

Active Transport Network Review: North Sydney and surrounds

Winter 2023





Acknowledgement of Country

Transport for NSW acknowledges the traditional custodians of the land on which we work and live.

We pay our respects to Elders past and present and celebrate the diversity of Aboriginal people and their ongoing cultures and connections to the lands and waters of NSW.

Many of the transport routes we use today – from infrastructure lines, to roads, to water crossings – follow the traditional Songlines, trade routes and ceremonial paths in Country that our nation’s First Peoples followed for tens of thousands of years.

Transport for NSW is committed to honouring Aboriginal peoples’ cultural and spiritual connections to the lands, waters and seas and their rich contribution to society.

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Executive Summary

One of Transport for NSW’s (Transport) key priorities over the next 10 years is to improve mobility for the people of NSW, while creating and connecting vibrant places. Our vision is to create places that blend the right mix of infrastructure, services and experiences for communities to achieve their desired social, cultural and economic outcomes.

A key pillar of our strategy is to ensure people can move within and between key neighbourhoods safely and efficiently using the means of transport they chose.

The North Sydney and surrounds Active Transport Network Review (the Review) applies principles of great placemaking to ask: what can we do to improve cycling and walking connections in this area?

Where should we focus our energies to maximise value for the people who live, work and play in and around the key centres of North Sydney, St Leonards, Cammeray and Neutral Bay? How can we deliver better outcomes for them?

This Review has taken commentary, feedback and advice from the people who know it best – local residents, commuters and bike user groups – as well as the experts experienced in delivering our transport services and infrastructure – North Sydney Council, Willoughby City Council and Transport.

It assesses the strategies and plans developed by these organisations as well as the Department of Planning &

Environment (DPE) and Greater Sydney Commission, and summarises these to identify the key gaps in the cycling and walking network that warrant further attention.

These relevant plans and policies range from strategic direction and policy settings to the analysis of specific walking and bike riding locations. These plans and policies, together with issues raised by the local community and stakeholders, have been used as inputs to the Review (See **Appendix A**).

The identified walking and bike riding gaps and opportunities have been actively discussed and workshopped with bike user groups and local councils to agree on the recommendations that we all feel will deliver maximum value for future communities.

As we publish this Review, Transport is seeking funding to progress design work and options analysis along six of these key strategic routes, with plans to share these through public consultation in 2024.

Terms and abbreviations

Term	Definition
ATNR	Active Transport Network Review
CBD	Central Business District
C2SL	Chatswood to St Leonards Cycleway project
CoA	Conditions of Approval
COVID	The COVID-19 pandemic, which impacted NSW from March 2020
CPTED	Crime Prevention Through Environmental Design
DPE	NSW Department of Planning and Environment
IAP	Interchange Access Plan (Sydney Metro)
LCC	Lane Cove Council
LGA	Local Government Area
LNS PTP	Lower North Shore Place Based Transport Plan

Term	Definition
LSPS	North Sydney Local Strategic Planning Statement
NSC	North Sydney Council
SHB	Sydney Harbour Bridge
SCC EHC	Strategic Cycleway Corridors – Eastern Harbour City
SLCN 2036	St Leonards and Crows Nest 2036 Plan
SMCSW	Sydney Metro City and South West project
SHB NCR	Sydney Harbour Bridge Northern Cycle Ramp and Alfred Street South cycleway
The Review	North Sydney and surrounds Active Transport Network Review (this study)
Transport	Transport for NSW
WCC	Willoughby City Council
WHT	Western Harbour Tunnel
WFU	Warringah Freeway Upgrade

Existing networks and upgrades

This Active Transport Network Review (Review) assesses the existing and proposed walking and cycling facilities near the Warringah Freeway Upgrade project.

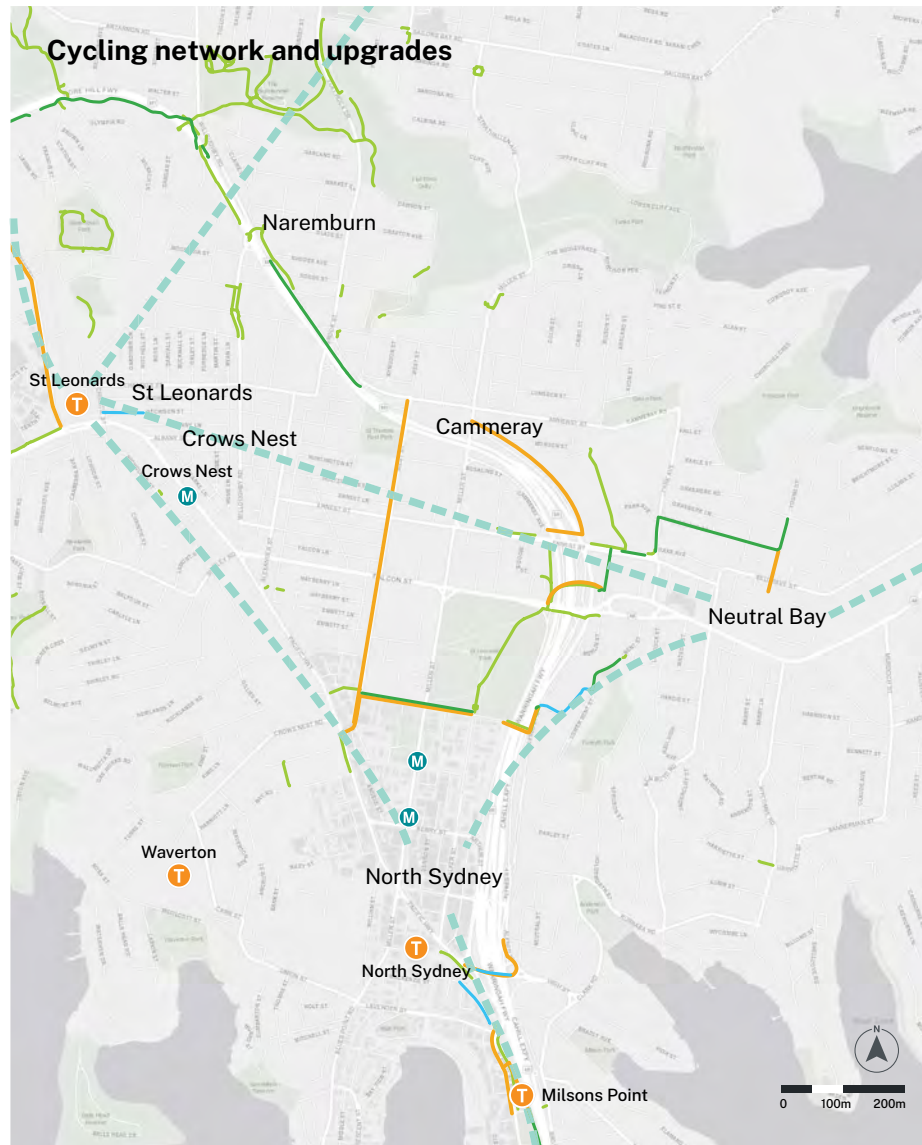
The existing pedestrian network in the area is well developed, with high levels of pedestrian activity within North Sydney CBD and around other activity centres. Although generally well connected, there are a variety of opportunities to improve existing pedestrian links, especially between and within key centres.

The existing cycling network in the study area consists mostly of on-road cycle routes. The fragmented separated cycling facilities which currently exist are generally shared user paths, although a number of dedicated and separated off-road cycling facilities have recently been delivered by North Sydney Council.

Transport is currently delivering a number of walking and cycling upgrades in the study area via the Sydney Metro City and South West project (Crows Nest and Victoria Cross station precincts), Sydney Harbour Bridge Northern Cycle Ramp, and the Western Harbour Tunnel and Warringah Freeway Upgrade projects. North Sydney Council is also continuing to develop and progress walking and cycling projects within its jurisdiction, with neighbouring Councils progressing facilities to and from the study area.

An overview of current walking and cycling projects in development within the study area is illustrated in Figure E.1 in gold.

Details of all major planned and proposed network changes in the study area are summarised in **Appendix B**.



KEY
 Existing bicycle paths (green line)
 Existing shared paths (light green line)
 Bicycle shoulder lanes (blue line)
 Projects in development (gold line)
 Strategic cycleway corridors (dashed green line)
 Train stations (T icon)
 Metro stations (M icon)

Figure E.1 Overview of the existing cycling and walking network and planned network upgrades

The current projects in development will support urban renewal and address some existing strategic network gaps and issues. However, the Review highlights a number of additional priorities to be addressed in the existing network.

Many of the network improvements are large and complex locations which require significant further investigation to develop preferred alignments and concept designs which consider the broad range of technical and stakeholder issues present in this complex and constrained urban area.

Further options investigation and assessment – beyond the scope of this Review – is required to ensure solutions are progressed which maximise community benefits. All opportunities are currently unfunded and subject to approvals, route investigations, design development and further consultation with local councils, bike user groups, the community and other relevant stakeholders.

These priority connections, as workshoped and agreed with bike user groups and local councils are below and shown in Figure E.2.

Key priorities to be progressed

1. Gore Hill Freeway

Network gap and current challenge: Stakeholders identified concerns with the existing cycleway on Gore Hill Freeway (between West Street and Merrenburn Avenue), which is an important cross-regional cycling route between Cammeray and Macquarie Park. Bike riders are required to cross the Brook Street on-ramp to the Warringah Freeway, with potential conflict with high volumes of fast-moving traffic. In addition, the existing cycleways along Gore Hill Freeway, and Amherst Street between West Street and the Brook Street on-ramp (for bike riders travelling westbound), are narrow and obstructed by utility poles.

2. Falcon Street Interchange

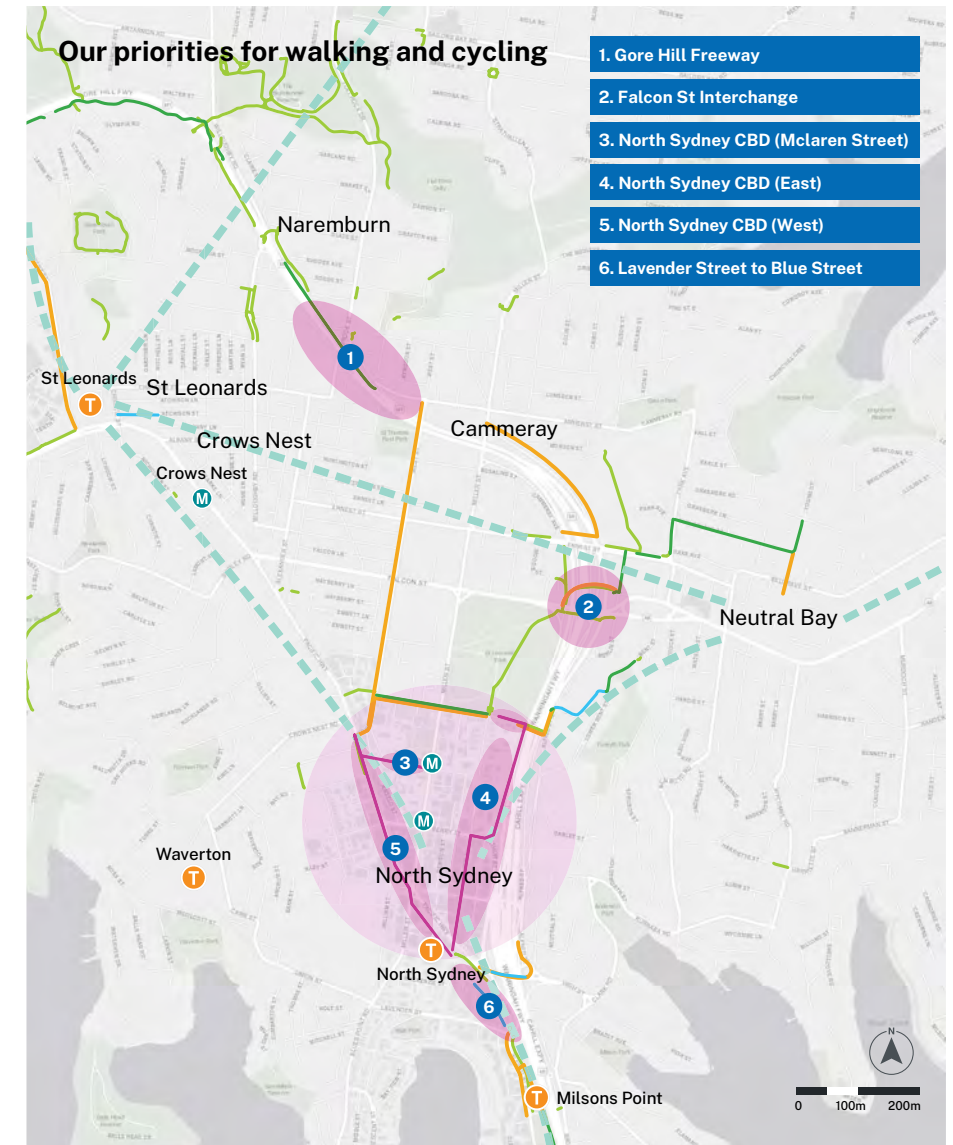
Network gap and current challenge: A gap identified on the strategic cycleway corridor between North Sydney and Neutral Bay is the crossing of the Falcon Street Interchange. It is currently difficult for pedestrians and bike riders to cross between St Leonards Park and the northern side of Falcon Street, with users needing to cross ten lanes of traffic on Falcon Street and wait for two sets of traffic signals. In addition, there is limited storage space for pedestrians and bike riders waiting to cross Falcon Street.

3. North Sydney CBD (McLaren Street)

Network gap and current challenge: Victoria Cross Metro Station is forecast to have around 15,000 passengers entering and exiting the station in the busiest morning peak hour by 2036¹. The Victoria Cross Metro Station will include 160 bicycle parking spaces, with the northern station entrance located at the Miller Street / McLaren Street intersection. There is no clear and defined cycle route linking with the station that is suitable for all ages and abilities.

4. North Sydney CBD (East)

Network gap and current challenge: The strategic cycleway corridor between North Sydney and Neutral Bay has a missing link of suitable quality for



KEY
 Existing bicycle paths (green line)
 Existing shared paths (light green line)
 Bicycle shoulder lanes (blue line)
 Projects in development (gold line)
 Prioritised gaps (pink shaded area)
 Strategic cycleway corridors (dashed green line)
 Train stations (T icon)
 Metro stations (M icon)

Figure E.2 Cycling and walking network and immediate priorities identified for development

riders to access through North Sydney CBD. There is no clear and defined cycle route and bike riders are required to ride in traffic lanes mixed with high volumes of traffic, which is not suited to all ages and abilities.

5. North Sydney CBD (West)

Network gap and current challenge: The strategic cycleway corridor between North Sydney and St Leonards has a missing link of suitable quality for all ages and abilities through North Sydney CBD. Bike riders are required to ride in traffic lanes mixed with high volumes of traffic including buses, which is not suited to all ages and abilities.

6. Lavender Street to Blue Street

Network gap and current challenge: The strategic cycleway corridor between Sydney CBD and North Sydney has a missing link of suitable quality for all ages and abilities to access between the intersections of Alfred Street South / Lavender Street / Middlemiss Street and Pacific Highway / Blue Street / Walker Street. Bike riders are required to ride on the road on Arthur Street (between Middlemiss Street and Pacific Highway), and the shared path on Pacific Highway is narrow, uneven and obstructed by trees and lighting, which is not suited to all ages and abilities.

¹ North Sydney Integrated Transport Plan, Transport for NSW 2020

1. Introduction

One of the key priorities for Transport is to deliver safe, healthy, sustainable, accessible and integrated journeys for people across NSW.

1.1 Purpose and scope of this study

Our goal is to connect people and places and to provide communities with more choice to access the mode of travel they wish to use. This means access to a range of travel options – including walking, bike riding and public transport as alternatives to driving – for all ages and abilities.

A key part of that vision is to deliver and maintain the right paths and connections for people to walk and ride bikes within and between their neighbourhoods, places of work and daily amenities.

This Active Transport Network Review (Review) assesses the existing and proposed walking and cycling facilities near the Warringah Freeway Upgrade project. It has been prepared by Transport and forms part of the Conditions of Approval (CoA) related to the project.

It draws on previous plans, policies and community feedback to determine the opportunities and priorities for walking and cycling in North Sydney and surrounds as well as a wide range of related current NSW Government and council projects, plans, and strategies. Our project area stretches from Sydney Harbour Bridge to the key centres of Milsons Point, Kirribilli, North Sydney, Neutral Bay, Cammeray, Crows Nest and St Leonards.

The Review:

- Provides a comprehensive overview of relevant strategies, plans, projects, and guidelines
- Analyses existing and planned walking and cycling networks and demand
- Details the priorities for the future walking and cycling networks
- Provides a list of recommended actions to progress priority connections identified in the walking and cycling network for North Sydney and surrounds
- Addresses the Western Harbour Tunnel and Warringah Freeway Upgrade (WHTWU) Conditions of Approval as shown in Table 1.1.

Table 1.1 WHTWU Conditions of Approval – Active Transport Network Review

Active Transport Network Review condition	Section(s) addressed	How it is addressed
E195: An Active Transport Network Review must be prepared in consultation with relevant Councils, Bicycle NSW and Bike North. The Active Transport Network Review must review active transport infrastructure within at least 500m of the Warringah Freeway corridor component of the CSSI and include:	(This document)	Addressed throughout this document. Chapter 6 provides a summary of engagement and consultation activities undertaken.
(a) an analysis of the existing cycling network, including the identification of routes between existing and potential trip generators;	Chapter 3 Chapter 4	Analysis of the existing cycling network. Analysis of routes between trip generators.
(b) an analysis of existing and expected patronage levels of current and proposed routes;	Chapter 4	Analysis of existing and expected patronage levels.

Active Transport Network Review condition	Section(s) addressed	How it is addressed
(c) identification of capacity constraints or missing links in the existing and proposed networks, including consideration of both State and Council cycling strategies and maps (including draft strategies) and expected demand;	Chapter 7	Identification and prioritisation of missing links.
(d) a calculation of pedestrian crowding and the suitability of shared facilities; and	Appendix E	Analysis of pedestrian crowding and the suitability of shared facilities.
(e) a list of recommendations and the timeframes for implementation to address the findings of (a), (b), (c) and (d) above.	Chapter 8	List of recommendations and timeframes.
The Review must be provided to the Planning Secretary for approval within 12 months of commencement of construction. Note: Implementation timeframes must be reasonable, reflect network needs, and the objective of offsetting open space impacts (particularly in relation to open space impacts at Cammeray).	-	The Review will be provided to DPE by 23 May 2023.
E196: The recommendations identified in Condition E195(e) must be implemented by the Proponent in the timeframes approved by the Planning Secretary.	-	Transport will discuss and agree actions and timeframes with DPE as part of the Review and consequent downstream Transport development and delivery activities, noting potential funding requirements and processes.
E197: An active transport link through Cammeray Golf Course between Ernest Street and Warringah Road / Bells Avenue, Cammeray must be provided prior to the removal of the existing path.	-	The active transport link through Cammeray Golf Course between Ernest Street and Warringah Road / Bells Avenue was completed and opened in May 2022, prior to the removal of the existing path.
E198: An active transport link from Cammeray Golf Course to Primrose Park, must be considered as part of the Active Transport Network Review as required by Condition E195.	Appendix B	Review of a potential active transport link from Cammeray Golf Course to Primrose Park.
E199: A level extension of the existing footpath along the eastern side of the Cahill Expressway from the top of the stairs near the former toll gantry in Kirribilli, to the existing pedestrian crossing on High Street, North Sydney must be considered as part of the Active Transport Network Review required by Condition E195.	Appendix B	Review of a level extension of the existing footpath along the eastern side of the Cahill Expressway.
E200: The Proponent must investigate alternative crossings of the Falcon Street diverging diamond interchange, including but not limited to consideration of an overpass, reduction in the number of crossings or priority phasing of traffic lights for pedestrians and cyclists. The investigations must be provided as a report and submitted to the Planning Secretary for approval, within six months from the commencement of construction. The findings of the investigations must be implemented following Planning Secretary approval.	-	The report addressing Condition E200 was submitted to DPE in November 2022, noting the Falcon Street diverging diamond interchange is no longer being progressed as part of the project.

1.2 Review study area

Figure 1.1 illustrates the 500m catchment alongside the Warringah Freeway Upgrade project specified by Condition of Approval E195. It also includes walking and cycling facilities that will be delivered by the Warringah Freeway Upgrade. In addition to the corridor shown, this Review considers the surrounding walking and cycling network to, through, and beyond North Sydney and surrounds to ensure the development and delivery of connected walking and cycling corridors is consistent with overarching longer-term Transport plans and policies.



Warringah Freeway



KEY █ Project corridor █ Project corridor buffer 500m █ Approved and funded project works

Figure 1.1 Catchment area of Western Harbour Tunnel and Warringah Freeway Upgrade for the WHTWU Condition of Approval E195. This includes new walking and cycling connections being delivered by Warringah Freeway Upgrade (map insets are artist impressions and subject to change)

1.3 Supporting the growth of North Sydney and surrounds

North Sydney CBD is the third-largest CBD in Greater Sydney and is a major regional employment and education hub for the suburbs north of Sydney Harbour. The broader North Sydney LGA is forecast to grow by 19,000 residents and up to 37,000 workers by 2036².

Located three kilometres from Sydney CBD, the centre of North Sydney is one of the densest commercial centres in Australia, constrained to a small footprint and with limited opportunities to expand. The centre is a significant 'transit oriented' education hub with many private and public schools and educational institutes, including the Australian Catholic University campus, resulting in many walking trips in the area.

North Sydney's location means it plays a vital role in providing regional cycling connections between Sydney CBD and the North Shore. However, the local cycle network through North Sydney CBD and to the surrounding suburbs is not well defined and conflicts with traffic and buses on mixed traffic routes i.e. Pacific Highway and Miller Street. This limits the type of users who feel comfortable or safe riding through North Sydney.

There are significant missing links in the cycling network going north-west and north-east. This lack of connectivity and separation from other road users creates safety risks and discourages potential bike riders.

² From 2016 population and employment numbers. North Sydney Local Strategic Planning Statement, North Sydney Council, March 2020

1.4 Feedback from our stakeholders and community

Transport has sought and received feedback from a range of stakeholders about existing and future walking and cycling opportunities and priorities. Community consultation and stakeholder engagement for the WHTWU project began in March 2017 and has continued through to preparation of the Environmental Impact Statement (EIS), Response to Submissions report and this Review.

The community, local stakeholders and government agencies were engaged through a variety of two-way consultation and communication tools including interactive maps, newsletters and letters, briefings, meetings, workshops and presentations.

Key periods of consultation were:

- Feedback on the proposed Western Harbour Tunnel and Beaches Link (WHBTL) concept design (April to June 2017)
- Feedback on the WHTBL further developed design (July to December 2018)
- Submissions in response to the WHTWU EIS (September 2020).

Submissions on the EIS were made by NSW Government agencies, local councils, organisations and members of the public. A total of 1,459 submissions were received, of which 25% communicated requests and/or concerns about walking and cycling. All submissions received comprised of the following:

- Public: 1,382 submissions
- Organisations: 59 submissions
- Public authorities: 18 submissions.

The common key themes raised by the community, relevant to this Review:



Pedestrian concerns and requests raised during consultation:

- Requests for increased and/or improved pedestrian facilities across major road corridors, particularly those close to key amenities. Requests include a pedestrian only crossing of Gore Hill Freeway at Naremburn local centre, and a grade-separated crossing of Brook Street in Naremburn
- Requests for upgrades to major pedestrian crossings at Miller Street, Walker Street, Mount Street, High Street and Berry Street
- Request for safe, usable access for walkers and bike riders on Ernest Street shared path
- Requests for a dedicated space for walking on both sides of the Sydney Harbour Bridge
- Requests to protect and retain infrastructure for commuters walking to and from the Victoria Cross metro station
- Concern that the replacement Ridge Street overpass would be located further away from North Sydney and Miller Street bus stops, adding time to walking journeys
- Request for the retention of the signalised pedestrian crossing at the Bayer building on Alfred Street North over the Mount Street overpass as these lights provide essential access for residents including many older residents to North Sydney
- Objection to permanent removal of the:
 - Falcon Street underpass that connects Merlin Street South and Merlin Street North
 - Miller Street, Cammeray to Ernest Street cycleway along the Warringah Freeway
 - Shared path on Ernest Street, in the vicinity of the Warringah Freeway
 - Falcon Street shared walking and cycling bridge
 - Ridge Street shared walking and cycling bridge and ramp access to Alfred Street North
 - Pedestrian bridge connecting Miller Street with Neutral Bay Shops.

