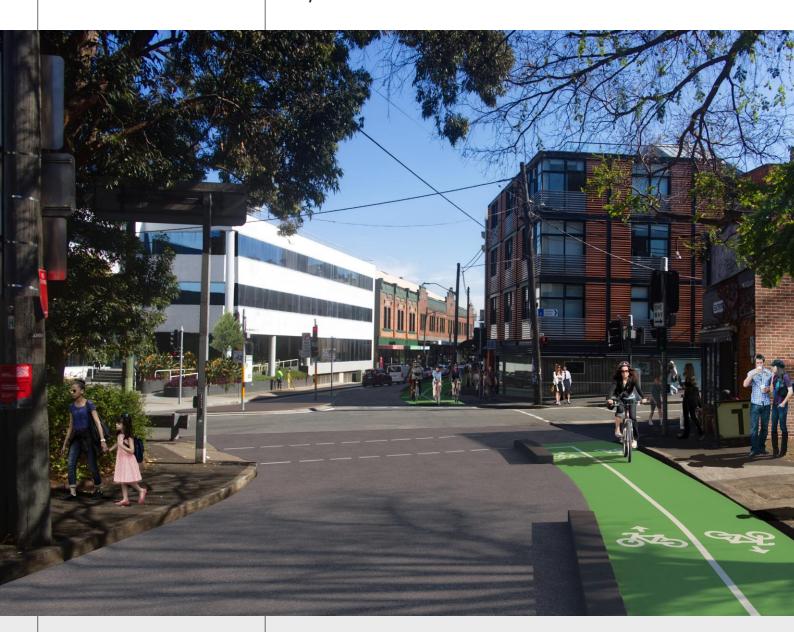
Transport for NSW

Wilson Street Cycleway

Review of Environmental Factors

July 2025





transport.nsw.gov.au

Acknowledgement of Country

Transport for NSW acknowledges Gadigal people, the traditional custodians of the land on which the Wilson Street Cycleway is proposed.

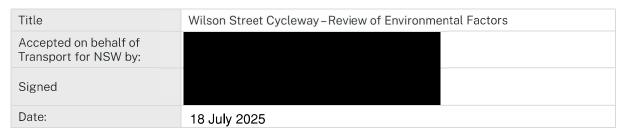
We pay our respects to Elders past and present and celebrate the diversity of Aboriginal people and their ongoing cultures and connections to the lands and waters of NSW.

Many of the transport routes we use today – from rail 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 land, waters and seas and their rich contribution to society.



Approval and authorisation



Document review tracking

Draft No.	Date	Comments
Draft 1	08/04/2024	First draft submission
Draft 2	14/04/2025	Second draft submission
Draft 3	27/06/2025	Final draft submission
Final	15/07/2025	Final submission

Executive summary

The proposal

Transport for NSW (Transport) proposes to extend the existing separated cycleway on Wilson Street, east of Erskineville Road, to Eliza Street in Newtown (the proposal). The proposal includes upgrade of Wilson Street's intersections with Erskineville Road and King Street.

Wilson Street extends between King Street at its western end and Ivy Street on its eastern end and is about 1.7 kilometres long. Wilson Street, King Street, Eliza Street and Erskineville Road are located in areas of substantial urban development, utilised heavily by people driving, cycling, walking, and public transport users.

The proposal would provide the missing link in the cycling network between the one-way bicycle lane on Wilson Street and the shared zone in Eliza Street. Wilson Street is an important connection for people riding bikes between Newtown, Redfern, and the Eastern Suburbs. People riding bikes currently have no choice but to ride alongside cars and buses. A separated cycleway would provide a dedicated and safer bike route for people of all ages and abilities. Cycling can be a great option for more people.

Wilson Street is located on the land of the Gadigal people. Wilson Street is a local road managed by City of Sydney Council except for its extent between King Street and Erskineville Road which is classified as a State road and managed by Transport.

Key features of the proposal would include:

- Installation of an approximately 150 metre bi-directional cycleway along the north side of Wilson Street, extending from east of Erskineville Road to Eliza Street
- Removal of about 75 metres of existing cycleway along the south side of Wilson Street, east of the intersection of Wilson Street and Erskineville Road, where the existing cycleway would be replaced by the new bi-directional cycleway on the north side of Wilson Street
- Construction of a raised priority cycle crossing on Wilson Street between Erskineville Road and Brown Street, to
 connect the existing cycleway on the south side of the road carriageway to the proposed cycleway on the north side of
 the road carriageway
- Installation of a new 12 metre loading zone on Erskineville Road, between King Street and Wilson Street, to operate during off-peak periods, between Monday to Friday 10am to 3.30pm
- Signalisation of the existing pedestrian crossing across Eliza Street, at its intersection with King Street
- Banning the left turn for vehicles turning left from Wilson Street onto Erskineville Road
- Restricting bike rider turns for the following movements:
 - Turning left from the proposed cycleway on Wilson Street onto King Street
 - Turning right from the proposed cycleway on Eliza Street onto King Street
 - Turning right from the proposed cycleway on Wilson Street (between King Street and Erskineville Road) onto Erskineville Road
 - Turning left from the proposed cycleway on Wilson Street (east of Erskineville Road) onto Erskineville Road.

Need for the proposal

Wilson Street forms part of an important connection for people riding bikes between Newtown, Redfern and the Eastern Suburbs. However, Wilson Street currently does not provide safe cycling infrastructure between the existing separated cycleway east of Erskineville Road, and the shared zone on Eliza Street. There is a missing link that needs to be addressed to improve connectivity between the City of Sydney and Inner West Council local bike networks.

The proposal supports a number of Transport's strategic policies and plans and has been identified as an immediate opportunity for investigation in the *Strategic Cycleway Corridors Eastern Harbour City Overview* (Transport for NSW, 2022). It is a key priority for the NSW Government and an essential part of the City of Sydney's cycling network.

According to research undertaken by Transport, focus should be given to providing high-quality, safe and connected cycling infrastructure that caters to the 48 percent of potential riders who are "interested but concerned" (Cycling Customer Value Proposition Research, 2013). In this research, over 70 percent of customers stated that they would ride a bicycle if they had access to safe cycling routes. Community feedback further highlights that there is a desire for improved cycling infrastructure.

Proposal objectives

The objectives of the proposal include:

- Provide the missing link between the existing Wilson Street cycleway and the Eliza Street shared zone
- Improve safety for all road users on Wilson Street
- Manage the street space along Wilson Street as public space to improve amenity.

Options considered

Transport investigated three options for new cycleways along and surrounding Erskineville Road, Wilson Street and Eliza Street to address the lack of cycling infrastructure within Newtown. These were assessed against the proposal objectives and development criteria.

Urban design objectives were carefully considered throughout the options assessment process to ensure the integration of the proposal with the surrounding landscape.

The options that were considered as part of this proposal include:

- Option 1 'Do nothing': Involves doing no works.
- Option 2 'Cycleway along northern side of Wilson Street' (the proposal): provision of a bi-directional separated cycleway and intersection upgrades, along Wilson Street, Erskineville Road, King Street and Eliza Street, Newtown.
- Option 3 'Cycleway along southern side of Wilson Street': Provision of a bi-directional separated cycleway and intersection upgrades, along the south side of Wilson Street between King Street and Erskineville Road. East of Erskineville Road, the new cycleway would continue on the north side of Wilson Street, terminating at a new cycleway crossing to connect the existing cycleway on the south side of Wilson Street. This option would provide a cycleway crossing the intersection, connecting Wilson Street and Eliza Street and would require the realignment of existing pedestrian crossings at the Wilson Street and King Street, and the Wilson Street and Erskineville Road intersections. This option would also provide a shared space for people walking and cycling on Eliza Street, west of the Eliza Street, Wilson Street and King Street intersection.

Option 2 was selected as the preferred option, providing enhanced safety and connectivity compared to Options 1 and 3.

Following design development of Option 2, restrictions on bike rider and vehicle movements were introduced to reduce the likelihood of conflicts and safety issues, and to support smoother traffic flow. A new loading zone, located on Erskineville Road, would also be introduced to minimise impacts resulting from the removal of the loading zone on Wilson Street.

Statutory and planning framework

The proposal is categorised as development for the purpose of road infrastructure facilities and is being carried out by or on behalf of a public authority. Under section 2.109 of SEPP (Transport and Infrastructure) the proposal is permissible without consent. The proposal is not State significant infrastructure or State significant development. The proposal can be assessed under Division 5.1 of the EP&A Act.

Transport for NSW is the determining authority for the proposal. This REF fulfils Transport's obligation under section 5.5 of the EP&A Act including to examine and take into account to the fullest extent possible all matters affecting or likely to affect the environment by reason of the activity.

Consultation

Consultation activities conducted for the proposal and the outcomes of these are documented in the Wilson Street Cycleway Consultation Report (TfNSW, 2024). The consultation report outlines the consultation approach carried out and a summary of the feedback received, Transport's response to some of the frequently asked questions, and next steps.

Consultation with community and key stakeholders was undertaken to:

- Inform the community and stakeholders of the proposal
- Obtain feedback from the community and stakeholders on the proposal
- Build a database of community and stakeholders interested in the proposal who Transport can continue to engage with and inform as the proposal progresses
- Consider all feedback and use this feedback in planning and developing the final design of the cycleway.

A summary of consultation undertaken to date is provided in Section 5.1 to 5.6 and includes:

- · Aboriginal community involvement
- Community involvement
- SEPP (Transport and Infrastructure) consultation
- Government agency and stakeholder involvement
- Ongoing or future consultation.

Transport for NSW will continue to consult with the community and relevant stakeholders during the detailed design and construction of the proposal.

Environmental impacts

The REF provides a detailed description of the potential environmental impacts associated with the construction and operation of the proposal. The key environmental impacts of the proposal are outlined below. The safeguards and mitigation measures identified in this REF would help minimise any expected adverse impacts.

Parking

A Parking Impact Assessment (PIA) has been prepared for this proposal.

Parking

Parking on Wilson Street, between King Street and Brown Street, would be impacted during construction of the proposal. Seven unrestricted parking spaces and six 30-minute parking spaces would be permanently removed to permit construction of the bi-directional cycleway. These parking spaces would not be reinstated. Access to an existing council carpark on Wilson Street, about 80 metres east of the intersection with Erskineville Road, would be impacted due to construction works such as pavement re-sheeting. Construction phasing in this area would be optimised to minimise the duration of impact on access to the Council carpark.

Under most time periods, the surrounding parking provisions would be able to absorb an additional 13 vehicles, with the exception the following periods:

- Wednesday from 11am and 1pm shortfall of seven parking spaces
- Friday from 1pm and 3pm shortfall of four parking spaces
- Saturday from 12 noon and 3pm shortfall of nine parking spaces.

Loading zones

The 12 metre loading zone on Wilson Street would be permanently removed as part of the proposal to allow for the construction of the cycleway. This would result in impacts to businesses in the vicinity, as delivery drivers would be required to utilise loading zones further away and may reduce operational efficiency.

The PIA for this proposal has considered the existing loading zones within 200 metres of the proposal area. Given the existing spare capacity of nearby loading zones (including King Street, Eliza Street, Brennan Lane and Mary Street) and provision of a new 12 metre loading zone off Erskineville Road, between Wilson Street and King Street, impacts resulting from the loss of the loading zone would be minimised.

Safeguards to manage traffic, including parking, would be implemented and would include the preparation and implementation of a Traffic Management Plan.

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Socio-economic, property and land use

The Socioeconomic Impact Assessment (SEIA) has been prepared in accordance with the requirements of a moderate level of assessment under the *Environmental Impact Assessment Practice Note: Socio-economic assessment* (TfNSW, 2020a).

Potential negative impacts would occur during construction, including temporary impacts due to construction activities, such as changes to access and amenity. These impacts are likely to affect businesses and residents located in close proximity to the proposal area. Changes to parking, traffic and access due to construction activities were found to have the greatest impact on surrounding businesses, with a moderate level of significance.

Operation of the proposal is expected to result in positive impacts for local communities due to enhanced connectivity and safety for people cycling, which would support active and healthy lifestyles, and enhanced amenity due to streetscape improvements in the proposal area. There would be long term negative impacts during operation for businesses and local residents due to removal of on-street parking and the loading zone, as well as visual changes due to operation of the cycleway which may reduce enjoyment of views for some people. The removal of the 13 parking spaces and the loading zone were found to have the greatest impact on surrounding businesses, with a high to moderate level of significance.

The safeguards and management measures would be implemented to minimise potential socio-economic impacts, including preparation of a Communication Plan and ongoing communication and consultation with impacted businesses.

Traffic and transport

A review of the road network, public transport, cycling and pedestrian facilities surrounding the proposal was undertaken, with the findings detailed below.

Access

Vehicle access to several properties would be temporarily disrupted during construction works, particularly during pavement re-sheeting activities. Affected properties include 10, 15, 21, 22-30 and 30-34 Wilson Street. The Council carpark at 22-30 Wilson Street would remain accessible via Whateley Lane, although access is very narrow and may be blocked by obstacles such as bins.

Implentation of the left turn ban and proposed alternate routes for light and freight vehicles would result in the following potential access impacts during operation:

- Up 40 light vehicles are expected to be re-routed through the road network during peak periods, with light vehicles
 predominantly using the state road network (King Street and Enmore Road). There is the potential, although unlikely,
 to cause additional congestion and delays on these roads.
- Due to removal of parking on the north side of Wilson Street, there is the potential for reduced demand for the left turn onto Erskineville Road by vehicles currently using the left turn movement onto Erskineville Road when leaving the removed on-street parking.
- There is potential for a small increase in traffic volumes on Wilson Street and Brown Street. The impact is expected to be minor, as implementation of the left turn ban would only add about 40 additional vehicles to the existing 2,596 vehicles travelling east on Wilson Street (1.5% increase during the PM peak).
- Delivery vehicles travelling from the west are expected to be diverted via Edgeware Road and Alice Street onto King Street. Travel to the proposed loading zone would then be via Sydney Park Road, Mitchell Street, and Erskineville Road. An increase in heavy/freight vehicles is expected along these roads, however the expected volumes would be low.
- Delivery vehicles travelling from the south are expected to be diverted via Sydney Park Road, Mitchell Street, and
 Erskineville Road. An increase in heavy/freight vehicles is expected along these roads, however the expected volumes
 would be low.
- An increase in travel time for delivery vehicles is expected along the alternate access routes of up to about five and a half minutes.
- Due to the longer travel time of alternate access routes, some deliveries would likely use other nearby loading zones.
 This higher demand for the other loading zones may result in delays and the use of on-street parking as an alternative, reducing parking availability nearby.

Implementation of the left turn ban would result in improved safety outcomes, avoiding the potential for conflicts to occur between people cycling and left turning vehicles.

Traffic performance

Some impacts on traffic flow may occur during construction of the proposal. Surrounding roads are anticipated to remain open, however some lane closures may occur. This would be undertaken as out of hours works in accordance with road occupancy licences to minimise disruption to traffic. Temporary construction speed limits, stop/slow signage and controls, and detours would be implemented to ensure the safety of construction personnel. Any resulting delays would likely be short-term and minor in nature. The impact of increased light and heavy vehicles on the road network during construction is expected to be negligible, as the surrounding area experiences high levels of traffic and is close to major motorways, providing transport in and out of Sydney.

With the exception of the traffic performance changes due to the use of alternate light and freight vehicle routes identified, traffic performance would return to a level consistent with pre-construction traffic levels.

Public transport

The 355 bus route would remain in operation throughout construction, with construction to be staged to avoid day time traffic impacts. In doing so, construction of the proposal would not result in unreasonable delays to this bus service.

Cycling facilities

Use of the existing cycleway on Wilson Street east of Erskineville Road, as well as bike rider access to Wilson Street within the proposal boundary, would be interrupted during the construction program. Detours would be put in place during the construction phase and may result in delays or longer travel times for people bike riding.

Overall, cycling facilities within the proposal area would improve through the provision of a bi-directional cycleway connecting the existing cycleway on Wilson Street east of Erskineville Road, King Street and the Eliza Street shared user zone.

Pedestrian facilities

During construction, some closures of existing footpaths or pedestrian crossings would be required. The existing pedestrian footpaths on King Street, Wilson Street, and Erskineville Road would undergo construction works to realign pram ramps and pedestrian crossings. Pedestrian detours and temporary ramps would be installed during these works to facilitate pedestrian crossing.

Following completion of construction, there would be an improvement to pedestrian facilities through a re-aligned signalised crossing and improved efficiency by amalgamating two crossings into one on the western leg of Wilson Street and Erskineville Road intersection. Impacts to pedestrian facilities would be experienced, however, due to the loss of pedestrian priority access across Eliza Street resulting from the installation of a new signalised crossing. There would also be a reduction in the footpath on the southeast corner of King Street.

Safeguards to manage traffic during construction of the proposal would include the preparation and implementation of a Traffic Management Plan.

Noise and vibration

A quantitative assessment of potential noise impacts associated with the proposal has been carried out using the Transport for NSW 'Construction and Maintenance Noise Estimator' spreadsheet tool (Transport noise tool), based on the noisiest construction scenario (resurfacing works) during the night time period. A qualitative vibration impact assessment was also carried out based on this noise assessment.

Construction noise impacts – residential receivers

The construction noise affected distances are predicted to be the greatest during resurfacing works, with a highly intrusive and highly noise affected distance of 30 metres.

Depending on the exact location of equipment, residential receivers located on Wilson Street, east of Erskineville Road, are expected to be located within the highly noise-affected buffer for the majority of scenarios. These receivers are therefore likely to be affected by the proposed construction work.

Other residential receivers with the potential to be within the moderately intrusive impact distances (during the night period) include those along Linthorpe Street, Linthorpe Lane, Brennan Lane and on King Street. Many residential receivers surrounding the proposal area are within the largest noise affected distances of 255 metres (Resurfacing works during the night period).

Sleep disturbance

The greatest sleep disturbance impacts are predicted to occur during paving/asphalting works, with an affected distance of 215 metres.

Construction noise impacts - non-residential receivers

There are a number of non-residential receivers within the relevant noise affected distances. The majority of these receivers are at or near the intersection of Wilson Street and Erskineville Road. The majority of receivers along Wilson Street west of Erskineville Road are non-residential and have the potential to be noise impacted.

Construction vibration impacts

Buildings fronting the proposal area, including heritage buildings, have the potential to be within the safe working cosmetic damage distance for the vibratory rollers. When vibratory rolling is required in proximity to nearby residential receivers, and the vibration safe working buffer distances cannot be maintained, mitigations are required to avoid impacting receivers or causing cosmetic damage. Where vibration monitoring indicates exceedances of the vibration criteria, smaller equipment and alternative work methods will be investigated. This would include alternative compaction methods such as oscillating rollers.

Safeguards to manage noise and vibration impacts during construction of the proposal have been proposed, and include triggers for when additional management measures may be required.

Justification and conclusion

Newtown has been identified as a location with limited existing cycling infrastructure, including a missing link in the existing cycle network due to a gap between the one-way bicycle lane on Wilson Street and the shared user zone in Eliza Street. This gap limits the connectivity of the cycle network, while a lack of suitable infrastructure discourages both people bike riding and walking from utilising active modes of transportation, hindering their safety and convenience. Presently, people bike riding are compelled to ride on the road, resulting in an unsafe environment for all road users.

The proposal is consistent with relevant statutory and planning frameworks and would provide the missing link between the Wilson Street cycleway and Eliza Street shared zone. This REF has concluded that the adverse impacts of the proposal would be outweighed by the long-term beneficial impacts of providing safety and accessibility for all road users on Wilson Street and manage the street space along Wilson Street as a public space to improve amenity. Therefore, the proposal is considered justified.

A number of potential environmental impacts from the proposal have been avoided or reduced during the concept design development and options assessment. The proposal, as described in the REF, best meets the project objectives but would still result in some impacts such as noise and vibration, parking and loading zones, and social and economic impacts. Safeguards and management measures as detailed in this REF would mitigate or minimise these expected impacts. The proposal would also improve access to active transport options for residents, workers and visitors, as well as improve safety for people walking and bike riding in the area. The proposal is considered justified and is not likely to have a significant umpact under NSW or Australian legislation.

Display of the review of environmental factors

This REF is on display for comment between 30 July and 27 August 2025. You can access the documents in the following ways:

Online

The documents are available as pdf files on the Transport for NSW website at www.transport.nsw.gov.au/wilson-st-cycleway.

Printed copies

Printed copies can be supplied on request. Please contact the project team by cbd-and-east@transport.nsw.gov.au or call 1800 491 566.

Staffed displays

To learn more about the project and ask questions, you can visit the team at a drop-in session. The locations, dates and times will be provided on the project website (www.transport.nsw.gov.au/wilson-st-cycleway) or by contacting the project team by email cbd-and-east@transport.nsw.gov.au or calling 1800 491 566.

How can I make a submission?

To make a submission about this proposal, please send your written comments to:

Email: cbd-and-east@transport.nsw.gov.au

Mail:

Transport for NSW Wilson Street Cycleway Project Sydney Integration and Place team PO Box K659, Haymarket NSW 1240

You can also complete your submission through an online survey available on the website www.transport.nsw.gov.au/wilson-st-cycleway.

Submissions must be received by 11.59pm Wednesday 27 August 2025. Submissions will be managed in accordance with the <u>Transport for NSW Privacy Statement</u>. A copy can be made available upon request.

What happens next?

Transport will collate and consider the submissions received during public display of the REF.

After this consideration, Transport will determine whether or not the proposal should proceed as proposed and will inform the community and stakeholders of this decision.

If the proposal is determined to proceed, Transport will continue to consult with the community and stakeholders prior to and during construction.

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1. Introduction

This chapter introduces the proposal and provides context for the environmental assessment. In introducing the proposal, the objectives and project development history are detailed and the purpose of the report provided.

1.1 Proposal identification

Transport for NSW (Transport) proposes to extend the existing separated cycleway on Wilson Street, east of Erskineville Road, to Eliza Street in Newtown (the proposal). The proposal includes upgrade of Wilson Street's intersections with Erskineville Road and King Street.

Wilson Street extends between King Street at its western end and Ivy Street on its eastern end and is about 1.7 kilometres long. Wilson Street, King Street, Eliza Street and Erskineville Road are located in areas of substantial urban development, utilised heavily by people driving, bike riding and walking, and public transport users.

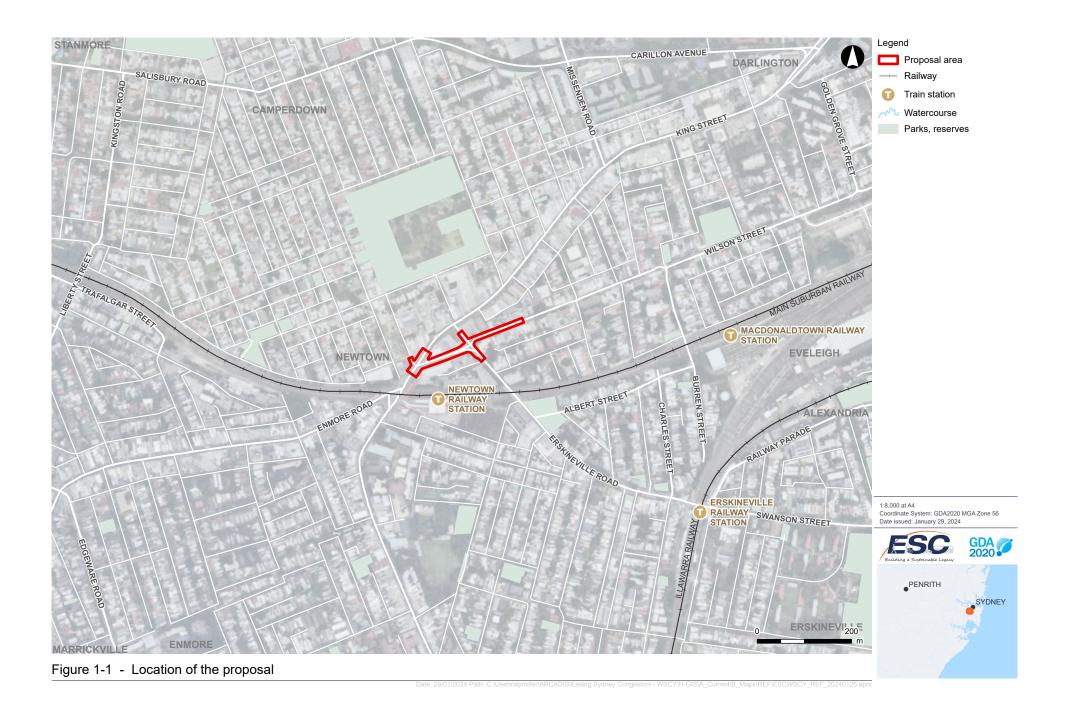
The proposal would provide the missing link in the cycle network between the one-way bicycle lane on Wilson Street and the shared zone in Eliza Street. Wilson Street is an important connection for people riding bikes between Newtown, Redfern, and the Eastern Suburbs. People riding bikes currently have no choice but to ride alongside cars and buses. A separated cycleway would provide a dedicated and safer bike route for people of all ages and abilities. Cycling can be a great option for more people.

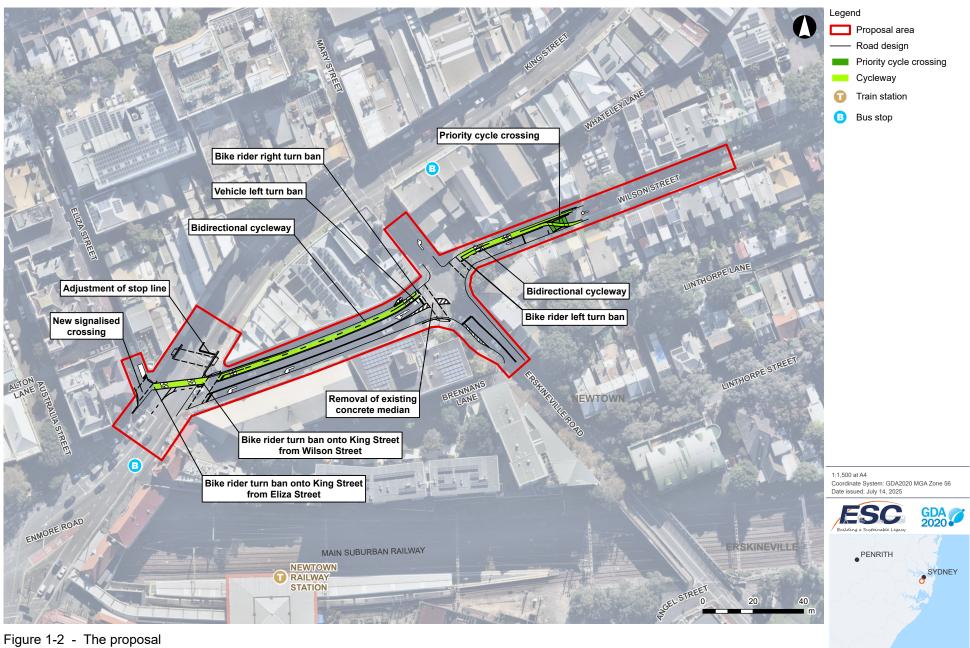
Wilson Street is located on the land of the Gadigal people. Wilson Street is a local road managed by City of Sydney Council except for its extent between King Street and Erskineville Road which is classified as a State road and managed by Transport.

Key features of the proposal would include:

- Installation of an approximately 150 metre bi-directional cycleway along the north side of Wilson Street, from Eliza Street to east of Erskineville Road
- Removal of about 75 metres of existing cycleway along the south side of Wilson Street, east of the intersection of
 Wilson Street and Erskineville Road, where the existing cycleway would be replaced by the new bi-directional cycleway
 on the north side of Wilson Street
- Construction of a raised priority cycle crossing on Wilson Street between Erskineville Road and Brown Street, to
 connect the existing cycleway on the south side of the road carriageway to the proposed cycleway on the north side of
 the road carriageway
- Installation of a new 12 metre loading zone on Erskineville Road between King Street and Wilson Street to operate during off-peak periods, between Monday to Friday 10am to 3.30pm
- Signalisation of the existing pedestrian crossing across Eliza Street, at its intersection with King Street
- Banning the left turn for vehicles turning left from Wilson Street onto Erskineville Road
- Restricting bike rider turns for the following movements:
 - Turning left from the proposed cycleway on Wilson Street onto King Street
 - Turning right from the proposed cycleway on Eliza Street onto King Street
 - Turning right from the proposed cycleway on Wilson Street (between King Street and Erskineville Road) onto Erskineville Road
 - Turning left from the proposed cycleway on Wilson Street (east of Erskineville Road) onto Erskineville Road.

The location of the proposal is shown in Figure 1-1 and an overview of the proposal is provided in Figure 1-2. Chapter 3 describes the proposal in more detail.





1.2 Purpose of the report

This review of environmental factors (REF) has been prepared by Sustain JV on behalf of Transport. For the purposes of these works, Transport is the proponent and determining authority under Division 5.1 of the Environmental Planning and Assessment Act 1979 (NSW) (EP&A Act).

The purpose of the REF is to describe the proposal, to document the likely impacts of the proposal on the environment, and to detail mitigation and management measures to be implemented.

The description of the proposal and assessment of associated environmental impacts has been undertaken in the context of Section 171 of the Environmental Planning and Assessment Regulation 2021, the factors in Guidelines for Division 5.1 assessments, (DPE 2022), Roads and Related Facilities EIS Guideline (DUAP 1996), the Biodiversity Conservation Act, 2016 (BC Act), the Fisheries Management Act 1994 (FM Act), and the Australian Government's Environment Protection and Biodiversity Conservation Act 1999 (Commonwealth) (EPBC Act).

In doing so, the REF helps to fulfil the requirements of:

Section 5.5 of the EP&A Act including that Transport examine and take into account, to the fullest extent possible, all matters affecting or likely to affect the environment by reason of the activity.

The findings of the REF would be considered when assessing:

- Whether the proposal is likely to have a significant impact on the environment and therefore the necessity for an environmental impact statement to be prepared and approval sought from the Minister for Planning under Division 5.2 of the EP&A Act
- The significance of any impact on threatened species as defined by the BC Act and/or FM Act, in Section 1.7 of the EP&A Act and therefore the requirement for a Species Impact Statement or a Biodiversity Development Assessment Report
- The significance of any impact on nationally-listed biodiversity matters under the https://www.awe.gov.au/environment/epbcEPBC Act, including whether there is a real possibility that the activity may threaten long-term survival of these matters, and if offsets are required and able to be secured
- The potential for the proposal to significantly impact any other matters of national environmental significance or Commonwealth land and the need, subject to the EPBC Act strategic assessment approval, to make a referral to the Australian Department of Climate Change, Energy, the Environment and Water for a decision by the Commonwealth Minister for the Environment on whether assessment and approval is required under the EPBC Act.

2. Need and options considered

This chapter describes the need for the proposal in terms of its strategic setting and operational need. It identifies the various options considered and the selection of the preferred option for the proposal.

2.1 Strategic need for the proposal

Wilson Street forms part of an important connection for people riding bikes between Newtown, Redfern and the Eastern Suburbs. The proposal would form part of the Newtown to Bondi Junction Regional Cycle Route, where there is currently a missing link missing. The Sydney cycling map, included in Figure 2-1, outlines the available cycle routes throughout Sydney. Wilson Street currently does not facilitate safe cycling between the existing cycleway east of Erskineville Road, and the shared road on Eliza Street. The proposal is needed to improve connectivity between the City of Sydney and Inner West Council local bike networks. The proposal supports a number of Transport's strategic policies and plans and has been identified as an immediate opportunity for investigation in the *Strategic Cycleway Corridors Eastern Harbour City Overview* (Transport for NSW, 2022). It is a key priority for the NSW Government and an essential part of the City of Sydney's cycling network.

According to research undertaken by Transport, focus should be given to providing high-quality, safe and connected cycling infrastructure that caters to the 48 percent of potential riders who are "interested but concerned" (Cycling Customer Value Proposition Research, 2013). In this research, over 70 percent of customers stated that they would ride a bicycle if they had access to safe cycling routes. Community feedback further highlights that there is a desire for improved cycling infrastructure.

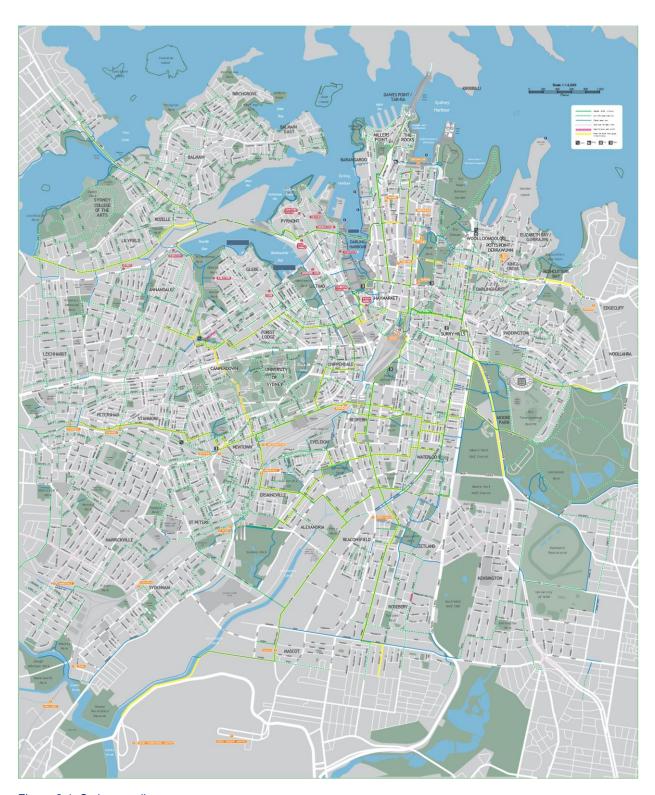


Figure 2-1: Sydney cycling map

2.1.1 Future Transport Strategy

The Future Transport Strategy, published in 2022, replaces Future Transport 2056: Shaping the Future. The refreshed Future Transport Strategy (the Strategy) has taken pivotal events within the last few years, including the COVID-19 pandemic, drought, bushfires and floods, into account alongside population growth and global megatrends.

The proposal supports the *Future Transport Strategy* as the NSW Government's vision for the next 40 years of transport in NSW. The vision is based on the following high-level outcomes:

- Connecting our customers' whole lives
- Successful places for communities
- · Enabling economic activity.

The purpose of the Strategy is to set out the strategic directions for Transport to achieve world-leading mobility for customers, communities, businesses and our people. It is part of a suite of government strategies, policies and plans that integrate and guide land use and transport planning across NSW.

The strategy outlines the importance of optimising the existing infrastructure and promoting behaviour change, for instance, by making public transport, walking, cycling and micro-mobility safer and easier with better pathways, cycleways and connections. As such, the strategy supports stronger investment in walking and cycling networks in order to offer the customers convenient alternatives to driving and build a sustainable transport system, including small to medium interventions to optimise the transport network.

The strategy focuses on reallocated space to more efficient modes of transport like buses, walking, cycling and micromobility devices. It proposes to improve transport solutions for customers, such as planning strategic cycleway corridors, prioritising walking and cycling and provide more attractive neighbourhoods that enable healthier lifestyles.

The primary objectives of the proposal are aligned with the Strategy as it would:

- Support car-free, active, sustainable transport options along Wilson Street
- Promote cycling as an alternative and sustainable mode of transport and encourage a wider range of customers to
 pursue active transport as an effective mode of transportation, which could lead to potential opportunities for
 decreased congestion on surrounding road networks
- Promote a healthier lifestyle by encouraging people to adopt cycling as a form of transportation
- Improve safety for bike riders of all ages and abilities by providing greater accessibility to the Sydney Harbour Bridge cycleway, by eliminating the bottleneck created by the existing stairway access, which poses a potential safety risk and a barrier to a wide range of customers.

The proposal aligns with these objectives as it would promote behaviour change, making cycling safer and easier.

2.1.2 Active Transport Strategy

The Active Transport Strategy was released in 2022 and draws on the Future Transport Strategy and its vision for walking, cycling and personal mobility. This Strategy provides longer term ambitions accompanied by five year priority moves to guide planning, investment and priority actions for active transport across NSW.

The NSW Government wants walking and cycling, known as active transport, to be the preferred way to make short trips and a viable, safe and efficient option for longer trips.

The Active Transport Strategy focuses on the following:

- 15-minute local neighbourhoods that allow communities to be strong, vibrant and active by prioritising walking, cycling and place making to local destinations and transport networks
- Continuous and connected cycling network infrastructure across NSW to enable more people to safely ride their bikes as part of their everyday travel
- Improving the safety and comfort of people walking and riding bikes by providing fit-for-purpose active transport infrastructure and appropriate road speeds
- Facilitating children's and young people's independent mobility by improving safe walking and cycling options for travel
 to and from school
- Supporting multimodal journeys by integrating active and public transport
- Enabling first and last mile freight delivery via active transport to help customers in our centres and neighbourhoods receive goods and deliveries efficiently and discreetly from smaller, cleaner, and quieter vehicles
- Promoting walking and cycling to encourage behaviour change across the State

- Supporting emerging technology choices such as e-bikes and other micromobility devices to enable people to ride further and more often and undertake tasks usually done by car
- Enhancing visitor and tourism experiences including scenic rail and walking trails
- Working with partners such as local government and industry to accelerate change.

The proposal aligns with these goals by:

- Supporting car-free, active, sustainable transport options along Wilson Street
- Making customers feel secure travelling day and night along Wilson Street
- Improving the safety of people walking and bike riding along Wilson Street
- Supporting thriving and healthy 15-minute neighbourhoods surrounding Wilson Street
- Managing street space along Wilson Street as public space
- Building well-designed transport infrastructure that makes Wilson Street more liveable and successful
- Improving the amenity of places along Wilson Street.

2.1.3 Our Greater Sydney 2056 Eastern City District Plan – connecting communities

The Greater Sydney Commission's five District Plans support the implementation of *A Metropolis of Three Cities – the Greater Sydney Region Plan* at a District level.

These 20-year plans are a bridge between regional and local planning initiatives. The District Plans inform local environmental plans, community strategic plans and the assessment of planning proposals. The District Plans also help councils to plan and deliver for growth and change, and to align their local planning strategies to place-based outcomes.

The five district boundaries are:

- Western City: comprises of Blue Mountains, Hawkesbury, Penrith, Camden, Campbelltown, Fairfield, Liverpool and Wollondilly
- Central City: comprises of Blacktown, Cumberland, Parramatta and The Hills
- Eastern City: comprises of Bayside, Burwood, Canada Bay, Inner West, Randwick, Strathfield, Woollahra, Waverley and City of Sydney
- North: comprises of Hornsby, Hunter's Hill, Ku-ring-gai, Lane Cove, Northern Beaches, Mosman, Willoughby, Ryde and North Sydney
- South: comprises of Georges River, Canterbury-Bankstown and Sutherland.

The proposal is situated in the Eastern City District Plan area. A key related planning priority is planning for a city supported by infrastructure; including infrastructure adapting to meet future needs and the optimisation of infrastructure.

The provision of a cycleway along Wilson Street aligns with the outcomes sought in the Eastern City District Plan by encouraging the community to be more physically and socially active, improving the health outcomes and enhancing the overall liveability of a neighbourhood or centre.

2.1.4 Greater Sydney Services and Infrastructure Plan

The *Greater Sydney Services and Infrastructure Plan* forms part of the Future Transport Strategy and sets the customer outcomes for Greater Sydney for the movement of people and freight to meet customer needs and deliver responsive, innovative services. The Plan defines the network required to achieve the service outcomes under the Future Transport Strategy.

The *Greater Sydney Services and Infrastructure Plan* is a 40-year plan for transport in Greater Sydney. It is designed to support the land use vision for Greater Sydney. Building on State-wide transport outcomes identified in the Future Transport Strategy, the Plan establishes the specific outcomes transport customers in Greater Sydney can expect and identifies the policy, service and infrastructure initiatives to achieve these.

The focus of this Plan is to enable people and goods to move safely, efficiently and reliably around Greater Sydney, including having access to their nearest centre within 30 minutes of public transport, seven days a week. The transport system will also support the liveability, productivity and sustainability of places on our transport networks. To support this, investment is targeted towards new transport links, better utilise existing capacity, prioritise road space for more efficient vehicles and ensuring the transport network balances the efficient movement of people and goods and sustains the liveability and sustainability of centres it passes through.

The proposal aligns with the customer outcomes of this plan by providing a cycleway, which sustains and enhances the liveability of Newtown, connecting people and places, and provides a convenient and safe way for people to travel through the suburb. The connection of this new cycleway with the existing one on Wilson Street makes use of an existing resource and building on it.

2.1.5 Staying Ahead: State Infrastructure Strategy 2022-2042

The State Infrastructure Strategy 2022-2042 (the 2022 SIS) developed by Infrastructure NSW provides the NSW Government with advice about infrastructure policy and investment priorities, in line with the requirements of the Infrastructure NSW Act 2011

The strategy recommends that green open spaces and quality civic places should be part of the core plan for all precincts and neighbourhoods. The strategy also supports the idea of '15-minute neighbourhood' approach, which represents ensuring residents can access most services and facilities by walking or cycling for 15 minutes.

To implement this strategy, it proposes investments on local high streets, open spaces, and safe and enjoyable walking and cycling infrastructure. The strategy is based on the importance of infrastructure that supports active transport, such as walking and cycling, given that it improves physical and mental health. The proposal is aligned with relevant objectives of the NSW State Infrastructure Strategy 2022 – 2042 as it would enhance the existing active transport infrastructure by extending from the existing Wilson Street cycleway and promote a healthier lifestyle.

2.1.6 Connecting to the future: Our 10 Year Blueprint

Connecting to the Future – Our 10-year Blueprint (Transport for NSW, 2018) lays out desired outcomes, ambitions and strategic priorities for Transport to deliver on the NSW Government's focus area of 'well-connected communities with quality local environments'. The strategic priorities identified in the Blueprint include:

- Connecting customers' whole lives via creating new mobility options and experiences, and safe, seamless journeys for people and goods
- Promoting successful places by protecting and enhancing communities and their environment, and integrated, resilient and accessible transport networks and places
- Promoting a strong economy and quality of life via transport investments and solutions that serve the people of NSW, quality assets and efficient networks, managed at the right price.

The proposal aligns with the key strategic priorities of the Blueprint including working in partnership with impacted communities in a more meaningful way, and place-based integrated service design. The cycleway would contribute towards a more sustainable and better quality of life for the community. By improving the connectivity within the suburb, the cycleway would make Newtown a great place to work, live and visit.

2.1.7 Premier's Priorities

The Premier's Priorities represent the NSW Government's commitment to making a significant difference to enhance the quality of life of the people of NSW and accompany outcomes that track the NSW Government's achievements, including connecting communities with quality local environments. Specific priorities related to this proposal include well connected communities with quality local environments, building infrastructure and improving road travel reliability.

The proposal would contribute to the accessible transport and successful places outcomes. It would build on connecting the community within Newtown.

2.1.8 Strategic Cycleway Corridors Eastern Harbour City

The NSW Government vision is to provide a safe and connected cycleway network across Greater Sydney to enable more people to safely ride their bicycle as part of their everyday travel. The Strategic Cycleway Corridor program provides the foundation for establishing safe and convenient cross-city cycleway connections that better connect centres, precincts, and places, and enables councils to progressively expand local bike networks. The program is focused on the Eastern Harbour City initially and will grow over time to the other metropolitan cities across NSW.

