Appendix B1

Construction Traffic, Transport and Access Management Sub-Plan

Western Harbour Tunnel and Warringah Freeway Upgrade

Stage 1C Early and Enabling Works – Massey to Amherst Street (M2A)

November 2021

THIS PAGE LEFT INTENTIONALLY BLANK

Contents

Tables

Figures

Document control

Approval and authorisation

Title	Stage 1C Early and Enabling Works – Massey to Amherst Street (M2A), Construction Traffic, Transport and Access Management Sub-Plan
Document No/Ref	WFUEW- JHG-PLN-MAN-WP14-0002
Endorsed on behalf of SPA Environment Manager by	Daniel Lidbetter
Signed	
Dated	30.11.2021
Approved by SPA Construction Manager	Jason Nisbet
Signed	
Dated	30.11.2021

Document status

Revision	Date	Description
0	21/09/2021	Draft for SPA review
1	26/09/2021	Draft for TfNSW review
2	06/10/2021	Issued for ER review
3	13/10/2021	Issued for Consultation review
4	28/10/2021	Issued for ER endorsement and DPIE submission
5	30/11/2021	Issued for DPIE Approval

Glossary / Abbreviations

Abbreviation	Expanded text
CCS	Community Communication Strategy
CEMP	Construction Environmental Management Plan
CGC	Cammeray Golf Course
CoA	Condition of Approval
DPIE	Department of Planning, Industry and Environment
EIS	Western Harbour Tunnel and Warringah Freeway Upgrade Environmental Impact Statement (January 2020)
EP&A Act	*Environmental Planning and Assessment Act 1979*
FAS	Flashing Arrow Signs
M2A	Stage 1C Early and Enabling Works - Massey to Amherst Street, Noise Barrier Works
NSC	North Sydney Council
Project, the	Western Harbour Tunnel and Warringah Freeway Upgrade
REMM	Revised Environmental Management Measures
ROL	Road Occupancy Licence
RtS	Western Harbour Tunnel and Warringah Freeway Upgrade Response to Submissions (September 2020)
SCO	Sydney Coordination Office
SEARS	Secretary's Environmental Assessment Requirements
SSI	State Significant Infrastructure
SZA	Speed Zone Authorisation
TCP	Traffic Control Plan
TfNSW	Transport for New South Wales
TTLG	Traffic and Transport Liaison Group
TMC	Transport Management Centre
TMP	Traffic Management Plan

Abbreviation	Expanded text
CCS	Community Communication Strategy
TTAMP	Traffic, Transport and Access Management Sub-Plan (this document)
VMP	Vehicle Movement Plan
VMS	Variable Message Sign

1 Introduction

1.1 Context and scope

This Traffic, Transport and Access Management Sub-plan (TTAMP or Plan) forms part of the Construction Environmental Management Plan (CEMP) for the Stage 1C Early and Enabling Works – Massey to Amherst Street (M2A) noise barrier works (refer to herein as "the noise barrier works" or M2A). This TTAMP will support the delivery program of the Main Works of the Western Harbour Tunnel and Warringah Freeway Upgrade (the Project). Sydney Program Alliance (SPA) has been appointed by Transport for New South Wales (TfNSW) to deliver the noise barrier works.

This TTAMP has been prepared to address the requirements of the Minister's Conditions of Approval (CoA), Western Harbour Tunnel and Warringah Freeway Upgrade Environmental Impact Statement (EIS), the revised environmental management measures (REMMs) listed in the Western Harbour Tunnel and Warringah Freeway Upgrade Response to Submissions Report (RtS) and all applicable legislation.

This TTAMP describes how SPA proposes to manage potential traffic impacts during the Stage 1C Early and Enabling Works – Massey to Amherst Street (M2A) noise barrier works stage of the Project. Other construction stages of the Project, including operational traffic and transport impacts and operation mitigation measures do not fall within the scope of this TTAMP and therefore are not included within the processes contained within this TTAMP.

1.2 Background

The Western Harbour Tunnel and Warringah Freeway Upgrade EIS (January 2020) assessed potential traffic impacts from construction of the Western Harbour Tunnel and Warringah Freeway Upgrade.

As part of the EIS development, a detailed construction traffic and transport assessment was prepared to address the Secretary's Environmental Assessment Requirements (SEARS) issued by the Department of Planning, Industry and Environment (DPIE). The traffic and transport assessment were included in Chapter 8 of the EIS, and the Traffic and Transport Technical Paper (Appendix F of the EIS).

1.3 Project description

The existing noise barrier will be impacted by the widening of the Warringah Freeway. The removal of the existing noise wall and the installation of the new noise barrier must occur before the start of the construction of the Warringah Freeway Upgrade. The new noise barrier is about 175 metres in length and five metres high and will take approximately eight months to build. The wall will be located on the eastern side of the Warringah Freeway and it consists of:

- Transparent plexiglass panels at the top of the wall to minimise overshadowing
- Concrete pre-cast panels
- Four maintenance access points

Construction of the noise barrier works will involve the following activities:

Site Establishment and Preparatory Works

- Traffic switch
- Site mobilisation
- Demolition of existing block wall
- Tree trimming and clearing

- Establishment of work zone and traffic control

Noise Barrier Installation Works

- Rock face preparation
- Piling and standing columns
- Concreting and post installation
- Panel Installation
- Finishing works
- Landscaping
- Paving

The noise barrier works will commence in late 2021 and be completed in the second half of 2022. The program for the remaining stages of the WHTWFU project is included in the WHTWFU Project Staging Report.

The overall project description is outlined in Section 1.2 of the CEMP.

1.4 Environmental management systems overview

The environmental management system overview is described in Section 1.6 of the CEMP. This sub-plan forms part of a suite of sub-plans and procedures which sit under the CEMP, as summarised in Figure 1-1.

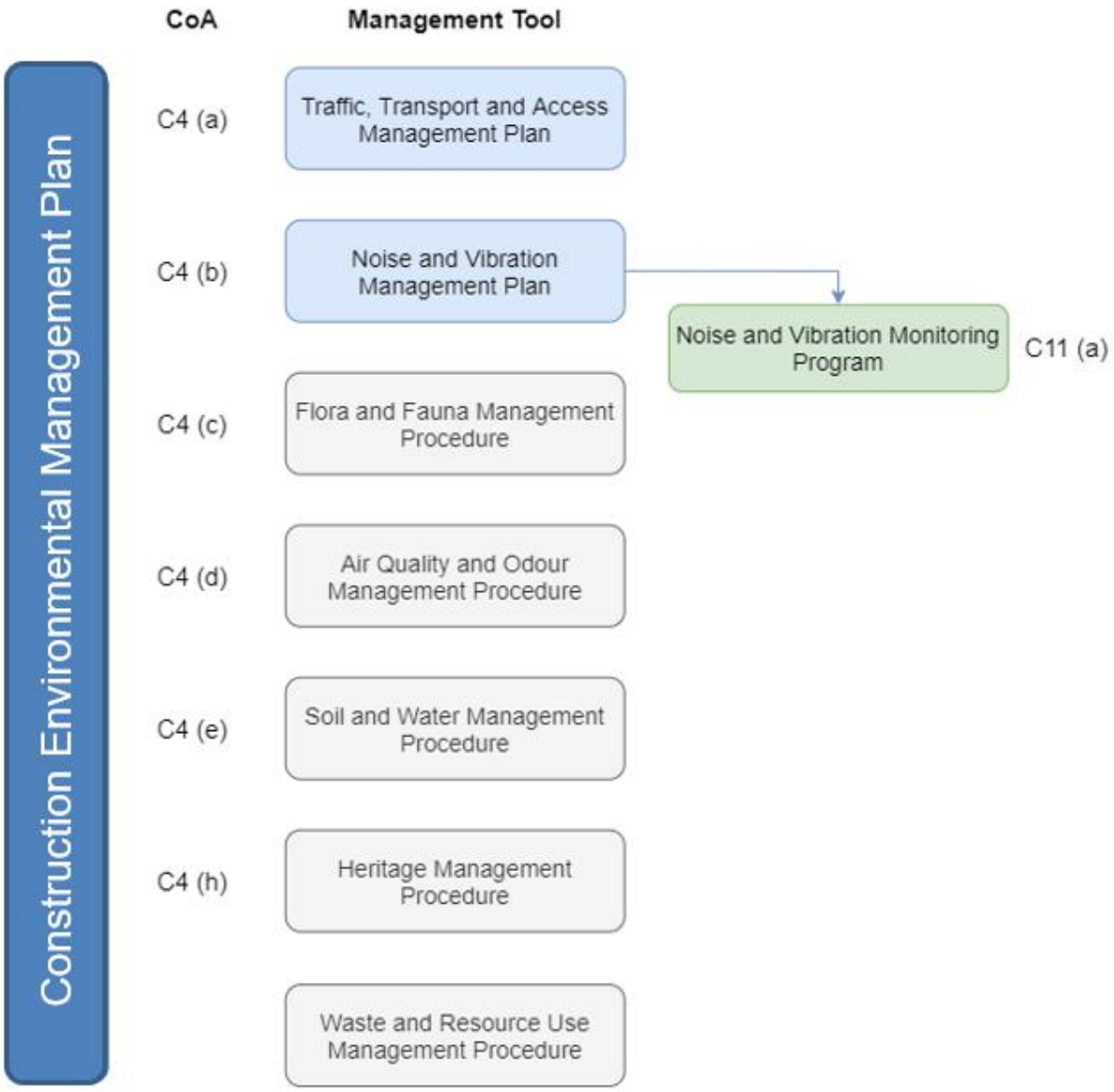


Figure 1-1 Structure of CEMP, Sub-plans and procedures

2 Purpose and objectives

2.1 Purpose

The purpose of this Plan is to describe how SPA proposes to manage traffic during noise barrier works stage of the Project.

2.2 Objectives

The key objective of this TTAMP is to describe the approach to manage traffic impacts during noise barrier works and are within the scope permitted by the CoA by minimising delays. The key objectives of this TTAMP is to describe and consider the needs of all road users, pedestrians and cyclists and to ensure the safety for both workers and the general public.

To achieve these objectives, SPA will implement appropriate:

- Controls and procedures during construction activities to address potential traffic impacts along the Project corridor
- Measures to address the relevant CoA outlined in Appendix B, and the safeguards detailed in the EIS
- Measures to comply with all relevant legislation and other requirements as described in Section 3.1 of this Plan.

Furthermore, SPA will meet the performance outcomes from the EIS as required by CoA C2(d)(i), as identified in Appendix A.

3 Environmental requirements

3.1 Relevant legislation and guidelines

3.1.1 Legislation and regulatory requirements

Legislation relevant to traffic management for the Project includes:

- *Roads Act 1993*
- *Road Transport Act 2013*
- *Environmental Planning and Assessment Act 1979 (EP*&A Act)
- Australian Road Rules.

All legislation relevant for the Project is included in Appendix A3 of the CEMP.

3.1.2 Licences / Permits

Licences and permits relevant to traffic management for the Project include:

- Road Occupancy Licences (ROL)
- Speed Zone Authorisations (SZA).

3.1.3 Guidelines

The main guidelines, specifications and policy documents relevant to this Plan include:

- NSW Bicycle Guidelines Version 1.2 (RTA, 2005)
- Planning Guidelines for Walking and Cycling (Department of Infrastructure, Planning and Natural Resources, 2004)

Australian Standards

- AS1742: Manual of Uniform Traffic Control Devices
- AS1742.3: Manual of Uniform Traffic Control Devices – Part 3: Traffic Control for Works on Roads
- AS1743:2018 - Road Sign and Traffic Signals

TfNSW QA Specifications

- TfNSW QA Specification G10 – Traffic Management
- TfNSW QA Specification R141 – Pavement Markings
- TfNSW QA Specification R142 – Raised Reflective Pavement Markers
- TfNSW QA Specification R143 – Sign Posting

TfNSW Guidelines

- TfNSW Supplement to Australian Standard AS 1742.9:2018, Manual of Uniform Traffic Control Devices
- TfNSW Traffic Control at Worksites Manual (Version 5, 2018)
- TfNSW – Safety Barrier Acceptance
- TfNSW – Variable Message Signs (VMS) Guidelines
- TfNSW – Delineation Manual

- TfNSW – Traffic Modelling Guidelines (Roads and Maritimes, 2013)
- TfNSW – Technical Direction (TDT 2009/07) Speed Enforcement on Worksites
- TfNSW – Transport Management Centre, Road Occupancy Manual

Austroads

- Austroads Guide to Traffic Management 2009 – Parts 1-13
- Austroads Guide to Road Design 2009 – Parts 1-7
- Austroads Guide to Road Safety 2009 – Parts 1-9.