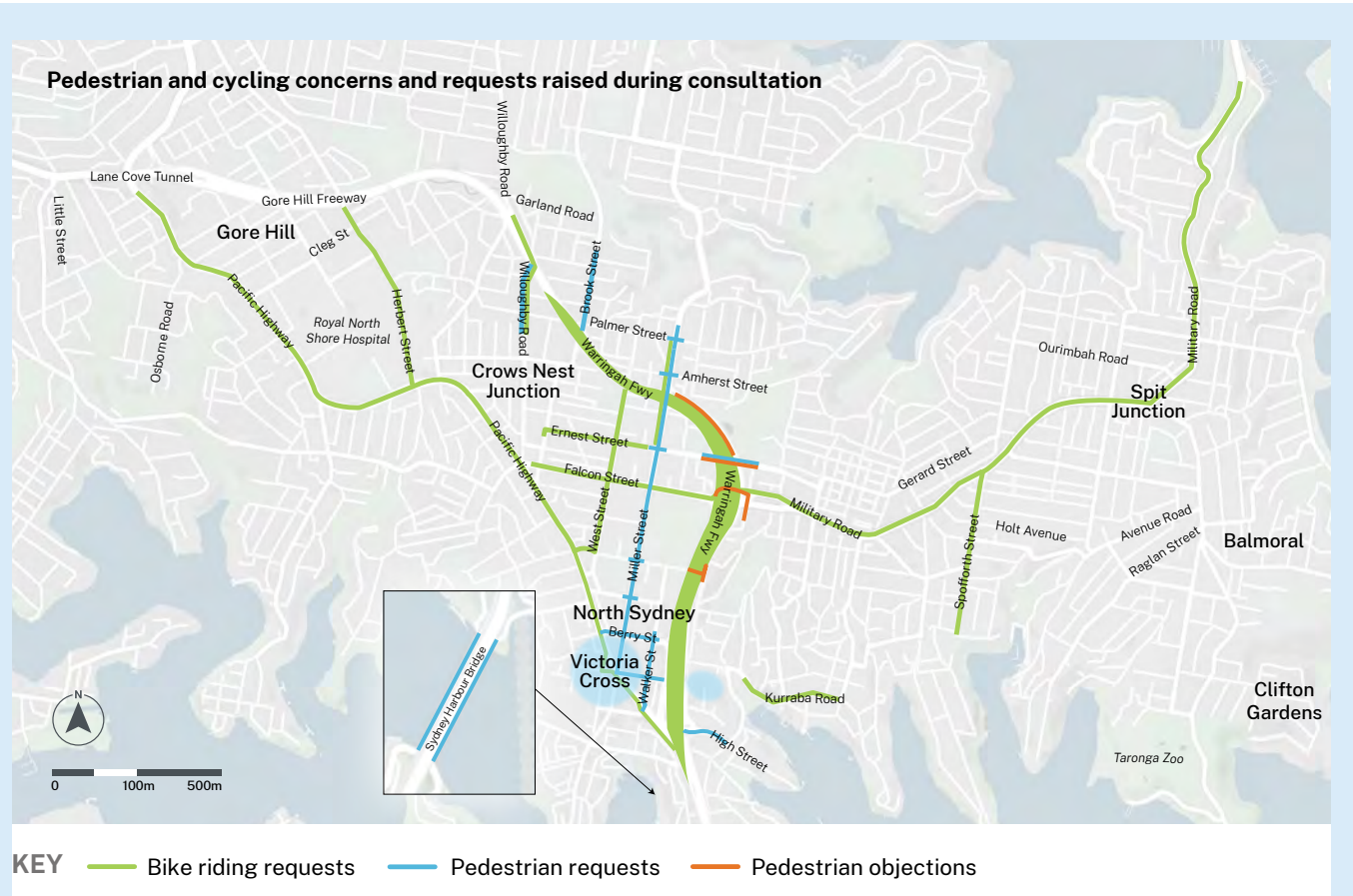


Figure 1.2 Location of pedestrian and cycling concerns and requests raised by the community and stakeholders during consultation (2017-2020)

Cycling issues and requests raised during consultation:

- There is a lack of existing and planned cycling infrastructure in North Sydney LGA and surrounds
- The strategic importance of the Sydney Harbour Bridge (SHB) cycleway makes the upgrade of the existing stair access and connecting cycling routes to this location the highest priority for cyclists in the area. Specific feedback regarding connecting routes to and from SHB includes:
 - Safe cycling connections between the SHB and St Leonards/Crows Nest/North Sydney CBD is a high priority, as well as further connections to Macquarie Park and Chatswood to the west and north
 - Connection to and from Cammeray is a high priority for bicycle users, given its strategic location at the eastern end of the existing Gore Hill Freeway cycleway
 - Preferred alignments for bicycle users travelling between these centres include the Pacific Highway (North Sydney to St Leonards) and West Street (North Sydney to Cammeray / Gore Hill Freeway). These routes are close to key centres, amenities and interconnecting local routes
- A cycleway along the Warringah Freeway alignment would provide a good regional / through cycling route to and from the SHB, although it would be less accessible / direct for local cycling journeys, including to and from North Sydney CBD. The steepness of roads in this area were noted as issues to be considered when determining the route on the eastern or western alignment
- To the north/west of St Leonards, preferred cycle corridors are via the Pacific Highway and Herbert Road/Hampden Road
- The existing Gore Hill Freeway cycleway between Merrenburn Avenue and Brook Street / West Street is an important strategic connection and would benefit from upgrades to safety, accessibility, and capacity. Suggested options include:
 - Upgrades to the existing at-grade crossing of the Brook Street on-ramp / connection to Amherst Street / West Street at its southern extent including grade separated options
 - Extension of existing facility via the freeway corridor to Miller Street to connect to the new Miller Street to Ernest Street facility



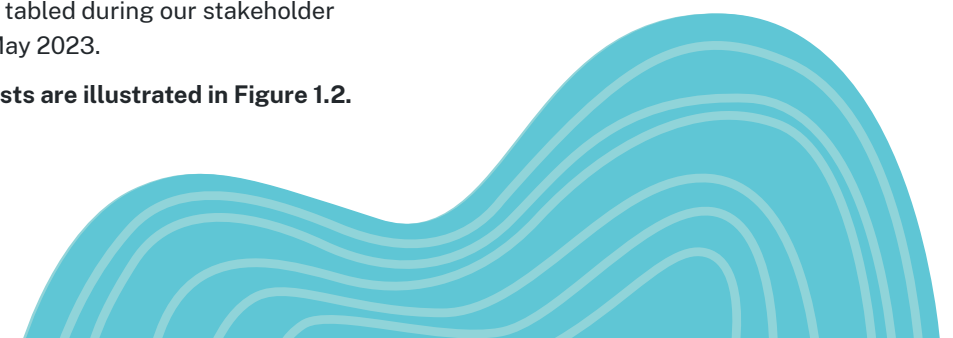
Walker Street, North Sydney

- An upgrade to the existing cycling connection across Gore Hill Freeway in the vicinity of Willoughby Road / Naremburn local centre at its northern extent
- To the west of Warringah Freeway, there appears to be an opportunity to extend the existing shared path along Ernest Street to connect to the proposed West Street cycleway
- To the east of Warringah Freeway:
 - Falcon Street-Military Road-Spit Road is the preferred route for a strategic cycling corridor from a gradient and user perspective
 - Yeo Street would provide a nearby alternate east-west route close to Neutral Bay
 - Further south, a route from Clark Road via Kurraba Road and other roads to Spofforth Street would also be attractive to some bicycle users.

The feedback provided by the community, bike user groups and councils about walking and cycling priorities have been carefully considered in this Review. These priorities have been discussed and tabled during our stakeholder workshops between December 2022 to May 2023.

Pedestrian and cycling issues and requests are illustrated in Figure 1.2.

Further information on the stakeholder and community consultation and how their feedback has shaped this Review is summarised in Chapter 6.



2. Plans, policies, standards, and guidelines

This Review has been prepared to align, enable, and support the delivery of the objectives and targeted outcomes of relevant State and Local Government plans and policies.

A wide variety of plans and policies have been relied on as a key input to the Review. These range from strategic direction and policy settings to the analysis of specific issues and locations / routes for potential walking and cycling upgrades. A high-level summary of their content is provided in the following sections and in **Appendix A**. For completeness detailed standards and guidelines relevant to the ongoing development and delivery of walking and cycling infrastructure are summarised in **Appendix C**.

2.1 Transport for NSW plans and policies

Future Transport

Future Transport outlines Transport's vision and sets the direction for the future of mobility in NSW. It sets the strategic directions for Transport to achieve world-leading mobility for customers, communities, businesses and our people.

The *Future Transport* Strategy identifies the actions Transport needs to take to achieve its three targeted strategic outcomes:

- Connecting customers' whole lives with multimodal customer journeys that are seamless, personalised and enabled by data and technology
- Successful places for communities where transport enhances amenity, liveability and economic success
- Enabling economic activity by powering NSW's future \$1.4 trillion economy and enabling economic activity across the state.

To support and achieve these outcomes Transport has developed 14 strategic directions, and a series of responses to achieve these directions.



Figure 2.1 Transport for NSW's targeted strategic outcomes

Source: Future Transport 2056 (Transport, www.future.transport.nsw.gov.au/strategy-highlights, accessed November 2022)

Those relevant to walking and cycling include:

C2: Multimodal mobility supports end-to-end journeys

- C2.1: Support car-free, active, sustainable transport options
- C2.3: Integrate emerging mobility choices

C4: Our transport networks are safe

- C4.5: Improve the safety of people walking and cycling

P2: Transport infrastructure makes a tangible improvement to places

- P2.1: Support thriving and healthy 15-minute neighbourhoods
- P2.2: Manage street space as public space
- P2.5: Improve the amenity of places along State Roads.

The *Future Transport* Strategy envisages walking and cycling options will become a key component of Sydney's future transport network, particularly for short trips. Consequently, Transport has continued to build on its walking and cycling policies, plans, and projects to achieve this vision.

Active Transport Strategy

The *Active Transport Strategy* (Transport, December 2022) draws on the *Future Transport* Strategy and the desired outcomes for walking, bike riding and personal mobility. The Strategy has a vision to double the number of walking and bike riding trips in NSW in 20 years and provides longer term ambitions accompanied by five-year priority moves to guide planning, investment and priority actions for walking and cycling across NSW.

The *Active Transport Strategy* sets out key actions to connect communities and encourage more people to choose walking and cycling. It includes:

- Delivering continuous and connected cycling networks
- Improving the safety and comfort of people walking and riding bikes by providing fit-for-purpose walking and cycling infrastructure and appropriate road speeds
- Facilitating children's and young people's independent mobility by improving safe walking and bike riding options for travel to and from school
- Supporting multimodal journeys by integrating active and public transport
- Encouraging a shift to walking and cycling trips by delivering walking and cycling infrastructure to support mode shift
- Supporting emerging technology choices such as e-bikes and other micromobility devices.

The *Active Transport Strategy* will support 15-minute local neighbourhoods that are easier for people to access and enjoy. Transport will improve the spaces available for walking and riding and promote sustainable travel behaviour. Encouraging walking and bike riding will support population growth, improve equity of access, and help stabilise traffic in Greater Sydney.³ A summary of focus areas, ambitions, and priority moves presented in the Active Transport Strategy is shown in Figure 2.2.

³ Active Transport Strategy (Transport, December 2022)

Focus areas				
Enable 15-minute neighbourhoods	Deliver connected and continuous cycling networks	Provide safer and better precincts and main streets	Promote walking and riding and encourage behaviour change	Support our partners and accelerate change
Ambitions				
Create walkable and connected 15-minute neighbourhoods across all six cities and in regional centres across NSW to increase the percentage of short trips made on foot.	Deliver more than 1,000 kilometres of new cycleways and supporting infrastructure for continuous and connected cycling networks across key cities in NSW to increase the number of trips made by bike.	Help halve fatalities and reduce serious injuries by 30 per cent for pedestrians and bike riders through safer speeds and networks while increasing people walking and riding ¹ .	Double the number of children walking or riding to school in all six cities and major centres across NSW, through behaviour change interventions.	Accelerate delivery of active transport projects by cutting red tape, providing resources and measuring success.
Priority moves (0-5 years)				
Trial over 20 Neighbourhood Deals across NSW by 2028.	Partner with councils to deliver more than 100 kilometres of new strategic cycleways that contribute towards a connected cycleway network by 2028. Investigate reusing non-operational assets to support the visitor economy through initiatives such as rail trails.	Prioritise a program that delivers 50 kilometres of successful place outcomes in and around main street sections of State Roads in urban, regional and rural settings by 2028. Pilot Safer Cities Program across NSW to improve perceptions of safety when walking and cycling to, through and within public spaces for women and girls by 2024.	Trial Active Travel to School Program in collaboration with Health and Education in more than 50 schools by 2028. Trial behaviour change interventions including campaigns that encourage sustainable mode shift by 2028.	Coordinate funding across government by 2028 to ensure safe walking and riding outcomes are achieved in a holistic way for government funded projects. Update legislation, guidelines and processes along with skill development to enable efficient delivery by 2028. Use open data advanced technology to capture walking and riding data and movement patterns by 2028.

Figure 2.2 Active Transport Strategy Focus Areas, Ambitions, and Priority Moves

Source: Active Transport Strategy (Transport, December 2022)

The *Active Transport Strategy* outlines the different approaches to funding the programs, initiatives and infrastructure needed to achieve the vision for walking and cycling in NSW, including collaboration with local councils and Australian Government support.⁴

Strategic Cycleway Corridor program

To achieve the *Future Transport Strategy* the NSW Government’s vision is to provide a safe and connected cycleway network across Greater Sydney to enable more people to have a safe, attractive, and convenient option for riding their bicycle as part of everyday travel. The goal is for cycling to be a preferred mode of transport for short trips and a viable safe and efficient option for longer trips.

The *Strategic Cycleway Corridor* program has identified over 85 cycleway corridors across Greater Sydney to better connect centres, precincts and places.

The Eastern Harbour City Strategic Cycleway Corridors provides the intent, direction, and priorities for developing and delivering the strategic cycleways within Eastern Harbour City, including North Sydney and surrounds. It also offers direction for Councils to progressively expand local bike networks by outlining the location of the strategic corridors for future connections.

The strategic cycleways and the staged development of corridors is contingent on the ongoing collaboration between Transport, Councils, bike groups and the broader community. As part of the Program development, Transport has been working in partnership with 19 Councils and five bike groups⁵ and will continue to do so. Communities will continue to be consulted as each corridor is developed, to ensure local needs and outcomes are considered. Funding sources to initiate, develop and deliver the strategic cycleway corridors will be varied and identified as part of Transport funding strategies.

Figure 2.3 shows the strategic network for the Eastern Harbour City, connecting key centres and major points of interest. It reflects the priority corridors informed by stakeholders through the engagement process. Strategic cycleway connections between St Leonards, North Sydney and Neutral Bay are indicated.

5 Strategic Cycleway Corridors – Eastern Harbour City Overview (Transport, April 2022).

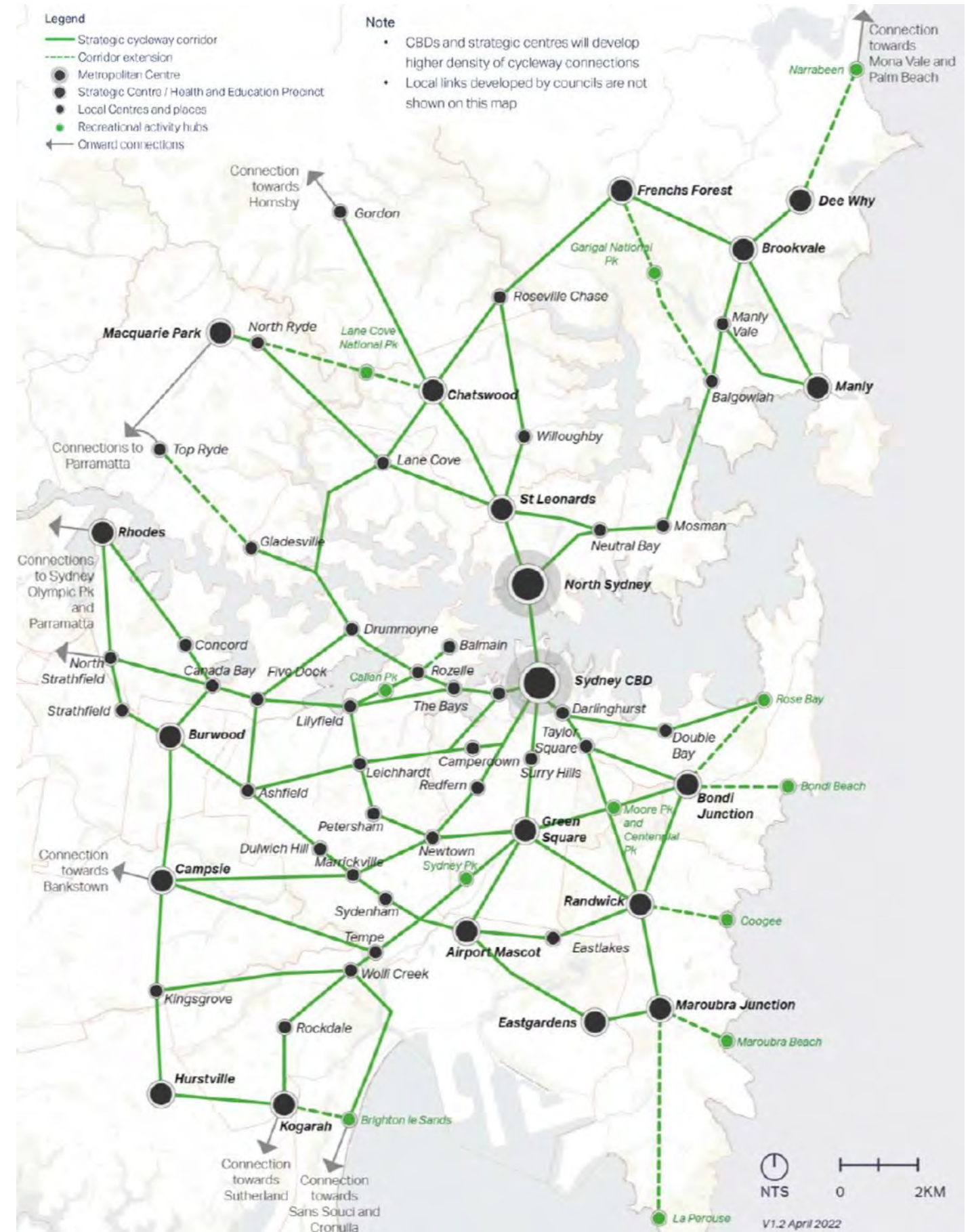


Figure 2.3 Strategic Cycleway Corridors in the Eastern Harbour City

Source: Strategic Cycleway Corridors – Eastern Harbour City Overview (Transport, April 2022)

The Eastern Harbour City Strategic Cycleway Corridors has identified five specific connections within the strategic network which are seen as immediate opportunities to progress. They will fill important gaps in the network as shown in Figure 2.4.

Providing for Walking and Cycling in Transport Projects and Road User Space Allocation policies

Recent Transport policies have been introduced that support the vision and objectives of the *Future Transport Strategy* and need to be considered and reflected in the planning and delivery of the future walking and cycling network. The principles outlined will be used to inform the identification of gaps and options to improve walking and cycling facilities in the area.

The [Providing for Walking and Cycling in Transport Projects Policy](#) was released by Transport in February 2021, stating the following principles:

- Walking and cycling have unique customer needs and require different infrastructure solutions. Pedestrians and bike riders should be allocated dedicated space wherever possible
- Walking and cycling should be accessible to people of all ages and abilities, including people using assisted mobility devices, walking aids and different types of bicycles
- An appropriate access and maintenance schedule must be part of the project delivery to ensure people walking and cycling have continuous access and a high-quality experience of the facilities provided.

The North Sydney Connection between Milsons Point, North Sydney, and St Leonards is investigated as part of this Review and builds upon the work undertaken as part of the strategic corridors program.

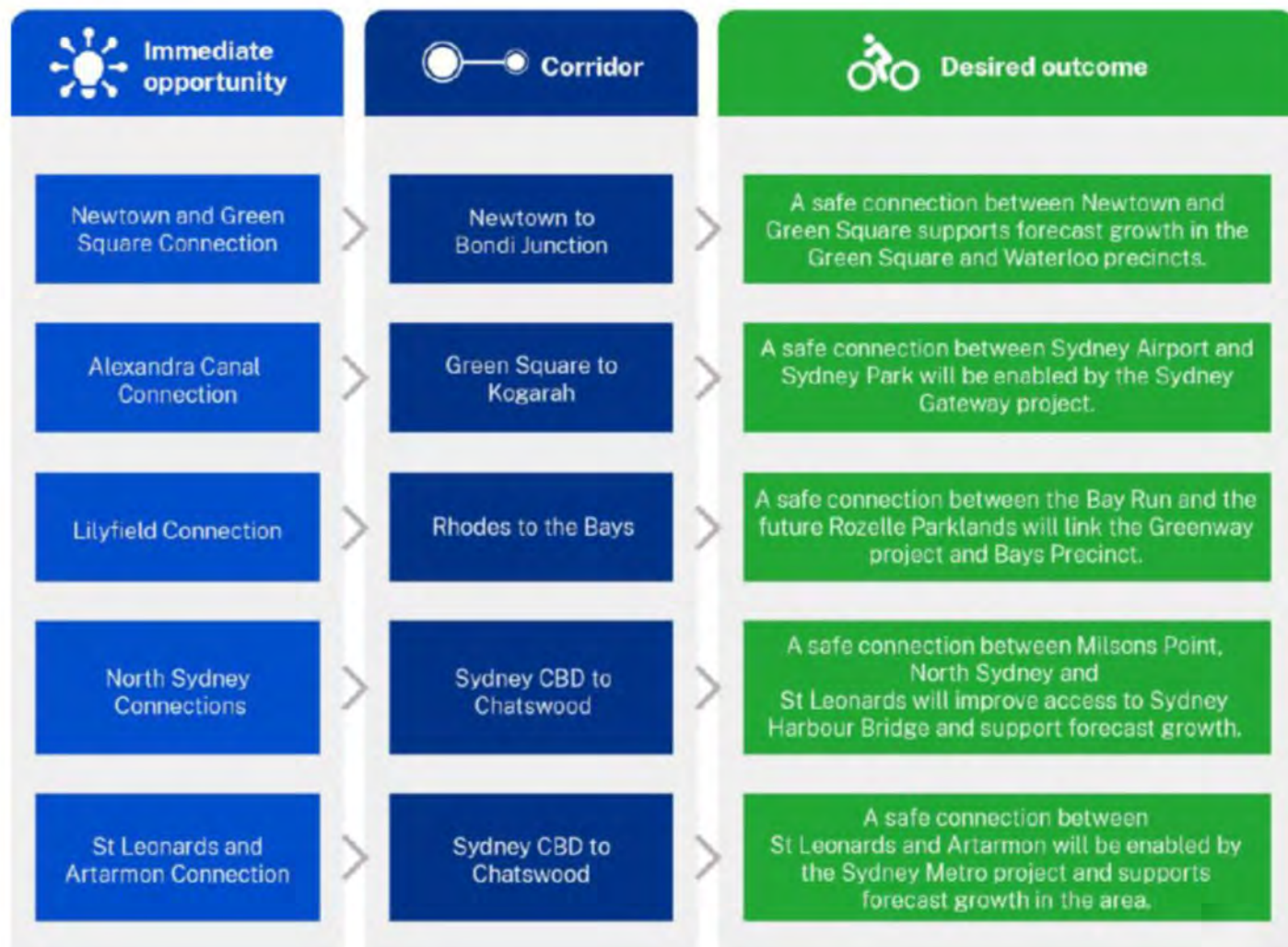


Figure 2.4 Immediate opportunities in the Eastern Harbour City
Source: Strategic Cycleway Corridors – Eastern Harbour City Overview (Transport, April 2022)

To deliver the best outcomes for our customers, the policy states that walking and cycling components of a project must be incorporated from the outset and followed through to delivery and maintenance, noting that the extent to which a project provides walking and cycling infrastructure will vary on a case-by-case basis and where a project is in the planning/ design/construction lifecycle.

It also acknowledges that early consideration and delivery of safe, integrated, reliable, accessible and connected walking and cycling infrastructure will enhance the local environment, help to drive behavioural change and achieve a sustained uptake in mode share of walking and cycling.

The Warringah Freeway Upgrade Project was designed and awarded in September 2021, prior to the implementation of this policy, yet the project is in keeping with the policy principles.

The [Road User Space Allocation Policy](#) was released by Transport in January 2021, with the objective of allocating physical and temporal road user space safely and equitably to support the movement of people and goods and place objectives. The intent of the policy is for Transport to ensure that the allocation of road user space:

- is a deliberate exercise that considers the place, function and movement requirements of roads
- achieves the strategic intent and outcomes as set out in state-wide, metropolitan and regional strategies and plans
- achieves the movement and place vision of a corridor or network
- considers the limited amount of space available to accommodate competing user needs, and
- can be adjusted to respond to specific circumstances.

Principles of this policy of particular relevance to walking and cycling include:

- Realise a balance between place and the movement of people and goods by first establishing a network vision and primary road functions based on strategies and plans
- When allocating road user space, consider all road users in order of: walking (including equitable access for people of all abilities); cycling (including larger legal micro-mobility devices); public transport; freight and deliveries; and point to point transport ahead of general traffic and on-street parking for private motorised vehicles
- Aim for the reduction of mode share of private motor vehicle trips within built up areas
- Implement measures over time to achieve the strategic intent and outcomes identified as part of strategies or plans
- Adhere to these principles ahead of any guidance that seeks to protect or maintain private vehicle level of service.

2.2 Other plans and policies

The plans and policies of other State and Local Government stakeholders which have been considered as part of this Review include:

- [North Sydney Local Strategic Planning Statement](#)
- [North Sydney Integrated Cycling Strategy](#)
- [North Sydney Walking Strategy](#)
- [North Sydney CBD Public Domain Strategy](#)
- [Civic Precinct Planning Study](#)
- [Military Road Corridor Planning Study Stage 1 \(Neutral Bay town centre\)](#)
- [Willoughby Bike Plan Update Infrastructure Assessment](#)
- [Lane Cove Council Bike Plan](#)
- [Lane Cove Council Pedestrian Access and Mobility Plan](#)
- [Mosman Local Strategic Planning Statement](#)
- [St Leonards and Crows Nest 2036 Plan](#)
- [Greater Sydney Green Grid](#)
- [Sydney's Cycling Future](#)

These plans and policies are summarised in **Appendix A**. The opportunities and ideas they present and their alignment with Transport's current plans and strategies are discussed and considered in more detail in Chapters 5 and 7.

Although the majority of the study area for this review is within North Sydney LGA, plans for Willoughby LGA (and other adjacent jurisdictions) are important when considering the vision of a wider connected and continuous network, particularly for cycling.

3. Existing networks

Key features of the existing walking and cycling networks relevant to the Review are presented in this chapter.

3.1 Walking

The pedestrian network in the area includes footpaths alongside most roads and controlled crossings provided across most arms of signalised intersections. High levels of pedestrian activity associated with retail and commercial land uses occur within North Sydney CBD and surrounding centres, and in the vicinity of the numerous schools located west of the Pacific Highway and along Miller Street.

Within North Sydney CBD there are a variety of pedestrian facilities including footpaths, shared zones, pedestrian-only civic spaces, links through commercial and retail premises, and priority-controlled, signal-controlled, and grade-separated crossings of major roads. The range and coverage of pedestrian facilities within North Sydney CBD are reflective of the high level and diverse range of pedestrian movements in this area.

Beyond North Sydney CBD pedestrian movements are generally enabled by roadside footpaths and at-grade crossings of major roads. An overview of strategic walking routes in North Sydney LGA beyond North Sydney CBD – as identified by North Sydney Council (NSC) – is provided in **Appendix A**.

The Warringah Freeway presents a barrier to east–west movements for pedestrians and bike riders, with crossings available at the locations in Figure 3.1.

The project also has some impact on north-south pedestrian movements, such as at Falcon Street with the removal of an underpass to the east of the Warringah Freeway to accommodate a dedicated bus lane.



Figure 3.1 Existing walking and cycling crossings along Warringah Freeway

3.2 Cycling

The cycle network in the North Sydney and surrounds study area is shown in Figure 3.2 and consists mostly of on-road cycle routes. There is a lack of dedicated and/or separated cycling facilities and consequently no safe and connected cycling network in the area. Steep grades on many of the roads also present challenges to the practicality and comfort of cycling in the area. The majority of separated cycling facilities are shared user paths, although a number of dedicated and separated off-road cycling facilities have recently been delivered by North Sydney Council.

