, upgrading of existing footpaths and provision of new footpaths where they do not currently exist along adjacent streets
- Provision of increased bicycle parking within town centres and alongside train stations and bus interchanges
- Provision of shared paths, on or off-road cyclepaths (as appropriate) between town centres and public transport and the corridor. These should take advantage of existing wide streets to support separation
- Widening or upgrade of existing bridges across the corridor to support shared paths, on or off-road cyclepaths (as appropriate) to support access to the corridor cycleway
- Use local tree species wherever possible, to support the recovery of endangered ecological communities such as the Cumberland Plain Woodland and Turpentine Ironbark Forest

Figure 36: Streets with integrated transport modes, Bourke Street, Surry Hills

Signage, wayfinding and branding

New branding of the corridor should look to position it as a unique and inviting space, shaped by the existing character and history of the areas through which it extends. Renaming of the corridor also provided an opportunity to inspire community buy-in and interest. Inner West Council's GreenWay is a good example of where the community has been engaged in supporting and delivering a vision for an underutilised corridor amongst residential areas.

Consistent signage, wayfinding and branding along the corridor should:

- support new access routes to town centres and public transport
- support cultural engagement through integration of diverse languages which respond to the cultural groups in the areas surrounding the corridor
- include maps and signage for wayfinging that includes information about traditional Aboriginal pathways through this area and some of the stories associated with this place

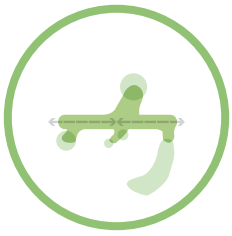
Figure 37: Building upon existing assets, Guildford Town Centre

4.5 GREEN SPINE AND FINGERS

Green and blue infrastructure is integral to reducing the impact of extreme heat days, the urban heat island effect, improving urban drainage and providing cool and comfortable places for people and animals to dwell.

The Prospect Pipeline Corridor will contribute to the health and scale of the blue and green grid of Sydney. The corridor will form a verdant green spine into which well-planted streets and parks are connected. Cross-corridor linkages to the Duck River and Prospect Creek will establish continuous passages for planting and tree canopy. New habitats that preference endemic planting and build upon remnant tree canopy will support the wellbeing of flora, fauna, humans and animals alike and seek to Heal Country. This aligns with the aspirations of the GANSW Sydney Green Grid, Cumberland Council's *Urban Tree Strategy 2020, Biodiversity Strategy 2019* and *Sustainability Action Plan 2020*.

This supports the Premier's priority to increase the tree canopy and green cover across Greater Sydney by planting one million trees by 2022.



Focus projects

Biodiversity and habitat

The corridor will connect existing areas of significant biodiversity and habitat around Prospect Reservoir, Prospect Creek, Waddangalli Woodland Reserve, Campbell Hill Reserve and Duck River. Delivery of the corridor should seek to tie into and enhance these existing spaces.

Landscape strategies for the corridor should:

- Using species that belong to the endangered ecological communities (Cumberland Plain Woodland and Turpentine Ironbark Forest)
- Integrate endemic small shrubs, grasses and understory plants are important habitat and food resources for small birds, insects and reptiles.
- Consult with Aboriginal knowledge holders as to the types of plants and vegetation that may be useful for cultural purposes. This may include:
  - Weaving materials like gymea lilly, lomandra and sedges
  - Bush tucker plants for people and as food for local bird and animal species
  - Plants that host butterfly species and other nectar dependant insects
- Rehabilitate and naturalise waterways
- Explore opportunities to engage local Aboriginal rangers and landcare groups

Figure 38: Prospect Reservoir from George Maunder Lookout

Extending the network

Vegetation cover varies greatly across the corridor as it passes through reserves, rivers, industrial zones and urban areas. Mapping completed indicates that while there is good canopy cover in surrounding parks and reserves, there is a lack of adequate vegetation cover along suburban street and industrial areas. There is limited tree canopy along the corridor from Guildford Pipehead Complex to Potts Hill Reservoir due to existing service maintenance requirements.

Works along the corridor should:

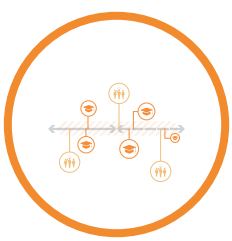
- Deliver increased tree planting and landscaping with consideration of the retention and maintenance requirements of infrastructure and heritage items within the corridor
- Locate landscaping and planting alongside the cycleway (where possible), to shade paths
- Integrate water sensitive urban design (WSUD) features where possible to protect waterways from gross pollutants and turbidity of water from of erosion and hard surfaces including:
  - Appropriate planting of local endemic plants like grasses, along edges of pathways and around drainage areas to allow for suspended sediments to be filtered out of the stormwater before it enters the waterways
  - Utilisation of sediment ponds and permeable surfaces wherever possible
- Improve tree planting and delivering streetscape upgrades along surrounding streets to provide comfortable and shaded routes into the corridor

Figure 39: Comfortable places to dwell- Bryant Park, New York

4.6 OUTDOOR CLASSROOM

Considering the corridor's proximity to several schools and the diverse community through which the corridor extends, informal and formal learning opportunities should be integrated to cater to children and adults.

The corridor extends through a number of communities, and places each with their own unique characteristics. The corridor should provide places to dwell, share knowledge, facilitate day-to-day learning and observation.



Focus projects

Learning and sharing spaces

Formal and informal learning opportunities should be facilitated along the corridor to support knowledge sharing and social cohesion.

Relevant themes might include water, the environment and Country. The integration of learning opportunities in Sydney Olympic Park and Bicentennial Park are good examples of how landscaped spaces can be designed to support recreational and learning outcomes.

Learning and sharing opportunities can be supported through:

- Provision of outdoor gathering spaces, yarning circles or places to share knowledge adjacent to schools. These would occur in strategic locations, easily accessible to schools and away from residential interfaces
- Inclusion of maps and signage for wayfinding that includes information about traditional Aboriginal pathways through this area and some of the stories associated with this place
- Integrated heritage interpretation and public art
- Physical elements (e.g. plaques, public art), a digital interface (e.g. an app or website) or educational programs which could be formulated and provided by schools or the wider community
- Planting weaving materials and bush tucker plants near the outdoor gathering places for easy access
- Providing signage identifying useful plants using language names wherever possible

Figure 40: Outdoor teaching opportunities, Bicentennal Park, Homebush

Caring for and healing Country

Caring for Country requires a holistic perspective of the use and management of land, water, and air. This holistic view involves considerations of not only the tangible, but also the intangible aspects of places. Indigenous peoples have developed approaches and techniques to manage Country through a deep understanding of the needs of Country, and what is necessary to keep Country healthy, now and into the future. Colonisation impacted First Peoples' ability to access Country, both special places but also the mundane spaces used for everyday living. Therefore, in a large way, access to Country is a major aspect of being able to care for Country, and inevitably heal Country.

Along the corridor, moves need to be made to heal the landscape, including rehabilitation of the waterways, increased tree canopy and enhancement of endemic ecologies.

A core aspect of caring for Country is sharing knowledge, including with non-Indigenous peoples who now also must be carers of the lands, waters, and air. Sharing knowledges will embed the values of environmental and social sustainability at the heart of the project, including:

- Engagement with and employment of local Traditional Custodians about cultural practices that can be incorporated into ongoing care and management processes, for instance, cultural fire practices
- Landscapes with endemic planting to enable learning about indigenous flora, fauna and caring for Country

Figure 41: Country-centered, GANSW Connecting with Country framework, adapted from German architect Steffen Lehmann, Eco v Ego diagram 2010

4.7 RECREATION LOOPS AND LINKS

With limited opportunities to provide new open space within the corridor study area, the provision of recreation loops and links will be key to connecting residents to existing open space assets to support passive and active recreation.

Recreational loops and links are active, activated, green and high-quality pedestrian and cycle connections (along streets and paths) between homes, green spaces and public space destinations. Recreation loops and links present and opportunity to better connect residential and employment zones, local parks, train stations, schools, playgrounds and community destinations into the corridor, and create local recreational opportunities for people living along the corridor.

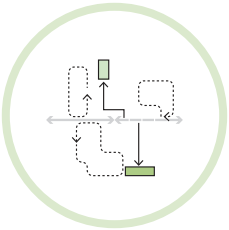
Recreation loops and links can help to encourage higher levels of physical activity and exercise in the community, increasing social cohesion and connectivity.

This aligns with the strategic directions and objectives of the Cumberland Council *Open Space and Recreation Plan 2019-29*.

- Strategic Direction 1: Deliver new open space and recreation facilities that meet the needs of our growing population
- Strategic Direction 2: Increasing the quality and capacity of existing open space and recreation facilities
- Strategic Direction 3: Supporting inclusion and increased participation by our diverse population
- Strategic Direction 4: Protecting our natural environment and increasing resilience

Characteristics or features of recreation loops and links within the study area may include:

- Green - Verge planting, larger trees for canopy cover
- Safe - Traffic calming, wide accessible footpaths, good passive surveillance
- Legible – Wayfinding signage, environmental information signage
- Play – places for children and young people to stop and play
- Comfortable - Seating, shade, wide for a variety of users, and places to stop and rest – particularly for older people
- Choice – Curation of a range of walking circuit lengths to suite all fitness and ability levels
- Cycle paths – Safe cycle paths
- Educational – Environmental art and signage
- Night time use – creative lighting, passive surveillance, street lighting
- Exercise – outdoor exercise equipment



Focus projects

Recreation links and clusters

A recreational link is an active link along streets and paths for walking, cycling or running that connects people to and between the pipeline and destinational public spaces such as schools, sportsfields, public transports, and other public facilities and public open space area. Users of recreational links will be residents, workers, and visitors who want to cycle or walk the pipeline or who want to access recreation clusters or open space via active transport links.

Works along the corridor should prioritise:

- connections that link local destinations to destinational public spaces.
- connections that link residential and employment areas to the green grid e.g. the Duck River, Duck Creek, Toongabbie and Blacktown Creeks, and the Cooks River
- new access points into the corridor and to open spaces directly adjacent, including Waddangalli Woodland Reserve, Campbell Hill Pioneer Reserve and Duck River Parklands

Figure 42: Connecting into parks, Atlanta Beltline, USA

Recreation loops

A recreational loop will have a start and finish point within a local area. Users of a recreational loop are likely to be local communities, particularly those living in areas with below capacity provision of public open space and recreational facilities. These will be supported through streetscape upgrades, seating and shade to encourage local use.

Works along the corridor should prioritise:

- creating recreational loops in locations that will experience higher population growth in the future, and that have a lower level of public open space provision, for example Regents Park

Figure 43: High amenity streetscapes

Guildford Town Centre

Structure Plan

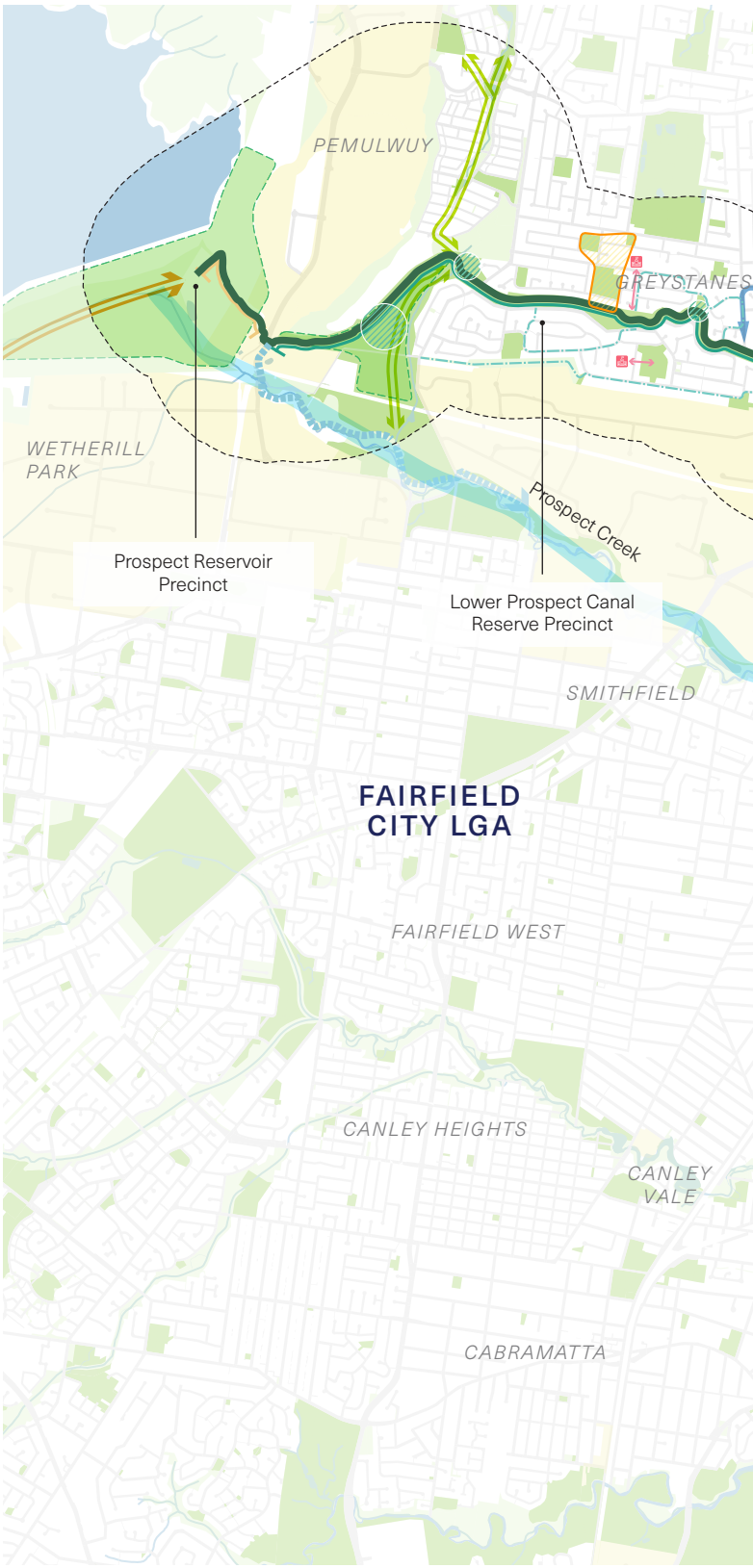
5

5.1 CORRIDOR STRUCTURE PLAN

The Structure Plan highlights opportunities to support the project priorities in areas around the corridor. Precincts outlined within the Structure Plan are supported by more detailed exploration and testing in the following chapter.

To allow greater interrogation and in response to local conditions (and LGA boundaries) the corridor has been broken-down into Corridor West and East, which are unified by their existing cycling infrastructure and focus for future and associated projects.

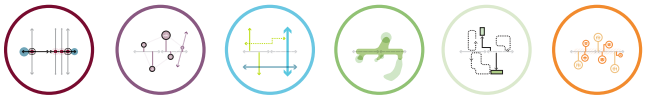
The moves along the corridor area are outlined in the following chapters.

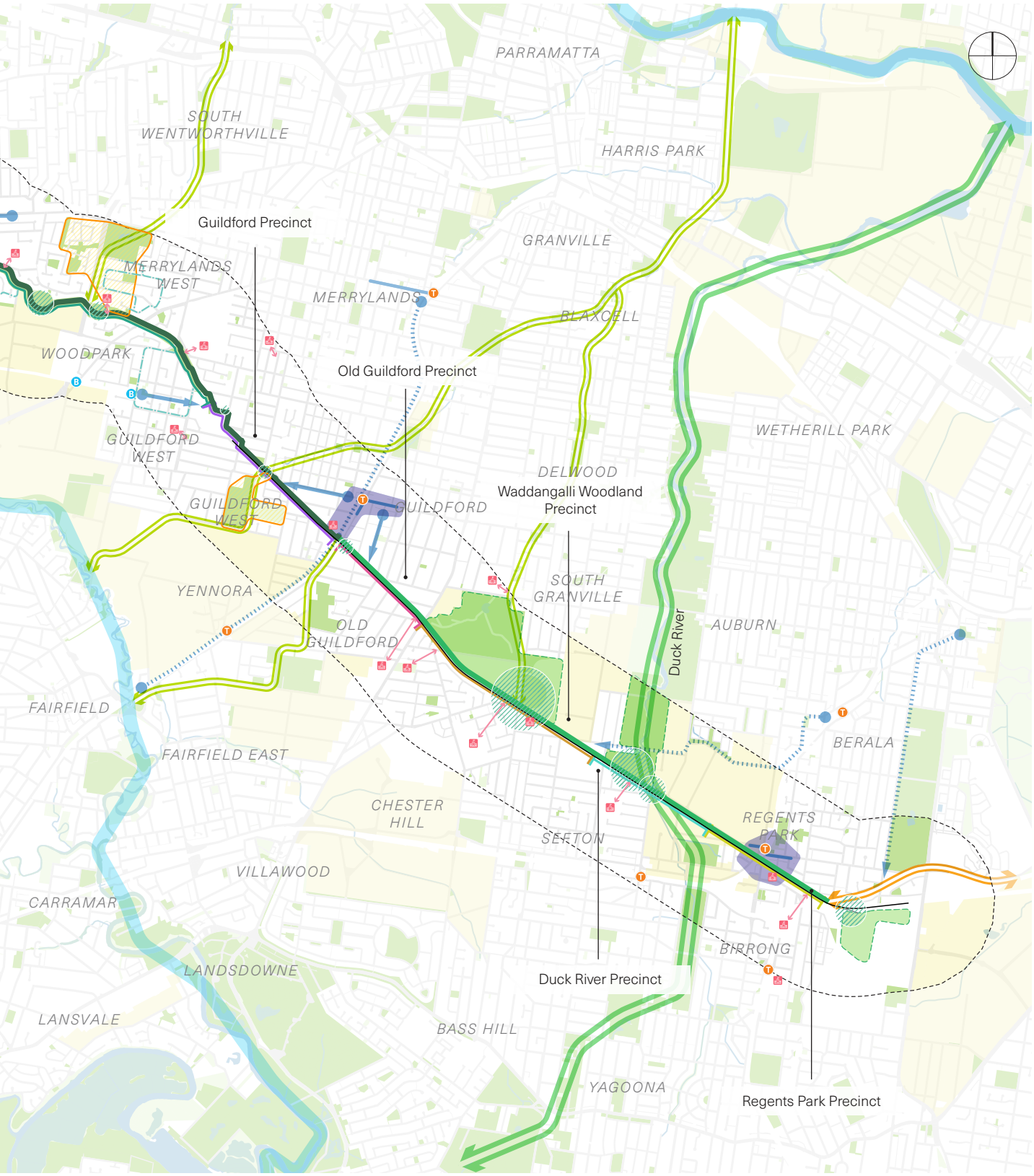


- Study area (800m from corridor)
- Existing corridor cycle route
- Water pipeline
- Upgrade to open space
- Town Centre
- Recreation cluster
- Local active high street
- Active transport links to train stations
- Active transport links to key bus routes
- Improved connection to school
- Major green connection
- Secondary green connection
- Future cycleway extension to the Cooks River
- Train station

Structure Plan

Relevant design strategies





Corridor West

5.2 CORRIDOR WEST

Corridor West includes the Prospect Reservoir, Lower Prospect Canal Reserve and Guildford Precincts. This section of the corridor is served by existing separated dual lane shared paths along its length. In future, it is envisioned that Corridor West will connect into around Prospect Reservoir and Western Sydney Parklands.