3.2 Minister's Conditions of Approval

This TTAMP has been prepared to meet the requirements of CoA C4(a) and CoA C5.

The CoA relevant to traffic management for the noise barrier works are listed in Appendix B of this TTAMP. A cross reference is also included to indicate where the CoA is addressed in this TTAMP or other Project management documents.

In accordance with CoA C9, this TTAMP will be submitted to DPIE for approval no later than one month prior to the commencement of construction for the noise barrier works. Construction will not commence for the noise barrier works until this TTAMP, the CEMP and relevant CEMP Sub-plans have been approved by DPIE in accordance with CoA C10.

3.3 Revised Environmental Management Measures

The REMMs relevant to traffic management for the noise barrier works are listed in Appendix B of this TTAMP.

Appendix B includes reference to the required outcomes, the timing of when the commitment applies, relevant documents or sections of the environmental assessment influencing the outcome and implementation.

4 Consultation

Individual briefing sessions were held with Willoughby Council and with North Sydney Council to provide an overview of the traffic and transport issues and to provide a forum for discussion. Subsequent to the meetings, the TTAMP was provided to North Sydney Council and Willoughby Council for consultation in accordance with CoA C4(a).

Following formal feedback from North Sydney and Willoughby Councils, a Consultation Report will be prepared and submitted to DPIE along with this Plan (TTAMP).

Consultation has been carried out with Bike North and Bicycle NSW regarding the bicycle detours. No further action is required following consultation with these parties.

Ongoing consultation with Transport Coordination (a division within Transport for NSW), North Sydney Council, Willoughby Council, emergency services, bus operators and other stakeholders will be undertaken (if required) regarding impacts associated with construction traffic and parking management. Regular updates will be provided through a range of tools outlined within the Community Communication Strategy (CCS), including monthly meetings (or at a frequency agreed with key stakeholders), community updates and notifications and emails, to ensure all upcoming changes and impacts are communicated in a timely fashion.

Additional consultation with the above stakeholders will be triggered because of incident emergency response or special event planning.

Refer to Table 4-1 for all proposed consultation associated with the management of traffic, transport and access impacts associated with the noise barrier works.

Table 4-1 Consultation requirements

Source	Consultation for	Consultation with	Purpose	Timing
CoA C4(a)	Traffic, Transport and Access Management Sub-plan	North Sydney Council Willoughby Council	To provide the opportunity for Councils to provide their feedback on proposed traffic and transport arrangements, and to identify any constraints and issues to be addressed by the TTAMP.	Pre-construction During development of the TTAMP.
CoA E140	Construction Parking and Access Strategy	Affected users utilising on- and off-street parking stock Consultation held with North Sydney Councill. Carparking spaces will not be impacted in the Willoughby LGA	To provide affected users with the opportunity to comment on proposed carparking arrangements and provide feedback to TfNSW of any issues that may arise so they can be addressed by the CPAS.	Prior to the occupation of carparking spaces . During the development of the CPAS.
CoA E132	Local roads approval	CoA E132 does not require formal stakeholder	To provide the opportunity for Councils to provide their	Pre-construction

Source	Consultation for	Consultation with	Purpose	Timing
		consultation. However both NSC and WCC were provided with the opportunity to comment on the Local Roads Approval as part of the TTAMP consultation.	feedback on proposed local roads and to identify any constraints and issues to be addressed by the Local Roads Approval document.	During development of the Local Roads Approval document.
TfNSW QA Specification G10	Traffic Management Plan	Customer Journey Planning (TfNSW) Planning and Programs (TfNSW)	To provide Customer Journey Planning an opportunity to provide feedback on proposed traffic and transport arrangements during construction activity.	Prior to implementation to changes to the Traffic and Transport Network.
TfNSW QA Specification G10	Road Occupancy Licence	Customer Journey Planning (TfNSW) Transport Management Centre (TMC)	To provide Customer Journey Planning and Transport Management Centre an overview of cumulative impacts of multiple projects on the Road Network.	Prior to implementation to changes to the Road Network.
CCS (CoA B2(e))	Upcoming works that will result in traffic impacts such as lane closures, parking removal, and impacts to cyclist routes	Notification of affected community in the form of community updates, community notification and individual work notices.	The purpose of the notification is to inform impacted stakeholders of potential changes to traffic arrangements such as lane closures, parking removal, and impacts to cyclist routes. So, the stakeholders are aware of these changes for the purpose ensuring their safety and minimising disruption.	As required and prior to disruptive works.
Project specific scope inclusions	Upcoming road closures and detours.	SPA have established a Traffic and Transport Liaison Group (TTLG) to consult on traffic and transport impacts.	The TTLG is a forum for stakeholders including various parts of the Transport cluster, emergency services, school's infrastructure, pedestrian and cycle groups and local councils.	The TTLG meets on a monthly basis.

Source	Consultation for	Consultation with	Purpose	Timing
			The TTLG is a forum for SPA to provide information on upcoming works, and potential impacts on each stakeholders' relevant area of concern, and also for stakeholders to provide feedback to SPA. Feedback can be incorporated to day to day planning and site activities.	

5 Construction traffic impacts

Construction of the noise barrier works will require the use of both light and heavy vehicles which have the potential to impact upon road users, pedestrians, cyclists and sensitive receivers located near the construction site. This section outlines the potential impacts of the traffic upon these receivers due to the noise barrier works.

5.1 Construction site

Construction activities will be undertaken primarily from the Amherst Street Exit Ramp as this will result in the least impact.

Some activities will need to be undertaken from Massey Street and Jenkins Street such as removal of the existing blockwork noise barrier and landscaping works however most construction activities will be from the Amherst Street Exit Ramp.

A minor ancillary facility consisting of three amenity sheds for lunchroom and toilets, will be established in the grassed area immediately adjacent to the site and on the corner of Amherst St and West Street. Further detailed information on the establishment and management of the ancillary facility is contained in Section 1.3 of the CEMP and the Minor Ancillary Facilities Assessment.

The work site is located within the existing road reserve and will be accessed using the adjacent roadway. During site establishment activities, existing access points will be prioritised for access and egress.

Sensitive receivers located near to the site include an informal family daycare centre located on Massey Street and the Tarella Daycare Centre on Amherst St. The nearest school (Cammeray Public) is located on the corner of Palmer Street and Bellevue Street, which is approximately 600 m northeast from the site.

Figure 5-1 – Location of noise barrier works

5.1.1 Access routes for works

Light and heavy vehicles will access and egress the construction worksite and minor ancillary facility using the following primary access roads:

- Mowbray Road – Regional Road
- Brook Street - Regional Road
- Alpha Road - Regional Road
- Pacific Highway - State Road
- Gore Hill Freeway – State Road
- Warringah Freeway - State Road
- Willoughby Road – State Road

Routes were chosen based on roads nominated in the EIS where possible, to minimise potential impacts on traffic and sensitive receivers along the route and generally use major arterial roads or motorways as the routes.

While the noise barrier will utilise, roads nominated in the EIS where possible, multiple noise barrier works will be undertaken on local roads and will require alternate access. Site access and egress routes will utilise roads which avoid sensitive areas including schools, aged care facilities, hospitals and shopping precincts wherever possible. These routes were selected to minimise impacts on residents and return construction vehicles to major arterial roads as quickly as possible. All requests for local road usage not identified in the EIS and RtS will require DPIE approval in accordance with CoA E132.

The construction vehicle routes will be provided to contractors for distribution to the site workers and drivers. The construction vehicle routes will be readily available at the ancillary facility for drivers to review.

Figure 5-2 and Figure 5-3 identify the heavy vehicle routes required for the project.

Figure 5-2 – Heavy vehicle route overview

Figure 5-3 – Heavy vehicle route near site and proposed noise wall

Mitigation measures which will be implemented at construction site access and egress points to manage interactions between construction vehicles and public vehicles, pedestrians and cyclists are outlined in Section 6.1.

5.1.2 Access to local roads

Construction vehicle routes to and from the worksite and have been developed to maximise the use of state and regional roads.

Local roads proposed to be used by heavy vehicles to directly access the construction boundary and ancillary facilities that are not shown in the EIS, must be approved by the Planning Secretary, in accordance with CoA E132. Requests to use local roads will include the information identified in CoA E133, as discussed further in Section 6.6.

Current local roads proposed to be used that have not been assessed in the EIS and require DPIE approval are listed in

Table 5-1 and shown in Figure 5-4. Refer to Appendix C for EIS assessed local roads and local roads requiring DPIE approval under CoA E132.

In accordance with CoA E136 before any local road is used by a heavy vehicle for the noise barrier works, a Road Dilapidation Report must be prepared for the road. A copy of the Road Dilapidation Report must be provided to the relevant council within three weeks of completion of the survey and no later than one month prior to the road being used by heavy vehicles associated with the CSSI.

Table 5-1 Local roads requiring DPIE approval under CoA E132

Local road	Direction of movement	Description of use during construction	Description of potential impacts
Amherst Street (between West Street and Miller Street)	Eastbound Westbound	Access to and egress from work site	Use by construction traffic Period of use: Up to 9 months
West Street (between Amherst Street and Jenkins Street)	Northbound Southbound	Access to and egress from work site	Use by construction traffic Period of use: Up to 9 months
Jenkins Street	Eastbound Westbound	Access to and egress from work site	Use by construction traffic Period of use: Up to 9 months
Armstrong Street	Northbound Southbound	Access to and egress from work site	Construction vehicle route Period of use: Up to 9 months
Massey Street	Eastbound Westbound	Access to and egress from work site	Construction vehicle route Period of use: Up to 9 months
Palmer Street (between Armstrong Street and Miller Street)	Eastbound Westbound	Access to and egress from work site	Construction vehicle route Period of use: Up to 9 months

These local roads will not be used to access the M2A construction site until they are approved by DPIE. Should the DPIE approval include any additional requirements or conditions, this TTAMP will be updated appropriately to ensure compliance.

As stated in the Traffic Engineers Compliance Memo (refer to Appendix A1 of the Local Roads Approval), there are child care facilities located on Amherst Street and Massey Street. Given the anticipated low numbers of heavy vehicles on these roads during peak operation times of the child care centers (maximum of 10 two-way heavy vehicle movements per hour or one two-way heavy vehicle movement every six minutes), the potential impacts are considered minor and measures to avoid where practicable the use of these roads during peak operation times are not considered warranted.

Taking into account CoA E133(a), CoA E133(b), CoA E133(c) and CoA E133(d), it is considered that all local roads that were assessed are suitable as proposed heavy vehicle routes.

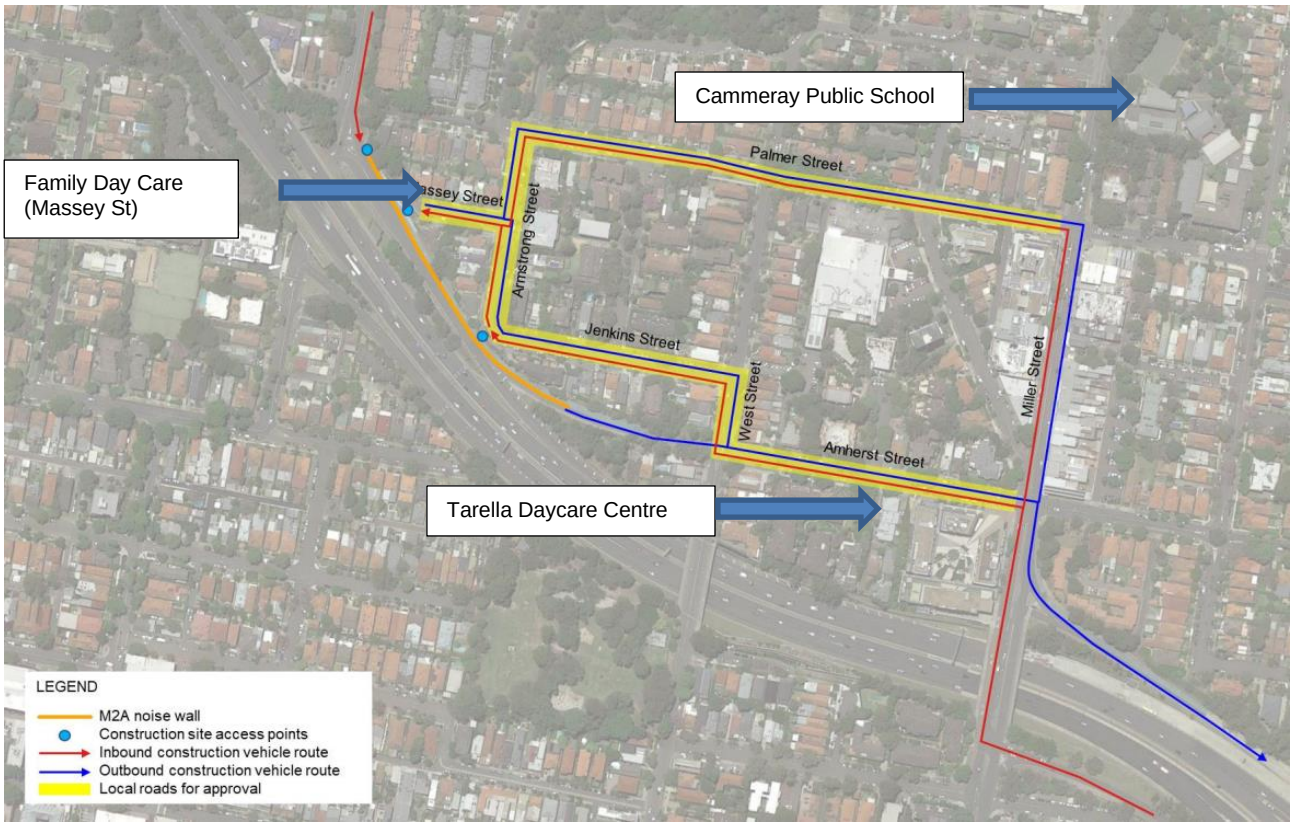


Figure 5-4 – Local roads requiring approval (extract from CPAS)

Further justification for the selection and use of local roads is provided below in Table 5-2.