This program identifies the strategic cycleway network for the Eastern Harbour City and will identify how each corridor should be prioritised. The primary focus is to provide safe cycleways for people of all ages and abilities and better connect centres, precincts, and places.

The proposal forms part of the *Newtown and Green Square Connection*, as shown in Figure 2-2, which has been identified as an immediate opportunity in the Strategic Cycleway Corridors Eastern Sydney Harbour City (TfNSW, 2022). The proposal aims to provide a safe connection between Newtown and Green Square to support the forecasted growth in the Green Square and Waterloo precincts and would form the missing link for the strategic cycleway route.

2.1.9 City Plan 2036 – Local Strategic Planning Statement

The City Plan 2036 (City of Sydney, 2020) vision is to create a Green, Global and Connected Sydney. It aims to create a connected city with a local network for walking and cycling, and opportunities and activities are connected by transit routes between the villages, city centre and the rest of Sydney.

The proposal would support outcomes for this strategic direction of creating a connected cycling network for people travelling through Newtown along Wilson Street.

2.1.10 Inner West Local Strategic Planning Statement

The Inner West Local Strategic Planning Statement (Inner West Council, 2020) vision it to create a place of creative, connected, sustainable and productive neighbourhoods - as vibrant, innovative and diverse as our community. One of the planning priorities in the strategy is to provide improved and accessible sustainable transport infrastructure.

The proposal would support outcomes for this strategic direction by promoting sustainable active transport and improving its current accessibility to travel along Wilson Street.

2.1.11 Community Strategic Plan

The Community Strategic Plan (City of Sydney, 2022) is a high-level plan, developed in partnership with the community, to outline the future vision for the community of the Sydney. The plan sets out all the strategic directions, principles and measures to meet the needs of the future for the local community.

The proposal is consistent with the aspirations of the Community Strategic Plan through its alignment with direction 5 - a city for walking, cycling and public transport.

2.1.12 Our Inner West 2036 – Community Strategic Plan

Our Inner West 2036 (Inner West Council, 2022) is the Community Strategic Plan of Inner West Council, which identifies the community's vision, goals and strategies for the future. Strategic Direction 2 aims to create unique, liveable networked neighbourhoods.

The proposal would support outcomes for this strategic direction relating to people being able to walk, cycle and move around the Inner West with ease, by delivering integrated infrastructure for transport and active travel and ensuring transport infrastructure is safe and connected.

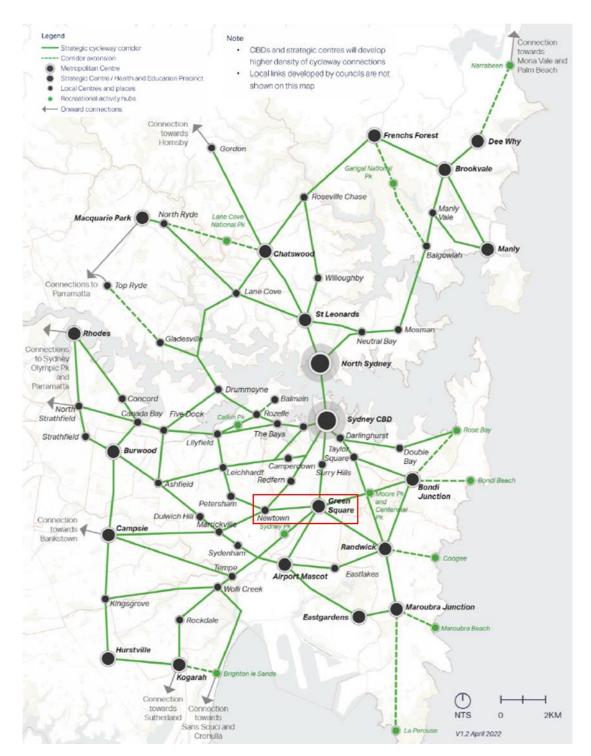


Figure 2-2: Strategic Cycleway Corridors Eastern Harbour City Overview (TfNSW, 2022) – Newtown to Green Square Connection

2.2 Limitations of existing infrastructure

There are several existing limitations of the existing cycling infrastructure within Newtown. These limitations include:

- Missing link in the cycle network: there is a gap between the one-way bicycle lane on Wilson Street and the shared zone in Eliza Street, requiring multiple road crossing. This limits the connectivity of the cycle network
- Insufficient safe and connected infrastructure: the lack of suitable infrastructure discourages both people bike riding and walking from utilising active modes of transportation, hindering their safety and convenience

Unsafe environment for people bike riding: presently, people bike riding are compelled to ride on the road on Wilson
 Street between Erskineville Road and Eliza Road, resulting in an unsafe environment for all road users.

Based on these limitations, there is a need to improve connectivity for active transport users between Newtown and Green Square.

2.3 Proposal objectives and development criteria

2.3.1 Proposal objectives

The objectives of the proposal include:

- Provide the missing link between the existing Wilson Street cycleway and the Eliza Street shared zone
- Improve safety for all road users on Wilson Street
- Manage the street space along Wilson Street as public space to improve amenity.

2.3.2 Development criteria

The development criteria for the proposal include:

- Constructability including impacts to utilities and services
- Minimise land use and community impacts
- Minimise environmental impacts.

2.4 Alternatives and options considered

2.4.1 Methodology for selection of preferred option

Transport investigated three options for new cycleways along and surrounding Erskineville Road, Wilson Street and Eliza Street to address the lack of cycling infrastructure within Newtown. These were assessed against the proposal objectives and development criteria. The identified options for the proposal are detailed in Section 2.4.2 and an options analysis is provided in Section 2.4.3.

Urban design objectives were carefully considered throughout the options assessment process to ensure the integration of the proposal with the surrounding landscape.

2.4.2 Identified options

The options that were considered as part of this proposal include:

- Option 1 'Do nothing': Involves doing no works.
- Option 2 'Cycleway along northern side of Wilson Street' (the proposal): provision of bi-directional separated cycleways and intersection upgrades, along Wilson Street, Erskineville Road, King Street and Eliza Street, Newtown (refer to Figure 2-3) as described in Section 1.1.
- Option 3 'Cycleway along southern side of Wilson Street': Provision of a bi-directional separated cycleway and intersection upgrades, along the south side of Wilson Street between King Street and Erskineville Road (refer to Figure 2-4). East of Erskineville Road, the new cycleway would continue on the north side of Wilson Street, terminating at a new cycleway crossing to connect the existing cycleway on the south side of Wilson Street. This option would provide a cycleway crossing the intersection, connecting Wilson Street and Eliza Street and would require the realignment of existing pedestrian crossings at the Wilson Street and King Street, and the Wilson Street and Erskineville Road intersections. This option would also provide a shared space for people walking and bike riding on Eliza Street, west of the Eliza Street, Wilson Street and King Street intersection.

Option 2 was selected as the preferred option, providing enhanced safety and connectivity compared to Options 1 and 3.

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Following design development of Option 2, restrictions on bike rider and vehicle movements were introduced to reduce the likelihood of conflicts and safety issues, and to support smoother traffic flow.

The features considered for each option are summarised in Table 2-1.



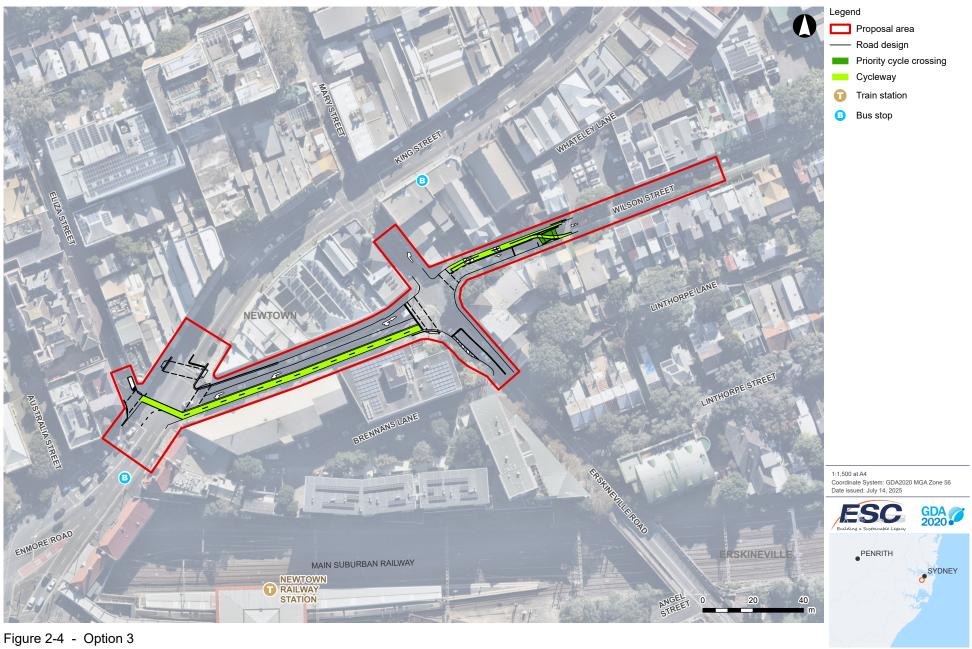


Table 2-1: Proposed option features

Key features	Option 1	Option 2	Option 3
Shared space for people walking and bike riding on Eliza Street, west of the Eliza Street, Wilson Street and King Street intersection		√ Along the north of Wilson Street	√ Along the south of Wilson Street
Cycleway crossing the intersection, connecting Wilson Street and Eliza Street		✓	✓
Eastbound cycleway on the northern side of Wilson Street, east of Erskineville Road		✓	✓
Realignment of existing pedestrian crossings at the Wilson Street and King Street, and the Wilson Street and Erskineville Road intersections		✓	✓

2.4.3 Analysis of options

An analysis of options is provided in Table 2-2. This assessment was based upon the options analysis that was carried out in 2023 by City of Sydney Council, with options assessed against the proposal objectives and development criteria.

Transport for NSW

Table 2-2: Analysis of options

Objective/criteria	Option 1 (Do nothing)	Option 2	Option 3
Proposal objective: Provide the missing link between the western extent of Wilson Street cycleway and the Eliza Street shared zone	Option 1 would not provide the missing link between the western extent of Wilson Street cycleway and the Eliza Street shared zone. Does not meet objective.	Option 2 would provide a cycleway along the northern side of Wilson Street, providing the missing link between the western extent of Wilson Street cycleway and the Eliza Street shared zone. Meets objective.	Same as Option 2, except the bidirectional cycleway is proposed on the southern side of Wilson Street. Meets objective.
Proposal objective: Improve safety for all road users on Wilson Street	Option 1 would not improve safety for all road users on Wilson Street. Does not meet objective.	Option 2 would improve safety for people bike riding through the provision of a cycleway, clearly delineated from vehicles on the road. The cycleway would require one crossing of Wilson Street at the proposed raised priority cycle crossing and one signalised crossing across Erskineville Road. Meets objective.	Option 3 would improve safety for people bike riding through the provision of a cycleway, clearly delineated from vehicles on the road. The cycleway would require two crossings of Wilson Street within a short span, one at the signalised intersection at Erskineville Road and at the proposed raised priority cycle crossing and one signalised crossing across Erskineville Road. Partially meets objective.
Proposal objective: Manage the street space along Wilson Street as a public space to improve the amenities	Option 1 would not manage the street space along Wilson Street as public space to improve the amenities. Does not meet objective.	Option 2 would improve amenity along Wilson Street through the provision of a safe cycleway. Meets objective.	Same as Option 2. Meets objective.

Objective/criteria	Option 1 (Do nothing)	Option 2	Option 3
Development criteria: Constructability including impacts to utilities and services	Option 1 avoids construction work, ensuring no impacts to utilities, services, road users, or residents. Meets criteria.	Under Option 2, impacts to utilities would include the relocation of one light pole and adjustments to the existing traffic control signals at the Wilson Street and King Street, and the Wilson Street and Erskineville Road intersections. Disruptions to services would be limited to the construction phase of the proposal. Partially meets criteria.	Under Option 3, impacts to utilities would include adjustments to the existing traffic control signals at the Wilson Street and King Street, and the Wilson Street and Erskineville Road intersections. Disruptions to services would be limited to the construction phase of the proposal. Partially meets criteria.
Development criteria: Minimise land use and community impacts	Option 1 would not impact existing land use or generate impacts to the community. Meets criteria.	Option 2 would require the removal of 13 parking spaces and one loading zone along the northern side of Wilson Street between King Street and Erskineville Road, potentially impacting local businesses. Road closures during construction may impact community access to Wilson Street. Partially meets criteria.	Option 3 would require the realignment of the traffic lanes on Wilson Street further north to accommodate the proposed cycleway on the southern side of Wilson Street. This would result in the removal of 13 parking spaces and one loading zone along the northern side of Wilson Street between King Street and Erskineville Road. Partially meets criteria.
Development criteria: Minimise environmental impacts	No environmental impacts would result from Option 1 as no development would occur. Meets criteria.	Environmental impacts are expected from Option 2, such as traffic, noise and vibration and air quality. Environmental impacts would be managed throughout construction and minimised where possible. Partially meets criteria.	Similar to Option 2. Partially meets criteria.

2.5 Preferred option

Although Option 1 had no impacts on utilities, land use, the community or land acquisition, this option would not meet the proposal objectives of providing a missing link between the Wilson Street cycleway and Eliza Street shared zone, improving safety and connectivity, and managing the street space along Wilson Street.

The cycleway proposed under Options 2 and 3 would be clearly separated from the road lanes through the provision of a raised concrete median, linemarking, signage and coloured pavement. This separation from the road, which would not be provided under Option 1, would allow people bike riding to travel safely along Wilson Street separate from the vehicle traffic, subsequently reducing the risk of collisions between people bike riding and people driving. However, under Option 3, people bike riding would need to make an additional crossing of Wilson Street at its intersection with Erskineville Road. Whilst there are two signalised crossing options, this additional crossing reduces connectivity and reduces safety by introducing an additional potential conflict point with vehicles. This would pose potential safety risks for both people bike riding on the road, and people driving trying to navigate traffic with bike riders. Though both Options 2 and 3 would enhance safety, Option 2 would provide greater safety improvements.

Options 2 and 3 have similar impacts to utilities. Option 2 would require the relocation of one light pole whilst Option 3 would not impact existing light poles. Both Options 2 and 3 would require adjustments to existing traffic control signals at the Wilson Street and King Street, and the Wilson Street and Erskineville Road intersections. Options 2 and 3 would have similar impacts to the environment and local community.

2.6 Design refinements

Following design development of Option 2, the following restrictions on bike rider and vehicle movements were introduced:

- Banning the left turn for vehicles turning left from Wilson Street onto Erskineville Road
- Restricting bike rider turns for the following movements:
 - Turning left from the proposed cycleway on Wilson Street onto King Street
 - $-\hspace{0.4cm}$ Turning right from the proposed cycleway on Eliza Street onto King Street
 - Turning right from the proposed cycleway on Wilson Street (between King Street and Eliza Street) onto Erskineville Road
 - Turning left from the proposed cycleway on Wilson Street (east of Erskineville Road) onto Erskineville Road.

The restriction of the above traffic movements promote smoother traffic flow for both people bike riding and driving, reducing the likelihood of conflicts.

A new loading zone, located on Erskineville Road, would also be introduced to minimise impacts resulting from the removal of the loading zone on Wilson Street.

3. Description of the proposal

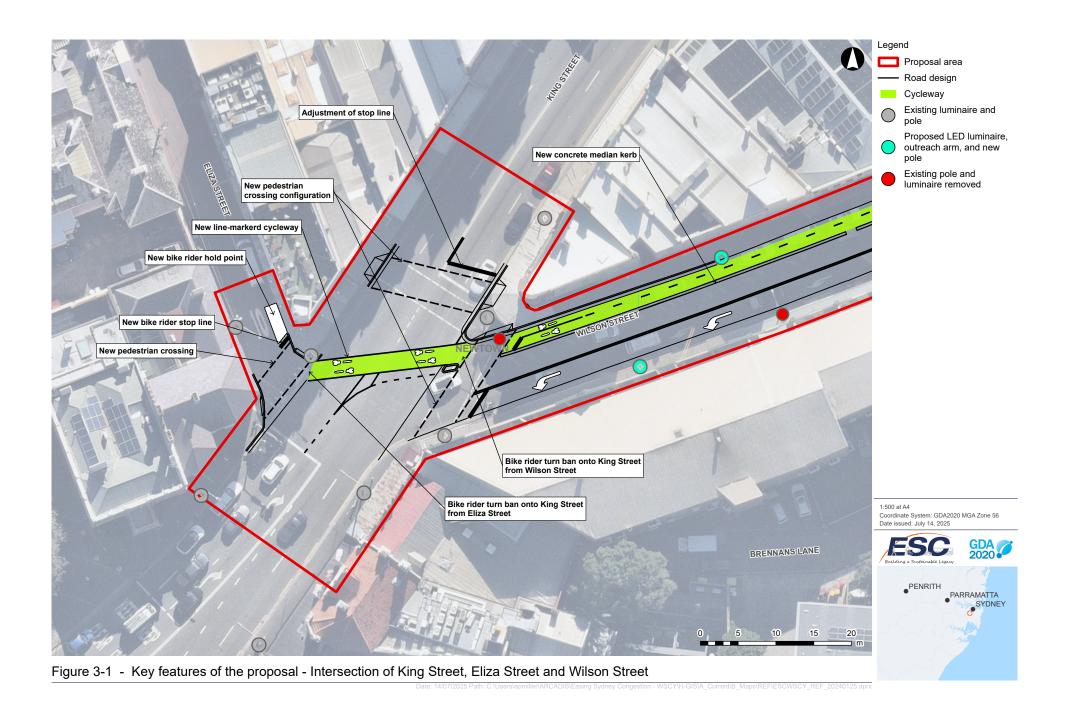
This chapter describes the proposal and provides descriptions of existing conditions, the design parameters including major design features, the construction method and associated infrastructure and activities.

3.1 The proposal

Transport proposes to extend the existing separated cycleway on Wilson Street, east of Erskineville Road, to Eliza Street in Newtown. The proposal is shown in Figure 1-2, and Figure 3-1 to Figure 3-3.

Key features of the proposal would include:

- Installation of an approximately 150 metre bi-directional cycleway along the north side of Wilson Street, from Eliza Street to east of Erskineville Road
- Removal of about 75 metres of existing cycleway along the south side of Wilson Street, east of the intersection of Wilson Street and Erskineville Road, where the existing cycleway would be replaced by the new bi-directional cycleway on the north side of Wilson Street
- Construction of a raised priority cycle crossing on Wilson Street between Erskineville Road and Brown Street, to
 connect the existing cycleway on the south side of the road carriageway to the proposed cycleway on the north side of
 the road carriageway
- Installation of a new 12 metre loading zone on Erskineville Road between King Street and Wilson Street to operate during off-peak periods, between Monday to Friday 10am to 3.30pm
- · Signalisation of the existing pedestrian crossing across Eliza Street, at its intersection with King Street
- Banning the left turn for vehicles turning left from Wilson Street onto Erskineville Road
- Restricting bike rider turns for the following movements:
 - Turning left from the proposed cycleway on Wilson Street onto King Street
 - Turning right from the proposed cycleway on Eliza Street onto King Street
 - Turning right from the proposed cycleway on Wilson Street (between King Street and Erskineville Road) onto Erskineville Road
 - Turning left from the proposed cycleway on Wilson Street (east of Erskineville Road) onto Erskineville Road
- Pavement resurfacing
- Construction of concrete medians
- Adjustment to utilities and drainage infrastructure
- Realignment of pram ramps and kerbs, and adjustment to linemarking
- Removal of an existing concrete median island on the west side of the Wilson Street and Erskineville Road intersection
- Adjustment of stop line on King Street southbound lane on approach to Wilson Street intersection
- Adjustments to lighting on Wilson Street between King Street and Erskineville Road
- Removal of some existing road signage, and installation of new road signage to identify the cycleway and shared zone.



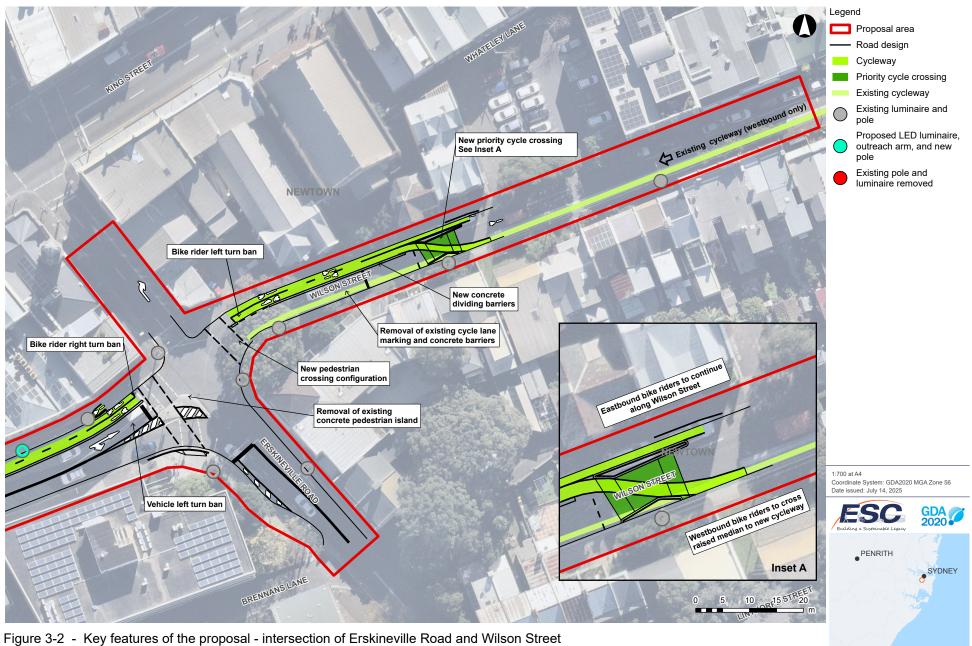




Figure 3-3: Impression - View of Wilson Street looking towards the intersection of Wilson Street and Erskineville Road

3.2 Design

3.2.1 Design criteria

A detailed description of the concept design for the proposal is included below. The concept design would be further refined during the detailed design development.

The concept design has been developed in accordance with the following guidelines and standards:

- Published Transport supplements to Austroads Guides
- Austroads Road Design Guides
- Australian Standards
- Other guidelines from Council and as agreed upon with Transport
- TfNSW Supplements to Austroads Guide to Road Design
- Austroads Guide to Pavement Technology (AGPT)
- TfNSW Traffic Signal Design
- TfNSW Standard Drawings 0300 Kerb and Channel Series
- TfNSW Acceptable Safety Barrier Products
- TfNSW Standard Drawings 0800 Fencing Series
- TfNSW Pavement Design Supplement 2018
- AS 1742.2-2009 Manual of uniform traffic control devices Traffic control devices for general use
- TfNSW Technical Directions, Standard Drawings, Specifications and Supplements
- TfNSW Delineation Guidelines
- TfNSW Accepted Road Safety Barrier Systems and Devices
- Austroads Guide to Road Design (AGRD)
- Austroads Guide to Traffic Management (AGTM)
- TfNSW Cycleway Design Toolbox
- Cycling Aspects of Austroads Guides.

Applicable Australian Standards including:

- AS/NZS 1158 Series Lighting for Roads and Public Spaces
- City of Sydney Public Domain Design Codes.

The design criteria used in the proposal includes what is identified Table 3-1.

Table 3-1: Design criteria features

Parameter	Design criteria
Design speed	King Street, Wilson Street, Eliza Street and Erskineville Road – 50 km/h Wilson Street separated cycleway – 30 km/h
Design vehicle	King Street, Wilson Street, Eliza Street and Erskineville Road – 8.8 m service vehicle

Parameter	Design criteria
Check vehicle	King Street – 12.5 m bus Wilson Street –12.5 m bus Eliza Street – 9.8 m garbage truck Erskineville Road – 12.5 m bus
Minimum lane width	King Street, Wilson Street, Eliza Street and Erskineville Road – 3.2 m kerbside lane, 3 m through lane Wilson Street separated cycleway – 2.5 m (desirable minimum), 2 m (absolute minimum)
Median width	1.2 m
Horizontal curve length	70 m
Stopping sight distance	Car – 48 m Truck – 43 m Bicycle – 22 m

3.2.2 Engineering constraints

Engineering and design constraints considered during design of the proposal include:

- Existing cycleway arrangement on Wilson Street is one way only
- Potential impacts to the existing Telstra tunnel containing Telstra assets located in the footpath on the southern side of King street and entrance to Eliza Street
- Potential impact to an Ausgrid electrical utility pole located adjacent to the kerb of Wilson Street and on the north west corner of the Wilson Street and Erskineville Road intersection
- Potential impact to City of Sydney smart poles located on King Street
- Existing drainage system in the propsoal area is over capacity
- Existing proposal area is located in a constrained inner-city location, with no capacity for road widening
- Need to avoid building awnings that extend over the footpaths on King Street and Wilson Street
- Need to carry out construction within existing space constraints
- Need to avoid impacts to property boundaries and maintain property access during construction
- Need for construction to be staged to minimise impacts to traffic
- High volume traffic, pedestrian and bike rider activity in the proposal area.

3.2.3 Major design features

Cycling facilities

The proposed cycling facilities are shown on Figure 3-1 and Figure 3-2, and summarised below:

- Construction of new 2.5 metre wide bi-directional cycleways on the northern side of Wilson Street for about:
 - 80 metres between King Street and Erskineville Road
 - 75 metres between Erskineville Road and Brown Street

- Raised priority cycle crossing (about 75 metres east of the intersection of Erskineville Road and Wilson Street)
 - The raised priority cycle crossing would connect westbound bike riders travelling on the existing separate
 cycleway and eastbound bike riders would resume riding on the road. As the crossing would be raised, it would
 also perform as a traffic calming device for people driving
 - A stop line would be marked on Wilson Street for westbound bike riders at the intersection
- About 75 metres of existing cycleway and concrete median on the southern side of Wilson Street would be removed and repaved to function as carriageway for vehicles
- The cycleway would feature pavement painting and linemarking to identify it as a cycleway, and would be demarcated and protected from the road and vehicles by about 120 metres of concrete median kerb
- Cycleway crossings at the intersection of King Street and Wilson Street, and Erskineville Road and Wilson Street, would be facilitated by linemarking.

On the southern end of Eliza Street, at the intersection with King Street, a stop line and hold point for people bike riding would be created using linemarking and the installation of an underground sensor to trigger the cycle crossing light phase.

Once operational the following bike rider movements would not be permitted:

- Turning left from the proposed cycleway on Wilson Street onto King Street
- Turning right from the proposed cycleway on Eliza Street onto King Street
- Turning right from the proposed cycleway on Wilson Street onto Erskineville Road.

Pedestrian facilities

Pedestrian crossings would be adjusted as part of this proposal to facilitate the cycleway. Existing pedestrian footpaths would not be changed under this proposal. This is shown on Figure 3-1 and Figure 3-2.

Intersection of King Street, Eliza Street and Wilson Street

- A signalised pedestrian crossing would be constructed at the intersection of Eliza Street and King Street, featuring linemarking and signaling
- The existing east-west pedestrian crossing on the north side of the intersection would be realigned to provide sufficient space for the proposed raised priority cycle crossing, involving new linemarking, adjustment of pram ramps, and adjustment of the vehicle stop line for southbound traffic on King Street
- The existing north-south pedestrian crossing on the east side of the intersection would be realigned to provide sufficient space for the proposed raised priority cycle crossing and bi-directional cycleway on Wilson Street. The crossing realignment would involve new linemarking and adjustment of pram ramps.

Intersection of Erskineville Road and Wilson Street

- On the western leg of the intersection, the existing two pedestrian crossings and pedestrian refuge island would be
 removed. A single pedestrian crossing would replace this section, utilising the existing pram ramp on the northern side
 of the crossing. The southern side of the crossing would include a new pram ramp shifted about five metres east of the
 existing pram ramp
- The concrete pedestrian refuge island would be replaced with linemarking to guide vehicle movements
- On the northern leg of the intersection, the pedestrian crossing would be adjusted by less than a metre to the north to avoid a clash between the western side pram ramp and an existing power pole
- On the eastern leg of the intersection, the pedestrian crossing would be adjusted to the east by less than a metre.

Road configuration

The proposal would not result in any changes to the existing road configuration or traffic direction, with the exception of a left turn ban for eastbound vehicles travelling from Wilson Street onto Erskineville Road.

On Wilson Street, the eastbound traffic lane would shift to the south by 2.5 metres for 16 metres on the approach to the Erskineville Road intersection, to accommodate the bi-directional cycleway.

Some stop lines would be shifted within the proposal area:

- Stop line for southbound traffic on King Street shifted to the north by up to 3.5 metres to facilitate the east-west raised priority cycle crossing
- Stop line for westbound traffic on Wilson Street shifted by less than two metres, to facilitate the adjusted pedestrian crossing on the eastern leg of the intersection with King Street
- Stop line for eastbound traffic on Wilson Street at the intersection with Erskineville Road shifted west by up to 3.5 metres to facilitate the adjusted north-south pedestrian crossing on the western leg of the intersection
- Parking and loading zone spaces would be removed within the proposal area:
 - Permanently removing one 12 metre loading zone and six 30-minute time restricted parking spaces on the north side of Wilson Street between King Street and Erskineville Road
 - Permanently removing seven unrestricted parking spaces on Wilson Street between Erskineville Road and Brown Street.

Pavement

Intersection of King Street, Eliza Street and Wilson Street

- About 290 square metres of King Street and 70 square metres of Eliza Street would be resurfaced
- All of Wilson Street between the intersection of King Street and the intersection of Erskineville Road would undergo pavement resurfacing (about 945 square metres).

Intersection of Erskineville Road and Wilson Street

- About 950 square metres at the intersection of Erskineville Road and Wilson Street intersection would be resurfaced
- At the south west corner of the intersection of Erskineville Road and Wilson Street, about 17 square metres would be repaved for a footpath to suit the new pedestrian crossing
- Footpath paving would also be provided for the pram ramps on either side of the new line-marked cycleway.

Utilties

Lighting

- Removal of an existing light pole on the southern side of Wilson Street
- Removal of an existing smart light pole on the norther side of Wilson Street, on the corner of Wilson Street and King Street
- Installation of two new timber light poles with an LED luminaire and outreach arm on the northern side of Wilson Street
- Installation of one new timber light pole with an LED luminaire and outreach arm on the southern side of Wilson Street.

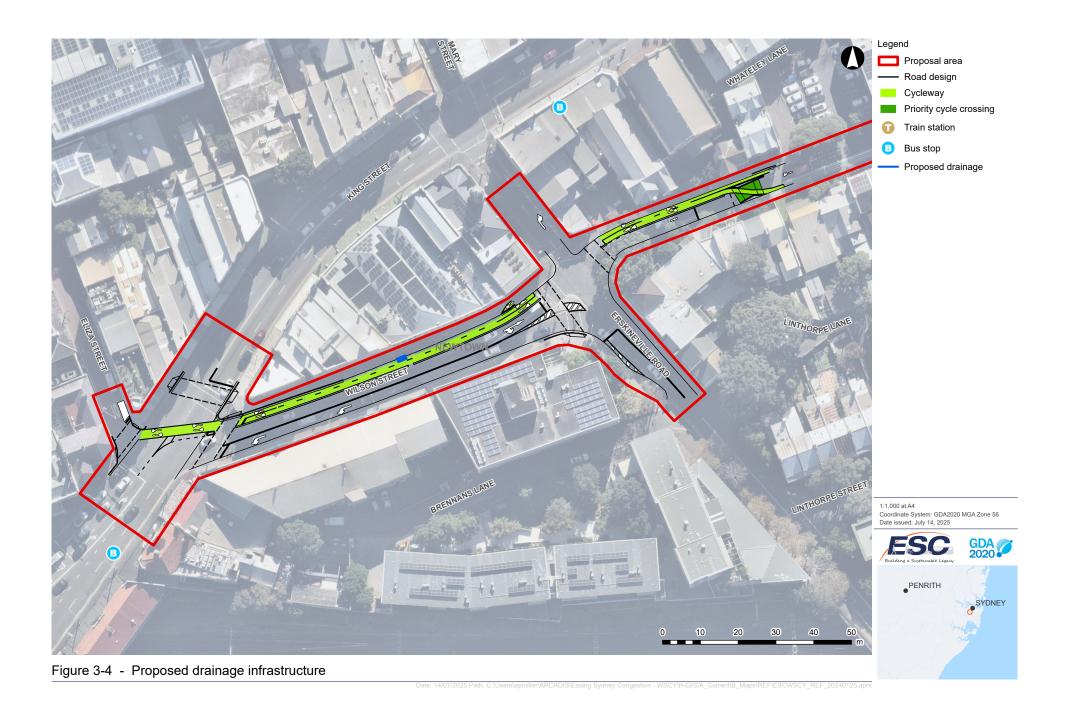
Drainage

Upgrade of an existing drainage pit on the north side of Wilson Street, consisting of reconstruction to a double grade/lintel pit with stone inlet with bicycle safe grating, in accordance with City of Sydney Council standards.

Impacts to drainage are shown on Figure 3-4.

Communications

Protection of existing communications infrastructure at the intersection of Wilson Street and Erskineville.



Signage

Intersection of King Street, Eliza Street and Wilson Street

New signage proposed includes:

- On Eliza Street, new signage would be installed at the western kerb of the intersection with King Street to identify bike rider use of the shared zone and to ban right turn bike rider movements from the cycleway onto King Street
- At the northwestern corner of the intersection on Wilson Street, new cycleway signage would be installed including signs to ban turning movements from the cycleway turning left onto King Street.

Removal of existing signage in the proposal area includes:

• Existing parking signage along the northern side of Wilson Street would be removed and replaced with 'No Stopping' signage.

Intersection of Erskineville Road and Wilson Street

New signage proposed includes:

- On the northern side of Wilson Street, new signage would be installed to identify no left turn, bicycles excepted
- On the northern side of Wilson Street, new signage would be installed to identify no right turn from the cycleway
- On the northern side of Wilson Street, single direction 'No Stopping' signage would be replaced with both direction 'No Stopping' signage and bicycle lane signage
- Adjacent to the proposed raised priority cycle crossing on Wilson Street, 'signage on the southern side of the road would indicate the end of the cycleway.

Removal of existing signage in the proposal area includes:

- Existing 'Give Way' and 'No Right Turn From Bicycle Lane' signs on the pedestrian island on the western pedestrian
 crossing of the intersection would be removed
- An existing bicycle sign and 'Watch For Bicycles' sign would be removed from the southern side of Wilson Street, west
 of the intersection
- On the southern side of Wilson Street just east of the intersection, bicycle lane signage and 'Use Full Lane' signage for bicycles would be removed. In the same area, a 'No Right Turn' 'From Bicycle Lane' signage would be removed.

Landscaping and vegetation

Landscape planting is proposed on the north and south side of the raised priorirty cycle crossing. Planting conditions are constrained due to the cycleway street crossover, selected plant species would be:

- Shade tolerant
- Capable of thriving in limited soil volume and urban microclimates.

Traffic control system

New raffic control systems would be installed at the:

- Intersection of King Street and Wilson
- Intersection of Erskinville and Wilson Road.

3.3 Construction activities

This section provides a summary of the likely construction methodology, staging, work hours, plant and equipment that would be used to construct the proposal and associated activities. For the purpose of this REF, an indicative construction plan and methodology are provided. The detailed construction staging plans and methods would be determined by the construction contractor(s) prior to commencement of construction.

3.3.1 Work methodology

The proposed construction work and methodology provided is indicative only. Detailed construction staging plans and methodologies would be developed by the construction contractor(s) after completion of the detailed design in consultation with Transport. If construction activities result in environmental impacts above those assessed in this REF, further environmental assessment would be required and approved by Transport prior to works commencing.

Three construction stages are proposed, as detailed in Table 3-2 below. The majority of construction work would occur as night time work.

Table 3-2: Indicative construction staging and methodology

	able 3-2: Indicative construction staging and methodology		
Construction stage	Methodology		
Stage 1	Removal of parking and loading zones on the northern side of Wilson Street between King Street and Erskineville Road		
	 Adjustments to the pedestrian intersections, including the relocation of pram ramps would occur at the crossing at Eliza Street, King Street north of the intersection, and Wilson Street east of the intersection 		
	Traffic signal and streetlight adjustments would occur on King Street during night time work		
	 Pedestrian and bike rider diversions would be set up and managed for night time work. A temporary single-direction cycleway would be established on the northern side of Wilson Street between King Street to about 70 metres east of the intersection with Erskineville Road 		
	At the intersection of Erskineville Road and Wilson Street, the existing traffic island on the south western corner would be demolished		
	Traffic signal adjustments including new pram ramps would also occur on Erskineville Road during night time work		
	Demolition of existing concrete separators for the cycleway on Wilson Street east of Erskineville Road and milling of the existing cycleways on Wilson Street east of Erskineville Road and between Erskineville Road and King Street (under the cycleway only, and during night works).		
	Diagrams detailing Stage 1 of construction are available below (Figure 3-5 and Figure 3-6).		
Stage 2	Construction of new raised cycleway separators for the northern side of Wilson Street, during day time for Wilson Street east of Erskineville Road and during night time for Wilson Street between King Street and Erskineville Road		
	• Construction of the raised threshold for the raised priority cycle crossing on Wilson Street about 60 metres east of Erskineville Road		
	Adjustment of pedestrian and management and detours prior to any work occurring.		
	Diagrams detailing Stage 2 of construction are available below (Figure 3-7 and Figure 3-8).		
Stage 3	Mill and re-sheet of the road surface at the intersection of King Street, Eliza Street and Wilson Street during night time hours to minimise impact on traffic		
	 Installation of signage and linemarking would be undertaken during night time. Following this work, the road would re-open to people driving and bike riding. 		
	Diagrams detailing Stage 3 of construction are available below (Figure 3-9 and Figure 3-10).		