The key opportunities for this section of the corridor include:

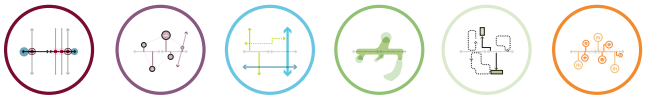
- facilitating better pedestrian and cycle access to the corridor
- supporting better connections to schools and existing recreation and open space facilities in adjacent areas
- providing seating, drinking fountains and increased shade to existing paths to support comfort and increased patronage
- providing activity areas including gym areas, exercise nodes
- new opportunities for biodiversity, increased planting and habitat creation

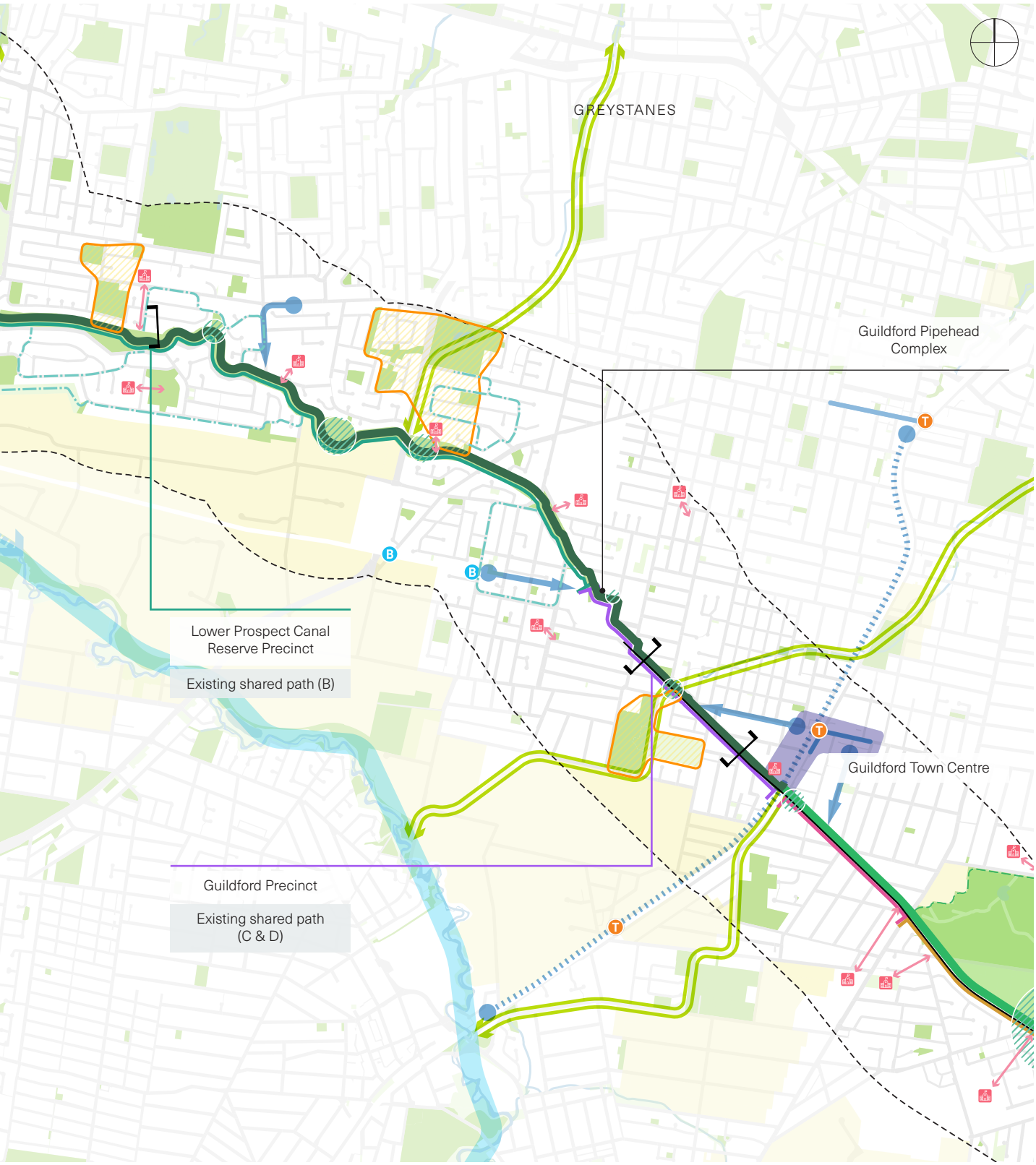
Where a project along the corridor has been explored in more detail, a code has been included on the page which references the project catalogue included in chapter 5.

Figure 44: Corridor West Character Areas

Corridor West

Relevant design strategies





Relevant design strategies

5.3 ACTIVE TRANSPORT LINKS

Existing shared paths along Corridor West will be enhanced and embellished to provide a greater commuter and recreation experience.

Corridor West is supported by existing continuous shared paths adjacent to Prospect Reservoir, along the Lower Prospect Canal Reserve and the Prospect Pipeline up to Military Road, Guildford. These shared paths support predominantly recreational use.

As use of these paths are anticipated to grow with the extension of new cycleways further east, the widening of these existing shared paths to match these new cycleways will be important. Future design testing should be undertaken to ensure improvements are considerate of existing Sydney Water Infrastructure, heritage items, existing flora and fauna.

Building upon existing Sydney Water canal infrastructure, the cycleways along the Lower Prospect Canal Reserve pass under north/south roads which cross the reserve.

Improvements in Corridor West should include consultation with Blacktown City Council, Sydney Water and Council's Heritage team.

CW1

Existing shared path (A): near Prospect Reservoir

This indicative section outlines one of the conditions between Prospect Highway and Prospect Reservoir. Flanked by areas of tree planting, the shared paths extend through a landscaped corridor which varies in width. There is limited passive surveillance, seating or conflict with other modes of movement. These shared paths connect through on-road cycle paths which extend further west around the Reservoir.

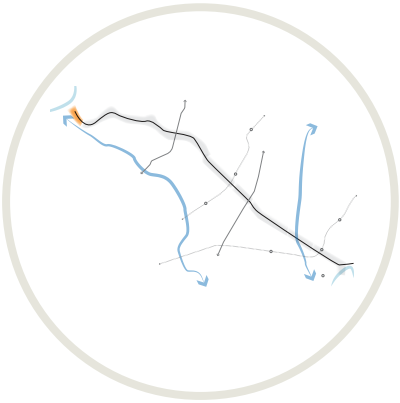


Figure 45: Indicative section - Existing shared path near Prospect Reservoir

Corridor West

CW1

Existing shared path (B): along the Lower Prospect Canal Reserve

This indicative section outlines the condition that generally exists along the Lower Prospect Canal Reserve in Greystanes, between Gipps Road and Bayfield Road. Potential impacts on the heritage significance of the Lower Prospect Canal Reserve will need to be considered as part of any future testing.

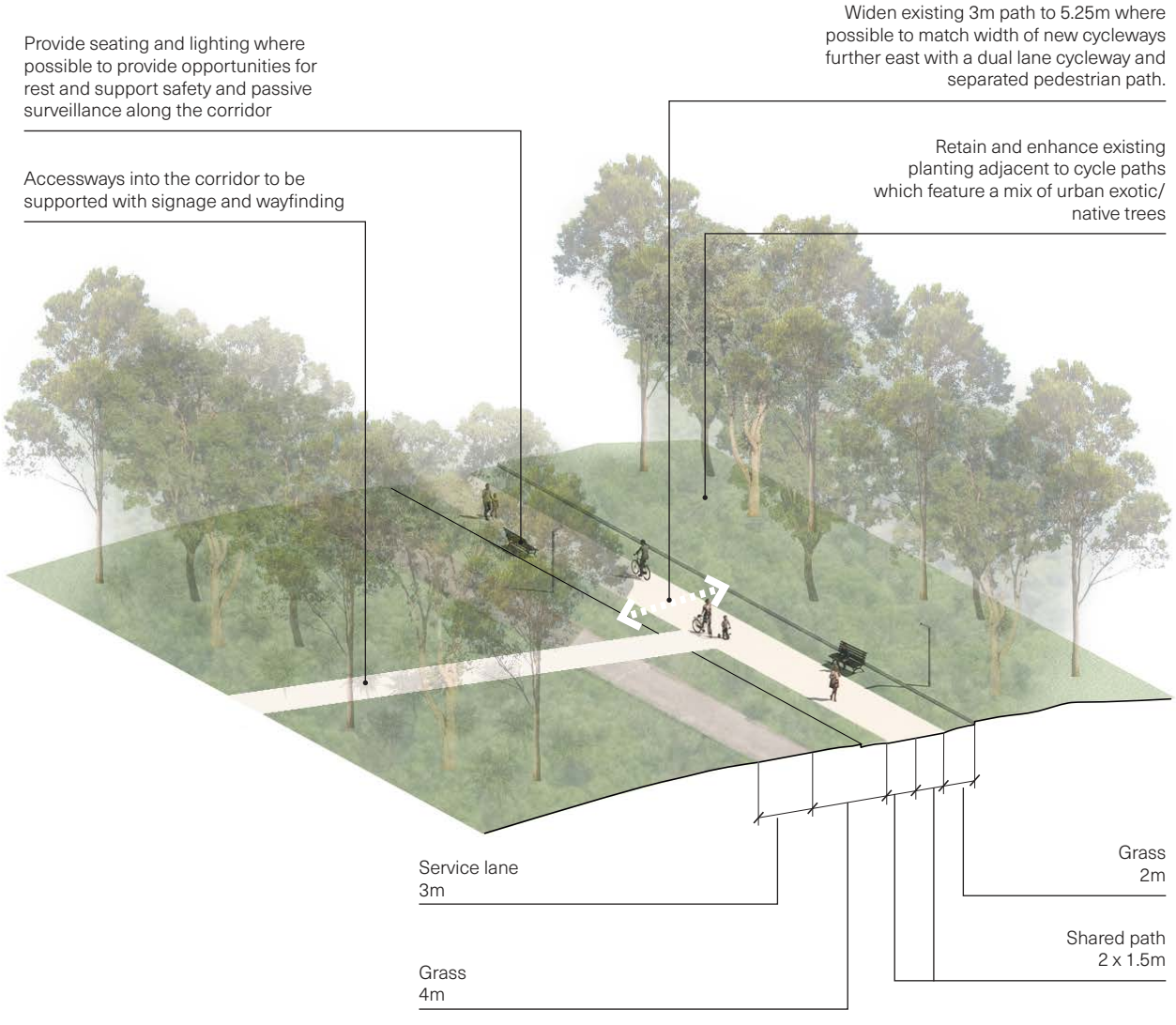


Figure 47: Indicative section - Existing shared path along Lower Prospect Canal Reserve

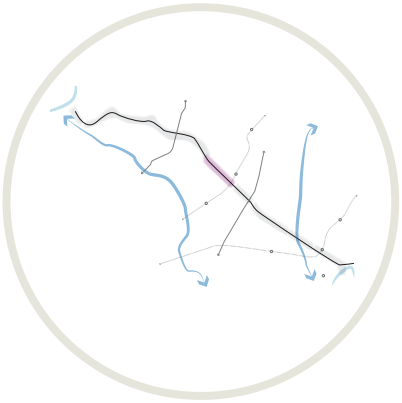
Lower Prospect Canal Reserve,

Corridor West

CW1

Existing shared path (C): In areas adjacent to existing development

This indicative section outlines the condition that generally exists between the Guildford Pipehead Complex and Byron Road along the northern and southern edges of the corridor. Dimensions are approximate, with grass area widths varying across its length.



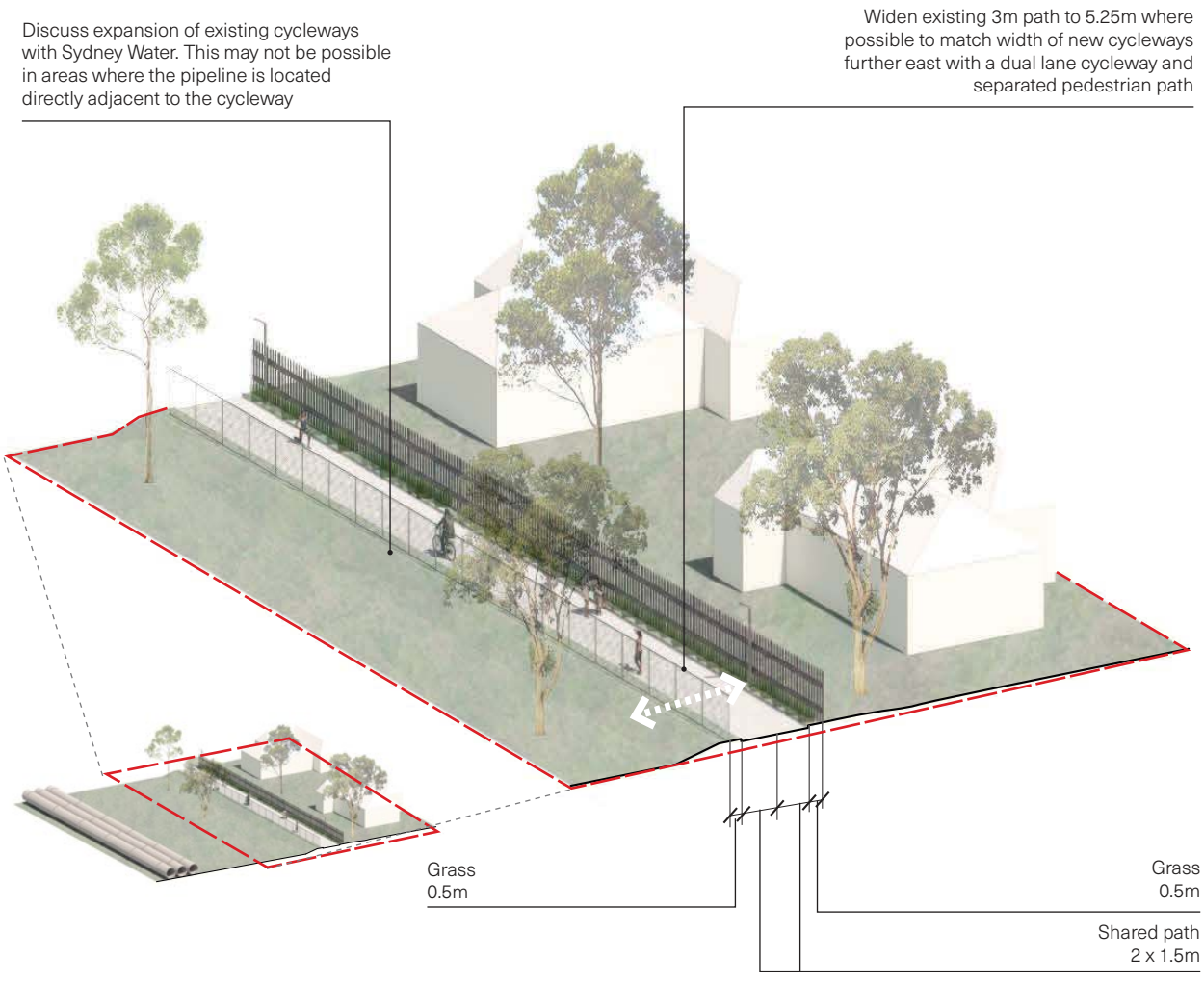
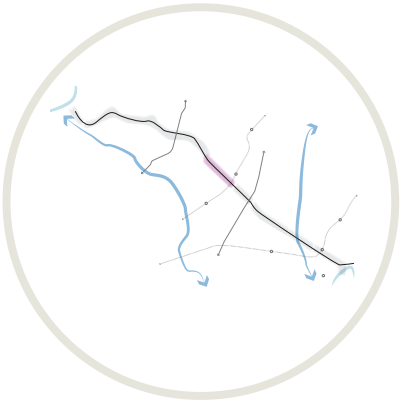


Figure 48: Indicative section - Existing shared path adjacent to Guildford Pipehead Complex

CW1

Existing shared path (D): In areas adjacent to the street

This indicative section outlines the condition that generally exists along Trenton Road, Guildford. Dimensions are approximate.



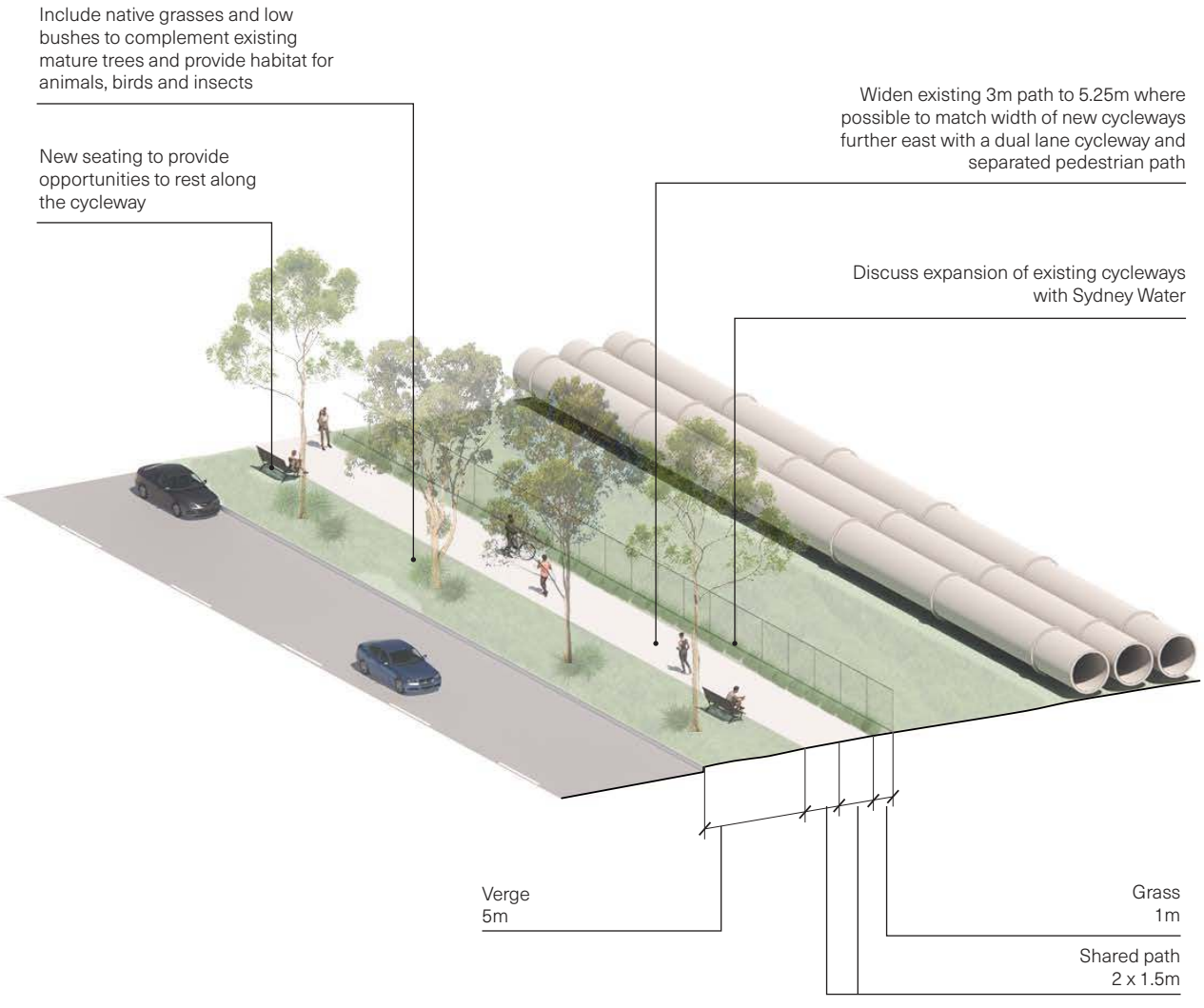


Figure 49: Indicative section - Existing shared path along Trenton Road

5.4 PROSPECT RESERVOIR PRECINCT

The wide open spaces, native woodland and steep terrain of the Prospect Reservoir will form the western anchor of the Prospect Pipeline Corridor.

The Prospect Reservoir Precinct will form an important entry point to the corridor and its future extension further east towards the Cooks River and west towards Western Sydney Parklands.

Improvements to the existing amenity will aid in the elevation of Prospect Reservoir as a key attractor in Western Sydney, and together with Western Sydney Parklands, will function as destinational anchors for the region. This will expand on the existing landscape character of the precinct, existing parkland and sweeping regional views from George Maunder Lookout, to provide opportunity for rest, play and exploration of the site's history and Country. Building upon the site's existing heritage items, integration of Indigenous and post-colonial knowledge through signage and art within the precinct will provide opportunities for the public to learn and engage.

Improved recreation facilities including picnic tables, lighting, footpaths should be incorporated focussed on Walder Park and George Maunder Lookout. Existing stands of endangered communities of Cumberland Plain Woodland and Turpentine Forest should be expanded upon and connect to other remnant stands of habitat. Where improvements are undertaken, the use of locally sourced and recycled materials should be prioritised and its impact on the water.

In addition to the pedestrian and cycle connection, parking provision within the reservoir should be retained within this precinct to enable people to access the corridor by car and meet along the corridor.