Table 5-2 Justification for the selection and use of local roads

Local road	Justification
• Amherst Street, Cammeray	• Forms part of the shortest route between the eastern egress point from the main M2A noise wall work site (located on Brook Street / Amherst Street) and the Miller Street entry ramp to the Warringah Freeway • Forms part of the shortest route between the secondary construction site access points, located on Jenkins Street / Armstrong Street and Massey Street, and the Miller

Local road	Justification
	Street entry and exit ramps to / from the Warringah Freeway
• West Street, Cammeray • Jenkins Street, Cammeray • Armstrong Street, Cammeray • Massey Street Cammeray	• Form part of the shortest route between the secondary construction site access points, located on Jenkins Street / Armstrong Street and Massey Street, and the Miller Street entry and exit ramps to / from the Warringah Freeway • There is no alternative route available to / from the secondary construction site access points located on Jenkins Street / Armstrong Street and Massey Street
• Palmer Street, Cammeray	• Provides a route to the secondary construction site access points located on Jenkins Street / Armstrong Street and Massey Street from the Miller Street exit ramp from the Warringah Freeway for 12.5 m single unit trucks which cannot negotiate the right turn from Amherst Street westbound to West Street northbound. • Figure 5-4 provides an alternative route from the secondary construction site access points, located on Jenkins Street / Armstrong Street and Massey Street, to the Miller Street entry ramp to the Warringah Freeway in the event of an incident at the Miller Street / Amherst Street intersection.

5.2 Construction traffic volumes and patterns

Table 5-3 below details the traffic volumes anticipated to access the work site including the ancillary facility for the noise barrier works, based on those presented in the EIS. Table 5-3 below details the approximate traffic volumes anticipated to access key worksite for the noise barrier works. While construction traffic volumes are anticipated to contribute to further congestion of the local road network, construction traffic movements would be minimised during peak periods in accordance with REMM CTT6. Where reasonable and feasible, SPA will not schedule deliveries to site during peak traffic times. A Vehicle Movement Plan will be prepared and will detail a restriction on heavy vehicle movements during school zone times where applicable.

Daily vehicle volumes consider waste removal, material deliveries, and arrival and departure of construction personnel. The proposed vehicle movements are the peak movements and would not be expected for the duration of the works. Typical light vehicles to be used during construction will be worker's 4WD utes and small trucks under 4.5t Gross Vehicle Mass (GVM). Typical heavy vehicles expected to be used during construction would include, but not limited to, rigid bogey tippers, concrete agitators, vacuum trucks, articulated floats and flatbed trucks.

Where possible, deliveries will be scheduled outside of peak traffic times. Worker shift patterns will regularly be influenced by road occupancy licences.

Table 5-3 Construction vehicle numbers required to access the work site and ancillary facility

Local roads	Peak vehicle movements per day (two-way movements)	Morning peak vehicle movements (6 am to 10 am) (two-way movements)	Evening peak vehicle movements (3 pm to 7 pm) (two-way movements)
	Heavy	Heavy	Heavy
Amherst Street (between West Street and Miller Street)	40	20	20
West Street (between Amherst Street and Jenkins Street)	20	10	10
Jenkins Street	20	10	10
Armstrong Street	20	10	10
Massey Street	20	10	10
Palmer Street (between Armstrong Street and Miller Street)	20	10	10

5.2.1 Traffic generation from other major infrastructure projects

Noise barrier works will run concurrently with other major infrastructure projects in the region, including the subsequent Warringah Freeway Upgrade early works and the Warringah Freeway Upgrade main works stages of the project. This may raise the potential for cumulative traffic impacts on the road network to and through the noise barrier works area. These potential impacts are summarised in Table 5-4.

Table 5-4 Potential cumulative traffic impacts

Project	Time frame	Potential impact
Approved major infrastructure projects		
Warringah Freeway Upgrade Project (Stage 2 of the WHTWFU Project)	The Warringah Freeway Upgrade early works, and Warringah Freeway Upgrade Project main works will commence in 2022 with project completion in 2027.	Vehicles involved in the construction of the project are anticipated to predominantly be concentrated at and adjacent to the Freeway, within Milsons Point, North Sydney, Neutral Bay, Cammeray, Crows Nest and Naremburn.
City and Southwest Metro	The construction of the Chatswood to Sydenham line commenced in 2018 with project completion in 2024.	Whilst most tunnelling works have been completed for this project within the area with potential for cumulative impacts, specifically the area between North Sydney and St Leonards, there is fitout and subsequent works being undertaken from now until commissioning in 2024. Such works is likely to require light and heavy vehicle access onto major arterial roads north of the harbour.
Western Harbour Tunnel	Tunnel driven component of the WHT were assessed in the EIS to commence at the end of 2021 with project completion at the beginning of 2026.	Works associated with the noise barrier works will be completed before the commencement of the WHT project
Beaches Link and Gore Hill Freeway Connection	Early works to commence in 2023 with project completion in 2028.	Works associated with the noise barrier works will be completed before this Beaches Link and Gore Hill Freeway Connection commence.

Opportunities and measures to work with other projects to minimise the effects of impacts and enhance the benefits of multiple projects occurring concurrently or consecutively will be addressed by complying with relevant CoA and REMMs, particularly REMM CTT4.

Potential cumulative impacts would be captured through the preparation of Traffic Management Plans as described in Section 6.13.

6 Traffic Management

Construction of the noise barrier works will result in temporary changes to traffic arrangements which have the potential to impact upon road users, pedestrians, cyclists and sensitive receivers located near on adjacent to the changes. This section outlines the traffic management measures that will be implemented to minimise impacts to these receivers.

6.1 Traffic management during construction

To safely manage interactions between construction vehicles and workers, and public vehicles, pedestrians and cyclists at access and egress points and construction works, SPA will implement management measures including:

- Creation of a safe work zone on Amherst Street using barriers including clear access and egress points
- Utilising traffic control to direct vehicles and cyclists around the work zone
- Installation of VMS signage around the work area to alert motorists to the potential traffic hazards
- Creating a detour route for cyclists to ensure they are not impacted
- Install turning truck signs to warn motorists, pedestrians and cyclists of trucks turning into and out of site accesses
- Ensure access and egress driveways are visible to approaching traffic and signposted accordingly
- Where practicable, manage pedestrians at site access and egress driveways with suitable measures such as traffic controller supervision
- Vehicle parking will not block or disrupt access across pedestrian or shared user paths at any time (CoA E139(d))
- Install security fences and gates at locations which maintain clear sight lines and enable vehicles to park clear of adjacent travel lanes
- Traffic Guidance Schemes (TGSs) will be prepared, where required, for any temporary changes to the traffic environment associated with ancillary facility establishment and use
- VMPs will be prepared, where required, for any access associated with establishment and use of construction ancillary facilities and access routes
- Access for emergency vehicles and to firefighting equipment will be maintained
- Where feasible and reasonable, activities requiring partial and full road closures will occur outside of peak periods and/or during night-time to minimise the impact of these activities on the road network in accordance with REMM CTT12
- Community notification in advance of proposed traffic changes through appropriate media and other appropriate forms of community liaison. Community notification will be undertaken in accordance with the Community Communication Strategy.

The Austroads Guide to Traffic Engineering and the TfNSW Road Design Guide provides guidance on the design of intersections and access points. Temporary traffic controls may be required from time to time to facilitate the movement of over-dimension vehicles.

The noise barrier works will impact the cycle link between Brook Street and Amherst Street via the Brook Street entry ramp to the Warringah Freeway. A cyclist detour signage plan has been

developed in consultation with Bike North and Bicycle NSW. Cyclists will be detoured onto alternative designated cycle routes (combination of on-road and off-road).

Cycle access between the Warringah Freeway cycleway and Amherst Street will be mostly as per the existing situation. The traffic staging drawings show cyclists will need to travel through a small section of the construction area, where this would be managed by traffic controllers to ensure there is no conflict between cyclists and construction vehicles and plant and cyclists would be guided through the construction area with clear delineation and separation from any works occurring.

6.2 Road maintenance

6.2.1 Road Dilapidation Report

SPA will undertake road dilapidation surveys on public local roads before they are used by heavy vehicles for works associated with the noise barrier works and following completion of the works. Surveys would include pavement condition surveys, pavement condition assessments and roadside asset condition assessments.

A copy of the report will be provided to the relevant roads' authority (the relevant council or TfNSW) within three weeks of completing the surveys and no later than one month prior to the commencement of roads being used by heavy vehicles associated with the noise barrier works.

In accordance with CoA E136, before any local road is used by a heavy vehicle for the noise barrier works, a Road Dilapidation Report must be prepared for the road. A copy of the Road Dilapidation Report must be provided to the relevant council within three weeks of completion of the survey and no later than one month prior to the road being used by heavy vehicles associated with the CSSI.

6.2.2 Repair and restore

In accordance with CoA E137, if damage to roads occurs because of the noise barrier works, SPA will either (at the relevant road authority's discretion):

- Compensate the relevant road authority for the damage so caused; or
- Rectify the damage to restore the road to at least the condition it was in pre-works as identified in the road dilapidation reports.

SPA will monitor and maintain temporary alignments installed by SPA through the relevant Traffic Management Plan (TMP). Refer to Section 6.13).

6.3 Road occupancy

SPA will obtain the necessary approvals and concurrence of the relevant road authority, prior to conducting any works on the road or the road reserve.

The three specific areas of approval will include:

- All development works within the road reserve and/or any changes to existing infrastructure
- The installation and/or changes of any regulatory traffic control device
- Occupation of the road to conduct works, and the associated installation of temporary traffic control devices.

An ROL will be obtained for work which:

- Slows, stops or otherwise delays or affects the normal flow of traffic
- Diverts traffic from its normal course along the road, including lane closures and detours

- Occupies any portion of the road related area, including the footpath that is normally available for vehicular, pedestrian or bicycle movement.

The ROL will be obtained prior to the commencement of any works on or near a State road except in the case of an emergency, or when directed by Police or Emergency services. ROL applications will be submitted in accordance with Road Occupancy Licensing Guidelines to the Traffic Management Centre (TMC).

6.4 Speed management

Temporary roadwork speed limits are one of many traffic controls that SPA will implement to manage the speed of traffic approaching and passing through the work site. SPA will be conscious of the potential for speed reductions over long distances, to have negative impacts on road user travel times.

SPA will implement Roadwork Speed Zones logically, credibly and capable of being enforced by the NSW Police Force, in accordance with approved Speed Zone Authorisations and as detailed in the ROL.

When considering the use of a roadwork speed zones, SPA will:

- Ensure they are clearly delineated and capable of being enforced
- Position speed signs away from other traffic control signs and devices
- Ensure they are used only while road works are in progress or the lower speed road conditions exist.

As per the *TfNSW Traffic Control at Worksites Manual (Version 5, 2018),* in order to maintain the current speed limits through the work zone, safety barriers will be provided to protect work and workers.

When night works are required, special consideration will be taken to determine changes in the speed limit depending on the location and type of works.