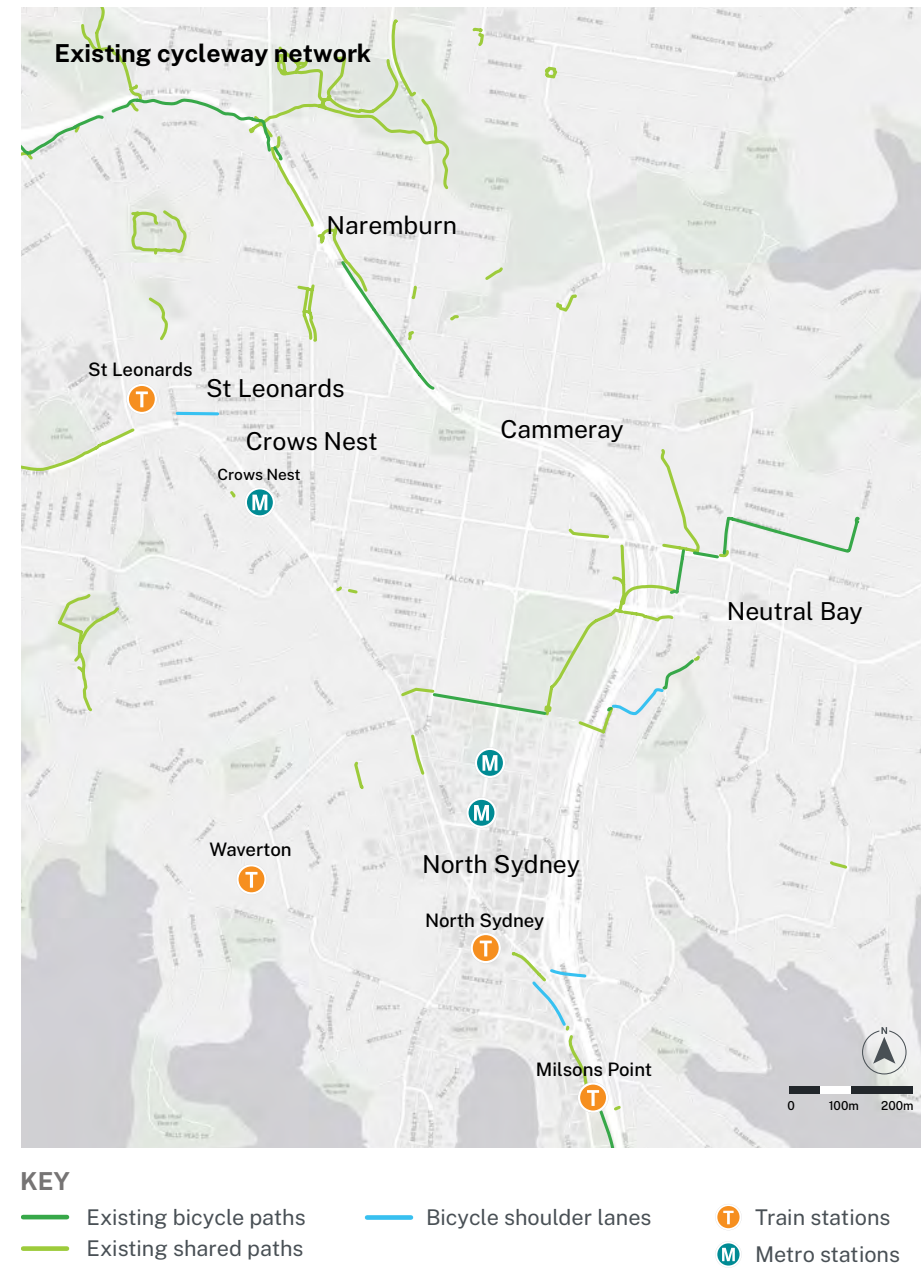


Figure 3.2 Existing cycling network and facilities

Source: Transport Cycleway Finder (Transport, accessed October 2022)
https://roads-waterways.transport.nsw.gov.au/maps/cycleway_finder/index.html

Secure bicycle lockers and other cycle parking facilities are located throughout North Sydney CBD, including within many commercial buildings in the area. Modern end of trip facilities are also becoming increasingly common in commercial buildings, which should assist in encouraging cycling trips to and from North Sydney CBD.

4. Walking and cycling demand

The majority of existing non-residential trip generators both in volume and density are located to the west of the Warringah Freeway. This is where walking demand in particular is heaviest and will continue to grow in proportion to ongoing development. Walking is expected to continue to be the popular mode of transport within centres such as North Sydney CBD, Crows Nest, and St Leonards.

4.1 Existing demand

Figure 4.1 and Figure 4.2 provide illustrations of key walking and cycling demand trip generators in the study area.



Figure 4.1 Existing centres, community facilities, and public transport nodes in North Sydney LGA

Source: North Sydney Walking Strategy Background Report (SCT Consulting, 2021)

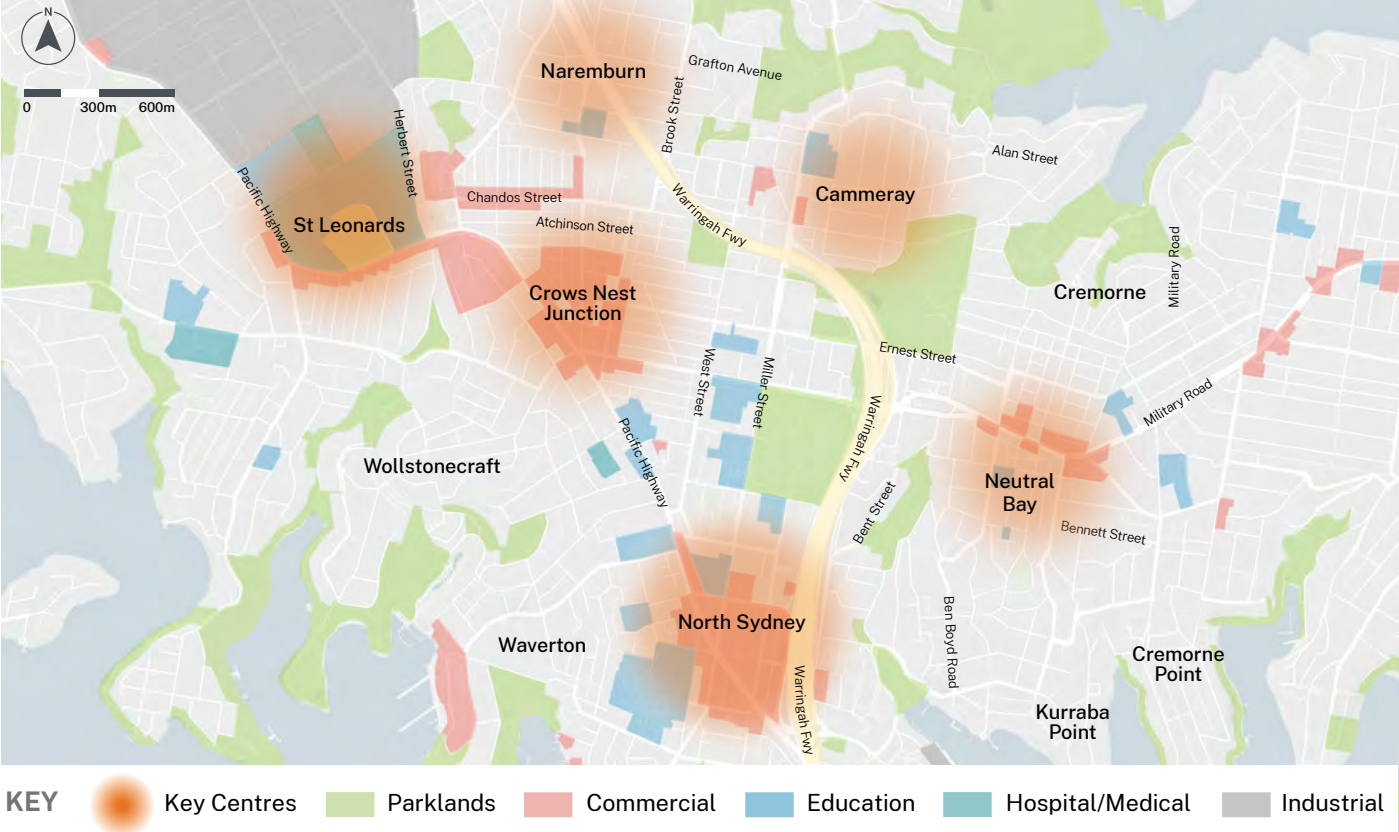


Figure 4.2 Key centres and areas of high pedestrian activity

There are key trip generators located to the north and east of the Warringah Freeway (and beyond), which reinforces the need to maintain and improve walking and cycling links along and across the Warringah Freeway corridor to improve and encourage these longer-distance trips between centres.

The preferred means of travel for journey-to-work trips to/from North Sydney is highly dependent on the distance travelled, as illustrated in Figure 4.3. The preferred mode for longer trips (>10km) is rail and for shorter trips (<2km) is walking. Private vehicle trips heavily feature in all trips greater than two kilometres making up 28 per cent to 33 per cent of trips. Cycling mode share is 1-2 per cent of trips less than ten kilometres.

Journey to work data provides a valuable understanding of work based and predominantly peak period travel, yet it represents only 17 per cent of trips in Sydney. The Household Travel Survey provides more data on total travel.

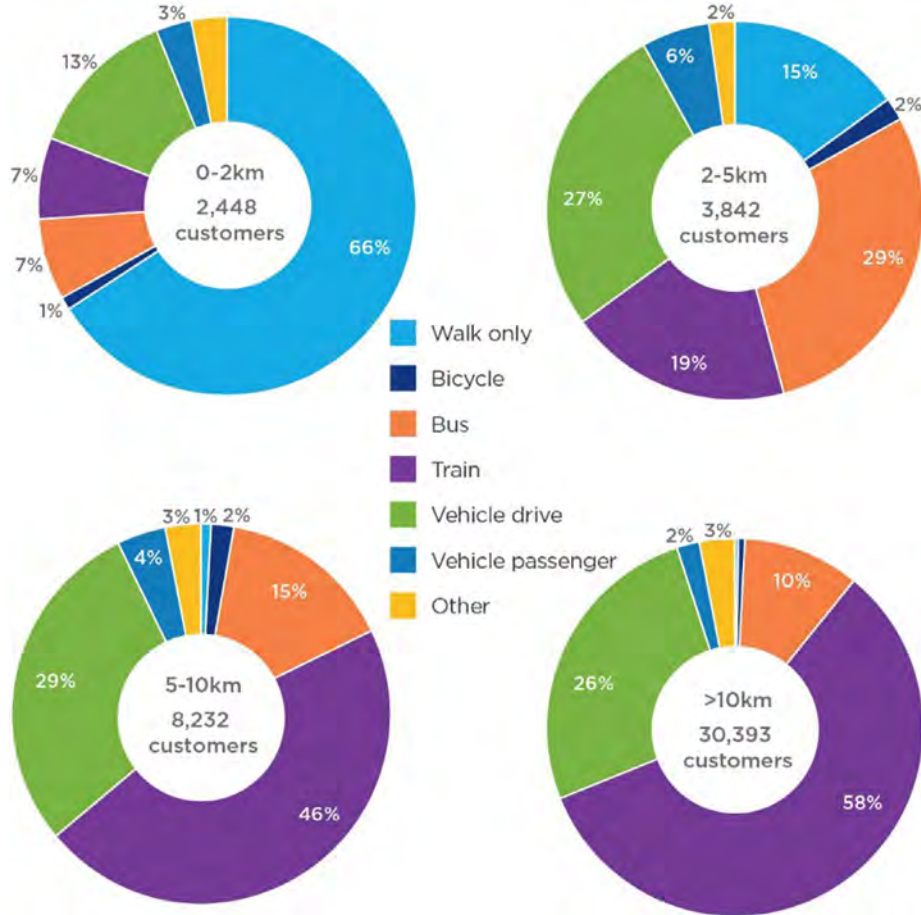


Figure 4.3 Mode choice by distance for journeys to work in North Sydney-Lavender Bay SA2
Source: ABS Journey to Work 2016



Crows Nest



Comparison of the North Sydney-Mosman area to the wider Sydney Greater Metropolitan Area (Figure 4.4) shows that residents undertake far more active transport trips and fewer vehicle trips than the Sydney average. This behaviour is likely to arise from better local access to shopping, employment, schools and other services. It also reflects the lower car ownership and parking provision within North Sydney.

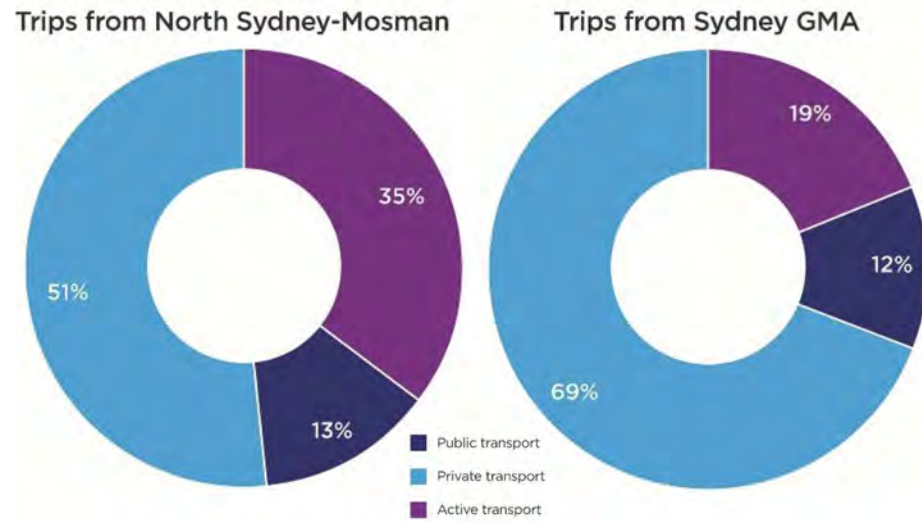


Figure 4.4 Travel choices for all trip purposes in North Sydney-Mosman SA3 and Sydney Greater Metropolitan Area
Source: ABS Journey to Work 2016

Table 4.1 provides a summary of surveyed pedestrian and cyclist movements crossing the Warringah Freeway corridor; Table 4.2 provides a summary of surveyed pedestrian and cyclist movements at road intersections close to high pedestrian activity areas. These survey counts happened prior to any pedestrian/cycling diversions or detours made by the project.

The data collected and presented has been periodically commissioned by Transport and includes pre-COVID data as well as the latest data commissioned up to and including August 2022. Comparisons of this data indicates that current pedestrian and cycling activity levels in the area during peak periods are similar to pre-COVID levels.

Table 4.1 – Existing pedestrian and cyclist movements at Warringah Freeway crossing locations

Location	Time period	Pedestrians/hour	Cyclists/hour	Total
Warringah Freeway crossings				
Brook Street ¹	Morning peak hour	14	3	17
	Evening peak hour	11	0	11
West Street ³	Morning peak hour	138	70	208
	Evening peak hour	104	95	199
Miller Street ³	Morning peak hour	207	10	217
	Evening peak hour	161	6	167
Ernest Street ³	Morning peak hour	25	16	41
	Evening peak hour	29	11	40
Falcon Street shared user bridge ²	Morning peak hour	96	22	118
	Evening peak hour	141	20	161
Falcon Street shared user underpass ²	Morning peak hour	8	5	13
	Evening peak hour	3	2	5

Location	Time period	Pedestrians/hour	Cyclists/hour	Total
Falcon Street ²	Morning peak hour	26	3	29
	Evening peak hour	11	2	13
Ridge Street Bridge ³	Morning peak hour	135	7	142
	Evening peak hour	82	5	87
Mount Street ¹	Morning peak hour	245	1	246
	Evening peak hour	237	0	237
High Street ¹	Morning peak hour	60	24	84
	Evening peak hour	46	5	51
Burton Street ³	Morning peak hour	303	301	604
	Evening peak hour	141	253	394

Source: Transport for NSW survey data (1: Wednesday 18 May 2022; 2: Wednesday 3 August 2022; 3: Thursday 20 July 2017). Surveys were undertaken prior to the implementation of cycle network diversions as part of the Warringah Freeway Upgrade

Table 4.2 – Existing pedestrian and cyclist movements at selected road intersections

Location	Time period	Pedestrians/hour	Cyclists/hour	Total
Major road intersections				
Pacific Highway / Bay Road ²	Morning peak hour	388	97	485
	Evening peak hour	264	62	326
Pacific Highway / Berry Street ¹	Morning peak hour	877	23	900
	Evening peak hour	686	22	708
Pacific Highway / Walker Street ¹	Morning peak hour	1839	31	1870
	Evening peak hour	1567	37	1604
Amherst Street / West Street ²	Morning peak hour	198	58	256
	Evening peak hour	182	59	241
Miller Street / Amherst Street ²	Morning peak hour	478	26	504
	Evening peak hour	325	15	340
Miller Street / Ernest Street ¹	Morning peak hour	447	15	462
	Evening peak hour	115	4	119
Falcon Street / Miller Street ¹	Morning peak hour	305	14	319
	Evening peak hour	265	11	276
Miller Street / McClaren Street ¹	Morning peak hour	909	25	934
	Evening peak hour	447	50	497
Miller Street / Berry Street ¹	Morning peak hour	1164	33	1197
	Evening peak hour	1060	49	1109
Military Road / Ben Boyd Road	Morning peak hour	248	26	274
	Evening peak hour	387	12	399

Source: Transport survey data (1: Wednesday 18 May 2022; 2: Wednesday 4 May 2016). Surveys were undertaken prior to the implementation of cycle network diversions as part of the Warringah Freeway Upgrade.

The data presented in Tables 4.1 and 4.2 shows that:

- The majority of pedestrian movement activity occurs close to North Sydney CBD, schools, and other amenities, with over 1000 movements per hour at a number of locations
- Pedestrian movements across the Warringah Freeway are relatively low, with the highest demands (between 200 and 300 pedestrians per hour) using the Miller Street, Mount Street, and Burton Street crossing points which are in the vicinity of Cammeray, North Sydney CBD and Kirribilli respectively
- Cycling demand, at most locations, is less than 50 cyclists per hour; strategic locations/routes with the highest existing use are Burton Street (around 300 cyclists/hour), Pacific Highway and West Street (both around 100 cyclists/hour), and Miller Street (up to 50 cyclists/hour).

In some cases, the data indicates significantly higher pedestrian activity in the morning peak hour compared to the evening peak hour – for example at the intersection of Miller Street and Ernest Street. These trends suggest significant pedestrian activity associated with schools, where the morning peak coincides with school drop-offs while pick-ups generally occur around 3pm prior to the evening peak.

4.2 Future demand

There is a growing demand for cycling trips

As well as journey to work trips, there is also a growing demand in highly urbanised regions for cycling messengers to deliver parcels and food. With increased restrictions in CBD circulation and kerbside parking, delivery by cycling is a low-cost and attractive option for businesses. It is expected that the Sydney Harbour Bridge cycleway, as the only connector between two major CBDs, will attract a growth in these types of trips.

North Sydney shows a latent demand for cycling

The Bike Use Propensity Index combines eight variables on riding behaviour and demographics collected as part of the Australian Bureau of Statistics Census. It has been designed to show the future likelihood of cycling with outputs shown in Figure 4.5. The areas with the highest estimated latent demand for bike usage include McMahon's Point, Milson Point, St Leonards, Crows Nest, Neutral Bay, and Cremorne.

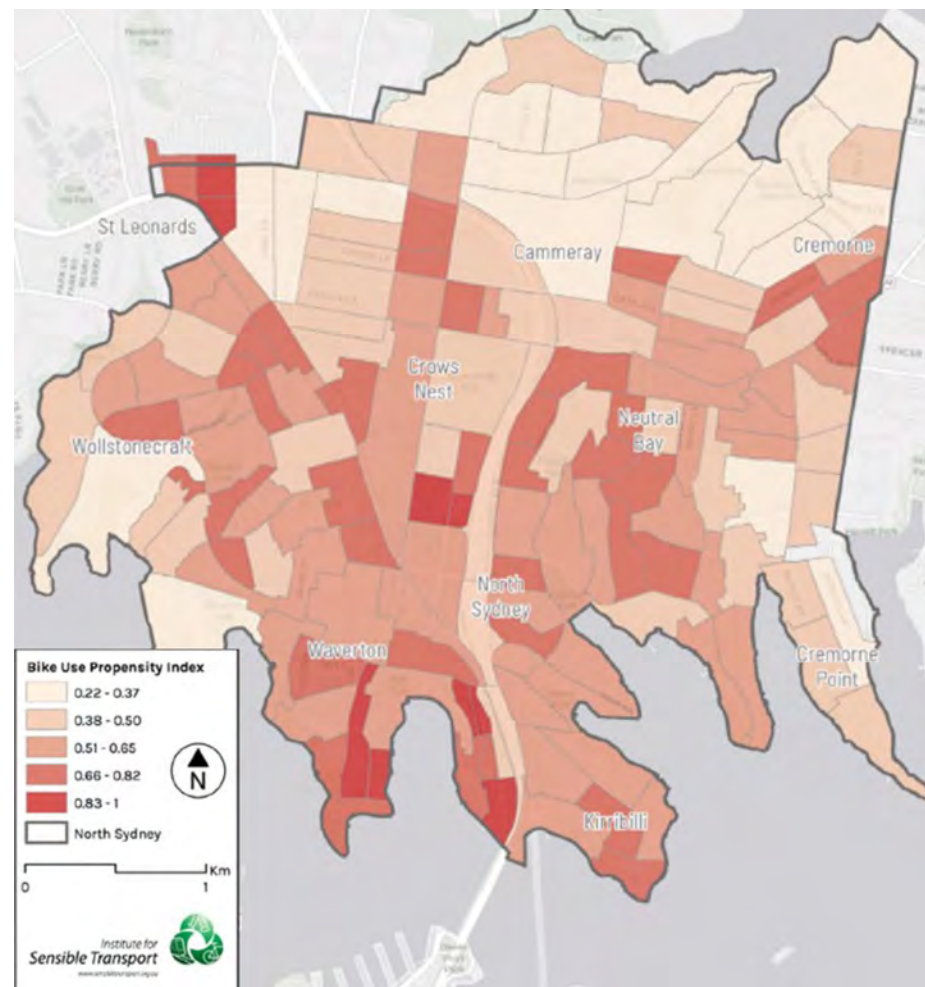


Figure 4.5 Bike Use Propensity Index in North Sydney

Source: Institute for Sensible Transport (2020) 'Mapping Bike Use and Car Share Propensity', p15

Future walking and cycling demand in the area will continue to grow in the future in response to:

- Ongoing general population and employment growth in the area – The *North District Plan* (Greater Sydney Commission, 2018) estimated over 19,000 new residents and over 37,000 new jobs in North Sydney LGA by 2036. This growth will increase walking and cycling demand to, from, and throughout the area
- Major transport and land use developments, including the opening of Sydney Metro City and Southwest
- Improvements to walking and cycling facilities.

Sydney Metro City and Southwest, and other major developments in existing strategic centres and future planned precincts along major transport corridors, will introduce material changes to walking and cycling demands and patterns in the area.

As an example, Crows Nest Metro station is expected to generate over 10,000 customers per morning peak hour by 2036; Victoria Cross station is estimated to serve over 15,000⁶ customers. The future demand generated by these developments strengthen the case for investment in walking and cycling facilities to, from, and within existing and emerging strategic centres.

⁶ Sydney Metro City and Southwest – Chatswood to Sydney Environmental Impacts Statement (Transport, May 2016)



Walker Street, North Sydney



5. Overview of planned and proposed network changes

North Sydney is undergoing major change with a number of construction projects and upgrades currently in delivery or planning by both Transport NSW and North Sydney Council.

Figure 5.1 provides an overview of the scope and location of planned walking and cycling upgrades in the project area. The upgrades that are in advanced stages of development or delivery and which have been considered in the Review are listed below. Further details on each of these upgrades is provided in **Appendix B**.

Sydney Metro City and Southwest

Sydney Metro City & Southwest is a new 30-kilometre metro line extending from the end of Sydney Metro Northwest at Chatswood under the Sydney Harbour, through to new Sydney CBD stations and southwest to Bankstown. This line is due to open in 2024 with the capacity to run a metro train every two minutes each way through the Eastern Harbour City.

The primary entrance to Victoria Cross Metro station will be via a pedestrian opening to Miller Street and Denison Street ('Victoria Cross South'), with a secondary lift-only access on Miller Street near the intersection of McLaren Street ('Victoria Cross North').

Western Harbour Tunnel and Warringah Freeway Upgrade

Warringah Freeway Upgrade (WFO) is a four kilometres upgrade of the Warringah Freeway corridor between the northern end of Sydney Harbour Bridge and Willoughby Road in Naremburn.

Western Harbour Tunnel (WHT) is a six and a half kilometre cross-harbour motorway tunnel from the Rozelle

Interchange to the Warringah Freeway near North Sydney. Of the two projects, the WFO will be delivering the following changes to the cycling and walking network:

- New shared user path facilities on the Ernest Street bridge over Warringah Freeway including a green link between Cammeray Park and Anzac Park, tying in with existing North Sydney Council facilities on the eastern side of Ernest Street
- Rebuilding the Ridge Street shared user bridge over Warringah Freeway
- Rebuilding the Falcon Street shared user bridge over Warringah Freeway
- Upgraded shared user path facilities on High Street Bridge over Warringah Freeway, improving access between Kirribilli and the North Sydney CBD
- Removal of the shared user underpass beneath Falcon Street on the eastern side of the Warringah Freeway, to provide additional southbound lanes on the Warringah Freeway, including a new dedicated and separated bus lane in the current underpass location.

Sydney Harbour Bridge Northern Cycle Ramp and Alfred Street South Cycleway

Planning is underway to upgrade access at the northern end of the Sydney Harbour Bridge Cycleway by providing a bike ramp and upgraded cycle path along Alfred Street South, Milsons Point.

North Sydney Council projects

North Sydney Council has limited green spaces within the CBD and limited public open space compared with neighbouring councils. There are 550 people per hectare of public open space in the North Sydney LGA compared to 526 in the City of Sydney, 216 in Willoughby and 170 in Mosman⁷. Increasing public domain in North Sydney is in line with the former Premier's priority to increase the proportion of homes in urban areas within a 10-minute walk of green, open and public spaces by 10 per cent by the end of 2023⁸.

To help address these issues, North Sydney Council has developed the [North Sydney CBD Public Domain Strategy](#) and [North Sydney Civic Precinct Planning Study](#) which sets out future visions for the CBD to St Leonards. These plans also include opportunities to improve open space, create new public domain and pedestrian linkages in these busy urban centres.

Significant development is underway with the new Western Harbour Tunnel (WHT) and Victoria Cross Station which will cater for about 15,000 additional people working within the North Sydney precinct by 2036.

⁷ NSW Office of Local Government (2016-2017).
⁸ NSW Department of Planning, Industry & Environment (2020).

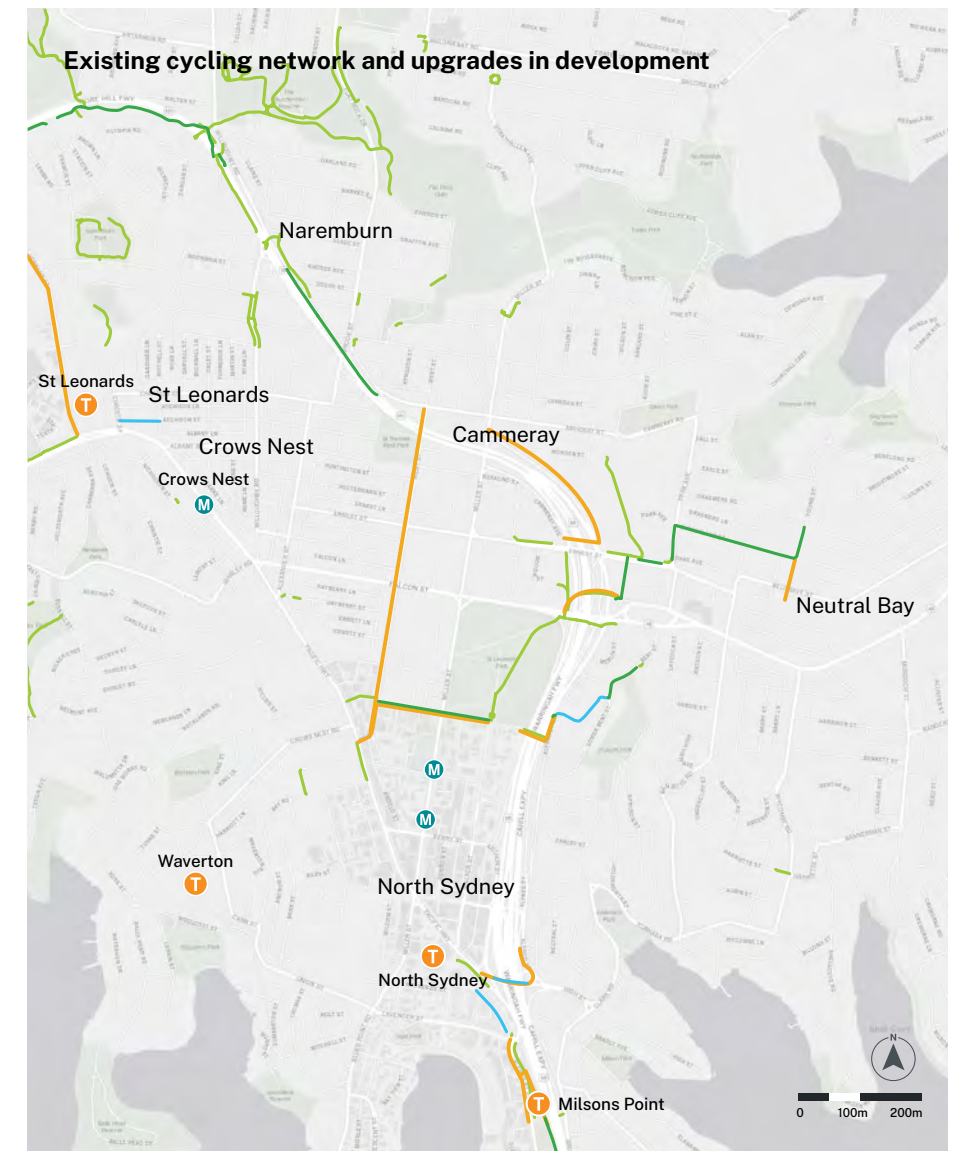
Notable projects recommended in the Public Domain Strategy include:

- Miller Place – pedestrianisation of Miller Street between Pacific Highway and Berry Street to create a new plaza in the heart of the North Sydney CBD
- Post Office Square – pedestrianisation of Mount Street between Pacific Highway and Williams Street to create a new plaza in front of the North Sydney Post Office and Police Court
- Berry Street upgrade – proposal to convert Berry Street to two-way traffic and improve the walking environment by implementing safer crossings and improve circulation on footpaths.