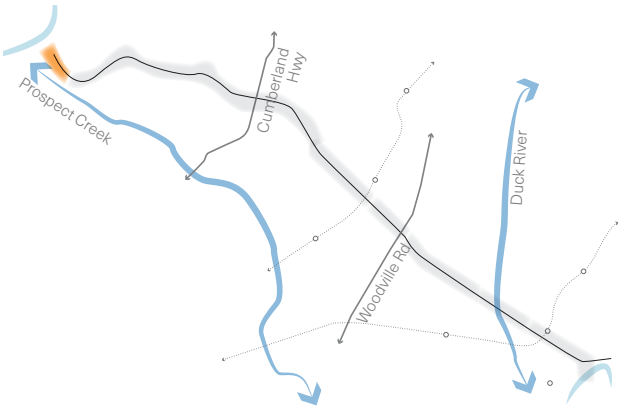


Figure 50: Precinct Reference Plan

- Existing shared path - Lower Prospect Canal Reserve
- Existing shared path - Prospect Creek
- Existing pedestrian path
- Existing crossing/traffic light
- Open space
- Rest stop

1 Walder Park
2 George Maunder Lookout
3 Marrong Reserve
4 Holroyd Rifle and Pigeon Club

Corridor West

Relevant design strategies

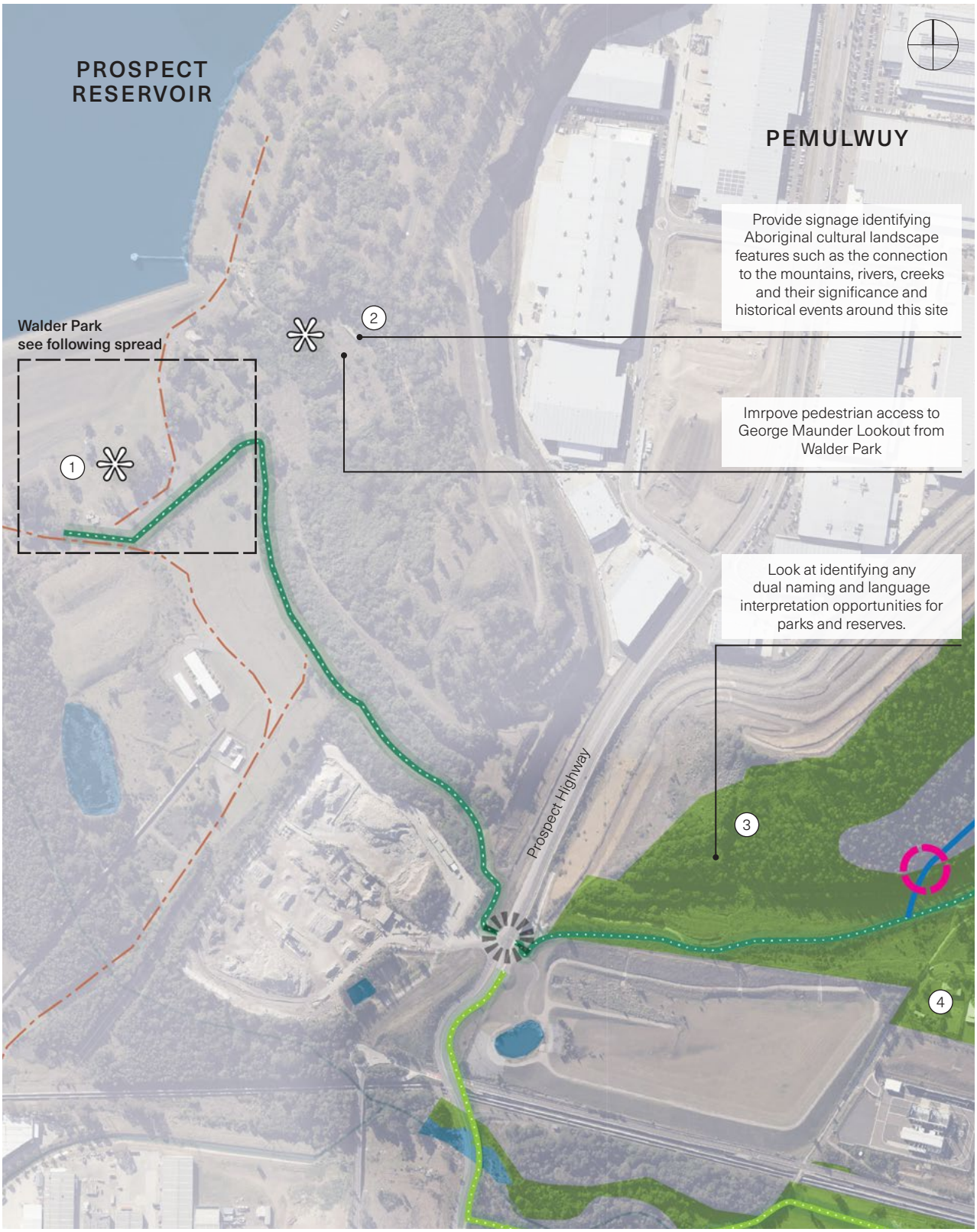


Figure 51: Prospect Reservoir Precinct

Corridor West

Walder Park

PR2

Considering the site as an arrival point or a final stop along the corridor, there are significant opportunities to further enhance the variety and amenity within this park to create a recreational destination for a wide range of users.

Situated at the western termination of the Prospect Pipeline Corridor, Walder Park currently provides a generous, open green space adjacent to prospect reservoir. A small existing playground and picnic tables are supported by a carpark and amenities block.

The existing road network, car parking and amenities block can form the foundation for a more vibrant and enhanced offer, including new recreational activities increased greening, shade and inspire through story telling and interpretation. This will continue to support Walder Park as a place to meet and access the wider cycle network.

An enhanced future character of the park may present opportunities that include:

- The park as the 'trail head' for the start of the cycle track, include facilities accommodating families through to serious cyclists
- Integration of a bike hub, public amenities and potential cafe / kiosk
- Expanded play opportunities including nature play
- Foster children and adolescence cycling through learn to ride or pump tracks
- Rationalise picnic facilities and include increased shade and BBQs
- Establish areas for endemic habitat planting
- Educate through interpretation of indigenous stories, ecological systems and the role and importance of Prospect Reservoir within Sydney's water supply
- Using locally sourced materials such as sandstone blocks for informal seating areas and crushed sandstone surfaces for permeability of stormwater wherever suitable.
- Using recycled timbers and other recycled materials wherever possible

Figure 55: Cycle Hub- Fearnley Grounds at Centennial Park


Figure 53: Amenity: Picnic Nodes - Parramatta Park


Figure 54: Indigenous Culture in Play - Sharon Egan at Perth Stadium

Figure 52: Informative maps and signage - Caboolture Wamuran Rail Trail

Corridor West

Relevant design strategies

Figure 56: Walder Park indicative plan

- Existing trees
- Proposed trees
- Share path connection to Lower Prospect Canal Reserve
- Reservoir boundary fence
- Picnic node
- Toilet amenities
- Bike rack
- Active play
- Play zone
- Habitat planting

5.5 LOWER PROSPECT CANAL RESERVE PRECINCT

Steeped in history, the precinct is a reminder of the importance of water and the immense impact post-colonial development has had on the landscape.

Already established, the Lower Prospect Canal Reserve is a uniquely landscaped active transport corridor running along former Sydney Water infrastructure. Raised from it surrounds, it provides district views across Sydney and towards Prospect Hill/Mar-rong, a prominent Aboriginal site.

Connecting into Prospect Creek, also a traditional travel route for the Darug and Dharawal people, the precinct should facilitate opportunities to share stories of the site, identify cultural landmarks and key views.

Existing shared paths and remnant bushland along the reserve will be enhanced for habitat, facilities in adjacent parks, low-level lighting and seating to provide comfortable and inviting spaces for use throughout the day and year. Adjacent to residential areas and and a number of schools located nearby there will be opportunities to integrate gardens, yarning circles, heritage interpretation and indigenous language and public art will support new opportunities for learning for all ages.

Works within this precinct will need to be respectful of the existing flora and habitats established along the Lower Prospect Canal Reserve and heritage items along its length.

Opportunities should be explored:
- Engagement with school bush regeneration groups to look after this precinct
- Learning by older students around landcare management and ecology principles.
- Learning by younger groups around bush safety principles

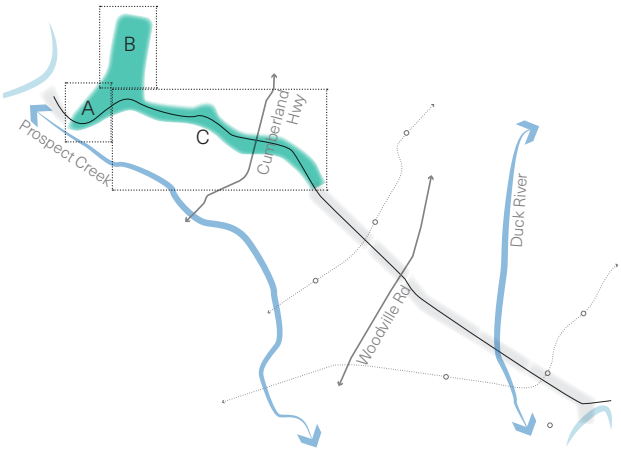


Figure 61: Precinct Reference Plan

Existing shared path - Lower Prospect Canal Reserve and Prospect Reservoir

Proposed recreation loop

Existing crossing/traffic light

Proposed raised pedestrian/cycle crossing and corridor entry point

Open space/landscape upgrades

District link for future investigation

Open space

Rest stop

1 Holroyd substation
2 Holroyd Rifle Range and Pigeon Club
3 Gipps Road Sporting Centre
4 Hyland Road Park
5 Hyland Road Reserve
6 Lower Prospect Canal Reserve
7 Grey Box Reserve
8 Prospect Creek Reserve

Corridor West

Relevant design strategies

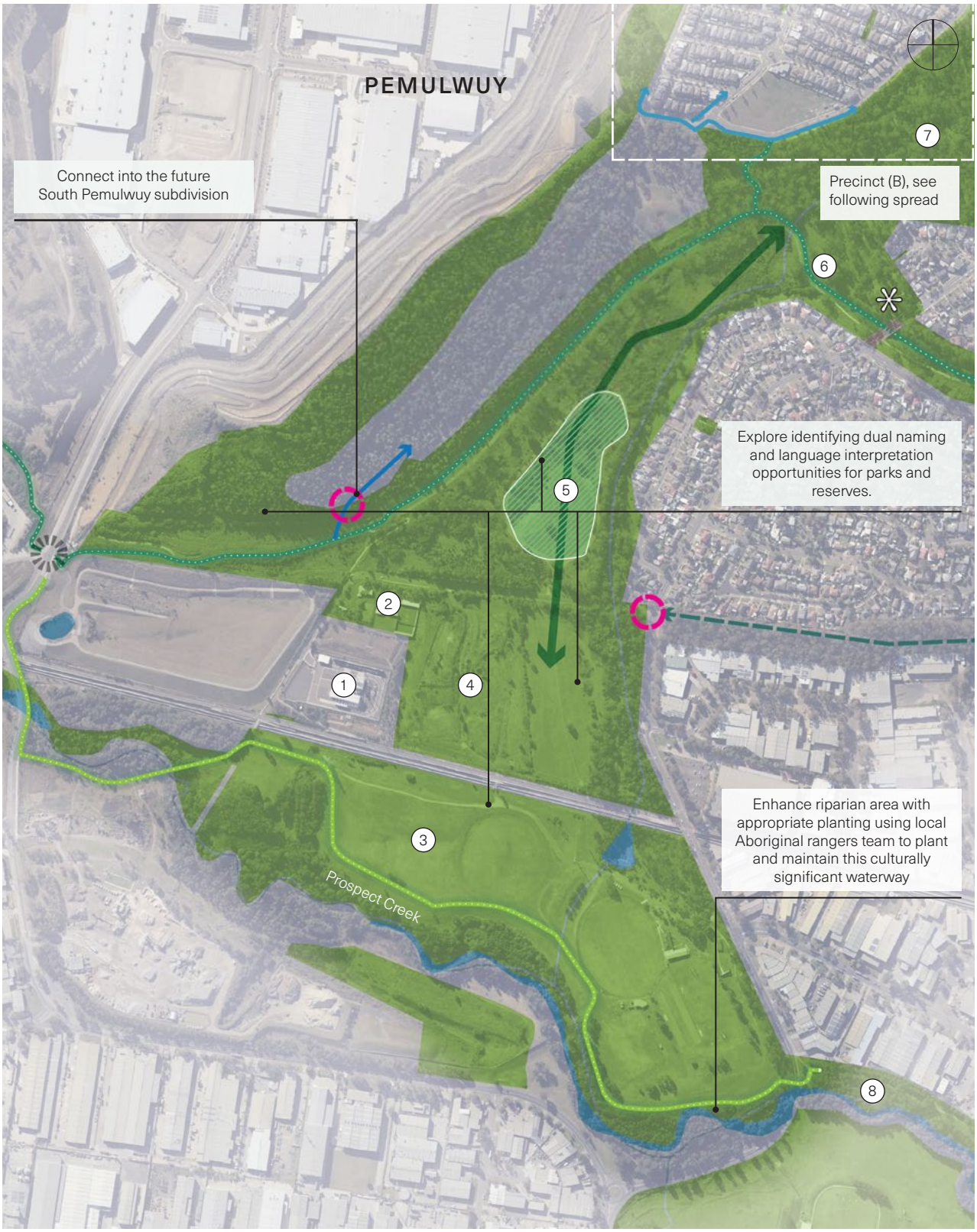


Figure 62: Lower Prospect Canal Reserve Precinct (A)

Lower Prospect Canal Reserve (West)

Corridor West

Relevant design strategies

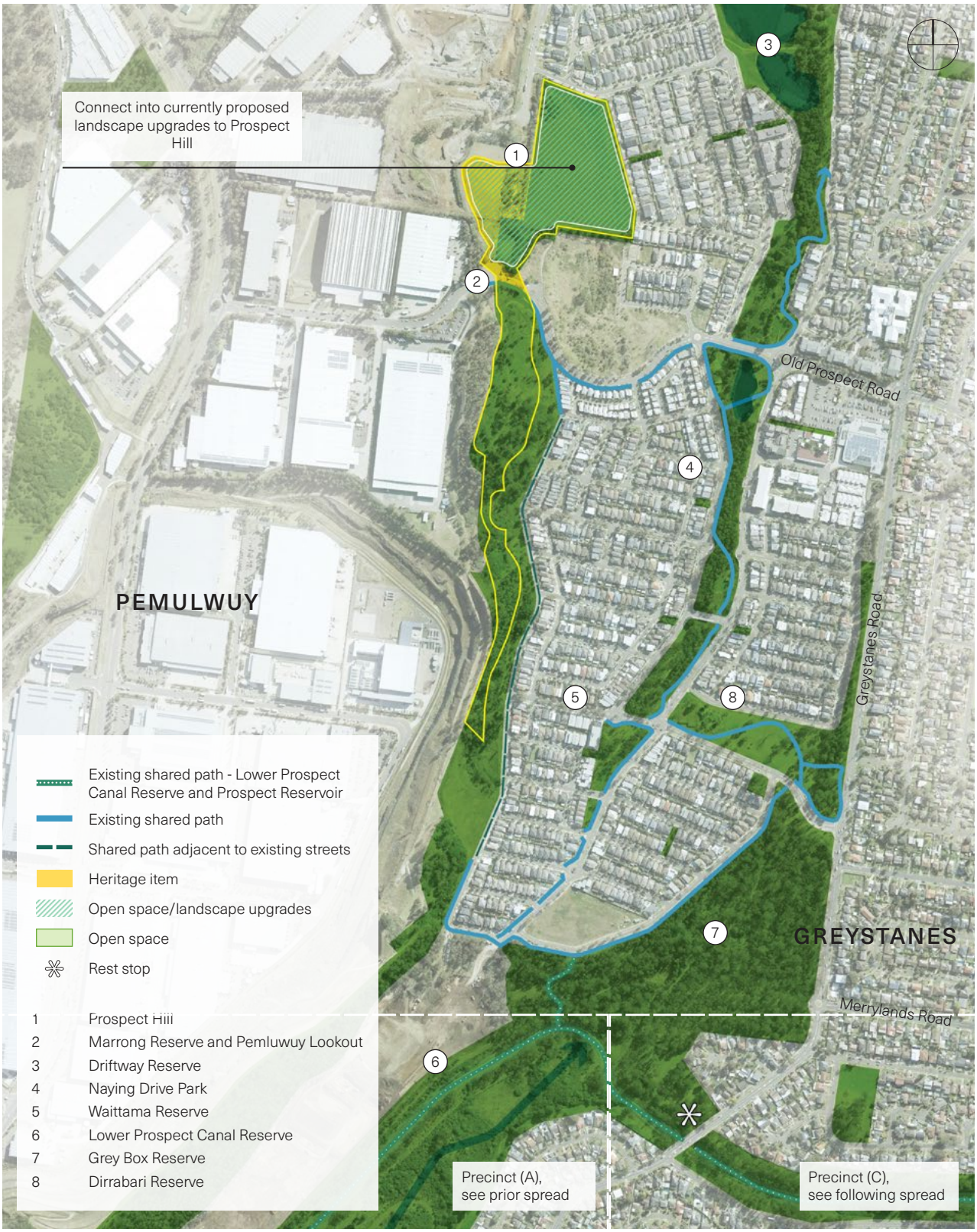


Figure 63: Lower Prospect Canal Reserve Precinct (B)

Corridor West

Figure 64: Lower Prospect Canal Reserve Precinct (C)

Corridor West

Relevant design strategies

Hopman Street Park

LP3.1

Relevant design strategies

Parks along the length of the Lower Prospect Canal Reserve should be enhanced to provide:

- Opportunities for rest, recreation
- Habitat for animals, birds and insects
- New paths across the Lower Prospect Canal Reserve to support increased permeability and access to recreation and services.

As a detention basin, improvements at Hopman Street Park should balance the provision of amenity and facilities to residents with resilience to flooding and landscaping.

Opportunities to incorporate planting within the park should be considered to enable integrated filtering and treatment of water on-site. This also provides an opportunity to learn about water, the blue grid and the Lower Prospect Canal's significance.

A new path to support both pedestrians and cyclists is proposed to connect Hopman Street to Macquarie Street.

Figure 65: Indicative plan

Existing trees

Share path connection to Lower Prospect Canal Reserve

New path

Drinking fountain

Play zone

Habitat planting

Yarning circle/storytelling area

Figure 66: Water sensitive landscape design alongside native planting, Plough and Harrow, Western Sydney Parklands

Figure 67: Integrated water sensitive landscape design

Canal Road Park

LP3.2

Relevant design strategies

Canal Road Park is a large sloping park with mature trees connecting the Lower Prospect Canal Reserve and Canal Road. As one of the larger parks directly connected to the Lower Prospect Canal Reserve, this will serve as a rest and recreation destination along the corridor.

The site is situated to the south of Hopman Park, between three local school including Holroyd High School, Merrylands Public School and Widemere Public School. Given the proximity to a number of local schools along the corridor, the opportunity to establish dedicated areas for outdoor education for both formal and informal learning should be considered. These spaces may include amphitheatres, sheltered seating areas and ecological gardens. Education may focus on local environmental systems, land management, indigenous culture or outdoor fitness. This will complement the existing playground, which is a popular destination for local residents.

New habitat planting will enhance existing landscape to provide opportunities for animals, birds and insects. New paths will connect Canal Road to the Lower Prospect Canal Reserve providing easy access for pedestrians and cyclists alike. Opportunities to sit, rest and drink water will also be provided to support commuters and the general public moving along the corridor.

Considering limited visibility from the street and the residential interface along the park's northern edge, these improvements will be balanced with the need to provide passive surveillance and support safety for users and adjacent residents.

Figure 68: Indicative plan

- Existing trees
- Share path connection to Lower Prospect Canal Reserve
- New path
- Drinking fountain
- Play zone
- Habitat planting
- Yarning circle/storytelling area

Figure 69: Outdoor learning space, Beedawong, Kings Park WA

Figure 70: Fitness trail, Sydney Park

5.6 GUILDFORD PRECINCT

This precinct will seek to complement and build upon the existing residential character of the area.

Supporting better movement along the corridor through improvement of street crossing and better connecting existing cycleways to surrounding areas

The improvement of existing cycleways through the delivery of new pedestrian crossings and increased tree canopy will support day-to-day recreation for adjacent residents.