6.5 Signposting and delineation

During the noise barrier works, there will be impacts on the existing road network information and distance information signage.

Signage associated with property access, local community access and businesses will be considered during the detailed design and implementation of temporary traffic management schemes and any impacts addressed to ensure the appropriate information for road users is effectively communicated at all times.

Information signage and advance warning signage will be designed for all changes to the road network and traffic conditions in accordance with relevant *TfNSW Supplement to Australian Standard AS 1742.9:2018, Manual of Uniform Traffic Control Devices* and *AS1743:2018 - Road Sign and Traffic Signals.*

6.5.1 Directional, information and regulatory signposting

The installation of directional, information and regulatory signposting will accompany any changes to the existing road networks.

SPA will design, supply, install and maintain direction, information and regulatory signs and structure required for the noise barrier works, including any modification that are required to existing signs and sign structures. The design, manufacture and installation of the signs and sign structure will be in accordance with the TfNSW standards and *AS1742: Manual of Uniform Traffic Control Devices.* All signposting changes will be detailed in the Traffic Management Plan(s) (TMP) and Traffic Control Plan(s) (TCP).

6.5.2 Delineation

Delineation of any intersection layout changes will comply with the requirements of TfNSW Traffic Control at Worksites and other standards and will be detailed in the individual TMP and TCP.

Line marking will be undertaken in accordance with the relevant Codes and Standards, including TfNSW QA Specification, R141 (Pavement Marking) and R142 (Retroreflective Raised Pavement Markers), TfNSW - Delineation Manual and *AS1742: Manual of Uniform Traffic Control Devices*. Temporary works designs are issued to TfNSW and the independent certifier for approval.

Mitigation measures for pavement deterioration will be considered through a Road Safety Audit, which could include sprayed seal surface over affected areas of line removal.

6.5.3 Variable message signs

During noise barrier works, SPA will utilise portable and permanent VMS to provide advanced warning and changed traffic condition information to road users where required. The use of VMS and the appropriate message/s will be incorporated within a TMP and/or site-specific TCPs.

The Traffic Team will co-ordinate and deploy portable trailer mounted VMS to allow as much advance warning as possible, as well as set TMC agreed and approved messages in accordance with the TMC's VMS Policy.

6.5.4 Flashing arrow signs

Flashing Arrow Signs (FAS) are mainly used when closing traffic lanes and conducting mobile traffic control operations.

When stipulated by the TCP, SPA will implement FAS in accordance with Section 3.12 of the AS 1742.3 and Annexure D of the TfNSW Traffic Control at Worksites Manual.

6.6 Local roads

SPA has developed standard mitigation strategies and approaches have been identified that will be implemented prior to and during the use of local roads (refer to

Table 5-1 for local roads not previously identified in the EIS, and Table *6-1* for the standard mitigation strategies/approaches for the local road usage as per CoA E133). SPA will also consult with occupiers of adjacent properties to identify potential impacts from the use of local roads and to develop site specific mitigation measures where required. The Local Roads Approval in Appendix C provides further information outlining compliance with CoA E133.

Table 6-1 Standard mitigation strategies/approaches for local road usage to address requirements in CoA E133

Requirements	Mitigation strategies / approach
All requests to the Planning Secretary for approval under E133 must include the following: a. include a swept path analysis	Swept paths have been prepared for all local roads requiring DPIE approval (refer to Section 3.1 and Appendix A2 in Appendix C). Access to local road(s) will be restricted on site plans until the relevant local road usage request with supporting information has been provided and approved by the Secretary.
b. demonstration that the use of local roads by heavy vehicles for the CSSI will not compromise the safety of pedestrians and cyclists or	A pedestrian, cyclist and two-way traffic flow safety risk assessment has been undertaken to demonstrate that the use of local roads by heavy vehicles will not compromise pedestrian, cyclist and two-way traffic flow safety (refer to Section 3.2 and Appendix A3 in Appendix C).

Requirements	Mitigation strategies / approach
the safety of two-way traffic flow on two-way roadways	
c. provide details as to the date of completion of the road dilapidation surveys for the subject local roads	Road dilapidation surveys will be undertaken prior to commencement of use of the road by heavy vehicles for the noise barrier works, in accordance with CoA E136.
d. measures that will be implemented to avoid where practicable the use of local roads past schools, aged care facilities and childcare facilities during peak times for operation; and	Measures are required to be implemented to avoid where practicable the use of roads past schools, aged care facilities and child care facilities during their peak operation times. To mitigate any potential impacts: • Heavy vehicle routes have been selected which avoid passing schools, aged care facilities and childcare facilities where possible. • Where a route passes by a school, aged care facility or childcare facility the project will consult with the sensitive receiver to confirm peak times of operation and periods when they are more sensitive to heavy vehicle traffic, e.g. during school drop off and pick up times, during peak visiting hours at aged care facilities. SPA will avoid using heavy vehicle routes past receivers during these periods where practicable. Refer to Section 4 in the Appendix C for further detail on the mitigation measures.
e. Written advice from an appropriately qualified professional on the suitability of the proposed heavy vehicle route which takes into consideration items (a), (b), (c) and (d) of this condition.	The suitability of the proposed heavy vehicle route, which considers CoA E133(a) – (d), will be reviewed by an appropriately qualified traffic engineer.

6.7 Pedestrians and cyclists

Impacts to shared user paths will be dependent on the detailed design of the noise barrier works. Where reasonable and feasible, these impacts will be minimised through the design process.

In accordance with CoA E138, safe pedestrian and cyclist access will be maintained around work sites during construction. In circumstances where pedestrian and cyclist access is restricted or removed due to noise barrier works, an alternate route which complies with the relevant standards will be provided and signposted prior to the restriction or removal of the relevant pedestrian and cyclist access. Prior to any alteration to pedestrian and cyclist access arrangements effected stakeholders will be notified in accordance with the CCS.

6.7.1 Pedestrians

SPA will maintain pedestrian connectivity around the noise barrier works site, however some detours may be required to improve safety or amenity of pedestrians, or accessibility of trucks entering and exiting the worksite and ancillary facility. It is noted that there is currently no

pedestrian access on the Brook St/Amherst St Ramps and any pedestrian impacts will be localised to where access will need to be provided to the work from behind the workface (i.e. at the bend in the road at Jenkins/Armstrong Streets).

Any changes to pedestrian connectivity will be communicated to the relevant council, TfNSW and community stakeholders at least two weeks prior to implementation in line with the CCS. Where alternate routes are implemented, they will be appropriately signed and marked. In accordance with CoA E138 an alternate route which complies with relevant standards will be provided and signposted prior to the restriction or removal of the relevant pedestrian and cyclist access.

SPA will manage pedestrian desire lines with temporary footpaths that comply with the requirements of *Austroads Guide to Road Design Part 6A: Pedestrians and Cycle Paths* and *AS1742.3: Manual of Uniform Traffic Control Devices – Part 3: Traffic Control for Works on Roads*. Prior to work commencing on State and local roads, where the pedestrian access may be affected, SPA will provide alternate pedestrian access routes that are clearly signed and delineated in accordance with all safety requirements. Alternative routes would be tied-in to existing infrastructure including provision of kerb ramps where required, and directional signage to inform pedestrians and cyclists where required.

Alternate routes will aim to minimise inconvenience to pedestrians with the primary goal of maintaining clear space between pedestrians, active work areas and live traffic. This will be addressed in TMPs prior to the commencement of noise barrier works. As identified in Section 6.13, TMPs are provided to the TMC and Sydney Coordination Office (SCO) for consideration and approval. Where the work impacts on council areas, the relevant council will be consulted prior to implementation.

If a TMP is not required due to the nature of works, any alternate pedestrian routes will be captured in a TCP, which is approved by TfNSW through the hold point process described in TfNSW Specification G10 and referenced in Section 6.13 of this TTAMP.

As part of this TTAMP, SPA will implement the following measures when providing alternate pedestrian routes to minimise impacts on mobility impaired pedestrians:

- Clearly define temporary footpath arrangements by using appropriate signage
- Maintain sufficient space for wheelchair access
- Maintain a smooth, even surface on all temporary footpaths and crossings
- Conduct regular inspections to maintain footpaths free of trip hazards
- When changing footpath access, minimise grades for wheelchair use.

Pedestrian diversions have been identified to be required at the following sites, for the associated noise barrier works listed in Table 6-2.

Table 6-2 Identified pedestrian impacts

Footpath location	Duration	Reason for change	Impact	Alternate route	Additional mitigation measures
Intersection of Jenkins Street / Armstrong Street, southern / western side	Intermittently between late 2021 and mid-2022 for a total of about six weeks	Removal of existing noise barrier Installation of a new noise barrier	Intermittent closure of existing footpath	Adjacent to works zone, under the control of traffic controllers	Traffic controllers

6.7.2 Cyclists

SPA will endeavour to maintain cyclist connectivity and functionality provided within and directly adjacent to the noise barrier works area, by preserving existing facilities or providing alternative facilities as part of a detour.

SPA will manage the cyclist desire lines with temporary routes that comply with the requirements of Austroads Guide to Road Design Part 6A: Pedestrians and Cycle Paths and AS1742 Part 9: Bicycle Facilities, AustRoads Guide to Road Design Part 10 and AS1743: Road Signs Specification. Alternative routes will be tied-in to existing infrastructure including provision of kerb ramps where required, and directional signage to inform pedestrians and cyclists where required.

Where alternate routes are implemented, they will be appropriately signed and marked. In accordance with CoA E138 an alternate route which complies with relevant standards will be provided and signposted prior to the restriction or removal of the relevant pedestrian and cyclist access. Alternate routes will be addressed in a TMP and/or TCP (refer section 6.13). Any changes will be communicated to North Sydney Council, Willoughby Council, TfNSW and community stakeholder at least two weeks prior to implementation in line with the CCS. Cyclist groups will be consulted with on an as required basis should there be any further changes that impact the modified cyclist routes.

Cyclists on local/urban roads will typically utilise shoulders or dedicated paths where they exist. Cyclist movements at site access points will be managed to maximise cyclist safety.

Cyclist route diversions have been identified to be required at the following sites, for the associated noise barrier works listed in Table 6-3. The cycle routes are shown below in Figure 6-1.

Table 6-3 Identified cyclist route impacts

Cyclist routes	Duration	Reason for change	Impact	Alternate route	Additional mitigation measures
Brook St/Amherst St Ramps	8 months	Removal of existing noise barrier. Installation of a new noise barrier	Closure of existing cycleway	Cycle detour route including Warringah Freeway, Amherst Street, Palmer Street, West Street	Traffic controllers to guide cyclists. Cyclists may be asked to dismount from bicycle.

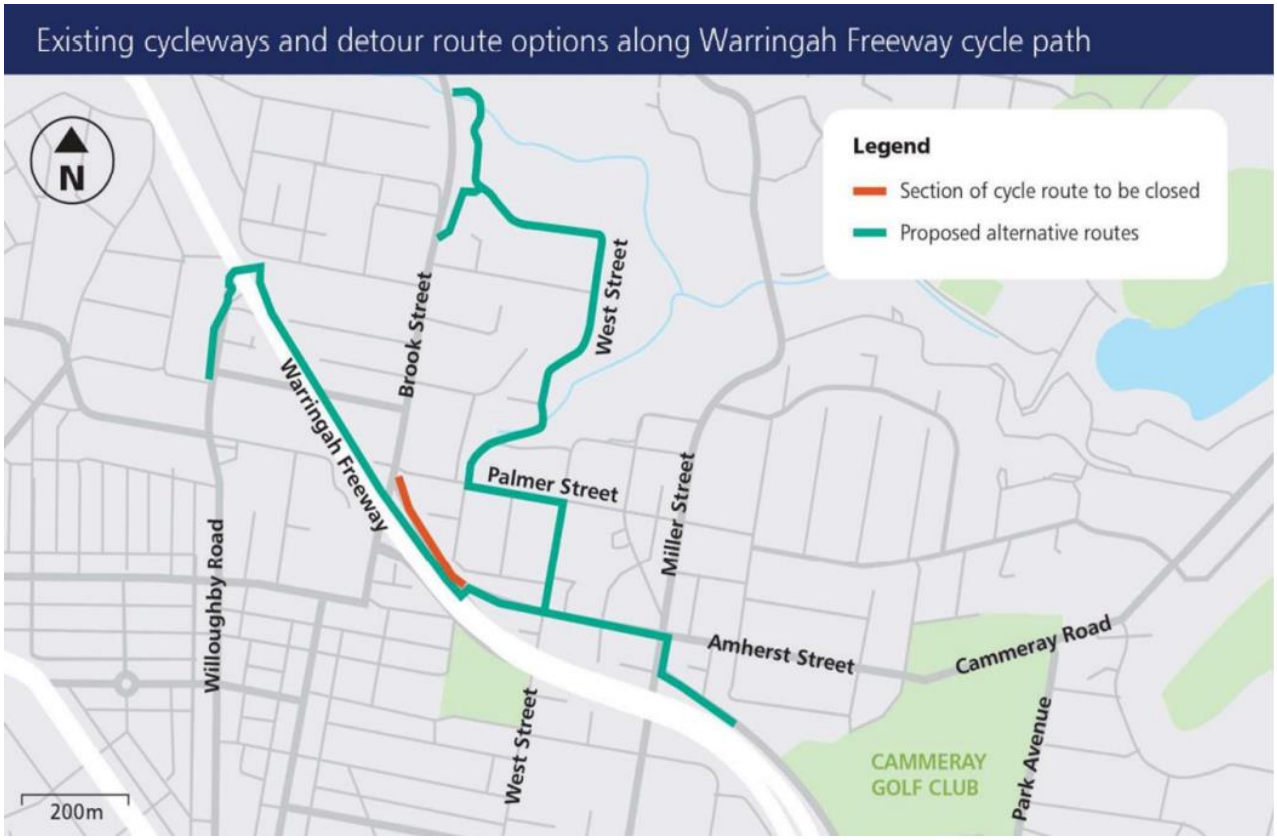


Figure 6-1 – Cycle routes

Permanent changes to the Warringah Freeway, including cycle lanes is not part of the scope of the project.