Council has also secured funding to deliver part of the [West Street Cycling, Walking, and Streetscape Upgrade](#) project and has identified opportunities to enhance open space and improve walking and pedestrian access in Council's:

- [Military Road Corridor Planning Study Stage 1 \(Neutral Bay town centre\)](#)
- [Kirribilli Village Centre Masterplan and The Kirribilli to Cremorne Walking, Cycling, and Streetscape Upgrade](#) project
- [Young Street Walking, Cycling, and Streetscape improvements](#)

Further information about the above planned and proposed changes can be found in **Appendix B**.



KEY

- Existing bicycle paths
- Existing shared paths
- Bicycle shoulder lanes
- Projects in development
- Train stations
- Metro stations

Figure 5.1 Overview of planned walking and cycling network upgrades in the study area
Source: Cycleway Finder

The alignment of these upgrades with the strategic opportunities and the next priorities for delivery in this area are discussed in Chapter 8.

6. Stakeholder and community consultation

The Review has been prepared in consultation with North Sydney Council, Willoughby Council, Bicycle NSW and Bike North.



Stakeholder workshop with Bike North, Bike NSW and Transport in January 2023

A series of workshops in early 2023 gave the opportunity for bike user groups and council stakeholders to share their knowledge and give feedback about the gaps and priorities in the bike riding and walking network.

The workshops explored ways to improve the network and enabled Transport to share some of the constraints and competing priorities within this multi-use, densely populated area.

The results of the workshops will be taken to the broader community for consultation in mid-2023 and integrated into the Review recommendations.

Transport hosted five workshops between December 2022 and May 2023 and a bike-ride through the project area.

The first three workshops brought councils and bike user groups together with Transport teams to discuss existing gaps in the cycling corridors and capture issues and concerns.



Stakeholder workshop with Bike North, Bike NSW and Transport in January 2023

These groups have granular knowledge of the area and contributed valuable, on-the-ground information.

The draft structure of the Review was shared with the group, communicating the broader purpose of the Review.

Transport's proposed community consultation approach for this Review was discussed with the stakeholder groups.

A series of maps were shared, and workshop participants were invited to annotate with comments and make suggestions about improvements to bike riding routes.

The stakeholders requested Transport:

- Consider road space re-allocation in North Sydney and the surrounds to support bike riders and pedestrians
- Take on board their ideas on initial priority corridors.

Key points made by the bike user groups reinforced comments and issues raised during earlier project consultation (summarised in Chapter 1). These were:

- The need for strategic cycling corridors through the North Sydney CBD to connect key centres such as St Leonards and Neutral Bay
- East-west cross-routes for walkers and bike riders are important
- Activations, such as those used by City of Sydney, could assist in encouraging appreciation of safe cycling and car de-prioritisation.

The three key priorities outside of North Sydney CBD identified by the bike user groups were:

1. A connection between Naremburn and West St
2. The Falcon St crossing
3. A connection between Harbour Bridge and North Sydney CBD.

Transport considered the feedback and priorities put forward by the stakeholder groups and alignment with the Strategic Cycleway Corridors. Transport progressed a high-level assessment of each priority put forward.

Workshop three was held in February 2023 with North Sydney Council (NSC) and Transport to further consolidate and share information about the priority gaps previously identified in public submissions and by bike user groups. NSC shared their considerations of walking routes, constraints and opportunities, including traffic calming measures, increase of cycle parking and the reallocation of roads to public domain footpaths.

Council noted the range of community sentiment around proposals for bike paths, with some businesses and car owners opposing the loss of on street parking.

Council noted it will be reviewing its cycling strategy and raised the West Street upgrade and Young Street to Neutral Bay link as priority opportunities it would be progressing.



Stakeholder workshop with Bike North, Bike NSW and Transport in January 2023

It identified the following as key priority connections to address in the walking and cycling network:

- Falcon Street and link to St Leonards Park
- Ernest Street
- Pacific Highway north of Civic Street
- Ben Boyd Road
- Yeo Street.

Council also acknowledged the use of Get NSW Active funding to support the planning and delivery of some of these connections.

The fourth stakeholder workshop brought together North Sydney Council (NSC), Willoughby Council (WC), Bike North (BN) and Bike NSW (BNSW). Assembling this group provided clarity on the need to create continuous cycling corridors across local government borders. The workshop reiterated the scope of the Review and revisited the priority gaps in the cycle networks identified by key groups.

North Sydney and Willoughby Councils provided an overview of their priorities and upcoming upgrades. It was noted that the connection between North Sydney CBD and the Harbour Bridge is critical, though complex to implement. The bike user groups provided their input on the identified priority gaps.

They noted that:

- It is critical to provide an East-West link across the WFU corridor
- The North Sydney CBD link should continue to St Leonards (in agreement with Willoughby Council)
- Some of the riding grades are very steep and land contours should be taken into consideration when developing cycling routes to make riding easier
- Bike user groups are willing to support public consultation and co-design is highly valued.

Stakeholders unanimously agreed on the priority gaps and opportunities tabled, namely the importance of progressing the following options to improve bike-riding and walking paths:

- 1) [Gore Hill Freeway](#)
- 2) [Falcon Street Interchange](#)
- 3) [North Sydney CBD \(West\)](#)
- 4) [North Sydney CBD \(East\)](#)
- 5) [Sydney Harbour Bridge to North Sydney CBD.](#)

Each of these links and opportunities are discussed in detail in Chapter 8.

7. The role of Transport and local councils to deliver walking and cycling improvements

Transport supports local communities and councils to develop and deliver improvements to the walking and cycling network. It does this via four main methods:

1) Transport plans, designs and delivers major infrastructure, such as bridges over roads and waterways to connect people to places and support urban renewal. As indicated in Chapter 2, Transport must provide for walking and cycling in the projects that it funds.

Transport also approves and operates traffic signal-controlled intersections and crossings. We provide appropriate pedestrian crossing facilities and are responsible for approving any changes to speed limits.

2) Secondly we support local councils deliver on their visions for walking and cycling by enabling funding through the [Get New South Wales Active](#) program. Further details on this program is contained below.

This approach enables Transport to progressively plan and expand local walking and cycling networks and empowers councils to deliver walking and cycling priorities and improvements for their local communities. Recent walking improvements that have been funded under this program in the study area include the West Street Upgrade and the Young Street Upgrade.

3) Thirdly, Transport, via the Department of Planning and Environment, works with councils to help activate and re-imagine major high streets and local streets through programs such as [Streets as Shared Spaces](#).

This \$35 million program launched in May 2020, as a pilot to enable improvements across NSW during COVID-19 and into the future. Piloting temporary interventions and pop-ups has allowed councils, the community and stakeholders to trial innovative ideas that test and build the case for more permanent changes.

Grants of up to \$500,000 were available for councils to deliver trials that test permanent changes to strengthen the amenity, accessibility and economic vitality of a high street and surrounding area.

The Streets as Shared Spaces program aims to:

- provide more and better public space that improves walkability and connection, enables day and night activity, and increases footfall
- drive collaboration and partnerships between local government and another sector, whether public, private, civic or community, taking a place-based approach
- enable long-term changes through trialling innovative and creative approaches, partnerships and engagement.

Examples of projects that have been funded in the study area include the Miller Street Pop-up, Blues Point Road and Kirribilli Markets.

Case studies of recent projects are included in **Appendix F**.

4) Finally, Transport, with other State government bodies, provides guidance on how to plan, design and deliver great walking and public spaces. These guides are shaped and developed in consultation with local government and the community. Recent guides relevant to enabling walking improvements include:

- [NSW Guide to Walkable Public Space](#) – identifies 10 characteristics of walkable open spaces, streets and public facilities. It is designed for everyone to support walkable public spaces that improve quality of life for our communities
- [NSW Guide to Public Space Activation](#) – designed to help councils, place managers, communities and government agencies take a place-based approach to public space activation
- [Great Public Spaces Guide](#) – designed to help communities, industry, local and state government create great public spaces that are full of life.

7.1 Get NSW Active Program – funding opportunities for local councils

Transport provides its own funding for walking and cycling paths and improvements on State roads, but also assists local councils with funding for the design and development of local walking and cycling projects through the Get NSW Active program.

Objectives

The objective of this program is to support the planning and delivery of functional and safe walking and cycling infrastructure on local roads that can promote bike riding and walking as attractive, reliable, and competitive choices for travel.

The Get NSW Active Program's strategic objectives are aimed at:

- Improving bike riding to and within centres, neighbourhoods and to key destinations
- Improving walkability in centres, neighbourhoods and at key destinations
- Enable vibrant centres and liveable neighbourhoods through the creation of street environments that prioritise walking and cycling.

Under this grants program, Transport encourages Councils to plan, develop a program of works and consider different funding options for proposed projects. This approach supports Councils to develop a sustainable forward program of walking and cycling projects that provide tangible benefits for communities and customers.

Projects that have received funding under this program include:

- West Street, North Sydney – construction funding for a separated cycleway between Pacific Highway and Ridge Street
- Short Lane, Neutral Bay – construction funding for a continuous footpath
- Bligh Street, Kirribilli – construction funding for a shared zone.

Funding streams

Funding is available for the following types of walking and cycling projects:

- Strategic assessment
- Concept and detailed design development
- Construction.

STRATEGIC ASSESSMENT FUNDING

This funding allocation is designed to support councils in the planning, development and delivery of walking and cycling infrastructure and would be typically allocated towards:

- Strategic Walking and Cycling Network and Implementation Plans
- Feasibility assessments for individual project routes.

Strategic assessment funding does not include funding for concept design and detailed design – these need to be submitted separately once strategic assessment is complete.

CONCEPT AND DETAILED DESIGN FUNDING

Funding requests for design projects will be for:

- Concept design
- Detailed design.

CONSTRUCTION FUNDING

Funding requests for construction projects must focus on the project being ready to commence construction and be completed within the funding period being requested. The application must include a route map and a standard detailed drawing for the facility proposed or concept design with the standard detail or detailed design with or without standard detail.

Process for selecting successful projects

Transport receives many applications to the Get NSW Active Program each year. To rank and identify successful projects, all applications are assessed against pre-agreed criteria. Once the assessment and ranking process is completed, the highest ranked eligible projects, above the funding threshold, are offered funding under the program. At a high level, the criteria includes:

- Alignment or consistency with Transport policy and guidelines (e.g. will the project enable more walking and cycling trips, are path types and widths consistent with the Walking Space Guide and/or Cycleway Design Toolbox, does the project enhance the overall network)
- Project readiness (e.g. are project documents complete, has community consultation been completed, have Council endorsed the project, have changes to traffic control signals been assessed and supported by Transport)
- Project risks (e.g. conflicts with services, incomplete documentation or outstanding issues, complex land ownership arrangements).



8. Opportunities to improve walking and cycling

This chapter presents the findings of this review. It shows the gaps in the cycling and walking network that have been prioritised as opportunities for improvement. It includes a possible alignment for each link and identifies the issues that will need further consideration. Feedback from bike user groups and local councils have informed and are incorporated into this analysis.

8.1 Walking opportunities

15-minute neighbourhoods in North Sydney and surrounds

The concept of [15 Minute Neighbourhoods](#) discussed in the *Active Transport Strategy* (section 2) aims to foster local areas where people can walk along their local streets from home to their daily needs, like going to school, a grocery store, post office, bank, medical centre, public transport stops, open spaces, recreational and public facilities.

At an average walking speed, a *15-minute neighbourhood* trip covers a distance of around one kilometre. Transport and council's goals are for these journeys to be via well-designed roads, crossings and pathways with safe speeds, tree canopy cover and shade and along activated high streets.

Similarly, the [North Sydney Walking Strategy](#) prioritises pedestrian amenity and access throughout the North Sydney LGA, particularly to, from, and within areas of high pedestrian activity.

We have an opportunity to create more walkable local neighbourhoods through improvements in our open spaces, streets and public facilities.

Transport is working with councils to help create a connected network of paths and open spaces that will help encourage more people to walk, run, socialise and enjoy the public spaces around them.

Community consultation for this Review will invite feedback from the community about what improvements to the walking network they would like to see, to help deliver more walkable public spaces.

Using the principles outlined in the [NSW Guide to Walkable Public Space](#), and case studies from the [Streets as Shared Spaces](#) program, this Review will invite the community to identify how their open and community spaces could be enhanced and how could local streets be re-imagined?

This feedback will be shared and workshopped with councils to help ensure the different layers of Government work together to meet community needs and take action to create walkable public places that improve liveability.



There are clear opportunities to develop and deliver pedestrian improvements in and around key centres in the study area to help achieve 15 minute neighbourhoods.

Walking network opportunities

Key initiatives for Transport and/or other Government agencies to progress include:

- Supporting councils to roll out low-speed zones in areas of high pedestrian activity.
- Reviewing speed limits on State controlled roads in locations of high pedestrian activity such as through North Sydney and St Leonards
- Supporting councils to address unsafe road safety environments through Transport's Liveable and Safe Urban Communities Initiative
- Reviewing signalised crossing opportunities where potential need exists, for instance to provide better and safer access to/from the Neutral Bay Big Bear Shopping Centre, the adjacent bus station and residential areas located between the eastbound and westbound carriageways of Falcon Street to the east of the Warringah Freeway
- Providing footpaths on both sides of the streets as part of Get NSW Active funding applications
- Delivering pedestrian improvements in areas around North Sydney such as Mount Street and High Street

- Prioritising pedestrian movements at key destinations, including reviewing signal timing and crossing opportunities at traffic signal controlled intersections
- Providing walking space which is accessible to all users – children, the elderly and people with limited mobility
- Supporting and working with council and local schools as part of the above to improve active transport to school initiatives and walking/cycling infrastructure as part of the Active Transport Strategy.

Our approach also encourages the use of low-cost and/or temporary infrastructure to trial or test walking and cycling initiatives locally.

Figure 8.1 shows some of the current plans and projects in the study area that will deliver walking improvements.

8.2 Cycling and walking opportunities

North Sydney and surrounds strategic corridors

Transport's strategic cycleway corridors in the study area comprises:

- Three strategic cycleway corridors between the centres of North Sydney CBD, St Leonards, and Neutral Bay
- Five connecting corridors beyond the study area to and from:
 - Chatswood, Willoughby, and Lane Cove to the north and west
 - Mosman to the east
 - Sydney CBD to the south.

These are shown in Figure 8.2.

Cycling network opportunities

The lack of a continuous and connected network in the study area that is of suitable quality for all ages and abilities acts as a significant barrier to increasing the number of cycling trips.

To address this, the Review has identified a number of priorities based on the strategic corridors, analysis of existing gaps in the network and continued engagement with local stakeholders to understand the needs of bike riders (refer to Section 6).

The priorities identified:

- Are strongly aligned with the strategic cycleway corridors for the Eastern Harbour City
- Fill key gaps in the cycling network
- Help connect key centres in the North Sydney LGA and beyond
- Have been raised as issues by local councils, stakeholder groups and the community over an extended period of time
- Have strong support from local councils, and stakeholder groups.

It is important to note that all opportunities are currently unfunded and subject to approvals, route investigations and design development. All links require further investigation and consultation with local councils, bike user groups, the community and other relevant stakeholders to ensure suitable design outcomes. We expect the consultation to take place in 2024.

See Figure 8.2 on next page

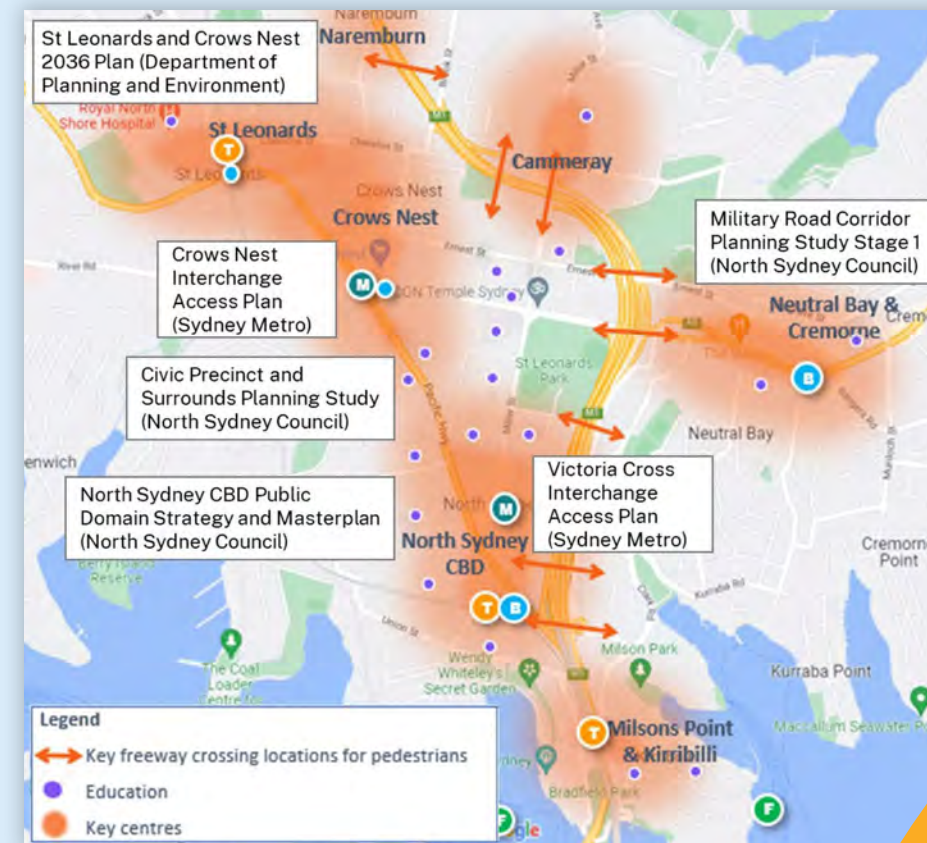


Figure 8.1 Current plans/projects in key centres that will deliver walking improvements

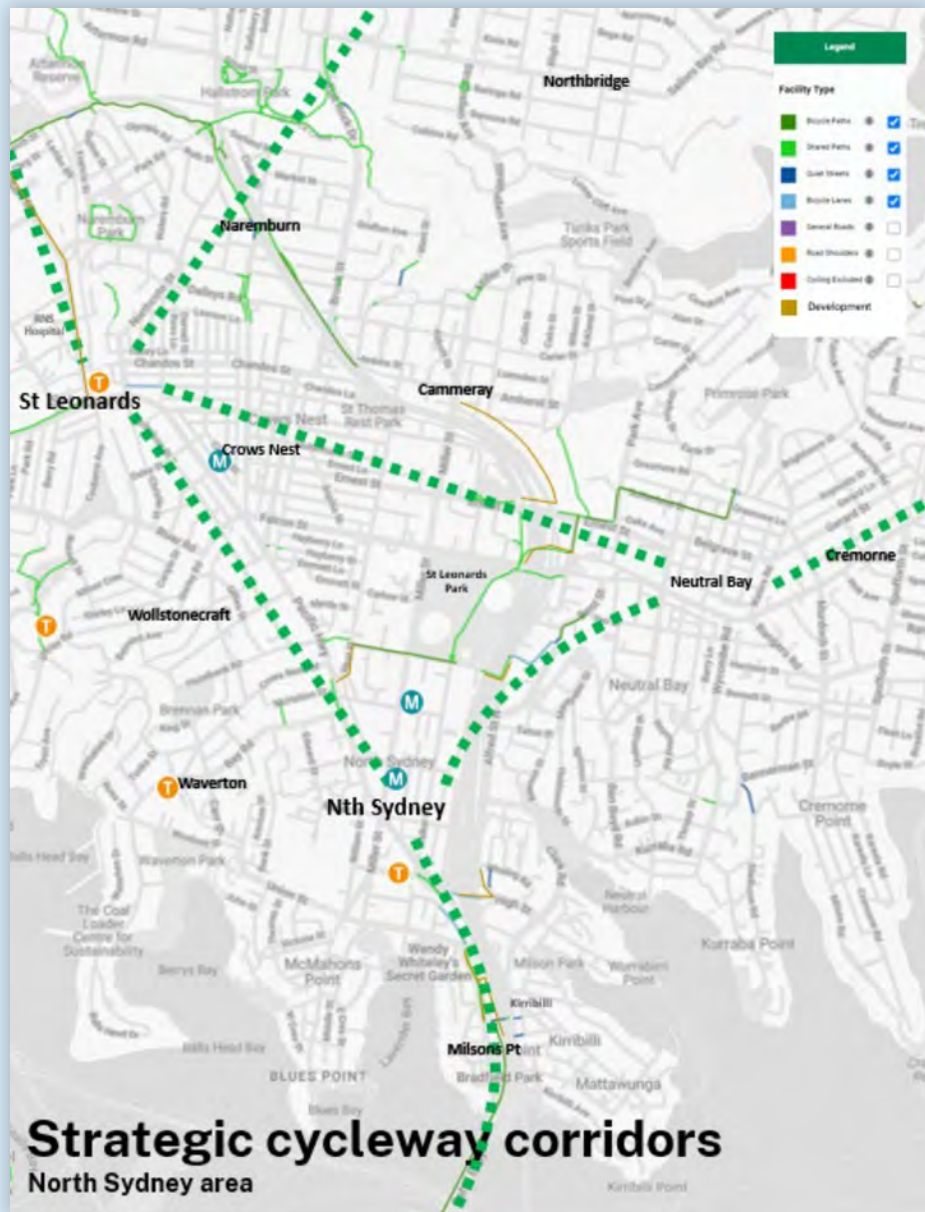


Figure 8.2 Strategic cycleway corridors in the North Sydney area

Cycling and walking priorities

1. Gore Hill Freeway

Opportunity: Provide a safe and continuous cycling connection from the Gore Hill Freeway cycleway between West Street and Merrenburn Avenue, to enable connected north-south cycling journeys to occur.

2. Falcon Street Interchange

Opportunity: Improve safety and connectivity for pedestrians and bike riders at the Falcon Street Interchange to support movement between North Sydney and Neutral Bay and prevent the interchange becoming a barrier to active travel.

3. North Sydney CBD (McLaren Street)

Opportunity: Provide a safe and continuous walking and cycling connection from the northern entrance of Victoria Cross Metro Station (located at the Miller Street / McLaren Street intersection) to the Pacific Highway. This link would support the opening of the new Victoria Cross station and enable improved connections with public transport for pedestrians and bike riders.

4. North Sydney CBD (East)

Opportunity: Provide a safe and continuous cycling connection from the Pacific Highway / Blue Street / Walker Street intersection to the new Ridge Street shared user bridge that is being delivered by the Warringah Freeway Upgrade project. This would provide a direct north-south connection, potentially via Walker Street, Berry Street and the western edge of the Warringah Freeway.

5. North Sydney CBD (West)

Opportunity: Provide a safe and continuous cycling connection between Blue Street / Walker Street and West Street, potentially via a separated cycleway along the Pacific Highway. It would connect to the proposed north-south cycleway on West Street to extend dedicated cycling opportunities towards Cammeray and Crows Nest.

6. Lavender Street to Blue Street

Opportunity: Provide a safe and continuous walking and cycling link between the Sydney Harbour Bridge and North Sydney CBD to enable a connected route between Sydney and North Sydney.

An improved link would extend from the Alfred Street South / Lavender Street / Middlemiss Street intersection to the Pacific Highway / Blue Street / Walker Street intersection, potentially via Middlemiss Street, Arthur Street and the western side of the Pacific Highway.

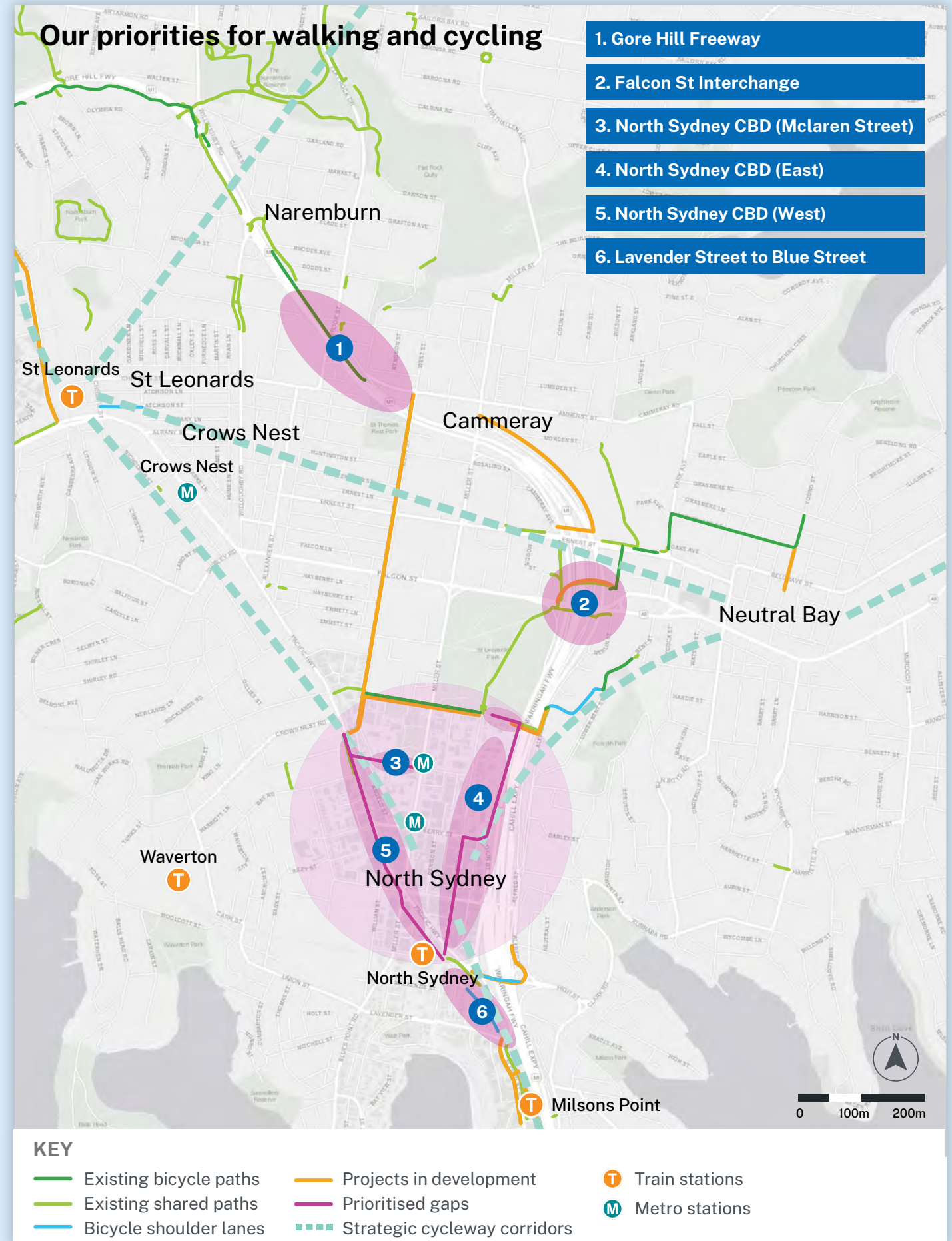


Figure 8.3 Overview of walking and cycling network gaps and priorities for North Sydney area network



Priority opportunities to be progressed

The following section explains the network gaps and provides an initial analysis of the potential infrastructure that may be required, route constraints, technical considerations and potential benefits for each of the strategic route opportunities identified. A route assessment criteria '▲ red, ■ amber, ● green' has been undertaken for each of the opportunities.