Streetscape upgrades and on-road cycleways on adjacent streets will new provide cool and attractive public domain spaces. This will promote walking and cycling to the key destinations of Guildford Town Centre and Train Station, Guildford Swimming Centre and McCredie Park, all within 800m of the corridor. Multiple schools and religious institutions including Guildford Public School, St Patrick's Guildford Holroyd Uniting Church and Holroyd Seventh Day Adventist Church are located along the corridor can benefit from opportunities for passive, active recreation and new opportunities for commuting.

Figure 71: Precinct Reference Plan

- Existing pipeline
- Existing shared path - Lower Prospect Canal Reserve and Prospect Reservoir
- Existing shared path
- Existing pipeline fence
- Proposed pipeline fence
- Proposed dual cycleway and pedestrian path
- Proposed shared path adjacent to existing streets
- Proposed on-road cycle path
- Existing crossing/traffic light
- Existing traffic island crossing
- Proposed raised pedestrian/cycle crossing and corridor entry point
- New pedestrian/cycle bridge
- Improve existing bridge
- Proposed new corridor entry point
- Proposed streetscape upgrades
- Open space/landscape upgrades
- Proposed recreation cluster
- Proposed recreation loop
- District link for future investigation
- Open space
- Linnwood (Heritage item)
- School
- Train Station
- Rail line
- Rest stop

Corridor West

Relevant design strategies

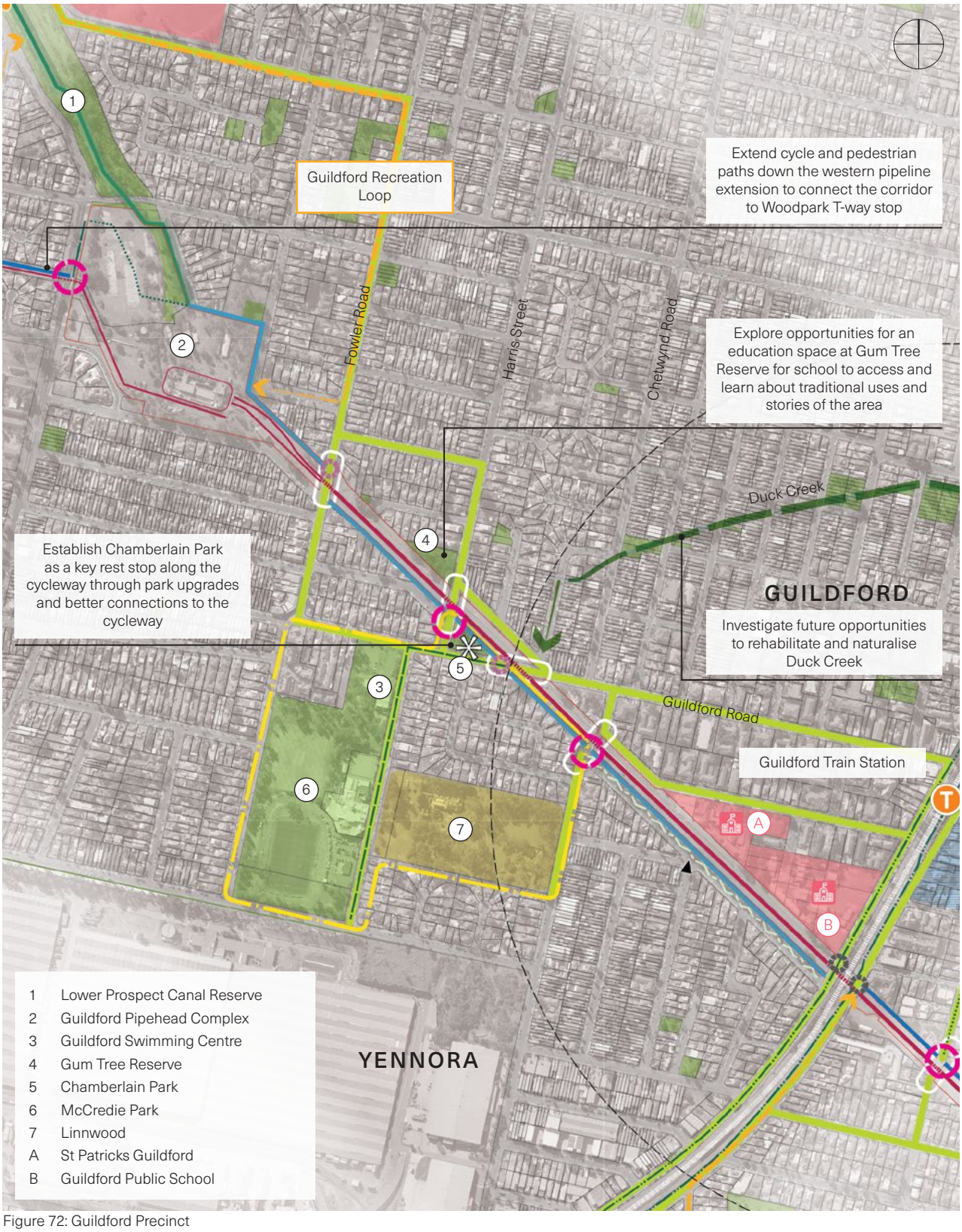


Figure 72: Guildford Precinct

Harris Street corridor crossing and Chamberlain Park

Corridor East

5.7 CORRIDOR EAST

Corridor East includes the length of the corridor east of Guildford Town Centre to Potts Hill Reservoir. This area is not serviced by existing cycleways along the corridor.

Key opportunities for this section of the corridor include:

- Delivering a continuous cycleway and pedestrian link along the corridor, including traversing roads
- Connecting to existing recreation facilities, schools, town centres and open space
- Increasing tree canopy, biodiversity and habitat
- New access routes to existing parks including Waddangalli Woodland Reserve, Campbell Hill Pioneer Reserve and the parks along the Duck River

In the long term, cycleways will extend from Potts Hill Reservoir further east to the Cooks River. While this is subject to future testing and discussions, the spatial framework seeks to ensure the delivery of active transport infrastructure along the corridor is fit for purpose in the short and long term.

Where a project along the corridor has been explored in more detail, a code has been included on the page which references the project catalogue included in chapter 5.

Figure 77: Corridor East Precincts

Corridor East

Relevant design strategies

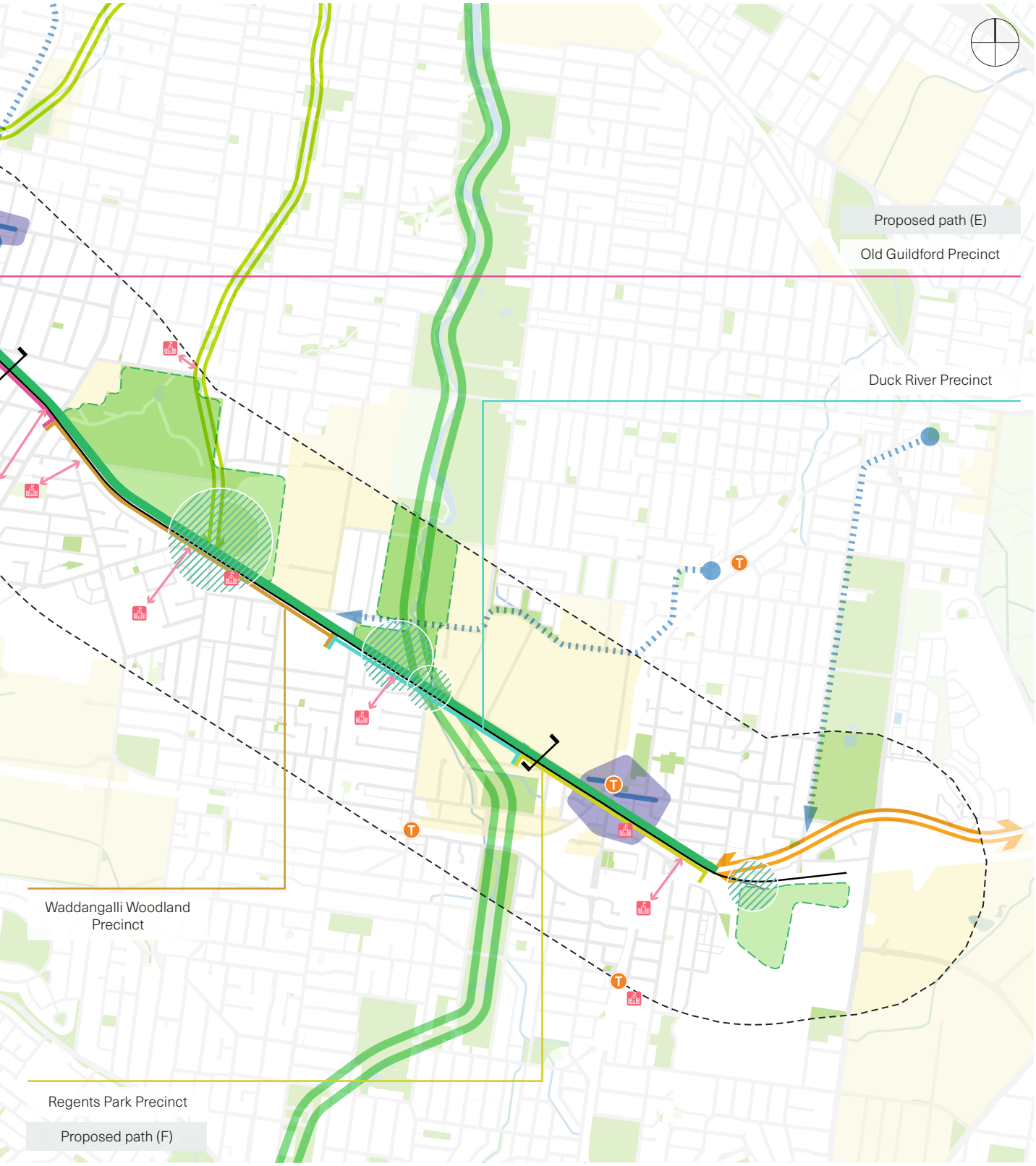


Figure 78: Corridor East Precincts

Relevant design strategies

5.8 ACTIVE TRANSPORT LINKS

CE1

New dual- lane cycleways and separated pedestrian paths along Corridor East will serve areas between Guildford and Regents Park.

Indicative active transport sections have been drawn to illustrate potential upgrades required to existing shared paths and potential zones adjacent to the pipeline to facilitate new cycleways. These concepts inform the proposed projects outlined within the draft structure plans.

These will inform ongoing discussions with Sydney Water around the provision of land along the corridor and are subject to high-level spatial testing in the next stage.

CE1

Proposed cycleway (E): In areas adjacent to existing development

This indicative section outlines the proposed cycleway and pedestrian path to be located on the northern side of the corridor where development is located adjacent. This occurs from Railway Terrace through to Potts Hill Reservoir in a number of locations. This section outlines the intent around the quality of the cycleway, however more detailed testing/mapping should be undertaken in future.

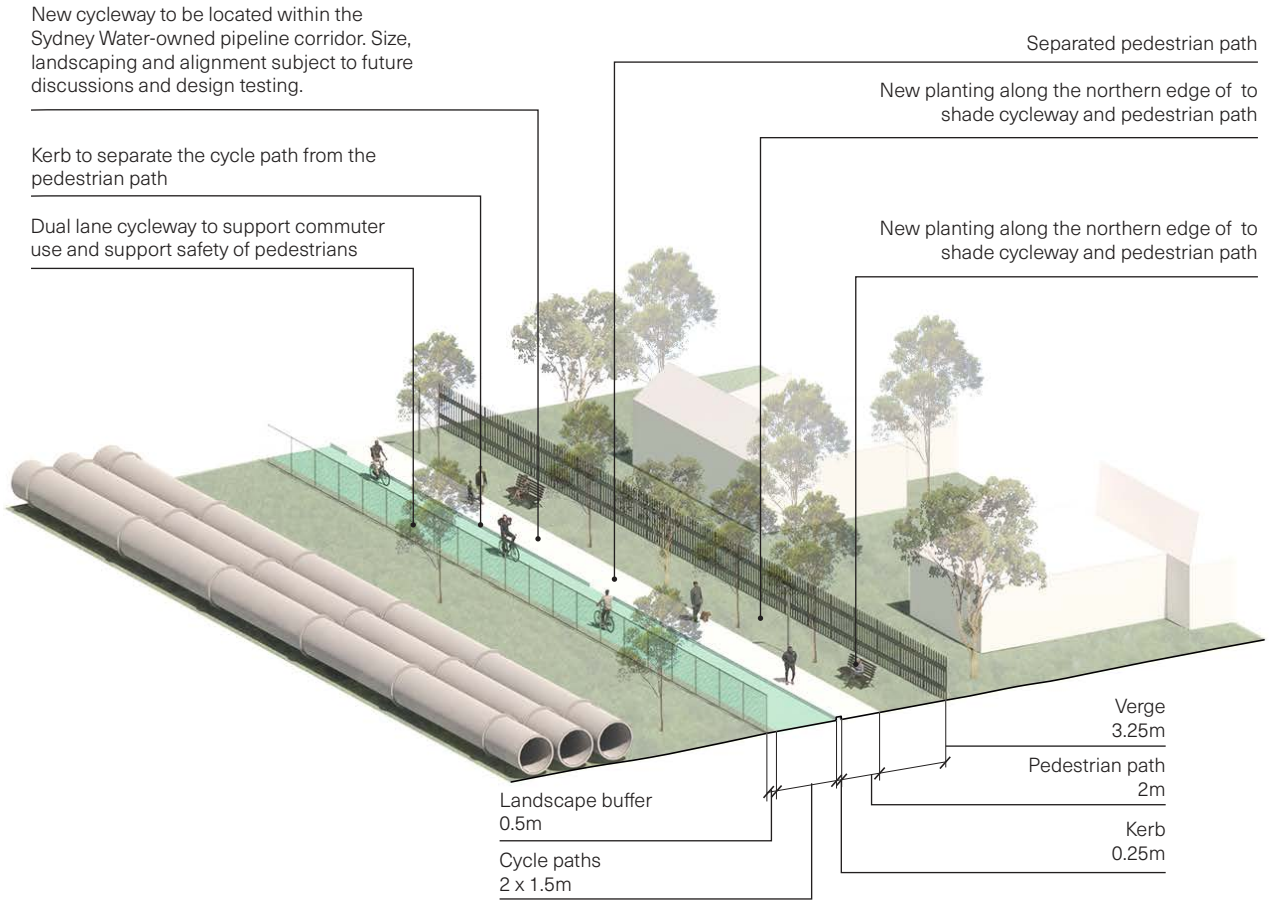


Figure 79: Indicative section - Proposed cycleway adjacent to existing development

CE1

Proposed cycleway (F): in areas adjacent to the street

This indicative section outlines the proposed cycleway and pedestrian path to be located on the northern side of the corridor running parallel to the street. On a number of these street interfaces, there are no existing footpaths or planting. This section outlines the intent around the quality of the cycleway, however more detailed testing/mapping will be undertaken in the the next stage.

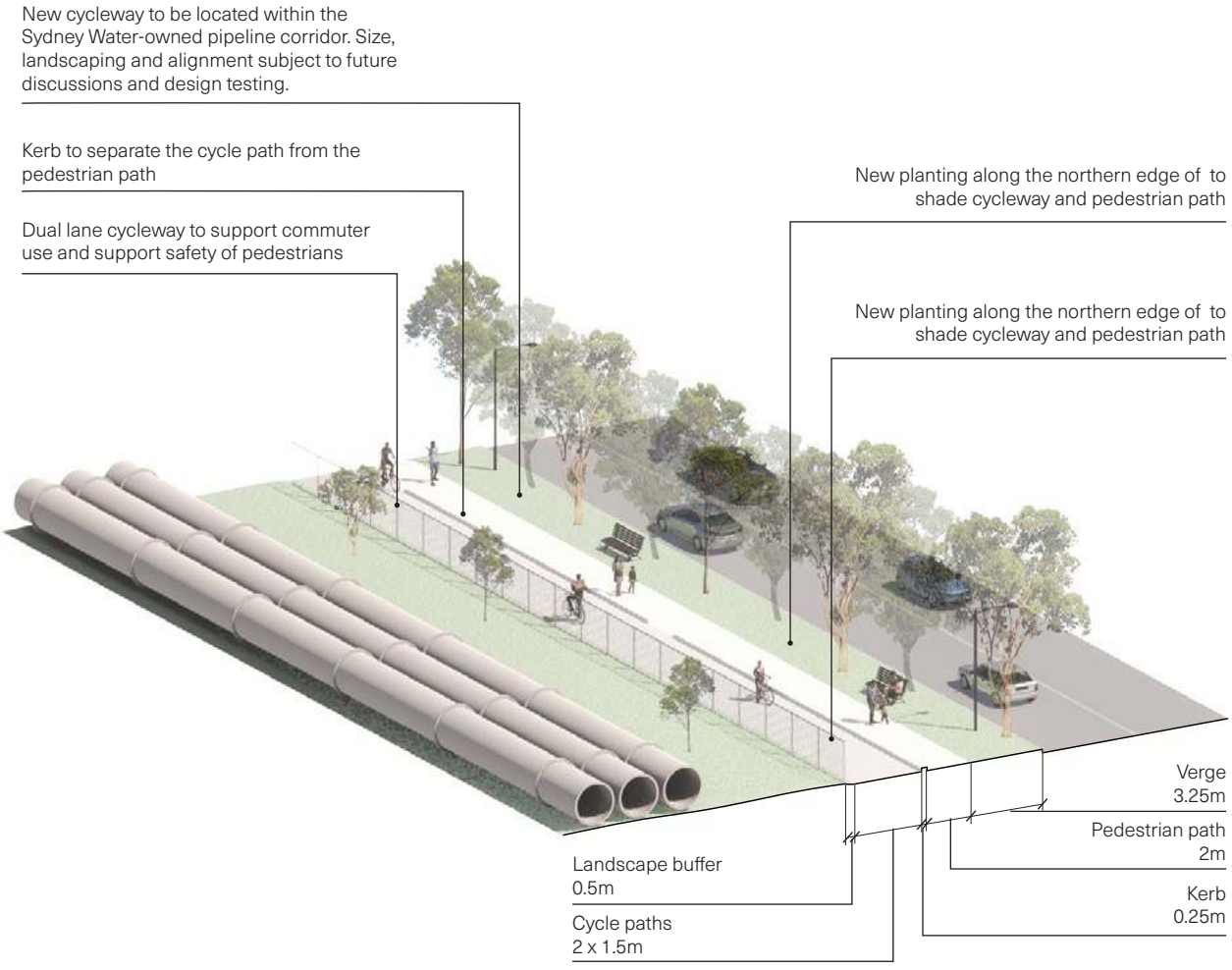


Figure 80: Indicative section - Proposed cyclepath adjacent to street

CE1

Proposed cycleway/ local street intersection at corridor

This indicative section outlines the raised pedestrian/ cycle crossing proposed along the corridor at an existing street intersection. Optimally delivered with the renewal of existing bridges, new crossing points should be tailored to the specific street type. The key principles for dealing with these intersections are outlined below.