6.8 Public transport

No bus stops have been identified as requiring relocation as part of the noise barrier works. Access to public transport will not be impacted by the noise barrier works.

6.9 Property access

There are no known impacts on existing commercial or residential properties as access will be retained throughout the noise barrier works. In accordance with CoA E141, all reasonably practicable measures will be implemented to maintain pedestrian and vehicular access to, and parking in the vicinity of affected properties. Disruptions are to be avoided, and where avoidance is not possible, minimised. Where disruption cannot be minimised, alternative pedestrian and vehicular access, and parking arrangements will be developed in consultation with affected stakeholders and implemented prior to the disruption. In accordance with CoA E129, any property access physically affected by the noise barrier works will be reinstated to at least an equivalent standard, unless otherwise agreed by the landowner or occupier.

In accordance with CoA E128, access to all utilities and properties will be maintained during noise barrier works, unless otherwise agreed with the relevant utility owner, landowner or occupier.

In the event property access is affected by the noise barrier works, these impacts will be identified on the TCPs and communicated to the relevant stakeholders. All such communication will occur in accordance with the CCS. Adequate signage and directions to businesses must be provided prior to, and for the duration of, any disruption.

Affected accesses will be reinstated to a pre-construction condition, unless otherwise agreed by the landowner or occupier.

6.10 Parking management

The construction workforce is expected to be a maximum of 25 people at any one time, with construction workforce parking to be contained within the footprint of the work site, any impact on adjacent on-street parking will be minimal.

The workforce will be encouraged to use public transport where available and where practical (i.e., where workforce is not required to transport tool and equipment to site), with key bus stops including Amherst Street (after West Street), Miller Street (opposite Abbott Street), and Miller Street at Abbott Street. Buses servicing these bus stops provide connections to several railway stations for Sydney Trains services to destinations across Greater Sydney.

Some on-street parking will be temporarily removed during noise barrier works, in order to facilitate access to the work site for the removal of the existing noise wall and installation of the new noise wall.

SPA's Traffic Manager will ensure that the parking management requirements are monitored and reported through inspections as outlined in Section 7.1.

In accordance with CoA E140, a Construction Parking and Access Strategy (CPAS) has been prepared to identify and mitigate impacts resulting from on- and off-street parking changes during the noise barrier works. The strategy will be submitted to DPIE for approval at least one month prior to the commencement of any construction activities that will impact on parking availability identified in the CPAS. The approved CPAS will be implemented throughout construction (refer to Appendix E).

REMM CTT9 requires the consideration of a shuttle bus service between ancillary facilities and worksites, where provision of construction workforce parking cannot be accommodated within ancillary facilities. The ancillary facility associated with the noise barrier works will provide adequate off-street parking spaces for the construction workforce. In addition to this, shuttle bus services would not be practical given:

- There is sufficient parking within the footprint of the work site to cater for the expected maximum size of the construction workforce
- The scope of the noise barrier works is tool and equipment-intensive rather than labour-intensive
- The varied nature of the works means construction workforce numbers are highly variable.

6.11 Special events

SPA is not aware of any special events that may be impacted by the work as the location of the construction site is not near any facilities or places that would host a special event. As the construction works would not impact any public transport nodes (bus stops or railway stations), it is unlikely that consideration will need to be given to the planning of major events such as New Year's Eve, Australia Day or the Sydney Running Festival (for example), regardless ongoing consultation will be undertaken with TfNSW, North Sydney Council, Willoughby Council, public transport providers and event organisers to devise and implement appropriate traffic measures.

6.12 Incident management and response

Emergencies or unplanned incidents may occur during the noise barrier works which impact upon traffic including motor vehicle crashes, environmental spills, terrorist attacks, bomb threats, construction type incidents, structural catastrophic failures, inclement weather conditions, flooding and anti-social behaviour.

The Project team will immediately notify the TfNSW Representative of the occurrence of the incident and record the knowledge of the facts. The Traffic Manager, or delegate, is then required

to forward a report with the information to TfNSW Representative within two days of the occurrence of the incident.

Furthermore, in case of unplanned incidents such as power failure and public road traffic incidents that occur within the work site, internal construction trucks would be re-routed over a short period of time. The cause of disruption can then be resolved, and the intersection can be returned to normal operation conditions. SPA will communicate the instructions to truck drivers through traffic marshals.

6.13 Traffic management documents

TMP conforming to *Australian Standard 1742.3: Manual of Uniform Traffic Control Devices – Part 3: Traffic Control for Works on Roads* and the *TfNSW Traffic Control at Worksites Manual (Version 5, 2018)* will be developed for the works, containing details of the nature of the works. The TMP will be provided to the TMC and SCO for consideration and approval, and where the work impacts on council areas, the relevant council will be consulted prior to implementation.

A Traffic Control Plan (TCP) is a diagram showing signs and devices arranged to warn traffic and to guide it around, past or if necessary, through a work site or temporary hazard. All TCPs will be developed in accordance with Australian Standard 1742.3 and the *TfNSW Guide to Traffic Control at Worksites (Version 5, 2018)* by a suitably qualified person. In accordance with TfNSW Specification G10, all TCPs will be approved by TfNSW through a hold point process.

6.14 Driver's Code of Conduct

SPA has developed a Driver's Code of Conduct for the noise barrier works (refer to Appendix D). The Driver's Code of Conduct will be included in the Project Induction (refer to Section 3.5.1 of the CEMP) and will also be provided to all sub-contractors and delivery drivers.

7 Compliance management

7.1 Inspections

Requirements and responsibilities in relation to inspections are documented in Section 3.9 of the CEMP.

SPA will undertake regular inspections to ensure the safety of all traffic movements, as well as the wellbeing of pedestrians, cyclists, drivers and property through and surrounding all worksites. These inspections will also monitor the traffic movements and frequencies detailed in Table 5-3.The responsibility and frequency of inspections is stipulated in Section 6.1 of the *TfNSW Traffic Control at Worksites Manual (Version 5, 2018).*

These regular inspections will also verify the on-street parking commitments established by the Driver's Code of Conduct.

Three main types of inspections and records will occur:

- Inspections of short-term (single shift) traffic controls during the shift
- Regular daytime inspections of long-term traffic controls after implementation
- Regular night-time inspections of long-term traffic controls after implementation.

Pre-opening inspections will be carried out by the Traffic Manager before the start of each new temporary roadwork site or major modification.

Any signage or devices identified during the checks or audits requiring attention will either be rectified at the time or advised to the Traffic Manager during that shift for follow-up action.

7.2 Auditing

In accordance with CoA E145, Independent Road Safety Audits will be undertaken by an appropriately qualified and experienced person during detailed design (audit of the plans) and prior to opening (pre-opening audit).

The Independent Road Safety Audits will assess the safety performance of new or modified roads including traffic staging during the noise barrier works, parking, pedestrian and cycle infrastructure to ensure that they meet the requirements of relevant design, engineering and safety guidelines, including *Austroads Guide to Traffic Management 2009 – Parts 1-13*. These audits will also cover temporary traffic control measures and temporary alternative pedestrian and cyclist diversions.

The audit findings and recommendations of the detailed design plans (audit of the plans) will be actioned prior to construction of the relevant infrastructure. The pre-opening audit findings and recommendations must be actioned prior to the relevant infrastructure being made available for use.

Other audit requirements are detailed in Section 3.9.3 of the CEMP.

7.3 Continual improvement

Traffic, transport and access performance will be inspected and monitored for the noise barrier works throughout construction. The purpose of the inspections and monitoring is to ensure that the mitigation measures identified during the environmental risk assessment (refer to Section 3.2.1 of the CEMP) are effective and being appropriately implemented.

Should mitigation measures be found to be ineffective during regular inspections (detailed in Section 7.1). SPA will review the activity and, where possible, modify the activity or mitigation measures to prevent reoccurrence. Lessons learnt will be communicated to relevant personnel in toolbox talks. This will form part of the continual improvement processes detailed in Section 3.11

and Section 3.12 of the CEMP. The continual improvement processes will ensure ongoing achievement of the Project's performance outcomes (refer to Appendix A).

Appendix A Performance Outcomes

Performance outcomes identified in Table 28-4 of the EIS that are relevant to the management of traffic, transport and access during the noise barrier works are identified in the table below.

Performance outcome	How performance outcome will be addressed	Records	Source
Minimise impacts to local streets from loss of parking, road closures and heavy vehicle movements during construction	Utilise the heavy vehicle routes outlined in Section 5.1.1. Implement measures to minimise impacts resulting from loss of parking, road closures and heavy vehicles movements outlined in Sections 0 and 6. Undertake training, inspections, auditing and recording in accordance with Section 7.	Heavy vehicle routes Complaints register Weekly inspection record	EIS – Chapter 28
Minimise impacts to road network efficiency during construction	Implement the processes and mitigation measures identified in Section 6. Undertake training, inspections, auditing and recording in accordance with Section 7.	Traffic Management Plans Complaints register	EIS – Chapter 28
Enable access to properties to be maintained during construction	Property access will be maintained through the implementation of the processes and mitigation measures identified in Section 6.9. Undertake training, inspections, auditing and recording in accordance with Section 7 and 3.9 of the CEMP.	Traffic Management Plans Complaints register	EIS – Chapter 28
Maintain pedestrian and cyclist safety along surface roads near the project	Section 6.7 outlines processes and mitigation measures which will be implemented. Undertake training, inspections, auditing and recording in accordance with Section 7 and 3.9 of the CEMP.	Traffic Management Plans Complaints register	EIS – Chapter 28

Appendix B Condition of Approval and REMM Compliance Tracking

The CoA and REMMs detailed below are those that are related specifically to the preparation of this Traffic, Transport and Access Management Sub-plan Table App B-1 Minister's Conditions of Approval

<table>
<tr><th>CoA No.</th><th>Condition requirements</th><th>Document reference</th><th>How addressed</th></tr>
<tr><td>C4</td><td>a.
<table>
<tr><td>The following CEMP Sub-plans must be prepared in consultation with the relevant government agencies identified for each CEMP Sub-plan. Details of all information requested by an agency during consultation must be included in the relevant CEMP Sub-plan, including copies of all correspondence from those agencies as required by Condition A5.</td><td>Required CEMP Sub-plan</td><td>Relevant government agencies to be consulted for each CEMP Sub-plan</td></tr>
<tr><td>(a)</td><td>Traffic, transport and access</td><td>Relevant council(s)</td></tr>
</table></td><td>This Plan Section 4</td><td>This TTAMP has been prepared in accordance with this condition and describes how SPA proposes to manage traffic during construction of the Project.
Consultation of this Plan will be in accordance with this condition. Section 4 outlines the consultation undertaken with the relevant government agencies.</td></tr>
<tr><td rowspan="2">C5</td><td>The CEMP Sub-plans must state how:</td><td></td><td></td></tr>
<tr><td>(a) The environmental performance outcomes identified in the documents listed in Condition A1 will be achieved</td><td>Section 2.2
Section 6</td><td>This TTAMP has been prepared in accordance with the environmental performance outcomes identified in the EIS as evidenced in Section 2.2 and Appendix A of this Plan, as applicable to the noise barrier works. Measures to achieve these outcomes are detailed in Section 6 of this Plan.</td></tr>
</table>