The assessment includes the following criteria:

- Alignment with Transport's Strategic Cycleway Corridors for the Eastern Harbour City
- Directness
- Constructability / technical considerations
- Alignment with Crime Prevention Through Environmental Design (CPTED) principles, which help to create a safe and secure environment, minimise the incidence of crime and contribute to perceptions of increased public safety.

Pacific Highway, North Sydney



Figure 8.4 Overview of Gore Hill Freeway opportunity

1. Gore Hill Freeway

Network gap and current challenge: Stakeholders identified deficiencies with the existing cycleway on Gore Hill Freeway (between West Street and Merrenburn Avenue), which is an important cross-regional cycling route between Cammeray and Macquarie Park. Bike riders are required to cross the Brook Street on-ramp to the Warringah Freeway, with the potential for conflict with high volumes of fast-moving traffic. In addition, the existing cycleways along Gore Hill Freeway, and Amherst Street between West Street and the Brook Street on-ramp (for bike riders travelling westbound), are narrow and obstructed by utility poles.

Stakeholders proposed a grade-separated structure to eliminate the at-grade crossing of the Brook Street on-ramp. Given the long lead time required to deliver such a link and that the feasibility of such a structure is not yet known, there are also short-term opportunities to improve the quality of the cycleway with relatively minor interventions which should be further investigated. Further analysis of both

short and longer term opportunities to improve connectivity is proposed as one of the recommendations in this Review.

The identified network gap is broken down into sections A to D which is shown in Figure 8.4. This shows just one possible option of how this gap might be addressed, and alternative options will be explored in the design phase. An initial high-level technical analysis of a potential route for further investigation, along with other alternatives, is provided below:

- A** There is sufficient roadway width to provide a bi-directional separated cycleway between West Street and the Brook Street on-ramp
- B** A short-to-medium term solution to address the at-grade crossing of the Brook Street on-ramp could include the installation of traffic signals, noting the safety and operational issues associated with this option and vehicles accelerating on to the Freeway
- C** Provision of a grade-separated structure would need to consider a new noise wall that has recently been installed along the northern /

eastern side of the Brook Street on-ramp and Amherst Street, and also possible visual impacts on adjoining residential properties

- D** There are short-term opportunities to widen the existing cycleway and detour around utility poles that obstruct bike riders. Widening the existing cycleway would likely involve adjustments to retaining walls, utilities and crash barriers, and the possible removal of mature trees.

Route assessment criteria

Alignment with strategic cycleway corridors	■
Alignment with council plans	●
Directness	●
Constructability / technical	▲ ■
Alignment with CPTED principles	■

- Meets or exceeds objective
- Challenges in meeting objective
- ▲ Further work or analysis required

2. Falcon Street Interchange

Network gap and current challenge: There is a gap for pedestrians and cyclists crossing the Falcon Street Interchange. This forms part of the strategic cycleway corridor between North Sydney and Neutral Bay.

It is currently difficult for pedestrians and bike riders to cross between the southern and northern side of Falcon Street, with the need to cross ten lanes of traffic and wait for various sets of traffic signals. In addition, there is limited storage space for pedestrians and bike riders waiting to cross Falcon Street on the western side, and there is a steep level difference between Falcon Street and areas to the south. The crossing has become more difficult for pedestrians and bike riders at the eastern end of Falcon Street due to the removal of the underpass by the Warringah Freeway Upgrade project to accommodate a bus lane.

Stakeholders proposed a grade-separated structure spanning Falcon Street. Given the long lead time required to deliver such a link and that the feasibility of such a structure is not yet known, there are also short term opportunities to improve connectivity at either end of the intersection with relatively minor interventions which should be further investigated. Future analysis of both short and longer term opportunities to improve connectivity is proposed as one of the recommendations in this Review.

The identified network gap is broken down into sections A to H which is shown in Figure 8.5.

An improved north-south connection of the western side of the Falcon Street Interchange would improve connectivity on the strategic cycleway corridor between North Sydney and locations to the north.

This shows just one possible option of how this gap might be addressed, and alternative options will be explored in the design phase.

An initial high-level technical analysis of a potential route, for further investigation along with other alternatives, is provided below. All options for at grade improvements and a grade separated structure will be assessed as part of further investigations:

- A** St Leonards Park is listed on the State Heritage Register, Register of the National Estate and the National Trust of Australia (NSW) Register. Minor works to address the steep level difference between St Leonards Park and Falcon Street (for example, installation of a ramp leading into the park), and a grade-separated structure spanning Falcon Street with a landing into St Leonards Park, would need to consider potential heritage impacts
- B** The existing Falcon Street (west) off-ramp from the Warringah Freeway will become a permanent off-ramp from the Western Harbour Tunnel. Noting the off-ramp is being used for construction vehicle egress for Western Harbour Tunnel construction, any major intervention, such as a grade-separated structure spanning Falcon Street, would need to consider the Western Harbour Tunnel construction program and completion date targeted for 2028
- C** The North Sydney sewer vent is located in the traffic island at the south-western corner of the interchange. This structure is on the State Heritage Register, Register of the National Estate and the National Trust of Australia (NSW) Register. Minor works to address the limited storage space for pedestrians and bike riders waiting to cross Falcon Street,



Falcon Street, Neutral Bay



Figure 8.5 Overview of Falcon Street Interchange

- D** Increasing storage space for pedestrians and bike riders waiting to cross Falcon Street may involve repurposing a traffic lane. Given the interchange serves two major movement corridors, there is a need to consider competing walking / cycling / bus / motorist needs
 - E** Provision of a grade-separated structure spanning Falcon Street is constrained by the need to provide a minimum 7 metres of clearance over Falcon Street for heavy vehicles and to allow for maintenance access on the underside of the bridge deck
 - F** Minor interventions on both sides of Falcon Street could include reducing clutter that obstructs movement and consideration of the location of pedestrian / bike rider call buttons relative to waiting position
 - G** Provision of a possible grade-separated structure spanning Falcon Street would need to consider possible visual impacts on adjoining residential properties
 - H** A new Falcon Street shared user bridge is currently being delivered by the Warringah Freeway Upgrade. The new bridge will span from the northern side of Falcon Street to the western side of Merlin Street and will be widened from 3 metres to 4.5 metres.
- Provision of a potential grade-separated structure spanning Falcon Street would need to integrate with this new structure.

Route assessment criteria

Alignment with strategic cycleway corridors	●
Alignment with council plans	●
Directness	●
Constructability / technical	■▲
Alignment with CPTED principles	●

- Meets or exceeds objective
- Challenges in meeting objective
- ▲ Further work or analysis required

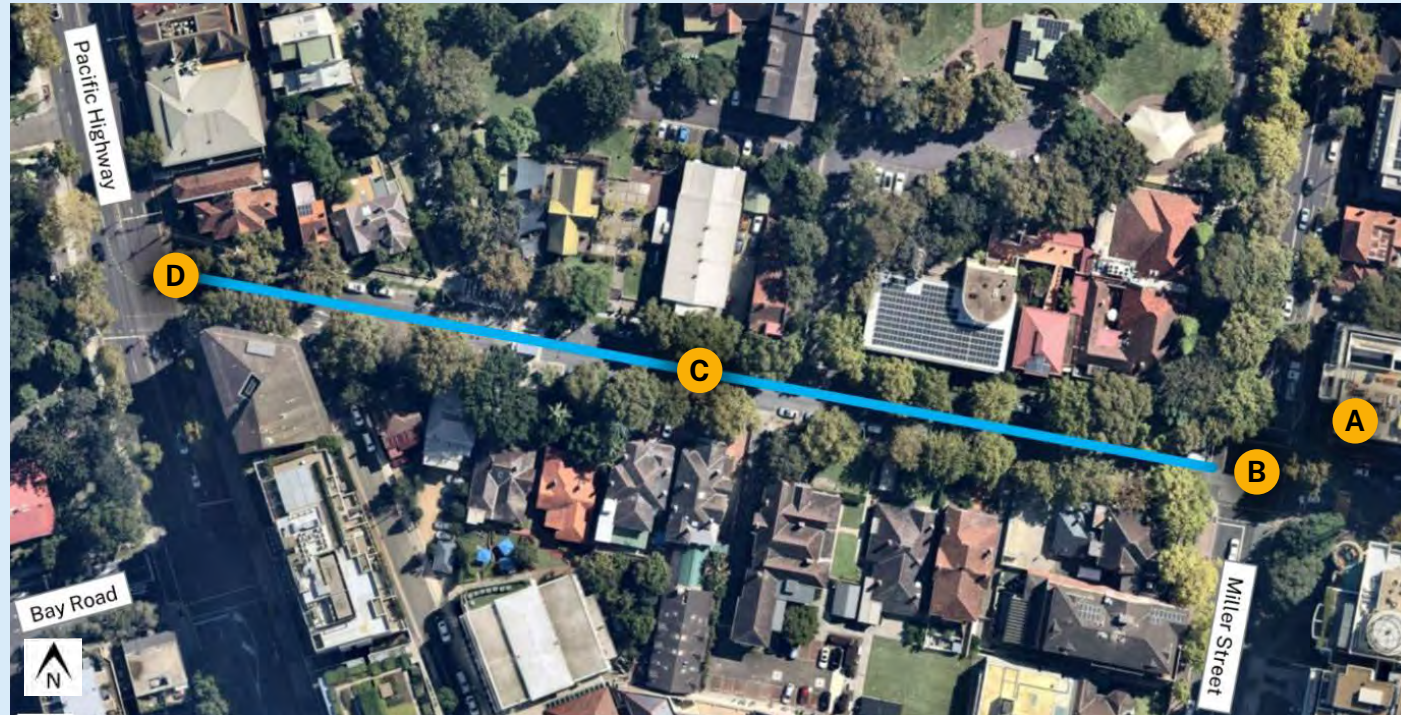


Figure 8.6 Overview of McLaren Street (North Sydney CBD)

3. McLaren Street (North Sydney CBD)

Network gap and current challenge:

The Victoria Cross Metro Station is forecast to have around 15,000 passengers entering and exiting the station in the busiest morning peak hour by 2036⁹. It will include 160 bicycle parking spaces, with the northern station entrance located at the Miller Street / McLaren Street intersection. There is no clear and defined cycle route linking with the station that is suitable for all ages and abilities to use.

An opportunity has been identified to link the Victoria Cross Metro Station with the Pacific Highway via McLaren Street. This link has strong support from stakeholders including North Sydney Council and bike user groups.

A possible treatment for this link is a quietway on McLaren Street between Pacific Highway and Miller Street. This would involve reducing lane widths and reallocating road space to parking lanes, kerb buildouts and planting to create a low-speed environment that is safe for pedestrians and bike riders.

It could also involve traffic calming measures including speed humps and a pedestrian crossing to reinforce the low-speed environment.

The identified network gap is broken down into sections A to D which is shown in Figure 8.6. This shows just one possible option of how this gap might be addressed, and alternative options will be explored in the design phase. An initial high-level technical analysis of a potential route for further investigation, along with other alternatives, is provided below:

- A** A potential quietway at McLaren Street would provide access to 160 bicycle parking spaces at Victoria Cross Metro Station. The northern entrance to the new station is located at the north-eastern corner of the Miller Street / McLaren Street intersection
- B** There may be opportunities to provide greater pedestrian protection at the Miller Street / McLaren Street intersection by including a pedestrian-only phase. Bike rider movements between the western side of the intersection and the station entrance itself also needs to be considered

- C** Conversion of McLaren Street to a quietway requires further consultation with North Sydney Council, the community and other relevant stakeholders to ensure a suitable design outcome, including measures to reduce traffic volumes on this section of McLaren Street
- D** The McLaren Street quietway would connect to the Pacific Highway, which is part of the future strategic cycleway corridor between North Sydney and St Leonards.

Route assessment criteria

Alignment with strategic cycleway corridors	■
Alignment with council plans	●
Directness	●
Constructability / technical	●
Alignment with CPTED principles	●

- Meets or exceeds objective
- Challenges in meeting objective
- ▲ Further work or analysis required

⁹ Sydney Metro, Chatswood to Sydenham Environmental Impact Statement, 2016

4. North Sydney CBD (East)

Network gap and current challenge:

The strategic cycleway corridor between North Sydney and Neutral Bay has a missing link of suitable quality for all ages and abilities to access through North Sydney CBD. There is no clear and defined cycle route and bike riders are required to ride in traffic lanes mixed with high volumes of traffic, which presents safety issues.

The Western side of the Warringah Freeway is potentially best placed to accommodate cycling upgrades. Gradients are challenging to the east of the freeway, thus would require extensive engineering solutions to resolve. Additionally, cycleway upgrades to the east may result in the removal of car parking, which contravenes a (separate) CoA, which requires loss of parking to be minimised.

There is an existing shared path through St Leonards Park that connects to the new Falcon Street shared user bridge, being delivered by the Warringah Freeway Upgrade.

Given the desire to connect to and from North Sydney CBD first, the Review focuses on the missing link between the Pacific Highway / Blue Street / Walker Street intersection and Ridge Street.

This priority has strong support from stakeholders including local councils and bike user groups.

A possible future option for this missing link is a bi-directional cycleway on Walker Street, Berry Street and the western edge of the Warringah Freeway.

If this option was to proceed, the cycleway on Walker Street would require one traffic lane to be repurposed as a cycleway to maintain existing footpath widths. Walker Street currently carries high traffic volumes wishing to access the Warringah Freeway via Berry Street. Delivery of this missing cycling link is therefore contingent on reducing traffic volumes on Walker Street.

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Walker Street, North Sydney

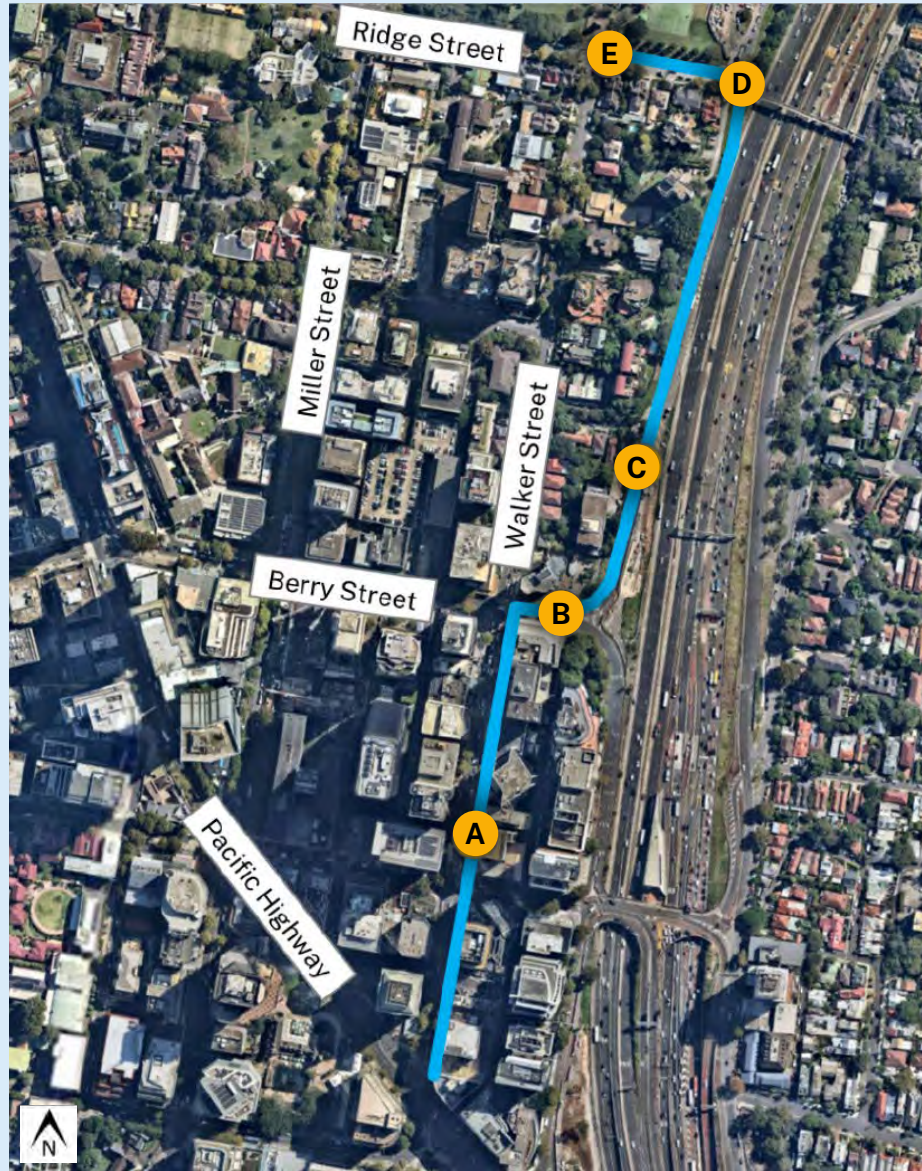


Figure 8.7 Overview of North Sydney CBD (East)

Delivery of the section between Berry Street and Ridge Street would need to consider interfaces with Warringah Freeway Upgrade and Western Harbour Tunnel construction.

4. North Sydney CBD (East) continued

The identified network gap is broken down into sections A to E which is shown in Figure 8.7. This shows just one possible option of how this gap might be addressed, and alternative options will be explored in the design phase. An initial high-level technical analysis of a potential route, for further investigation along with other alternatives, is provided below:

- A** A bi-directional cycleway could be provided on the eastern side of Walker Street between Pacific Highway and Berry Street.

- The desired cycleway width at the Walker Street / Berry Street intersection may not be achieved due to constraints including traffic signals, mature trees and utility poles, which would all require further consideration
- The cycleway could continue from Berry Street along the western edge of the Warringah Freeway. There is a need to consider the Western Harbour Tunnel portal structure which is located on the existing Berry Street northbound on-ramp to the Warringah Freeway
- The cycleway could connect to the western side of the new Ridge Street shared user bridge that is being delivered by the Warringah Freeway Upgrade project
- There is also opportunity to provide a cycleway on Ridge Street between the western side of the new Ridge Street shared user bridge and the existing cycleway that terminates at Walker Street. Noting this section of Ridge Street is being used for construction vehicle access / egress for Western Harbour Tunnel construction, this segment is contingent on completion of Western Harbour Tunnel construction in 2028.

Route assessment criteria

Alignment with strategic cycleway corridors	●
Alignment with council plans	●
Directness	●
Constructability / technical	▲
Alignment with CPTED principles	■

- Meets or exceeds objective
- Challenges in meeting objective
- ▲ Further work or analysis required

5. North Sydney CBD (West)

Network gap and current challenge: The strategic cycleway corridor between North Sydney and St Leonards has a missing link of suitable quality for all ages and abilities to access through North Sydney CBD.

Bike riders are required to ride in traffic lanes mixed with high volumes of traffic including buses, which poses safety issues.

The alignment of this strategic cycleway corridor is assumed to be via Pacific Highway given it is the most direct route between the two centres. Noting the desire to connect to and from North Sydney CBD first, the Review focuses on the missing link between the intersections of Pacific Highway / Blue Street / Walker Street and Pacific Highway / West Street. This priority has strong support from stakeholders including local councils and bike user groups.

A possible option to deliver this missing link is a bi-directional cycleway along Pacific Highway, which would require one traffic lane to be repurposed as a cycleway to maintain existing footpath widths. The Warringah Freeway Upgrade construction works will involve some temporary overnight freeway closures, with the Pacific Highway being one of the main detour routes for freeway traffic. Delivery of this missing link would therefore be contingent on completion of the Warringah Freeway Upgrade in 2026, to maintain existing traffic capacity on Pacific Highway and cater for detoured freeway traffic.

Continued on next page



Pacific Highway and Miller Street crossing, North Sydney

5. North Sydney CBD (West) continued

The identified network gap is broken down into sections A to D which is shown in Figure 8.8. This shows just one possible option of how the gap might be addressed, and alternative options will be explored in the design phase. An initial high-level technical analysis of a potential route, for further investigation along with other alternatives, is provided below:

- A** Between the intersections of Pacific Highway / Blue Street / Walker Street and Pacific Highway / Miller Street, a bi-directional cycleway could be provided on the western side of Pacific Highway. There are locations where the cycleway would potentially be less than the desired width due to constraints including traffic signals, mature trees, utility poles and bus stops
- B** The cycleway may need to cross from the western side to the eastern side of Pacific Highway at the Pacific Highway / Miller Street intersection
- C** Between the intersections of Pacific Highway / Miller Street and Pacific Highway / West Street, a bi-directional cycleway could be provided on the eastern side of Pacific Highway. Again, there are likely to be locations where the cycleway would be less than the desired width due to constraints including traffic signals, mature trees and utility poles
- D** The cycleway would connect with the proposed north-south cycleway on West Street that is being progressed separately by North Sydney Council.

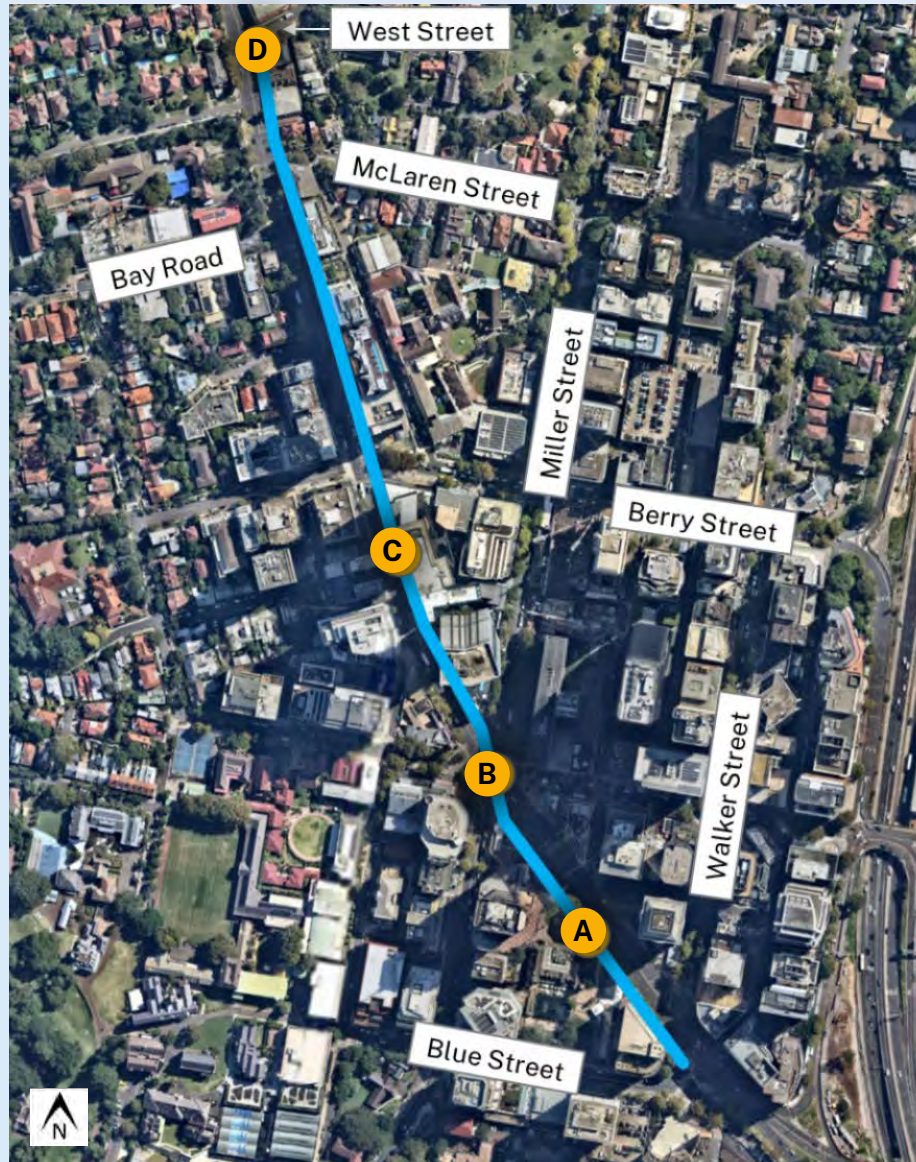


Figure 8.8 Overview of North Sydney CBD (West)

Route assessment criteria

Alignment with strategic cycleway corridors	●
Alignment with council plans	●
Directness	●
Constructability / technical	▲
Alignment with CPTED principles	●

- Meets or exceeds objective
- Challenges in meeting objective
- ▲ Further work or analysis required

6. Lavender Street to Blue Street

Network gap and current challenge: The strategic cycleway corridor between Sydney CBD and North Sydney has a missing link of suitable quality for all ages and abilities to access between the intersections of Alfred Street South / Lavender Street / Middlemiss Street and Pacific Highway / Blue Street / Walker Street. Bike riders are required to ride on the road on Arthur Street (between Middlemiss Street and Pacific Highway), and the shared path on Pacific Highway is narrow, uneven and obstructed by trees and lighting, which is not suited to all ages and abilities.

Together with the Sydney Harbour Bridge Cycleway Northern Access proposal, improving the quality of this link would deliver the strategic cycleway corridor between Sydney CBD and North Sydney.

This priority has strong support from stakeholders, including North Sydney Council and bike user groups.

The identified network gap is broken down into sections A to D which is shown in Figure 8.9. This shows just one possible option of how this network gap might be addressed, and alternative options will be explored in the design phase. An initial high-level technical analysis of a potential route that could be considered for further investigation, along with other alternatives, is provided below:

- A** The existing roundabout at the Alfred Street South / Lavender Street / Middlemiss Street intersection is a significant constraint on this link and presents a safety issue in relation to potential conflict between bike riders and vehicles
- B** The one-way northbound marked cycle lane on Middlemiss Street could be retained (southbound cyclists would ride with southbound traffic) subject to an appropriate speed environment
- C** Investigations into on-street parking on Arthur Street (between Middlemiss Street and Pacific Highway) may be required to provide sufficient width for pedestrians and cyclists. The sharp corner and blind spot for movements between Arthur Street and Pacific Highway would also need to be addressed
- D** The existing shared path on Pacific Highway would need to be widened to provide sufficient width for pedestrians and cyclists. North Sydney Council has stated the importance of retaining the existing mature trees along this path which also provides tree canopy shade. This means widening the shared path would need to occur in the existing road corridor with the possibility of narrowing traffic lanes or the removal of one traffic lane.