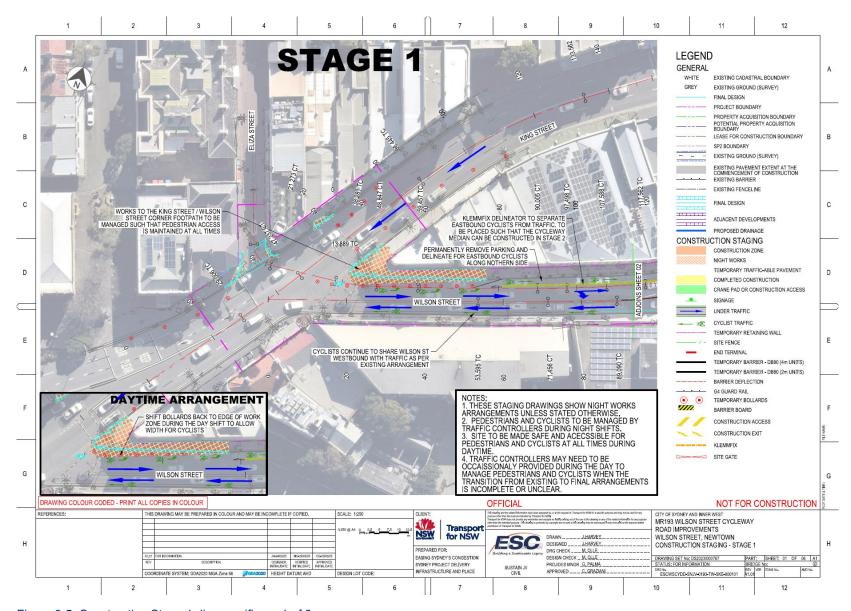


Figure 3-5: Construction Stage 1 diagram (figure 1 of 2

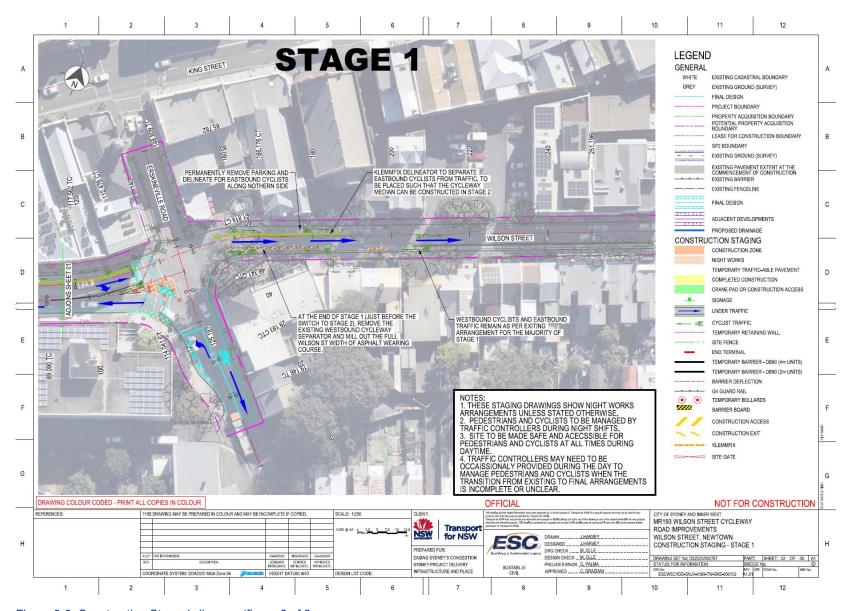


Figure 3-6: Construction Stage 1 diagram (figure 2 of 2

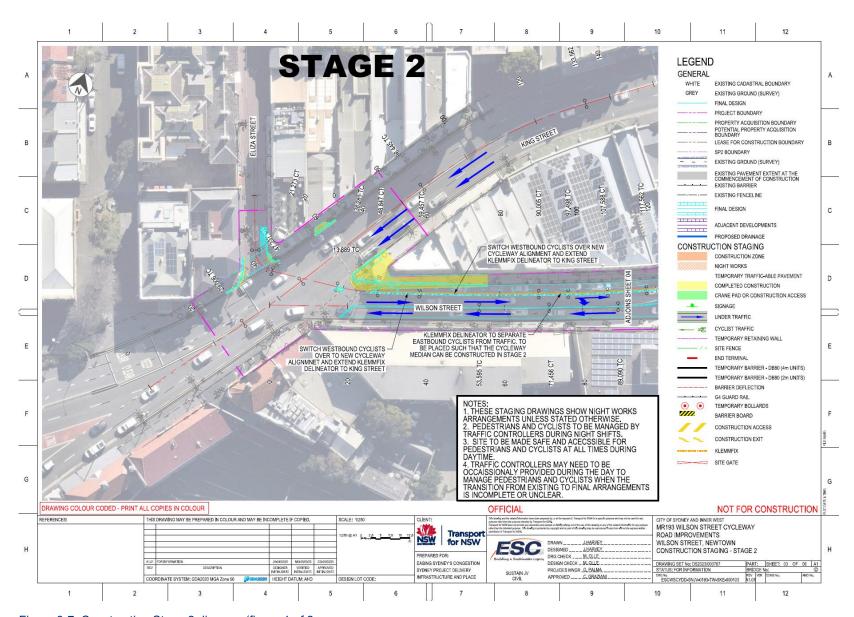


Figure 3-7: Construction Stage 2 diagram (figure 1 of 2

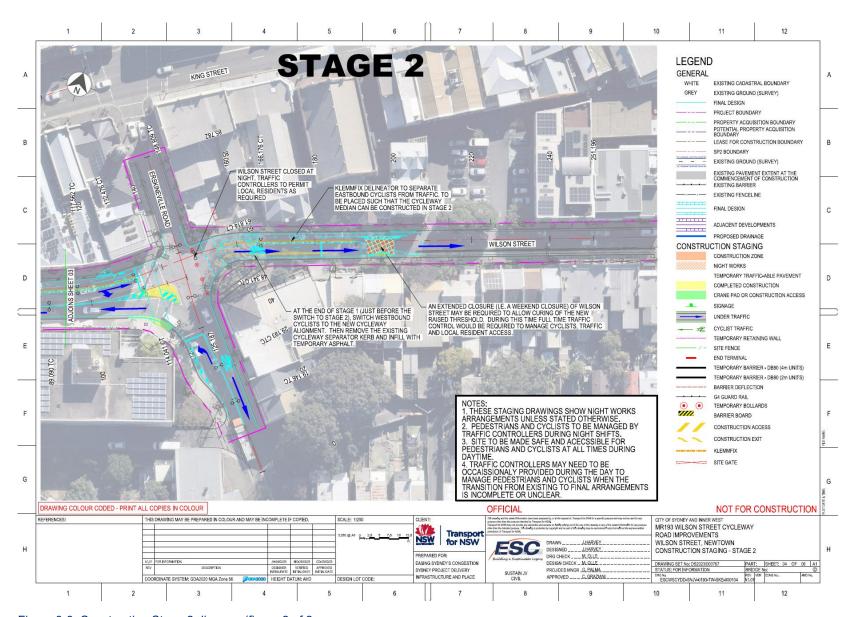


Figure 3-8: Construction Stage 2 diagram (figure 2 of 2

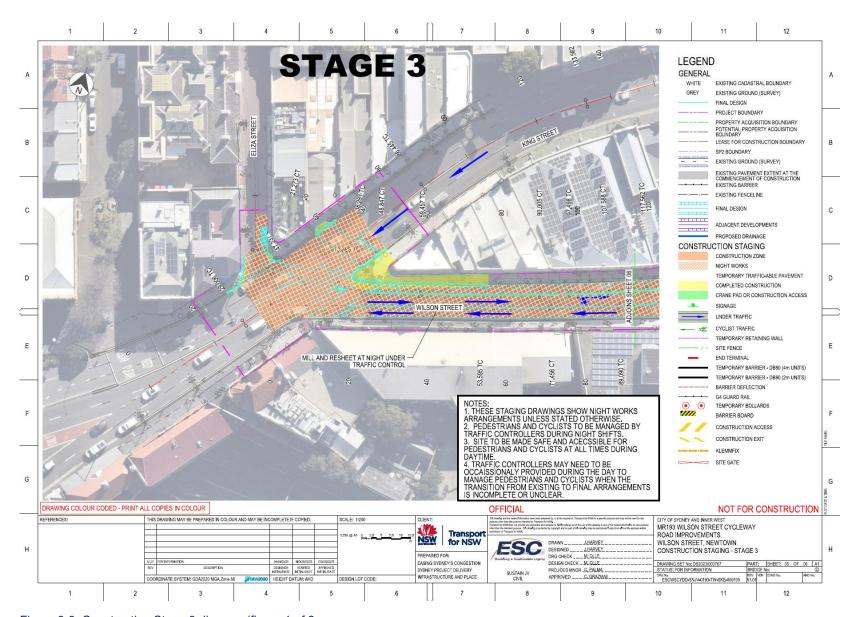


Figure 3-9: Construction Stage 3 diagram (figure 1 of 2

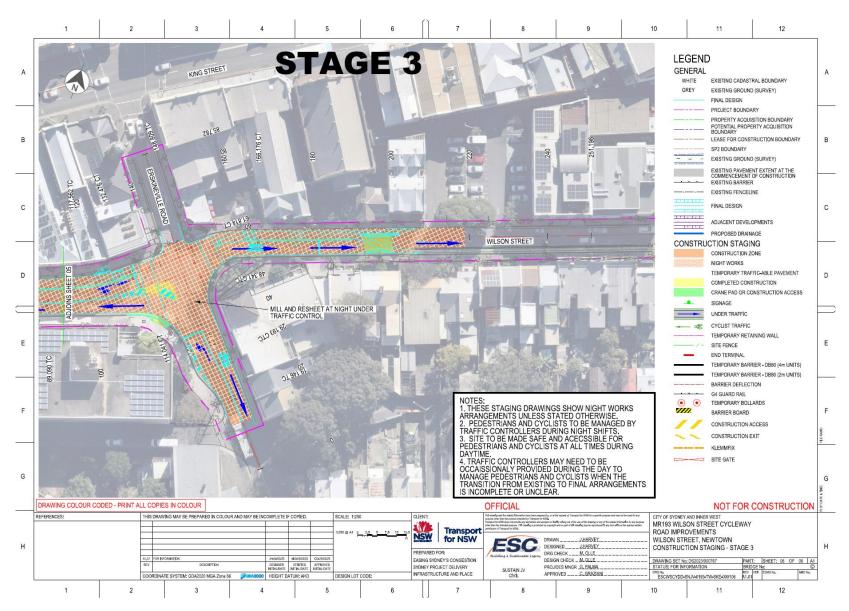


Figure 3-10: Construction Stage 3 diagram (figure 2 of 2

3.3.2 Construction workforce

The size and arrangement of the construction workforce is expected to change throughout the duration of the proposal. The total number of construction and site management personnel would be dependent on each stage. The expected average construction workforce required during construction will be about 10 to 15 workers. This number is indicative only and the workforce required would be determined by the construction contractor(s) prior to commencement of construction.

3.3.3 Construction hours and duration

Subject to approval, construction is anticipated to commence in 2026 over a duration of 11 months, weather permitting.

Standard daytime construction hours are:

- 7am to 6pm Monday to Friday
- 8am to 1pm Saturday
- No work on Sunday or public holidays.

To minimise traffic impacts and to ensure safety of workers, it is expected that a number of activities would be undertaken outside standard working hours, including:

- Adjustments to kerbs and footpaths, including pram ramps
- Traffic signal/streetlight adjustment and installation of signage and linemarking
- Installation of a stormwater crossing and encasement of empty Telstra conduit
- Demolition of existing concrete separators and traffic island and milling of existing cycleway
- Construction of new raised cycleway separators
- Mill and re-sheet of road surface at intersection of King Street, Eliza Street and Wilson Street.

Night work would consist of activities and stages that are most likely to cause impacts on traffic and pedestrians, such as those requiring closures of main roads Wilson Street and King Street.

Where works are proposed outside standard working hours, notification would be made to the residents, business and road users five business days prior to the works being carried out. These hours would be in accordance with Transports Construction Noise and Vibration Guideline (CNVG) and approved Road Occupancy Licenses (ROLs).

Proposed night-time construction hours are:

- 8pm to 5am Sunday to Thursday
- No work on public holidays.

3.3.4 Plant and equipment

Equipment to be used would be determined during construction planning. An indicative list of potential plant and equipment likely to be required is provided below:

- Asphalt profilers
- Traffic control vehicles
- Small to medium tipper trucks including bogie trucks
- Light construction vehicles and utes
- Concrete/asphalt saws
- Generators
- Various powered hand tools
- Sucker truck for utility investigations
- Elevated work platforms
- Small excavators up to 5t with jack hammers
- Lighting towers

- Skid steers
- Concrete trucks
- Small to medium asphalt pavers
- Shuttle buggy
- Compacting equipment including small rollers and wacker packers
- Linemarking vehicles
- Small Franna cranes
- Temporary lighting towers
- Chainsaws
- Mulch trucks.

3.3.5 Earthworks

Substantial earthworks are not required for this proposal. Minor digging would occur during pavement resurfacing and installation or replacement of drainage infrastructure.

The maximum depth of excavation would be approximately 1.5 metres when trenching for utilities. Around 350 cubic metres of spoil are estimated to be excavated during earthworks.

3.3.6 Source and quantity of materials

Road pavement would be sourced from appropriately licensed facilities. This includes full depth asphalt pavement, resurfacing asphalt mix and concrete. Imported materials would be sourced from commercial suppliers in nearby areas, wherever possible. None of the materials proposed to be used are considered to be in short supply. Where possible, existing pavement would be reused.

Final quantities of all materials needed in construction would be determined during detailed design. Surplus or unsuitable material that cannot be used on-site would be classified in accordance with the NSW Environmental Protection Agency (EPA) *Waste Classification Guidelines* (EPA, 2014) and disposed of at an appropriately licenced facility, with relevant documentation kept.

3.3.7 Traffic management and access

Traffic management

Construction of the proposal would result in heavy and light vehicle traffic. Heavy vehicle traffic would be associated with:

- Delivery of construction materials
- Spoil and waste removal
- Delivery and removal of construction equipment and machinery.

Light vehicle movements would also be required to transport workers to and from the proposal area during construction. This includes site labour force and specialist supervisory personnel. Diagrams detailing traffic diversion are provided in Figure 3-5 to Figure 3-10.

Heavy vehicles would access the proposal area via arterial roads, wherever possible. Heavy vehicles would be required to deliver equipment and material to the proposal area. Where possible, light vehicles of construction personnel would park within the compound site (though street parking may be required due to parking capacity limits within compounds). Personnel would be encouraged to use available public transport, including the nearby Newtown train station, as an alternative means of accessing the proposal area.

The numbers of heavy and light vehicles needed during construction would be finalised once a construction program and workforce is determined in detailed design. It is estimated that on average two heavy vehicles and three light vehicles would be accessing the proposal area daily.

Construction would be arranged to generally allow for King Street, Eliza Street, Wilson Street, and Erskineville Road to remain open to traffic, with only partial lane closures in place wherever possible, depending on the activities being carried out. If necessary, diversions would be set up to temporarily reroute traffic onto nearby side roads if work would require occupation of the full road.

Traffic management would be defined in a Traffic Management Plan (TMP) drafted in accordance with the *Traffic Control at Work Sites Manual Version 4* (RTA, 2010) and approved by Transport before construction begins. This plan would provide details on the traffic management protocols to be implemented and how traffic flow on the local road network would be maintained.

Haulage

The proposed routes for haulage of equipment and materials would be along:

- The Princes Highway from the south
- Stanmore Roads from the west
- King Street from the north.

All construction traffic would be prevented from hauling along local and minor roads whenever not necessary for accessing the works. The haulage routes would be finalised in the TMP.

Property access

All property access would be maintained during construction. This includes for both commercial and residential properties that are located next to the proposal area. Properties with driveway access onto Wilson Street are present on either side of the road, east of the intersection of Erskineville Road and Wilson Street. All property owners that would be impacted would be consulted (refer to Chapter 5 (Consultation)).

3.4 Ancillary facilities

No compound site locations have yet been proposed. Any compound sites which may be proposed by Transport or the construction contractor in the future will be subject to further environmental approval and engagement with nearby community and stakeholders.

3.5 Public utility adjustment

Several public utilities would be impacted by the proposal including:

- Water mains
- · Communications services and a traffic control system
- Overhead and underground electrical transmission wiring.

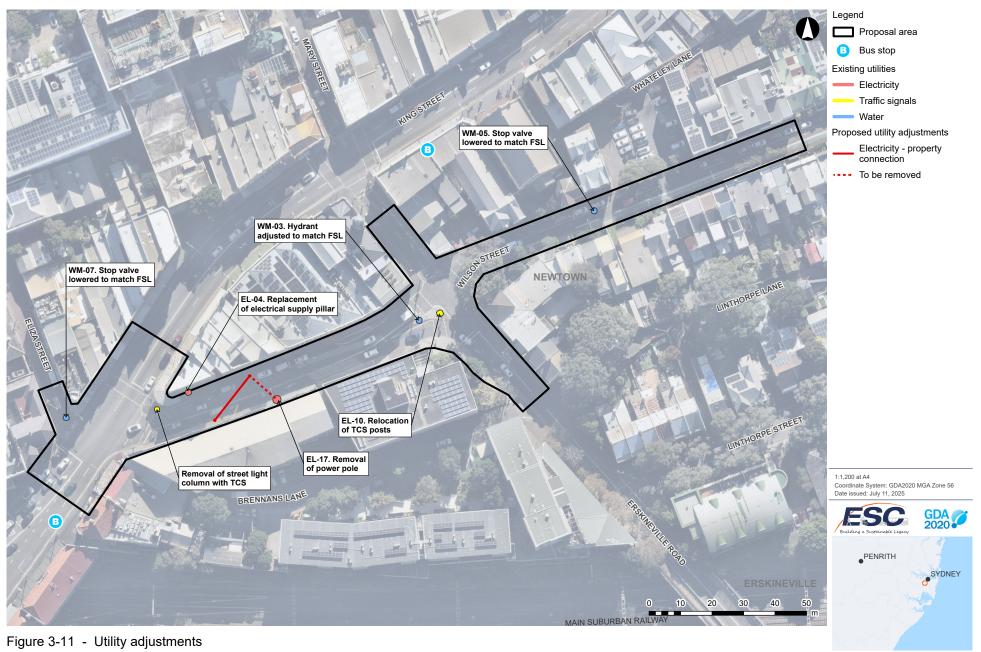
All utility adjustments would mainly occur within the proposal area defined in Figure 1-2. Consultation between Transport and relevant utility owners has been undertaken and would continue during detailed design. Where possible, utilities would be left in place.

A summary of the utilities that would be impacted by the proposal is outlined in Table 3-3 and shown in Figure 3-11. Utility adjustments and reconnection to existing networks would be refined during detailed design in consultation with relevant utility owners.

Table 3-3: Proposed utility adjustment work

Owner	Asset	Location	Impact description
City of Sydney Council	Street light column with TCS	South east corner of King Street and Wilson Street intersection	Removal and replacement with Ausgrid light pole on south side of Wilson Street (refer to Figure 3-1)
Ausgrid	Electrical supply pillar	North side of Wilson Street, east of King Street	Pillar to be replaced with link box
Transport for NSW	TCS post	Concrete median on the western leg of Wilson Street and Erskineville Road intersection	Relocation to new concrete island in the same location
Ausgrid	Power pole	South side of Wilson Street, between King Street and Erskineville Road	Relocation
Sydney Water	Surface fitting DN375	South west corner of Wilson Street and Erskineville Road intersection	Surface fitting to be lowered to match FSL once the traffic island is removed

Owner	Asset	Location	Impact description
Sydney Water	Surface fitting DN150	North side of Wilson Street, east of Erskineville Road	Stop valve to be lowered about 30 mm to match the FSL
Sydney Water	Sydney Water	Surface fitting	Stop valve to be lowered 100 mm to match FSL



3.6 Property acquisition

Property acquisition would not be required to facilitate construction or operation of the proposal.

4. Statutory and planning framework

This chapter provides the statutory and planning framework for the proposal and considers the provisions of relevant state environmental planning policies, local environmental plans and other legislation.

4.1 Environmental Planning and Assessment Act 1979

4.1.1 State Environmental Planning Policies

State Environmental Planning Policy (Transport and Infrastructure) 2021

State Environmental Planning Policy (Transport and Infrastructure) 2021 (SEPP (Transport and Infrastructure)) aims to facilitate the effective delivery of infrastructure across the State.

Section 2.109 of SEPP (Transport and Infrastructure) permits development on any land for the purpose of a road or road infrastructure facilities to be carried out by or on behalf of a public authority without consent.

As the proposal is for a road infrastructure facility and is to be carried by Transport, it can be assessed under Division 5.1 of the *Environmental Planning and Assessment Act 1979* (NSW). Development consent from council is not required.

The proposal is not located on land reserved under the *National Parks and Wildlife Act 1974* and does not require development consent or approval under:

- State Environmental Planning Policy (Resilience and Hazards) 2021
- State Environmental Planning Policy (Planning Systems) 2021
- State Environmental Planning Policy (Precincts Central River City)
- State Environmental Planning Policy (Precincts Eastern Harbour City)
- State Environmental Planning Policy (Precincts Regional) 2021
- State Environmental Planning Policy (Precincts Western Parkland City) 2021.

Section 2.10 to 2.15 of SEPP (Transport and Infrastructure) contains provisions for public authorities to consult with local councils and other public authorities prior to the commencement of certain types of development. Consultation, including consultation as required by SEPP (Transport and Infrastructure) (where applicable), is discussed in chapter 5 of this REF.

State Environmental Planning Policy (Biodiversity and Conservation) 2021

Chapter 8 (Sydney Drinking Water Catchment) of SEPP (Biodiversity and Conservation) 2021 (SEPP (Biodiversity and Conservation) relates to the use of land within the Sydney drinking water catchment. Section 8.11 of the SEPP requires consideration of whether or not an activity to which Division 5.1 of the EP&A Act applies will have a neutral or beneficial effect on water quality before carrying out the activity.

As the proposal is not located within the Sydney drinking water catchment, an assessment of neutral or beneficial effect on water quality is not required.

4.1.2 Local Environmental Plans

As outlined in Section 4.1.1, development consent is not required in line with the Transport and Infrastructure SEPP.

The proposal is located on land identified in the *Sydney Local Environmental Plan 2012* (Sydney LEP) and the *Inner West Local Environmental Plan 2022* (Inner West LEP).

The land zoning applicable to the proposal includes SP2 (Infrastructure), E1 (Local Centre), and R1 (General Residential) (refer to Figure 4-1).

Under the Sydney LEP and Inner West LEP, Council is the consent authority for proposed works within the Sydney and Inner West LGAs. Roads are listed as development requiring consent from Council for all the listed land use zones. However, according to Section 2.109 in Part 2.2, Division 17, of the SEPP (Transport and Infrastructure), development for roads and road infrastructure can be carried out without consent on any land by a public authority such as Transport. As such, the provisions of this SEPP prevails over the LEP, in line with Section 3.28 of the EP&A Act. Accordingly, Transport can carry out the proposal without consent from Council.

Sydney Local Environmental Plan (2012)

Under the Sydney LEP, the proposed works are located within land zoned as SP2 Infrastructure and R1 General Residential. Surrounding land zones that are near but not within the proposal area include R2 Low Density Residential, RE1 Public Recreation, and MU1 Mixed Use.

The objectives of each zone and the proposal's consistency with these objectives are summarised in Table 4-1 and shown in Figure 4-1.

Table 4-1: Proposal consistency with relevant land use zone objectives (Sydney LEP)

Zone type	Objectives of zone	Proposal consistency with objectives
SP2 Infrastructure	 To provide for infrastructure and related uses To prevent development that is not compatible with or that may detract from the provision of infrastructure. 	The proposal would improve active transport infrastructure, which is consistent with the first objective of the zone. A cycleway is considered compatible and consistent development under this zone type.
R1 General Residential	 To provide for the housing needs of the community To provide for a variety of housing types and densities To enable other land uses that provide facilities or services to meet the day to day needs of residents To maintain the existing land use pattern of predominantly residential uses. 	The proposal is consistent with the third objective of the zone. This proposal would provide an improvement to existing active transport infrastructure and would facilitate safe and efficient transport options for residents, visitors and other road users.

Inner West Local Environmental Plan (2022)

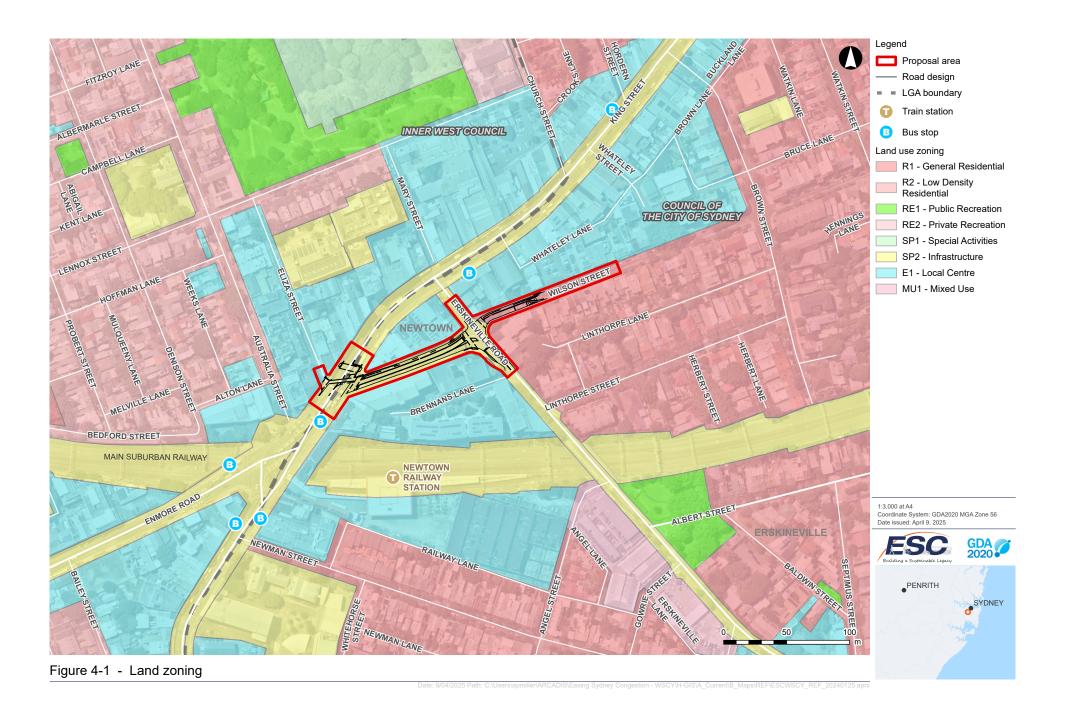
Under the Inner West LEP, the proposed works are located within land zoned as E1 Local Centre.

The objectives of this zone and the proposal's consistency with these objectives are summarised in Table 4-2 and shown in Figure 4-1.

Table 4-2: Proposal consistency with relevant land use zone objectives (Inner West LEP)

Zone type	Objectives of zone	Proposal consistency with objectives
E1 Local Centre	To provide a range of retail, business and community uses that serve the needs of people who live in, work in or visit the area	The proposal is consistent with the fifth objective of the zone.
	To encourage investment in local commercial development that generates employment opportunities and economic growth	
	To enable residential development that contributes to a vibrant and active local centre and is consistent	

Zone type	Objectives of zone	Proposal consistency with objectives
	with the Council's strategic planning for residential development in the area	
	To encourage business, retail, community and other non-residential land uses on the ground floor of buildings	
	To provide employment opportunities and services in locations accessible by active transport	
	To provide retail facilities and business services for the local community commensurate with the centre's role in the local centres hierarchy	
	To ensure Inner West local centres are the primary location for commercial and retail activities	
	 To ensure that new development provides diverse and active street frontages to attract pedestrian traffic and to contribute to vibrant, diverse and functional streets and public spaces 	
	To enhance the unique sense of place offered by Inner West local centres by ensuring buildings display architectural and urban design quality and contributes to the desired character and cultural heritage of the locality.	



4.2 Other relevant NSW legislation

4.2.1 Roads Act 1993

The *Roads Act 1993* (The Roads Act) provides guidance on the use and access of public roads, including procedures regarding the opening and closure of public roads. The Act also classifies roads and identifies the functions of road authorities.

The Roads Act regulates activities that can be carried out on roads in NSW. According to Section 71 of the Act, a road authority may carry out road work on any public road for which it is the roads authority and on any other land under its control. Section 72 of the Act outlines that Transport also has the power to carry out road work on a public road which is not a classified road for the purposes of this proposal.

The proposal would require construction on Wilson Street, King Street, and Erskineville Road, as well as minor work where Eliza Street meets King Street. As Transport is a road authority, it does not need to seek approval to undertake these activities. However, the construction contractor is required to obtain a ROL prior to any road closure and construction in the road corridor.

4.2.2 Biodiversity Conservation Act 2016

The *Biodiversity Conservation Act 2016* (BC Act) regulates impacts on the natural environment and provides a framework for the avoidance and minimisation of impacts to biodiversity. It establishes the Biodiversity Offsets Scheme which attempts to offset impacts to biodiversity where impacts from development are unavoidable. Offsets are not required for development assessed under Division 5.1 of the EP&A Act unless an action is deemed to have a 'significant impact' on a threatened species, population, or community, as determined by an assessment of significance in line with Section 7.3 of the BC Act. As impacts to biodiversity are not considered substantial and no impact to threatened species, populations or communities are anticipated, a Biodiversity Development Assessment Report is not required.

No offsets would be required as no significant impacts to biodiversity are expected as a result of this proposal. Recommended safeguards and mitigation measures are detailed in Section 7.2 of this REF to avoid and minimise impacts to biodiversity.

4.2.3 Protection of the Environment Operations Act 1997

The *Protection of the Environment Operations Act 1997* (POEO Act) regulates land, air, noise and water pollution in NSW. It also aims to provide opportunity for increased public involvement and access to information regarding environmental protection.

The POEO Act regulates licencing for certain activities that create environmental impacts such as waste, air, and water pollution. Those provided with a licence must comply with its conditions when carrying out these activities. Activities requiring licences are defined in Part 3.2, Schedule 1.

In line with Schedule 1, clause 35, road construction is listed as an activity that may require licencing. Under the POEO Act, road construction includes road widening work and related earthworks and cuttings. Clause 35(3) states that a licence is required should the road construction involve extraction or processing of more than 150,000 tonnes of material or involves a metropolitan road of four or more traffic lanes for three or more kilometres in length. An environmental protection licence is not required as the proposal does not require construction involving large volumes of earthworks or construction of three or more kilometres of road.

4.2.4 Heritage Act 1977

The Heritage Act 1977 (Heritage Act) provides for the conservation of buildings, work, relics and places that are of historic, scientific, cultural, social, archaeological, architectural, natural or aesthetic significance to the state. Matters protected under the Heritage Act include items subject to an Interim Heritage Order and items listed on the State Heritage Register, the heritage schedules of local council LEPs, and the heritage and conservation registers established under Section 170 of the Heritage Act by NSW state government agencies (Section 170 Registers). The Heritage Act also provides for the protection of archaeological 'relics', being any deposit, object or material evidence that relates to the non-Aboriginal settlement of NSW and is of State or local heritage significance.

The Heritage Act concerned with all aspects of heritage conservation ranging from basic protection against indiscriminate damage and demolition of buildings and sites, through to restoration and enhancement. Heritage database searches indicate that the proposal is located in two heritage conservation areas, and there are seven non-Aboriginal heritage items located within five metres of the proposal and nine other items within the vicinity of the proposal area. Further assessment of potential non-Aboriginal heritage impacts is provided in Section 6.8 of this REF.

4.3 Commonwealth legislation

4.3.1 Environment Protection and Biodiversity Conservation Act 1999

Under the EPBC Act, a referral is required to the Australian Government for proposed actions that have the potential to significantly impact on matters of national environmental significance or the environment of Commonwealth land. These are considered in Appendix A and Chapter 6 of the REF.

A referral is not required for proposed road activities that may affect nationally listed threatened species, endangered ecological communities and migratory species. This is because requirements for considering impacts to these biodiversity matters are the subject of a strategic assessment approval granted under the EPBC Act by the Australian Government in September 2015.

Potential impacts to these biodiversity matters are also considered as part of Chapter 6 of the REF and Appendix A.

Findings - matters of national environmental significance

The assessment of the proposal's impact, on matters of national environmental significance and the environment of Commonwealth land, found that there is unlikely to be a significant impact on relevant matters of national environmental significance or on Commonwealth land. Accordingly, the proposal has not been referred to the Australian Government Department of Climate Change, Energy, the Environment and Water under the EPBC Act.

4.3.2 Other relevant Commonwealth legislation

Native Title Act 1993

The *Native Title Act 1993* recognises and protects native title. The Act covers actions affecting native title and the processes for determining whether native title exists and compensation for actions affective native title. It establishes the Native Title Registrar, the National Native Title Tribunal, the Register of Native Title Claims and the Register of Indigenous Land Use Agreements, and the National Native Title Register. Under the Act, a future act includes proposed public infrastructure on land or waters that affects native title rights or interest.

A search of the <u>Native Title Tribunal Native Title Vision</u> website was undertaken on 27 March 2025, with no Native Title holders/claimants identified.

4.4 Confirmation of statutory position

The proposal is categorised as development for the purpose of road infrastructure facilities and is being carried out by or on behalf of a public authority. Under Section 2.109 of SEPP (Transport and Infrastructure) the proposal is permissible without consent. The proposal is not State significant infrastructure or State significant development. The proposal can be assessed under Division 5.1 of the EP&A Act.

Transport for NSW is the determining authority for the proposal. This REF fulfils Transport's obligation under Section 5.5 of the EP&A Act including to examine and take into account to the fullest extent possible all matters affecting or likely to affect the environment by reason of the activity.

5. Consultation

This chapter discusses the consultation undertaken to date for the proposal and the consultation proposed for the future.

5.1 Consultation strategy

Consultation activities conducted for the proposal to date and the outcomes of these are documented in the Wilson Street Cycleway Consultation Report (TfNSW, 2024). The consultation report is provided in Appendix D and outlines the consultation approach carried out, a summary of the feedback received, Transport's response to some frequently asked questions, and the next steps.

Consultation with community and key stakeholders was undertaken to:

- Inform the community and stakeholders of the proposal
- Obtain feedback from the community and stakeholders on the proposal
- Build a database of community and stakeholders interested in the proposal who Transport can continue to engage with and inform as the proposal progresses
- Consider all feedback and use this feedback in planning and developing the final design of the cycleway.

A summary of consultation undertaken to date is provided in Section 5.2 to Section 5.5. Transport will continue to engage with the community and relevant stakeholders during the public display of the REF, which would provide further opportunity for the community and stakeholders to provide comment on the proposal, during detailed design and construction of the proposal. Section 5.6 details ongoing and future consultation to be undertaken by Transport.

5.2 Community involvement

Transport sought feedback from the community and stakeholders from 2 April to 16 April 2024. Due to the number of comments received and requests from the community, the consultation period was extended by a further ten days. During this additional period, further door knocking of surrounding businesses was undertaken.

The following forms of consultation were undertaken during this period:

- Distribution of a community notification to about 1904 properties
- Emails sent out to the existing proposal database
- Provision of a project webpage
- Carrying out face to face meetings with key stakeholders
- Door knocking surrounding businesses.

Questions and feedback from community members and stakeholders was encouraged via phone, email, online survey and door knocking.

Transport received 927 comments on the proposal, of which 56 percent were positive and 44 percent were negative. Key topics raised by the community in their feedback included:

- Connection to the existing cycleway on Wilson Street
- Clarification on design elements of the new cycleway
- Parking and loading zone loss
- Traffic light timings.

Transport responses to some of the frequently asked questions raised are detailed in Table 5-1.

Table 5-1: Frequently asked questions raised by the community and current responses

Frequently asked question raised	Response / where addressed in REF
Why are you removing the parking and loading zones?	Transport would need to remove the parking and loading spots to make space for the bidirectional (two way) cycleway as well as maintain the existing traffic lanes.
Where will businesses park to load and unload if the loading zone is removed?	Transport has studied the existing loading zones within 200 metres of the proposal area, identifying adequate capacity to offset the proposed removal of the loading zone on Wilson Street. In addition, the proposal includes a new off-peak (outside Monday to Friday 10am to 3.30pm) loading zone on Erskineville Road, between Wilson Street and King Street. Refer Section 6.4 for more detail.
How will bike riders cross over from the existing cycleway on Wilson Street to the new cycleway?	The proposal includes a raised crossing that would allow people bike riding to cross over safely from the existing cycleway onto the new bidirectional cycleway.
How will the cycleway be separated?	The cycleway would be separated with raised concrete medians and line marking (See Figure 3-3 for impression).
Currently there is a long wait time for people bike riding to cross through intersections, how will you fix this?	Traffic lights in NSW are controlled by the Sydney Coordinated Adaptive Traffic System, which allocates the length of green time based on real time traffic flows. The traffic light operations would be adapted based on new conditions and will be monitored upon implementation of the cycleway.
When will this be delivered? Are there plans to extend it further?	Subject to approval, construction is anticipated to commence in 2026. Transport currently has no plans to extend this cycleway further. The cycleways on either side of the proposal are managed by Inner West Council (Eliza Street) and City of Sydney Council (eastern side of Wilson Street). This proposal aims to connect the missing link between the shared zone on Eliza Street to the west and the combined quieteway with one-way bicycle lane on Wilson Street to the east.

5.3 Aboriginal community involvement

The proposal has been considered against the requirements of the *Procedure for Aboriginal Cultural Heritage Consultation and Investigation* (PACHCI) (RMS, 2011).

This procedure is generally consistent with the *Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010* (DECCW, 2010). An outline of the procedure is presented in Table 5-2.

Table 5-2: Summary of Transport's Procedure for Aboriginal Cultural Heritage Consultation and Investigation

Stage	Description
Stage 1	Initial assessment by Transport.
Stage 2	Site survey and further assessment.
Stage 3	Formal consultation and preparation of a cultural heritage assessment report.

Stage	Description
Stage 4	Implement environmental impact assessment recommendations.

A Stage 1 PACHCI was completed for the proposal by Transport's Aboriginal Cultural Heritage Advisor – Greater Sydney Region (refer to Appendix C).

The Stage 1 PACHCI assessment is based on the following considerations:

- The project is unlikely to harm known Aboriginal objects or places
- The AHIMS search did not indicate moderate to high concentrations of Aboriginal objects or places in the proposal area
- The study area does not contain landscape features that indicate the presence of Aboriginal objects, based on the
 Office of Environment and Heritage's Due diligence Code of Practice for the Protection of Aboriginal objects in NSW
 and the Roads and Maritime Services' procedure
- The cultural heritage potential of the study area appears to be reduced due to past disturbance
- There is an absence of sandstone rock outcrops likely to contain Aboriginal art.

The proposal is considered unlikely to have an impact on Aboriginal cultural heritage and can proceed without proceeding to Stage 2 of the PACHCI process. As such, no consultation with the Aboriginal community was required.

Further information on Aboriginal heritage is provided in Section 6.8.

5.4 SEPP (Transport and Infrastructure) consultation

City of Sydney Council (the City) and Inner West Council were consulted on 14 March 2025 and 10 April 2025 respectively in line with section 2.10 of SEPP (Transport and Infrastructure). Appendix B contains a SEPP (Transport and Infrastructure) consultation checklist that documents how SEPP (Transport and Infrastructure) consultation requirements have been considered.

A meeting was held with the City on 14 June 2025 to clarify information on the project. Transport received a letter response from the City on 18 June 2025. Issues raised by the City from this consultation are outlined in Table 5-3 below.

No response was received from Inner West Council.

Table 5-3 Issues raised by City of Sydney Council through SEPP (Transport and Infrastructure) consultation

Issue raised	Response/where addressed in the REF
The City is supportive of the project and for it to be delivered as soon as possible.	Transport appreciates the City's support, including of the proposal's general arrangement and key features.
The City supports the general arrangement and features of the cycleway design as shown in the 100 per cent detailed design.	The City's comments on the 100 per cent detailed design will be considered during the next design stage.

Issue raised Response/where addressed in the REF The introduction of signalisation for people walking along The pedestrian crossing at Eliza Street has been signalised King Street and crossing Eliza Street as it will reduce the primarily to address safety concerns with the introduction priority and level of service for the many thousands of of a dedicated on-road cycleway that now traverses the people who walk here. This is particularly galling because intersection. Signal control is necessary to avoid conflicts Eliza Street is a shared zone – described by Technical between people bike riding and walking. It is important to Direction TTD/2013/001 as: "...A shared zone is a road or note that the dedicated cycle movement out of Eliza Street network of roads or a road related area where space is does not exist now and people walking will not expect a shared safely by vehicles and pedestrians and where bike rider to be exiting Eliza Street at about 20km/h. As a pedestrian priority and quality of life take precedence over result, people walking are less likely to anticipate fast ease of vehicle movement." In the meeting on 14 June, moving bike riders entering the intersection from this Transport revealed the existing raised threshold will be direction, increasing the need for a signalised crossing. lowered. Please provide more detail on the layout, and the Further design details around the lowering of the existing reasoning behind this decision. raised threshold will be provided at the next design stage. Incorrect "bike LANE" signs should be "bike ONLY" signs. Noted, Transport will investigate this issue at the next Only the "bike LANE END" sign at the end of the contradesign stage. flow is correct. All one-way signs along Wilson Street should have the Bicycles Excepted plate. Reduction in footpath widths, primarily on the north-Due to the constrained nature of the corridor, the provided eastern corner (at King/Wilson), but also on the southfootpath widths are the most that can be provided. The western corner (at King/Eliza), which may be the result of footpath width at the pinch point between the property at prioritising excessive traffic lane widths for turning vehicles the north-east corner of King St and Wilson St is 1.2 m over the space required for the volume of pedestrians at which is compliant with Table 5.1 of the Austroads Guide these very busy locations. Turning path diagrams have not to Road Design Part 6A. The footpath width at the southbeen provided. Transport should minimise traffic lane western corner at King St/Eliza is driven by swept path widths to ensure footpath widths are preserved as far as movement from King St into Eliza St. possible and cycleway widths are adequate. Please note the proposed traffic lane widths on Wilson Street are designed as per Austroads and Transport supplements. The intention is to comply with the min 3.5 m lane width requirement specified in Table 4.3 in AGRD Part 3 where possible. How and where an eastbound rider on the cycleway would There is no cycling provision along Erskineville Road just turn right into Erskineville Road has not been resolved. south of the intersection with Wilson Street. The current intention is for eastbound bike riders on the cycleway to use the cycle ramp to access the northern side footway area of Wilson Road and then use the pedestrian crossing to cross Wilson Street to access the pedestrian footpath heading south. Due to the constrained nature of the site, there is insufficient width to provide any cycling facilities on Erskineville Road. A posted speed limit (or wide lane or design speed) of 40 The proposed design adopts a like-for-like approach by km/h is inappropriate for the approach to the raised retaining the existing posted speed limit. Adopting a crossing threshold on Wilson Street and is not compliant 30km/h speed limit only for the council section of Wilson with the Cycleway Design Toolbox or Austroads for mixed Street is not feasible, as there is no intention to adopt a traffic environments. 30km/h speed limit for the rest of Wilson Street.

Issue raised	Response/where addressed in the REF
The break in the cycleway separator for the church driveway should have a mountable hump (like the existing contra-flow hump) to help prevent cars turning into Wilson Street from over-steering and crashing into the separator when it re-starts.	Noted, Transport will investigate this issue at the next design stage.
Correct the line marking at the crossing threshold and at King Street intersection.	Noted, this was a drafting error which Transport will investigate at the next design stage.
All the existing bollards along Wilson Street must be removed.	Noted, Transport will investigate this issue at the next design stage.
Footpath crossfalls should be 2.5 per cent and grates should be bike safe.	Due to the constrained nature of the existing corridor and noting that property acquisition is to be avoided, improving the crossfall cannot be achieved. The approach of no worse than existing has been adopted, noting the existing footpath crossfall is non-compliant (greater than six per cent), and the proposed horizontal geometry does not worsen the existing condition. The proposed grate on Wilson Street is proposed to be a bike safe grate.
Provide sufficient drainage gaps in separator to account for flows.	Noted, Transport will investigate this issue at the next design stage.
Pavement construction issues and questions.	Noted, Transport will investigate this issue at the next design stage.
Outstanding information is to be supplied including turning path diagrams so that the City may make a complete assessment of the design.	As discussed in the meeting between Transport and Council on 14 June 2025, TCS plans and swept paths are to be provided by the next design stage for information only.
Transport has stated the proposal is not proposing any impacts to heritage nor removing any trees, but that there may need to be tree trimming on Wilson Street east of Erskineville Road as the existing street lighting is blocked by existing tree canopy at the crossing point. Please consult with the City before any tree trimming.	The City will be consulted prior to any tree trimming.

5.5 Government agency and stakeholder involvement

Transport sought feedback from businesses identified as directly impacted by the loading zone removal on Wilson Street. As noted in Section 5.2, the consultation period was from 2 April to 26 April 2024, with businesses called the week prior (26 March 2024). Consultation with directly impacted businesses included:

- Phone calls
- A face-to-face meeting with Transport representatives
- Emails sent out to surrounding businesses.

The main concerns raised by surrounding businesses related to:

-Report

- Removal of the loading zone on Wilson Street and resultant impacts to deliveries
- Removal of parking spaces for potential customers.

In response to the issues raised, Transport sought feedback on potential early options for additional loading zones. This has resulted in the provision of a new loading zone to offset the loading zone removed from Wilson Street off Erskineville Road between 10am and 3pm.

Further assessment of potential impacts resulting in the removal of parking spaces and the loading zone on Wilson Street are addressed in Section 6.2 (Socio-economic, property and land use) and Section 6.3 (Parking).

5.6 Ongoing or future consultation

This REF will be on display to give members of the public the opportunity to respond to the proposal. Exhibition would occur for a minimum of four weeks and would consist of publishing the REF and supporting assessments online. All submissions to the proposal would be formally considered and responses provided in a submissions report, which would be made available to the public.

Transport would continue to update the local community and stakeholders about relevant activities and other proposal updates. This would be via the following engagement channels:

- Notifications to residents and businesses
- Website updates, social media and electronic direct mail
- Proposal update briefings or meetings with impacted stakeholders and groups.

6. Environmental assessment

This section of the REF provides a detailed description of the potential environmental impacts associated with the construction and operation of the proposal. All aspects of the environment, potentially impacted upon by the proposal, are considered. This includes consideration of:

- Potential impacts on matters of national environmental significance under the EPBC Act
- The factors specified in the Guideline for Division 5.1 assessments (DPE 2022) and as required under Section 171 of the
 Environmental Planning and Assessment Regulation 2021 and the Roads and Related Facilities EIS Guideline (DUAP
 1996). The factors specified in Section 171 of the Environmental Planning and Assessment Regulation 2021 are also
 considered in Appendix A
- Site-specific safeguards and management measures are provided to mitigate the identified potential impacts.

6.1 Biodiversity

6.1.1 Methodology

A desktop review of the following databases was carried out on 9 November 2023 to identify the existing ecological characteristics of the proposal area:

- NSW Bionet Wildlife Atlas (DPE, 2022c) to identify species protected in NSW recorded within a 10-kilometre radius
- Bionet Vegetation Classification Database (DPE, 2022d)
- NSW SEED database (NSW Government, 2022) for State Vegetation Map Version 1.1 (DPE, 2022e)
- Protected Matters Search Tool for Matters of National Environmental Significance that are mapped within 5 kilometres (DCCEEW, 2022a)
- NSW Fisheries Spatial Data Portal (DPI, 2020)
- Species Profiles and Threats Database (DCCEEW, 2022b)
- Threatened Biodiversity Profiles (DPE, 2022f)
- NSW WeedWise (DPI, 2022).

This desktop review was supported by an Arboricultural Report that included a site survey on 6 September 2023. The Arboricultural Report is provided in Appendix D. This assessment identified vegetation within the proposal area that may be impacted by the proposal and made recommendations on tree protection measures. It also ground-truthed the biological value of the site based on the findings of the desktop review.

The 'study area' within the Arboricultural Report is referred to as 'proposal area' throughout this section for consistency with other sections of the REF.