CoA No.	Condition requirements	Document reference	How addressed
	(b) the mitigation measures identified in the documents listed in Condition A1 will be implemented	Section 3 Section 5 Section 6 Section 7 Appendix B	The implementation of traffic management and mitigation measures identified in the EIS and RtS is addressed in Sections 3, 5 and 6 of this Plan. Section 6 of this Plan addresses the traffic management measures SPA proposes to implement during the noise barrier works of the Project. Section 7 of this Plan details compliance management measures SPA proposes to implement during the noise barrier works of the Project. Refer to Appendix B for a complete list of relevant REMMs and where the REMMs are addressed in the document.
	(c) the relevant terms of this approval will be complied with; and	Section 3 Section 6 Appendix B	Details regarding how SPA proposes to comply with the relevant terms of approval are listed in Section 3, this Table and Section 6 of this Plan.
	(d) issues requiring management during construction (including cumulative impacts), as identified through ongoing environmental risk analysis, will be managed through SMART principles.	Section 6 Section 3.1.2and Appendix A4 of the CEMP Section 3.8 to 3.12 of the CEMP	Traffic issues requiring management during the noise barrier works have been identified through the EIS and RtS and Environmental Risk Assessment Workshop (refer Section 3.1.2 and Appendix A4 of the CEMP). These issues will be managed through the implementation of this TTMP and the measures in Section 6. Mitigation measures have been developed with SMART principles in mind. Environmental risk analysis will be ongoing, with regular review in accordance with Section 3.8 to

CoA No.	Condition requirements	Document reference	How addressed
			3.12 of the CEMP to ensure effective management of traffic impacts.
C9	Any of the CEMP Sub-plans must be submitted to the Planning Secretary along with, or subsequent to, the submission of the CEMP but in any event, no later than one month before construction.	Section 1.4 of the CEMP Section 2 of the CEMP Section 3.2	The CEMP Sub-plans (including the Noise and Vibration Management plan and this Plan) will be submitted for approval to DPIE with, or subsequent to, the final submission of the CEMP for DPIE approval.
C10	Construction must not commence until the CEMP and all CEMP Sub-plans have been approved by the Planning Secretary. The CEMP and CEMP Sub-plans, as approved by the Planning Secretary, including any minor amendments approved by the ER must be implemented for the duration of construction. Where construction of the CSSI is staged, construction of a stage must not commence until the CEMP and sub-plans for that stage have been endorsed by the ER and approved by the Planning Secretary.	Section 1.5 of the CEMP Section 2 of the CEMP Section 3.2	Construction will not commence until the CEMP and all Sub-plans have been endorsed by the ER and approved by DPIE. The CEMP and all Sub-plans will be implemented for the duration of construction for the noise barrier works.
E128	Access to all utilities and properties must be maintained during construction, where practicable, unless otherwise agreed with the relevant utility owner, landowner or occupier.	Section 6.9	Where practicable, access to all utilities and properties will be maintained during noise barrier, unless otherwise agreed with the relevant utility owner, landowner or occupier.
E129	Any property access physically affected by the CSSI must be reinstated to at least an equivalent standard, unless otherwise agreed by the landowner or occupier.	Section 6.9	Affected accesses will be reinstated to a pre-construction condition, unless otherwise agreed by the landowner or occupier.

CoA No.	Condition requirements	Document reference	How addressed
E132	Local roads proposed to be used by heavy vehicles to directly access the construction boundary and ancillary facilities that are not shown in Figure 5-7 to 5-22 inclusive of Appendix F of the EIS must be approved by the Planning Secretary and included in the Traffic, Transport and Access Management CEMP Sub-plan.	Section 5.1.2	Local road usage, in addition to that identified in the EIS, is addressed in Section 5.1.2, particularly Table 5-1. All requests for approval for local road usage will include the information identified in CoA E133.
E133	All requests to the Planning Secretary under Condition E132 must include the following:		
	(a) include a swept path analysis;	Section 6.6	Swept path analysis will be provided to the Planning Secretary for all requests for local road usage.
	(b) demonstration that the use of local roads by heavy vehicles for the CSSI will not compromise the safety of pedestrians and cyclists or the safety of two-way traffic flow on two-way roadways;	Section 6.6 Appendix C	Mitigation strategies and approaches that will be implemented prior to and during the use of local roads are provided in Section 6.6. These measures will ensure the safety of the public is not compromised, with no more than minimal amenity impacts.
	(c) provide details as to the date of completion of the road dilapidation surveys for the subject local roads;	Section 6.2.1 Section 6.6	Road dilapidation surveys will be undertaken prior to commencement of use of the road by heavy vehicles for the noise barrier works. Details regarding the road dilapidation surveys are outlined in Section 6.2.1.
	(d) measures that will be implemented to avoid where practicable the use of roads past schools, aged care facilities and child care facilities during their peak operation times; and	Section 6.6	Mitigation strategies and approaches that will be implemented prior to and during the use of local roads are provided in Section 6.6.

CoA No.	Condition requirements	Document reference	How addressed
	(e)written advice from an appropriately qualified professional on the suitability of the proposed heavy vehicle route which takes into consideration items (a), (b), (c), and (d) of this condition.	Section 6.6	The suitability of the proposed heavy vehicle route, which considers CoA E133(a) – (d), will be reviewed by an appropriately qualified traffic engineer, as identified in Table 6-1.
E136	Before any local road is used by a heavy vehicle for the purposes of the CSSI, a Road Dilapidation Report must be prepared for the road. A copy of the Road Dilapidation Report must be provided to the relevant council within three weeks of completion of the survey and no later than one month prior to the road being used by heavy vehicles associated with the CSSI.	Section 5.1.2 Section 6.2.1	Road dilapidation surveys will be undertaken prior to commencement of use of the local road by heavy vehicles for the noise barrier works. Local roads required for access to/from the work areas are identified in Table 5-2. Details regarding the road dilapidation surveys for state and local roads are outlined in Section 6.2.1.
E137	If damage to roads occurs as a result of the CSSI, the Proponent must either (at the relevant road authority's discretion): a. Compensate the relevant road authority for the damage so caused; or b. Rectify the damage to restore the road to at least the condition it was in pre-works as identified in the road dilapidation report(s).	Section 6.2.2	As detailed in Section 6.2.2, SPA will either compensate the landowner for the damage caused or rectify the damage to restore the road to at least the condition it was pre-construction.
E138	Safe pedestrian and cyclist access must be maintained around work sites during construction. In circumstances where pedestrian and cyclist access is restricted or removed due to construction activities, a proximate alternative route which complies with relevant standards, unless otherwise endorsed by an independent, appropriately qualified and experienced person, must be	Section 6.7.1 Section 6.7.2	Safe pedestrian and cyclist access will be maintained around work sites during the noise barrier works, as detailed in Section 6.7.1 and 6.7.2. These sections detail known required pedestrian and cyclist detours.

CoA No.	Condition requirements	Document reference	How addressed
	provided (including signposting) prior to the restriction or removal of the impacted access.		
E139	Vehicles (including light and heavy vehicles) associated with the CSSI must be managed to: a. minimise parking on public roads; b. minimise idling and queueing on state and regional roads; c. not carry out marshalling of construction vehicles near sensitive land user(s); d. not block or disrupt access across pedestrian or shared user paths at any time; e. ensure spoil haulage vehicles adhere to the nominated haulage routes identified in the Traffic, Transport and Access Management CEMP Sub-plan.	Section 5.1.1 Section 6.1 Section 6.10 Construction Parking and Access Strategy	Parking arrangements are primarily discussed in Section 6.10 and the CPAS. Construction vehicle routes and idling, queueing and marshalling are addressed in Section 5.1.1. Management measures to safely manage the interactions between construction vehicles and public vehicles, pedestrians and cyclists at access and egress points and construction works are identified in Section 6.1. Access and egress routes have been provided in Section 5.1.1 and Appendix C.
E140	A Construction Parking and Access Strategy must be prepared to identify and mitigate impacts resulting from on- and off-street parking changes during construction of the CSSI. The Strategy must include, but not necessarily be limited to: […] The Construction Parking and Access Strategy must be submitted to the Planning Secretary for approval at least	Section 6.10 Construction Parking and Access Strategy	The CPAS has been prepared and is included as Appendix E. The CPAS will be submitted to DPIE separately. The CPAS will be appended to this TTAMP following DPIE approval.

CoA No.	Condition requirements	Document reference	How addressed
	one month before the commencement of any construction that reduces the availability of existing parking. The approved Strategy must be implemented before impacting on on-street parking and incorporated into the Traffic, Transport and Access Management CEMP Sub-plan.		
E141	During construction, all reasonably practicable measures must be implemented to maintain pedestrian and vehicular access to, and parking in the vicinity of, businesses and affected properties. Disruptions are to be avoided, and where avoidance is not possible, minimised. Where disruption cannot be minimised, alternative pedestrian and vehicular access, and parking arrangements must be developed in consultation with affected businesses and implemented prior to the disruption. Adequate signage and directions to businesses must be provided prior to, and for the duration of, any disruption.	Section 6.9	Access will be maintained throughout the noise barrier works. Where access is impacted, alternative access will be provided unless otherwise agreed with the affected property.
E145	An independent Road Safety Audit must be undertaken to assess the safety performance of new or modified local road, parking, pedestrian and cycle infrastructure provided as part of the CSSI (including ancillary facilities) to ensure that they meet the requirements of relevant design, engineering and safety guidelines, including Austroads Guide to Traffic Management. The audit must be undertaken by an appropriately qualified and experienced person during detailed design development (audit of plans) and prior to opening (pre-opening audit). The audit findings and recommendations of the detailed design plans (audit of the plans) must be actioned prior to	Section 7.2	Independent Road Safety Audits will be completed where required as outlined in Section 7.2.

CoA No.	Condition requirements	Document reference	How addressed
	construction of the relevant infrastructure. The pre-opening audit findings and recommendations must be actioned prior to the relevant infrastructure being made available for use.		
E149	Where bus stops are required to be temporarily closed, such closure must not occur until relocated bus stops that comply with relevant standards, are functioning, have similar capacity and amenity and are relocated within a 400-metre walking distance of the existing bus stop. Closures and relocation of bus stops during construction must be undertaken in consultation with relevant council(s). Wayfinding signage must be provided directing commuters to adjacent or relocated bus stops. Footpaths and (where required) road crossing facilities must be provided to any relocated bus stops such that accessibility and safety standards are met.	Section 6.8	No bus stop relocations have been identified as being required to carry out the noise barrier works.

Table App B-2 Revised environmental management measures relevant to this TTAMP

Impact	Reference No.	Commitment	Timing	Where addressed
Construction traffic	CTT1	A road dilapidation report will be prepared, in consultation with relevant councils and road owners, identifying existing conditions of local roads and mechanisms to repair damage to the road network caused by heavy vehicle movements associated with the project.	Pre-construction	Section 6.2
Construction traffic	CTT4	Ongoing consultation will be carried out with (as relevant to the location) Transport Coordination within Transport for NSW, the Port Authority of NSW, local councils, emergency services and bus operators to minimise traffic and transport impacts during construction.	Pre-construction Construction	Section 4
Construction traffic	CTT5	The community will be notified in advance of proposed transport network changes, and maritime restrictions through appropriate media and other appropriate forms of community liaison.	Construction	Section 6.1 CCS
Construction traffic	CTT6	Construction road traffic will be managed to minimise movements during peak periods.	Construction	Section 5.2
Construction traffic	CTT7	Vehicle movements to and from construction sites will be managed to ensure pedestrian, cyclist and motorist safety. Depending on the location, this may require manual supervision, physical barriers, temporary traffic signals and modifications to existing signals or, on occasion, police presence.	Construction	Section 6.7
Construction traffic	CTT8	Directional signage, barriers and/or line marking will as required be used to direct and guide drivers, cyclists and pedestrians past construction sites and on the surrounding network. This will be supplemented by Variable Message Signs to advise drivers of potential delays, traffic diversions, speed restrictions, or alternative routes.	Construction	Section 6.5

Impact	Reference No.	Commitment	Timing	Where addressed
Construction traffic	CTT9	Where provision of construction on-site parking cannot accommodate the full construction workforce, feasible and reasonable management measures that minimise impacts on parking on local roads will be identified and implemented. Depending on the location, management measures may include workforce shuttle buses and the use of public transport.	Construction	Section 6.10
Construction traffic	CTT12	Activities requiring partial and full road closures will occur outside of peak periods and/or during night-time to minimise the impact of these activities on the road network where feasible and reasonable.	Construction	Section 6.1
Pedestrian access	CTT19	Direct impacts to existing shared user paths will be minimised where reasonable and feasible. Any detours and adjustments will be designed with consideration of user safety and convenience.	Construction	Section 6.7

Appendix C Local Roads Approval

Appendix D Driver's Code of Conduct

Driver Code of Conduct

This Driver Code of Conduct applies to all Sydney Program Alliance personnel and any other person undertaking work for the Sydney Program Alliance, whether they are a direct employee of Sydney Program Alliance or employed by another organisation providing a service or product to Sydney Program Alliance.