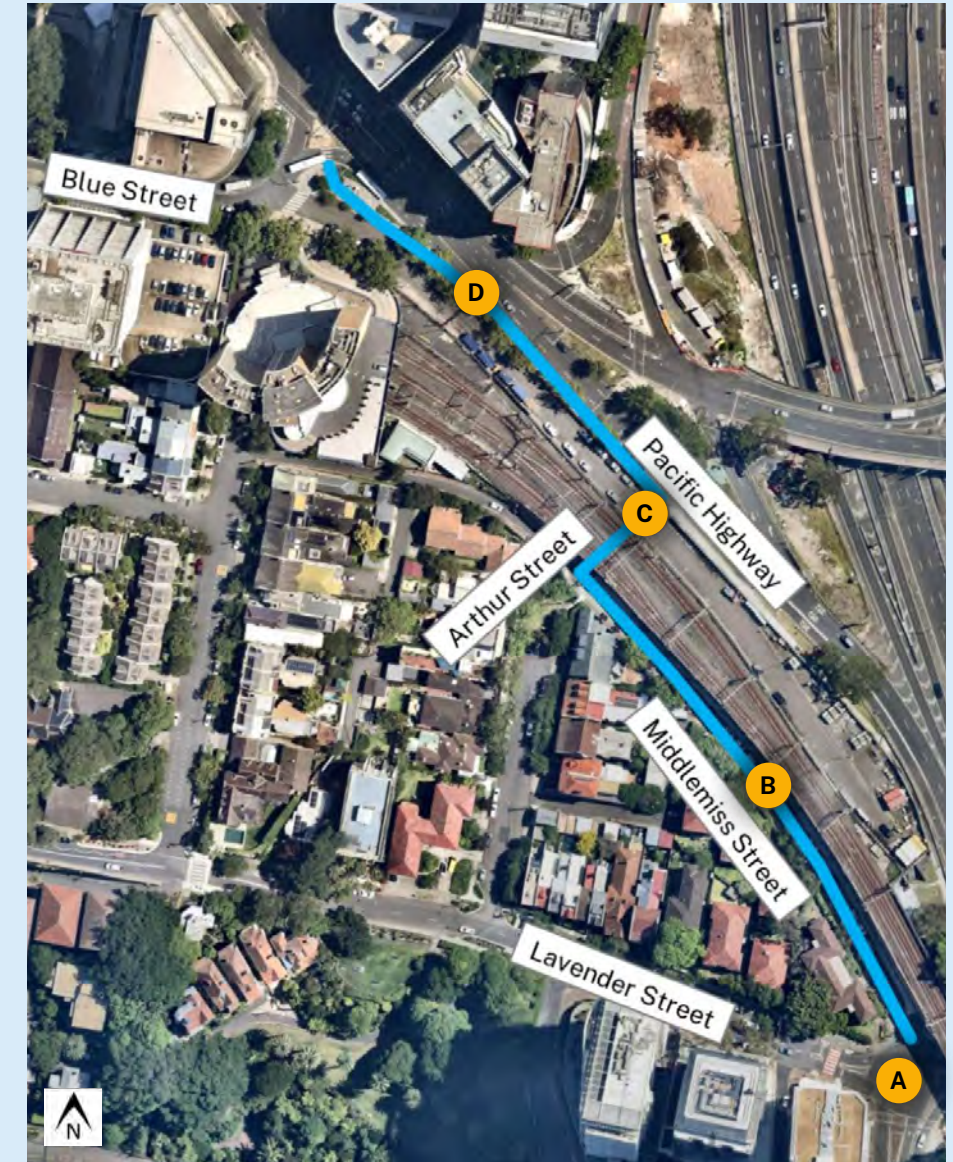


Figure 8.9 Overview of Lavender Street to Blue Street potential alignment

Route assessment criteria

Alignment with strategic cycleway corridors	●
Alignment with council plans	●
Directness	●
Constructability / technical	▲
Alignment with CPTED principles	●

- Meets or exceeds objective
- Challenges in meeting objective
- ▲ Further work or analysis required



9. Way forward

The priorities identified in Section 8 will be progressively investigated and developed through design to increasingly expand the walking and cycling network.

9.1 Development of priorities

Development and future delivery of the possible options for each of these priorities is dependent on securing funding and the following:

- Delivery of major projects in the study area including Sydney Metro (City and Southwest) (2024), Warringah Freeway Upgrade (2026) and Western Harbour Tunnel (2028)
- Constructability, environmental and technical considerations including constraints, impacts and costs
- Ongoing collaborative process with stakeholders to contribute to an improved walking and cycling network as well as community agreement
- The need to balance the delivery of walking and cycling improvements in the study area with competing priorities across Greater Sydney and regional NSW.

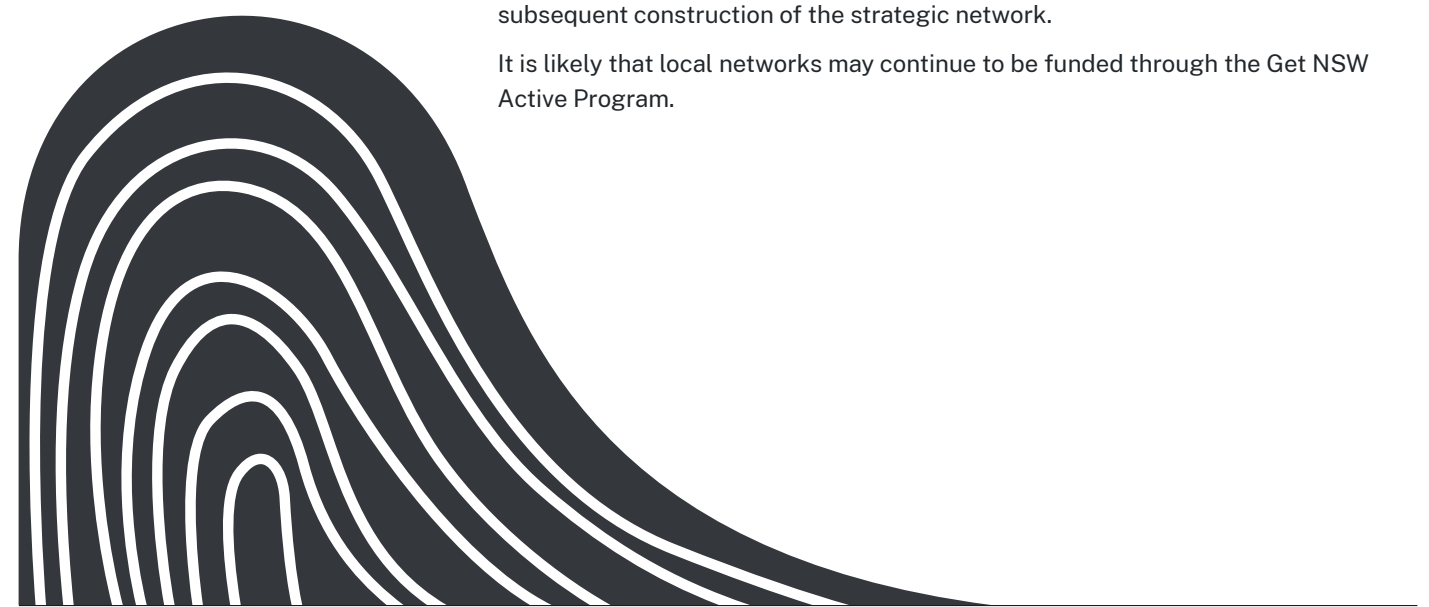
As part of the stakeholder consultation process, the next steps that have been agreed are below.

Transport is seeking funding to progress design development and investigations for the following links, with community engagement on potential options proposed for 2024.

- Lavender Street to Blue Street
- North Sydney CBD (West)
- North Sydney CBD (East)
- McLaren Street
- Improving connectivity around Falcon Street Interchange, including short-term minor interventions and options for a longer-term grade-separated structure
- Gore Hill Freeway missing link, including short-term minor interventions and options for a longer-term grade-separated structure

As work progresses with developing design options for the identified priorities, a clearer cost estimation will be established. It is noted that funding for missing links may be addressed through different programs and opportunities. Transport will pursue and secure funding agreements to help progress the design and subsequent construction of the strategic network.

It is likely that local networks may continue to be funded through the Get NSW Active Program.



Appendix A – Other plans and policies

The plans and policies of other State and Local Government stakeholders which have been considered as part of this Review are summarised below.

North Sydney Local Strategic Planning Statement

The *North Sydney Local Strategic Planning Statement* (LSPS, North Sydney Council (NSC), 2020) was developed to guide future land use planning and development, which respond to the priorities and actions identified in the NSW Government’s regional and district plans.

The LSPS identifies that significant population, employment, and economic growth is planned within North Sydney LGA, and that significant infrastructure investment is required to accommodate that growth.

One of the priorities of the LSPS is walkable centres and a connected and sustainable North Sydney. On classified state and regional roads outside of local centres, Council will advocate for the delivery of high quality separated walking and cycling facilities to improve safety, amenity and usability. The principles of the LSPS are aligned with Transport’s policies and vision for this area.

Figure A.1 provides an overview of the LSPS-proposed transport network.

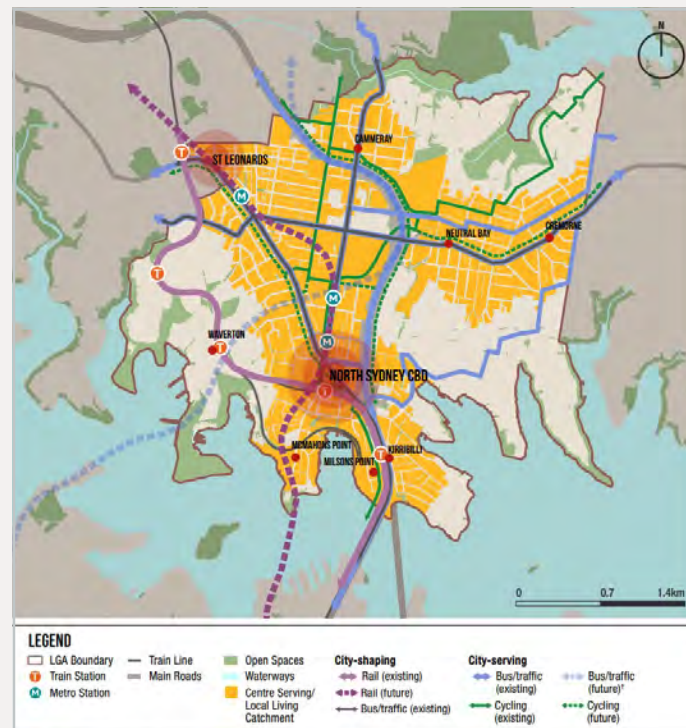


Figure A.1 North Sydney LSPS proposed strategic transport network
Source: North Sydney Local Strategic Planning Statement (NSC, 2020)

North Sydney Integrated Cycling Strategy

The *North Sydney Integrated Cycling Strategy* (NSC, 2014) outlines Council’s vision for increased patronage and diversity of bicycle users within North Sydney LGA. Figure A.2 shows the five priority construction routes identified by and included in this strategy, with the suggested treatments for each route developed by Council summarised in Table A.1. Given the *North Sydney Integrated Cycling Strategy* was released in 2014, the identified priority routes may have been superseded by the routes identified in the LSPS.



Figure A.2 North Sydney Integrated Cycling Strategy priority routes
Source: North Sydney Integrated Cycling Strategy (NSC, 2014)

Table A.1 Suggested treatments for priority routes

Route	Description	Infrastructure type(s)
1	Sydney Harbour Bridge Cycleway to West Street	Separated bi-directional cycleway within the existing road reserve.
2	North Sydney to Mosman	On-road route is with sections of cycle lanes or other cycle specific infrastructure.
3	Sydney Harbour Bridge to Neutral Bay	On-road route with infrastructure upgraded at key points to improve safety and function.
4	Cammeray to Crows Nest	Separated bi-directional cycleway within the existing road reserve and on-road route.
5	North Sydney to Cremorne	Variety of infrastructure treatments, including on-road sections, cycle lanes and use of existing freeway overpass.

Source: North Sydney Integrated Cycling Strategy (NSC, 2014)

North Sydney Walking Strategy

The *North Sydney Walking Strategy* (NSC, 2021) is Council’s guiding document for the delivery of its walking planning and management functions. This includes strategic planning, walking advocacy and the design and delivery of local walking projects.

More specifically the strategy:

- Identifies existing conditions and participation rates for walking in North Sydney;
- Identifies a Vision as well as specific Objectives and Targets for walking in North Sydney; and
- Plots a course between current walking behaviours and the future walking vision by identifying and prioritising walking initiatives and projects for inclusion in Council’s policy development, advocacy and forwards works program.¹⁰

The strategy includes Council’s analysis and prioritisation of strategic walking routes within North Sydney LGA, as illustrated in Figure A.3.



Figure A.3 Strategic walking routes in North Sydney LGA
Source: North Sydney Walking Strategy (NSC, 2021)

North Sydney CBD Public Domain Strategy

The *North Sydney CBD Public Domain Strategy* (NSC, September 2020) puts in place a framework to deliver public domain works that will complement the new transport, commercial and cultural infrastructure. The strategy identifies 19 public domain projects, including 19,200m² of new parks and plazas and an enhanced network of streets and laneways that improve pedestrian safety and amenity. The placemaking vision of the strategy is shown in Figure A.4; key features of the strategy relevant to walking and cycling network options are discussed in Chapter 7.

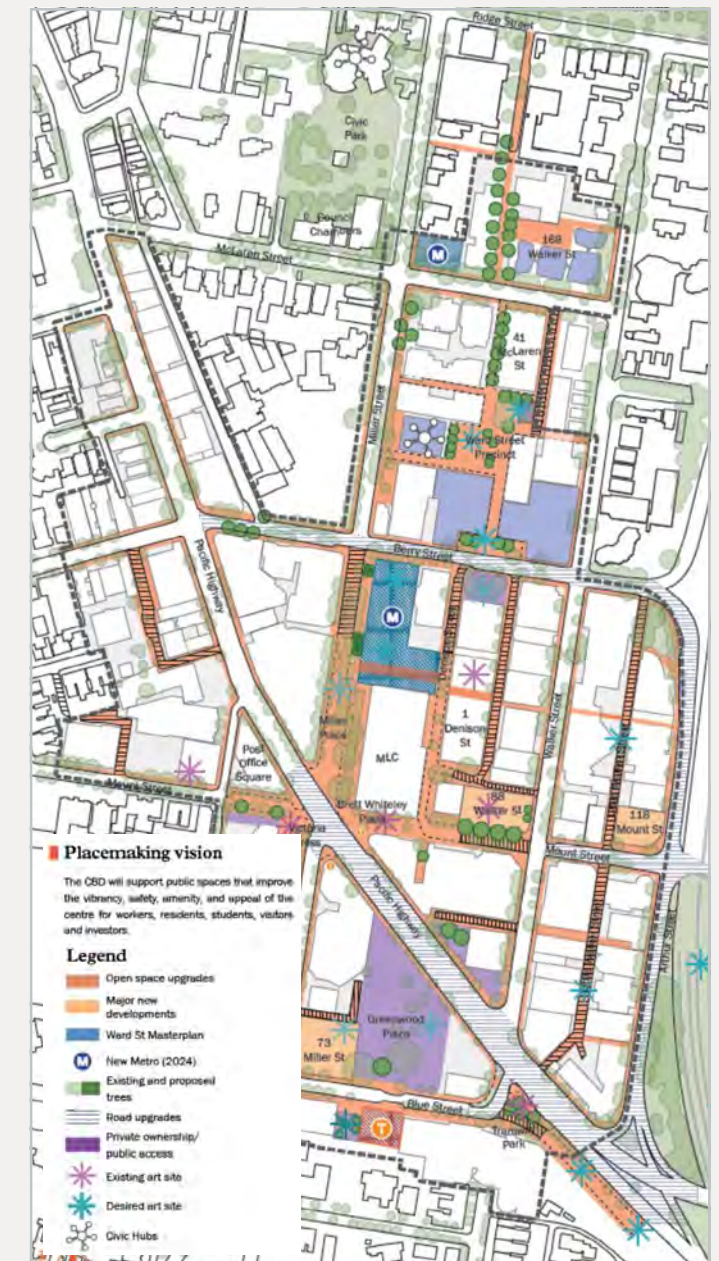


Figure A.4 North Sydney CBD Public Domain Strategy – Placemaking vision
Source: North Sydney CBD Public Domain Strategy (NSC, September 2020)

¹⁰ North Sydney Walking Strategy (NSC, 2021)

Civic Precinct Planning Study

The *Civic Precinct Planning Study* (NSC, November 2020) is a response to the construction of the Victoria Cross metro station northern portal, located at the intersection of McLaren and Miller Streets. The Civic Precinct is bounded by Falcon Street to the north, Pacific Highway to the west, the Warringah Freeway to the east and McLaren Street and Berry Street to the south, as shown in Figure A.5.



Figure A.5 Civic Precinct boundary and key walking and cycling routes

Source: Civic Precinct Planning Study (NSC, November 2020)

The metro portal has generated development interest (with several planning proposals already lodged within the study area) and prompted a closer look at any further implications of the new public transport infrastructure.

Additionally there has been significant transformation to the areas surrounding the Civic Precinct. The proposed *St Leonards and Crows Nest Planned Precinct* and the *Ward Street Masterplan* have both changed the urban structure around the study area and with it the potential role of the Civic Precinct within the LGA.

The aim of the *Civic Precinct Planning Study* is to understand the impacts of new public transport infrastructure and transformations in surrounding areas and formalise an urban design framework for the future of the precinct.

The study aims to establish the role of the Civic Precinct within the wider LGA context and develop a future vision. This vision and framework will then help determine any necessary changes to the area's built form and public domain and establish a criteria for any new developments.¹¹

¹¹ Civic Precinct Planning Study (NSC, November 2020)

Military Road Corridor Planning Study Stage 1 (Neutral Bay town centre)

The *Military Road Corridor Planning Study* (NSC, February 2021) is a review into the current planning controls that apply along Military Road to deliver future housing and job growth and meet the needs of the current and future community. The study includes a detailed vision for the future transport network close to Neutral Bay town centre, with a focus on improving walking and cycling safety and amenity, as illustrated in Figure A.6.



Figure A.6 Public Domain Strategy – Neutral Bay town centre

Source: Military Road Corridor Planning Study (NSC, February 2021)

Willoughby Bike Plan Update Infrastructure Assessment

The *Willoughby City Council Bike Plan Update Infrastructure Assessment* (Willoughby City Council (WCC), 2017) provided an audit of existing cycling infrastructure and consequently identified additional priority cycling infrastructure projects. Figure A.7 provides an overview of Council's priority routes close to Warringah Freeway at the interface of the boundary with North Sydney LGA, and their alignment and interfaces with NSC's priority routes.



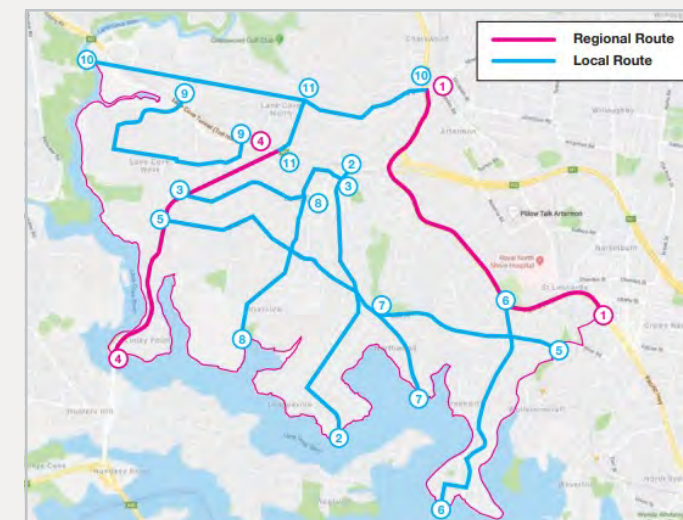
Figure A.7 Willoughby City Council priority routes Warringah Freeway

Source: Willoughby City Council Bike Plan Update Infrastructure Assessment (WCC, 2017). Note: Blue lines indicated WCC priorities; other colours indicate NSC priorities (per North Sydney Integrated Cycling Strategy).

Lane Cove Council Bike Plan

The *Bike Plan* (ptc., November 2019) was developed by Lane Cove Council (LCC) to assist in planning for cyclist infrastructure, programs, implementation and maintenance. The Bike Plan includes routes close to and/or interfacing with the study area of this Review, including strategic connections in the vicinity of St Leonards.

The Bike Plan investigated nine routes, in detail, for Council to incorporate into their five-year strategic action plan. These routes – pictured in Figure A.8 – have been determined by Council based on their strategic importance, expected usage and number of cyclists related crashes reported in the area. While outside of the study area, the 2019 Bike Plan supports the continuation of the Epping Road/Gore Hill cycleways to the Sydney Harbour Bridge (SHB).¹²



Route	Description
R1	Pacific Highway (from Mowbray Road West to St Leonards)
R2	Longueville Road (from Epping Road to Longueville Wharf)
R3	Burns Bay Road (from Longueville Road to Centennial Avenue)
R4	Centennial Avenue + Burns Bay Road (from Epping Road to Burns Bay Road Bridge)
R5	Penrose Street + Bridge Street + River Road (from Burns Bay Road to Russell Street)
R6	Greenwich Road (between Pacific Highway and Greenwich Point Wharf)
R7	Northwood Road (between River Road and Northwood Wharf)
R8	Tambourine Bay Road (between Burns Bay Road and Tambourine Bay Park)
R9	Lane Cove Business Park
R10	Mowbray Road West (from Epping Road to Pacific Highway) – audited by Council
R11	Centennial Avenue (from Mowbray Road West to Epping Road) – audited by Council

Figure A.8 Strategic cycling routes in Lane Cove LGA

Source: Lane Cove Council Bike Plan (ptc., November 2019)

Note: Routes R10 and R11 have been investigated separately by Council and are not detailed in the Plan.

¹² Lane Cove Council Bike Plan (ptc., November 2019)

Lane Cove Council Pedestrian Access and Mobility Plan

The *Pedestrian Access and Mobility Plan* (ptc., August 2018) was developed by LCC to be utilised in pedestrian planning, infrastructure delivery, programs, monitoring and funding for maintenance of pedestrian infrastructure.

In total nine routes were audited, focused around local trip generators. These routes were determined based on land usage, location of pedestrian attractors and generators, as well as consultation with Council.¹³ The focus routes are illustrated in Figure A.9.

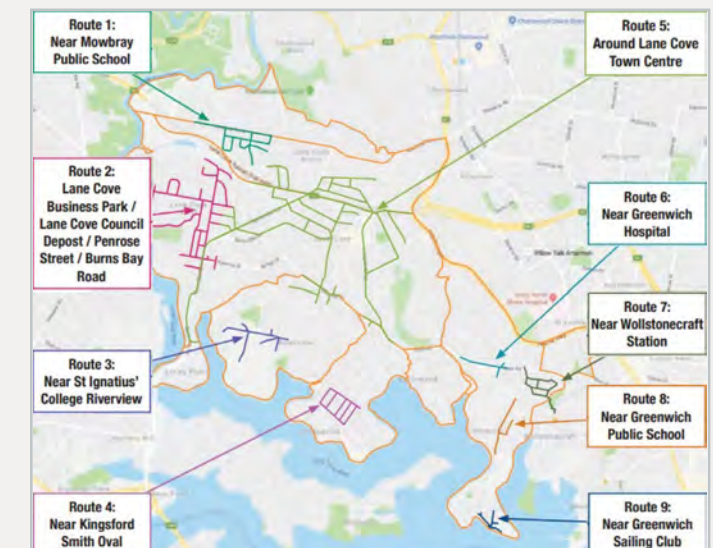


Figure A.9 Strategic pedestrian routes in Lane Cove LGA

Source: Lane Cove Council Pedestrian Access and Mobility Plan (ptc., August 2018)

Similar to LCC's Bike Plan, the Pedestrian Access and Mobility Plan includes routes close to and/or interfacing with the study area of this Review, including strategic connections in the vicinity of St Leonards.

¹³ Pedestrian Access and Mobility Plan (ptc., August 2018)

Mosman Local Strategic Planning Statement

The *Mosman Local Strategic Planning Statement* (Mosman Council, March 2020) sets out the 20-year vision for land use planning in Mosman, outlining how growth and change will be managed to maintain the high levels of environmental amenity, liveability and landscape quality that characterises Mosman. The plan includes a strategic transport vision including the nomination of strategic cycleway connections to and from North Sydney LGA, as illustrated in Figure A.10.

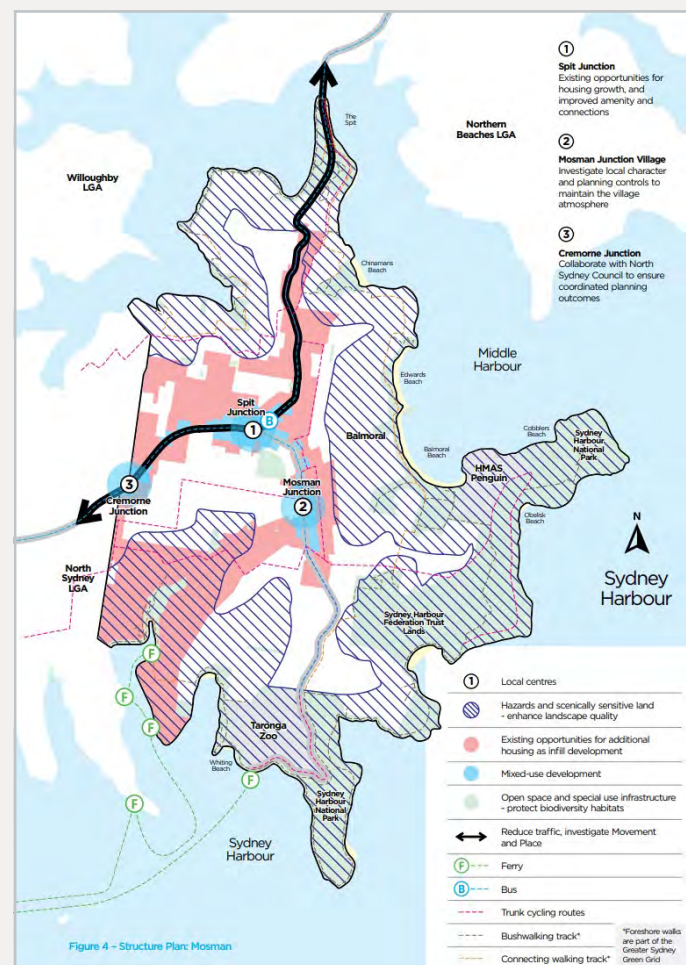


Figure A.10 Mosman Local Strategic Planning Statement vision
Source: Mosman Local Strategic Planning Statement (Mosman Council, March 2020)

St Leonards and Crows Nest 2036 Plan

The *St Leonards and Crows Nest 2036 Plan* (SLCN 2036, DPE, August 2020) will facilitate the urban renewal of St Leonards and Crows Nest for an expanding employment centre and growing residential community. The plan has been developed as a strategic land use and infrastructure plan to guide future development in the precinct and contribute to the required more detailed site specific planning investigations. An overview of the plan's vision is shown in Figure A.11.