6.1.2 Existing environment

Vegetation and ecological communities

The proposal is situated in an urban area, in the inner west of Sydney. Native vegetation that conforms to threatened ecological communities (TEC) is not mapped within the proposal area. The proposal area is highly modified, with original vegetation mostly cleared and the environment now consisting of concrete paths, roadways, driveways, road medians and utility infrastructure including light poles and stormwater drainage.

The nearest intact TEC that is mapped as occurring is Swamp Oak Floodplain Forest of the NSW North Coast, Sydney Basin and South East Corner bioregions. This TEC is listed under the BC Act as endangered and is located about three kilometres southwest of the proposal area in an existing construction zone.

Flora

Twenty four species of threatened flora listed under both the BC Act and EPBC Act were recorded within five kilometres of the proposal. The nearest record is for Magenta Lilly Pilly (*Syzygium paniculatum*), recorded on Victoria Street, about 0.6 kilometres southeast of the proposal area.

No threatened flora is expected to occur within the proposal area as this area is highly disturbed with no available habitat in the road reserves or roadways. Further, no threatened flora was identified during surveys anywhere within or near the proposal area.

Fauna

Seventy six species of threatened fauna have been recorded previously within five kilometres of the proposal. The nearest record for threatened fauna is the Grey-headed Flying Fox (*Pteropus poliocephalus*) (listed as Vulnerable under the BC Act and EPBC Act), which has been observed about 90 metres east of the proposal area. The Grey-headed Flying Fox has also been observed about 300 metres northeast and 320 metres southeast of the proposal.

No sightings of threatened fauna within the proposal area have been recorded.

Trees

A total of 23 trees were identified within the proposal area and nearby properties (refer to Figure 6-1). These were likely to have been planted, and no hollow-bearing trees were identified within the proposal area.

Trees consisted of exotic and native Australian species, including:

- Golden Rain Tree (Kolreuteria paniculata)
- Chinese Elm (Ulmus parvifolia)
- Water Gum (Tristaniopsis laurina)
- English Ash (Fraxinus excelsior)
- Chinese Juniper (Juniperus chinensis 'Keteleeri')
- Tallow wood (Eucalyptus microcorys)
- Snow in Summer (Melaleuca linariifolia)
- Bottle Brush (Callistemon (syn. Melaleuca) 'Kings Park Special').

Most of the surveyed trees are in moderate to good condition, although in most cases, form has been affected by regular pruning, mostly to restrict canopy growth close to overhead powerlines.

Key Fish Habitat

No waterways or key fish habitat are present within the proposal area. The nearest mapped key fish habitat to the proposal area is Alexandra Canal, located about 1.7 kilometres southeast of the proposal.

6.1.3 Potential impacts

Construction

Flora

It is not expected that any threatened flora would be impacted, as none are likely to occur in the proposal area due to the highly modified and degraded habitat present. Measures would be implemented to further minimise any impacts to flora (refer to Section 6.1.4).

Weeds and plant pathogens (like Myrtle Rust) may also be spread into and from the site by the arrival and departure of construction equipment, vehicles, and workers. The extent of potential infestation by weeds and pathogens within the proposal area and broader locality is unknown, however safeguard measures would be implemented to minimise any possible risks as far as practicable (refer to Section 6.1.4).

Fauna

No hollow-bearing trees were identified within the proposal area. The vegetation is low quality and subject to disturbance impacts from nearby roads. As such, it is unlikely to be a critical resource or relied upon for the survival of any fauna, including threatened species like the Grey-Headed Flying Fox. Though the Grey-Headed Flying Fox has been recorded nearby and may utilise flowering trees in the proposal area as a food source, they are highly mobile and may travel up to 50 kilometres in a single night in search of food (DPE, 2022f). The loss of vegetation in the proposal area would have a negligible impact for this species as better-quality habitat is available in the local area, such as Camperdown Memorial Park. Therefore, an assessment of significance has not been carried out in line with Section 7.3 of the BC Act. Environmental management measures outlined in Section 6.1.4 would be implemented to minimise any potential impacts to fauna.

Construction would involve the movement of plant and equipment into and from the proposal area and raises the risk of spreading pathogens that affect fauna, like Chytrid Fungus. While there is no indication that such pathogens are present in the surrounding area, safeguards would be implemented to minimise the possibility of transmitting any pathogens and to maintain site hygiene (refer to Section 6.1.4).

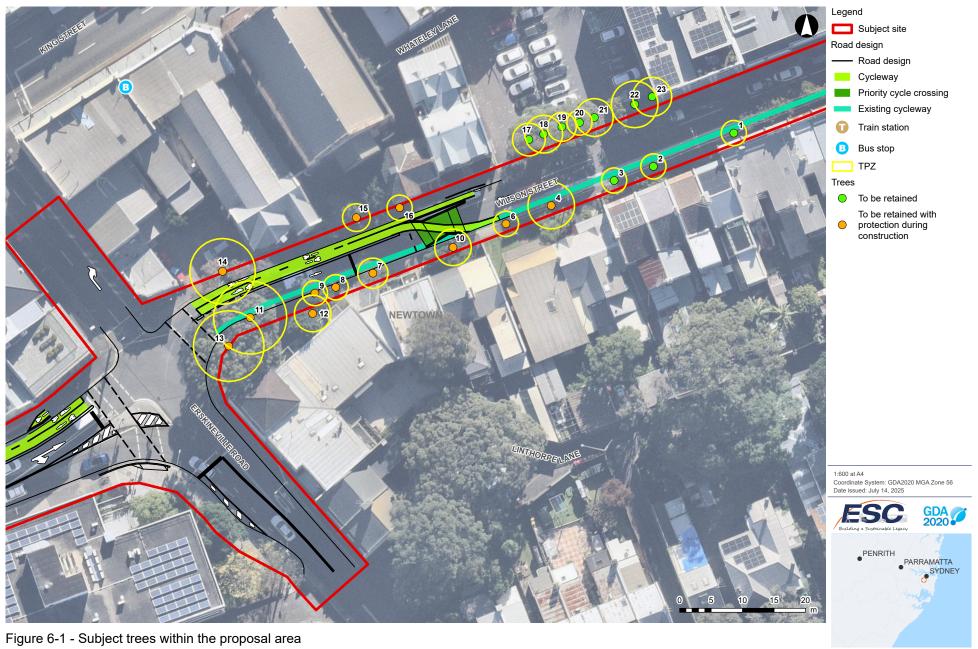
Trees

Based on the Arboricultural Report (Appendix D) tree removal would not be required (refer to Figure 6-1).

Twelve of the 23 trees within the proposal area may require protection during construction, with work either outside or marginally encroaching (less than 10 per cent) into their tree protection zones.

Encroachment would be limited to trimming of tree branches in the vicinity of the raised priority cycle crossing and street lights. As per AS 4373-2007 – Pruning of Amenity Trees, no more than 10 percent of a tree's canopy would be removed, with any pruning to be completed by a qualified arborist.

Safeguards for tree protection are provided in Section 6.1.4.



Operation

The proposal would not result in impacts to biodiversity during operation.

Conclusion on significance of impacts

The proposal is not likely result in any significant impacts to threatened species or ecological communities or their habitats, within the meaning of the *Biodiversity Conservation Act, 2016* or *Fisheries Management Act 1994* and therefore a Species Impact Statement or Biodiversity Development Assessment Report is not required.

The proposal is not likely to significantly impact threatened species, ecological communities or migratory species, within the meaning of the EPBC Act.

6.1.4 Safeguards and management measures

Table 6-1: Biodiversity safeguards and management measures

Impact	Environmental safeguards	Responsibility	Timing
Biodiversity	All tree work must be in accordance with Australian Standard AS 4373-2007, Pruning of Amenity Trees and the NSW WorkCover Code of Practice for the Amenity Tree Industry (1998).	Contactor	Pre- construction/ Construction
Biodiversity	If unexpected threatened flora or fauna are discovered, works will stop immediately and the Transport for NSW <i>Unexpected Threatened Species Find Procedure</i> in the <i>Biodiversity Guideline 2011</i> implemented.	Contractor	Construction
Biodiversity	All pathogens (such as Chytrid, Myrtle Rust and Phytophthora) will be managed in accordance with Transport's <i>Biodiversity Guidelines - Guide 7 (Pathogen Management)</i> and Department of Planning, Industry and Environment <i>Hygiene Guidelines for Wildlife</i> (DPIE, 2020).	Contractor	Construction
Biodiversity	All trees will be marked for protection. Trees would be protected in accordance with AS 4970-2009 – <i>Protection of trees on development sites</i> and may require exclusion fencing of the Tree Protection Zones.	Contractor	Construction

6.2 Socio-economic, property and land use

6.2.1 Methodology

A Socioeconomic Impact Assessment (SEIA) (May, 2024) has been prepared in accordance with the requirements of a moderate level of assessment under the *Environmental Impact Assessment Practice Note: Socio-economic assessment* (TfNSW, 2020a).

The steps to preparing the SEIA are summarised below, with detailed methodology provided in the SEIA in Appendix F.

Scoping of social issues

Scoping of potential impacts was completed based on a review of the proposal design and activities which would occur during construction and operation. This informed the understanding of potential socio-economic effects.

Findings were captured in the Scoping Checklist included in Appendix A of the SEIA.

Determining the study area

The study area for the SEIA included the communities that are most likely to experience socio-economic impacts and benefits resulting from the proposal. The study area included a:

- Local study area: area immediately surrounding the proposal area and the broader suburb of Newtown
- Regional study area: the proposal is located across both Sydney LGA and Inner West LGA. Greater Sydney is also used
 in the social baseline to compare and analyse relevant statistical data.

Preparing the socio-economic baseline

A socio-economic baseline, which establishes the current social and economic characteristics within the study area, has been prepared for the local and regional study area.

The study area baseline describes:

- An overview of the local study area including key features and local amenity
- Description of local access and connectivity
- Description of local economic and business environment
- Select demographic and economic indicators for the suburb of Newtown compared to Sydney and Inner West LGAs
- Discussion about community values.

Data to inform the social baseline has been gathered from the following sources:

- ABS Census, 2021
- Strategic documents prepared by City of Sydney Council and Inner West Council
- Strategic documents prepared by NSW Government, including relevant reports prepared by Transport for NSW
- Various online sources, including Google Maps
- Parking utilisation survey to understand existing utilitisation of parking and capacity in surrounding side streets (see Appendix G)
- Community and stakeholder engagement undertaken by Transport including businesses (see Section 5).

A full list of references used to inform the baseline and the SEIA is detailed in Section 10 of the SEIA.

Stakeholder consultation

Transport undertook community consultation for the proposal in April 2024. The Wilson Street Cycleway Consultation Report (TfNSW, 2024) and Section 5 describes the consultation activities and a summary of the issues raised.

Impact identification and assessment

The identification and assessment of potential socio-economic benefits and impacts of the proposal is based on initial scoping of potential issues, understanding of the existing socio-economic environment, outcomes of consultation and review of other technical studies and the REF.

The identified socio-economic impacts include:

- Access and connectivity
- Amenity and community values
- Economy, business and employment.

The assessment of the significance of impacts considers the level of sensitivity of receptors and the magnitude of the proposed changes based on the information available at the time:

- Sensitivity meaning how sensitive the receptor is to the proposed change
- Magnitude of the proposal referring to the scope of the proposal in that area.

Table 6-2 and Table 6-3 describe the level of sensitivity and magnitude for negative impacts respectively. The combination of sensitivity and magnitude is used to determine the level of significance of the impact and is shown in Table 6-4. Further detail is provided in Appendix F.

Table 6-2: Level of sensitivity

Sensitivity	Example
Negligible	No vulnerability and able to absorb or adapt to change.
Low	Minimal areas of vulnerability and a high ability to absorb or adapt to change.
Moderate	A number of vulnerabilities but retains some ability to absorb or adapt to change.
High	Multiple vulnerabilities and/or very little capacity to absorb or adapt to change.

Table 6-3: Level of magnitude

Magnitude	Example
Negligible	No discernible positive or negative changes caused by the impact. Change from the baseline remains within the range commonly experienced by receptors.
Low	A discernible change from baseline conditions. The tendency is that the impact is on a small proportion of receptors over a limited geographical area and mainly within the vicinity of the proposal. The impact may be short term or some impacts may extend over the life of the proposal.
Moderate	A clearly noticeable difference from baseline conditions. The tendency is that the impact is on a small to large proportion of receptors and may be over an area beyond the vicinity of the proposal. The duration may be short to medium term or some impacts may extend over the life of the proposal.
High	A change that dominates over existing baseline conditions. The change is widespread or persists over many years or is effectively permanent.

Table 6-4: Level of significance

	Magnitude				
		High	Moderate	Low	Negligible
itivity	High	High	High-moderate	Moderate	Negligible
Sensi	Moderate	High-moderate	Moderate	Moderate-low	Negligible
	Low	Moderate	Moderate-low	Low	Negligible
	Negligible	Negligible	Negligible	Negligible	Negligible

6.2.2 Existing environment

Land use

Land use within and surrounding the proposal area is governed by Sydney LEP and the Inner West LEP. Figure 4-1 identifies land uses within and surrounding the proposal, including:

- SP2 Infrastructure
- R1 General Residential
- E1 Local Centre.

King Street is the main shopping strip in Newtown and is a commercial hub with a large number of cafes, bars and restaurants (Visit Sydney, 2023). The University of Sydney is located 1.5 kilometres northeast of the proposal area in Camperdown.

There are several medical centres located near the proposal that cater for the health and medical needs of the community. Myhealth Newtown is a general practitioner located at the intersection of King Street and Eliza Street. The closest hospital, Royal Prince Alfred Hospital, is located 1.5 kilometres northeast of the proposal area.

Newtown Police Station is located on Australia Street approximately 100 metres northwest of the proposal area and operates on 24 hour seven days a week basis. The Newtown Fire Station is located next door to the Police Station and provides urban fire and rescue services to the community and has permanent staffing (Fire and Rescue NSW, 2023). There are a number of education facilities within one kilometre of the proposal area, however none within approximately 200 metres of the proposal area.

There are a range of local and district level open space and recreation sites located near the proposal that cater for the needs of communities in the regional study area. Mrs Mollie Swift Reserve is a local park on Erskineville Road, approximately 50 metres south of the proposal area. Camperdown Memorial Rest Park is located approximately 100 metres north of the proposal area and is a large recreational area for the community.

Access and connectivity

Households in Newtown have relatively low levels of car ownership, with 31.2 per cent of households without a motor vehicle as of the 2021 Census, compared to 11.1 per cent in Greater Sydney. In Newtown, 50.3 per cent of households had one motor vehicle only.

Data shows that Newtown residents are more likely to use public transport (train and bus), walk or cycle to work compared to residents in Greater Sydney, with 7.4 per cent using public transport compared to 5.5 per cent for Greater Sydney residents.

Public transport services available near the proposal include:

- Newtown train station
- Four bus stands located outside Newtown train station.

Newtown is serviced by the following bus routes:

- 422, 423, 426, 428 and 430 connecting Newtown to Sydney CBD
- 352 and 355 connecting Newtown running east to Bondi Junction
- 370 which runs north to the University of Sydney and Leichhardt, and south-east to the University of New South Wales and Coogee
- N10, N30 and N40 night service bus routes connecting Newtown to Sydney CBD.

Newtown is served by several cycle routes, including along Wilson Street, as listed in Table 6-5 (Transport for NSW, 2025).

Table 6-5: Cycle routes around Newtown

Location	
Quiet streets (a street that provides a quiet traffic environment due to low traffic volumes/speeds)	 Simmons Street Hawken Street Laura Street Commodore Street Wells Street John Street Union Street Munni Street Norfolk Street Albermarle Street Bucknell Street Campbell Street Prospect Street Margaret Street

Location	
Bicycle paths (a bicycle facility that is separated from motor vehicle traffic using a physical barrier such as a kerb)	Burren StreetWilson Street
Shared paths (a facility that is separated from motor vehicle traffic and is for shared use by people walking or bike riding. Dashed lines indicate ferries/boats that provide pedestrian and bicycle access)	 Camperdown Memorial Rest Park Whitehorse Street Angel Street Australia Street King Street

Economy and business

Wilson Street, King Street and Eliza Street are characterised by:

- Diverse restaurant options
- Retail shop fronts
- Entertainment precinct
- Medium to high density residential.

The immediate surrounds have businesses located on both sides of Wilson Street, including offices, hospitality, retail, health and medical stores. The majority of shopfronts are located on the southern side of Wilson Street, while the northern side has a small number of businesses, including a Japanese eatery, rear entry to a restaurant located on King Street and entry to a nightclub.

Transport has doorknocked all businesses located on Wilson Street during consultation for the proposal within or adjacent to the proposal area.

The top three industries of employment in Newtown are professional, scientific and technical services (17.6 per cent), health care and social assistance (12.0 per cent) and education and training (10.8 per cent) (ABS, 2021) which is relatively consistent with the top three industries of employment in the Sydney LGA and Inner West LGA.

The median weekly individual income in Newtown was \$1,309, which is slightly higher than Sydney LGA (\$1,241) and Inner West LGA (\$1,207).

Key socio-economic indicators

Based on 2021 Census data, the local study area is generally characterised by:

- A younger population, with higher proportions of adults aged between 18 to 34 years
- More people living in group and lone person households
- People living in medium and high density dwellings and retail properties
- People who experience high levels of advantage and lower levels of disadvantage
- Less people who need assistance with daily activities
- Households and individuals with relatively high incomes.

6.2.3 Potential impacts

Construction

The following socio-economic impacts during construction were identified through completion of the project scoping checklist provided in Appendix B of the SEIA Report (refer Appendix F).

Table 6-6: Access and connectivity impacts during construction

Access and connectivity					
Change as a result of the proposal	Removal of 14 parking spaces (including loading zone) on Wilson Street				
Summary of the potential impact	The proposal would require the removal of parking spaces and the loading zone on Wilson Street which is likely to affect vehicle and pedestrian access to Wilson Street for local residents. The parking study found that the proposed removal of 14 car parking spaces (which includes six 30 minute parking bays, seven unrestricted parking bays and a loading zone) along Wilson Street could be accommodated within the surrounding area during most of the surveyed periods, except a couple hours on Wednesday (11am to 1pm), Friday (1pm to 3pm) and Saturday (12pm				
	to 3pm). However the parking st area, and this also has t on Wilson Street.				
	Some local residents may rely on the seven all day car parking spaces for access to their residences. Residents and visitors would need to find alternate parking spaces in the local study area, which may result in walking a greater distance to their homes. Affected residents are likely to feel frustrated about this change, but most residents are expected to adapt over time. Given six of the 14 parking spaces are time limited to 30-minutes, removal of these spaces is less likely to reduce resident access, and more likely to potentially reduce customer access to businesses. Some residents may still rely on these spaces for quick access to their homes.				
Nature, type and duration of impact	Affected stakeholders	Sensitivity	Magnitude	Level of significa	nce
Negative Direct and indirect Long term	Users of on-street parking bays including nearby residents	Low Any residents using the unrestricted parking bays are likely to be able to adapt to the change over time. The loss of parking is permanent, however may only affect some local residents in close proximity to the proposal		Low	
Change as a result of the proposal	Partial closure of Wilson Street may impact traffic flow during the construction period				
Summary of the potential impact	Wilson Street would be partially closed at times during the construction period from 7am to 6pm Monday to Friday, 8am to 1pm Saturday over the 11 month construction period. Lane closures would occur out of hours (between 8pm to 5am Sunday to Thursday) to minimise impacts on traffic flow. The intersection of King Street/Wilson Street and Erskineville Road/Wilson Street would also be partially closed at times to facilitate upgrades to traffic control systems during stage 1 of construction. During these periods, road users may either be directed to use one lane of Wilson Street or may be directed to use a detour. This may increase travel times, causing inconvenience and frustration for some road users. However these changes would be temporary during				

Access and connectivity					
Nature, type and duration of impact	Affected stakeholders	Sensitivity	Magnitude	Level of significance	
Negative Direct Temporary	Road users	Low Most road users are expected to have minimal areas of vulnerability to absorb or adapt to change	While the changes may affect a large number of road users, they would be temporary and would be limited to the proposal area	Low	
Change as a result of the proposal	Delays to public bus ser	vices due to constructi	ion activities		
Summary of the potential impact	As discussed, bus route 355 which connects Marrickville to Bondi Junction travels along Wilson Street. The partial closure of King Street/Wilson Street intersection is likely to disrupt several bus routes which travel along King Street. However construction has been staged to avoid daytime traffic impacts and partial road closures would occur during out of hours periods, which would affect less bus services than during peak periods. These disruptions may slightly increase travel times for buses during these times, which may inconvenience bus passengers, and cause frustration for some. Residents of Newtown have a high reliance on public transport for travel. Public transport is also often relied on by vulnerable community members, such as younger people, people who experience disability, older people and people with mobility issues, and people on low incomes.				
Nature, type and duration of impact	Affected stakeholders	Sensitivity	Magnitude	Level of significance	
Negative Direct Temporary	Bus passengers	Moderate Bus passengers are likely to include vulnerable people who may be less able to adapt to change	Negligible Changes are expected to be temporary and limited to a small geographical area	Negligible	
Change as a result of the proposal	Changes to pedestrian and bicycle access				
Summary of the potential impact	During construction, closures of existing footpaths or pedestrian crossings on King Street, Wilson Street, and Erskineville Road would be required. There would be pedestrian detours and temporary ramps installed during works to facilitate pedestrian crossing. Lane closures and detours will affect bike riders using of the existing cycleway on Wilson Street east of Erskineville Road, as well as access to Wilson Street within the proposal area. Detours will be put in place during the construction phase and will result in potential delays and longer travel times for people bike riding. Detours may cause inconvenience and frustration for some people walking and bike riding, and some individuals may feel less safe due to the presence of construction works and access changes. A Traffic management plan would include measures such as signage to guide people walking and bike riding to appropriate detours and ramps, as well as lighting.				

Access and connectivity					
Nature, type and duration of impact	Affected stakeholders	Sensitivity	Magnitude	Level of significance	
Negative Direct Temporary	People walking and bike riding	Moderate Some people walking and bike riding may have a number of vulnerabilities and some ability to adapt to changes	Low Changes are expected to be temporary and limited to a small geographical area	Moderate to low	

Table 6-7: Amenity and character impacts during construction

Amenity and character					
Change as a result of the proposal	Increased noise, vibration and dust, and visual impacts, due to construction activities				
Summary of the potential impact	may reduce amenity in the affect local communities,	ne area surrounding the p such as businesses, nearl	and dust, together with visual changes due to construction activities, e area surrounding the proposal area during construction. This may such as businesses, nearby residents, and people walking and bike mpacts to businesses are discussed in Table 6-10.		
	Increased noise, vibration and dust may lead to residents in close proximity changing their behaviours, spending more time indoors and closing windows to prevent excess noise and entering their property. During the nighttime, residents in close proximity may experience increased noise and vibration, which can disturb people's night-time peacefulness, relaxatisleep, which can affect some people's wellbeing and quality of life.				
	Visual changes would include views of construction activities. These visual changes in some people's enjoyment of views from their properties and their surrounds. However, the highly urbanised location of the proposal, most residents are expected to adapt changes, which would primarily be temporary during construction. Longer term visual are discussed in Table 6-10. These impacts would be temporary, with noise and vibration also expected to be interested to depending on the activities. Increased noise, vibration and dust would be managed to Construction Environment Management Plan, however even with management, it is some residents may experience frustration.				
	While people walking and bike riding may also experience decreased amenity while trave through the area, this would be temporary during construction, and is not expected to comost people walking or bike riding who would be able to move on past the construction activities.				
Nature, type and duration of impact	Affected stakeholders Sensitivity Magnitude Level of significance				
Negative Direct Short to long term	Local community including residents in close proximity and people walking and bike riding	Low to moderate Some community members may have minimal or a number of vulnerabilities, with a high or some ability to absorb or adapt to changes in amenity	Low Changes are expected to be temporary and limited to a small geographical area	Moderate to low	

Table 6-8: Economy, business and employment impacts during construction

Economy, business and employment					
Change as a result of the proposal	Combined changes to parking, traffic, and access due to construction activities may reduce local amenity surrounding the proposal area				
Summary of the potential impact	During construction, the combined effects of reduced access and amenity due to loss of parking and construction activities may deter some people from visiting some businesses in the immediate area. Reduced amenity is less likely to affect retail and other businesses but could affect restaurants if customers perceive construction activities to reduce their enjoyment of their surroundings. This may be a concern to business operators if they perceive a potential reduction in customer patronage and revenue. This may result in stress and anxiety for some individuals. Business operators and employees may also experience disruptions due to access and amenity changes, which may cause inconvenience and frustration.				
Nature, type and duration of impact	Affected stakeholders Sensitivity Magnitude Level of significance				
Negative Direct Temporary	Businesses on Wilson Street and other businesses in close proximity	Moderate Businesses are likely to be sensitive to but have some ability to adapt to potential reduction in customer patronage and revenue, and disruptions affecting staff	Moderate Changes are expected to be temporary and limited to a small geographical area	Moderate	
Change as a result of the proposal	Potential for minor increase workforce	ase in revenue for local bu	isinesses due to presence	of construction	
Summary of the potential impact	The presence of construction workers may lead to a minor, temporary increase in demand for local food and beverages and other retail services close to the site of the proposal. This may lead to a minor increase in revenue for some local businesses, particularly those located in the immediate surrounds.				
Nature, type and duration of impact	Affected stakeholders	Sensitivity	Magnitude	Level of significance	
Positive Direct Temporary	Businesses in close proximity to proposal area	Moderate Businesses are likely to be sensitive to potential increases in customer patronage	Negligible Changes are expected to be temporary	Negligible (Positive)	

Operation

The following socio-economic impacts during operation were identified through completion of the project scoping checklist provided in Appendix B of the SEIA Report (refer Appendix F).

Table 6-9: Access and connectivity impacts during operation

Access and connectivity					
Change as a result of the proposal	Improved active transport connectivity and safety				
Summary of the potential impact	The proposal would improve connectivity and safety for bike riders who travel through Newtown, as it would connect a missing link between the existing cycleway on Wilson Street. This would support increased and safer connectivity for biker riders, as they would be able to continue to travel along Wilson Street on a separated cycleway, whilst supporting active and healthy lifestyles in the local and regional communities. During consultation, community noted that the cycle way would provide much needed safety for people riding bikes through the areas.				
Nature, type and duration of impact	Affected stakeholders Sensitivity Magnitude Level of significance				
Positive Direct Long term	People bike riding in the local and regional community	Moderate Bike riders are expected to be sensitive to these changes	Moderate This would be a permanent change which would be experienced by bike riders in the local and regional area	Moderate (Positive)	

Table 6-10: Amenity and character impacts during operation

Amenity and character				
Change as a result of the proposal	Changes to visual amenity			
Summary of the potential impact	The proposal would result in long term visual changes, which may reduce some people's enjoyment of views from their properties and their surrounds. These changes would result from operation of the bi-directional cycleway. As discussed in Table 6-7, some community members may experience reduced enjoyment of views, which would start to occur during construction. Landscaping for the proposal will be designed in line with Transport's Landscape design guideline (2023), which is expected to support improved views of the proposal area. Overall, it is expected that most community members would adapt to these visual changes over time.			
Nature, type and duration of impact	Affected stakeholders	Sensitivity	Magnitude	Level of significance
Negative Direct Long term	Local community including residents in close proximity and people walking and bike riding	Low Some community members may have minimal vulnerabilities, with high ability to adapt to changes in amenity	Low Changes would be discernable and limited to the vicinity of the proposal	Low (Negative)

Change as a result of the proposal	Improved streetscape along Wilson Street			
Summary of the potential impact	The removal of the loading zone and car parking from Wilson Street and inclusion of the cycleway is also expected to enhance the overall visual amenity of the area, which may support a more attractive and vibrant place for local residents, businesses and the broader community. This would contribute to and enhance community values associated with accessibility, sustainability and liveability.			
Nature, type and duration of impact	Affected stakeholders	Sensitivity	Magnitude	Level of significance
Positive Direct Long term	Local communities including businesses and residents	Moderate Local communities are expected to be sensitive to these changes	Moderate The changes would be long term and would be noticeable for local communities, particularly businesses and residents in the immediate area	Moderate (Positive)

Table 6-11: Economy, business and employment impacts during operation

Economy, business and	Economy, business and employment		
Change as a result of the proposal	Removal of one loading zone on Wilson Street		
Summary of the potential impact	The removal of the loading zones and parking spaces on Wilson Street would affect direct access to the businesses located on Wilson Street, and potentially other businesses in close proximity. The businesses located along the proposal area include food and drink, beauty and wellness, retail and fashion, music and entertainment, arts and craft and a fitness business. According to Transport for NSW consultation, many of these businesses, and other nearby businesses, rely on the Wilson Street loading zone for deliveries. Transport for NSW consultation also found that the 30-minute parking spaces are also often used by businesses for loading. The parking study utilisation surveys undertaken for nearby loading zones (including along Eliza		
	Street, Brennon Lane, Mary Street and King Street) found that the loss of general parking spaces could not be accommodated on the surrounding streets between 11am to 1pm on Wednesday, 1pm to 3pm on Friday and 12pm to 3pm on Saturday. However, outside these hours, there is generally sufficient capacity to accommodate the loading zone demand from Wilson Street. These alternate loading zones range from 50 to 250 metres in distance from Wilson Street and include:		
	Eliza Street – two spaces		
	Brennan Lane – two spaces		
	King Street – seven spaces		
	Mary Street – four spaces.		
	Despite the findings of the parking study, Transport for NSW consultation with local businesses found there is general concern from businesses about the removal of the loading zone.		
	It is likely that business owners/operators may be inconvenienced due to the loss of the loading zone, as they would have to adapt to using other nearby loading zones for business deliveries. This may increase the required time to transport goods to and from their businesses, which may cause frustration for business staff.		
	The parking study recommends that the 30-minute time restrictions are enforced at the loading zones in the vicinity of the proposal, to improve vehicle parking turnover and allow for more loading activities. This could potentially provide additional capacity for loading in the area, which could help offset the proposed removal of the loading zone on Wilson Street.		

Economy, business and employment				
Nature, type and duration of impact	Affected stakeholders	Sensitivity	Magnitude	Level of significance
Negative Direct Long term	Businesses on Wilson Street in the proposal area, and other businesses in close proximity	High Businesses on Wilson Street rely on the loading zone for business deliveries and are sensitive to the loss of the loading zone	Moderate Removal of the loading zone is permanent	High to moderate
Change as a result of the proposal	Removal of 14 parking sp	aces on Wilson Street		
Summary of the potential impact	The removal of parking spaces on Wilson Street would affect direct access to the businesses located on Wilson Street, and potentially other businesses in close proximity. Transport for NSW consultation with local businesses found there is general concern from businesses about removal of the parking spaces and reduced customer access. Consultation indicated that many businesses rely on these parking spaces to facilitate customer access, with some businesses indicating these parking spaces are particularly important for mobility-impaired or older customers. Businesses which rely on passing trade (such as food and beverage, and retail) may be more affected by removal of these parking spaces, as customers may be less likely to drop into the business if they are unable to find a park in close proximity. Businesses which rely on customer appointments (such as beauty and wellness) may be less likely to be affected, as their customers would be confirmed. However these customers would need to find alternate parking spots, and potentially walk a further distance from their car to their appointment. There is potential for reduced customer access to result in reduced revenue for some businesses, which may lead to stress and anxiety for some business operators. Given the proposal area is already a busy area and the parking spaces are often highly utilised, it is likely that most customers would already be somewhat used to accessing other parking spaces to access these businesses. It is expected that most customers and businesses would adapt to this change over time.			
Nature, type and duration of impact	Affected stakeholders Sensitivity Magnitude Level of significance			
Negative Direct Long term	Businesses on Wilson Street and other businesses in close proximity	High Businesses rely on the parking spaces for customer access, and are sensitive to the loss of customer parking	Moderate Removal of the parking spaces is permanent	High to moderate

6.2.4 Safeguards and management measures

Table 6-12: Socio economic safeguards and management measures

Impact	Environmental safeguards	Responsibility	Timing
Socio-economic	A Communication Plan (CP) will be prepared and implemented as part of the CEMP to help provide timely and accurate information to the community during construction. The CP will include (as a minimum): • Mechanisms to provide details and timing of	Contractor	Pre-construction
	proposed activities to affected stakeholders, including changed traffic and access conditions		
	 Toll free number and email address for enquiries and complaints 		
	 How the project webpage will be maintained for the duration of the proposal 		
	A complaint's handling procedure		
	 Consultation activities to be carried out. The cp will be prepared in accordance with the community involvement and communications resource manual (RTA, 2008). 		
Socio-economic	On-going communication and consultation with owners of impacted businesses would occur. This would include working with the business owners to manage and plan project construction activities and delivery to minimise impacts on their business operations.	Contractor	Pre-construction
Socio-economic	Opportunities for Aboriginal employees and procurement will be prioritised in accordance with the Aboriginal Procurement Policy (NSW Government, 2021) and Aboriginal Participation Strategy (Transport for NSW, 2023).	Contractor	Detailed design / pre- construction / construction

Other safeguards and management measures to address socio-economic impacts are identified in Section 6.3 (parking), Section 6.4 (traffic and access), Section 6.5 (noise and vibration), and Section 6.9 (landscape and visual amenity).

6.3 Parking

A Parking Impact Assessment (PIA) has been prepared for this proposal and is available in Appendix G.

6.3.1 Methodology

Parking survey

The PIA was informed by data collected on parking and loading zone utilisation both within and in proximity to the proposal area. Parking utilisation was determined by:

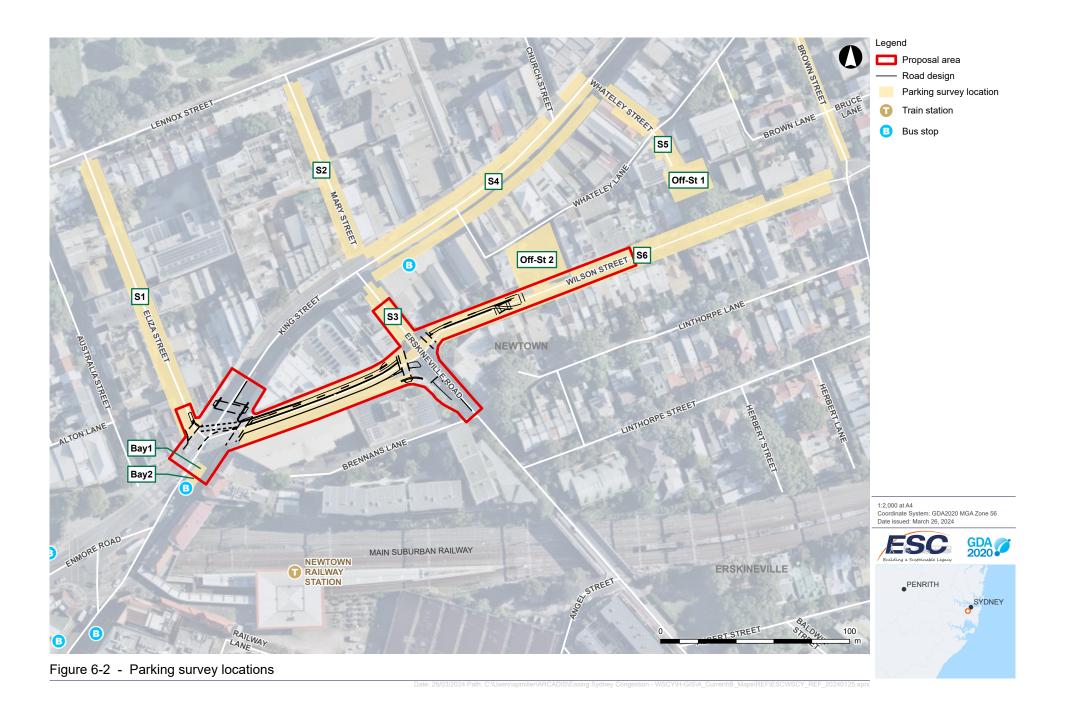
- The inventory of total available kerb side parking spaces (number of spaces and parking restriction)
- Utilisation of parking spaces (occupancy) at hourly intervals within segments of the on-street parking provision
- An assessment of the turnover of spaces (duration of stay of parked vehicles). It should be noted that the duration of stay survey was conducted hourly, so this data is limited in terms of accuracy of actual vehicle stay times.

The PIA provided a street characteristic analysis of the following streets, all within 200 metres from the proposal:

- Eliza Street
- Wilson Street
- Erskineville Road
- Mary Street
- King Street (Princes Highway between Mary Street and Whateley Street)
- King Street outside Bank Hotel (for a loading zone dwell time survey only)
- Whateley Street.

These streets were assessed using a parking survey analysis. This involved reviewing parking, loading and stopping restrictions based on signage, and observing parking utilisation and duration of stay for vehicles. These metrics were used to determine the potential impact of the proposal on parking and loading in each street, and identify where existing parking and loading capacity exists within the study area.

The areas surveyed are shown in Figure 6-2.



Surveys were conducted on Wednesday 19 July, Friday 15 September, Saturday 16 September, and Wednesday 20 September 2023. The time periods surveyed are summarised in Table 6-13.

Table 6-13: Parking survey effort

Date of survey	Time period
Wednesday 19 July 2023	07:00 – 19:00 (12hrs)
Friday 15 September 2023	07:00 – 19:00 (12hrs)
Saturday 16 September 2023	07:00 – 19:00 (12hrs)
Wednesday 20 September 2023	09:00 – 15:00 (6hrs)

6.3.2 Existing environment

A summary of the existing parking conditions and survey results for locations within and surrounding the proposal area are outlined below and in Figure 6-3.



Figure 6-3: Parking characteristics within and surrounding the proposal area

Existing parking and utilisation

Wilson Street

The summary of existing parking conditions and survey results for Wilson Street is provided in Table 6-14. Based on survey results, parking and loading zones in this area are generally highly utilised.

Table 6-14: Wilson Street parking characteristics and utilisation

Wilson Street	Provision	Utilisation
Parking	Wilson Street features parking zones only on the northern side of the street. Within the study area, there are eleven unrestricted car parking spaces and eight unrestricted motorbike parking spaces. There are sixteen two-hour limit (8am to 10pm, Monday to Friday) car parking spaces and seven 30-minute limit (9:30am to 6pm, Monday to Friday) car parking spaces.	Between King Street and Erskineville Road parking occupancy was at 80 per cent or higher during most time periods. Saturday had the highest utilisation (greater than 100 per cent, indicating high demand). The duration of stay data indicated a significant amount of illegal parking with a turnover time as high as 11.5 hours in a 30-min parking zone during the survey days. Parking utilisation on Wednesday, Friday and Saturday are shown from Figure 6-4 and Figure 6-5. Between Erskineville Road and Brown Street, parking occupancy was at 80 per cent or higher during most time periods. Unrestricted parking was almost fully utilised throughout the day, with the average duration of stay around eight hours. Parking utilisation on Wednesday, Friday and Saturday is shown in Figure 6-6. Time restricted parking east of Erskineville Road experienced
		highest demand between 10am and 7pm.
Loading zone	There is one loading zone, about 12 metres in length, located on the north side of Wilson St, adjacent to the intersection with King Street.	On Wednesday, the loading zone was used mainly between 7am and 2pm. Duration of stay for four of the five vehicles was limited to one hour, with the remaining vehicle staying for two hours.
		On Friday, the loading zone was utilised between 10am and 5pm
	The loading zone is restricted to 9:30am to 6pm, Monday to Friday. Outside of these hours the loading	with higher usage between 2pm and 5pm. Duration of stay was primarily 30 minutes, with the longest duration of stay 2.5 hours.
	zone provides unrestricted parking.	On Saturday, the loading zone (functioning as unrestricted parking) was fully utilised.
		Loading zone utilisation on Wednesday and Friday are shown from Figure 6-7 and Figure 6-8.

The parking characteristics of Wilson Street are shown in Figure 6-9.



Figure 6-4: Parking utilisation of no stopping/30-minute parking zone on Wilson Street (west of Erskineville Road) on Wednesday

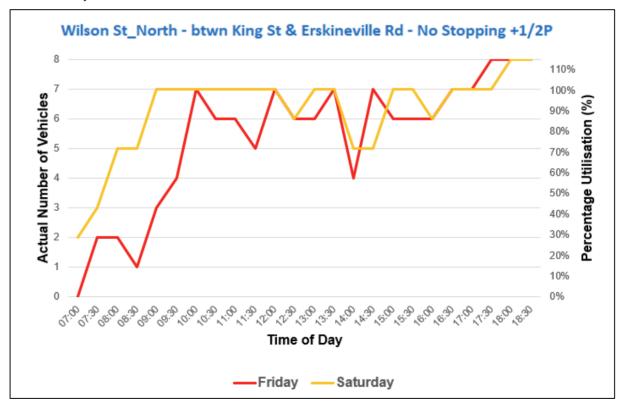


Figure 6-5: Parking utilisation of no stopping/30-minute parking zone on Wilson Street (west of Erskineville Road) Friday and Saturday

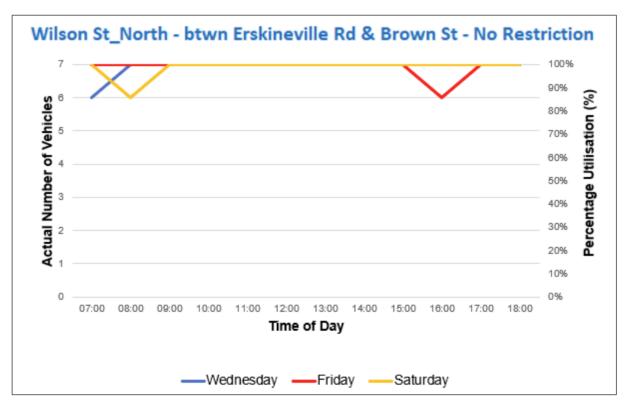


Figure 6-6: Parking utilisation of unrestricted parking on Wilson Street (east of Erskineville Road) on Wednesday, Friday and Saturday (proposed to be removed)



Figure 6-7: Parking utilisation of loading zone on Wilson Street on Wednesday



Figure 6-8: Parking utilisation of loading zone on Wilson Street on Friday

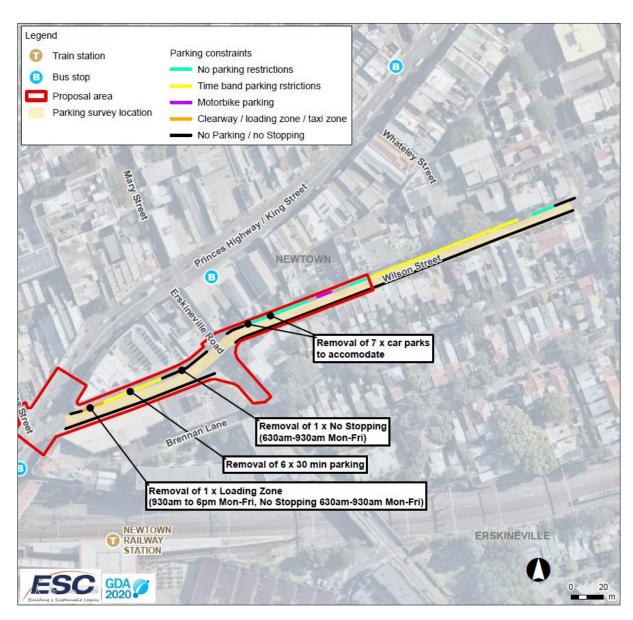


Figure 6-9: Wilson Street parking characteristics

Eliza Street

The summary of existing parking conditions and survey results for Eliza Street is provided in Table 6-15. Based on survey results, the parking zone is moderately utilised, and the loading zone operates with moderate to high utilisation.