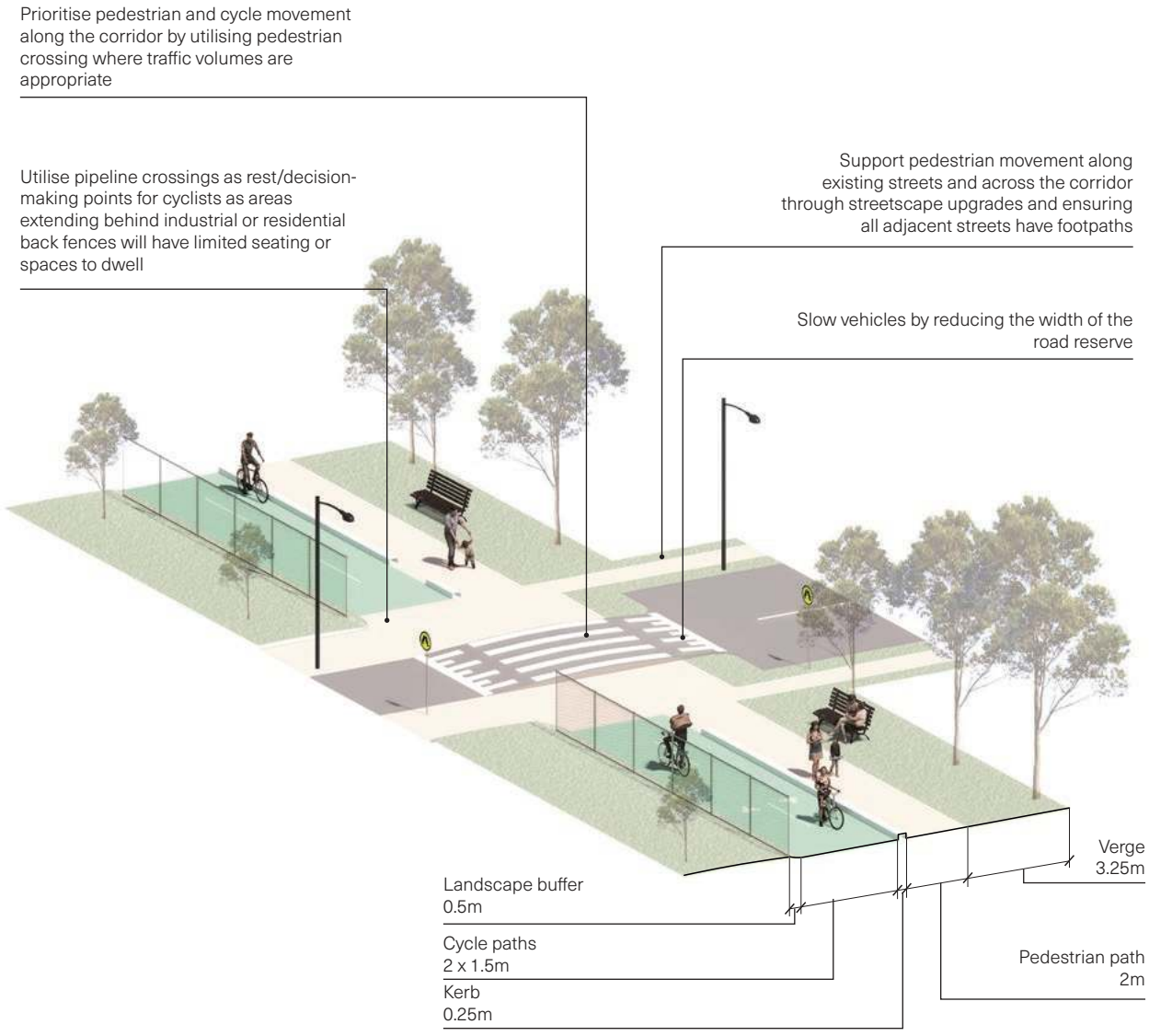


Figure 81: Indicative plan - Cycleway/street intersection

5.9 OLD GUILDFORD PRECINCT

This precinct will seek to complement and build upon the existing residential character of the area. The improvement of existing cycleways through the delivery of new pedestrian crossings and increased tree canopy will support day-to-day recreation.

New cycleways between Railway Terrace and Woodville Road, new landscaping along the corridor and adjacent streets will provide cool and attractive public domain spaces. This will promote walking and cycling to the key destinations of Guildford Town Centre, Guildford Swimming Centre, McCredie Park and Springfield Park (FCC) all within 800m of the corridor. Multiple schools and religious institutions including Holroyd Uniting Church, Holroyd Seventh Day Adventist Church and Rahma Mosque Guildford are located along the corridor can also benefit from opportunities for passive and active recreation and new opportunities for commuting.

New tree canopy and planting along the corridor and adjacent streets will also provide new habitats for animals, insects and provide opportunities to treat and filter stormwater.

The corridor within this Precinct forms the boundary between CCC and FCC. CBCity is located east of Woodville Road. Improvements south of the corridor should be delivered in collaboration with FCC.

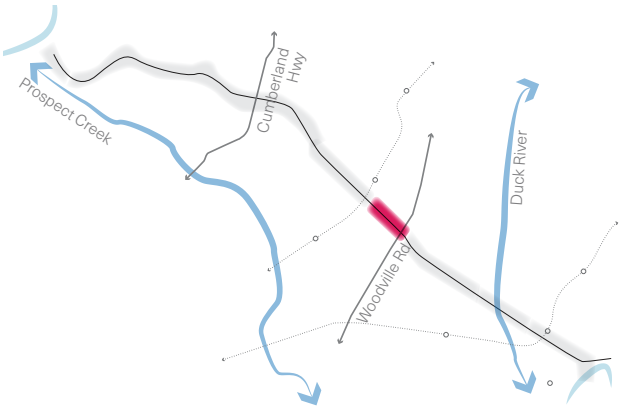


Figure 82: Precinct Reference Plan

- Existing pipeline
- Existing pipeline fence
- Proposed pipeline fence
- Proposed dual cycleway and pedestrian path
- Proposed shared path adjacent to existing streets
- Proposed on-road cycle path
- Existing crossing/traffic light
- Proposed raised pedestrian/cycle crossing and corridor entry point
- New pedestrian/cycle bridge
- Improve existing bridge
- Proposed new corridor entry point
- Proposed streetscape upgrades
- Open space/landscape upgrades
- Proposed recreation loop
- Open space
- School
- Train station
- Rail line

Corridor East

Relevant design strategies

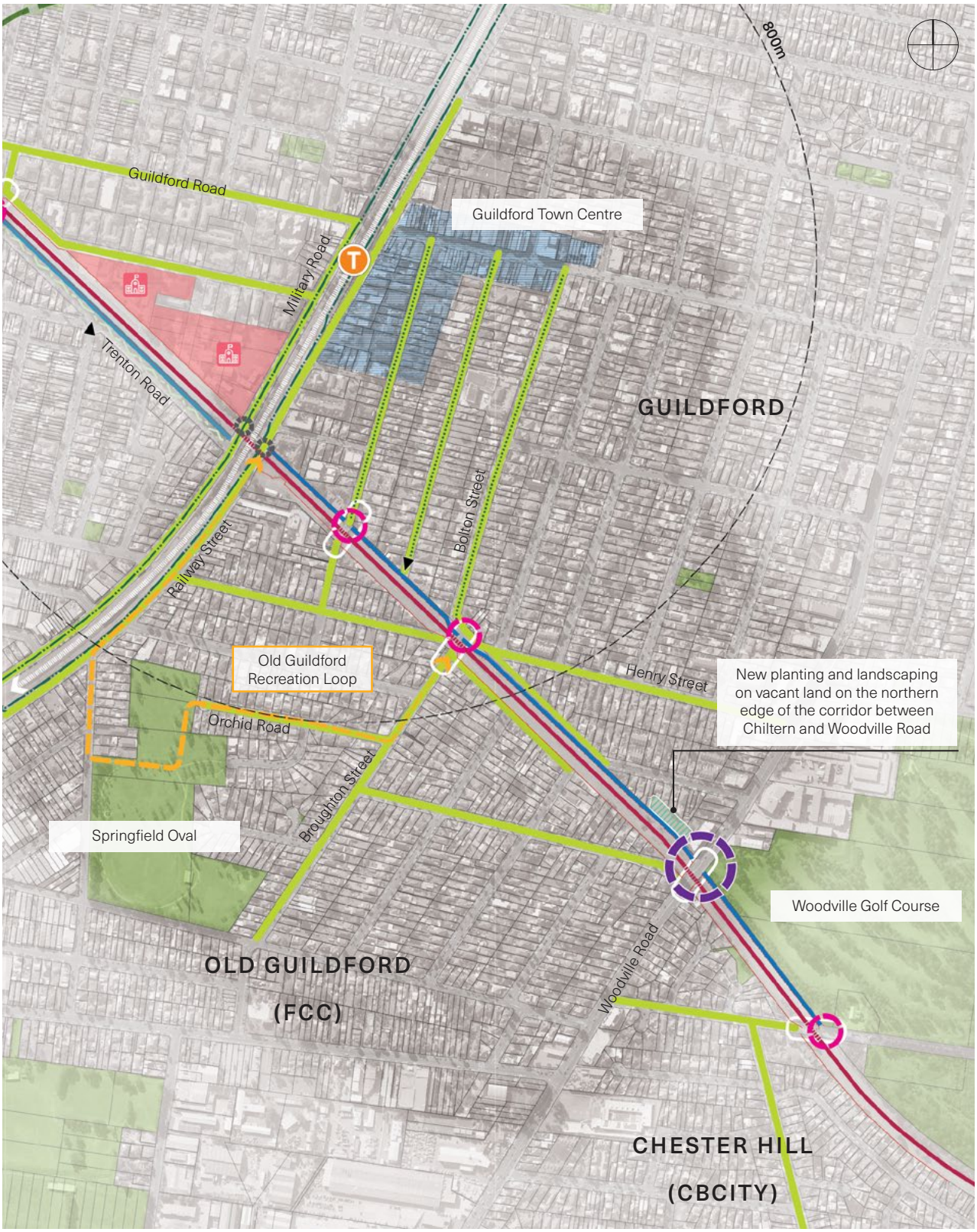


Figure 83: Old Guildford Precinct

Woodville Road Bridge

OG3

A new crossing at Woodville Road will support seamless pedestrian and cycle movement along the corridor.

Woodville Road presents a challenging obstacle for delivery of the Prospect Pipeline Corridor and the pursuit of a seamless journey along its considerable length. The six lane road is a major thoroughfare between Liverpool, Bankstown and Parramatta accommodating high volumes of traffic each day. As one of the major blockages to movement along the corridor, a bold proposal is required to respond to the challenge.

Safe passage of pedestrians and cyclist across this road can only be achieved via a signalised crossing, or the construction of a pedestrian / bicycle bridge where the corridor intersects the road at Chester Hill. Further traffic analysis would need to be undertaken to assess the viability of a traffic signal at this location.

Testing of the bridge option illustrates an approximate bridge length in excess of 200mm with a 6m clearance over Woodville Road. This option would eliminate conflict between vehicles and pedestrian / cyclists and offer a direct route over the road.

Tree planting on the north western side of Woodville will provide a visual buffer between the existing residential houses and apartments and new bridge crossing. Visual impacts to Woodville Golf Course would be minimal given the existing stand of trees that existing along its southern boundary.

Figure 85: Tree canopy as buffer to bridge infrastructure and neighbouring uses

Figure 86: Elizabeth Quay, Perth

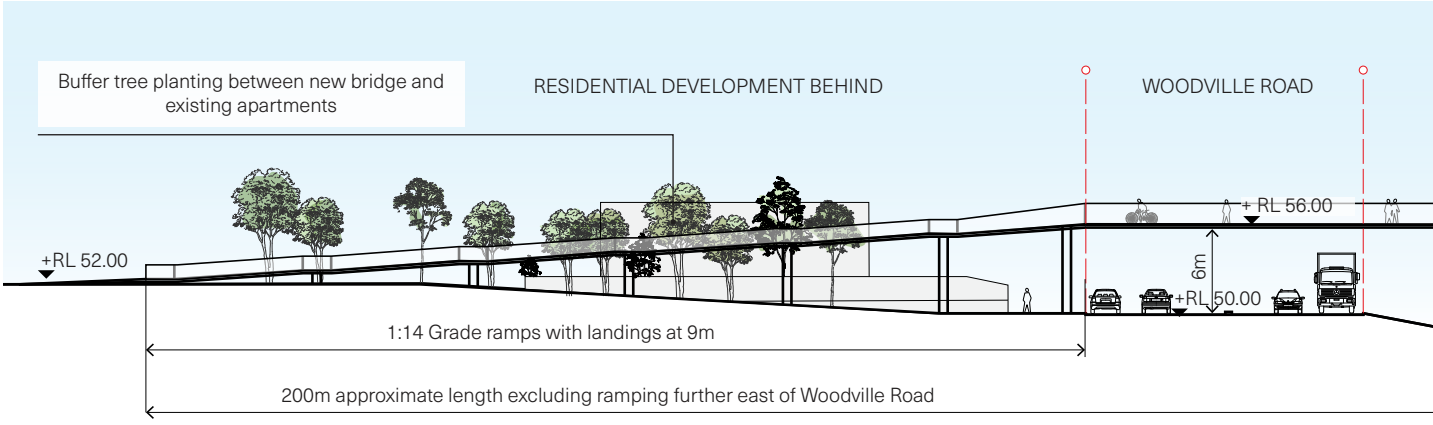


Figure 84: Indicative section - NTS

Note: Ramp arrangements and grades are indicative and are based on contour information available.

Corridor East

Relevant design strategies

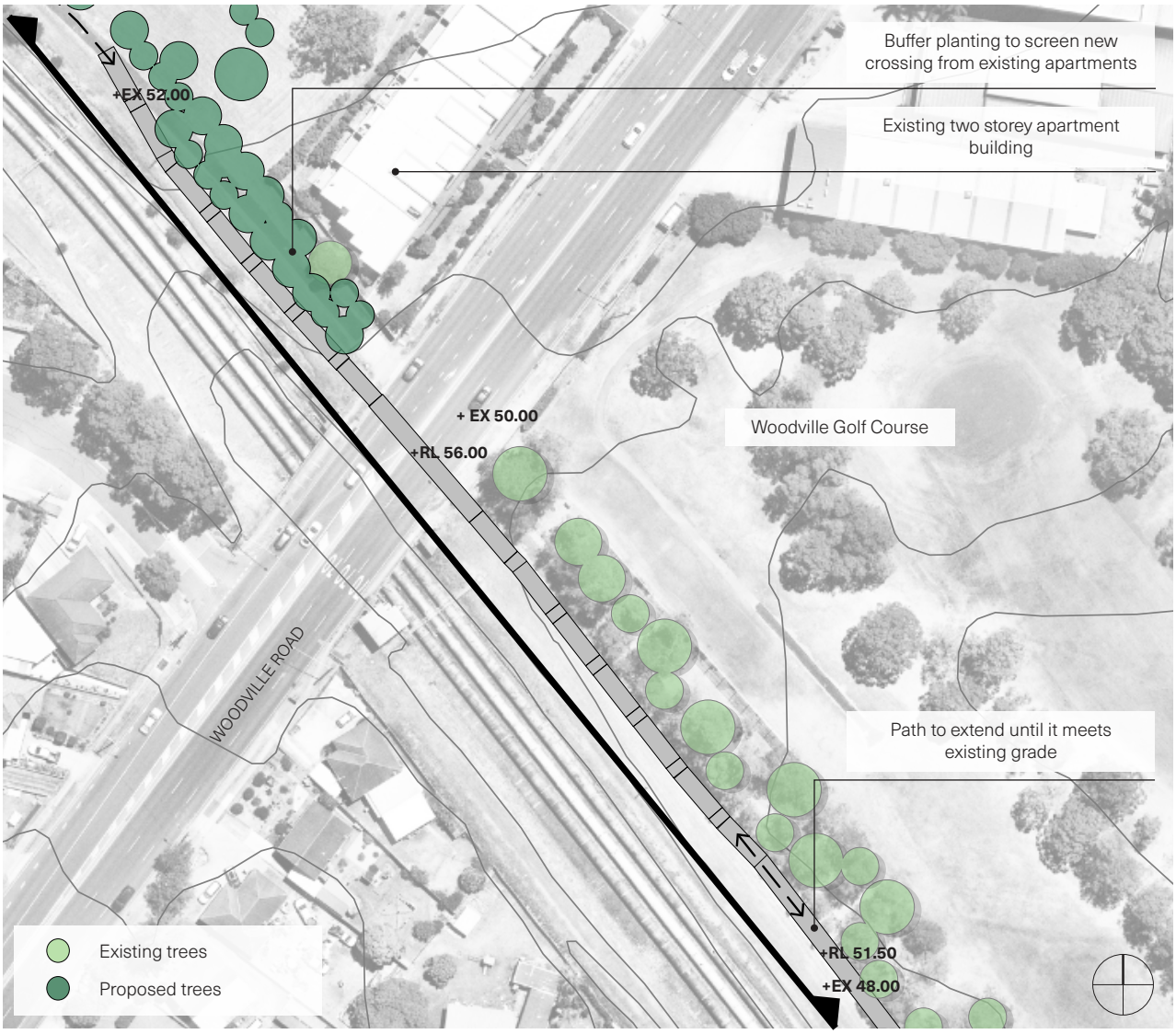
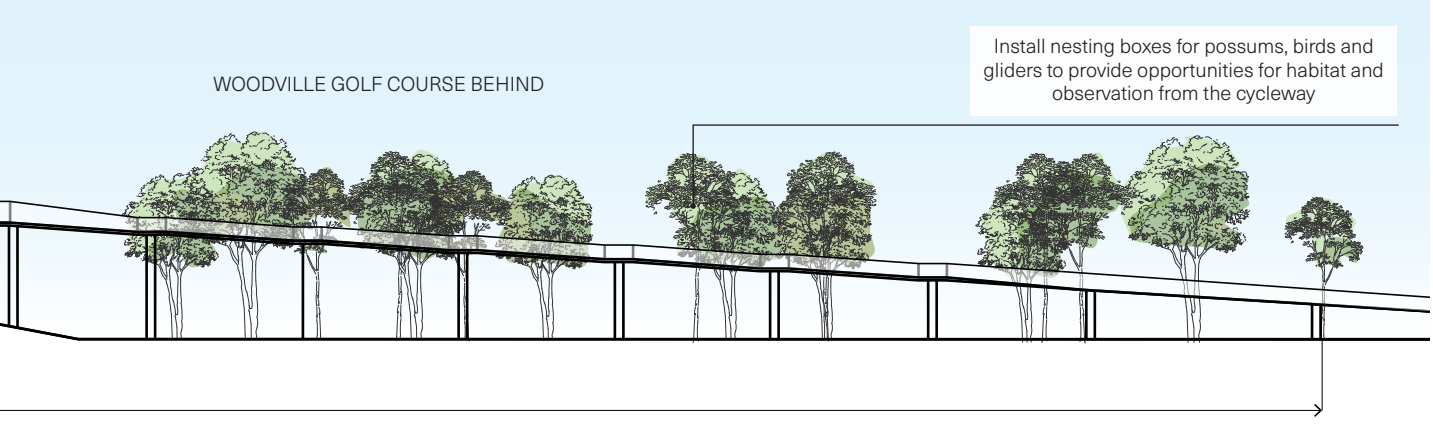


Figure 87: Woodville Road crossing - indicative plan



5.10 WADDANGALLI WOODLAND PRECINCT

Characterised by large landscaped areas and dense stands of mature trees, this precinct will be a destination for passive and active recreation.

New access points from the corridor will unlock new opportunities to access the reserves through walking and cycling.

This area features the largest remnant stands of Cumberland Shale Plains Woodland, Cumberland Shale Hills Woodland (Waddangalli Woodland Reserve and Woodville Golf Course) and Castlereagh Ironbark Forest (Campbell Hill Reserve) across the corridor. Expansion of this planting to adjacent residential areas will promote increased walking and cycling uptake through provision of comfortable and cool spaces. New vegetation along the corridor should include low maintenance native planting including *Lomandra, Dianella, Carex, Gahnia* and other local plants.

Proximity to a number of schools in this area also invites opportunity for formal and informal outdoor educational and interpretation opportunities, and could include a focus on ecological, historical and Indigenous matters.

The name Waddangalli recognises the abundance of native Acacia decurrens (Green Wattle) on the site.

- *Wadda* meaning gum or sweet liquid
- *ng* referring to an object, in this case the gum/liquid
- *al* meaning power and,
- *li* meaning action, refers to how to gum comes out of the tree of its own accord

While there are many potential options to open up the Reserve, consultation with Traditional Custodians as to what they want to do with this site will be important. They may want to protect the site from public access or they may wish to offer the site as a gathering/ educative space.

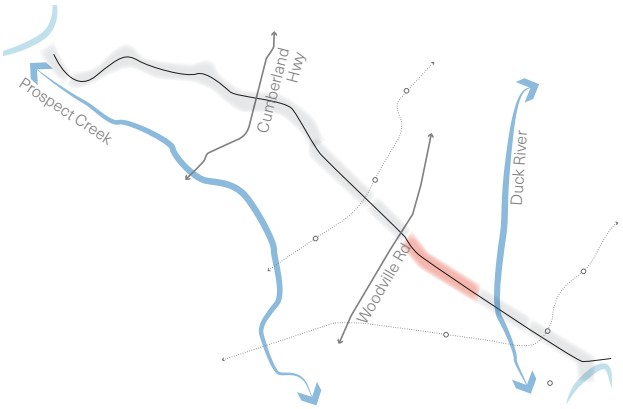


Figure 88: Precinct Reference Plan

- Existing pipeline
- Existing pipeline fence
- Proposed pipeline fence
- Proposed dual cycleway and pedestrian path
- Proposed shared path adjacent to existing streets
- Proposed on-road cycle path
- Proposed raised pedestrian/cycle crossing and corridor entry point
- New pedestrian/cycle bridge
- Proposed traffic light
- Improve existing bridge
- Proposed new corridor entry point
- Proposed streetscape upgrades
- Open space/landscape upgrades
- Proposed recreation cluster
- Existing pedestrian loop/path
- Open space
- School
- Proposed access points to open space
- Rest stop
- Place of Indigenous significance

Corridor East

Relevant design strategies

Figure 89: Waddangalli Woodland Precinct

5.11 DUCK RIVER PRECINCT

This precinct will be a key destination for community uses, as well as active and passive recreation, anchored by a healthy and revitalised Duck River.