Figure A.11 St Leonards and Crows Nest Precinct vision overview
Source: St Leonards and Crows Nest 2036 Plan (DPE, August 2020)

Table A.2 Green Grid Opportunities list – North District

No.	Project	Dominant Grid Layer
7	Parramatta River and Sydney Harbour Foreshore	Recreational
9	Pittwater Road Active Transport Corridor	Transport
15	St Leonards and Chatswood to Bushland Green Links	Recreational
17	M2 Active Transport Corridor	Transport

No.	Project	Dominant Grid Layer
28	St. Leonards Open Space and Green Streets	Recreational
29	North Sydney CBD Open Spaces and Green Streets	Recreational
40	Lane Cove and Artarmon Green Street Links	Recreational

Source: Greater Sydney Green Grid (Government Architect NSW, 2017)

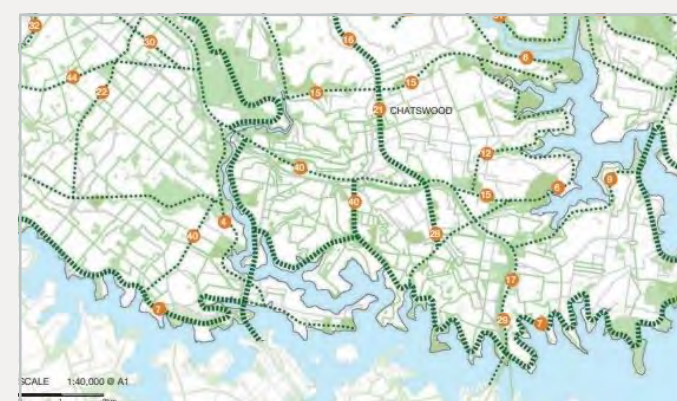


Figure A.12 Green Grid Opportunities map – North District
Source: Greater Sydney Green Grid (Government Architect NSW, 2017)

Sydney's Cycling Future

Sydney's Cycling Future (NSW Government, 2013) presented NSW Government's previous vision for planning, prioritisation and delivery as part of the NSW Long Term Transport Master Plan (NSW Government, 2012).

Although these plans have now been generally superseded by *Future Transport* and associated plans and policies such as the EASTERN HARBOUR CITY STRATEGIC CYCLEWAY CORRIDOR, *Sydney's Cycling Future* does include some detailed analysis of potential strategic cycling routes in the vicinity of North Sydney and the Warringah Freeway – termed the "North Shore link" – as illustrated in Figure A.13.

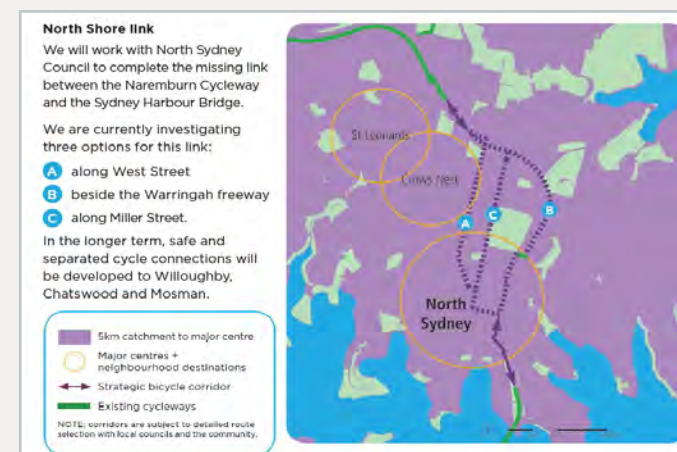


Figure A.13 North Shore link – potential route options

Source: Sydney's Cycling Future (Transport, December 2013)

The cycleway options previously shortlisted show potential for alignment with the strategic cycleway corridors identified by the most recent SCC EHC activities, and are discussed and considered in more detail in Chapter 7.

Appendix B – Further information on planned and proposed network changes

Sydney Metro City and South West

Sydney Metro develops Interchange Access Plans (IAPs) for its metro stations to:

- Inform the interchange design of transport and access facilities, including footpaths, cycle paths and bike parking, bus stops, and car parking
- Identify customer amenities, shelter, and road and traffic management required to ensure easy, accessible, safe and efficient customer transfer when services start in 2024
- Provide a list of actions for delivery partners and other stakeholders to enable the implementation of an easy customer transfer which supports the project objectives.

The local context and walking and cycling catchments for the Crows Nest and Victoria Cross (North Sydney) stations as part of the SMCSW project are illustrated in Figure B.1 and Figure B.2 respectively.



Figure B.1 Crows Nest station local context and walking and cycling catchments

Source: Crows Nest IAP (Sydney Metro, February 2022)



Figure B.2 Victoria Cross station local context and walking and cycling catchments

Source: Victoria Cross IAP (Sydney Metro, November 2022)

Specific walking and cycling actions which Sydney Metro will undertake for the Crows Nest and Victoria Cross (North Sydney) stations include:

Crows Nest

- An additional pedestrian crossing of Pacific Highway at Oxley Street
- New pedestrian crossings at the intersection of Hume Street and Clarke Street
- Various widened pedestrian crossings and walking space
- A separated on-road bicycle path on Hume Street
- Provision for a total of 200 bicycle parking spaces.

Victoria Cross (North Sydney)

- Various widened pedestrian crossings and walking space
- Provision for a total of 200 bicycle parking spaces.

Western Harbour Tunnel and Warringah Freeway Upgrade

The WHTWTFU EIS presents and describes the walking and cycling scope of the currently approved project, which comprises:

- A new three metre wide shared user path on the eastern side of Warringah Freeway between Miller Street and Ernest Street (the Warringah Freeway Upgrade will build the majority of the path’s final alignment, which will be finished by the Beaches Link project at the end of construction in Cammeray Golf Course).
- A new shared user bridge (9.5m wide) to the north of Ernest Street at Cammeray, connecting Cammeray Golf Course with ANZAC Park (the Warringah Freeway Upgrade project will build the bridge structure, while Western Harbour Tunnel will build and open the path and surrounding landscaping).
- Replacement of the existing Falcon Street shared user bridge with a new four and a half metre facility.
- Removal of the existing pedestrian and cyclist underpass beneath Falcon Street at Cammeray.
- Replacement and upgrade of the Ridge Street shared user bridge with a wider 4.5m facility.
- A new three metre wide shared user path on the southern side of High Street bridge, with signalised pedestrian crossings at the upgraded Alfred Street North/High Street intersection.
- Upgrade of the intersection of Berry Street and Miller Street to include a pedestrian “scramble” / all-green traffic signal phase, improving safety and capacity of pedestrian movements at this location.

The upgrades to the High Street bridge and Ernest Street bridge, as well as the removal of the existing pedestrian and cyclist underpass beneath Falcon Street, are the most significant changes when compared to existing conditions.

The High Street bridge is being widened to provide a new three metre wide shared user path on the southern side. This section of High Street is currently designated as an on-road mixed traffic cycling facility, and providing separation between cyclists and road vehicles will provide significant safety and amenity benefits.

The project proposes a new and expanded 9.5m walking and cycling bridge between Cammeray Park and ANZAC Park. A key objective of the proposal is to increase the bridge’s visual amenity and to connect the green spaces either side of the bridge through a ‘greening’ of the link and incorporation of trees and other flora.

Tree plantings are proposed on either side of the pedestrian and cyclist space, creating a green buffer between walking and cycling users and motorists; not all 9.5 metres would be useable space for pedestrians and cyclists. Figure B.3 provides an overview of the proposed design in the Cammeray area.

CoA E197 specifies that “an active transport link through Cammeray Golf Course between Ernest Street and Warringah Road / Bells Avenue, Cammeray must be provided prior to the removal of the existing path.” This link has been provided by the Warringah Freeway Upgrade project, and is shown in Figure E.1 as a shared path.

An analysis of the suitability of shared facilities proposed by the WHTWTFU project (as required by the project’s CoA E195 d) is provided in **Appendix E**.



Figure B.3 Ernest Street Bridge Reference Design

Source: WHTWTFU EIS Chapter 22 (Transport, 2020)

Since the publication of the WHTWTFU EIS, Transport has revised the design of the Falcon Street Interchange. At this location the project now proposes to retain the existing arrangement for pedestrians and cyclists on the bridge surface, eliminating some of the perceived project impacts at this location. Further discussion of walking and cycling links close to the Falcon Street Interchange is provided in Chapter 8.

Sydney Harbour Bridge Northern Cycle Ramp and Alfred Street South Cycleway

Transport is progressing plans for a bike ramp at the northern end of the SHB cycleway to address the limitations of the existing stair access at this location, which requires cyclists to dismount and push their bicycle up or down the stairs to continue their journeys. Access at the northern end of the SHB cycleway is currently via 55 steps that connect with Bradfield Park at Milsons Point. The steps create a bottleneck, present a safety hazard and deter people from cycling.¹⁴

In August 2021, the Minister for Transport announced that a linear bike ramp had been selected as the preferred concept to improve bike access at the northern end of the SHB cycleway as part of the SHB Northern Cycle Ramp and Alfred Street South cycleway (SHB NCR). The proposal also includes a concept for a separated cycleway along Alfred Street South between Burton Street and Lavender Street.

The detailed design of the cycle ramp and cycleway are continuing to be developed; Figure B.4 illustrates a concept for the proposed Alfred Street South cycleway which would provide access to the Burton Street underpass, Milsons Point train station, and the new cycle ramp to SHB cycleway. The public display period of the proposal's Review of Environmental Factors ended in January 2023.



Figure B.4 Alfred Street South cycleway concept
Source: Alfred Street South Project Overview (Transport, December 2021)

¹⁴ <https://caportal.com.au/Transport/sydney-harbour-bridge-cycleway> (Accessed November 2022)

North Sydney Council projects

NSC is currently progressing a number of walking and cycling proposals in the study area, with further details provided below. In addition to these proposals, additional projects which have been funded for construction as part of the Get NSW Active program for 2022/2023 include the Short Lane continuous footpath treatment in Neutral Bay, and the Bligh Street shared zone in Kirribilli.

West Street Cycling, Walking, and Streetscape Upgrade

The *West Street Cycling, Walking, and Streetscape Upgrade* project is currently being progressed by NSC. The project is investigating upgrades along West Street between Amherst Street in the north and the Pacific Highway in the south, as illustrated in Figure B.5.



Figure B.5 West Street Cycling, Walking, and Streetscape Upgrade study area

Source: West Street Investigation and Concept Design (Spackman Mossop Michaels, August 2018)

Consultation and feedback on the Final Concept Design – Stage 1 closed in November 2022. The southern-most Stage 1 works include:

- A 100m bi-directional cycleway between Ridge Street and Church Street
- A shared user path between Pacific Highway and Church Street
- A new pedestrian and cyclist crossing at the corner of West and Church Street

The Get NSW Active program for 2022/2023 has approved the funding of the construction of Stage 1. Stages 2 and 3 of the project are being progressed by NSC while implementing Stage 1; an overview of the Stage 1 project is provided in Figure B.6 (top right).

Kirribilli to Cremorne Walking, Cycling, and Streetscape Upgrade

The *Kirribilli to Cremorne Walking, Cycling, and Streetscape Upgrade* project aims to improve the walking network, cycling network, and public domain along the project corridor. The project comprises five separate sections designed to function as standalone but complementary projects.

The project incorporates pedestrian network improvements identified by NSC which respond to walking access and safety issues identified by the community.



Figure B.6 West Street Cycling, Walking, and Streetscape Upgrade Stage 1 – Overview

Source: West Street Cycling, Walking, and Streetscape Upgrade Concept Plan (NSC, October 2022)

It is also an integral part of the *North Sydney Integrated Cycling Strategy*, adopted in 2014 and referred to as Route 3 in the Strategy, one of the five 'Priority Routes' adopted by Council.¹⁵

An overview of the proposed project's scope and extent is provided in Figure B.7 (right).

¹⁵ Kirribilli to Cremorne Walking, Cycling, and Streetscape Upgrade – Post Exhibition Report (NSC, June 2021)



Figure B.7 Kirribilli to Cremorne Walking, Cycling, and Streetscape Upgrade – Overview

Source: Kirribilli to Cremorne Walking, Cycling, and Streetscape Upgrade – Post Exhibition Report (NSC, June 2021)



Figure B.8 Young Street Walking, Cycling, and Streetscape Upgrade – Overview

Source: Young Street Walking, Cycling, and Streetscape Upgrade – Concept Plan (NSC, April 2021)

Young Street Walking, Cycling, and Streetscape improvements

NSC has previously proposed upgrades to walking and cycling access on Young Street, between Sutherland Street and Grosvenor Street. Key project features are illustrated in Figure B.8.

Other neighbourhood centres / precincts (Neutral Bay, Milsons Point, Kirribilli)

Key walking network upgrades identified by NSC’s *Military Road Corridor Planning Study Stage 1 (Neutral Bay town centre)* and *Kirribilli Village Centre Masterplan* are illustrated in Figure B.9 and Figure B.10 respectively.



Figure B.9 Proposed transport network close to Neutral Bay town centre
Source: Military Road Corridor Planning Study (NSC, February 2021)

The *Military Road Corridor Planning Study* proposes improvements to pedestrian amenity along Military Road, as well as shared zones and other initiatives to improve pedestrian amenity close to Neutral Bay town centre.

The *Kirribilli Village Centre Masterplan* includes proposed pedestrianisation and shared road environments, in addition to footpath widenings and additional pedestrian road crossings in and around Kirribilli neighbourhood centre.

Key project features:

- new pedestrian crossing points over Young Street at the intersection with Belgrave Street ①
- raised pedestrian crossing over Sutherland Street ②
- continuation of the Young Street cycle path and additional landscaping ③
- increased clearway distances on Belgrave Street (required for traffic signal update)
- reduced lane widths on Young Street ④
- 7 car spaces removed on Young Street (to facilitate traffic signal update)
- new landscaping along the project corridor

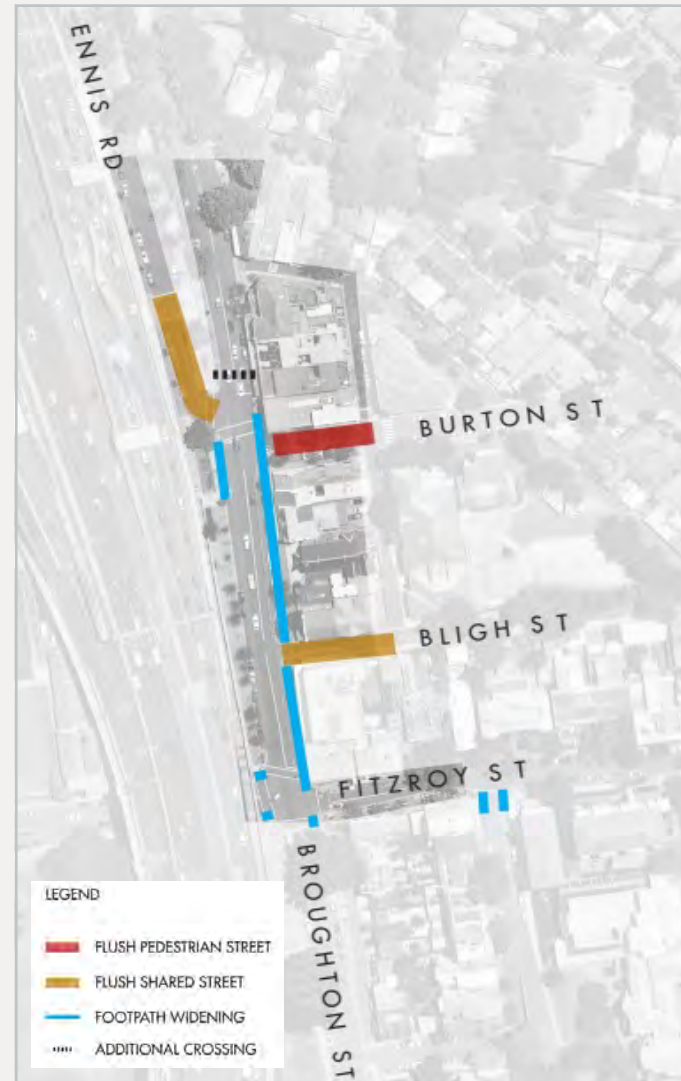


Figure B.10 Kirribilli Village Centre Masterplan – Proposed pedestrian network upgrades

Source: Kirribilli Village Centre Masterplan (NSC, February 2021)

As shown in Figure B.11 the *North Sydney Walking Strategy* identifies key gaps in the existing pedestrian networks around Milsons Point and Kirribilli on Middlemiss Street, Cliff Street, and Ennis Road.



Figure B.11 Existing walking network gaps and priorities – Milsons Point and Kirribilli

Source: North Sydney Walking Strategy Background Report (SCT consulting, 2021)

Figure B.12 shows that the *North Sydney Walking Strategy* identifies key gaps in the existing pedestrian networks around Neutral Bay on:

- Military Road east of Watson Street
- Ben Boyd Road south of Military Road
- Yeo Street between Bent Street and Barry Street
- Various other local roads and intersections close to Neutral Bay.



Figure B.12 Existing walking network gaps and priorities – Neutral Bay

Source: North Sydney Walking Strategy Background Report (SCT consulting, 2021)

Miller Street

As shown in Figure B.13 the *North Sydney Walking Strategy* identifies key limitations in existing pedestrian facilities along Miller Street between North Sydney CBD and Cammeray, including at the intersections of Miller Street and:

- Amherst Street
- The Warringah Freeway on- and off-ramps
- Ernest Street
- Falcon Street
- Carlow Street and Ridge Street
- Berry Street



(Cammeray centre to Falcon Street) (Falcon Street to Berry Street)

Figure B.13 Existing walking network gaps and priorities – Miller Street

Source: North Sydney Walking Strategy Background Report (SCT consulting, 2021)

Neutral Bay to North Sydney CBD

As shown in Figure B.14 the *North Sydney Walking Strategy* identifies key limitations in existing pedestrian facilities between Neutral Bay and North Sydney including:

- Yeo Street west of Ben Boyd Road
- Alfred Street North between Merlin Street and Ridge Street Bridge, and between Bent Street and Mount Street
- Bent Street from south of Yeo Street to Eaton Street

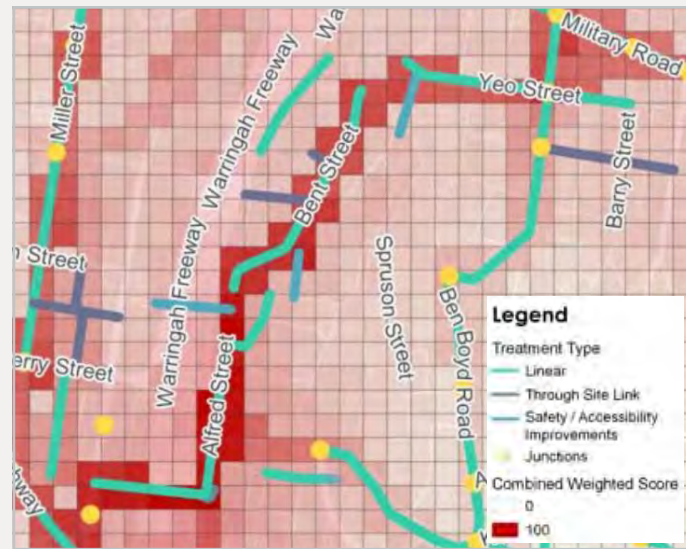


Figure B.14 Existing walking network gaps and priorities – Neutral Bay to North Sydney CBD

Source: North Sydney Walking Strategy Background Report (SCT consulting, 2021)

In addition the *Civic Precinct Planning Study* identifies a number of pedestrian and public domain links for improvement close to Miller Street, including a continuous north-south through-site corridor between Berry Street and Ridge Street to the east of Miller Street, shown in Figure B.15.

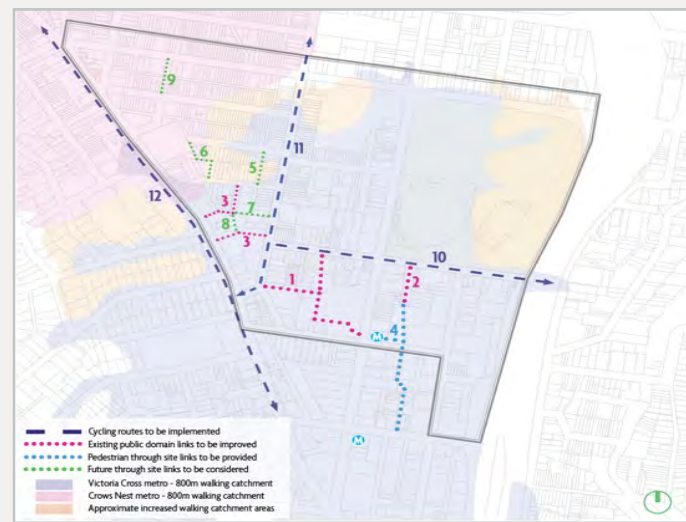


Figure B.15 Civic Precinct Planning Study – Proposed key pedestrian links

Source: Civic Precinct Planning Study (NSC, November 2020)

High Street / Ennis Road

Figure B.16 illustrates pedestrian and cycling upgrades being delivered by the *Warringah Freeway Upgrade* close to North Sydney CBD.



Figure B.16 Warringah Freeway Upgrade (southern works area) – Pedestrian network upgrades

Source: WHTWU EIS (Transport, January 2020)

The works proposed on High Street Bridge comprise widening of the existing footpath to a 3 metre shared user facility between Arthur Street and Alfred Street North. In addition, upgrades to the existing pedestrian road crossings at either end of the bridge will be provided, including a new signal-controlled crossing of High Street at the intersection with Alfred Street North.

Beyond the scope of the current upgrade, as shown in Figure B.17 the *North Sydney Walking Strategy* identifies further gaps in the existing pedestrian networks along the length of the High Street / Ennis Road corridor between North Sydney CBD and Kirribilli centre.



Figure B.17 Existing walking network gaps and priorities – High Street / Ennis Road

Source: North Sydney Walking Strategy Background Report (SCT consulting, 2021)

Willoughby City Council projects

In 2012 WCC developed an updated *Bike Plan Review*, including the identification and prioritisation of new cycling infrastructure within Willoughby LGA. Recommendations of this study included new north-south connections in the east of the LGA between Chatswood and St Leonards, including improved connections to the Gore Hill Freeway cycleway.

WCC is currently progressing the *Chatswood to St Leonards Cycleway* (C2SL) concept to provide safe and accessible bicycle routes between these two major centres. The current concepts include a combination of separated cycleways and shared user paths, as well as complementary planting and streetscaping. An overview of the proposed route alignments is provided in Figure B.18.

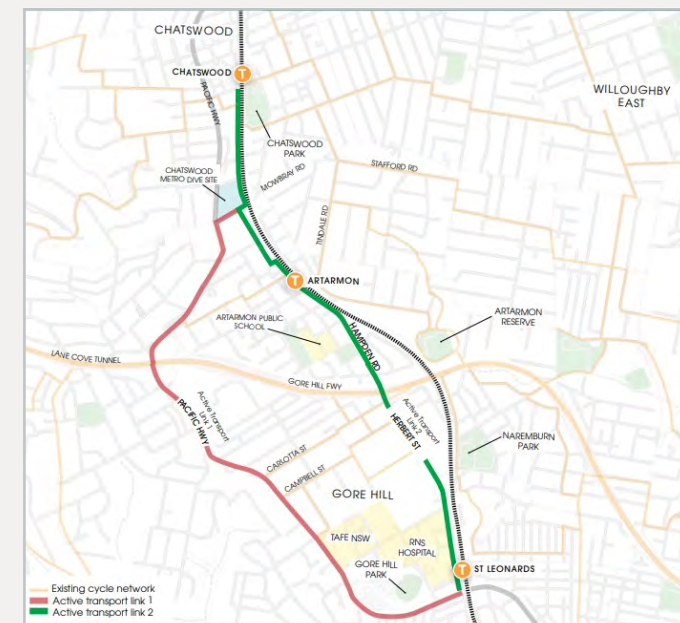


Figure B.18 Chatswood to St Leonards Cycleway – Proposed routes

Source: Chatswood to St Leonards Cycleway Draft Detailed Design (WCC, May 2020)

As the project is further developed and delivered it will present the opportunity to create a connected and continuous cycleway connection from North Sydney to Chatswood (and beyond) via St Leonards.

Other WHTWU Conditions of Approval related to active transport

Cammeray Golf Course to Primrose Park Link (WHTWU CoA E198)

The *WHTWU CoA E198* requires that “an active transport link from Cammeray Golf Course to Primrose Park, must be considered as part of the ATNR as required by Condition E195.”

While this link is nominated as part of the Greater Sydney Green Grid and as a tertiary/recreational route by NSC, it is not a high priority component of Transport’s strategic vision. With limited trip generators between these locations it is likely to have lower demand than other routes. It is also noted that pedestrian movements between these locations are accommodated by a variety of footpaths along local roads, and hence this is not considered a significant network deficiency requiring immediate action.

Cahill Expressway Footpath Extension (WHTWU CoA E199)

The *WHTWU CoA E199* requires that “a level extension of the existing footpath along the eastern side of Cahill Expressway from the top of the stairs near the former toll gantry in Kirribilli, to the existing pedestrian crossing on High Street, North Sydney must be considered as part of the ATNR required by Condition E195.”

The Cahill Expressway connects the Sydney CBD to the Warringah Freeway across the SHB. Currently, the footpath on the eastern side ends at a set of stairs in Kirribilli, taking pedestrians to the intersection of Burton Street and Broughton Street. From this location, the existing walking route on the eastern side of the freeway is via footpaths on Ennis Road and Ennis Lane. Pedestrians are also able to use the underpass at the base of the stairs at Burton Street, travelling to/from the north and west on the western side of the Warringah Freeway via Alfred Street South and Bradfield Park.

A level extension of the footpath would most likely involve a cantilevered walkway, continuing northwards from the existing cantilevered walkway south of Milson's Point Station, shown in Figure B.19.

Known constraints and challenges to the suggested extension of the existing Cahill Expressway footpath include:

- Limited space between the existing edge of the Cahill Expressway and surrounding properties, especially near the residential apartments at McDougal Street where there is currently around 2.2 metres clearance between the building and the Cahill Expressway
- Proximity of the existing tree canopy adjacent to the Cahill Expressway towards High Street.

Further due diligence is required to identify and understand other environmental, community, and stakeholder issues in the area, and consequently the feasibility and cost of development and delivery of this concept as a potential option; similar to the investigations recently undertaken for the SHB NCR project.

Further work would also include the investigation of alternative options, such as upgrades to the existing street environment along Ennis Road and Ennis Lane – noting similar upgrades are currently being progressed by Transport to the west of the Warringah Freeway corridor along the alternative Alfred Street South route.

Falcon Street Interchange design alternatives (WHTWFCoA E200)

The WHTWFCoA E200 requires that Transport for NSW “must investigate alternative crossings of the Falcon Street diverging diamond interchange, including but not limited to consideration of an overpass, reduction in the number of crossings or priority phasing of traffic lights for pedestrians and cyclists.”

Transport considered options for diverging diamond interchange (DDI) alternatives including an overpass, reduction in the number of crossings, and priority phasing of traffic lights for active transport users as required. After further investigation, Transport proposes to retain the existing intersection configuration with some minor road geometry adjustments. Based on this design change DPE confirmed that CoA E200 has not been triggered by the Warringah Freeway Upgrade project.