Table 6-15: Eliza Street parking characteristics and utilisation

Eliza Street	Provision	Utilisation
Parking	On the eastern side of Eliza Street there are ten 2-hour time restricted car parking spaces (8am to 10pm).	Generally an occupation rate of about 70 per cent, increasing to full occupation on Friday at 1pm.
Loading zone	One loading zone with two car spaces is provided on the eastern side of Eliza Street. The loading zone is limited to 6am to 10pm Monday to Friday and 6am to 5pm Saturday and Sunday.	On Friday, the loading zone operated near capacity. On Wednesday and Saturday, at least one space was available at all times surveyed except for 3pm on Wednesday.

The parking characteristics of Eliza Street are shown in Figure 6-10.

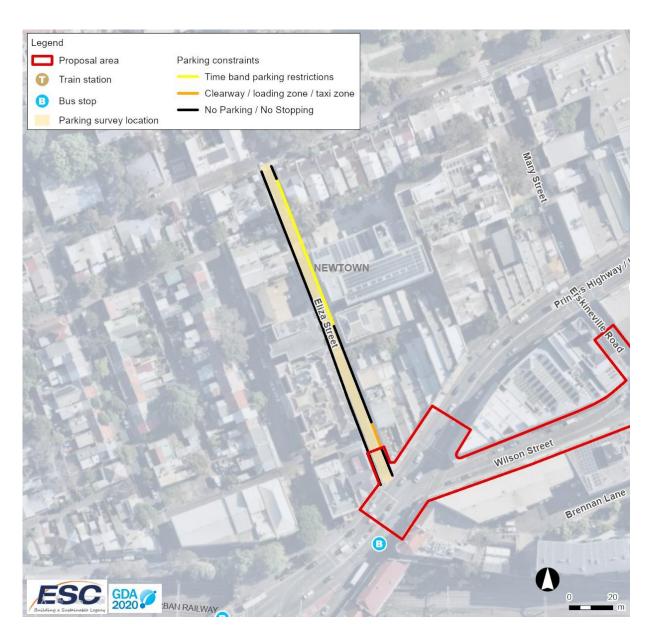


Figure 6-10: Eliza Street parking characteristics

King Street

The summary of existing parking conditions and survey results for King Street is provided in Table 6-16. Based on survey results, parking and loading zones in this area are moderately utilised. The loading zone outside the Bank Hotel was frequently visited with a higher turnover of vehicles and lower dwell time.

Table 6-16: King Street parking characteristics and utilisation

King Street	Provision	Utilisation
Parking	The north side of King Street has limited timed parking: • Four spaces that are 4-hour limited parking (5:30pm to 10:30pm Monday to Friday, and 8am to 10pm Saturday, Sunday and Public Holidays).	On the north side of King Street, parking zone occupation on Wednesday and Friday is near capacity between 10am and 3pm. On Saturday, the parking zone was fully occupied from 11am. On the south side of King Street, when parking is permitted, occupancy of parking spaces was at or below 70 per cent for each survey day.

King Street	Provision	Utilisation
	Eleven spaces that are both 1-hour limited parking (10am to 3:30pm Monday to Friday) and 4-hour limited parking (5:30pm to 10:30pm Monday to Friday, and 8am to 10pm Saturday, Sunday and Public Holidays) The south side of King Street has two car spaces that are 4-hour limited parking (7pm to 12am Sunday to Thursday, 8am to 7pm Saturday, Sunday and Public Holidays).	
Loading zone	Between Whateley Street and Whateley Lane: North side of King Street: four loading zone spaces available between 10am and 3:30pm Monday to Friday. South side of King Street: two loading zone spaces available between 8:30am and 3pm Monday to Friday. Loading zone outside Bank Hotel: There is one loading zone with two vehicle spaces that operates on Wednesdays between 9am and 3pm.	Between Whateley Street and Whateley Lane: On the north side of King Street, the loading zone reached 40-60 per cent utilisation. The loading zone does not operate on weekends. On the south side of King Street, the loading zone operated below full capacity, with at or below 60 per cent occupancy. Loading zone outside Bank Hotel: A survey of one Wednesday between 9am and 3pm was conducted to understand the usage rate and dwell time of vehicles utilising the parking zone. Fourteen vehicles utilised the parking zone over a six hour period, with an average dwell time of seven minutes. There was a two-hour period between 12pm and 2pm where the loading zone was unoccupied. Usage of the loading zone was primarily by commercial vehicles.

The parking characteristics of King Street are shown in Figure 6-11.



Figure 6-11: King Street parking characteristics

Mary Street

The summary of existing parking conditions and survey results for Mary Street is provided in Table 6-17. Based on survey results, parking and loading zones in this area are generally highly utilised.

Table 6-17: Mary Street parking characteristics and utilisation

Mary Street	Provision	Utilisation
Parking	On the western side of Mary Street there are four 2-hour limited parking spaces, from 8am to 10pm. There is one unrestricted parking space. No parking is permitted on the eastern side of Mary Street.	On Friday and Saturday, the 2-hour parking zone was occupied up to 80 per cent during the survey period, with one space generally available. On Wednesday, between 9am and 1pm the parking zone was fully occupied. The unrestricted parking space was fully occupied during most of the survey period.
Loading zone	On the western side of Mary Street there are four loading zone spaces that operate between 8:30am to 3:30pm, Monday to Friday.	On the Saturday, the loading zone was generally fully occupied. On Wednesday and Friday, occupation of spaces was varied with a single hour of full occupancy on Wednesday. On Friday, the occupation of the loading zone ranged between 20 per cent and 80 per cent.

The parking characteristics of Mary Street are shown in Figure 6-12.



Figure 6-12: Mary Street parking characteristics

Whateley Street

The summary of existing parking conditions and survey results for Whateley Street is provided in Table 6-18. Based on survey results, parking zones in this area are generally highly utilised.

Table 6-18: Whateley Street parking characteristics and utilisation

Whateley Street	Provision	Utilisation
Parking	On the west side of Whateley Street there are three 30-minute parking spaces, in operation between 8:30am and 6pm Monday to Friday, and	The 30-minute limited parking spaces were heavily utilised during the survey period, with between 60 and 100 per cent occupation between 8am and 6pm.
	8:30am to 12:30pm Saturday and Sunday. On the east side of Whateley Street, there are no parking provisions.	The Council car park had variable utilisation, with peak periods of usage around 12pm to 3pm. During other times, the car park operated at around 50 per cent capacity.

Whateley Street	Provision	Utilisation
	At the southern end of Whateley Street there is a ticketed 2-hour limited car park operated by Council. In the car park there are fourteen car spaces, two of which are disabled parking spaces.	
Loading zone	There are no loading zones provided on Whateley Street.	N/A

The parking characteristics of Whateley Street are shown in Figure 6-13.



Figure 6-13: Whateley Street parking characteristics

Brennan Lane

The summary of survey results for Brennan Lane is provided in Table 6-19. Based on survey results, the loading zone in this area are generally highly utilised in the morning.

Table 6-19: Brennan Lane parking characteristics and utilisation

Brennan Lane	Provision	Utilisation
Parking	There are no parking zones on Brennan Lane in the study area.	N/A
Loading zone	There is one loading zone with two spaces provided on the south side of Brennan Lane. The loading zone operates at all hours.	The loading zone was fully occupied until 11am on Saturday, after which the loading zone was not occupied until 5pm. The loading zone was fully occupied until 2pm on Friday, after which utilisation ranged between 0 per cent and 50 per cent.

The parking characteristics of Brennan Lane are shown in Figure 6-14.



Figure 6-14: Brennan Lane parking characteristics

6.3.3 Potential impacts

Construction

Parking

Parking on Wilson Street, between King Street and Brown Street, would be impacted during construction of the proposal (refer to Figure 6-15). Seven unrestricted parking spaces and six 30-minute parking spaces would be removed to permit construction of the bi-directional cycleway. These parking spaces would not be reinstated.

Access to an existing Council carpark on Wilson Street, about 80 metres east of the intersection with Erskineville Road, would be impacted due to construction works such as pavement re-sheeting. Construction phasing in this area would be optimised to minimise the duration of impact on access to the Council carpark. This car park is also accessible from Whateley Lane; however this lane is narrow and may not be suitable for all vehicle types. The construction program is relatively short term (11 months) and access to this parking area would be reinstated once the pavement re-sheeting in this area is complete.

Loading zones

The loading zone on Wilson Street would be removed as part of the proposal to allow for the construction of the cycleway (refer to Figure 6-15). This would result in impacts to businesses in the vicinity, as delivery drivers would be required to utilise loading zones further away and may reduce operational efficiency.

Alternative existing loading zones are located within 200 metres of the Wilson Street loading zone (to be removed), including on Eliza Street, King Street, Mary Street and Brennan Lane (refer to Figure 6-15).

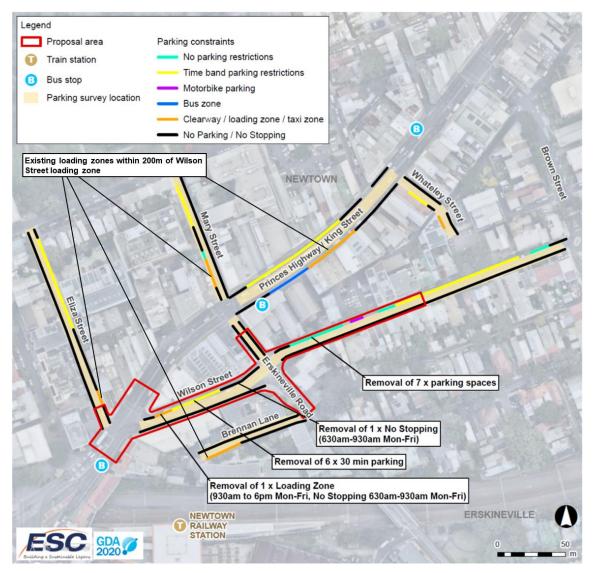


Figure 6-15: Parking proposed for removal and existing alternative loading zones surrounding the proposal area

Operation

Parking

Seven unrestricted parking spaces and six 30-minute parking spaces would be permanently removed to permit development of the bi-directional cycleway along the north side of Wilson Street.

The PIA prepared for the proposal identified and assessed parking provisions on nearby streets and concluded that for most time periods, existing parking provisions in the area surrounding the proposal would be able to absorb an additional thirteen vehicles.

However, parking zones were observed to operate at full capacity, resulting in parking shortfalls, during the following periods:

- Wednesday from 11am and 1pm shortfall of seven parking spaces (refer to Figure 6-16)
- Friday from 1pm and 3pm shortfall of four parking spaces (refer to Figure 6-17)
- Saturday from 12 noon and 3pm shortfall of nine parking spaces (refer to Figure 6-18).

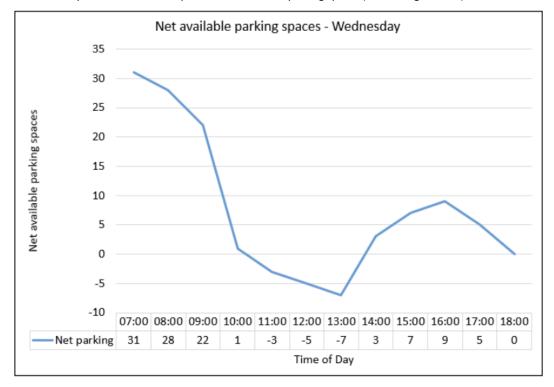


Figure 6-16: Net available parking spaces on Wednesday



Figure 6-17: Net available parking spaces on Friday

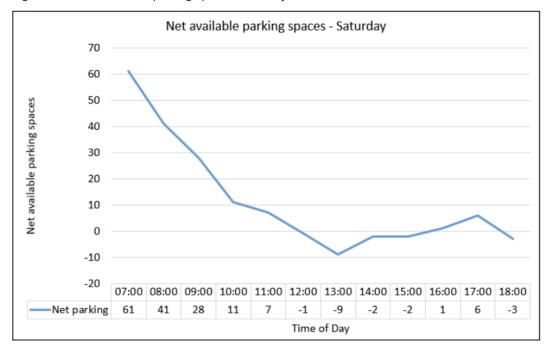


Figure 6-18: Net available parking spaces on Saturday

Loading zones

One loading zone, about 12 metres in length, would be permanently removed for the development of the bi-directional cycleway along the north side of Wilson Street. The loss of this loading zone would impact the direct access to the businesses along Wilson Street by delivery vehicles. The PIA for this proposal has considered the existing surrounding loading zones within 200 metres of the proposal area, and provides the following conclusions based on the results of net available loading zone spaces (refer to Figure 6-19 and Figure 6-20):

There is existing sufficient capacity in nearby loading zones to offset the loading zone on Wilson Street. During the
Wednesday survey period, a deficit of one loading zone space was observed at 8am. It was determined that this
parking space could be reaccommodated in the loading zone on Brennan Lane which was not surveyed on that day.

 Provision of a new 12 metre loading zone off Erskineville Road, between King Street and Wilson Street (operating offpeak, between Monday to Friday 10am to 3.30pm) would provide a loading zone within a suitable walking distance from the impacted businesses on Wilson Street to offset the loading zone removed.

Given the existing spare capacity of nearby loading zones (including King Street, Eliza Street, Brennan Lane and Mary Street) as shown in Figure 6-19 and Figure 6-20 and provision of a new loading zone off Erskineville Road, between Wilson Street and King Street, impacts resulting from the loss of the loading zone would be minimised.



Figure 6-19: Net available loading zone spaces on Wednesday

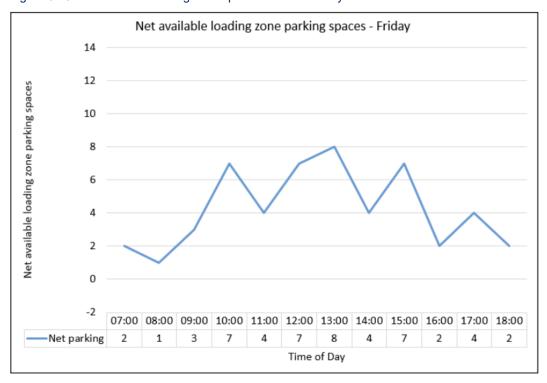


Figure 6-20: Net available loading zone spaces on Friday

6.3.4 Safeguards and management measures

Impacts to parking associated with construction and operation of the proposal would be managed in accordance with the safeguards and management measures in Table 6-26:.

6.4 Traffic and transport

6.4.1 Methodology

A review of the road network, public transport, cycling and pedestrian facilities surrounding the proposal was undertaken, with the findings detailed in the section below.

An Alternate Route Assessment (Sustain JV, 2025) (refer to Appendix H) was also undertaken to identify the potential impacts of implementing a vehicle left turn ban from Wilson Street (eastbound) into Erskineville Road (northbound), as described in Section 3.1. The assessment utilised peak hour traffic volumes observed in survey data to identify the likely volume of re-routed traffic for both light and heavy vehicles accessing Erskineville Road, between Wilson Street and King Street.

Traffic surveys were conducted at the intersection of Wilson Street and Erskineville Road on Tuesday 12 March 2024 during the following periods:

- 6am–9am
- 4pm-7pm.

To assess the travel time and distance of alternative access routes, the following data sources were used:

- Compass IoT Origin-destination data and travel time information
- Google Maps Typical traffic data and travel time information.

6.4.2 Existing environment

Road network

King Street, Wilson Street (between King Street and Erskineville Road) and Erskineville Road are designated classified State Roads. King Street forms part of the Princes Highway, which is the main road connecting Sydney and Wollongong, extending south to the Victorian border. Table 6-20 and Figure 6-21 provides further detail on key roads surrounding the proposal area.

Table 6-20: Characteristics of key surrounding roads

Road	Carriageway	Speed limit	Freight route
Erskineville Road/ Copeland Street/ Swanson Street (State Road)	 South of Wilson Street: Six to 13 metre-wide carriageway One lane in each direction. North of Wilson Street: Six metre-wide carriageway Two northbound lanes. 	40 km/h	Other state road (Transport metropolitan road freight hierarchy)
Wilson Street (State Road)	 East of Erskineville Road: 6.8 metre-wide carriageway One eastbound lane. West of Erskineville Road: 8.3 metre-wide carriageway 	40 km/h	Not a freight route (Transport metropolitan road freight hierarchy) No truck restriction to the east of Erskineville Road

Road	Carriageway	Speed limit	Freight route
	One lane in each direction.		
King Street (State Road)	13.8 metre-wide carriagewayTwo lanes in each direction.	40 km/h	Tertiary freight route (Transport metropolitan road freight hierarchy)
Enmore Road (State Road)	11.6 metre-wide carriagewayTwo lanes in each direction.	40 km/h	Tertiary freight route (Transport metropolitan road freight hierarchy)
Sydney Park Road (State Road)	 12.2 metre-wide carriageway Two-west bound lanes One eastbound lane (east of Mitchell Road) and two eastbound lanes (west of Mitchell Road). 	40 km/h	Secondary freight route (Transport metropolitan road freight hierarchy)
Mitchell Road (State Road/ Local Road)	 11.6 metre-wide carriageway Two southbound lanes One northbound lane (south of Huntley Street) and two northbound lanes (north of Huntley Street). 	50 km/h	Not a freight route (Transport metropolitan road freight hierarchy) 3 tonne load limit between 7pm and 6am
Enmore Road/ McEvoy Street (State Road)	 21.1 metre-wide carriageway Generally, two lanes in each direction (three lanes each near the intersection with Sydney Park Road). 	60 km/h	Secondary freight route (Transport metropolitan road freight hierarchy)
Fountain Street (State Road)	13.1 metre-wide carriagewayTwo lanes in each direction.	50 km/h	Not a freight route (Transport metropolitan road freight hierarchy)

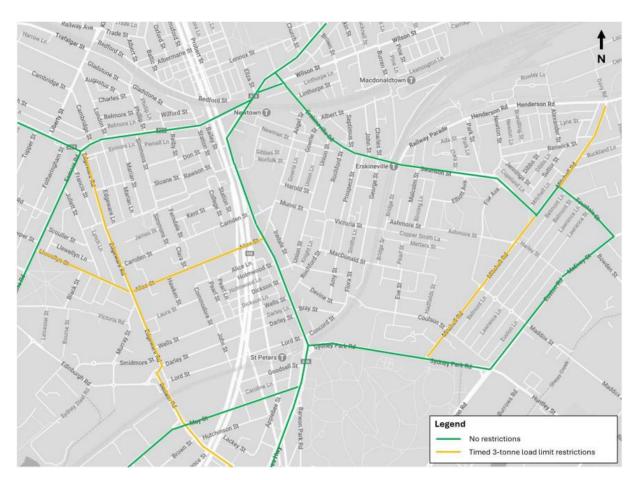


Figure 6-21: Key surrounding roads without permanent three tonne load limit restrictions

Traffic surveys, undertaken, at the intersection of Wilson Street and Erskineville are provided in Table 6-21 (total demand for Wilson Street west approach) and Table 6-22 (total left turn demand).

Table 6-21: Total survey traffic volumes (all movements) - Wilson Street west approach

Peak period	Total	Light vehicles	Heavy vehicles
AM total	2,081	1,998 (96%)	83 (3%)
PM total	2,596	2,556 (98%)	40 (2%)

Table 6-22: Left turn survey traffic volumes from Wilson Street

Peak period	Total	Light vehicles	Heavy vehicles
AM total	13	13 (100%)	0 (0%)
PM total	40	39 (98%)	1 (2%)

Analysis of the surveyed left turn demand compared to the total traffic volumes for Wilson Street identified the following:

- The number of left turning vehicles made up a small proportion of the daily traffic demand at the intersection. Left turning traffic was surveyed at less than two percent of the total intersection traffic demands during the AM and PM peak periods
- The left turning traffic was nearly all observed to be light vehicles (greater than 98 percent), with heavy vehicles representing a low proportion of total traffic demand at the intersection during these periods
- Low/moderate traffic volumes currently undertake the left turn movement from Wilson Street (eastbound) into Erskineville Road (northbound), primarily during the PM survey period.

Public transport

There are no bus stops located within the proposal area. The 355 bus route from Edinburgh Road at Murray Street to Bondi Junction Station routes through the proposal area, travelling eastbound along King Street, turning right into Wilson Street, and turning right into Erskineville Road. The bus routes impacted as part of this proposal are shown in Figure 6-23.

The proposal area is located in close proximity to Newtown train station. It is reasonable to assume commuters accessing this train station would do so via Wilson Street or Erskineville Road, within the proposal boundary.

Cycling facilities

There is an existing dedicated one way cycle path for people bike riding west on Wilson Street, east of Erskineville Road. This cycle path forms part of the Newtown to Bondi Junction cycleway, detailed in Section 2.1.

Eliza Street is a shared zone for people walking, bike riding and driving. While vehicle traffic is one way on Eliza Street, people bike riding are permitted to travel in both directions.

There are no dedicated cycling facilities on King Street in proximity to the proposal area.

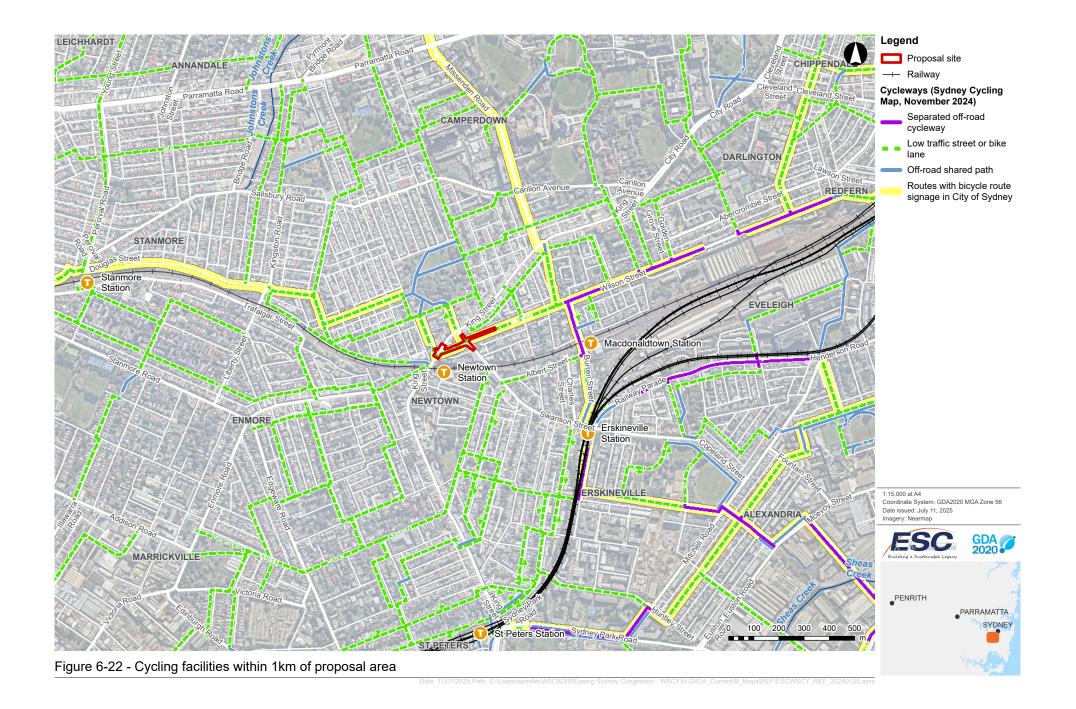
Figure 6-22 identifies cycling facilities within one kilometre of the proposal area.

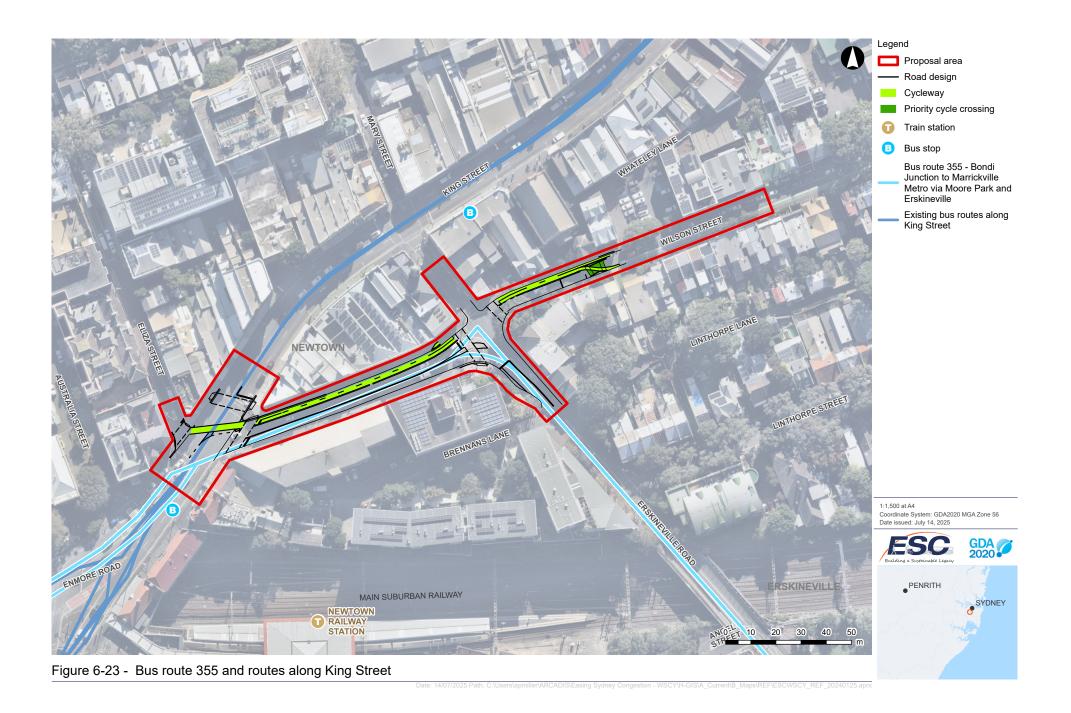
Pedestrian facilities

Footpaths are provided on each side of King Street, Wilson Street, and Erskineville Road. Eliza Street features a shared zone, with a speed limit of 10 kilometres per hour. There is high pedestrian activity within the proposal area, with a variety of food and beverage businesses operating within and around the proposal area.

Signalised pedestrian crossings are available at the northern and eastern leg of the intersection of King Street, Wilson Street and Eliza Street. The shared user zone is treated as a pedestrian crossing through linemarking for vehicles turning left into Eliza Street from King Street.

Signalised pedestrian crossings are provided on the east, north and west legs of the intersection of Wilson Street and Erskineville Road. The western leg is provided as two separate crossings, with pedestrians able to safely wait on the concrete median island.





6.4.3 Potential impacts

Construction

Access

Vehicle access to several properties would be temporarily disrupted during construction works, particularly during pavement re-sheeting activities. Affected properties include:

- Private commercial carpark (four parking spaces) at the rear of 10 Wilson Street, accessed via Wilson Street
- 15 Wilson Street (residential multi-unit dwelling)
- 21 Wilson Street (residential single-unit dwelling)
- Council carpark (16 parking spaces) at 22-30 Wilson Street
- 30-34 Wilson Street (commercial building).

The Council carpark at 22-30 Wilson Street is able to be accessed via Whateley Lane, although this access is very narrow and may be blocked by obstacles such as bins.

Traffic performance

Some impacts on traffic flow may occur during the construction phase of the works. During construction, it is anticipated that roads are to remain open during the construction period, however some lane closures may occur. Lane closures would be undertaken as out of hours work in accordance with road occupancy licences, to minimise disruption to traffic.

Reduced speed limits would be in place during construction and stop/slow signage and controls would be used during construction to ensure the safety of construction personnel. Temporary delays would occur for road users. Any delays would likely be short-term and minor in nature. Detours may also be implemented, with adequate signage to be installed to direct road users.

Construction would impact the road network by increasing the number of light and heavy vehicles on the road. However, the increase to traffic from additional vehicles during construction is expected to be negligible, as the surrounding area experiences high volumes of traffic and is close to major motorways providing transport into and out of Sydney. With most work occurring at night, construction vehicles would mostly travel outside of peak traffic periods, with less traffic volumes.

Public Transport

The 355 bus route would remain in operation throughout construction. Construction has been staged to avoid day time traffic impacts and would not result in unreasonable delays to this bus service.

Following completion of construction, there would be no anticipated ongoing impacts to this bus service.

Cycling facilities

Use of the existing cycleway on Wilson Street east of Erskineville Road, as well as bike rider access to Wilson Street within the proposal boundary, would be interrupted during the construction program. Detours would be put in place during the construction phase and may result in delays or longer travel times for people bike riding.

Pedestrian facilities

During construction, some closures of existing footpaths or pedestrian crossings would be required.

The existing pedestrian footpaths on King Street, Wilson Street, and Erskineville Road would undergo construction works to realign pram ramps and pedestrian crossings as detailed in Section 3.2.3. Pedestrian detours and temporary ramps would be installed during these works to facilitate pedestrian crossing.

Operation

Access (light vehicles)

Light vehicles observed using the left turn from Wilson Street onto Erskineville Road were assumed to be travelling north through to King Street. This is due to no-stopping restrictions in place along Erskineville Road and limited land use to access.

Vehicles completing the left turn movement are expected to be distributed across the road network depending on their intended destination. It is proposed that vehicles accessing King Street from Wilson Street would do so via Brown Street, detailed in Figure 6-24 and Table 6-23.

Assessment of the left turn ban and the proposed alternate route via Brown Street identified the following potential impacts:

- Up 40 light vehicles are expected to be re-routed through the road network during peak periods, with light vehicles predominantly using the state road network (King Street and Enmore Road). There is the potential, although unlikely, to cause additional congestion and delays on these roads.
- Due to removal of parking on the north side of Wilson Street, there is the potential for reduced demand for the left turn onto Erskineville Road by vehicles currently using the left turn movement onto Erskineville Road when leaving the removed on-street parking.
- There is potential for a small increase in traffic volumes on Wilson Street and Brown Street. The impact is expected to be minor, as implementation of the left turn ban would only add about 40 additional vehicles to the existing 2,596 vehicles travelling east on Wilson Street (1.5% increase during the PM peak).



Figure 6-24: Alternate access routes - light vehicles

Table 6-23: Time travel comparison for light vehicles from the west

Route	Average travel time	Difference from existing travel time	Travel distance
Existing access	1 minute 53 seconds	-	150 m
Primary alternative route	2 minutes 26 seconds	33 seconds	500 m (additional 350 m)

Access (freight vehicles)

Freight vehicle travelling from the west (Stanmore Road)

Freight vehicles travelling to the proposed loading zone on Erskineville Road from areas of the Inner West or Western Sydney are assumed to enter via Stanmore Road.

Based on minimal impacts to travel time and roads approved for use by vehicles over three tonnes, the suitable and most likely alternate access route would be via the following roads:

- Edgeware Road
- Alice Street
- King Street
- Sydney Park Road
- Mitchell Road
- Erskineville Road (including Copeland Road and Swanson Street).

This route is appropriate for freight vehicles as the three tonne load limit restrictions, applying from 7pm on Mitchell Road to 10pm on Edgeware Road and Alice Street, would not be operational at the same time as the proposed loading zone on Erskineville Road.

Secondary alternate access routes were identified along May Street and Euston Road if drivers miss a turn and/or turning movements are not appropriate for the vehicle size.

Alternate access routes for freight vehicles originating from the west are detailed in Figure 6-25 and Table 6-24.

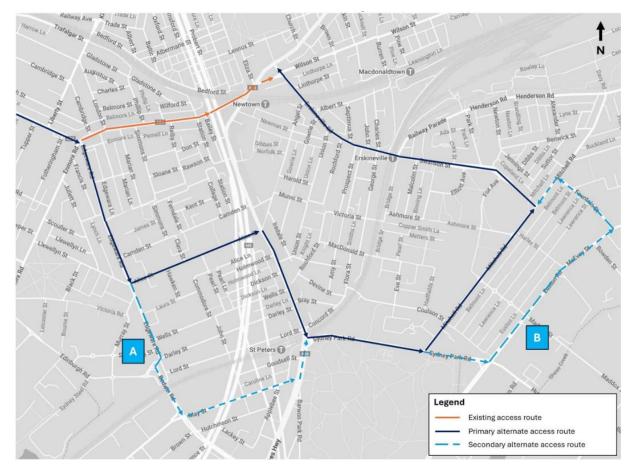


Figure 6-25: Alternate access routes - freight vehicles from the west

Table 6-24: Time travel comparison for freight vehicles travelling from the west

Route	Average travel time	Difference from existing travel time	Travel distance
Existing access	5 minutes 24 seconds	-	950 m
Primary alternative route	9 minutes 15 seconds	3 minutes 51 seconds	4.4 km (additional 3.45 km)
Secondary alternative access A (May Street)	13 minutes 12 seconds	7 minutes 48 seconds	4.7 km (additional 3.75 km)
Secondary alternative access B (Euston Road)	12 minutes 26 seconds	7 minutes 2 seconds	5.2 km (additional 3.95 km)

Freight vehicles travelling from the south (Princes Highway)

Similar to freight vehicles travelling from the west, it was assumed that some vehicles may travel to the area from the south (Princes Highway). These trips would likely originate in industrial areas such as Wolli Creek or Mascot.

Based on minimal impacts to travel time and roads approved for use by vehicles over three tonnes, the suitable and most likely alternate access route would be via the following roads:

- Sydney Park Road
- Mitchell Road
- Erskineville Road (including Copeland Road and Swanson Street).

As with vehicles travelling from the west, there is no cross over between the three tonne load limit restriction and the operational hours of the proposed loading zone.

Secondary alternate access routes were identified along Euston Road if drivers miss a turn and/or turning movements are not appropriate for the vehicle size. This is not expected to be a likely route for vehicles to use.

Alternate access routes for freight vehicles originating from the south are detailed in Figure 6-26 and Table 6-25.

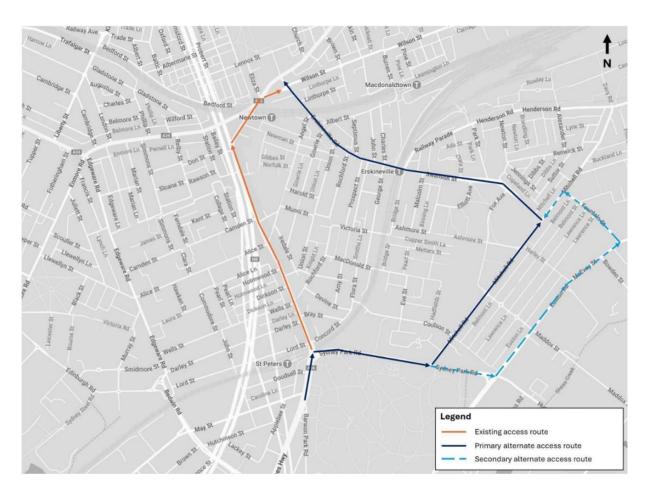


Figure 6-26: Alternate access routes - freight vehicles from the south

Table 6-25: Time travel comparison for freight vehicles travelling from the south

Route	Average travel time	Difference from existing travel time	Travel distance
Existing access	5 minutes 52 seconds	-	1.4 km
Primary alternative route	11 minutes 25 seconds	5 minutes 33 seconds	2.7 km (additional 1.3 km)
Secondary alternative access (Euston Road)	12 minutes 26 seconds	6 minutes 34 seconds	3.4 km (additional 3 km)

Freight vehicles travelling from the east (King Street)

There is currently a left turn ban for vehicles travelling along King Street into Wilson Street (vehicles travelling in a southwest direction). As such, there is no current access to the existing or proposed loading zone from the east.

Summary of potential access impacts for freight vehicles

Assessment of the left turn ban and the proposed alternate route for freight vehicles travelling from the west and the south has identified the following potential impacts:

- Delivery vehicles travelling from the west are expected to be diverted via Edgeware Road and Alice Street onto King Street. Travel to the proposed loading zone would then be via Sydney Park Road, Mitchell Street, and Erskineville Road. An increase in heavy/freight vehicles is expected along these roads, however the expected volumes would be low.
- Delivery vehicles travelling from the south are expected to be diverted via Sydney Park Road, Mitchell Street, and
 Erskineville Road. An increase in heavy/freight vehicles is expected along these roads, however the expected volumes
 would be low.

- An increase in travel time for delivery vehicles is expected along the alternate access routes of up to about five and a half minutes.
- Due to the longer travel time of alternate access routes, some deliveries would likely use other nearby loading zones.
 This higher demand for the other loading zones may result in delays and the use of on-street parking as an alternative, reducing parking availability nearby.

Implementation of the left turn ban would result in improved safety outcomes, avoiding the potential for conflicts to occur between people bike riding and left turning vehicles.

Traffic performance

With the exception of the traffic performance changes due to the use of alternate light and freight vehicle routes identified above, traffic performance would return to a level consistent with pre-construction traffic levels.

Public transport

There would be no ongoing impacts to public transport facilities.

Cycling facilities

Overall, cycling facilities within the proposal area would improve through the provision of a bi-directional cycleway connecting the existing cycleway on Wilson Street east of Erskineville Road, King Street, and the Eliza Street shared user zone.

People bike riding would experience safer travel through separation from road traffic along Wilson Street. Dedicated cycle crossings and intersection phasing would reduce potential conflicts with people walking and driving, resulting in safer travel in the proposal area.

Pedestrian facilities

All pedestrian facilities would be restored following construction. Pavement for footpaths and roads where pedestrian crossings are located would be replaced as part of the construction phase, reducing tripping hazards and uneven surfaces.

Following completion of construction, there would be an improvement to pedestrian facilities through a re-aligned signalised crossing and improved efficiency by amalgamating two crossings into one on the western leg of Wilson Street and Erskineville Road intersection. Impacts to pedestrian facilities would be experienced, however, due to the loss of pedestrian priority access across Eliza Street resulting from the installation of a new signalised crossing. There would also be a reduction in the footpath on the southeast corner of King Street.

Pedestrian crossings would benefit from new clear linemarking and realignment to better locate pram ramps. This would provide minor accessibility improvements to people walking in this area.

6.4.4 Safeguards and management measures

Table 6-26: Traffic and transport safeguards and management measures

Impact	Environmental safeguards	Responsibility	Timing
Traffic and transport	A Traffic Management Plan (TMP) will be prepared and implemented as part of the CEMP. The TMP will be prepared in accordance with the Transport <i>Traffic Control at Work Sites Manual</i> (RTA, 2010) and <i>QA Specification G10 Control of Traffic</i> (Transport for NSW, 2008). The TMP will include:	Contractor	Detailed design / Pre-construction
	Confirmation of haulage routes		
	 Measures to maintain access to local roads and properties 		
	Site-specific traffic control measures (including signage) to manage and regulate traffic movement		
	 Measures to maintain pedestrian and bike rider access 		
	 Requirements and methods to consult and inform the local community of impacts on the local road network 		

Impact	Environmental safeguards	Responsibility	Timing
	 Access to construction sites including entry and exit locations and measures to prevent construction vehicles queuing on public roads A response plan for any construction traffic incident 		
	Consideration of other developments that may be under construction to minimise traffic conflict and congestion that may occur due to the cumulative increase in construction vehicle traffic		
	Monitoring, review and amendment mechanisms.		
Traffic and transport	Where possible, vehicular property access will be maintained including access to pre-schools, places of worship and all commercial premises during hours of operation. Where property access will have to be temporarily closed during construction: Property owners will be notified at least five business days prior to the access closure Alternative access will be provided if available Access closure will be minimised and access will be	Contractor	Construction
	returned to the property owners as soon as possible.		
Traffic and transport	Pedestrian and bike rider access is to be maintained throughout construction.	Contractor	Construction
	Provision of signs outlining the pedestrians and bike rider diversion routes will be displayed during construction.		
	There will be advance notification of any construction works that affect pedestrians and bike riders.		
Traffic and transport	Appropriate signage (such as variable message signs) and supervision will be provided to ensure that all work areas are controlled and that unauthorised personnel (e.g. pedestrians) are excluded from work areas.	Contractor	Construction

6.5 Noise and vibration

6.5.1 Methodology

Noise and vibration impact assessment

A quantitative assessment of potential noise impacts associated with the proposal has been carried out using the Transport for NSW 'Construction and Maintenance Noise Estimator' spreadsheet tool (Transport noise tool), based on the noisiest construction scenario (resurfacing works) during the night time period. A qualitative vibration impact assessment was also carried out based on this noise assessment. Outputs from this assessment is provided in Appendix I.

The noise and vibration impact assessment was prepared in accordance with the following policies and guidelines:

- NSW Environmental Protection Authority's (EPA) 'Interim Construction Noise Guideline' (ICNG)
- Transport for NSW 'Construction Noise and Vibration Guideline'
- EPA 'Road Noise Policy'
- Transport for NSW 'Construction and Maintenance Noise Estimator' tool (Transport noise tool)
- Assessing Vibration: A Technical Guideline (AVTG) (DEC, 2006)
- Transport for NSW 'Road Noise Criteria Guideline'
- Transport for NSW 'Noise Mitigation Guideline'.

A Distance Based Assessment (Construction Scenario) was carried out for this proposal, and Category R4 was selected as the most representative noise area category for the proposal based on a review of aerial photography. Category R4 represents areas with dense transportation or with some commerce or industry and was selected as the project area is a dense urban environment, with an adjacent arterial road (King Street) and train line (Newtown Station). The area ground type was selected as developed settlements (urban and suburban). Six representative construction scenarios were selected based on the Wilson Street Cycleway Improvements – Detailed Design Construction Staging Strategy Report:

- Mobilisation and site establishment
- Utility, property, service adjustment
- Resurfacing works
- Paving/asphalting
- Road furniture installation
- Site compound operations.

The equipment and assumed sound power levels for each scenario is provided in Appendix I.

Assessment criteria

Residential receivers

Construction noise management levels (NMLs) for the proposal have been derived based on the guidance outlined in the ICNG and are consistent with the construction noise estimator tool. The residential NMLs are provided in Table 6-27. The NMLs are applied as an external noise level.

Table 6-27: Construction noise management levels, dB(A)

Receiver	Noise management level, L _{Aeq(15 min)} dBA				
	Standard construction Day Evening Night hours				
Residential receiver	65	60	55	50	

Residential receivers are considered 'noise affected' where construction noise levels are greater than the NMLs identified in the table above. The noise affected level represents the point above which there may be some community reaction to noise. Where predicted and/or measured construction noise levels exceed NMLs, all feasible and reasonable work practices would be applied to meet the management levels.

Other sensitive receivers

The NMLS for non-residential receivers in developed settlements (urban and suburban) have been derived based on guidance from the ICNG and are provided in Table 6-28. These NMLs only apply when the property is in use (generally during standard hours).

Table 6-28: Noise management levels for other sensitive land uses

Sensitive land use	Noise management level, L _{Aeq(15 min)} dBA
Offices, retail outlets	70 (external)
Educational institutes	55 (external) ¹
Places of worship	55 (external) ¹
Active recreation	65 (external)

Note 1: Based on an internal noise level of 55 dBA. A 10 dBA addition has been applied to the internal noise level to account for a typical noise reduction through an open window.