All drivers must:

- Drive courteously.
- Obey all road rules, including posted speed limits and other traffic signage within work sites and site compounds.
- Take extreme care when driving past other vehicles travelling in the opposite direction on local roads including Amherst Street, West Street, Jenkins Street, Armstrong Street, Massey Street and Palmer Street.
- Report any incidents or near misses to your supervisor immediately.
- Hold a current and valid driving licence for the class of vehicle that you operate. Additionally, you must always carry your current driver licence with you while you are on duty. If your licence is cancelled or suspended, you must let your supervisor know immediately.
- Maintain and operate your vehicle in accordance with the vehicle manufacturer's recommended standards (refer to the vehicle manufacturer's handbook and service schedule).
- Not use engine brakes in residential areas.
- Try to avoid reversing whenever possible. If you cannot avoid it, use extreme caution.
- Ensure your vehicle is fitted with audible reversing alarms.
- Always follow posted signs as they provide vital clues to road conditions and characteristics.
- Always be aware of the following:
  - Reduce your speed in wet conditions
  - Drive cautiously in fog or heavy rain
  - Descend hills at signposted heavy vehicle speeds, or in the lowest gear to suit the conditions
  - Observe road work speed limits
  - Do not exceed the posted speed limit
  - Do not drive at speed past schools, school buses, playgrounds, shopping areas etc.
- Follow Vehicle Movement Plans that specify approved routes to and from work sites and site compounds. Only roads that are shown on the Vehicle Movement Plans may be used. The use of roads that are not shown on the Vehicle Movement Plans is strictly prohibited.
- Follow directions provided by a Sydney Program Alliance employee.
- Park within work sites and site compounds where possible. Parking on public roads is to be avoided. Where this is not possible, contact your Sydney Program Alliance contact to seek alternative arrangements.

SYDNEY PROGRAM ALLIANCE

DRIVER CODE OF CONDUCT

This Driver Code of Conduct is applicable 24 hours per day, seven days per week. Failure to comply with this Driver Code of Conduct will lead to either the issue of a non-conformance notice or disciplinary action if the offender is an employee of Sydney Program Alliance. If the offending person is employed by another organisation providing a service or product to Sydney Program Alliance, then a suspension or cancellation of a service contract or arrangement with that organisation may be considered.

Appendix E Construction Parking and Access Strategy

Construction Parking and Access Strategy

Western Harbour Tunnel and Warringah Freeway Upgrade

Stage 1C Early and Enabling Works – Massey to Amherst Street (M2A) noise wall

Transport for NSW

NSW GOVERNMENT

THIS PAGE LEFT BLANK INTENTIONALLY

Construction Parking and Access Strategy

Western Harbour Tunnel and Warringah Freeway Upgrade

Stage 1C Early and Enabling Works – Massey to Amherst Street (M2A) noise wall

October 2021

List of emergency and key contacts

Position	Name	Phone
North Sydney Council		(02) 9936 8100
24-hour community information line		1800 931 189
SPA Environmental Manager	Daniel Lidbetter	0427 768 613
SPA Community Manager	Amanda Muir	0499 542 816
SPA Construction Manager	Jason Nisbet	0418 693 964
SPA Superintendent	John Cosgrave	0419 717 529
SPA Traffic Manager	Phil Truong	0414 561 631
Environmental Representative	Maurice Pignatelli	0407 493 176
SPA Environment Interface Manager	Richard Peterson	0429 227 775
Transport for NSW Environmental Representative	Rob Owens	0435 578 294

Contents

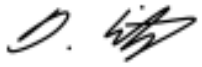
Tables

Figures

Appendices

Document control

Approval

Title	Massey to Amherst Street (M2A) Noise Barrier Construction Parking and Access Strategy
Approved by SPA Environment Manager	Dan Lidbetter
Signed	
Dated	28.10.2021
Approved by SPA Construction Manager	Jason Nisbet
Signed	
Dated	28.10.2021

Version control

The below document status table is for tracking the revisions of the CPAS, while the project is in construction. The version control table is to be used to track CPAS revisions, including those incorporating changes following agency comments.

It may be modified where necessary to fit with requirements of the individual project.

Revision	Date	Description	Approval
A	16/9/21	For internal review	PT
1	21/9/21	Issued for TfNSW Comments	DL
2	28/9/21	Issued for DPIE Submission	DL

Glossary / abbreviations

Abbreviation	Expanded text
CCS	Community Communication Strategy
CEMP	Construction Environmental Management Plan
CGC	Cammeray Golf Course
CoA	Condition of Approval
CPAS	Construction Parking and Access Strategy
DPIE	Department of Planning, Industry and Environment
EIS	Environmental Impact Statement
M2A	Massey to Amherst Street
Project, the	Western Harbour Tunnel Warringah Freeway Upgrade
REMM	Revised Environmental Management Measures
ROL	Road Occupancy Licence
TfNSW	Transport for NSW
TTAMP	Traffic, Transport and Access Management Sub-plan
WFU	Warringah Freeway Upgrade
WFUEW	Warringah Freeway Upgrade Early Works
WFUMW	Warringah Freeway Upgrade Main Works
WHT	Western Harbour Tunnel
WHTWFU	Western Harbour Tunnel Warringah Freeway Upgrade

1 Introduction

1.1 Background

The Western Harbour Tunnel and Warringah Freeway Upgrade (WHTWFU) is shown in Figure 1-1. The project comprises two main components:

- A new crossing of Sydney Harbour involving twin tolled motorway tunnels connecting the M4-M5 Link at Rozelle and the Warringah Freeway at North Sydney (the Western Harbour Tunnel)
- Upgrade and integration work along the existing Warringah Freeway, including infrastructure required for connections to the Beaches Link and Gore Hill Freeway Connection project. Reconfiguration works as part of the Warringah Freeway Upgrade would optimise the road corridor and improve the performance of the Sydney Harbour Tunnel, the Sydney Harbour Bridge and the Western Harbour Tunnel.

Due to its importance, the WHTWFU project was declared to be Critical State Significant Infrastructure (CSSI) by the Minister for Planning and Public Space on 9 November 2020.

On 21 January 2021, the Department of Planning, Industry and Environment (DPIE) approved the construction and operation of the WHTWFU project (SSI 8863).

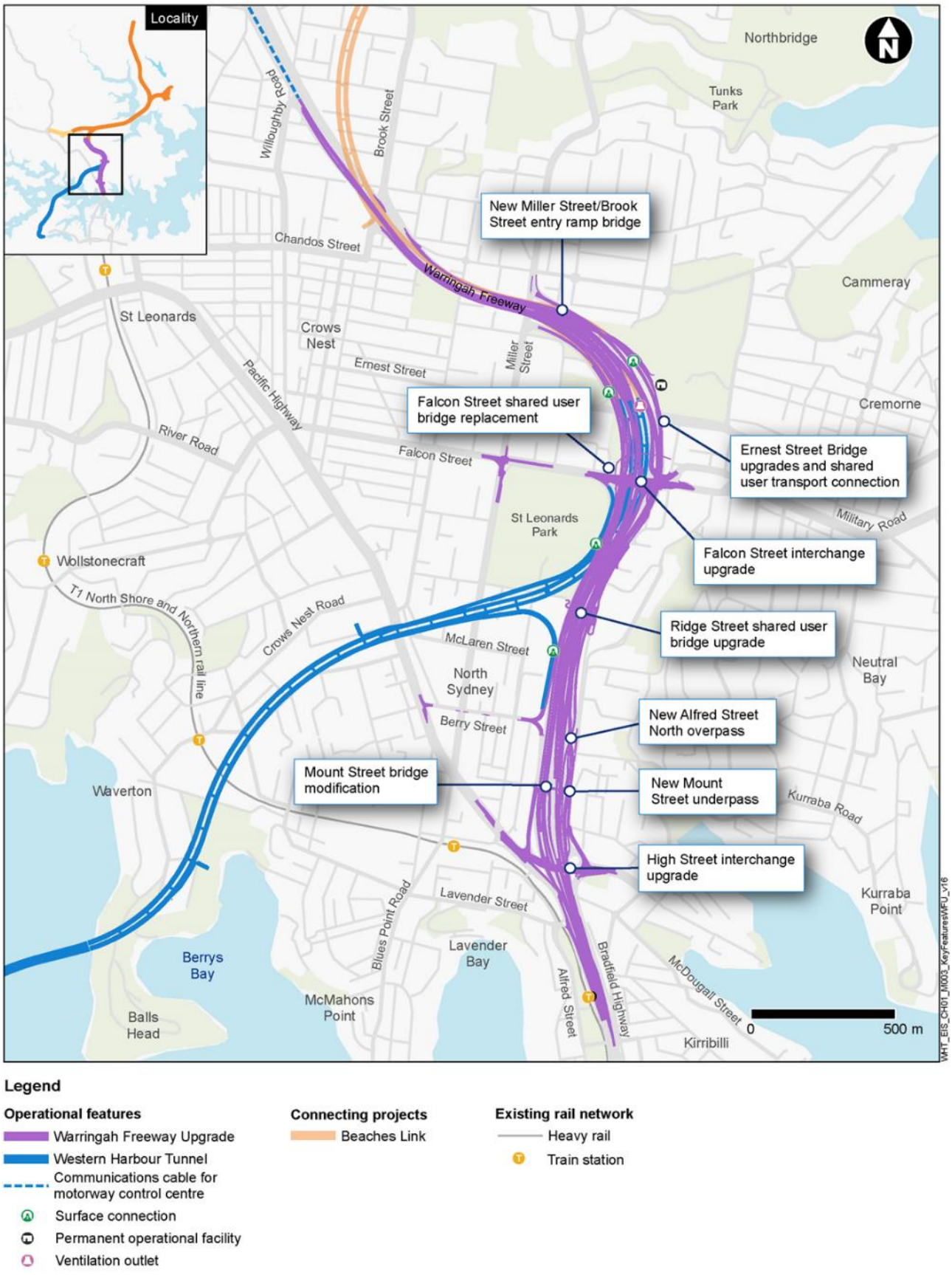
A detailed description of the project is provided in Chapter 5 of the Western Harbour Tunnel and Warringah Freeway Upgrade Environmental Impact Statement (EIS).

The WHTWFU project will be delivered in numerous stages:

- Stage 1 - Early and enabling works:
  - Stage 1A - Critical utility installation, relocation and protection (CUT)
  - Stage 1B - Cammeray Golf Course adjustment works (CGC)
  - Stage 1C - Massey to Amherst Street noise wall (M2A) (the subject of this CPAS)
- Stage 2 - Warringah Freeway Upgrade project:
  - Stage 2 – Warringah Freeway Upgrade (WFU)
- Stage 3 - Western Harbour Tunnel project (WHT).
  - Supplementary stages to be confirmed at a later stage (upon procurement of the WHT Contractor/s).

Further detail on each stage is provided in the WHTWFU project Staging Report.

This Construction Parking and Access Strategy (CPAS) applies only to Stage 1C Early and Enabling Works - Massey to Amherst Street (M2A) noise barrier works stage of the project (referred to herein as the 'noise barrier works'. The noise barrier works will support the delivery of the wider WHTWFU program of works by undertaking these works prior to the commencement of the Stage 2 and Stage 3.



(Reference: Western Harbour Tunnel and Warringah Freeway Upgrade Environmental Impact Statement, Figure 1-3)

Figure 1-1 Key features of the Warringah Freeway Upgrade component of the project

1.2 Project description

The early and enabling works will support the delivery program of the Main Works of the project by undertaking these works prior to the commencement of the Main Works. This CPAS applies only to the M2A noise wall works (Stage 1C) and is required to be implemented prior to the occupation of any carparking spaces nominated in this CPAS (noting that some of the activities associated with the construction of the M2A Noise Wall will not impact parking).