Duck River is culturally significant with a rich history of stories and important sites. A site of ritual battles, ceremony and law, one bank was a special place for women giving birth. Skilled midwives practised in women's knowledge here, while the place for men was across the river. Marriages were arranged on islands. The Silverwater area of Duck River used to be a meeting place for trade between the forest people and the coastal people.

Complementary to the Duck River Strategic Masterplan works along the corridor will seek to support a restoration of the riparian area around the river alongside the active transport link. Opportunities to engage with local Aboriginal ranger groups, landcare groups and school groups should be sought.

Cultural maintenance practices for the Duck River area should be further explored, including provision of gross pollutant traps on drainage into the river, sedimentation settlement areas, plantings of reeds and rushes where appropriate along the riparian area.

New access points will unlock opportunities to access the corridor from the Nordford Park and Hector Street A new north-south bridge over the pipeline will integrate with the corridor and surrounding parkland, creating a sense of convergence and gathering. The recently upgraded Hector Street Bridge will support new opportunities for school students to safely access the Parks around the Duck River.

Opportunities for outdoor education in proximity to local schools have been included to allow the community to engage both formally and informally with learning and interpretation experiences along the corridor.

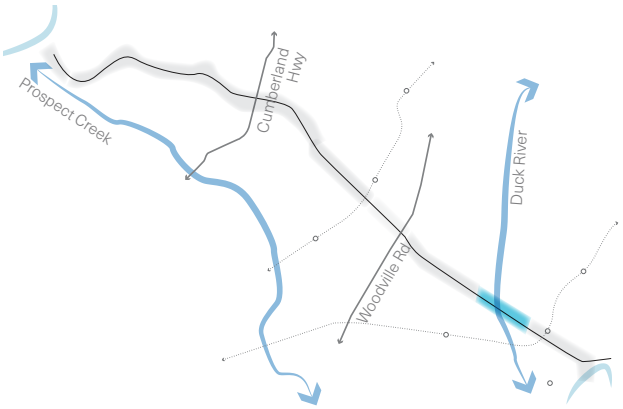


Figure 90: Precinct Reference Plan

- Existing pipeline
- Existing pipeline fence
- Proposed pipeline fence
- Proposed dual cycleway and pedestrian path
- Proposed shared path adjacent to existing streets
- Proposed on-road cycle path
- Proposed raised pedestrian/cycle crossing and corridor entry point
- Proposed pedestrian/cycle bridge
- Proposed traffic light
- Improve existing bridge
- Proposed new corridor entry point
- Proposed streetscape upgrades
- Open space/landscape upgrades
- District link for future investigation
- Open space
- School
- Rest stop

Corridor East

Relevant design strategies

Corridor East

Boundary Street Pocket Park

DR7

New open spaces formed by the delivery of the cycle provide new opportunities for pocket parks

The planned realignment of Boundary/Wolumba Street and delivery of the cycleway will provide the opportunity for the delivery of a pocket park along the corridor. Currently a single lane bridge, the expansion of the Boundary/Wolumba Street bridge to include two lanes and shared paths on either side will support new accessibility to the corridor and Duck River further east. To support movement along the corridor, a new intersection on Boundary Street should be explored to support easy at-grade movement along the corridor.

A pocket park between Boundary Street and the cycleway provides an additional opportunity for landscaping and community. Low maintenance planting should be incorporated to provide visual relief from the high traffic of along Boundary Street. This park can also serve as a lunch spot for workers from the adjacent Chester Hill industrial area.

Potential opportunities for this space include:
- Retention of existing trees and delivery of new vegetative screening along residential interfaces to balance visual amenity and privacy
- Local grass species and low flowering shrubs that delivers low maintenance habitat in this small park
- Public furnishings such as shaded seating areas and water fountains
- Informal outdoor educational zones such as gardens with endemic species and signage

Vehicular access to the pipeline for maintenance should continue to be facilitated from Boundary Street.

Sefton Outdoor Classroom

DR7

A vacant piece of Sydney Water land adjacent to the Pipeline corridor provides the opportunity to create much needed recreational space within Corridor East.

The duplication of the pedestrian cycle/path on the southern side of the corridor extending from Boundary Road to Hector Street through this site offers a rest and recreation stop for corridor users and a park for the local community. Adjacent to Salamah College, the site contains several mature trees that offer a shaded and green outlook and is located adjacent to Salamah College.

Potential opportunities for this space include:
- Public amenities
- A local playground may be divided into different zones with elements aimed at high school ages such as social seating
- Public furniture such as shaded seating, lighting and water refill fountains
- Small open lawn for picnics and informal games
- Enhanced tree canopy with decorative understorey planting, providing a buffer to pipe infrastructure
- Outdoor fitness trail

Access to the pipeline for maintenance can still occur on the northern side of the corridor.

Corridor East

Relevant design strategies

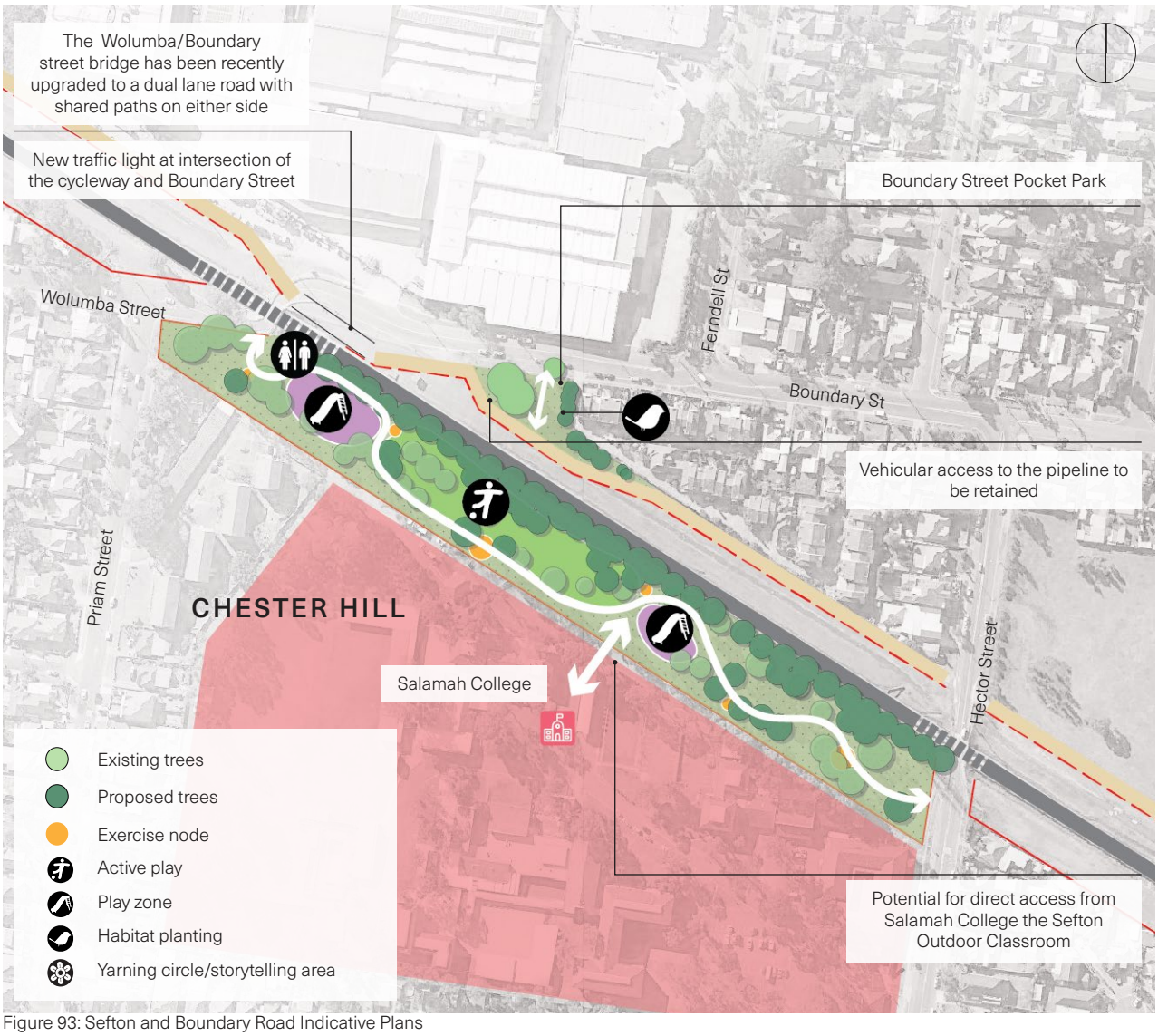


Figure 93: Sefton and Boundary Road Indicative Plans

Figure 91: Local playground

Figure 92: Open flexible lawn for passive and active recreation

Duck River Bridge

DR7

A new crossing at Duck River will support better access to parkland around Duck River and support rehabilitation of the riparian corridor.

The delivery of a new crossing at Duck River will provide a new opportunity to traverse the corridor from north to south along an existing 1.6km impermeable stretch between Hector Street, Chester Hill and Regents Park Station.

The ramped pathway begins to the south-east of Norford Park, extending over the pipes and back down along Helen Street. Around Nordford Park, these will connect to new paths outlined within the Duck River Strategic Masterplan. To the south, the crossing will connect into existing footpaths on Helen Street. It will provide new regional views over Duck River and enable people to walk at the level of the tree canopy.

Acquisition should be considered of the property at 2 Munro Street in order to facilitate the spatial requirements for the ramp and bridge. The alignment shown takes into consideration the existing constraints, including the density of existing tree planting around Duck River and existing service requirements for Sydney Water and electrical infrastructure within the corridor. Residential properties along Munro Street should be screened by new buffer tree planting to the west of the bridge, reducing visual impact of the proposed new infrastructure. This will be subject to further design testing and exploration.

Landscaping works adjacent to the crossing should enhance biodiversity, ecological resilience and the rehabilitation of Duck River. Cultural maintenance practices for the Duck River area should be further explored, including provision of gross pollutant traps on drainage into the river, sedimentation settlement areas, plantings of reeds and rushes where appropriate along the riparian area.

Figure 95: Excerpt, Duck River Strategic Masterplan

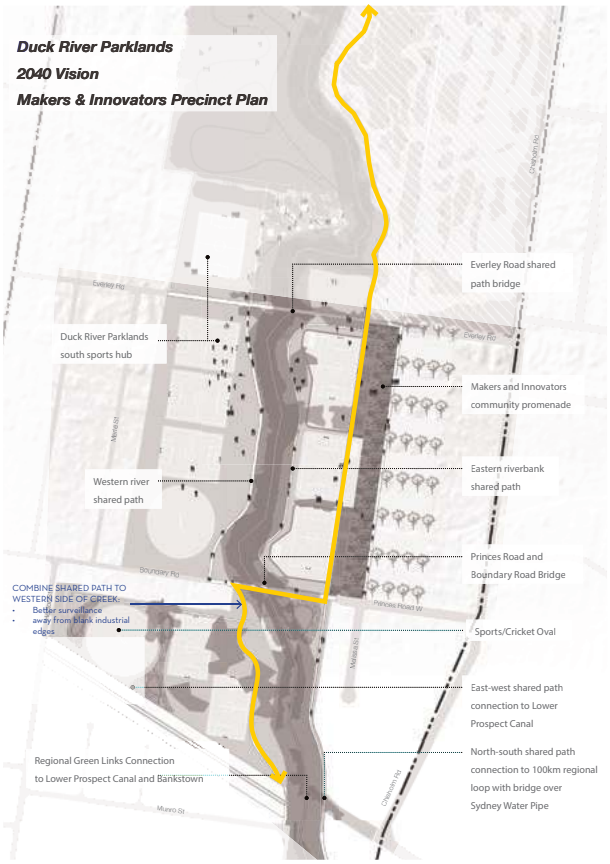


Figure 94: Excerpt, Duck River Spatial Framework

Corridor East

Relevant design strategies

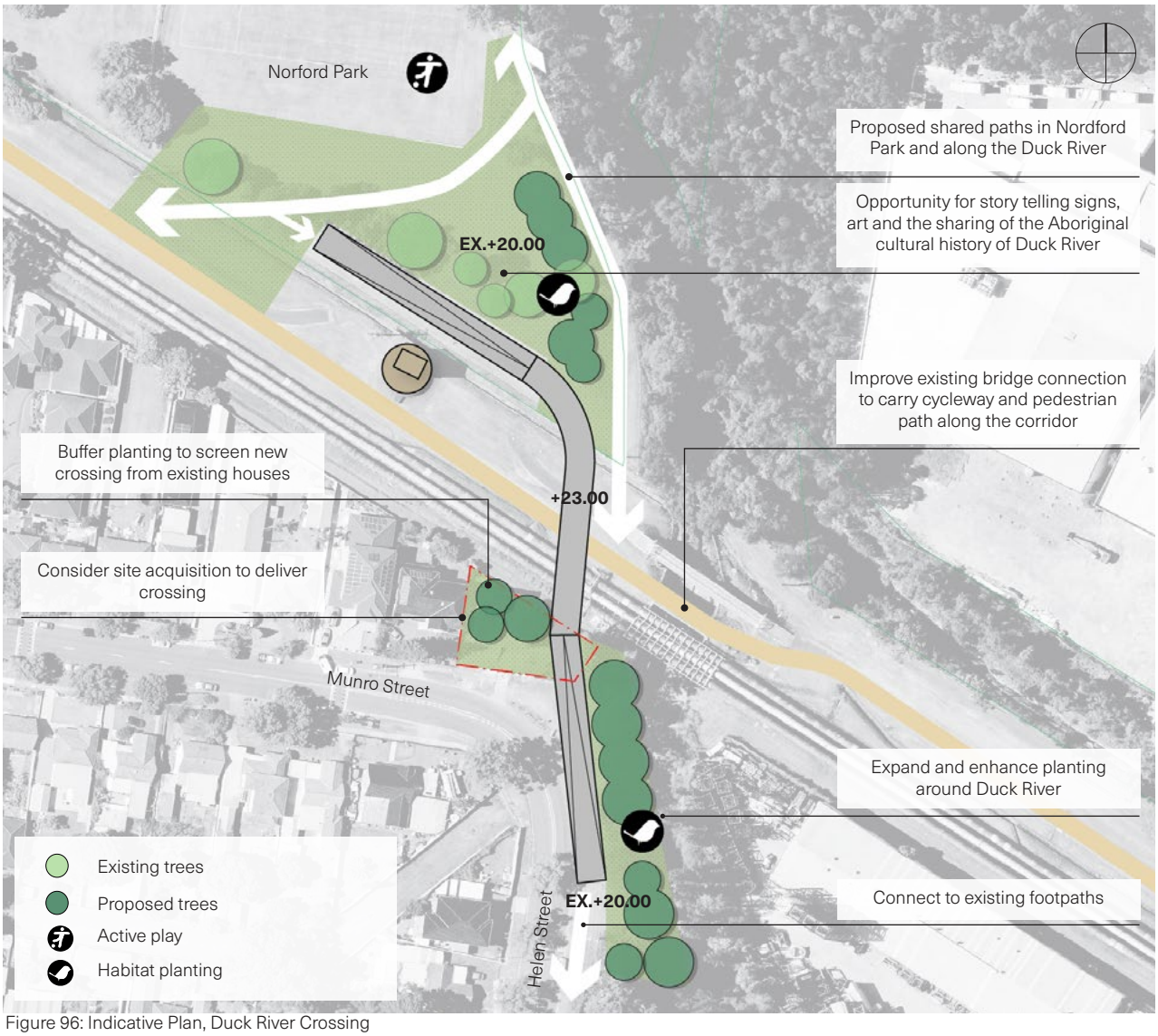


Figure 96: Indicative Plan, Duck River Crossing

Figure 97: Elevated walkway at Jock Marshall Reserve and Nature Walk, Clayton, Victoria

Figure 98: Native planting under Tanderrum Bridge, Melbourne

5.12 REGENTS PARK PRECINCT

The Regent Park Precinct will be the eastern terminus of the Prospect Pipeline Corridor with future long-term links to the Cooks River in the east.

The Regents Park Precinct is a complex and constrained precinct with significant road, rail and water infrastructure which impedes movement both east/west and north/south. The precinct features a mix of land uses including commercial, retail, residential, industrial, schools and water infrastructure.

Shown within this precinct plan are the long term aspirations to extend the cycleway down the corridor and through to Potts Hill Reservoir. To facilitate this, discussions with Sydney Water and the delivery of pedestrian and cycle bridges to traverse rail, water and road infrastructure would need to be delivered. This will be subject to future design testing and discussions with key stakeholders.

Understanding the complexity and potential funding required to deliver on the long term aspirations, short to medium term staging options have been included to provide opportunities to improve connectivity and deliver community benefit.

Corridor cycleway up to Regents Park Station and Town Centre
In the short term, separated cycleways will extend along Rose Crescent terminating one block away from Regents Park Station to the west. This will create the opportunity to deliver a direct connection to Regents Park Station without placing significant strain on the already busy Park Road/Rose Crescent intersection. This should be supported with secure bicycle storage and a rest stop to enable commuters to switch between transport modes.