Vibration

Vibration from surface construction plant and equipment was assessed with consideration to Assessing Vibration: A Technical Guideline, British Standard BS 7385 Part 2 – 1993 Evaluation and measurement for vibration in buildings and German Standard DIN4150-3:2016 Vibrations in buildings – Part 3: Effects on structures. The criteria for building vibration limits from BS 7385 is provided in Table 6-29.

Table 6-29: Transient vibration guide values - minimal risk of cosmetic damage (BS 7385)

	Peak component particle velocity in frequency range of predominant pulse			
Type of building	4 Hz to 15 Hz	15 Hz and above		
Reinforced of framed structures. Industrial and heavy commercial buildings	50 mm/s at 4 Hz and above	50 mm/s at 4 Hz and above		
Unreinforced or light framed structures. Residential or light commercial type building	15 mm/s at 4 Hz increasing to 20 mm/s at 15 Hz	20 mm/s at 15 Hz increasing to 50 mm/s at 40 Hz and above		

The guide values in Table 6-29 relate predominantly to transient vibration which does not give rise to resonant responses in structures and low-rise buildings. Where the dynamic loading caused by continuous vibration may give rise to dynamic magnification due to resonance, especially at lower frequencies, then the guide values may need to be reduced by up to 50 per cent.

The predominant vibration for most construction activities involving intermittent vibration sources such as rock breakers, piling rigs, vibratory rollers and excavators occurs at frequencies greater than 4 Hz (and usually in the 10 Hz to 100 Hz range). On this basis, a conservative vibration damage screening level per receiver type is given below:

- Reinforced or framed structures: 25.0 mm/s
- Unreinforced or light framed structures: 7.5 mm/s.

Heritage structures would be assessed as per the screening criteria in Table 6-29 unless they are identified to be structurally unsound. If a heritage building or structure is found to be structurally unsound (following inspection) a more conservative cosmetic damage objective of 2.5 mm/s peak component particle velocity (from DIN 4150) would be considered.

6.5.2 Existing environment

Surrounding land use and receivers

Proposal area

The land surrounding the intersection comprises a mix of residential and commercial land use, and community facilities, as shown in Figure 6-27.

Eliza Street and Wilson Street, between King Street and Erskineville Road, are surrounded by businesses on either side of the roads. These businesses include Black Star Pastry Newtown, Websters Bar Newtown, The Academy Brand, Fabrique Vintage Newtown, and Drapers Fabrics Sydney, with the nearest receivers located within five metres of the proposal area. The building located on the south-western corner of Wilson Street and Erskineville Road intersection is comprised of medical facilities, including Inner West Osteopathy, Active Physiotherapy, and Holistic Family Health and are operational primarily within 9am to 5pm Monday to Sunday. Restaurants adjoining the proposal area vary in operational hours, with closing times ranging between 5pm and 11pm.

Wilson Street, east of Erskineville Road, consists of community facilities, businesses and residential properties on the northern side of the road. One religious facility, Newtown Mission Uniting Church, is also located on the northern side of the road. These businesses are operational primarily between 7am and 8pm. Residential properties are located on the southern side of Wilson Street, east of Erskineville Road, adjacent to the proposal area.



Existing background and ambient noise levels

Proposal area

In lieu of background noise monitoring, background noise levels for the proposal area have been selected based on the most representative noise area category, as nominated in the Transport noise tool. Noise area categories in the construction noise estimator tool are consistent with AS1055.3-1997 Acoustics – Description and measurement of environmental noise. The corresponding representative background noise levels to Category R4 are presented in Table 6-30 below.

Table 6-30: Representative background (LA₉₀) noise levels, dBA

Representative Noise Area Category	Background L _{A90} Noise Levels (dBA)		
	Day	Evening	Night
Category R4 – areas with dense transportation or with some commerce or industry	55	50	45

6.5.3 Potential impacts

Construction

Proposal area

Construction noise impacts – residential receivers

Construction noise levels were predicted using the Transport construction and maintenance noise estimator tool. For each construction scenario, a distance-based assessment has been conducted to provide the distances for different exceedances of the residential noise management levels. The following assumptions were made in the assessment:

- A noise area category R4 has been selected for the proposal area
- The area ground type of the proposal area is assumed to be developed settlements (urban and suburban)
- Line of sight has been assumed in determining the distances for highly intrusive impacts and highly noise affected distances
- No line of sight (behind solid barrier) has been assumed in determining the distances for noticeable impacts, clearly audible impacts and moderately intrusive impacts
- No line of sight (behind solid barrier) has been assumed in determining noise affected distances.

Table 6-31 presents the construction noise affected distances for each scenario. The affected distances provided for each scenario is the distance at which the relevant NML is exceeded. The columns that follow provide the distances at which additional mitigation measures are required, divided into noise impact categories. Where no additional mitigation measures are recommended, cells are left empty. Table 6-34 provides the relevant additional mitigation measures for residential receivers within each of the noise impact categories.

Table 6-35 provides the trigger levels at which the additional mitigation measures are required.

Table 6-31: Predicted construction noise affected distances for residential receivers and associated additional management measures

				Distar	nces at which addition	nal mitigation measures are r	equired for residential rece	ivers
Scenario	Period	Affected Distance – No line of sight (behind solid barrier)	Sleep disturbance impacts – No line of sight (behind solid barrier)	Noticeable (5 to 10 dBA above RBL) – No line of sight (behind solid barrier)	Clearly audible (10 to 20 dBA above RBL) – No line of sight (behind solid barrier)	Moderately intrusive (20 to 30 dBA above RBL) – No line of sight (behind solid barrier)	Highly intrusive (>30 dBA above RBL) – Line of sight	Highly noise affected (>75 dBA) – Line of sight
	Day	45		-	-	15 (N, PC)	25 (N, PC)	
Site	Day (OOHW)	85		-	45 (N, DR)	15 (N, DR)	5 (N, DR, PC, SN)	25
establishment	Evening	140		-	85 (N, DR)	25 (N, DR)	15 (N, DR, PC, SN)	
	Night	215	50	215 (N)	140 (N, DR)	45 (N, PC, SN, DR)	25 (AA, N, PC, SN, DR)	
I latilia.	Day	50		-	-	15 (N, PC)	25 (N, PC)	
Utility, property, service adjustment	Day (OOHW)	95		-	50 (N, DR)	15 (N, DR)	10 (N, DR, PC, SN)	25
	Evening	155		-	95 (N, DR)	25 (N, DR)	15 (N, DR, PC, SN)	
	Night	235	50	235 (N)	155 (N, DR)	50 (N, PC, SN, DR)	25 (AA, N, PC, SN, DR)	
	Day	60		-	-	20 (N, PC)	30 (N, PC)	
Resurfacing	Day (OOHW)	105		-	60 (N, DR)	20 (N, DR)	10 (N, DR, PC, SN)	30
works	Evening	165		-	105 (N, DR)	30 (N, DR)	20 (N, DR, PC, SN)	
	Night	255	115	255 (N)	165 (N, DR)	60 (N, PC, SN, DR)	30 (AA, N, PC, SN, DR)	
	Day	35		-	-	10 (N, PC)	20 (N, PC)	
Paving / asphalting	Day (OOHW)	70		-	35 (N, DR)	10 (N, DR)	5 (N, DR, PC, SN)	20
	Evening	115		-	70 (N, DR)	20 (N, DR)	10 (N, DR, PC, SN)	
	Night	180	215	180 (N)	115 (N, DR)	35 (N, PC, SN, DR)	20 (AA, N, PC, SN, DR)	
Road furniture	Day	25		-	-	5 (N, PC)	15 (N, PC)	
installation	Day (OOHW)	45		-	25 (N, DR)	5 (N, DR)	5 (N, DR, PC, SN)	15

Transport for NSW

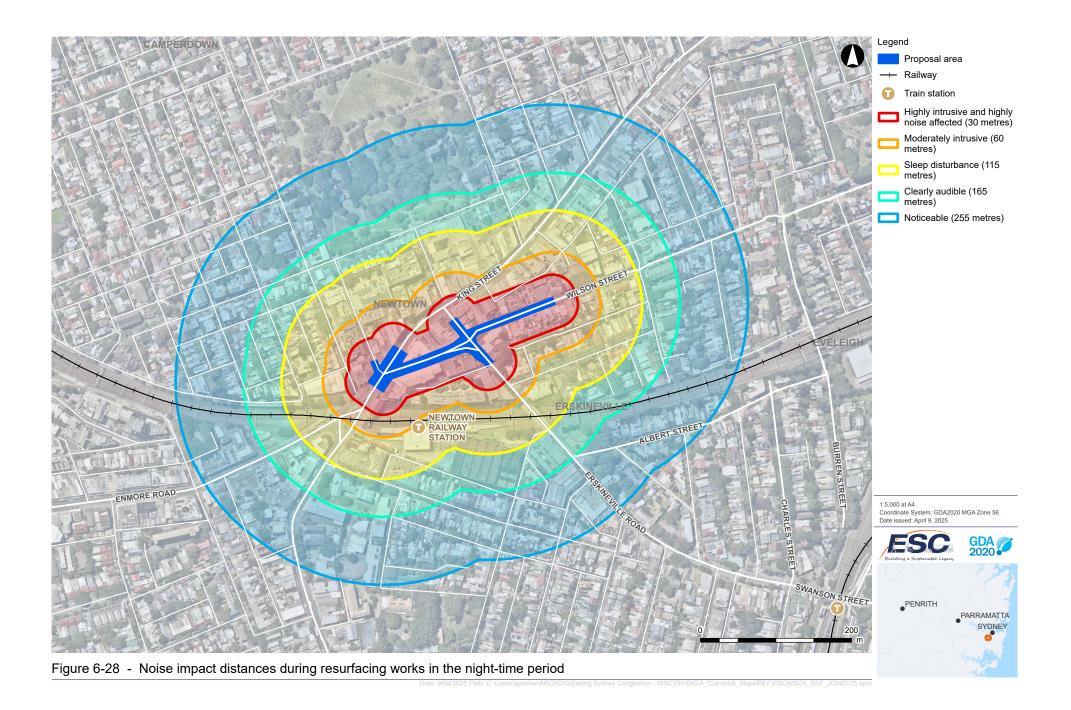
				Dista	nces at which addition	nal mitigation measures are r	equired for residential rece	ivers
Scenario	Period	Affected Distance – No line of sight (behind solid barrier)	Sleep disturbance impacts – No line of sight (behind solid barrier)	Noticeable (5 to 10 dBA above RBL) – No line of sight (behind solid barrier)	Clearly audible (10 to 20 dBA above RBL) – No line of sight (behind solid barrier)	Moderately intrusive (20 to 30 dBA above RBL) – No line of sight (behind solid barrier)	Highly intrusive (>30 dBA above RBL) – Line of sight	Highly noise affected (>75 dBA) – Line of sight
	Evening	85		-	45 (N, DR)	15 (N, DR)	5 (N, DR, PC, SN)	
	Night	140	50	140 (N)	85 (N, DR)	25 (N, PC, SN, DR)	15 (AA, N, PC, SN, DR)	
	Day	40		-	-	15 (N, PC)	25 (N, PC)	
Site compound	Day (OOHW)	75		-	40 (N, DR)	15 (N, DR)	5 (N, DR, PC, SN)	25
operations	Evening	130		-	75 (N, DR)	25 (N, DR)	15 (N, DR, PC, SN)	_3
	Night	200	50	200 (N)	130 (N, DR)	40 (N, PC, SN, DR)	25 (AA, N, PC, SN, DR)	

The construction noise affected distances are predicted to be the greatest during resurfacing works, with a highly intrusive and highly noise affected distance of 30 metres. Figure 6-28 provides the noise affected distances for the loudest construction scenario (Resurfacing works). Sensitive receiver addresses that intersect with the highly intrusive layer shown below are detailed in Appendix J.

Depending on the exact location of equipment, residential receivers located on Wilson Street, east of Erskineville Road, are expected to be located within the highly noise-affected buffer for the majority of scenarios. These receivers are therefore likely to be affected by the proposed construction work.

Other residential receivers with the potential to be within the moderately intrusive impact distances (during the night period) include those along Linthorpe Street, Linthorpe Lane, Brennan Lane and on King Street. Many residential receivers surrounding the proposal area are within the largest noise affected distances of 255 metres (Resurfacing works during the night period).

Construction noise mitigation and management measures are expected to manage these impacts. These measures are provided in Section 6.5.4.



Sleep disturbance

Given that night works are to occur, noise from construction work has been assessed for the potential to disturb sleep. The greatest sleep disturbance impacts are predicted to occur during paving / asphalting works, with an affected distance of 215 metres. Table 6-35 provides additional mitigation measures for residential receivers within this distance.

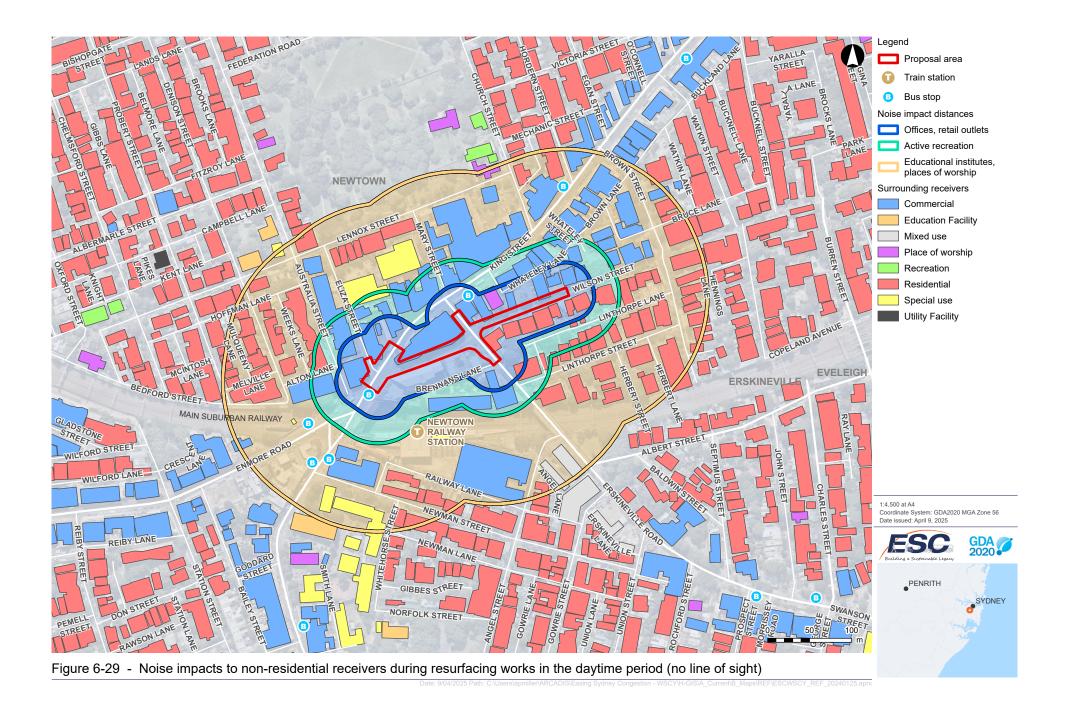
Construction noise impacts –non- residential receivers

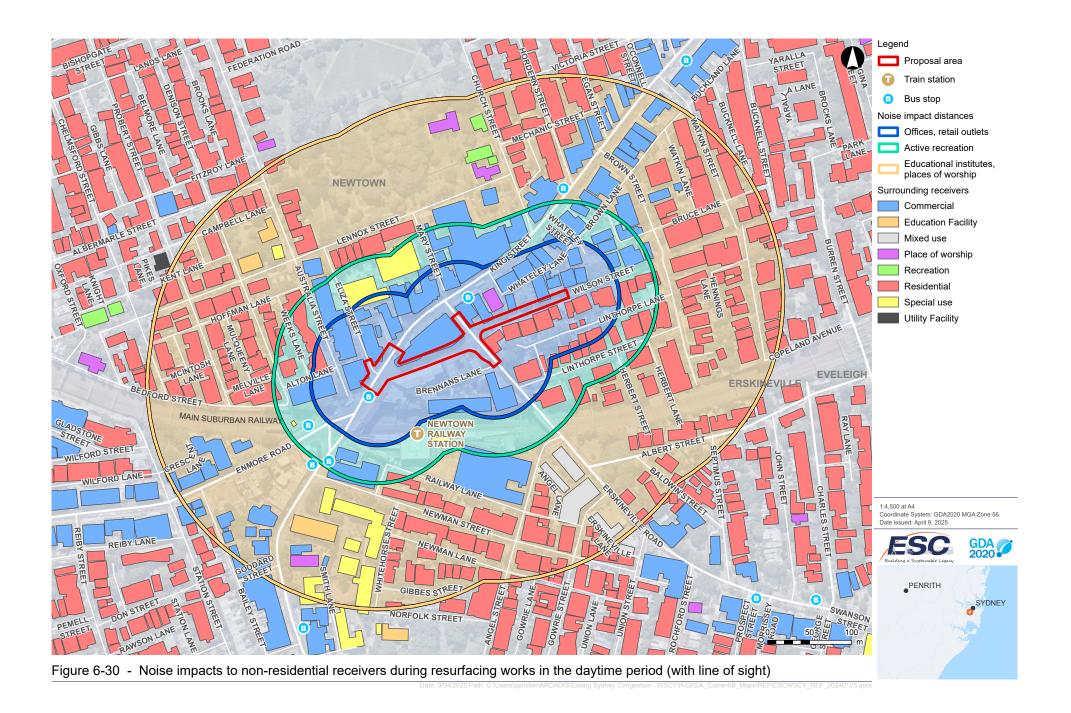
Construction noise levels were predicted using the Transport construction and maintenance noise estimator tool. a distance-based assessment has been conducted using the construction scenario with the greatest impacts (Resurfacing works) to provide the noise affected distances for each non-residential receiver type. The noise affected distances during resurfacing works at non-residential receivers are presented in Table 6-32.

Table 6-32: Non-residential noise affected distances during resurfacing works

	Affected distance, metres		
Non-residential receiver	No line of sight	Line of sight	
Offices, retail outlets	30	60	
Educational institutes	165	255	
Places of worship	165	255	
Active recreation	60	105	

There are a number of non-residential receivers within the relevant noise affected distances which are identified in Figure 6-29 and Figure 6-30. The majority of these receivers are at or near the intersection of Wilson Street and Erskineville Road. The majority of receivers along Wilson Street west of Erskineville Road are non-residential and have the potential to be noise impacted.





Construction vibration impacts

The proposed construction equipment piece with the greatest potential vibration impacts is the vibratory roller. Safe working buffer distances to comply with the human comfort and cosmetic damage criteria were taken from the CNVG and are provided in Table 6-33.

Table 6-33: Vibration safe working distances, metres

Plant Item	Cosmetic damage – Light- framed structure (BS 7385)	Cosmetic damage - Heritage and other sensitive structures (DIN 4150)	Human response (EPA's vibration guideline)
Vibratory roller (1-2 tonnes)	5 m	14 m	15 m to 20 m
Vibratory roller (2-4 tonnes)	6 m	16 m	20 m
Vibratory roller (4-6 tonnes)	12 m	33 m	40 m
Vibratory roller (7-13 tonnes)	15 m	41 m	100 m
Vibratory roller (13-18 tonnes)	20 m	54 m	100 m
Vibratory roller (>18 tonnes)	25 m	68 m	100 m

Buildings fronting the proposal area, including heritage buildings identified in Table 6-40, have the potential to be within the safe working cosmetic damage distance for the vibratory rollers. When vibratory rolling is required in proximity to nearby residential receivers, and the vibration safe working buffer distances cannot be maintained, mitigations are required to avoid impacting receivers or causing cosmetic damage including vibration monitoring. Where vibration monitoring indicates exceedances of the vibration criteria, smaller equipment and alternative work methods would be investigated. This would include the use of alternative compaction methods such as static rollers.

Additional management measures

The CNVG provides the following information regarding further mitigation measures for certain receivers exceeding noise management levels and are presented below in Table 6-34.

Table 6-35 provides the trigger levels at which additional mitigation measures are recommended as per the CNVG and the affected distances provided in Section 6.5.3. The additional mitigation measures would be used to determine the additional measures after the application of standard mitigation measures where reasonable and feasible.

The distances provided by the construction noise estimator tool are considered conservative and are based on indicative construction scenarios and activity sound power levels. A more detailed assessment could be undertaken to refine the distances or predict construction noise levels at individual receivers.

Table 6-34: Additional management measures based on worst case scenario (resurfacing works)

Measure	Description	Abbreviation
Notification	Advanced warning of works and potential disruptions, such as letterbox drop (or equivalent) detailing work activities, time periods over which these will occur, impacts and mitigation measures. Notification should be a minimum of five business days prior to the start of works and be distributed around the proposal area at:	N
	20 metres during day works	
	60 metres during day (OOHW) works	
	105 metres during evening works	
	255 metres during night works.	

Measure	Description	Abbreviation
Specific notifications	Specific notifications are letterbox dropped (or equivalent) to identified stakeholders no later than seven calendar days ahead of construction activities that are likely to exceed the noise objectives. The specific notification will provide additional information when relevant and informative to more highly affected receivers than covered in general letterbox drops and be distributed around the proposal area at: 10 metres during day (OOHW) works 20 metres during evening works 60 metres during night works.	SN
Duration respite	Respite offers and respite periods 1 and 2 may be counterproductive in reducing the impact on the community for longer duration proposals. In this instance, it can be strongly justified that is would be beneficial to increase the number of nights worked to five a week Duration Respite so that the proposal can be completed more quickly. It would not be feasible to construct the proposal otherwise, given the proportion of work at night required.	DR
Alternative accommodation	Alternative accommodation options may be offered to residents living in close proximity to construction works that are likely to experience highly intrusive noise levels (CNVG Tables C1-C3). Additional aspects for consideration shall include whether the highly intrusive activities occur throughout the night or are completed before midnight. Eligibility for alternative accommodation would occur around the proposal area at:	AA
	30 metres during night works.	

Table 6-35: Triggers for additional mitigation measures – airborne noise

Perception	dBA above RBL	dBA above NML	Additional Mitigation Measure
All hours			
75 dBA or greater	-	-	N, V
Standard hours: Mon to Fr	i (7am-6pm), Sat (8am-1pm)	, Sun / public holidays (no v	vork)
Noticeable	5 to 10	0	-
Clearly audible	11 to 20	1 to 10	-
Moderately intrusive	21 to 30	11 to 20	N, V
Highly intrusive	> 30	> 20	N, V
OOHW Period 1: Mon to F	ri (6pm-10pm), Sat (7am-8ar	m & 1pm-10pm), Sun / publ	ic holidays (8am-6pm)
Noticeable	5 to 10	5 or lower	-
Clearly audible	11 to 20	6 to 15	N, DR
Moderately intrusive	21 to 30	16 to 25	V, N, DR
Highly intrusive	> 30	> 25	V, IB, N, DR, SN
OOHW Period 1: Mon to F	ri (10pm-7am), Sat (10pm-8a	am), Sun / public holidays (6	pm-7am)
Noticeable	5 to 10	5 or lower	N
Clearly audible	11 to 20	6 to 15	V, N, DR
Moderately intrusive	21 to 30	16 to 25	V, IB, N, SN, DR
Highly intrusive	> 30	> 25	AA, V, IB, N, SN, DR

Operation

The proposal would not result in a change in road configuration or road traffic volumes. Therefore, no changes in road noise levels are anticipated to occur as a result of the proposal.

6.5.4 Safeguards and management measures

Table 6-36: Noise and vibration safeguards and management measures

Impact	Environmental safeguards	Responsibility	Timing
Noise and vibration	A Construction Noise and Vibration Management Plan (CNVMP) will be prepared and implemented as part of the CEMP. The CNVMP will generally follow the approach in the Interim Construction Noise Guideline (ICNG) (DECC, 2009) and identify:	Contractor	Pre-construction
	 Implementation of community consultation measures (refer to Appendix C of the CNVG) 		
	 All potential significant noise and vibration generating activities associated with the activity 		
	 Feasible and reasonable mitigation measures to be implemented, taking into account beyond the pavement: urban design policy, process and principles (transport, 2014) 		
	A monitoring program to assess performance against relevant noise and vibration criteria		
	 Arrangements for consultation with affected neighbours and sensitive receivers, including notification and complaint handling procedures 		
	 Contingency measures to be implemented in the event of non-compliance with noise and vibration criteria. 		
Noise and vibration	All sensitive receivers (e.g., schools and local residents) likely to be noise affected will be notified at least five business days prior to commencement of any work associated with the activity that may have an adverse noise or vibration impact. The notification will provide details of:	Contractor	Pre-construction/ Construction
	The project		
	The construction period and construction hours		
	Contact information for project management staff		
	Complaint and incident reporting		
	How to obtain further information.		
Noise	Use and siting of plant:	Contractor	Construction
	The offset distance between noise plant and adjacent sensitive receivers is to be maximised		
	 Plant used intermittently is to be throttled down or shut down between use 		
	Where possible, noise emitting plant is to be directed away from sensitive receivers		
	Only necessary plant items should be used on site.		
Noise	Non-tonal reversing beepers (or an equivalent mechanism) must be fitted and used on all construction vehicles and mobile plant regularly used on site and for any out of hours work, including delivery vehicles.	Contractor	Construction
	Consider the use of ambient sensitive alarms that adjust output relative to the ambient noise level.		

Impact	Environmental safeguards	Responsibility	Timing		
Noise	Vehicle delivery times will be scheduled where feasible to standard construction hours to minimise noise impacts from heavy vehicle movements and deliveries.	Contractor	Construction		
Noise	Noisy works (including saw cutting, jackhammering, mulching and chainsaw use) will be completed by midnight (12am).	mulching and chainsaw use) will be completed by midnight			
Noise	Noise curtains are to be used for noisy works (including saw cutting, jackhammering, mulching and chainsaw use) at night.	Contractor	Construction		
Noise	Behavioral practices should be controlled, particularly during the night time period: No swearing or unnecessary shouting or loud stereos/radios on site No dropping of materials from height, throwing of metal items and slamming of doors.	Contractor	Construction		
Noise	A noise verification program is to be carried out in accordance with the Construction Noise and Vibration Management Plan and any approval and licence conditions.	Contractor	Construction		
Noise and vibration	During work hours, a community liaison phone number and site contact will be provided to enable complaints to be received and responded to.	Contractor	Construction		
Noise and vibration	 All employees, contractors and subcontractors are to receive an environmental induction. The induction must at least include: All proposal specific and relevant standard noise and vibration mitigation measures Relevant licence and approval conditions Permissible hours of work Any limitations on high noise generating activities Location of nearest sensitive receivers Construction employee parking areas Designated loading/unloading areas and procedures Site opening/closing times (including deliveries) Environmental incident procedures. 	Contractor	Construction		
Noise and vibration	Building condition surveys will be undertaken for buildings within safe working distances by a qualified contractor and a building condition report prepared.	Contractor	Pre-construction		
Noise and vibration	Construction methods must consider safe working distances for rollers and other vibration producing equipment when working adjacent to structures, including heritage structures.	Contractor	Construction		
Noise and vibration	Where safe working distances for vibration producing equipment cannot be maintained, a vibration risk assessment is to be prepared and included in the CNVMP. The vibration assessment is to include (as a minimum): • Identification of potentially affected properties/receivers	Contractor	Pre-construction		

Impact	Environmental safeguards	Responsibility	Timing
	A risk assessment to determine the potential for discrete work activities to affect receivers		
	 A map indicating the locations considered likely to be impacted and those requiring building condition surveys 		
	Outline a monitoring program		
	 A process for assessing the performance of the implemented mitigation measures 		
	A process for resolving issues and conflicts.		
Noise and vibration	Consider alternative equipment, plant and processes which produce less vibration where safe working distances cannot be achieved, to minimise or prevent vibration impacts	Contractor	Construction
Noise and vibration	Works will be undertaken no more than five nights in a week.	Contractor	Construction
Noise	Consider alternative accommodation for residents that experience highly intrusive noise levels during construction.	Contractor	Pre-construction Construction

6.6 Hydrology and flooding

6.6.1 Methodology

A review of the following sources was carried out on 19 October 2023 to identify the existing hydrological conditions in and around the proposal area:

- NSW SEED spatial data portal (NSW Government, 2022)
- Alexandra Canal Floodplain Risk Management Plan (Cardno, 2014).

6.6.2 Existing environment

Stormwater runoff within and surrounding the proposal is captured by both the City of Sydney Council and Inner West Council stormwater drainage networks. Stormwater runoff is then conveyed to Sydney Water drainage infrastructure and subsequently discharged into Alexandra Canal and eventually, Cooks River. This includes the existing road drainage along Wilson Street and Erskineville Road. Alexandra Canal is located about 1.7 kilometres southeast of the proposal and flows into Cooks River, located about 4.3 kilometres southwest of the proposal.

The proposal and surrounding landscape is level to gently inclined northwest at around 35 metres Australian Height Datum (AHD) and is mostly sealed, with surfaces of asphalt, paving and concrete. The proposal is located within the City of Sydney Alexandra Canal catchment area, according to the City of Sydney website (City of Sydney, 2022). The catchment area is mostly urbanised, with mainly impervious surfaces including roads, pavements and hardstand areas.

The proposal area is not located on flood prone land (refer to Figure 6-31).

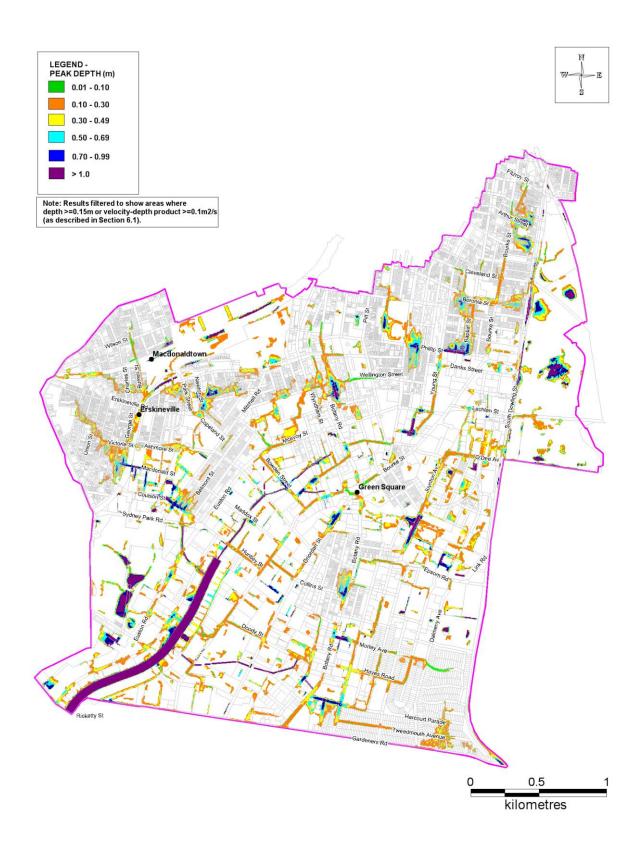


Figure 6-31: 100 year ARI peak flood depths (Cardno, 2014)

6.6.3 Potential impacts

Construction

The proposal would not be carried out within a flood risk zone. With the exception of a grate replacement for the existing stormwater drainage pit on Wilson Street, there are no drainage works proposed. Therefore, it is unlikely for areas of the work zone to become inundated during intense weather events such as large storms.

During construction, sediment-laden runoff from disturbed areas may enter waterways and discharge into Cooks River during the removal of the existing infrastructure and pavement. Run-off has the potential to cause sedimentation and influence the flow of stormwater. These impacts would be minor and temporary, for the period of construction. No permanent change to drainage pathways would occur as a result of the proposal.

Operation

The proposal is unlikely to impact upon the hydrology of the proposal area or the surrounding area. The proposal would be constructed within the footprint of the existing roadway and would not result in a net increase of impermeable surfaces. As such there would not be any significant increase in stormwater run-off.

No new drainage infrastructure, or modification to existing drainage infrastructure, is planned within the Inner West LGA area (west side of King Street or Eliza Street). There would be no impacts to stormwater flow or capacity in this drainage network. New drainage infrastructure (pits, pipes, drains and covers) within the City of Sydney LGA would not result in any impact to stormwater flow or capacity in this drainage network.

Any proposed stormwater and drainage works would be designed and undertaken in accordance with the relevant Asset Standards Authority, Sydney Water and City of Sydney Council standards and requirements.

6.6.4 Safeguards and management measures

Table 6-37: Hydrology safeguards and management measures

Impact	Environmental safeguards	Responsibility	Timing
Flooding	Flood contingency measures would be prepared as part of the CEMP to manage a potential flood event during construction and would outline procedures to reduce risk including removal of all plant/equipment and stabilising exposed areas.	Contractor	Pre-construction
Flooding, material storage and	The storage of hazardous material in ancillary facilities will be confined to areas that are not subject to flooding during a 1-in-100-year flood event or either:	Contractor	Construction
stockpiling within ancillary sites	 Stored in a manner that prevents their mobilisation during times of flood 		
	 Be removed from the area when rain events are predicted to inundate storage areas and at the onset of a flood. 		

Other safeguards and management measures to address hydrology and flooding impacts are identified in Section 6.7 (Soils and water quality) and Section 7.2.

6.7 Soils and water quality

6.7.1 Methodology

A desktop surface water assessment was carried out to identify potential impacts on surface water and included searches and access to the following databases on 23 October 2023:

- NSW SEED spatial data portal (NSW Government, 2022) to identify the presence of waterways and waterbodies near the study area, and potential acid sulfate soil and salinity risk
- Aerial imagery of the site to identify the existing site conditions and potential risks to surface water in relation to proposed construction and operational activities
- NSW Fisheries spatial data portal (DPI, 2020) to identify any important receiving environments of the stormwater drainage network
- eSpade database for soil landscape reports (DPE, 2022b)
- Descriptions of NSW Mitchell landscapes (DECCW, 2008)
- NSW contaminated land register (EPA, 2022a) and 'in-progress' list of notified sites (EPA, 2022b).

6.7.2 Existing environment

Soils

The Soil Landscapes of the Sydney 1:100 000 sheet (DPE, 2009) indicates that the proposal area and its surroundings primarily consists of the Blacktown Landscape Group, which is widespread across the Cumberland Lowlands between the Georges and Parramatta Rivers in the southwest. The Blacktown soil landscape is characterised by laminate, dark grey siltstone, and Bringelly Shale with low fertility and poor drainage. The dominant land uses include intensive residential and light/heavy industry. Erosion is negligible as the majority of the landscape is covered by hard surfaces. It is likely that the original topsoil has been extensively disturbed and modified after initial clearing and subsequent suburban and road development.

A review of the Sydney LEP 2012 indicated that there is an extremely low probability for acid sulphate soils to occur within the proposal area.

Contamination

A search of the contaminated land record of notices (EPA, 2022b) identified four records of contamination within Newtown, as summarised in Table 6-38. The nearest locations to the proposal are the Former Service Station and the Adjacent to Former Service Station, both of which are located on Wilson Street.

Table 6-38: Contaminated land record of notices

Site name	Address	Description	Approximate location from the proposal
Caltex Service Station	26-26 Enmore Road	Regulation under CLM Act not required	230 metres southwest
Former Service Station	81 Wilson Street	Contamination formerly regulated under the CLM Act	130 metres west
Adjacent to Former Service Station	79 Wilson Street	Contamination formerly regulated under the CLM Act	85 metres east
Aluminium Enterprises	66 Brocks Lane	Contamination was addressed via the planning process (EP&A)	370 metres northeast

Water quality

As outlined in Section 6.6, the proposal is located within the highly developed Alexandra Canal catchment and stormwater within this catchment is conveyed to Alexandra Canal via the stormwater drainage network. Alexandra Canal is a tributary of Cooks River, and Cooks River is a tributary to Botany Bay. Alexandra Canal, Cooks River and Botany Bay are mapped Key Fish Habitat (DPI, 2023).

Water quality is generally impacted by runoff from the surrounding land uses, including the town centre, roadways and the railway corridor. There are no waterbodies located within the proposal area. The nearest waterbody is Wirrambi Wetland which is located in Sydney Park 1.4 kilometers southeast of the proposal area.

6.7.3 Potential impacts

Construction

Soils and contamination

Soil disturbance would be minor in scale and mostly associated with excavations during pavement resurfacing and installation of utilities. Excavations would not be deeper than 1.5 metres during the removal, relocation and installation of utilities.

During construction, excavation and stockpiling may disturb soils, causing the following impacts if not appropriately managed:

- Dust generation from exposed soils and truck movements
- Erosion of exposed soils and stockpiles
- Sedimentation within drainage systems
- Downstream water quality and water quality within Alexandra Canal.

The potential for these impacts to occur with management measures is low, due to the existing soil landscape and topography.

Encountering other contaminants are unlikely, given the limited earthworks proposed and distance of the proposal from contaminated sites identified in Table 6-38. Nonetheless safeguards to minimise any impacts from contamination would still be implemented as the proposal is in an urban area that may have experienced historic contamination.

Potential impacts may occur if sediment and contaminant mobilisation leave the site and affect downstream water quality and the water quality of Alexandra Canal. This is further detailed in the section below.

Water quality

Construction of the proposal has the potential to impact the quality of surface water runoff and the receiving environment of Alexandra Canal through erosion, transport of sediment-laden water offsite and into the existing stormwater drainage system, and accidental spills and leaks. Construction activities with the potential to impact surface water quality includes:

- Excavation required for pavement resurfacing would generate asphalt waste, which could potentially enter the surface water drainage system and discharge to Alexandra Canal
- Operation of the construction compound including stockpiling of erodible material and trafficking of exposed or unstabilised surfaces would have the potential to generate sediment runoff
- Storage and handling of hazardous materials such as fuels, hydraulic oils, lubricants and paint at the construction compound and within active construction zones. There is potential for accidental spills to enter the surface water drainage system and discharge to Alexandra Canal
- Settlement of dust generated from construction activities.

The above potential impacts would be temporary, minor and limited to the period of construction. The impact on surface water quality would be managed effectively through the implementation of erosion and sediment control measures.

Operation

No operational impacts to soils are expected.

During operation, the management of stormwater would remain unchanged from the existing conditions. The proposal would not increase the risk or likelihood for sediment-laden runoff entering the stormwater network via kerb and guttering systems, as outlined in Section 6.6.

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6.7.4 Safeguards and management measures

Table 6-39: Surface water safeguards and management measures

Impact	Environmental safeguards	Responsibility	Timing
Soil and water management	 Erosion and sediment control measures are to be implemented and maintained to: Minimise sediment moving off-site and sediment laden water entering any water course, drainage lines, or drain inlets Reduce water velocity and capture sediment on site Minimise the amount of material transported from site to surrounding pavement surfaces Divert clean water around the site. (in accordance with the Landcom/ Department of Housing Managing Urban Stormwater, Soils and Construction Guidelines (the Blue Book)). 	Contractor	Construction
Soil and water	 An Erosion and Sedimentation Control Plan (ESCP) will be prepared prior to construction and is to include as a minimum: Identify site catchment and sub catchments, high risk areas and sensitive areas Sizing of each of the above areas and catchments The likely run off from each sub catchment Separation of on site and off site water The direction of run off and drainage points during each stage of construction The direction of flow of on site and off site water The locations and sizing of sediment basins or sumps and associated catch drains and/or bunds The locations of other erosion and sediment control measures (e.g. rock check dams, swales and sediment fences) Controls/measures to be implemented on wet weather events A mapped plan identifying the above A dewatering procedure for on site water and basins A process for reviewing and updating the plan on a fortnightly basis and/or when work alters. 	Contractor	Pre-construction and construction
Soil and water	Where relevant, stabilisation of construction work zones will occur progressively as construction stages are completed.	Contractor	Construction
Soil and water	All stockpiles will be designed, established, operated and decommissioned in accordance with <i>Transport for NSW's Stockpile Management Guidelines</i> (EMS-TG-10).	Contractor	Construction

Impact	Environmental safeguards	Responsibility	Timing
Soil and water	Vehicle wash down and/or cement truck washout is to occur in a designated bunded area and least 50 metres away from water bodies and surface water drains.	Contractor	Construction
Soil and water	Any fuel, oils or other liquids stored on site will be stored in an appropriately sized impervious bunded at least 120 per cent larger than the greatest container and in an area least 50 metres away from water bodies.	Contractor	Construction
Soil and water	There is to be no release of dirty water into drainage lines and/or waterways.	Contractor	Construction
Soil and water	Erosion and sediment control measures are not to be removed until the works are complete and areas are stabilised.	Contractor	Construction
Soil and water	Spill kits will be kept on site at all times and all staff will be made aware of the location of the spill kit and trained in its use.	Contractor	Construction
Accidental spill	A site-specific emergency spill plan will be developed and include spill-management measures in accordance with the Transport <i>Code of Practice for Water Management</i> (RTA, 1999) and relevant EPA guidelines. The plan will address measures to be implemented in the event of a spill, including initial response and containment, notification of emergency services and relevant authorities (including Transport EPA officers).	Contractor	Pre-construction
Soils	Controls will be implemented to minimise the release of soil and particulates onto pavement surfaces.	Contractor	Construction
Soils	Any soil material transported onto pavement surfaces will be swept and removed at the end of each working day.	Contractor	Construction

6.8 Non-Aboriginal heritage

6.8.1 Methodology

A desktop review of the following databases was carried out on 26 October 2023 to assess potential impacts of the proposal on non-Aboriginal heritage:

- Australian heritage database (DCCEEW, 2022c)
- NSW Heritage Database (Heritage NSW, 2022b)
- Transport for NSW Section 170 heritage register
- Sydney LEP 2012 heritage list.

6.8.2 Existing environment

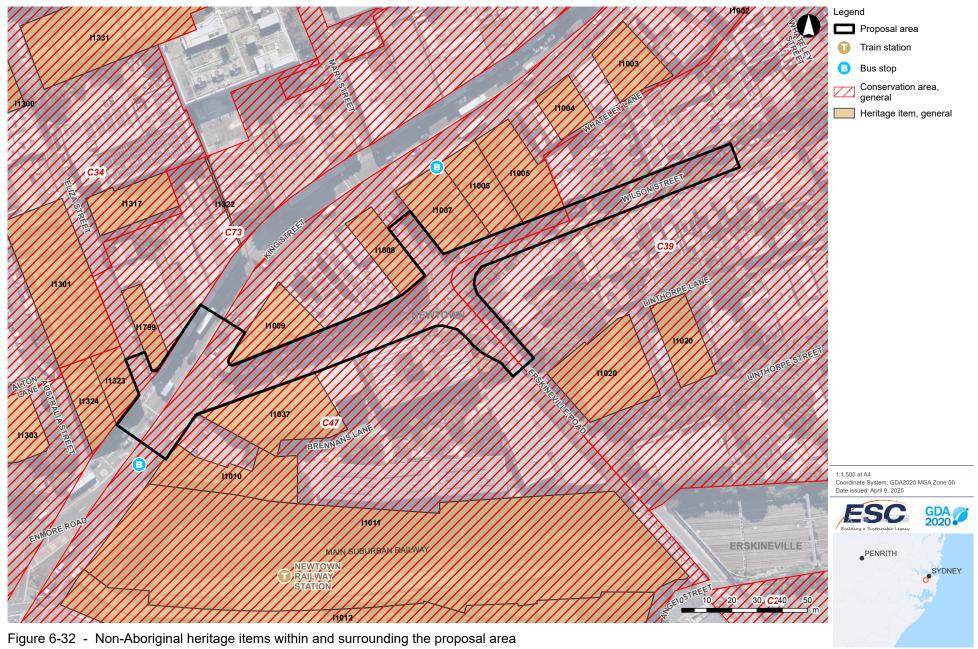
The results of the database searches indicate that the proposal is located within two heritage conservation areas and is within the vicinity of another. There are also seven items of non-Aboriginal heritage located within five metres of the proposal. Six of these are local heritage listed, and one is listed in both local and state heritage registers. Nine other heritage items are located within 100 metres of the proposal.