Notwithstanding this, due to the provision of additional southbound lanes on the Warringah Freeway, including a new dedicated and separated bus lane in the current underpass location, the Warringah Freeway Upgrade project still required the removal of the existing Falcon Street shared user underpass; the removal was also assessed in the EIS as part of the DDI configuration.

As demonstrated by this Review, Transport is continuing to investigate and prioritise walking and cycling network planning in this area.



Figure B.19 Existing cantilevered footpath

Source: Google Street view (accessed February 2022)

Appendix C – Walking and cycling EIS submissions

Key responses about walking and cycling raised in the EIS submissions between January and March 2020 are summarised below.

City of Sydney Council

City of Sydney Council stated that the NSW Government should commit to reallocating road space for public and active transport for people travelling between the North Shore and the Sydney CBD, including a dedicated space for walking on both sides of the Sydney Harbour Bridge.

Willoughby City Council

Willoughby City Council requested a connected, reliable and safe cycle transport link between Gore Hill Freeway and Milsons Point including:

- Dedicated cyclist only bridge connecting to existing cyclist facilities along the Gore Hill Freeway, west of Willoughby Road to the northern side of the Gore Hill Freeway/Warringah Freeway and Slade Street Naremburn
- Dedicated two-way cycle only lanes with physical separation barriers, in the following locations:
 - Along the Gore Hill Freeway/Warringah Freeway between Willoughby Road and Brook Street to ensure safety and amenity
 - Along the northern side of the Gore Hill Freeway/Warringah Freeway between the new cycle only bridge across the Brook Street on-ramp, to connect with the proposed dedicated two-way cycle lanes between Miller Street and Ernest Street
 - Cycle network within Willoughby local government area that is connected, safe and an acceptable design standard.
- Consideration should be given to land bridges across major roads with the purpose of accommodating walking and cycling.

North Sydney Council

North Sydney Council stated that little consideration had been given to Council's walking and cycling infrastructure priorities as there was no commitment to delivery of new walking or cycling infrastructure in the EIS.

Bike North

Bike North requested stakeholder consultation to identify and address cycling issues, and made a number of recommendations including:

- An active transport corridor along the length of the project, at least between Naremburn and the Sydney Harbour Bridge
- Developing the final proposal for the North Shore Cycleway as part of this project.

Bicycle NSW

Bicycle NSW supported the submission by Bike North, and recommended that the project deliver the North Shore Cycleway as part of the project, or at least the section between Naremburn and the Sydney Harbour Bridge.

Community submissions

Submitters requested consideration of additional or alternative walking and cycling arrangements. These included:

- Inclusion of a pedestrian crossing on the north side of Alexander Street, at the roundabout intersection with Albany Street
- Relocation of footpaths on western side of Alfred Street North into the grassed area
- Inclusion of a pedestrian crossing to get from High Street North to High Street South
- Significantly broadening the Ernest Street overpass or other similar structures along the length of the freeway to provide greater amenity and safety for shared path users
- Inclusion of a pedestrian/cycle crossing on the western side of Ernest Street bridge onto the west side of freeway by removing the traffic lights at Merlin and Ernest Streets to connect to existing bike path between Ernest and Falcon Streets at Jefferson Jackson Reserve
- Request for upgrades to major pedestrian crossings at Miller Street, Walker Street, Mount Street, High Street and Berry Street.

Appendix D – Detailed standards and guidelines

Detailed standards and guidelines relevant to the ongoing development and delivery of walking and cycling infrastructure are summarised in this Appendix.

The principles of these standards and guidelines assist with the identification of strategic network limitations and options to address them. The more detailed aspects of these standards and guidelines will be applied as preferred options are confirmed, developed, and designed in more detail.

NSW Movement and Place Framework

Movement and Place is a cross-government framework for planning, designing and managing our transport networks to maximise benefits for the people and places they serve. The framework has been developed to create successful streets and roads across NSW by balancing movement of people and goods with amenity and quality of places.

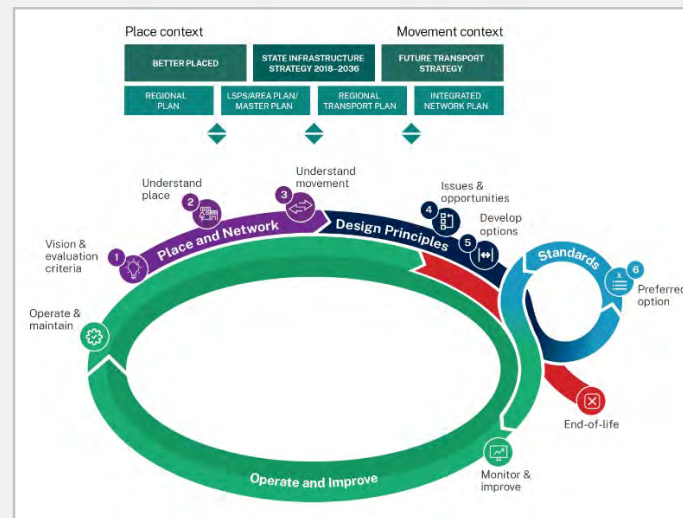


Figure D.1 Movement and Place Framework – Context and approach
Source: www.movementandplace.nsw.gov.au/about/how-it-all-fits-together (Accessed December 2022)

Movement and Place considers the whole street including footpaths. It takes into account the needs of all users of this space including pedestrians, cyclists, deliveries, private vehicles and public transport, as well as people spending time in those places, whether moving around the place or enjoying street life including outdoor dining, waiting for a bus or people watching.

To support the framework, a series of tools and guidance documents are currently being prepared across NSW Government agencies.¹⁶ Current tools and guidance documents of particular relevance to the ongoing development and delivery of walking and cycling infrastructure include:

- Practitioners Guide to Movement and Place (Last updated November 2022)
- Network Planning in Precincts Guide (Last updated July 2022)
- Design of Roads and Streets Guide (Last updated December 2022)

Cycleway Design Toolbox

The *Cycleway Design Toolbox* (Transport, December 2020) provides guidance for practitioners on designing for cycling and micromobility in NSW. It is currently used as the principal reference guide for planning and designing cycleways by Transport; the six design principles that it champions are summarised in Figure D.2.

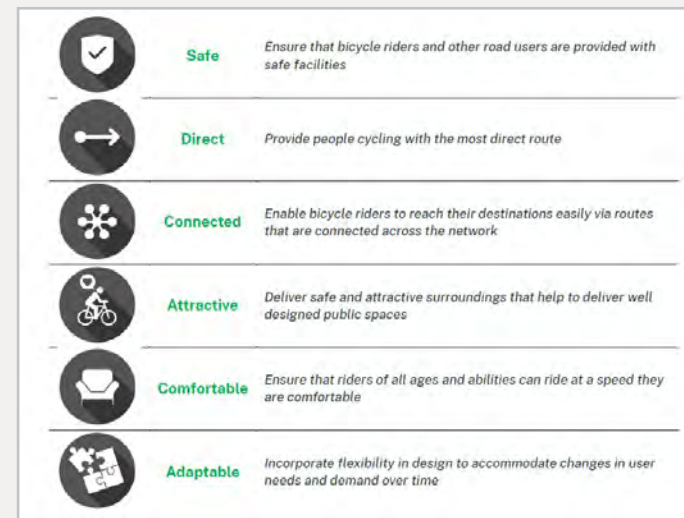


Figure D.2 Cycleway Design Toolbox design guidance
Source: Cycleway Design Toolbox (Transport, 2020)

The toolbox acknowledges that the suitability of cycleway design options depends on local context, availability of space, and walking and cycling demand. It is also consistent with complementary Austroads standards and guidelines in noting that speed and volume of motorised traffic are also factors in developing appropriate options and facilities.

¹⁶ NSW Guide to Walkable Public Space (DPE, April 2022)

Appendix D – Detailed standards and guidelines

Summary guidance criteria for alternate facility types in different contexts are provided in Figure D.3. Further details regarding recommendations for Shared User Paths (SUPs) and dedicated cycleways are provided in Table D.1.

Street typology (Movement and Place)	Civic space	Local street	Main street	Main road
Motor vehicle speed	≤10 km/h	≤30 km/h	≤50 km/h	>50 km/h
Motor vehicles / day	n/a	≤2,000	>2,000	n/a
Bicycle path (One and two-way)		Ⓢ	Ⓢ	Ⓢ
Quietway		Ⓢ		
Shared path (Low pedestrian activity and low cross-cyclway movement)		Ⓢ	Ⓢ	Ⓢ
Shared path (High pedestrian activity or high cross-cyclway movement)			Ⓢ	Ⓢ
Shared zone		Ⓢ		

Ⓢ Required for priority routes Ⓢ Suitable, but not preferred for priority routes

Figure D.3 Recommended cycling facilities based on street typology
Source: Cycleway Design Toolbox (Transport, 2020)

Walking Space Guide

The *Walking Space Guide* (Transport, July 2020) provides a set of standards and tools to assist those responsible for Walking Spaces on streets, to ensure that sufficient space is provided to achieve comfortable environments which encourage people to walk.¹⁷

The guide defines and discusses five different types of footpaths, ranging from Type 1 (Local footpaths with low activity, with two metres of walking space) to Type 5 (Main street footpaths with high activity, with four and a half metres of walking space). Example cross-sections of Type 1 to Type 3 footpaths which are most common in the study area of this review are illustrated in Figure D.4.

¹⁷ Walking Space Guide (Transport, July 2020)

Table D.1 Recommended cycling facility details

Cycling typology	Description	Recommendations
Shared User Path (SUP)	Shared paths may be considered where demand for both pedestrian and bicycle facilities exist but predicted walking and/or cycling volumes are sufficiently low that separate facilities are not justified.	The desired minimum width of a shared path is four metres, allowing for safe overtaking and pedestrian interactions. A buffer between the shared path and motorised traffic or parked cars should be incorporated, particularly along main roads where speeds exceed 50 km/h or carry high volumes of traffic. The buffer can take the form of a median, kerb, verge or planting, with a minimum buffer width of one metre.
Bicycle path (two-way)	A bicycle path is an off-road facility that is physically separated from motor vehicle traffic and pedestrians and is exclusively for use by bicycles and other micromobility devices.	An ideal two-way bicycle path on a priority regional route should maintain a preferred width of four metres. A minimum three metre (preferably four metre) wide two-way bicycle path will also allow for higher speeds along the bicycle path to cater for commuters and the emergence of innovative forms of micromobility. One-way (uni-directional) bicycle paths located on each side of a road and operating in the same direction as adjacent motor vehicle traffic are the preferred design for cycleway facilities. Incorporating a buffer between people cycling and parked cars is a key safety design feature for cycling facilities, with the ideal buffer width of one metre.

Source: Cycleway Design Toolbox (Transport, 2020)

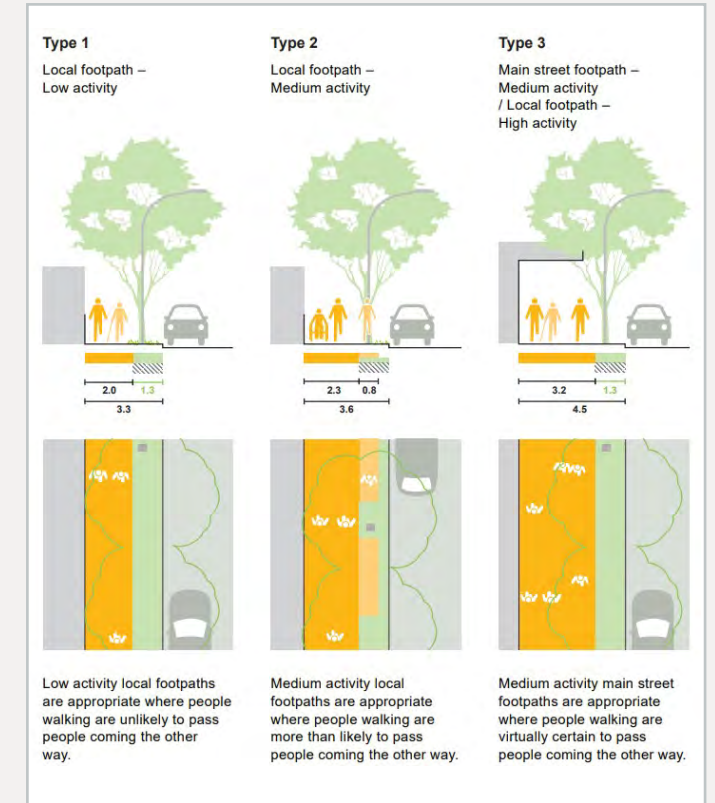


Figure D.4 Walking Space Guide – Illustrative Footpath Types 1 to 3
Source: Walking Space Guide (Transport, July 2020)

Austrroads Standards and Guidelines

Austrroads released the *Cycling Aspects of Austrroads Guide* (Austrroads, 2017) which compiles guidance on the design, construction and maintenance of cycling and end-of-trip facilities from the *Austrroads Guide to Road Design*, *Guide to Traffic Management and Guide to Road Safety*.

The Austrroads Guide is a nationally agreed guidance document for all road design and traffic engineering that sets a minimum baseline for acceptable cycleway design. It considers compliance and standards rather than best practice to meet a range of customer needs.¹⁸ It is noted that the recently developed Transport guides discussed above present preferences / best practices in the context of North Sydney and surrounds.

Referring to the *Cycling Aspects of Austrroads Guide*, Figure D.5 illustrates guidance on the separation of cyclists and motor vehicles for a given bicycle route.

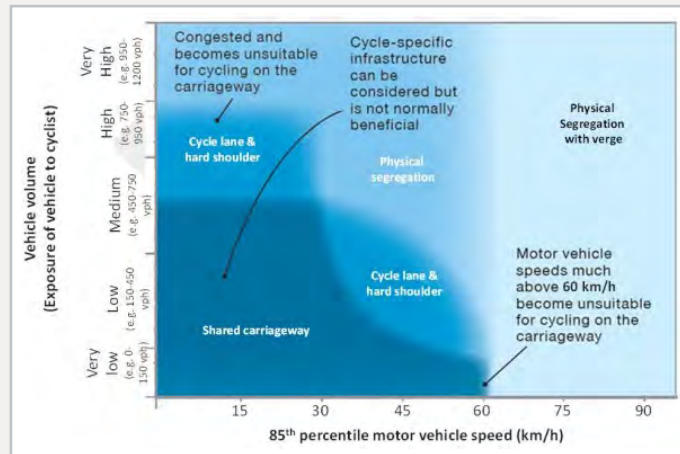


Figure D.5 Austrroads vehicle and cyclist separation guidance
Source: Cycling Aspects of Austrroads Guide (Austrroads, 2017)

The guide also provides further detail regarding the development and provision of facility types in different contexts and situations. As an example Figure D.6 illustrates recommended pedestrian and cyclist facilities based on peak patronage, assuming a 75/25 directional split (which is recommended for commuter-heavy routes).

As indicated on Figure D.6, Austrroads guidelines recommend dedicated bike paths of between 2.5m to 4.0m, dependent on demand and mix of pedestrians and cyclists. For “major paths”, Austrroads notes a desirable minimum width of 3.0 metres, with a typical maximum of 4.0 metres.

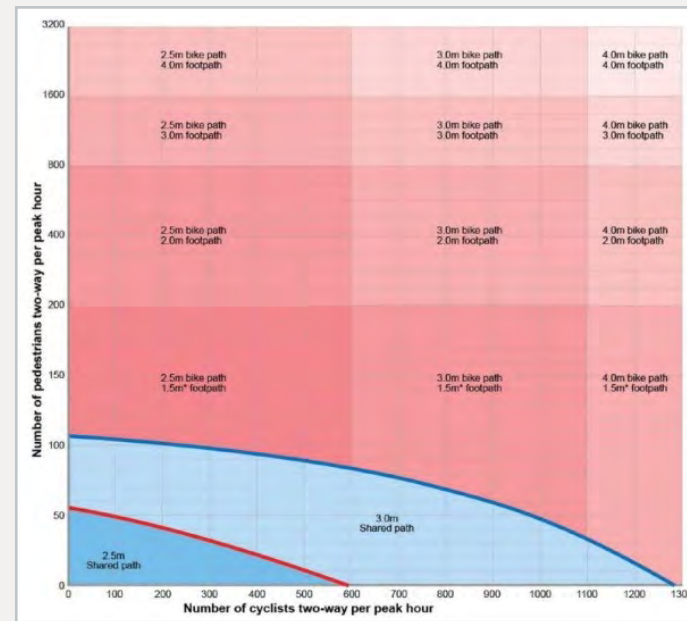


Figure D.6 Austrroads recommended pedestrian and cyclist facilities based on patronage

Source: Cycling Aspects of Austrroads Guide (Austrroads, 2017)

NSW Guide to Walkable Public Space & NSW Public Spaces Charter

The *NSW Guide to Walkable Public Space* (DPE, April 2022) “provides ideas and exposes opportunities to create more walkable local neighbourhoods through improvements in our open spaces, streets and public facilities. The Guide helps bring the ten principles of the NSW Public Spaces Charter to life by inspiring creation of better quality and connected public space.” The application of the guide applies to walking facilities to/from, through, and within public spaces, as illustrated in Figure D.7.



Figure D.7 Relevant types of public spaces
Source: NSW Guide to Walkable Public Space (DPE, April 2022)

¹⁸ Cycleway Design Toolbox (Transport, December 2020)

The guide identifies 10 principles that are generally shared by walkable public spaces, including streets and footpaths to and from public spaces:

- Principle 1: Open and welcoming – They connect people to each other
- Principle 2: Community focused – They prioritise people over cars
- Principle 3: Culture and creativity – They are vibrant and activated
- Principle 4: Local character and identity – They showcase unique local character
- Principle 5: Green and resilient – They are comfortable, green and shady
- Principle 6: Healthy and active – They enable a healthy lifestyle
- Principle 7: Local business and economies – They connect people to places
- Principle 8: Safe and secure – They feel safe day and night
- Principle 9: Designed for place – They are inclusive for everyone
- Principle 10: Well managed – They are attractive and well maintained

Great Public Spaces Toolkit

The *Great Public Spaces Toolkit* helps bring the principles of the *NSW Public Spaces Charter* to life through a collection of free resources to support local government, state agencies, industry and the community. The Department of Planning and Environment is developing tools that anyone can use to support planning, managing and creating better and more vibrant public spaces.¹⁹

The current toolkit includes:

- *Evaluation Tool for public space and public life* (Version 2, accessed December 2022)
- *Great Public Spaces Guide* (Accessed December 2022)
- Case studies including *Places to Love City of Sydney* (November 2021) and *COVID Safe Public Space* (Updated December 2021)

Pedestrian Crossing Guideline

The *Pedestrian Crossing Guideline* (Transport, September 2022) provides issues for consideration for local governments who choose to develop their own pedestrian crossing policy. Locally developed policies should aim to address the specific characteristics within individual local government areas and help councils to achieve their place-making visions. This guideline is not mandatory.

¹⁹ <https://www.dpie.nsw.gov.au/premiers-priorities/great-public-spaces/festival-of-place/great-public-spaces-toolkit> (Accessed December 2022)



Figure D.8 Great Public Spaces Guide – Great public space indicators
Source: Great Public Spaces Guide (Accessed December 2022)

The information included in the guideline aligns with key NSW Government strategies such as *Future Transport 2056* and the *NSW Movement and Place Framework*.

Pedestrian crossings, often referred to as zebra crossings, provide an opportunity for people to cross a road safely and on demand.

Pedestrian crossings are one of a suite of treatments that can be used on the road network. Used appropriately, they can improve safety, amenity, priority, and legibility for pedestrians. They can also be used in a variety of ways to achieve council’s movement and place vision for an area or length of road.

Transport for NSW utilises a warrant system to determine if a pedestrian crossing is warranted at a specific location on roads operated by the NSW Government (Supplement to Australian Standard AS 1742.10-2009). This warrant system is not mandatory for use on non-arterial roads operated by local government.

This guideline has been released as an interim measure while other related documents, including movement and place guidance, are being developed by Transport for NSW. It is not meant to comprehensively describe all aspects of planning, evaluating, and implementing pedestrian crossings.²⁰

²⁰ Pedestrian Crossing Guideline (Transport, September 2022)

Appendix E – Analysis of suitability of shared facilities proposed by the Western Harbour Tunnel and Warringah Freeway project

Currently preferred target specifications for shared facilities are outlined in recently released Transport guides such as the *Cycleway Design Toolkit* and *Walking Space Guide*.

The development and delivery of walking and cycling infrastructure also considers other factors including environmental impacts and sustainability, stakeholder needs and issues, and value-for-money on a case-by-case basis, particularly in complex and constrained urban areas such as the study area for this Review.

In this context guides such as the *Transport Cycleway Design Toolkit* and *Walking Space Guide* will continue to be used to identify preferred facility types, while Austroads Standards and Guides have been used to confirm minimum requirements to ensure the safety, efficiency, and amenity of pedestrians and cyclists.

Appendix F – Relevant case studies from the Streets as Shared Spaces program

Street Play – North Sydney Council

Funded under Streets as Shared Spaces (round 1)

North Sydney Council's Street Play pilot, which received Streets as Shared Spaces grant funding, temporarily closes roads to create more public space. From September 2020, the community were able to nominate streets via a public map. The agile program moved with community demands to accommodate where people want to see 'play' days. The sites were accessible and promoted connectivity to schools, services and open space. The Council also commissioned a mobile parklet that included interactive games for kids of different age groups.

Heart of Drummoyne – City of Canada Bay

Funded under Streets as Shared Spaces (round 1) and Your High Street

With \$100,000 in funding from the NSW Government's Streets as Shared Spaces program, council carried out 2 temporary street closures in Drummoyne:

- Formosa Street between Lyons Road and Bowman Street, creating a public square in the heart of Drummoyne town centre. It included seating, landscaping, art, and safer access for pedestrians and cyclists.
- Church Street between Victoria Road and Formosa Street, changing from a 2-way into a one-way street, with narrowed access to Victoria Road. It included more seating and art that encouraged local cafes to spill out into the new space.

Council engaged local creatives and organisations to activate the space with weekly Christmas artisan markets, live music events, smoking ceremonies, art exhibitions and children's activities.

Data gathered during the trial showed an increase in demand for accessible public space in Drummoyne's town centre. Community and business participation helped make the trial a success and built the case for making the installations permanent. The City of Canada Bay then sought funding for permanent works under the NSW Government's Your High Street program. Council was successful in securing \$1 million to fund the Drummoyne Shared Spaces project to transform parts of Church Street and Formosa Street into inviting public spaces the whole community can enjoy.

A slow path – not a fast short cut – Ballina Shire Council

Funded under Streets as Shared Spaces (round 1)

Ballina Shire Council trialled traffic calming and streetscape enhancements to improve amenity and safety for pedestrians and cyclists in and around Park Lane, Lennox Head. During consultation, the community identified pedestrian safety as an important objective, as Park Lane is a popular shortcut for vehicles wanting to avoid main street traffic.

Council tested raised speed thresholds and crossing points, kerb buildouts, reduced traffic speeds (30km/h), public art and decorative pavement treatments, a parklet, bicycle parking and maintenance equipment and solar lighting. Partway into the trial, council has already observed an average speed reduction of 10km/h along Park Lane. This trial has informed Council's design of the Lennox Village Vision to introduce permanent streetscape improvements.

Case study:

City of Sydney, George Street Temporary pedestrianisation trial leading to permanent change



As part of the Places to Love program, the department partnered with pilot councils to trial increasing walkable access to public spaces. The City of Sydney demonstration project took place along the southern section of George St, south of Bathurst St and north of Rawson Place.

In 2020, City of Sydney Council temporarily tested the closure of the street to vehicles. It did this through installing vehicle barricades, new seating, a vibrant road painting installation and engagement with local business and community. This created a place for

people that allowed physical distancing and catalysed support for the evolution into a permanent change to the street, creating a green, car-free corridor for people. The pedestrianisation also supported local businesses and aided the CBD in recovery from the Covid-19 pandemic. In 2021 Council began the works to permanently pedestrianise this section of the street.

See the [Places to Love George Street Case Study](#)¹³ for details on this project.

The completed temporary works on George Street. Credit for image on right: City of Sydney



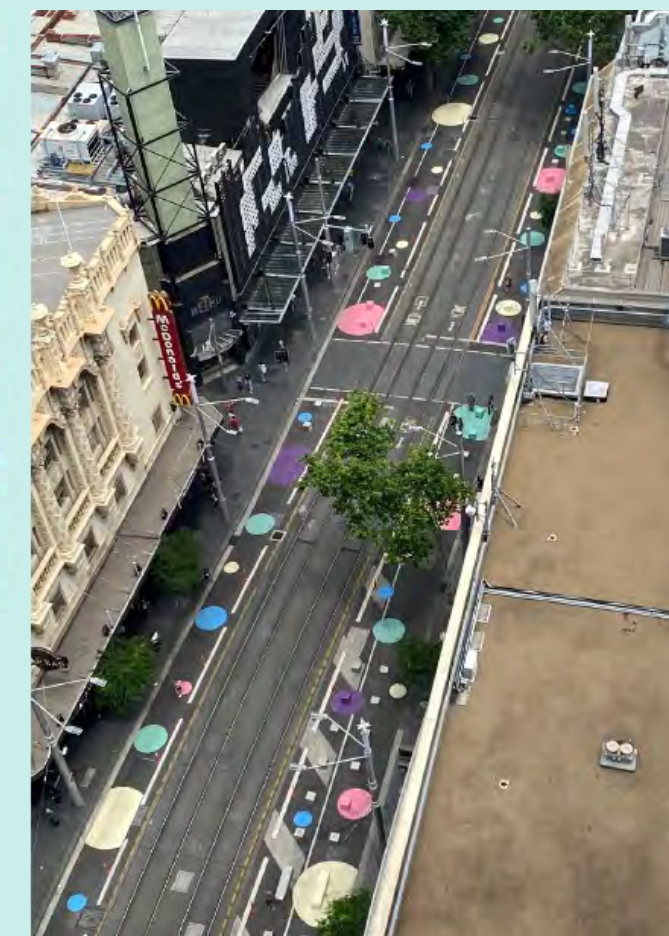
Coogee Bay Road Shared Village – Randwick City Council

Funded under Streets as Shared Spaces (round 1)

With \$100,000 in funding from the Streets as Shared Spaces program, Randwick City Council trialled the Coogee Bay Road Shared Village project. The project provided the opportunity to trial the reallocation of road space for other uses, including outdoor dining during COVID-19 restrictions. By changing traffic conditions on the main road from two-way to one-way travel between Arden Street and Brook Streets, the Council was able to provide more open space for people to enjoy.

'The Coogee Bay Road Shared Village project provides more space for outdoor dining as well as additional space to help shoppers and pedestrians practice social distancing.'

– Councillor Danny Said, Mayor of Randwick



Changing road space into other uses can be a complex undertaking, and during all stages of the project, consultation and collaboration with direct and general stakeholders was crucial.

The Coogee Bay Road Shared Village project was originally proposed as a complete closure (of a section) of Coogee Bay Road to create a temporary pedestrian mall. After feedback from local businesses and residents, Council amended their design to remove only one traffic lane with no loss of existing parking. The project was inspired by Council's streetscape improvements completed along Coogee Bay Road in 2019, which saw footpaths upgraded, widened and overhead power placed underground. A one-way traffic trial was undertaken during these works and was broadly well received.

With extensive community consultation throughout the project's duration, Council reported that there were mixed reviews from the community regarding impacts to parking and traffic, but 75% of respondents were supportive of the project overall.





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