On road cycleways
The delivery of two sets of on-road cycleways have been included within this precinct to deliver short-term benefit to residents as well as provide a secondary cycle network for the corridor to stitch into in future. These include:

- From Duck River to Regents Park Station, along Prince Road East and Regent Street
- Along Amy Street to connect into existing on-road cycleways on Weroona Road to TAFE NSW Lidcombe and the University of Sydney Cumberland Campus

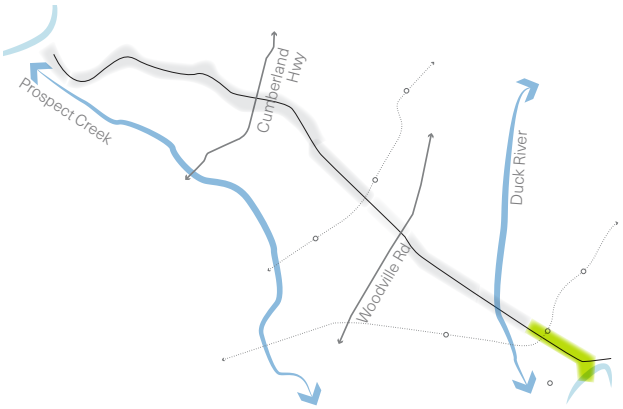


Figure 99: Precinct Reference Plan

- Existing pipeline
- Existing pipeline fence
- Proposed pipeline fence
- Proposed dual cycleway and pedestrian path
- Potential extension into Potts Hill Reservoir
- Proposed shared path adjacent to existing streets
- Proposed on-road cycle path
- Proposed raised pedestrian/cycle crossing and corridor entry point
- New pedestrian/cycle bridge
- Improve existing underpass
- Improve existing bridge
- Proposed new corridor entry point
- Proposed streetscape upgrades
- District link for future investigation
- Open space
- Train Station
- Rail line
- Rest stop

Corridor East

Relevant design strategies

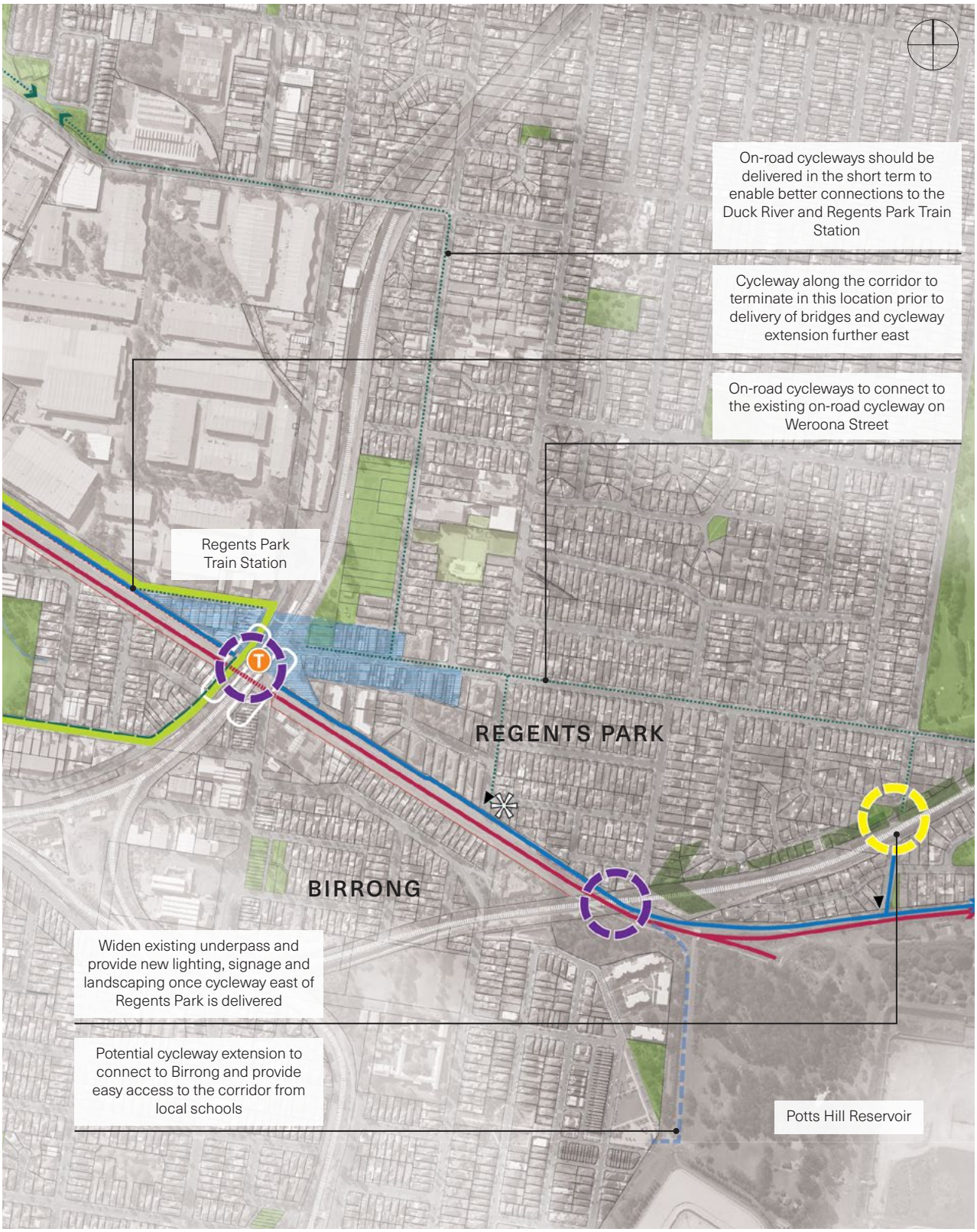


Figure 100: Regents Park Precinct

Hector Street and Salamah College, Chester Hill

Implementation Plan

5.13 OVERVIEW

This chapter highlights the actions and projects required to deliver on the vision for the Prospect Pipeline Corridor, as outlined in the strategic framework.

The implementation plan is made up of two key parks:
- institutional, statutory and corridor-wide actions
- the project catalogue

These highlight actions and projects across three scales:
- The whole corridor
- Corridor West/Corridor East
- Per precinct

This implementation plan is subject to ongoing discussions with Cumberland City Council, future community engagement and cost benefit analysis to be undertaken in the final stage of this project. This has been prepared for discussion and feedback.

5.14 CORRIDOR-WIDE ACTIONS

There are a number of institutional, statutory and corridor-wide actions/projects which will support the delivery of the Prospect Pipeline Corridor vision. As many of these actions unlock the potential delivery of multiple design strategies outlined within the strategic framework, these have been separated from the project catalogue.

Institutional
Publicly engage with communities and stakeholders, make amendments to the framework and get the framework adopted
Seek opportunities to collaborate with Sydney Water to deliver proposed project along the Prospect Pipeline Corridor and around Prospect Reservoir
Engage with local and state government agencies as part of the Working Party to deliver district connections and contribute to the wider Sydney Green Grid
Undertake a cost-benefit analysis to establish a prioritisation framework for project delivery
Explore opportunities to establish the Prospect Pipeline Corridor as a unified public domain space through a new name, unified branding and wayfinding
Engage with Traditional Custodians and Cumberland City Council's ATSIC committee to embed Indigenous knowledge, history and technology across the framework, including potentially in its naming.
Explore opportunities to include Aboriginal Land Management and opportunities for local rangers and community members in the Plan of Management
Statutory
Review and amend the Lower Prospect Canal Reserve Plan of Management to align with the vision and principles outlined within this framework
Draft a new management plan for the Prospect Pipeline Corridor in collaboration with Sydney Water, aligned with the vision and principles outlined within this framework
Review Cumberland S7.11 and 7.12 Contribution Plans to incorporate relevant items highlighted within this framework.
Corridor wide
Undertake community engagement to support opportunities to sharing of Indigenous knowledge, to engage and connect with Country along the corridor.
New streetscape upgrades including increased tree planting, signage and delivery of consistent footpaths on key roads connecting into the corridor.

5.15 PRIORITIES

Projects along the Prospect Pipeline Corridor have been sorted into three priority tiers based on the focus project to which they most closely align. The table below highlights those tiers and cross-references the design strategies and focus projects with the relevant principles outlined earlier in the document.

Priority Tier 1: These are the projects of the highest priority. These relate key infrastructure elements which will deliver the uninterrupted 14km active transport corridor

Priority Tier 2: These are secondary projects which connect into the active transport corridor and support its access from adjacent areas. Without corridor cycleway in Corridor East (a priority tier 1 project), these projects would have no infrastructure to connect into.

Priority Tier 3: These projects are complementary projects which have a qualitative landscape, recreational and community focus. These are located in areas outside of the corridor itself.

Priority alignment										
	Chapter 4: Design Strategies		*Chapter 3: Vision and Principles*							
Priority Tier	**Design Strategies**	**Focus Projects**	**Relevant Principles**							
			Active Transport and Green Grid	Ecology and waterways	Connecting to Country	Open space and recreation	Character and identity	Placemarking and branding	Custodianship, management and cooperative governance	Movement and access
Priority Tier 1	**Active transport corridor**	The corridor cycleway	✓					✓	✓	✓
		Intersection upgrades and bridges	✓					✓	✓	✓
Priority Tier 2	**District Connections**	Wolli Creek to Western Sydney Parklands district connection		✓	✓					
		Duck River and Prospect Creek Riparian Corridors		✓	✓	✓				
	Local connections to town centres and public transport	Street upgrades and cycleways on adjacent streets	✓						✓	✓
		Signage, wayfinding and branding	✓		✓	✓	✓	✓		✓
Priority Tier 3	**Green Spine and fingers**	Biodiversity and habitat	✓	✓	✓	✓	✓	✓		
		Extending the network	✓	✓	✓					
	Outdoor classroom	Learning and sharing spaces		✓	✓		✓			
		Caring for and healing Country		✓	✓		✓	✓	✓	
	Recreation loops and links	Recreation links and clusters				✓			✓	
		Recreation loops				✓			✓	

5.16 PROJECT PRIORITIES

The project catalogue (shown on the following pages) has been summarised to the right, organised by priority tier and location to provide a whole-corridor project snapshot. These projects may include multiple sub-projects or improvements outlined within the project catalogue.

The order in which projects are listed within each priority tier does not indicate any additional priority considerations.

	Project Priorities				
	Corridor West				
Priority Tier 1	CW1	Existing cycleway amenity improvements			
	Prospect Reservoir Precinct		**Lower Prospect Canal Reserve Precinct**		**G**
	Code	Project Name	Code	Project Name	Co
	PR1	Western Sydney Parklands cycleway extension	LP1	LPCR Rest Stops	G
			LP2	Bolaro Avenue pedestrian and cycle connection	G
					G
Priority Tier 2	PR2	Walder Park Improvements	LP3	LPCR Open space improvements	G
	PR3	George Maunder Lookout access and improvements			G
Priority Tier 3			LP4	LPCR Recreation Clusters	G
			LP5	LPCR Recreation Loops	G
			LP6	Recreation nodes	

Implementation Plan

		Corridor East							
		CE1	Corridor east cycleway						
Guildford Precinct		Old Guildford Precinct		Waddangalli Woodland Precinct		Duck River Precinct		Regents Park Precinct	
ode	Project Name	Code	Project Name	Code	Project Name	Code	Project Name	Code	Project Name
G1	Chamberlain Park upgrades	OG1	Corridor entry points	W1	Intersection and bridge improvements	DR1	Corridor access points	RP1	Regents Park Bridge
G2	New pedestrian and cycle crossings	OG2	New crossings and bridge improvements	W2	Boundary Street traffic light	DR2	Hector St Crossing	RP2	Dunbar Park Bridge
G3	Existing bridge improvements	OG3	Woodville Road Bridge					RP3	Existing bridge improvements
G4	New pedestrian and cycle shared paths	OG4	On-road cycle paths	W3	Reserve access points	DR3	Duck River Bridge	RP4	Cooks River extension
G5	Cycle and pedestrian paths along western pipeline extension					DR4	Duck River Rehabilitation	RP5	New shared paths
						DR5	Duck River to Berala connection	RP6	Bagdad St/Cooper Road Bridge improvement
								RP7	Jensen Park connections
G6	Improvement and naturalisation of Duck Creek	OG5	Corridor/Woodville Road landscaping	W4	Waddangalli Woodland Reserve - Indigenous Knowledge	DR6	Rose Crescent Canal upgrade	RP8	Potts Hill Reservoir access
G7	New pedestrian and cycle paths in Yennora			W5	Campbell Hill Pioneer Reserve Loop	DR7	Boundary Street Pocket Park		
						DR8	Sefton Outdoor Classroom		

5.17 PROJECT CATALOGUE

The project catalogue has emerged from the ideas embedded within the Precinct Plans.

Each project within the catalogue is mapped against the focus project to which the project most strongly aligns, allocated a unique project reference code, name and description which outlines the scope of the project. The relevant focus project allows each project to be appropriately prioritised into one of three priority tiers.

The catalogue also identifies which stakeholder group (Council, other Government agencies or community groups) are best placed to drive the project and who should be playing a supporting role.

Each project has then been categorised into a particular time frame (short, medium, long term). It is worth nothing that many of the projects and programmes could be implemented in different time-frames depending on project costs, availability of funding or other complementary projects which may be taking place in the same location.

The catalogue goes on to identify the multiple design strategies that could be delivered upon through the specific project.

These projects have been labelled on Fig. 101 and 102.

Where a project along the corridor has been explored in more detail, a page reference number to the main body of the document has been included.

Key

Driver	
●	Driver
○	Support
Timeframe	
●	Likely
○	Potential
Short term:	over a 4 year term
Medium term:	over a term of 5-10 years
Long term:	10 years and beyond

Focus Project	Code	Project Name
Corridor West *(Section 5.2, p78)*		
The corridor cycleway	CW1	Existing cycleway amenity imp (5.3, p90)
Prospect Reservoir Precinct *(Section 5.4, p86)*		
Wolli Creek to Western Sydney Parklands district connection	PR1	Western Sydney Parklands cyc extension
Recreation links and clusters	PR2	Walder Park Improvements *(p8*
Recreation links and clusters	PR3	George Maunder Lookout acce improvements
Lower Prospect Canal Reserve Precinct *(Section 5.5, p90)*		
The corridor cycleway	LP1	LPCR Rest Stops
Intersection upgrades and bridges	LP2	Bolaro Avenue pedestrian and connection
Biodiversity and habitat	LP3	LPCR Open space improvemer · LP3.1 Hopman Street Park *(* · LP3.2 Canal Road Park *(p97)* · LP3.3 Along the corridor adj Sherwood Grange Public Sc
Recreation links and clusters	LP4	LPCR Recreation Clusters · LP4.1 - Greystanes Recreatio · LP4.2 - Holroyd Receation C
Recreation loops	LP5	LPCR Recreation Loops · LP5.1 Boothtown Recreation · LP5.2 Greystanes Recreation · LP5.3 Merrylands Recreation · LP5.4 Woodpark Recreation · LP5.5 South Greystanes Rec Loop
Recreation loops	LP6	Recreation nodes

Implementation Plan

	Project outline	Driver			Timeline			Priority			Design Strategies					
		Council	Government	Community	Short	Medium	Long	Tier 1	Tier 2	Tier 3	Active transport corridor	District connections	Local connections	Green spine and fingers	Ourdoor Classroom	Recreation loops and links
rovements	Improve the amenity of the existing cycleway through additional: · Tree canopy · Seating · Lighting · Signage · Screen planting adjacent to residential properties	●	○	○	○	●		1	2	3	A	D		G	O	
leway	Establish a working group to extend cycleways around Prospect Reservoir further west to connect into Western Sydney Parklands. This working group should include Sydney Water, Transport for NSW, Greater Sydney Parklands and adajacent local councils	○	●			○	●	1	2	3	A	D				
8)	Collaborate with Sydney Water to incorporate increased planting, recreation and accessibility improvements to Walder Park	○	●		○	●		1	2	3	A	D		G	O	R
ess and	Improve pedestrian access to George Maunder Lookout from Walder Park and incorporate drinking fountains to establish the lookout as a rest stop on the future Wolli Creek to WSP district connection.	○	●		○	●		1	2	3	A	D		G	O	R
	New rest stops along the corridor through the provision of seating, drinking fountains and increased shade adjacent to the shared pedestrian and cycle path	●	○		○	●		1	2	3	A	D	L	G	O	R
cycle	Investigate future opportunities for a new pedestrian and cycle connection between Lower Prospect Canal Reserve and Bolaro Avenue supported by: · access point off Bolaro Avenue · pedestrian and cycle paths connecting to existing shared paths	●	○				●	1	2	3	A		L			R
nts *096)* acent to hool	Open space improvements including bush regeneration zones, increased biodiversity, habitat creation, sharing and learning spaces in several parks	●	○			○	●	1	2	3				G		R
on Cluster luster	New Recreation Clusters with increased street tree planting, signage and improved connections to schools and improving the quality of parks	●			○	●		1	2	3			L	G		R
n Loop n Loop n Loop Loop creation	New Recreation Loops through the delivery of increased tree planting, seating and improved lighting.	●			○	●		1	2	3				G		R
	New recreation nodes or outdoor gyms adjacent to the shared pedestrian cycle path	●			○	●		1	2	3						R

Implementation Plan

Key

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Timeframe

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Focus Project	Code	Project Name
Guildford Precinct *(Section 5.6, p98)*		
The corridor cycleway	G1	Chamberlain Park upgrades
Intersection upgrades and bridges	G2	New pedestrian and cycle cros To connect existing shared pat · G2.1 Fowler Road, Guildford · G2.2 Harris Street, Guildford · G2.3 Byron Road, Guildford To connect proposed pedestria paths · G2.4 Fairfield Road, Woodpa · G2.5 Queen Street, Woodpa · G2.6 Princes Street, Woodpa
Intersection upgrades and bridges	G3	Existing bridge improvements · G3.1 Fowler Road, Guildford · G3.2 Harris Street, Guildford · G3.3 Byron Road, Guildford · G3.4 Guildford Road, Guildfo
Streetscape upgrades and cycleways on adjacent streets	G4	New pedestrian and cycle shar
Streetscape upgrades and cycleways on adjacent streets	G5	Cycle and pedestrian paths alo pipeline extension
Extending the network	G6	Improvement and naturalisatio Creek
Extending the network	G7	New pedestrian and cycle path Yennora

Implementation Plan

	Project outline	Driver			Timeline			Priority			Design Strategies					
		Council	Government	Community	Short	Medium	Long	Tier 1	Tier 2	Tier 3	Active transport corridor	District connections	Local connections	Green spine and fingers	Outdoor Classroom	Recreation Loops and Links
	Establish Chamberlain Park as a rest stop along the corridor by: · improving access to existing shared paths · providing increased shade, seating and drinking fountains · signage and wayfinding	●	○		●			1	2	3	A	D		G		R
ssings hs: an and cycle ark rk ark	New raised pedestrian and cycle (zebra) crossings at several intersections the between the corridor and intersecting roads.	●	○		○	●		1	2	3	A	D				
    ord	Improvement and widening of existing bridges across to support new shared pedestrian and cycle paths	●	○			○	●	1	2	3	A	D				
red paths	New pedestrian and cycle shared paths along Guildford Road and Tamplin Road connecting to Guildford Swimming Centre and McCredie Park	●			○	●		1	2	3			L			
ng western	New dual cycle paths and separate pedestrian path between Fairfield Road and Palmer Street along the western pipeline extension to the west of Guildford Pipehead Complex (Proposed cycleway E)	●	○			○	●	1	2	3	A		L	G		
n of Duck	Investigate future opportunities to naturalise and rehabilitate Duck Creek and improve the interface to private properties	●		○	○	●		1	2	3				G		
ns in	Investigate future opportunities for new pedestrian and cycle paths connecting to Prospect Creek through potential acquisition in the following areas through discussions with private landholders: · between Dennistoun Avenue and Dursley Road, Yennora · through Guildford Pipehead Complex	●					●	1	2	3		D		G		

Implementation Plan

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Focus Project	Code	Project Name
Corridor East *(Section 5.7, p100)*		
The corridor cycleway	CE1	Corridor east cycleway (p102)
Old Guildford Precinct *(Section 5.9, p106)*		
The corridor cycleway	OG1	Corridor entry points • OG1.1Railway Street • OG1.2 Cross Street, Guildfo • OG1.3 Station Street • OG1.4 Bolton Street • O.G.1.5 Woodville Road
Intersection upgrades and bridges	OG2	New crossings and bridge imp
Intersection upgrades and bridges	OG3	Woodville Road Bridge *(p108)*
Street upgrades and cycleways on adjacent streets	OG4	On-road cycle paths
Biodiversity and Habitat	OG5	Corridor/Woodville Road lands

Implementation Plan

	Project outline	Driver			Timeline			Priority			Design Strategies					
		Council	Government	Community	Short	Medium	Long	Tier 1	Tier 2	Tier 3	Active transport corridor	District connections	Local connections	Green spine and fingers	Outdoor Classroom	Recreation Loops and Links
	Work with Sydney Water to deliver new dual cycle paths and separated pedestrian path along the corridor (Proposed cycleway E) supported with: · landscaping and tree canopy · lighting, appropriate to adjacent land uses · seating, drinking fountains and bicycle racks	●	○			○	●	1	2	3	A	D		G	O	
ord	New pedestrian/cycle entry points into the corridor at several locations	●	○			○	●	1	2	3	A	D	L			
rovements	New raised pedestrian/cycle (zebra) crossings, improvement and widening of existing bridges at the intersection of the corridor with: • Cross Street, Guildford • Bolton Street, Guildford	●	○			○	●	1	2	3	A	D				
	A new pedestrian and cycle bridge over Woodville Road and associated landscaping	●	○			○	●	1	2	3	A	D		G		
	New on-road cycle paths from the corridor to Guildford Town Centre/Guildford Road along: · Cross Street, Guildford · Station Street, Guildford · Bolton Street, Guildford	●			○	●		1	2	3			L			
scaping	Work with Sydney Water to deliver new landscape upgrades including endemic planting and tree canopy along the corridor between Chiltern Road and Woodville Road	●	○		○	●		1	2	3				G		R

Implementation Plan

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Focus Project	Code	Project Name
Waddangalli Woodland and Campbell Hill Precinct *(Section 5.10, p86)*		
Intersection upgrades and bridges	W1	Intersection and bridge improv
Intersection upgrades and bridges	W2	Boundary Street traffic light
Street upgrades and cycleways on adjacent streets	W3	Reserve access points
Caring for and healing Country	W4	Waddangalli Woodland Reserv Indigenous Knowledge
Recreation loops	W5	Campbell Hill Pioneer Reserve
Duck River Precinct *(Section 5.11, p112)*		
The corridor cycleway	DR1	Corridor access points · DR1.1 Norford Park, South G · DR1.2 Chisholm Road, Rege · DR1.3 George Young Street, Park
Intersection upgrades and bridges	DR2	Hector St Crossing
Duck River and Prospect Creek Riparian Corridors	DR3	Duck River Bridge *(p116)*
Duck River and Prospect Creek Riparian Corridors	DR4	Duck River Rehabilitation
Streetscape upgrades and cycleways on adjacent streets	DR5	Duck River to Berala connectio
Extending the network	DR6	Rose Crescent Canal upgrade
Extending the network	DR8	Boundary Street Pocket Park *(p*
Extending the network	DR7	Sefton Outdoor Classroom *(p1*