These sites are shown in Figure 6-32 and summarised in Table 6-40.

Table 6-40: Non-Aboriginal heritage items in the proposal area

Item	Heritage significance	Description	Address	Listing	Location (approximate)
King Street Heritage Conservation Area	Local	The conservation area, located in Newtown and Erskineville, starts in Erskineville south of Union Street and ends at Concord Street.	Newtown and Erskineville	C47, Sydney LEP 2012	The proposal is located within this conservation area
Commercial building	Local	Heritage building used for commercial purposes.	1-9 Wilson Street, Newtown	I1037, Sydney LEP 2012	Located within 5 metres of the proposal, on the southeastern corner of the Eliza, King and Wilson Street intersection
Commercial building	Local	Heritage building used for commercial purposes.	304-312 King Street, Newtown	I1009, Sydney LEP 2012	Located within 5 metres of the proposal, adjacent to the proposed cycleway
Newtown Post Office	Local	Heritage building servicing the Newtown Post Office.	8A Wilson Street, Newtown 292 King Street, Newtown	I1008, Sydney LEP 2012	Located within 5 metres of the proposal, adjacent to the proposed cycleway
Commercial building	Local	Heritage building used for commercial purposes.	286-290 King Street, Newtown	I1007, Sydney LEP 2012	Located within 5 metres of the proposal, adjacent to the proposed cycleway
Commercial building	Local	Heritage building used for commercial purposes.	282-284 King Street, Newtown	I1006, Sydney LEP 2012	Located within 5 metres of the proposal, adjacent to the proposed cycleway
Newtown Mission Uniting Church	Local and State	A two-storey Victorian Gothic style church constructed of face brickwork on sandstone base with stone dressings, buttresses and gable roof.	280A King Street, Newtown	I1005, Sydney LEP 2012 00747, State Heritage Register	Located within 5 metres of the proposal, adjacent to the proposed cycleway
King Street and Enmore Road Heritage Conservation Area	Local	This conservation area in Newtown/Enmore consists of all the properties along King Street and Enmore Road from the junction with Church Street in the north to Stanmore Road in the west and Illawarra Railway Road in the south.	Newtown/ Enmore	C73, Inner West LEP 2022	The proposal is located within the conservation area, where the shared area is proposed on Eliza Street
Former Commercial Banking Company (CBC) Bank, including interiors	Local	Heritage building formerly servicing the CBC of Sydney Limited, a bank based in Sydney. Currently used for commercial purposes.	325 King Street, Newtown	I1323, Inner West LEP 2022	Located within 5 metres west of the proposal

Item	Heritage significance	Description	Address	Listing	Location (approximate)
Websters Bar	Local	Websters Bar has historical significance to the Inner West as a long-running and early hotel in Newtown on a prominent corner of King Street's historical core.	323 King Street, Newtown	I1799, Inner West LEP 2022	Located within 5 metres north of the proposal



6.8.3 Potential impacts

Construction

As identified in Section above, there are several local heritage items within five metres of the proposal boundary. These heritage items include several commercial buildings, the Newtown Post Office, Newtown Mission Uniting Church, and the former CBC Bank.

The light and Traffic Control System (TCS) pole located on the northeastern corner of the King Street, Eliza Street and Wilson Street intersection would be relocated accommodate the adjustments to the pram ramp and kerb on the northern side of Wilson Street. The light would be removed, and the pole would be relocated about two metres north east of its existing location. To avoid impacts to the heritage-listed building located on 312-314 King Street, Newtown, the pole would be reduced to a half-pole. The provision of a half-pole would avoid interaction with the awning of the heritage-listed building. Figure 6-33 shows an example of an existing short Smart Pole with TCS lanterns.

No direct impacts to heritage properties are anticipated as the proposal is primarily limited to the boundaries of Wilson Street, Erskineville Road and Eliza Street. However, the use of a vibratory roller during construction has the potential to pose vibration impacts to surrounding heritage buildings located within the safe working buffer distances (refer to Table 6-33). To minimise potential vibration impacts, monitoring would be undertaken to confirm that vibration emissions are under the vibration criteria outlined in Table 6-29. Where vibration monitoring indicates exceedances of the vibration criteria, smaller equipment and alternative work methods would be investigated. Further assessment on noise and vibration impacts is detailed in Section 6.5.

Environmental management measures, outlined in Section 6.5.4 and Section 6.8.4, would be in place during construction to minimise any potential impacts to heritage items within and surrounding the proposal.

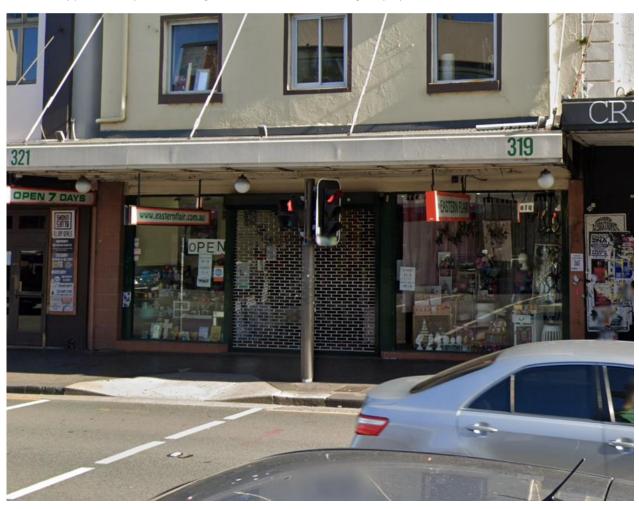


Figure 6-33: Existing example of a half Smart Pole

Operation

No impacts are expected during operation of the proposal.

6.8.4 Safeguards and management measures

Table 6-41: Non-Aboriginal heritage safeguards and management measures

Impact	Environmental safeguards	Responsibility	Timing
Non-Aboriginal heritage	A Non-Aboriginal Heritage Management Plan (NAHMP) will be prepared and implemented as part of the CEMP. It will provide specific drafting guidance on measures and controls to be implemented to avoid and mitigate impacts to non-Aboriginal heritage.	Contractor	Pre-construction / Construction
Non-Aboriginal heritage	The Standard Management Procedure - Unexpected Heritage Items (Transport for NSW, 2015) will be followed in the event that any unexpected heritage items, archaeological remains or potential relics of non-Aboriginal origin are encountered. Work will only re-commence once the requirements of that Procedure have been satisfied.	Contractor	Pre-construction / Construction
Non-Aboriginal heritage	All workers will be inducted and alerted to the location of the nearby heritage-listed items. These properties will be avoided completely during construction.	Contractor	Pre-construction / Construction

6.9 Landscape character and visual impacts

6.9.1 Methodology

A desktop visual impact assessment was undertaken for the proposal. The assessment followed the Transport for NSW's environmental impact assessment practice note EIA-N04 *Guideline for Landscape Character and Visual Impact Assessment* (TfNSW, 2020).

The visual impact was assessed in relation to the sensitivity and magnitude of visual change from the proposal based on the quality and sensitivity of the existing view. The methodology used followed the landscape character and visual impact rating matrix from Section 4 of the guidelines and is shown in Figure 6-34. This matrix was used to determine the sensitivity and magnitude of impact the proposal may have on the selected viewpoints within the visual catchment area.

The definitions of sensitivity and magnitude are outlined below and in Section 4 of the guidelines:

- **Sensitivity** refers to the qualities of an area, the number and type of receivers and how sensitive the existing character of the setting is to the proposed nature of change
- Magnitude refers to the physical scale of the project, how distant it is and the contrast it presents to the existing condition.

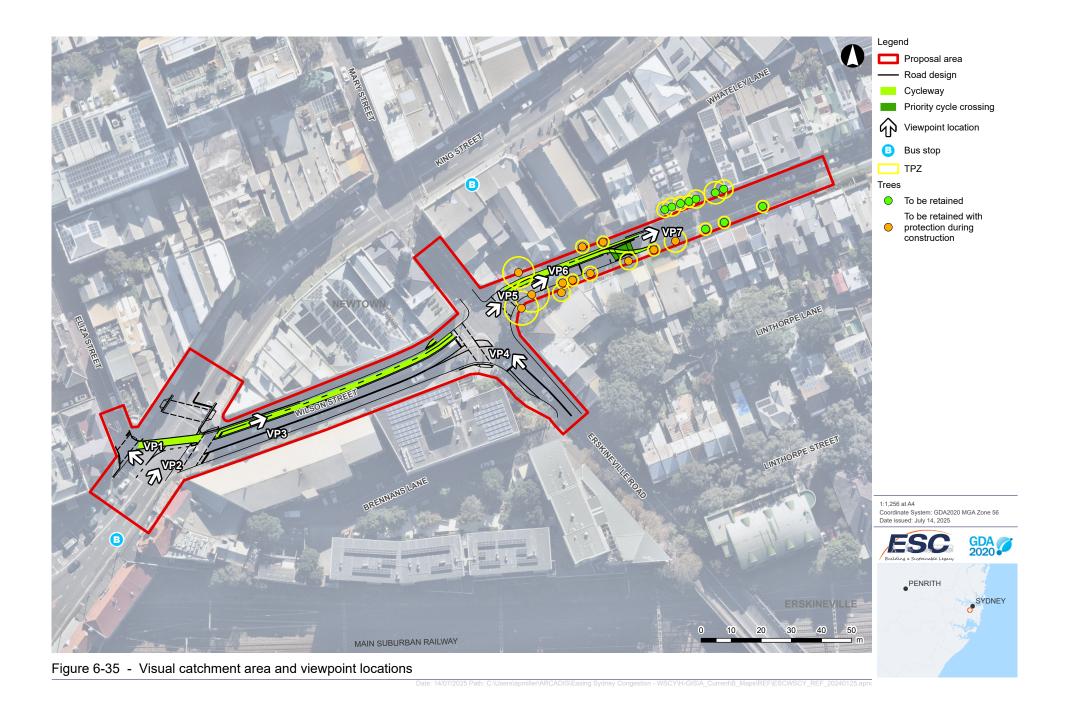
Magnitude

		High	Moderate	Low	Negligible
_	High	High	High-Moderate	Moderate	Negligible
sitivity	Moderate	High-Moderate	Moderate	Moderate-low	Negligible
Sensi	Low	Moderate	Moderate-low	Low	Negligible
0)	Negligible	Negligible	Negligible	Negligible	Negligible

Figure 6-34: Landscape character and visual impact rating matrix

The visual catchment area was identified based on the extent the proposal would likely be visible in the surrounding area. Seven viewpoint locations were chosen within the visual catchment area to show where there would be key changes to the existing road would be visible to the public, such as pedestrians and commuters passing through the area. The visual catchment area and six viewpoint locations are shown on Figure 6-35.

The potential visual impact of the proposal was also informed by the Arboricultural Report included in Appendix D.



6.9.2 Existing environment

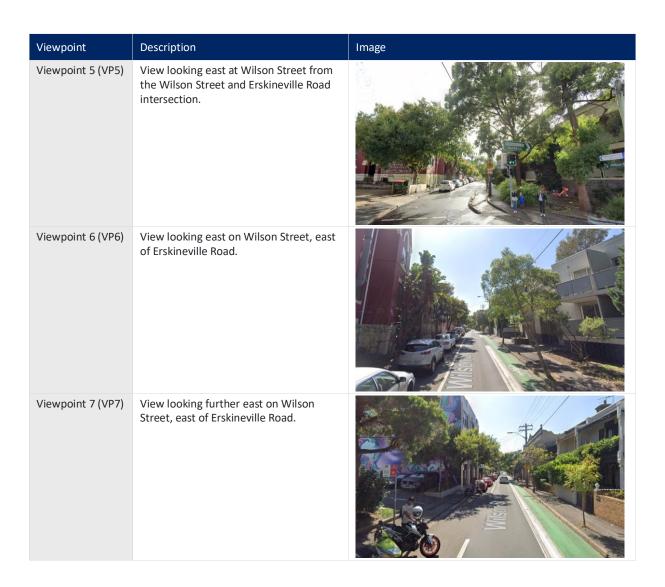
The proposal is located in an urban environment along Eliza Street, Wilson Street and Erskineville Road, within the Inner West Council and City of Sydney LGAs. Development surrounding the proposal area consists of commercial and residential.

The land use character is consistent with the land zonings under Inner West LEP and Sydney LEP, as described in Section 4.1.2. The proposal is located within the vicinity of several heritage items, as outlined in Section 6.8.

Trees are present in the proposal area around the road, mostly within the road reserve and also private land, as shown on Figure 6-35. Seven viewpoint locations within the study area were selected representing locations with direct line of sight to the proposal and trees impacted by the proposal. Images and a description of each viewpoint is provided in Table 6-42.

Table 6-42: Viewpoints

Viewpoint	Description	Image
Viewpoint 1 (VP1)	View looking east into Eliza Street from the intersection of King Street, Eliza Street and Wilson Street.	NASTERS
Viewpoint 2 (VP2)	View looking northeast into Wilson Street from the intersection of King Street, Eliza Street and Wilson Street.	ALDEUG STATE OF THE PARTY OF TH
Viewpoint 3 (VP3)	View looking eastbound on Wilson Street to the Wilson Street and Erskineville Road intersection.	TRADO
Viewpoint 4 (VP4)	View looking north at the Wilson Street and Erskineville Road intersection from Erskineville Road.	



6.9.3 Potential impacts

Construction

The majority of visual impacts would be caused by equipment associated with the utility adjustment, including temporary fencing, signage and construction machinery. This would have the potential to result in visual clutter in the streetscape during construction works.

Operation

The proposal would result in the following key visual changes (refer to Figure 3-3):

- Installation of a bi-directional cycleway along Wilson Street
- Removal of up to 13 parking spaces and one loading zone on the northern side of Wilson Street
- Installation of concrete median kerb for about 90 metres on Wilson Street between King Street and Erskineville Road, and 80 metres on Wilson Street east of Erskineville Road, to separate the cycleway and the road
- Installation of a small median island at northeastern corner of intersection of Wilson Street and King Street
- Addition of a new LED luminaire and outreach arm on existing lighting pole on northeastern corner of intersection of King Street and Wilson Street
- Removal of about 75 metres of existing cycle lane marking and concrete barriers along southern side of Wilson Street
 east of Erskineville Road
- Update of signage to identify bicycle lanes along Wilson Street

- Inclusion of a shared space signage for both pedestrians and biker riders on Eliza Street
- Installation of a raised priority cycle crossing on Wilson Street about 75 metres east of Erskineville Road.

An assessment on the visual impact due to the loss of trees and inclusion of the new cycleway infrastructure is provided in Table 6-43.

Table 6-43: Operational visual impact assessment

Viewpoint	Sensitivity	Magnitude	Overall rating of impact	Comment
VP1	Low	Low	Low	No existing street trees are present on Eliza Street within the proposal area. This area would remain a shared zone for people bike riding, driving and walking. The impact would be minor given the minimal changes proposed.
VP2	Moderate	Moderate	Low-moderate	No existing street trees are present on King Street and Wilson Street from the view in VP2. Several heritage-listed buildings are in view. The prominence of the light pole located on the northeastern corner of the intersection would be reduced as this would be replaced with a half pole slightly east of its existing location. The proposal would result in the removal of one loading zone and seven car parking spaces on the northern side of Wilson Street. In its place, a bidirectional cycleway would be constructed. The overall visual impact of this change is considered minor, with fewer vehicles utilising this area.
VP3	Low	Moderate	Low-moderate	The removal of one loading zone and seven car parking spaces on the northern kerb of Wilson Street would have relatively minor visual impacts at this viewpoint. The overall character of the location would not change substantially.
VP4	Low	Low	Low	One tree located on the southeastern corner of the intersection would be retained.
VP5	Moderate	Moderate	Moderate	Up to two trees on the southeastern corner of the intersection, and one tree on the northeastern corner, would be retained. There would be a replacement of seven car parking spaces with a bidirectional cycleway on the northern side of Wilson Street. At this viewpoint, the proposal would result in moderate visual impacts.
VP6	Moderate	Moderate	Moderate	Up to three trees on the southern side, and two trees on the northern side of Wilson Street would be retained. There would be a replacement of seven car parking spaces with a bi-directional cycleway on the northern side of Wilson Street. At this viewpoint, the proposal would result in moderate visual impacts.
VP7	Moderate	Moderate	Moderate	Up to three trees on the southern side of Wilson Street, and one tree on the northern side, would be retained.

6.9.4 Safeguards and management measures

Table 6-44: Landscape character and visual safeguards and management measures

Impact	Environmental safeguards	Responsibility	Timing
Landscape character and visual impact	The work site will be left in a tidy manner at the end of each work day.	Contractor	Construction
Visual amenity	Landscaping is to be designed in line with Transport's Landscape design guideline (2023).	Transport	Detailed design

6.10 Other impacts

6.10.1 Existing environment and potential impacts

Table 6-45: Other potential impacts

Environmental factor	Existing environment	Potential impacts
Aboriginal heritage	There are no listed Aboriginal heritage items or places within the proposal area listed on the Australian heritage database, NSW heritage database or the Native title register (searched 27 March 2025). A basic Aboriginal Heritage Information Management Systems (AHIMS) search (undertaken as part of the PACHCI procedure, on 11 March 2025) did not identify any known Aboriginal heritage items or places located within 1 kilometre of the proposal area. The Aboriginal Land Claim search on the Crown Lands database (searched on 27 March 2025) did not identify any known claims lodged.	The proposal would require minor ground disturbance and excavations within the proposal area. Excavation works would occur within the existing road and road verge where existing utilities and services are present. The proposal area is within a highly urbanised and developed area. These locations would have been subject to previous ground disturbance and there is a reduced likelihood of unidentified Aboriginal heritage being present in these areas. About 15 trees are proposed to be impacted by the proposal. There are no known flora or fauna within the proposal area that is known to be or culturally significant to local Aboriginal communities. The Stage 1 PACHCI results confirmed the proposal is unlikely to have an impact on Aboriginal cultural heritage for the following reasons: The proposal is unlikely to harm known Aboriginal objects or places The AHIMS search did not indicate moderate to high concentrations of Aboriginal objects or places in the proposal area The proposal area does not contain landscape features that indicate the presence of Aboriginal objects, based on the Office of Environment and Heritage's Due diligence Code of Practice for the Protection of Aboriginal objects in NSW and the Roads and Maritime Services' procedure. The cultural heritage potential of the proposal area appears to be reduced due to past disturbance.

Environmental factor	Existing environment	Potential impacts
Air quality	A search of the National Pollution Inventory for the Sydney LGA (searched 25 October 2023) indicated that there were multiple facilities around the proposal that emitted substances during the 2021/2022 reporting period. Around three facilities producing 18 different substances are listed in the LGA, the nearest being Malt Shovel Brewery in Camperdown, around 1.2 kilometres north of the proposal. The substances most emitted from this location included carbon monoxide, nitrogen oxides, polycyclic aromatic hydrocarbons, volatile organic compounds and particulate matter. Air quality of the study area is considered to be typical of an urban area within Sydney. The main contributors to air quality are emissions from vehicles in the surrounding road network as well as some emissions generated from industrial activities. Typical emissions from vehicles include oxides of nitrogen, carbon monoxide and particulate matter. Sensitive air quality receivers in the area around the proposal include residential and commercial properties, pedestrians, and road users. Air quality records from the nearest monitoring stations in Alexandria categorised overall air quality for the area around Alexandria, and southeast Sydney more broadly, as 'good' over the 2022 year.	Air quality impacts during construction would be predominantly associated with generation of dust from excavation required for pavement works. Dust may settle on nearby properties alongside Wilson Street. However, these potential impacts are expected to be minor as the volume of earthworks would be small. Operation of machinery and vehicles would emit exhaust fumes, though this would be limited to when construction is actively occurring. The emission of exhaust fumes would be minor when compared to exhaust emissions from traffic use on King Street and Erskineville Road daily. Linemarking may also cause odour impacts, though these impacts would also be short-term and limited to when these activities occur during construction. As such, it is not expected that construction would cause any significant impacts to air quality, particularly with the application of safeguards. The proposal would generate additional traffic during construction. This may cause a minor increase in emissions from additional vehicles; however it this would be limited to construction. The implementation of a cycleway along Wilson Street, along with the removal of parking spots, is expected to result in reduced vehicle movements and an uptake of bike rider movements along Wilson Street. This, in turn, may improve local air quality during the operation of the proposal. The proposal would not change the mix of light and heavy vehicles using Wilson Street. As a result, it is not expected that vehicles which produce larger volumes of fumes would utilise the road more than current levels.
Waste and resource use	Construction work may cause significant amounts of waste to be created, which needs to be adequately managed to minimise adverse impacts to the environment. Transport manages waste on its projects in line with the principles of waste hierarchy described in the Waste Avoidance and Resource Recovery Act 2001.	The proposal may generate waste from demolition of kerbs, foot paths, medians and concreted pedestrian refuge islands, excavation for road widening and utility work, removal of stormwater drainage pipelines, removal of vegetation and domestic waste created by workers. Waste streams that may be created include: Excess construction materials Spoil from excavation Packaging for materials Wastewater General, domestic, waste from staff Roadside materials (such as signage, fencing) Potentially hazardous materials if contamination is encountered.

Environmental factor	Existing environment	Potential impacts
		The quantities of waste that may be generated are unlikely to be substantial. Where possible, materials would be recycled or repurposed. Cut and fill has been minimised in design, with excavation work to be minor.
		Spoil and other potentially contaminated materials would be classified in line with the Waste Classification Guidelines (EPA, 2014) and disposed of appropriately at a suitably licenced facility. It is expected that waste impacts would be minimised by implementing safeguards listed below.
Climate change and risk	Climate change adaptation is required to meet future challenges presented from fluctuating weather patterns and increasing intensity of weather events. The potential impacts of climate change that may directly affect the proposal include storms and periods of intense heat. The proposal is not located near a coastline and would not be impacted by sea level rise. It is also not located in an area that is at-risk of bushfires.	Construction would result in a minor increase in emissions of greenhouse gases from the operation of machinery and vehicles. The emission of greenhouse gases would mostly include carbon monoxide from exhaust fumes. As the proposal is small in size when comparison to the broader Sydney and NSW road network, the increase in emissions would be minor. Operation would encourage the reduction of emissions long term, when compared to the existing environment, as the provision of a cycleway would encourage active transport along Wilson Street. Given the small scale of work in comparison to the broader NSW road network, the improvement in greenhouse gas emissions would be also minor. The proposal has been designed with consideration of climatic factors such as temperature in relation to pavement design and storm event severity in relation to impacts on structural drainage infrastructure.

6.10.2 Safeguards and management measures

Table 6-46: Other impacts Safeguards and management measures

Impact	Environmental safeguards	Responsibility	Timing
Air quality	Measures (including watering or covering of exposed areas) are to be used to minimise or prevent air pollution and dust.	Contractor	Construction
Air quality	Works (including the spraying of paint and other materials) are not to be carried out during strong winds or in weather conditions where high levels of dust or air borne particulates are likely.	Contractor	Construction
Air quality	Stockpiles or areas that may generate dust are to be managed to suppress dust emissions in accordance with the Transport for NSW Stockpile Site Management Guideline (EMS-TG-10).	Contractor	Construction

Impact	Environmental safeguards	Responsibility	Timing
Waste	A Waste Management and Resource Recovery Plan (WMRRP) will be prepared and implemented as part of the CEMP. The WMP will include but not be limited to:	Contractor	Pre- construction
	 Measures to avoid and minimise waste associated with the project 		
	 Classification of wastes and management options (re-use, recycle, stockpile, disposal) 		
	 Statutory approvals required for managing on- and off-site waste, or application of any relevant resource recovery exemptions 		
	Procedures for storage, transport and disposal		
	Monitoring, record keeping and reporting.		
	The WMP will align with the Environmental Procedure - Management of Wastes on Transport for NSW Land (Transport, 2014) and relevant Transport Waste fact sheets.		

6.11 Cumulative impacts

6.11.1 Study area

The proposal is located within the Inner West Council and City of Sydney Council LGAs. It is surrounded by a mix of commercial, residential and educational uses.

6.11.2 Broader program of work

This proposal is part of the Easing Sydney's Congestion program. This is funded through the Urban Road Congestion Program, with the NSW Government providing \$450 million towards improving the road network and reducing congestion in urban areas. The program involves a suite of road improvement projects.

6.11.3 Other projects and developments

A search of the NSW Major Projects Portal and Transport project viewer was carried out on 8 April 2025 to inform potential cumulative impacts this proposal may have. Table 6-47 indicates the potential impacts of nearby projects, including those identified during this search. Some information on the projects that have been proposed and approved is limited, however the information that has been gathered is considered to provide a robust assessment.

Table 6-47: Past, present and future projects

Project	Construction impacts	Operational impacts
Royal Prince Alfred Hospital Redevelopment Project approved in September 2023 Construction is expected to be from 2023 to 2028	This project is located about 0.7 kilometres northeast from the proposal. Construction impacts of the Royal Prince Alfred Hospital Redevelopment may include: Heritage impacts relating to the demolition of heritage buildings and tree removal Minor traffic congestion affecting surrounding streets during standard construction hours for about five years Loss of hospital staff and visitor parking Construction noise exceeding the noise criteria for three key receivers including St John's College, St Andrew's College and the Queen Mary Building.	Operational impacts are expected to be minimal but may include: • Changed visual amenity due to new buildings and creation of new spaces such as courtyards.

Project	Construction impacts	Operational impacts
St John's College Private Hospital Proposal is in the approvals stage Construction timeline is currently not known	The proposal is located about 0.7 kilometres northeast from the proposal. Construction impacts of the new private hospital development may include: Impacts to air quality from dust mobilisation Noise and vibrational impacts to nearby receivers during standard hours construction work Soil and water impacts from erosion Vegetation removal Increase in heavy vehicle usage of the nearby road network.	Operational impacts may include: Changed visual amenity due to new buildings and vegetation removal
USYD and RPA Sydney Biomedical Accelerator Project Proposal is in the approvals stage Construction timeline is not currently known	The proposal is located about 0.7 kilometres northeast from the proposal. Construction impacts of the new medical research building and associated infrastructure and public domain works may include: Impacts to air quality from dust mobilisation and demolition works Noise and vibrational impacts to nearby receivers during standard hours construction work Soil and water impacts from erosion Vegetation removal Increase in heavy vehicle usage of the nearby road network.	Operational impacts may include: Changed visual amenity due to new buildings and vegetation removal.
Darlington Public School Redevelopment Project approved in December 2020 Construction completed July 2023	This project is located 0.9 kilometres east from the proposal. The project is completed. No construction impacts are expected.	No operational impacts are expected, the proposal has been operating since mid-2023.
 505 Wilson Street, Redfern – Chief Medical Engineer's Building Proposal is in the approvals stage Construction is anticipated to commence in late 2026 	This proposal is located about 1.5 kilometres east from the proposal. Construction impacts of the demolition works and conservation works may include: Minor to moderate heritage impacts associated with the introduction of a lift, amenities and openings Noise impacts from the mechanical plant servicing the site, leading to exceedance of noise management levels during standard construction hours Potential exposure to hazardous materials.	Operational impacts may include: Removal of two on-street car parking spaces.

Project	Construction impacts	Operational impacts
 Sydney Park Junction Project is in the construction stage Construction commenced late 2022 and is projected to complete mid-2024 	The proposal is located about one kilometre south from the proposal. Construction impacts of the project include: Traffic congestion due to increase in construction traffic Noise and vibration impacts at nearby sensitive receiver locations, including residences and businesses Air quality impacts resulting from vehicle emissions and increased construction traffic.	Operational impacts may include: Improved comfort, safety, access and connectivity for people walking and bike riding along King Street, Princes Highway and Sydney Park Road Increased traffic delays at intersections along Princes Highway/King Street and Sydney Park Road Loss of on-street parking Changed visual amenity due to new buildings and vegetation removal.
 Newington College Proposal is in the approvals stage Construction is anticipated to be completed in 2028 	The proposal is located about 1.2 kilometres west from the proposal. Construction impacts of the project may include: Increased construction traffic on the road network Noise impacts to surrounding receivers during construction activities.	Operational impacts may include: Increased noise resulting from increased student capacity.
 10 Missenden Road, Camperdown, Private Hospital Proposal is in the approvals stage 	 The proposal is located about one kilometre north from the proposal. Construction impacts of the project may include: Impacts to air quality from dust mobilisation Noise and vibrational impacts to nearby receivers during standard hours construction work Soil and water impacts from erosion Vegetation removal Increase in heavy vehicle usage of the nearby road network. 	Operational impacts may include: Changed visual amenity due to new buildings.

6.11.4 Potential impacts

Table 6-48: Potential cumulative impacts

Environmental factor	Construction impacts	Operational impacts
Traffic and transport	The main potential cumulative impact is likely to be a result of increased traffic loads on the road network in Newtown associated with this proposal and other nearby projects.	
	This impact may be exacerbated during periods of lane closures on roads. However, the proposal has considered these impacts and would carry out work that requires road closures during out-of-hours periods where traffic loads are considerably lower.	There is unlikely to be cumulative impacts associated with operation of this proposal.
	Further, a TMP would be implemented during construction and would consider other road closures and/or developments carried out within the vicinity at the same time as the proposal.	

Environmental factor	Construction impacts	Operational impacts
Community	As there are potential overlaps in construction programs with nearby projects, there is the likelihood that nearby residents may suffer from construction fatigue being exacerbated by the presence of projects occurring simultaneously. This would be worsened if different contractors are involved and do not consult each other on construction activities, community engagement and road closures. As a result, causing confusion and frustration.	Operation of this proposal as well as others nearby are not expected to have substantial impacts on the community. Instead, by providing a cycleway along Wilson Street and supporting active transport in the area, it is expected that the proposal would be beneficial for the community.
Noise and vibration	There may be a minor cumulative noise impact associated with the construction of this proposal and nearby projects. However, given the distance of other projects to the proposal, these impacts are anticipated to be minor.	No operational noise and vibration impacts are anticipated as a result of this proposal.

6.11.5 Safeguards and management measures

Table 6-49: Cumulative safeguards and management measures

Impact	Environmental safeguards	Responsibility	Timing
Cumulative construction impacts	The Community Liaison Plan will include consultation with contractors building the Wilson Street Cycleway upgrade to:	Contractor	Pre-construction/ Construction
	 Increase awareness of construction timeframes and impacts 		
	 Coordinate impact mitigation and management (e.g., respite periods, notifications, detours). 		
Cumulative construction impacts	Road Occupancy Licences will be obtained from the Traffic Management Centre, taking into consideration potential traffic impacts to the local road network, including those associated with other projects.	Contractor	Pre-construction
Cumulative construction impacts	The Project Team will liaise with concurrent projects to minimise cumulative impacts.	Contractor	Construction

7. Environmental management

This chapter describes how the proposal will be managed to reduce potential environmental impacts during detailed design, construction and operation. A framework for managing potential impacts is provided. A summary of site-specific environmental safeguards is provided and the licence and/or approval requirements required prior to construction are listed.

7.1 Environmental management plans (or system)

Safeguards and management measures have been identified in the REF in order to minimise adverse environmental impacts, including social impacts, which could potentially arise as a result of the proposal. Should the proposal proceed, these safeguards and management measures would be incorporated into the detailed design and applied during the construction and operation of the proposal.

A Construction Environmental Management Plan (CEMP) will be prepared to describe the safeguards and management measures identified. The CEMP will provide a framework for establishing how these measures will be implemented and who would be responsible for their implementation.

The CEMP will be prepared prior to construction of the proposal and must be reviewed and certified by the Transport for NSW Environment and Sustainability Officer, Sydney, prior to the commencement of any on-site works. The CEMP will be a working document, subject to ongoing change and updated as necessary to respond to specific requirements. The CEMP would be developed in accordance with the specifications set out in the QA Specification G36 - Environmental Protection (Management System), QA Specification G38 - Soil and Water Management (Soil and Water Plan), QA Specification G40 - Clearing and Grubbing, and QA Specification G10 - Traffic Management.

7.2 Summary of safeguards and management measures

Environmental safeguards and management measures outlined in this REF will be incorporated into the detailed design phase of the proposal and during construction and operation of the proposal, should it proceed. These safeguards and management measures will minimise any potential adverse impacts arising from the proposed works on the surrounding environment. The safeguards and management measures are summarised in Table 7-1.

Table 7-1: Summary of safeguards and management measures

No.	Impact	Environmental safeguards	Responsibility	Timing
B1	Biodiversity	All tree work must be in accordance with Australian Standard AS 4373-2007, Pruning of Amenity Trees and the NSW WorkCover Code of Practice for the Amenity Tree Industry (1998).	Contactor	Pre-construction/ Construction
B2	Biodiversity	If unexpected threatened flora or fauna are discovered, works will stop immediately and the Transport for NSW Unexpected Threatened Species Find Procedure in the Biodiversity Guideline 2011 implemented.	Contractor	Construction
В3	Biodiversity	All pathogens (such as Chytrid, Myrtle Rust and Phytophthora) will be managed in accordance with Transport's <i>Biodiversity Guidelines - Guide 7 (Pathogen Management)</i> and Department of Planning, Industry and Environment <i>Hygiene Guidelines for Wildlife</i> (DPIE, 2020).	Contractor	Construction
B4	Biodiversity	All trees will be marked for protection. Trees would be protected in accordance with AS 4970-2009 – <i>Protection of trees on development sites</i> and may require exclusion fencing of the Tree Protection Zones.	Contractor	Construction
SE1	Socio-economic	A Communication Plan (CP) will be prepared and implemented as part of the CEMP to help provide timely and accurate information to the community during construction. The CP will include (as a minimum): • Mechanisms to provide details and timing of proposed activities to affected stakeholders, including	Contractor	Pre-construction
		changed traffic and access conditions		
		Toll free number and email address for enquiries and complaints		
		How the project webpage will be maintained for the duration of the proposal		
		A complaint's handling procedure		
		 Consultation activities to be carried out. The cp will be prepared in accordance with the community involvement and communications resource manual (RTA, 2008). 		
SE2	Socio-economic	On-going communication and consultation with owners of impacted businesses would occur. This would include working with the business owners to manage and plan project construction activities and delivery to minimise impacts on their business operations.	Contractor	Pre-construction

No.	Impact	Environmental safeguards	Responsibility	Timing
SE3	Socio-economic	Opportunities for Aboriginal employees and procurement will be prioritised in accordance with the Aboriginal Procurement Policy (NSW Government, 2021) and Aboriginal Participation Strategy (Transport for NSW, 2023).	Contractor	Detailed design / pre-construction / construction
TT1	Traffic and transport	A Traffic Management Plan (TMP) will be prepared and implemented as part of the CEMP. The TMP will be prepared in accordance with the Transport <i>Traffic Control at Work Sites Manual</i> (RTA, 2010) and <i>QA Specification G10 Control of Traffic</i> (Transport for NSW, 2008). The TMP will include:		
		Confirmation of haulage routes		
		Measures to maintain access to local roads and properties		
		Site-specific traffic control measures (including signage) to manage and regulate traffic movement		
		Measures to maintain pedestrian and bike rider access		
		Requirements and methods to consult and inform the local community of impacts on the local road network		
		Access to construction sites including entry and exit locations and measures to prevent construction vehicles queuing on public roads.		
		A response plan for any construction traffic incident		
		Consideration of other developments that may be under construction to minimise traffic conflict and congestion that may occur due to the cumulative increase in construction vehicle traffic		
		Monitoring, review and amendment mechanisms.		
TT2	Traffic and transport	Where possible, vehicular property access will be maintained including access to pre-schools, places of worship and all commercial premises during hours of operation. Where property access will have to be temporarily closed during construction:	Contractor	Construction
		Property owners will be notified at least five business days prior to the access closure		
		Alternative access will be provided if available		
		Access closure will be minimised and access will be returned to the property owners as soon as possible.		
TT3	Traffic and transport	Pedestrian and bike rider access is to be maintained throughout construction.	Contractor	Construction
		Provision of signs outlining the pedestrians and bike rider diversion routes will be displayed during construction.		
		There will be advance notification of any construction works that affect pedestrians and bike riders.		
TT4	Traffic and transport	Appropriate signage (such as variable message signs) and supervision will be provided to ensure that all work areas are controlled and that unauthorised personnel (e.g. pedestrians) are excluded from work areas.	Contractor	Construction

No.	Impact	Environmental safeguards	Responsibility	Timing
NV1	Noise and vibration	A Construction Noise and Vibration Management Plan (CNVMP) will be prepared and implemented as part of the CEMP. The CNVMP will generally follow the approach in the Interim Construction Noise Guideline (ICNG) (DECC, 2009) and identify:	Contractor	Pre-construction
		Implementation of community consultation measures (refer to Appendix C of the CNVG)		
		All potential significant noise and vibration generating activities associated with the activity		
		Feasible and reasonable mitigation measures to be implemented, taking into account beyond the pavement: urban design policy, process and principles (transport, 2014)		
		A monitoring program to assess performance against relevant noise and vibration criteria		
		Arrangements for consultation with affected neighbours and sensitive receivers, including notification and complaint handling procedures		
		• Contingency measures to be implemented in the event of non-compliance with noise and vibration criteria.		
NV2	Noise and vibration	All sensitive receivers (e.g., schools and local residents) likely to be noise affected will be notified at least five business days prior to commencement of any work associated with the activity that may have an adverse noise or vibration impact. The notification will provide details of:	Contractor	Pre-construction/ Construction
		The project		
		The construction period and construction hours		
		Contact information for project management staff		
		Complaint and incident reporting		
		How to obtain further information.		
NV3	Noise	Use and siting of plant:	Contractor	Construction
		The offset distance between noise plant and adjacent sensitive receivers is to be maximised		
		Plant used intermittently is to be throttled down or shut down between use		
		Where possible, noise emitting plant is to be directed away from sensitive receivers		
		Only necessary plant items should be used on site.		
NV4	Noise	Non-tonal reversing beepers (or an equivalent mechanism) must be fitted and used on all construction vehicles and mobile plant regularly used on site and for any out of hours work, including delivery vehicles.	Contractor	Construction
		Consider the use of ambient sensitive alarms that adjust output relative to the ambient noise level.		
NV5	Noise	Vehicle delivery times will be scheduled where feasible to standard construction hours to minimise noise impacts from heavy vehicle movements and deliveries.	Contractor	Construction
NV6	Noise	Noisy works (including saw cutting, jackhammering, mulching and chainsaw use) will be completed by midnight (12am).	Contractor	Construction

No.	Impact	Environmental safeguards	Responsibility	Timing
NV7	Noise	Noise curtains are to be used for all noisy works (including saw cutting, jackhammering, mulching and chainsaw use) at night.	Contractor	Construction
NV8	Noise	Behavioural practices should be controlled, particularly during the night time period:	Contractor	Construction
		No swearing or unnecessary shouting or loud stereos/radios on site		
		No dropping of materials from height, throwing of metal items and slamming of doors.		
NV9	Noise	A noise verification program is to be carried out in accordance with the Construction Noise and Vibration Management Plan and any approval and licence conditions.	Contractor	Construction
NV10	Noise and vibration	During work hours, a community liaison phone number and site contact will be provided to enable complaints to be received and responded to.	Contractor	Construction
NV11	Noise and vibration	All employees, contractors and subcontractors are to receive an environmental induction. The induction must at least include:	Contractor	Construction
		All proposal specific and relevant standard noise and vibration mitigation measures		
		Relevant licence and approval conditions		
		Permissible hours of work		
		Any limitations on high noise generating activities		
		Location of nearest sensitive receivers		
		Construction employee parking areas		
		Designated loading/unloading areas and procedures		
		Site opening/closing times (including deliveries)		
		Environmental incident procedures.		
NV12	Noise and vibration	Building condition surveys will be undertaken for buildings within safe working distances by a qualified contractor and a building condition report prepared.	Contractor	Pre-construction
NV13	Noise and vibration	Construction methods must consider safe working distances for rollers and other vibration producing equipment when working adjacent to structures, including heritage structures.	Contractor	Construction
NV14	Noise and vibration	Where safe working distances for vibration producing equipment cannot be maintained, a vibration assessment is to be prepared and included in the CNVMP. The vibration assessment is to include (as a minimum):	Contractor	Pre-construction
		Identification of potentially affected properties/receivers		
		A risk assessment to determine the potential for discrete work activities to affect receivers		
		A map indicating the locations considered likely to be impacted and those requiring building condition surveys		
		Outline a monitoring program		

No.	Impact	Environmental safeguards	Responsibility	Timing
		A process for assessing the performance of the implemented mitigation measures		
		A process for resolving issues and conflicts.		
NV15	Noise and vibration	Consider alternative equipment, plant and processes which produce less vibration where safe working distances cannot be achieved, to minimise or prevent vibration impacts.	Contractor	Construction
NV16	Noise and vibration	Works will be undertaken no more than five nights in a week.	Contractor	Construction
NV17	Noise	Consider alternative accommodation for residents that experience highly intrusive noise levels during construction.	Contractor	Pre-construction Construction
F1	Flooding	Flood contingency measures would be prepared as part of the CEMP to manage a potential flood event during construction and would outline procedures to reduce risk including removal of all plant/equipment and stabilising exposed areas.	Contractor	Pre-construction
F2	Flooding, material storage and stockpiling	The storage of hazardous material in ancillary facilities will be confined to areas that are not subject to flooding during a 1-in-100-year flood event or either:	Contractor	Construction
	within ancillary sites	Stored in a manner that prevents their mobilisation during times of flood		
		Be removed from the area when rain events are predicted to inundate storage areas and at the onset of a flood.		
SW1	Soil and water	Erosion and sediment control measures are to be implemented and maintained to:	Contractor	Construction
	management	Minimise sediment moving off-site and sediment laden water entering any water course, drainage lines, or drain inlets		
		Reduce water velocity and capture sediment on site		
		Minimise the amount of material transported from site to surrounding pavement surfaces		
		Divert clean water around the site.		
		(in accordance with the Landcom/ Department of Housing Managing Urban Stormwater, Soils and Construction Guidelines (the Blue Book)).		
SW2	Soil and water	An Erosion and Sedimentation Control will be prepared prior to construction and is to include as a minimum:	Contractor	Pre-construction
		Identify site catchment and sub catchments, high risk areas and sensitive areas		and construction
		Sizing of each of the above areas and catchments		
		The likely run off from each sub catchment		
		Separation of on site and off site water		
		The direction of run off and drainage points during each stage of construction		
		The direction of flow of on site and off site water		

No.	Impact	Environmental safeguards	Responsibility	Timing
		The locations and sizing of sediment basins or sumps and associated catch drains and/or bunds		
		The locations of other erosion and sediment control measures (e.g. rock check dams, swales and sediment fences)		
		Controls/measures to be implemented on wet weather events		
		A mapped plan identifying the above		
		A dewatering procedure for on site water and basins		
		A process for reviewing and updating the plan on a fortnightly basis and/or when work alters.		
SW3	Soil and water	Where relevant, stabilisation of construction work zones will occur progressively as construction stages are completed.	Contractor	Construction
SW4	Soil and water	All stockpiles will be designed, established, operated and decommissioned in accordance with <i>Transport for NSW's Stockpile Management Guidelines</i> (EMS-TG-10).	Contractor	Construction
SW5	Soil and water	Vehicle wash down and/or cement truck washout is to occur in a designated bunded area and least 50 metres away from water bodies and surface water drains.	Contractor	Construction
SW6	Soil and water	Any fuel, oils or other liquids stored on site will be stored in an appropriately sized impervious bunded at least 120 per cent larger than the greatest container and in an area least 50 metres away from water bodies.	Contractor	Construction
SW7	Soil and water	There is to be no release of dirty water into drainage lines and/or waterways.	Contractor	Construction
SW8	Soil and water	Erosion and sediment control measures are not to be removed until the works are complete and areas are stabilised.	Contractor	Construction
SW9	Soil and water	Spill kits will be kept on site at all times and all staff will be made aware of the location of the spill kit and trained in its use.	Contractor	Construction
SW10	Accidental spill	A site-specific emergency spill plan will be developed and include spill-management measures in accordance with the <i>Transport Code of Practice for Water Management</i> (RTA, 1999) and relevant EPA guidelines. The plan will address measures to be implemented in the event of a spill, including initial response and containment, notification of emergency services and relevant authorities (including Transport EPA officers).	Contractor	Pre-construction
SW11	Soils	Controls will be implemented to minimise the release of soil and particulates onto pavement surfaces.	Contractor	Construction
SW12	Soils	Any soil material transported onto pavement surfaces will be swept and removed at the end of each working day.	Contractor	Construction
NAH1	Non-Aboriginal heritage	A Non-Aboriginal Heritage Management Plan (NAHMP) will be prepared and implemented as part of the CEMP. It will provide specific drafting guidance on measures and controls to be implemented to avoid and mitigate impacts to non-Aboriginal heritage.	Contractor	Pre-construction / Construction

No.	Impact	Environmental safeguards	Responsibility	Timing
NAH2	Non-Aboriginal heritage	The Standard Management Procedure - Unexpected Heritage Items (Transport for NSW, 2015) will be followed in the event that any unexpected heritage items, archaeological remains or potential relics of non-Aboriginal origin are encountered.	Contractor	Pre-construction / Construction
		Work will only re-commence once the requirements of that Procedure have been satisfied.		
NAH3	Non-Aboriginal heritage	All workers will be inducted and alerted to the location of the nearby heritage-listed items. These properties will be avoided completely during construction.	Contractor	Pre-construction / Construction
L1	Landscape character and visual impact	The work site will be left in a tidy manner at the end of each work day.	Contractor	Construction
L2	Visual amenity	Landscaping is to be designed in line with Transport's Landscape design guideline (2023).	Transport	Detailed design
A1	Air quality	Measures (including watering or covering of exposed areas) are to be used to minimise or prevent air pollution and dust.	Contractor	Construction
A2	Air quality	Works (including the spraying of paint and other materials) are not to be carried out during strong winds or in weather conditions where high levels of dust or air borne particulates are likely.	Contractor	Construction
А3	Air quality	Stockpiles or areas that may generate dust are to be managed to suppress dust emissions in accordance with the Transport for NSW Stockpile Site Management Guideline (EMS-TG-10).	Contractor	Construction
W1	Waste	A Waste Management and Resource Recovery Plan (WMRRP) will be prepared and implemented as part of the CEMP. The WMP will include but not be limited to:	Contractor	Pre-construction
		Measures to avoid and minimise waste associated with the project		
		Classification of wastes and management options (re-use, recycle, stockpile, disposal)		
		 Statutory approvals required for managing on- and off-site waste, or application of any relevant resource recovery exemptions 		
		Procedures for storage, transport and disposal		
		Monitoring, record keeping and reporting.		
		The WMP will align with the <i>Environmental Procedure - Management of Wastes on Transport for NSW Land</i> (Transport, 2014) and relevant Transport Waste fact sheets.		
CU1	Cumulative construction impacts	The Community Liaison Plan will include consultation with contractors building the Wilson Street Cycleway upgrade to:	Contractor	Pre-construction/ Construction
		Increase awareness of construction timeframes and impacts		
		Coordinate impact mitigation and management (e.g., respite periods, notifications, detours).		