Implementation Plan

	Project outline	Driver			Timeline			Priority			Design Strategies					
		Council	Government	Community	Short	Medium	Long	Tier 1	Tier 2	Tier 3	Active transport corridor	District connections	Local connections	Green spine and fingers	Outdoor Classroom	Recreation Loops and Links
vements	New raised pedestrian/cycle (zebra) crossings, improvement and widening of existing bridges at the intersection of the corridor with: · Barbers Road, Chester Hill · Campbell Hill Road, Guildford	●	○			○	●	1	2	3	A	D	L			
	A new intersection and traffic light on Boundary Street to connect the proposed active transport infrastructure along the corridor	●	○			○	●	1	2	3	A	D				
	New access points into Waddangalli Woodland Reserve and Campbell Hill Pioneer Reserve	●				○	●	1	2	3	A			G		R
e -	Engage with Traditional Custodians to seek opportunities to share Indigenous knowledge, skills and technologies in and around Waddangalli Woodland Reserve	●		○	○	●		1	2	3				G	O	
Loop	New cycle / recreation loops within Campbell Hill Pioneer Reserve to improve its amenity	●			●			1	2	3						R
ranville nts Park Regents	New pedestrian/cycle corridor access points complemented with signage, wayfinding and lighting	●	○			○	●	1	2	3	A	D	L			
	New raised pedestrian/cycle (zebra) crossing at the intersection of Hector Street and the corridor cycleway	●	○			○	●	1	2	3	A	D	L			
	Explore opportunities for a new pedestrian and cycle bridge over the pipeline connecting Norford Park to Duck River South	●	○		○	●		1	2	3	A	D	L			R
	Improve and naturalise the Duck River, aligning with the aspirations of the Duck River Strategic Framework	●	○	○	○	●		1	2	3		D		G		
on	Investigate future opportunities for Improved pedestrian and cycle connections between the Duck River and Berala Town Centre	●	○		○	●		1	2	3		D	L	G		
	Water sensitive landscape upgrades to the canal along Rose Crescent within the corridor	●	○			○	●	1	2	3				G		
o114)	Create new pocket park on the south-eastern corner of Boundary Street with complementary landscaping, shade and seating	●	○		○	●		1	2	3				G	O	
14)	Open space improvements including bush regeneration zones, increased biodiversity, habitat creation, sharing and learning spaces in the following area along the edge of the corridor adjacent to Salamah College	●	○	○	○	●		1	2	3				G	O	

Implementation Plan

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Focus Project	Code	Project Name
Regents Park Precinct *(Section 5.12, p118)*		
Intersection upgrades and bridges	RP1	Regents Park Bridge
Intersection upgrades and bridges	RP2	Dunbar Park Bridge
Intersection upgrades and bridges	RP3	Existing bridge improvements · RP3.1 Park Road/Carlingford · RP3.2 Amy Street/Auburn Ro
Wolli Creek to Western Sydney Parkland district connection	RP4	Cooks River extension
Street upgrades and cycleways on adjacent streets	RP5	New shared paths
Street upgrades and cycleways on adjacent streets	RP6	Bagdad St/Cooper Road Bridge improvement
Street upgrades and cycleways on adjacent streets	RP7	Jensen Park connections
Extending the network	RP8	Potts Hill Reservoir access

Implementation Plan

	Project outline	Driver			Timeline			Priority			Design Strategies					
		Council	Government	Community	Short	Medium	Long	Tier 1	Tier 2	Tier 3	Active transport corridor	District connections	Local connections	Green spine and fingers	Outdoor Classroom	Recreation Loops and Links
	A new pedestrian and cycle bridge over Park Road/Carlingford	●	○			○	●	1	2	3	A	D	L			
	A new pedestrian and cycle bridges extending over the future corridor cycleway and existing pipeline between Dunbar Park and Bagdad Street, Birrong. (in collaboration with CBCity and Sydney Water)	●	○			○	●	1	2	3	A		L			
d Road oad	Improvement and widening of existing bridges across to support new shared pedestrian and cycle paths in a several locations to support extension of the cycleway	●	○			○	●	1	2	3	A	D	L			
	Investigate future opportunities for extension of active transport infrastructure further east connecting to the Cooks River, in collaboration with relevant local councils, state agencies and private landholders	○	●		○	●		1	2	3	A	D	L	G		
	New shared paths on Clapham Road, Chisholm Road and Carlingford Street to connect to provide access to Jensen Park to Regents Park Town Centre and Duck River, in collaboration with CBCity	●	○			○	●	1	2	3	A	D	L			
e	To complement the creation of future shared paths extending from the corridor, further investigation should be undertaken to widen the existing Bagdad St/Cooper Road to better connect Birrong to Regents Park and the Prospect Pipeline Corridor. This should be considered in collaboration with TfNSW.	●	○			○	●	1	2	3	A		L			
	Investigate future opportunities for improved cycle and pedestrian connections between Regents Park Town Centre, Duck River and Jensen Park, in collaboration with CBCity	●	○		○	●		1	2	3	A		L			R
	Investigate future opportunities for public access to Potts Hill Reservoir from the corridor and Birrong, in collaboration with Sydney Water	●	○		○	●		1	2	3				G	O	R

Implementation Plan

Code	Project Name
Corridor West	
CW1	Existing cycleway amenity improvements
Prospect Reservoir Precinct	
PR1	Western Sydney Parklands cycleway extension
PR2	Walder Park Improvements
PR3	George Maunder Lookout access and improvements
Lower Prospect Canal Reserve Precinct	
LP1	LPCR Rest Stops
LP2	Bolaro Avenue pedestrian and cycle connection
LP3	LPCR Open space improvements · LP3.1 Hopman Street Park · LP3.2 Canal Road Park · LP3.3 Along the corridor adjacent to Sherwood Grange Public School
LP4	LPCR Recreation Clusters · LP4.1 - Greystanes Recreation Cluster · LP4.2 - Holroyd Receation Cluster
LP5	LPCR Recreation Loops · LP5.1 Boothtown Recreation Loop · LP5.2 Greystanes Recreation Loop · LP5.3 Merrylands Recreation Loop · LP5.4 Woodpark Recreation Loop · LP5.5 South Greystanes Recreation Loop
LP6	Recreation nodes
Guildford Precinct	
G1	Chamberlain Park upgrades
G2	New pedestrian and cycle crossings To connect existing shared paths: · G2.1 Fowler Road, Guildford · G2.2 Harris Street, Guildford · G2.3 Byron Road, Guildford To connect proposed pedestrian and cycle paths · G2.4 Fairfield Road, Woodpark · G2.5 Queen Street, Woodpark · G2.6 Princes Street, Woodpark
G3	Existing bridge improvements · G3.1 Fowler Road, Guildford · G3.2 Harris Street, Guildford · G3.3 Byron Road, Guildford · G3.4 Guildford Road, Guildford
G4	New pedestrian and cycle shared paths
G5	Cycle and pedestrian paths along western pipeline extension
G6	Improvement and naturalisation of Duck Creek
G7	New pedestrian and cycle paths in Yennora

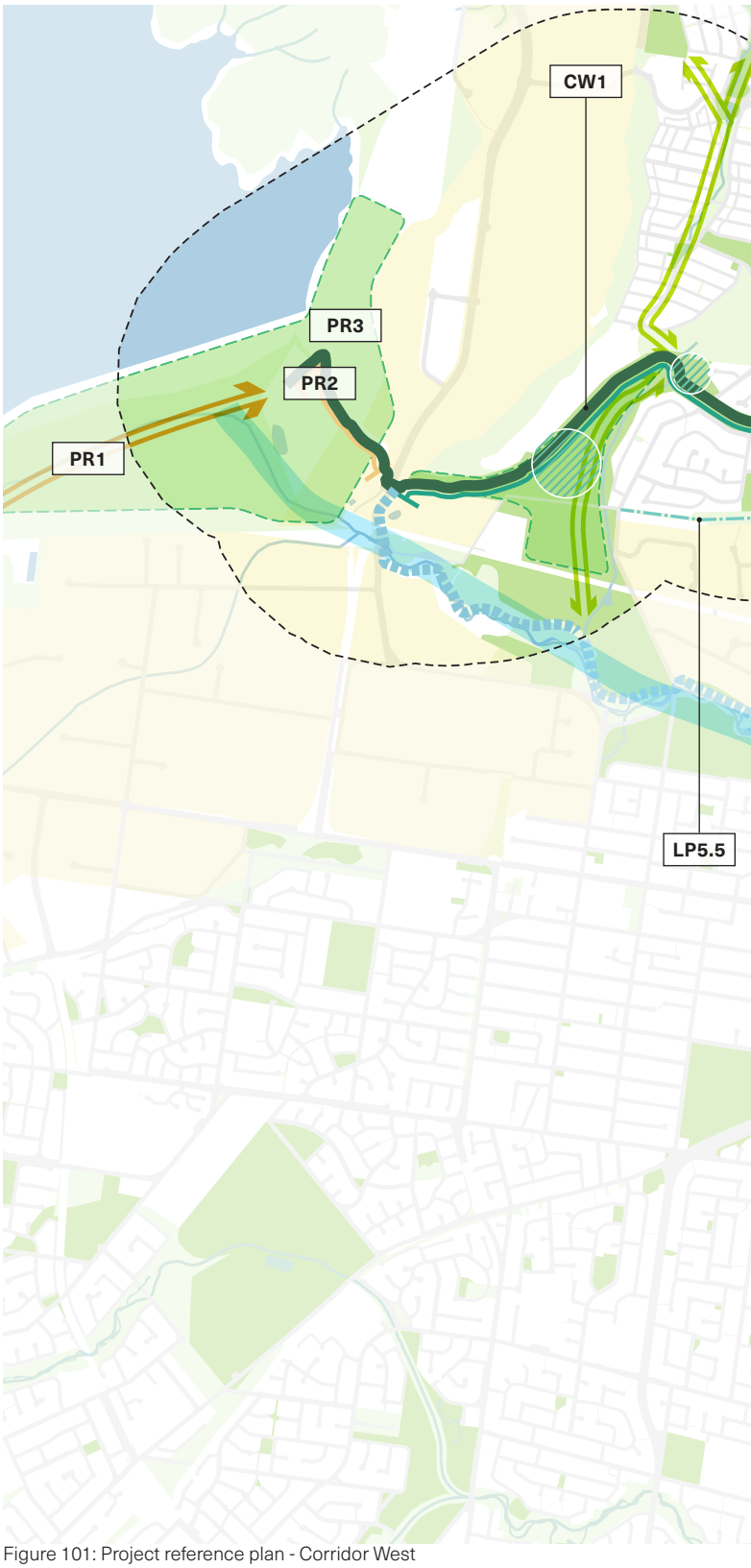
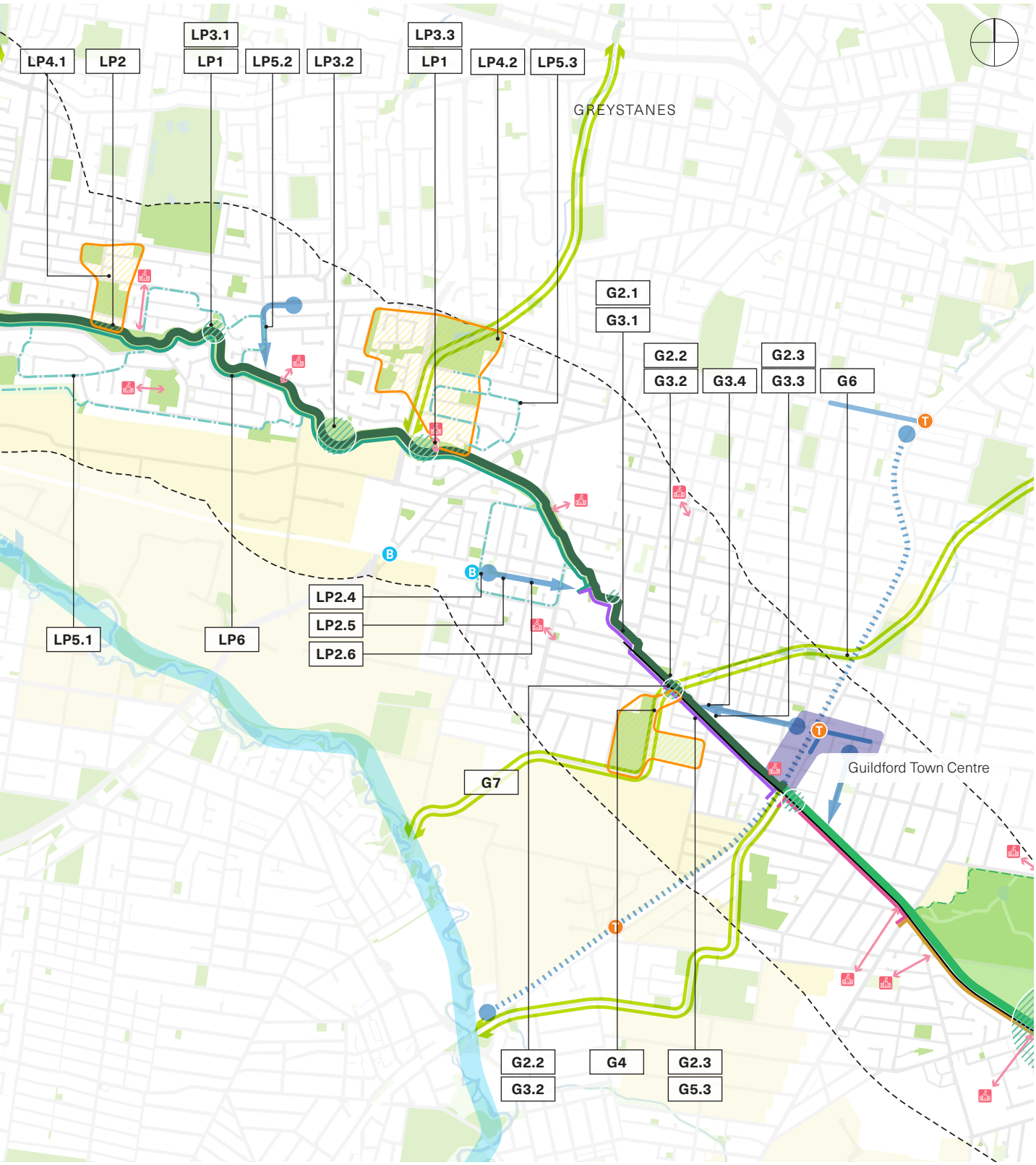


Figure 101: Project reference plan - Corridor West

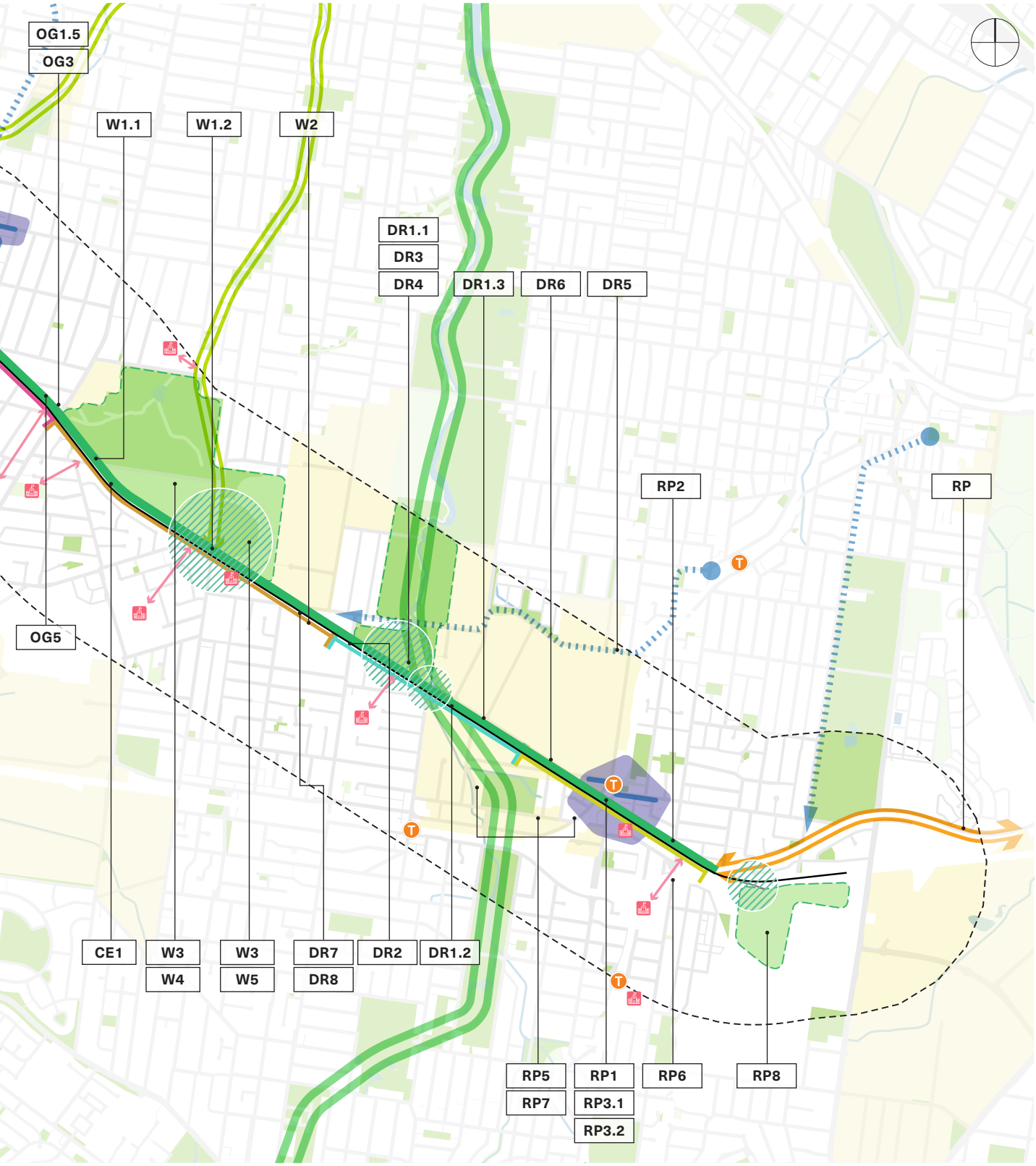
Implementation Plan



Code	Project Name
Corridor East	
CE1	Corridor east cycleway
Old Guildford Precinct	
OG1	Corridor entry points • OG1.1 Railway Street • OG1.2 Cross Street, Guildford • OG1.3 Station Street • OG1.4 Bolton Street • O.G.1.5 Woodville Road
OG2	New crossings and bridge improvements
OG3	Woodville Road Bridge
OG4	On-road cycle paths
OG5	Corridor/Woodville Road landscaping
Waddangalli Woodland Precinct	
W1	Intersection and bridge improvements
W2	Boundary Street traffic light
W3	Reserve access points
W4	Waddangalli Woodland Reserve - Indigenous Knowledge
W5	Campbell Hill Pioneer Reserve Loop
Duck River Precinct	
DR1	Corridor access points · DR1.1 Norford Park, South Granville · DR1.2 Chisholm Road, Regents Park · DR1.3 George Young Street, Regents Park
DR2	Hector St Crossing
DR3	Duck River Bridge
DR4	Duck River Rehabilitation
DR5	Duck River to Berala connection
DR6	Rose Crescent Canal upgrade
DR7	Boundary Street pocket park
DR8	Sefton Outdoor Classroom
Regents Park Precinct	
RP1	Regents Park Bridge
RP2	Dunbar Park Bridge
RP3	Existing bridge improvements · RP3.1 Park Road/Carlingford Road · RP3.2 Amy Street/Auburn Road
RP4	Cooks River extension
RP5	New shared paths
RP6	Bagdad St/Cooper Road Bridge improvement
RP7	Jensen Park connections
RP8	Potts Hill Reservoir access

Figure 102: Project reference plan - Corridor East

Implementation Plan



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