Transport for NSW

No.	Impact	Environmental safeguards	Responsibility	Timing
CU2	Cumulative construction impacts	Road Occupancy Licences will be obtained from the Traffic Management Centre, taking into consideration potential traffic impacts to the local road network, including those associated with other projects.	Contractor	Pre-construction
CU3	Cumulative construction impacts	The Project Team will liaise with concurrent projects to minimise cumulative impacts.	Contractor	Construction

7.3 Licensing and approvals

Table 7-2: Summary of licensing and approvals required

Instrument	Requirement	Timing
Roads Act 1993	Road occupancy licence to dig up, erect a structure or carry out work in, on or over a road	Prior to start of activity

8. Conclusion

This chapter provides the justification for the proposal taking into account its biophysical, social and economic impacts, the suitability of the site and whether or not the proposal is in the public interest. The proposal is also considered in the context of the objectives of the EP&A Act, including the principles of ecologically sustainable development as defined in Section 193 of the Environmental Planning and Assessment Regulation 2021.

8.1 Justification

Newtown has been identified as a location with limited existing cycling infrastructure, including a missing link in the existing cycle network due to a gap between the contraflow bicycle lane on Wilson Street and the shared zone in Eliza Street. This gap limits the connectivity of the cycle network, while a lack of suitable infrastructure discourages both people bike riding and walking from utilising active modes of transportation, hindering their safety and convenience. Presently, people bike riding are compelled to ride on the road, resulting in an unsafe environment for all road users.

To improve connectivity for active transport users between Newtown and Green Square and improve the safety and connectivity for all road users on Wilson Street, three options were evaluated on upgrading the intersections of Eliza Street, Wilson Street and King Street, and Erskineville Road and Wilson Street. Each option considered parking, road safety, transport improvements, cost, constructability, and land acquisition requirements.

Option 2 was considered the preferred design for the proposal, providing a cycleway along the northern side of Wilson Street. Option 1, the 'do nothing' option, would have no impacts on utilities, land use, the community or land acquisition, but it would also fail to meet the proposal objectives. While both Option 2 and 3 would have similar impacts to the environment and local community, Option 2 would provide greater safety improvements.

The REF has assessed the potential, biophysical, social and economic impacts of the proposal. The proposal would result in a number of environmental impacts including:

- Construction noise and vibration
- Construction traffic and access disruptions including temporary traffic control measures for road users and pedestrians, property access restrictions, and removal of parking spaces and a loading zone
- Operational traffic impacts through the loss of a loading zone and several parking spaces on Wilson Street
- Cumulative noise and traffic impacts with other nearby development projects
- Possible temporary loss of services and utilities during relocation and reconnection of services such as electricity and water

The proposal is consistent with relevant statutory and planning frameworks and would provide the missing link between the Wilson Street cycleway and Eliza Street shared zone. This REF has concluded that the adverse impacts of the proposal would be outweighed by the long-term beneficial impacts of providing safety and accessibility for all road users on Wilson Street and manage the street space along Wilson Street as a public space to improve amenity. Therefore, the proposal is considered justified.

8.1.1 Social factors

Social and economic factors have been assessed in Section 6.2 of this REF. Most of the works would be carried out within the existing road corridor.

Socio-economic impacts are anticipated as the surrounding area is mostly residential.

Whilst socio-economic impacts are anticipated during construction and operation, these are expected to be minor and management measures and safeguards would be in place as a mitigation.

Overall, the proposal would have a long term, positive effect for the local community and businesses in the vicinity as it would improve safety and connectivity for people walking and bike riding. This would be achieved through the provision of a new cycleway along Wilson Street from Eliza Street to east of Erskineville Road. Additionally, the proposal would improve safety and accessibility for pedestrians as kerb ramps and new footpaths would be provided to replace existing infrastructure.

8.1.2 Biophysical factors

Potential environmental impacts as a result of the proposal are described throughout Chapter 6 of the REF. Temporary impacts to amenity would occur during construction including noise and vibration, visual impacts, and air quality. These impacts would not be significant and are manageable through the application of environment management measures and safeguards in Chapter 6.

8.1.3 Economic factors

Economic factors have been assessed as part of the REF in Section 6.2. The proposal would have low to moderate impacts to businesses during construction due to closures of existing footpaths or pedestrian crossings, and lane closures and detours within the proposal area. High to moderate impacts are anticipated for businesses along Wilson Street, and potentially other businesses in close proximity, due to the removal of parking spaces and loading zone on Wilson Street. This may increase the required time to transport goods to and from their businesses, which may cause frustration for business operators. On-going communication and consultation with owners of impacted businesses would occur, with the aim to minimise impacts to businesses. Alternative loading zones have been provided in close proximity to the proposal, including:

- Extension of the operating hours of the loading zone outside the Bank Hotel on King Street to 9am to 3pm on weekdays
- Provision of a loading zone off Erskineville Road, between King Street and Wilson Street, during off-peak periods between Monday to Friday 10am to 3.30pm.

Some home-based businesses and employees that work from home may experience noise disturbance during the program of work as detailed in Section 6.5. These impacts would be effectively managed through respite periods and other mitigation measures as outlined in Section 7.2.

8.1.4 Public interest

The proposal recognises the need to improve the active transport network, and improve safety at the intersections along Wilson Street. During construction the public is likely to experience:

- Amenity impacts such as noise and vibration impacts (refer to Section 6.5)
- Traffic delays for private and public transport due to road closures (refer to Section 6.4)
- Increased dust exposure (refer to Section 6.10)
- Frustration for people walking and bike riding due to closures of existing footpaths and crossings, and road lanes (refer to Section 0).

These impacts would be temp[orary and limited to the construciton period only. Once in operation the proposal is expected to provide a public benefit and would be in the public interest as it would:

- Provide the missing link between the western extent of Wilson Street cycleway and the Eliza Street shared zone, improving the active transport connectivity in Sydney's inner west and city. This would help to reduce car dependence by improving access to cycleways for residents, workers and visitors.
- Improve safety and connectivity for all road users on Wilson Street through additional and improved pedestrian crossings
 at the intersection of King Street and Wilson Street, and Erskineville Road and Wilson Street. Safety would also be
 improved through the provision of a raised priority cycle crossing on Wilson Street between Erskineville Road and Brown
 Street.
- Manage the street space along Wilson Street as public space to improve the amenities.

Overall the proposal is considered to be justified in meeting its objectives with minimal short or long-term impacts, and is therefore in the public interest.

8.2 Objects of the EP&A Act

Table 8-1: Objects of the Environmental Planning and Assessment Act 1979

Instrument	Requirement
1.3(a) To promote the social and economic welfare of the community and a better environment by the proper management, development and conservation of the State's natural and other resources.	The proposal would improve the transport network while minimising social, economic and environmental impacts. It is therefore consistent with the objective of promoting the social and economic welfare of the community and a better environment.
1.3(b) To facilitate ecologically sustainable development by integrating relevant economic, environmental and social considerations in decision-making about environmental planning and assessment.	The proposal seeks to improve intergenerational equity through the shift of transport mode towards active transport, reducing car dependence. Ecologically sustainable development is further considered in Section 8.1.
1.3(c) To promote the orderly and economic use and development of land.	The proposal would enable greater access to Wilson Street and King Street businesses for people bike riding. The proposal would not impede development of other land or otherwise present a significant impact to businesses.
1.3(d) To promote the delivery and maintenance of affordable housing.	Not relevant to the project.
1.3(e) To protect the environment, including the conservation of threatened and other species of native animals and plants, ecological communities and their habitats.	Impacts to biodiversity are outlined in Section 6.1.
1.3(f) To promote the sustainable management of built and cultural heritage (including Aboriginal cultural heritage).	Impacts and mitigation measures relating to heritage are outlined in Section 6.8 for non-Aboriginal heritage and Section 6.10 for Aboriginal heritage.
1.3(g) To promote good design and amenity of the built environment.	Not relevant to the project.
1.3(h) To promote the proper construction and maintenance of buildings, including the protection of the health and safety of their occupants.	Not relevant to the project.
1.3(i) To promote the sharing of the responsibility for environmental planning and assessment between the different levels of government in the State.	Not relevant to the project.
1.3(j) To provide increased opportunity for community participation in environmental planning and assessment.	Consultation activities relating to this proposal are described in Section 5.

8.2.1 Ecologically sustainable development

Ecologically sustainable development (ESD) is development that improves the total quality of life, both now and in the future, in a way that maintains the ecological processes on which life depends. The principles of ESD have been an integral consideration throughout the development of the project.

ESD requires the effective integration of economic and environmental considerations in decision-making processes. The four main principles supporting the achievement of ESD are discussed below.

The precautionary principle

The precautionary principle deals with reconciling scientific uncertainty about environmental impacts with certainty in decision-making. It provides that where there is a threat of serious or irreversible environmental damage, the absence of full scientific certainty should not be used as a reason to postpone measures to prevent environmental degradation.

This principle was considered during route options development (refer to Chapter 2). The precautionary principle has guided the assessment of environmental impacts for this REF and the development of mitigation measures.

The proposal is located in an urban, highly developed area in the inner city of Sydney. Specialist studies were incorporated to gain a detailed understanding of the existing environment. In these studies, conservative 'worst case' scenarios were considered while assessing environmental impact.

Intergenerational equity

Social equity is concerned with the distribution of economic, social and environmental costs and benefits. Inter-generational equity introduces a temporal element with a focus on minimising the distribution of costs to future generations.

The proposals aim is to improve access to active transport networks and options for the current and future generations of residents, workers, and visitors to the locality. Environmental costs of the proposal include short term impacts such as noise and dust generation, traffic disruption and pedestrian pathway disruption. These impacts are able to be mitigated.

Conservation of biological diversity and ecological integrity

The proposal area is located within a highly modified, dense urban setting which retains no or little remnant vegetation communities. Flora and fauna in the location is typical of inner-city settings, with threatened species unlikely to be present or depend on vegetation in the area. Trees within the proposal area are proposed to be retained and protected during construction, with additional vegetation planting proposed as part of the landscape design on the north and south sides of the raised priority cycle crossing (refer to Section 6.9).

Improved valuation, pricing and incentive mechanisms

The principle of internalising environmental costs into decision making requires consideration of all environmental resources that may be affected by the carrying out of a project, including air, water, land and living things.

8.3 Conclusion

The proposed bi-directional cycleway at Wilson Street in Newtown is subject to assessment under Division 5.1 of the EP&A Act. The REF has examined and taken into account to the fullest extent possible all matters affecting or likely to affect the environment by reason of the proposed activity.

This has included consideration (where relevant) of conservation agreements and plans of management under the NPW Act, biodiversity stewardship sites under the BC Act, wilderness areas, areas of outstanding value, impacts on threatened species and ecological communities and their habitats, and other protected fauna and native plants. It has also considered potential impacts to matters of national environmental significance listed under the EPBC Act.

A number of potential environmental impacts from the proposal have been avoided or reduced during the concept design development and options assessment. The proposal, as described in the REF, best meets the project objectives but would still result in some impacts on noise and vibration, parking and loading zones, and social and economic impacts. Safeguards and management measures as detailed in this REF would mitigate or minimise these expected impacts. The proposal would also improve access to active transport options for residents, workers and visitors, as well as improve safety for people walking and bike riding in the area. On balance, the proposal is considered justified and the following conclusions are made.

Significance of impact under NSW legislation

The proposal would be unlikely to cause a significant impact on the environment. Therefore, it is not necessary for an environmental impact statement to be prepared nor approval to be sought from the Minister for Planning under Division 5.2 of the EP&A Act. A Biodiversity Development Assessment Report or Species Impact Statement is not required. The proposal is subject to assessment under Division 5.1 of the EP&A Act. Consent from Council is not required.

Significance of impact under Australian legislation

The proposal is not likely to have a significant impact on matters of national environmental significance nor the environment of Commonwealth land within the meaning of the *Environment Protection and Biodiversity Conservation Act 1999* (Commonwealth). A referral to the Australian Department of Climate Change, Energy, the Environment and Water is not required.

9. Certification

This review of environmental factors provides a true and fair review of the proposal in relation to its potential effects on the environment. It addresses to the fullest extent possible all matters affecting or likely to affect the environment as a result of the proposal.



Name:

Position: Environmental Consultant

Company name: SJV Date: 17 July 2025

Reviewed by:



Name:

Position: Senior Environment and Sustainability Officer

Company name: Transport for NSW

Date: 17 July 2025

I certify that I have reviewed and endorsed the contents of this REF and, to the best of my knowledge, it is in accordance with the EP&A Act, the EP&A Regulation and the Guidelines approved under Section 170 of the EP&A Regulation, and the information is neither false nor misleading. I accept it on behalf of Transport for NSW.



Name: Position:

Project Manager/Engineer

Easing Sydney's Congestion

Transport region/program:

Date: 18 July 2025

10. EP&A Regulation publication requirement

Table 10-1: EP&A Regulation publication requirement

Requirement	Yes/No
Does this REF need to be published under Section 171(4) of the EP&A Regulation?	

11. References

- ABS. (2021). Census General Community Profile. Australia: Australia: Australian Bureau of Statistics. Retrieved from https://www.abs.gov.au/census/find-census-data/search-by-area
- Bewsher. (2010a). Prospect Creek Flood Management Plan Review Part 1.
- Bewsher. (2010b). Prospect Creek Flood Management Plan Review Part 2.
- Cardno. (2014). Alexandra Canal Floodplain Risk Management Study and Plan. Sydney: City of Sydney.
- City of Sydney. (2020). City Plan 2036. City of Sydney. Retrieved from https://www.cityofsydney.nsw.gov.au/strategic-land-use-plans/city-plan-2036
- City of Sydney. (2022). *Community Strategic Plan*. Retrieved from https://www.cityofsydney.nsw.gov.au/strategies-action-plans/community-strategic-plan
- City of Sydney. (2022). Floodplain management plans. Retrieved October 19, 2023, from https://www.cityofsydney.nsw.gov.au/floodplain-management-plans
- Council, I. W. (2023, November 28). *Aboriginal Community*. Retrieved from Inner WEst Council: https://www.innerwest.nsw.gov.au/live/community-well-being/aboriginal-community
- DCCEEW. (2022a). *Protected Matters Search Tool*. Retrieved from Depertment of Climate Change, Energy, the Environment and Water: https://pmst.awe.gov.au/#/map/(m:ex/group/5aa1e9bb-0f45-4efa-b7de-9639ca46a08a)?lng=148.296661390923&lat=-32.24034925041913&zoom=12&baseLayers=Imagery
- DCCEEW. (2022b). Retrieved from Online species profiles and threats database (SPRAT): https://www.environment.gov.au/cgibin/sprat/public/sprat.pl
- DCCEEW. (2022c). Australian Heritage Database. Department of Climate Change, Energy, the Environment and Water.

 Retrieved from https://www.dcceew.gov.au/parks-heritage/heritage/publications/australian-heritage-database
- DECCW. (2008). Descriptions for NSW (Mitchell) Landscapes Version 3. Department of Environment, Climate Change and Water.
- DECCW. (2010). Aboriginal Cultural Heritage Consultation Requirements for Proponents. DECCW.
- DPE. (2022b). *eSPADE*. Department of Planning and Environment. Retrieved from https://www.environment.nsw.gov.au/eSpade2Webapp
- DPE. (2022c). NSW Bionet Wildlife Atlas. Retrieved from https://www.environment.nsw.gov.au/asmslightprofileapp/account/login?ReturnUrl=%2fAtlasApp%2fDefault.aspx
- DPE. (2022d). *NSW Bionet Vegetation Classification Database*. Retrieved from https://www.environment.nsw.gov.au/NSWVCA20PRapp/LoginPR.aspx
- DPE. (2022e). NSW State Vegetation Mapping Version C1.1. Department of Planning and Environment. Retrieved from https://www.seed.nsw.gov.au/
- DPE. (2022f). *Threatened biodiversity profile search*. Retrieved from https://www.environment.nsw.gov.au/threatenedspeciesapp/
- DPI. (2020). Fisheries Spatial Data Portal. Department of Primary Industries.
- DPI. (2022). NSW WeedWise. Retrieved from Department of Primary Industries: https://weeds.dpi.nsw.gov.au/
- DPIE. (2020). Hygiene guideline for wildlife. DPIE.
- EPA. (2014). Waste Classification Guidelines. NSW Environmental Protection Agency.
- EPA. (2022a). *Contaminated land register*. Retrieved from NSW Environmental Protection Agency: https://apps.epa.nsw.gov.au/prclmapp/searchregister.aspx

- EPA. (2022b). List of ntoified sites. Retrieved from NSW Environmental Protection Agency: https://www.epa.nsw.gov.au/your-environment/contaminated-land/notified-and-regulated-contaminated-land/list-of-notified-sites
- Fire and Rescue NSW. (2023). *Newtown Fire Station*. Retrieved from https://www.fire.nsw.gov.au/page.php?id=9210&station=228
- Heritage NSW. (2022b). *State Heritage Inventory*. Retrieved from https://www.hms.heritage.nsw.gov.au/App/Item/SearchHeritageItems?_ga=2.165972984.714120821.1658117920-344545924.1656901875
- Infrastructure NSW. (2018). State Infrastructure Strategy 2018-2038: Building Momentum. Sydney: Infrastructure NSW.
- Inner West Council. (2020). Local Strategic Planning Statement. Inner West Council. Retrieved from https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&ved=2ahUKEwiU6LzU87iCAxXmklYBHXPnA _kQFnoECAgQAw&url=https%3A%2F%2Fwww.innerwest.nsw.gov.au%2FArticleDocuments%2F32607%2FInner%252 0West%2520Local%2520Strategic%2520Planning%2520Statement.pdf.as
- Inner West Council. (2021, June 29). *Aboriginal Community*. Retrieved November 28, 2023, from https://www.innerwest.nsw.gov.au/live/community-well-being/aboriginal-community
- Inner West Council. (2022). *Our Inner West 2036.* Inner West Council. Retrieved from https://www.innerwest.nsw.gov.au/ArticleDocuments/870/Community%20Strategic%20Plan%20-%20Our%20Inner %20West%202036%20-%20adopted%20June%202022.pdf.aspx
- NEPC. (1999). *National Environmental Protection (Assessment of Site Contamination) Measure* . National Environment Protection Council.
- NSW Government. (2022). SEED: Sharing and Enabling Environmental Data in NSW. Retrieved from https://www.seed.nsw.gov.au/
- RMS. (2011). Procedure for Aboriginal Cultural Heritage Consultation and Investigation. RMS.
- RTA. (2010). Traffic Control at Worksites Manual. Roads and Traffic Authority.
- Sustain JV. (2025). Left Turn Ban Alternate Route Assessment. Sustain JV.
- TfNSW. (2020). Environmental Impact Assessment Practice Note: Socio-economic assessment. TfNSW.
- TfNSW. (2020). Guideline for Landscape Character and Visual Impact Assessment. TfNSW.
- TfNSW. (2020). *Urban Road Congestion Program: Options Assessment The Horsley Drive / Nelson Street/ Court Road, Fairfield.*Transport for New South Wales.
- TfNSW. (2020a). Environmental Impact Assessment Practice Note: Socio-economic assessment. TfNSW.
- TfNSW. (2022). Biodiversity Policy. TfNSW.
- TfNSW. (2022). Intersection Improvements on Pennant Hills Road and Carlingford Road, Carlingford Community Consultation Report. Sydney: TfNSW.
- TfNSW. (2022). Strategic Cycleway Corridors Eastern Harbour City Overview. TfNSW.
- TfNSW. (2023). Aboriginal participation strategy. TfNSW.
- TfNSW. (2023). Tree and Hollow Replacement Guidelines. TfNSW.
- TfNSW. (2024). Wilson Street Cycleway Consultation Report. TfNSW.
- The University of Sydney. (2023). *Milestones: from inauguration to present day*. Retrieved from The University of Sydney: https://www.sydney.edu.au/about-us/our-story/timeline.html
- Transport for NSW. (2023). *Newtown Station*. Retrieved from https://transportnsw.info/document/1923/newtown-station-pt-map.pdf
- Transport for NSW. (2025). *Cycleway Finder*. Retrieved from Transport for NSW: https://maps.transport.nsw.gov.au/egeomaps/cycleway-finder/index.html

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Visit Sydney. (2023). Newtown. Retrieved from Pocket Guide to Sydney:

http://www.visitsydneyaustralia.com.au/newtown.html #: ``:text=Newtown % 20 has % 20 been % 20 a % 20 hub, live % 20 per formance % 20 spaces % 20 in % 20 Sydney.

Terms and acronyms used in this REF

Table 11-1: Terms and acronyms used in this REF

Term / Acronym	Description	
AGRD	Austroads Guide to Road Design	
AGTM	Austroads Guide to Traffic Management	
AHD	Australian Height Datum	
AHIMS	Aboriginal Heritage Information Management Systems	
AQMP	Air Quality Management Plan	
ARI	Annual Recurrence Interval	
AusLink	Mechanism to facilitate cooperative transport planning and funding by Commonwealth and state and territory jurisdictions	
BC Act	Biodiversity Conservation Act 2016 (NSW)	
CBD	Central Business District	
CEMP	Construction Environmental Management Plan	
CNVG	Construction Noise and Vibration Guideline	
EIA	Environmental impact assessment	
EP&A Act	Environmental Planning and Assessment Act 1979 (NSW). Provides the legislative framework for land use planning and development assessment in NSW	
EPA	Environmental Protection Agency (NSW)	
EPBC Act	Environment Protection and Biodiversity Conservation Act 1999 (Commonwealth). Provides for the protection of the environment, especially matters of national environmental significance, and provides a national assessment and approvals process	
ESC	Easing Sydney's Congestion. Program of works that aims to support Sydney's growing population by delivering improvements to reduce traffic congestion on Sydney's main roads.	
ESD	Ecologically sustainable development. Development which uses, conserves and enhances the resources of the community so that ecological processes on which life depends, are maintained and the total quality of life, now and in the future, can be increased	
FM Act	Fisheries Management Act 1994 (NSW)	
Heritage Act	Heritage Act 1977 (NSW)	
ICNG	Interim Construction Noise Guideline	
Inner West LEP	Inner West Local Environmental Plan 2022	
LALC	Local Aboriginal Land Council	
LEP	Local Environmental Plan. A type of planning instrument made under Part 3 of the EP&A Act.	
LGA	Local Government Area	
LoS	Level of Service. A qualitative measure describing operational conditions within a traffic stream and their perception by motorists and/or passengers	
MNES	Matters of national environmental significance under the <i>Environment Protection and Biodiversity Conservation Act 1999 (Commonwealth)</i>	
NPW Act	National Parks and Wildlife Act 1974 (NSW)	
NSW	New South Wales	
NVMP	Noise and Vibration Management Plan	

Term / Acronym	Description	
PACHCI	Procedure for Aboriginal Cultural Heritage Consultation and Investigation	
PEA Act	Protection of the Environment Administration Act 1991.	
PIA	Parking Impact Assessment	
POEO Act	Protection of the Environment Operations Act 1997	
QA Specifications	Specifications developed by Transport for use with road work and bridge work contracts let by Transport.	
REF	Review of Environmental Factors	
RMS	NSW Roads and Maritime Services, now Transport for NSW	
Roads Act	Roads Act 1993	
ROLs	Road Occupancy Licences	
SEPP	State Environmental Planning Policy. A type of planning instrument made under Part 3 of the EP&A Act.	
SEPP (Biodiversity and Conservation)	State Environmental Planning Policy (Biodiversity and Conservation) 2021	
SEPP (Planning Systems)	State Environmental Planning Policy (Planning Systems) 2021	
SEPP (Precincts – Central River City)	State Environmental Planning Policy (Precincts – Central River City) 2021	
SEPP (Precincts – Eastern Harbour City)	State Environmental Planning Policy (Precincts – Eastern Harbour City) 2021	
SEPP (Precincts – Regional)	State Environmental Planning Policy (Precincts – Regional) 2021	
SEPP (Resilience and Hazards)	State Environmental Planning Policy (Resilience and Hazards) 2021	
SEPP (Transport and Infrastructure)	State Environmental Planning Policy (Transport and Infrastructure) 2021	
SWMP	Soils and Water Management Plan	
Sydney LEP	Sydney Local Environmental Plan 2012	
TCS	Traffic control signals	
TfNSW	Transport for NSW	
The Strategy	Future Transport Strategy	
TMP	Traffic Management Plan	
Transport	Transport for NSW	
VP1, VP2, VP3, VP4, and VP5	Refers to Viewpoints 1, 2, 3, 4 and 5 assessed in the Section 6.9 (Landscape and Visual Impact Assessment) of this REF	
WMP	Waste Management Plan	

Appendix A — Consideration of section 171 factors and matters of national environmental significance and Commonwealth land

Section 171 Factors

In addition to the requirements of the Guideline for Division 5.1 assessments (DPE 2022) and the Roads and Related Facilities EIS Guideline (DUAP 1996) as detailed in the REF, the following factors, listed in Section 171 of the Environmental Planning and Assessment Regulation 2021, have also been considered to assess the likely impacts of the proposal on the natural and built environment.

Factor		Impact
a	Any environmental impact on a community?	Noise and vibration – negative, short term Visual amenity – negative, short term During construction, environmental impacts on the local community would largely constitute noise and vibration and visual amenity impacts.
b	Any transformation of a locality?	Negative, short term During construction there would be minor impacts to the locality in terms of noise generation, traffic disturbance, and changes to visual amenity. Positive, long term The proposal aims to improve the adoption of cycling and active transport in the local area, resulting in fewer cars on the road.
С	Any environmental impact on the ecosystems of the locality?	Nil The proposal would avoid any impact on ecosystems within the locality.
d	Any reduction of the aesthetic, recreational, scientific or other environmental quality or value of a locality?	Negative, short term Visual amenity would be impacted during construction due to the presence of equipment, machinery, exposed utilities or earthworks, and pedestrian and car diversion materials such as fences or bollards. Positive, long term The urban design and landscape plan for the proposal would provide planting of vegetation on the north and south side of the raised priority cycle crossing and improve the aesthetic quality of Wilson Street between Brown Street and Eliza Street.
е	Any effect on a locality, place or building having aesthetic, anthropological, archaeological, architectural, cultural, historical, scientific or social significance or other special value for present or future generations?	Nil The proposal would avoid any impact on structures, particularly those with conservation or heritage status.
f	Any impact on the habitat of protected fauna (within the meaning of the <i>National Parks and Wildlife Act 1974</i>)?	Nil
g	Any endangering of any species of animal, plant or other form of life, whether living on land, in water or in the air?	Nil

Fac	tor	Impact
h	Any long-term effects on the environment?	Minor positive, long term. The proposal would have a minor positive long term impact on the environment by enabling a mode shift from cars to cycling for residents, workers and visitors in the locality. The proposal aims to reduce the pressure on roads and potentially decrease road-related pollutant contributions, indirectly contributing to an improvement in ambient air quality.
i	Any degradation of the quality of the environment?	Nil
j	Any risk to the safety of the environment?	Nil
k	Any reduction in the range of beneficial uses of the environment?	Nil
ı	Any pollution of the environment?	Nil
m	Any environmental problems associated with the disposal of waste?	Nil Waste would be disposed of in accordance with relevant legislation and regulation. Refer to Section 6.10.
n	Any increased demands on resources (natural or otherwise) that are, or are likely to become, in short supply?	Nil
0	Any cumulative environmental effect with other existing or likely future activities?	Minor negative, short term. Refer to Section 6.11.
р	Any impact on coastal processes and coastal hazards, including those under projected climate change conditions?	Nil
q	Applicable local strategic planning statements, regional strategic plans or district strategic plans made under the Act, Division 3.1,	Refer to Chapter 2 and Chapter 4.
r	Other relevant environmental factors.	In considering the potential impacts of this proposal all relevant environmental factors have been considered, refer to Chapter 6 of this assessment.

Matters of National Environmental Significance and Commonwealth land

Under the environmental assessment provisions of the EPBC Act, the following matters of national environmental significance and impacts on Commonwealth land are required to be considered to assist in determining whether the proposal should be referred to the Australian Department of Climate Change, Energy, the Environment and Water.

A referral is not required for proposed actions that may affect nationally-listed threatened species, endangered ecological communities and migratory species. Impacts on these matters are still assessed as part of the REF in accordance with Australian Government significant impact criteria and taking into account relevant guidelines and policies.

Fac	ctor	Impact
S	Any impact on a World Heritage property?	Nil
t	Any impact on a National Heritage place?	Nil
u	Any impact on a wetland of international importance?	Nil
V	Any impact on a listed threatened species or communities?	Nil
W	Any impacts on listed migratory species?	Nil
Х	Any impact on a Commonwealth marine area?	Nil

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Fac	ctor	Impact
У	Does the proposal involve a nuclear action (including uranium mining)?	Nil
Z	Additionally, any impact (direct or indirect) on the environment of Commonwealth land?	Nil

Appendix B — Statutory consultation checklists

Transport and Infrastructure SEPP

Certain development types

Development type	Description	Yes / No	If 'yes' consult with	SEPP (Transport and Infrastructure) Section
Car Park	Does the project include a car park intended for the use by commuters using regular bus services?	No		Section 2.110
Bus Depots	Does the project propose a bus depot?	No		Section 2.110
Permanent road maintenance depot and associated infrastructure	Does the project propose a permanent road maintenance depot or associated infrastructure such as garages, sheds, tool houses, storage yards, training facilities and workers' amenities?	No		Section 2.110

Development within the Coastal Zone

Development type	Description	Yes / No	If 'yes' consult with	SEPP (Transport and Infrastructure) Section
Development with impacts on certain land within the coastal zone	Is the proposal within a coastal vulnerability area and is inconsistent with a certified coastal management program applying to that land?	No		Section 2.14

Note: See interactive map at <u>Planning Portal NSW spatial viewer - find a property</u>. Note the coastal vulnerability area has not yet been mapped.

Note: a certified coastal zone management plan is taken to be a certified coastal management program.

Council related infrastructure or services

Development type	Potential impact	Yes / No	If 'yes' consult with	SEPP (Transport and Infrastructure) Section
Stormwater	Are the works likely to have a <i>substantial</i> impact on the stormwater management services which are provided by council?	No		Section 2.10
Traffic	Are the works likely to generate traffic to an extent that will <i>strain</i> the capacity of the existing road system in a local government area?	No		Section 2.10

Development type	Potential impact	Yes / No	If 'yes' consult with	SEPP (Transport and Infrastructure) Section
Sewerage system	Will the works involve connection to a council owned sewerage system? If so, will this connection have a <i>substantial</i> impact on the capacity of any part of the system?	No		Section 2.10
Water usage	Will the works involve connection to a council owned water supply system? If so, will this require the use of a <i>substantial</i> volume of water?	No		Section 2.10
Temporary structures	Will the works involve the installation of a temporary structure on, or the enclosing of, a public place which is under local council management or control? If so, will this cause more than a <i>minor</i> or <i>inconsequential</i> disruption to pedestrian or vehicular flow?	No		Section 2.10
Road & footpath excavation	Will the works involve more than <i>minor</i> or inconsequential excavation of a road or adjacent footpath for which council is the roads authority and responsible for maintenance?	Yes	City of Sydney Council Inner West Council	Section 2.10

Local heritage items

Development type	Potential impact	Yes / No	If 'yes' consult with	SEPP (Transport and Infrastructure) Section
Local heritage	Is there is a local heritage item (that is not also a State heritage item) or a heritage conservation area in the study area for the works? If yes, does a heritage assessment indicate that the potential impacts to the heritage significance of the item/area are more than minor or inconsequential?	No		Section 2.11

Flood liable land

Development type	Potential impact	Yes / No	If 'yes' consult with	SEPP (Transport and Infrastructure) Section
Flood liable land	Are the works located on flood liable land? If so, will the works change flood patterns to more than a <i>minor</i> extent?	No		Section 2.12

Development type	Potential impact	Yes / No	If 'yes' consult with	SEPP (Transport and Infrastructure) Section
Flood liable land	Are the works located on flood liable land? (to any extent). If so, do the works comprise more than minor alterations or additions to, or the demolition of, a building, emergency works or routine maintenance?	No	State Emergency Services Email: erm@ses.nsw.gov.au	Section 2.13

Note: Flood liable land means land that is susceptible to flooding by the probable maximum flood event, identified in accordance with the principles set out in the manual entitled Floodplain Development Manual: the management of flood liable land published by the New South Wales Government.

Public authorities other than councils

Development type	Potential impact	Yes / No	If 'yes' consult with	SEPP (Transport and Infrastructure) Section
National parks and reserves	Are the works adjacent to a national park or nature reserve, or other area reserved under the <i>National Parks and Wildlife Act</i> 1974, or on land acquired under that Act?	No	Environment and Heritage Group, DPE	Section 2.15
National parks and reserves	Are the works on land in Zone E1 National Parks and Nature Reserves or in a land use zone equivalent to that zone?	No	Environment and Heritage Group, DPE	Section 2.15
Navigable waters	Do the works include a fixed or floating structure in or over navigable waters?	No	Transport for NSW - Maritime	Section 2.15
Bush fire prone land	Are the works for the purpose of residential development, an educational establishment, a health services facility, a correctional centre or group home in bush fire prone land?	No	Rural Fire Service (RFS) [Refer to the NSW RFS publication: Planning for Bush Fire Protection (2006)]	Section 2.15
Artificial light	Would the works increase the amount of artificial light in the night sky and that is on land within the dark sky region as identified on the dark sky region map? (Note: the dark sky region is within 200 kilometres of the Siding Spring Observatory)	No	Director of the Siding Spring Observatory	Section 2.15
Defence communications buffer land	Are the works on buffer land around the defence communications facility near Morundah? (Note: refer to Defence Communications Facility Buffer Map referred to in section 5.15 of Lockhart LEP 2012, Narrandera LEP 2013 and Urana LEP 2011.	No	Secretary of the Commonwealth Department of Defence	Section 2.15

Development type	Potential impact	Yes / No	If 'yes' consult with	SEPP (Transport and Infrastructure) Section
Mine subsidence land	Are the works on land in a mine subsidence district within the meaning of the <i>Mine Subsidence Compensation Act</i> 1961?	No	Mine Subsidence Board	Section 2.15

SEPP (Precincts – Central River City) 2021 and SEPP (Precincts – Western Parkland City) 2021

Development type	Potential impact	Yes / No	If 'yes' consult with	SEPP section
Clearing native vegetation	Do the works involve clearing native vegetation (as defined in the <i>Local Land Services Act 2013</i>) on land that is not subject land (as defined in cl 17 of schedule 7 of the <i>Threatened Species Conservation Act 1995</i>)?	No	Department of Planning and Environment	Section 3.24

Appendix C – PACHCI

Appendix D - Transport Consultation Report

Appendix E – Arboricultural assessment

Appendix F – Socioeconomic Impact Assessment

Appendix G – Parking Impact Assessment

Appendix H – Left Turn Ban Alternate Route Assessment

Appendix I — Construction noise assessment

Appendix J — Highly intrusive noise-sensitive receivers

Lot DP	Address
A_DP375706	5 Wilson Street, Newtown
2_DP1277332	8A Wilson Street, Newtown
_SP54724	15A Wilson Street, Newtown
A_DP185923	17 Wilson Street
_SP60334	18-20 Wilson Street, Newtown
B_DP185923	19 Wilson Street
24_DP103	21 Wilson Street
18_DP192241	22 Wilson Street, Newtown
1_DP569639	23 Wilson Street
2_DP569639	25 Wilson Street
A_DP33766	27 Wilson Street
22_DP80680	28 Wilson Street, Newtown
B_DP33766	29 Wilson Street, Newtown
_SP74419	30-34 Wilson Street, Newtown
C_DP33766	33 Wilson Street, Newtown
D_DP33766	35 Wilson Street, Newtown
1_DP226583	36 Wilson Street, Newtown
B_DP32809	37 Wilson Street, Newtown
C_DP32809	39 Wilson Street, Newtown
1_DP229476	40 Wilson Street, Newtown
2_DP229476	40A Wilson Street, Newtown
D_DP32809	41 Wilson Street, Newtown
1_DP773049	42 Wilson Street, Newtown
E_DP32809	43 Wilson Street, Newtown
1_DP916955	44 Wilson Street, Newtown
1_DP1064243	45 Wilson Street, Newtown

Lot DP	Address
1_DP64707	46 Wilson Street, Newtown
2_DP202035	47 Wilson Street, Newtown
1_DP731727	48 Wilson Street, Newtown
2_DP1022367	49 Wilson Street, Newtown
1_DP1059875	50 Wilson Street, Newtown
1_DP781532	50A Wilson Street, Newtown
1_DP1022367	51 Wilson Street, Newtown
1_DP503517	53 Wilson Street, Newtown
2_DP503517	55 Wilson Street, Newtown
32_DP103	57-59 Wilson Street, Newtown
1_DP724284	268 King Street, Newtown
10_DP880568	270 King Street, Newtown
1_DP81185	270-276 King Street, Newtown
1_DP60331	278B King Street, Newtown
1_DP778783	282 King Street, Newtown
1_DP1277332	292 King Street, Newtown
_SP103722	292A King Street, Newtown
_SP76768	294-302 King Street, Newtown
3_DP602565	304 King Street, Newtown
C_DP439135	305 King Street, Newtown
B_DP439135	307 King Street, Newtown
A_DP439135	309 King Street, Newtown
2_DP602565	310 King Street, Newtown
E_DP438796	311 King Street, Newtown
1_DP602565	312 King Street, Newtown
D_DP438796	313 King Street, Newtown
C_DP438796	315 King Street, Newtown
A_DP435954	317 King Street, Newtown
1_DP780781	317A King Street, Newtown

Lot DP	Address
1_DP218247	318 King Street, Newtown
2_DP218247	320 King Street, Newtown
1_DP177710	323 King Street, Newtown
1_DP112982	324 King Street, Newtown
1_DP798784	325 King Street, Newtown
100_DP1209238	327 King Street, Newtown
1_DP59435	280 Princes Highway, Newtown
1_DP199559	218 Australia Street, Newtown
2_DP225489	324A Kent Street, Newtown
2_DP780781	3 Eliza Street, Newtown
1_DP64706	5 Eliza Street, Newtown
_SP60501	1 Erskineville Road, Newtown
_SP63664	3 Erskineville Road, Newtown
198_DP830563	10 Erskineville Road, Newtown
199_DP830563	12 Erskineville Road, Newtown
1_DP723972	14 Erskineville Road, Newtown
2_DP207726	48 Brennan Lane, Newtown
1_DP213796	2 Linthorpe, Street, Newtown
2_DP213796	4 Linthorpe, Street, Newtown
3_DP213796	6 Linthorpe, Street, Newtown
4_DP213796	8 Linthorpe, Street, Newtown
2_DP1064243	43 Linthorpe Lane, Newtown
2_DP226583	1A WhateleyLane, Newtown
20_DP55977	278-10 Whateley Lane, Newtown
100_DP1087885	8 Mary Street, Newtown
1817_DP996797	1A Bedford Street, Newtown

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