The existing M2A noise wall will be impacted by the widening of the Warringah Freeway. The removal of the existing noise wall and the installation of the new M2A noise wall must occur before the start of the construction of the Warringah Freeway Upgrade. The new noise wall is about 175 metres in length and is located on the eastern side of the Warringah Freeway. The works will include:

- Site Establishment and installation of temporary site facilities
- Demolition of existing block wall
- Recessing Rock face
- Piling and standing columns
- Pre-casting and installing concrete panels
- Landscaping
- Asphalting
- Site Demobilisation

The M2A noise wall works will commence in late 2021 and be completed in the second half of 2022. The program for the remaining stages of the WHTWFU project is included in the WHTWFU Project Staging Report.

Figure 1-2 Location of the M2A noise wall works

1.3 Purpose and scope of this CPAS

This CPAS has been prepared to describe how the Contractor, during the M2A noise wall works, will comply with the requirements of the NSW Minister for Planning and Public Space's Conditions of Approval (CoA) E139 and E140. The scope of the CPAS includes temporary on-street parking changes during the M2A noise wall works that are located outside the approved CSSI footprint. Car parking requiring removal inside the approved CSSI footprint has been considered in the EIS and has already been approved under the Infrastructure Approval (SSI-8863).

The CPAS will be lodged to DPIE at least one month prior to the commencement of any work that will impact on parking. These works will not commence until the CPAS has been approved by DPIE.

The requirements of CoA E139 and E140 and where they are met in this CPAS are shown in Table 1-1. Additional CoA and Revised Environmental Management Measures (REMM) are presented in Appendix A3.

Table 1-1 CoA E139 and E140 compliance

CoA No.	Condition requirements	Where addressed in CPAS
E139	Vehicles (including light and heavy vehicles) associated with the CSSI must be managed to:	
	a. minimise parking on local roads	Section 5.2 Also refer to Traffic, Transport and Access Management Sub-Plan (TTAMP)
	b. minimise idling and queuing on state and regional roads	Section 5.2 Also refer to the TTAMP
	c. not carry out marshalling of construction vehicles near sensitive land user(s)	Section 5.2 Also refer to the TTAMP
	d. not block or disrupt access across pedestrian or shared user paths at any time	Section 5.2 Also refer to the TTAMP
	e. ensure spoil haulage vehicles adhere to the nominated haulage routes identified in the Traffic, Transport and Access Management CEMP Sub-plan	N/A – no spoil haulage will be required during the M2A noise wall works
E140	A Construction Parking and Access Strategy must be prepared to identify and mitigate impacts resulting from on- and off-street parking changes during construction of the CSSI. The Strategy must include, but not necessarily be limited to:	
	a. achieving the requirements of Condition E139	Table 1-1

CoA No.	Condition requirements	Where addressed in CPAS
	b. confirmation and timing of the removal of on- and off-street parking associated with construction of the CSSI	Section 4
	c. parking surveys of all parking spaces to be removed or occupied by the CSSI workforce to determine current demand during peak, off-peak, school drop-off and pick up, weekend periods and during special events	Section 3.1
	d. consultation with affected stakeholders utilising existing on- and off-street parking stock which will be impacted as a result of construction	Section 2
	e. assessment of the impacts of changes to on- and off-street parking stock taking into consideration, occupation by the CSSI workforce, outcomes of consultation with affected stakeholders and considering the impacts of special events	Section 4
	f. identification of mitigation measures to manage impacts to stakeholders as a result of on- and off-street parking changes including, but not necessarily limited to, staged removal and replacement of parking, provision of alternative parking arrangements, managed staff parking arrangements and working with relevant council(s) to introduce parking restrictions adjacent to work sites and compounds or appropriate residential parking schemes	Section 5
	g. where residential parking schemes already exist, off-road parking facilities must be provided for the CSSI workforce	Section 4.1
	h. mechanisms for monitoring, over appropriate intervals, to determine the effectiveness of implemented mitigation measures	Section 6.1
	i. details of shuttle bus service(s) to transport the CSSI workforce to construction sites from public transport hubs and off-site car parking facilities (where these are provided) and between construction sites	Section 5
	j. provision of contingency measures should the results of mitigation or monitoring indicate implemented measures are ineffective	Section 6.4
	k. provision of reporting of monitoring results to the Planning Secretary and relevant council(s) at three monthly intervals	Section 6.3

CoA No.	Condition requirements	Where addressed in CPAS
	The **Construction Parking and Access Strategy** must be submitted to the Planning Secretary for approval at least one month before the commencement of any works that impact existing parking. The approved Strategy must be implemented before impacting on on-street parking.	Section 1.3

A rapid assessment of parking spaces that will be temporarily removed during the M2A noise wall works is shown in Table 1-2.

Table 1-2 Rapid assessment of parking spaces to be removed

Assessment criteria	Jenkins Street / Armstrong Street	Massey Street
Has the Roads Act 1993 been enacted or does TfNSW already own / control the land?	No	No
Is the parking located within the approved CSSI footprint?	No	No
Has sufficient off-street car parking been provided for the construction workforce?	Yes	Yes
How many parking spaces are proposed to be temporarily removed?	Six spaces	Five spaces
Are there sufficient remaining car parking spaces to meet parking demand post-removal?	Yes	Yes
Where addressed in CPAS	Sections 3.2 and 4.2	Sections 3.3 and 4.3

2 Consultation, endorsement and approval

This CPAS will be accepted by the Contractor Construction Manager, Contractor Environmental Manager and Transport for NSW (TfNSW) prior to lodgement to DPIE for approval. The CPAS will be prepared with consideration of consultation undertaken with North Sydney Council and stakeholders who will be affected by impacts to on-street parking.

Consultation will be undertaken with affected stakeholders associated with on-street car parking removal proposed on Jenkins, Armstrong and Massey Streets in accordance with CoA E140(d),(e) and (f). The intent of this consultation is to inform affected stakeholders, to assess impacts to affected stakeholders and to develop specific mitigation measures to manage the impacts to affected stakeholder. This consultation will include the following:

- Letter box drops
- Door knocks (subject to Covid Restrictions)
- Emails
- Phone calls
- Online Survey.

If specific mitigation measures identified following the outcomes of stakeholder consultation associated with the removal of on-street car parking along Jenkins, Armstrong and Massey Streets, then the mitigation measures presented in Section 5.3 of this CPAS will be reviewed and updated accordingly.

In accordance with CoA A5 a Consultation Summary report has been prepared to document the consultation undertaken in the development as required by CoA E140(d), (e) and (f). This Consultation Summary will be lodged to DPIE along with this CPAS.

Ongoing consultation with stakeholders, including the surrounding community, will be conducted throughout works in accordance with the Community Communication Strategy (CCS).

3 Existing conditions

3.1 Parking surveys

3.1.1 Parking survey times and locations

In accordance with CoA E140(c), parking surveys have been undertaken at all locations where on-street parking spaces are proposed to be temporarily removed to determine existing parking demand during peak, off-peak, school drop-off and pick up and weekend periods.

The parking surveys were undertaken on the following days and times:

- Weekdays[1]
  - 8.30 am (weekday morning peak / school drop-off)
  - 3 pm (school pick up)
  - 5 pm (weekday evening peak)
  - 10 pm (weekday evening off-peak)
- Weekends[2]
  - 12 pm (weekend day)
  - 11 pm (weekend evening)

These days do not coincide with public holidays or school holidays. The parking survey results can therefore be considered an accurate representation of a typical weekday and weekend.

The parking surveys were undertaken at the locations listed in Table 3-1.

Table 3-1 Parking survey locations

Location	Road segment
Jenkins Street / Armstrong Street, Cammeray (refer to Figure 3-1)	Both sides between Massey Street and West Street
Massey Street, Cammeray (refer to Figure 3-2)	Both sides

[1] Weekday surveys were undertaken on Monday 9 August 2021 to Friday 13 August 2021.
[2] Weekend surveys were undertaken on Saturday 14 August 2021 and Sunday 15 August 2021.

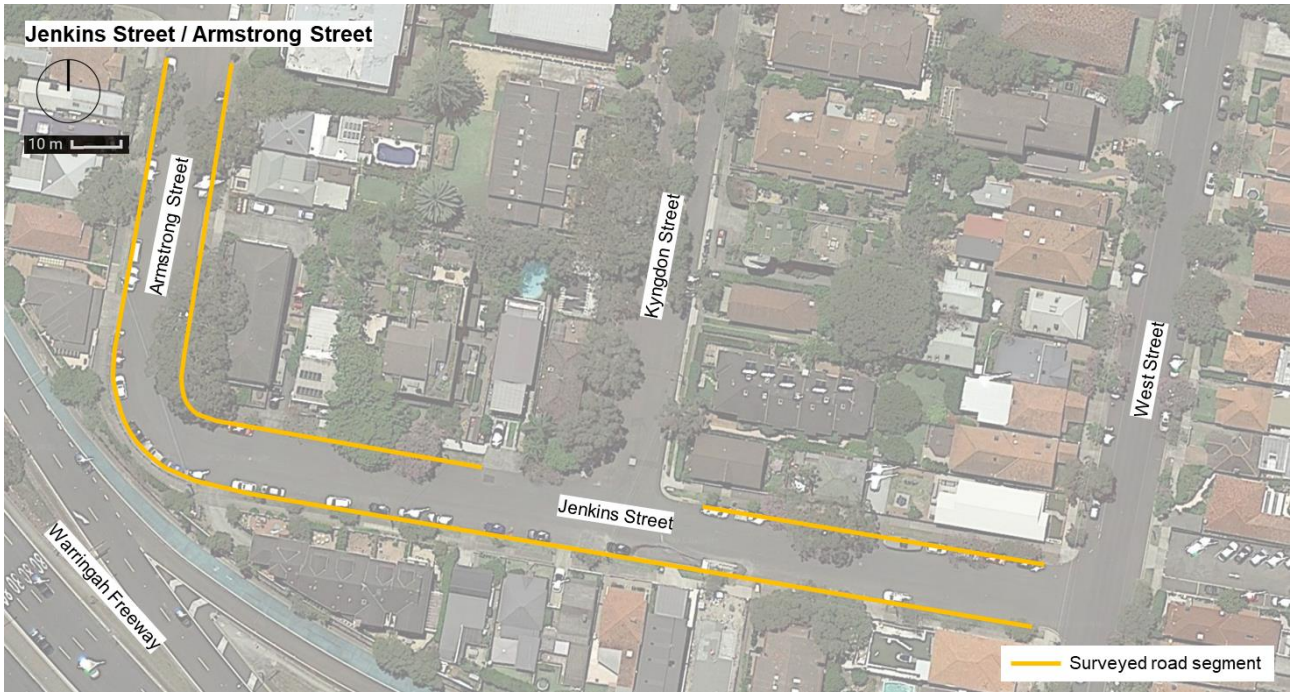


Figure 3-1 Parking survey locations – Jenkins Street / Armstrong Street, Cammeray

Figure 3-2 Parking survey locations – Massey Street, Cammeray

3.1.2 Parking survey methodology

All nominated locations subject to the parking survey were initially inspected to note existing capacity and existing parking restrictions (e.g., untimed, timed parking, loading zones). Where on-street parking spaces are not marked, the maximum number of parking spaces was determined in accordance with Australian Standard 2890.5-1993 Parking facilities Part 5: On-street parking.

On each day and time listed above, all nominated locations were surveyed by vehicle and the number of occupied spaces was documented.

3.1.3 Calculation of parking occupancy

Parking occupancy is defined as the ratio of the number of occupied spaces to the total number of available spaces:

$$Parking\ occupancy\ (\%)\ = \frac{Number\ of\ occupied\ spaces}{Total\ number\ of\ available\ spaces}$$

3.2 Jenkins Street / Armstrong Street, Cammeray

3.2.1 Parking supply

There is a total of 61 parking spaces on Jenkins Street / Armstrong Street. These spaces are allocated as follows:

- Northern side of Jenkins Street
  - East of Kyngdon Street – nine spaces – untimed
  - West of Kyngdon Street – six spaces – 2P unmetered, 8.30 am to 6 pm, Monday to Friday (permit holders excepted)
- Southern side of Jenkins Street
  - Eastern end at West Street – two spaces – 1/2P unmetered, 8.30 am to 6 pm, Monday to Friday and 8.30 am to 12 pm, Saturday (permit holders excepted)
  - Elsewhere on Jenkins Street – 19 spaces – 2P unmetered, 8.30 am to 6 pm, Monday to Friday (permit holders excepted)
- Eastern side of Armstrong Street – 10 spaces – 2P unmetered, 8.30 am to 6 pm, Monday to Friday (permit holders excepted)
- Western side of Armstrong Street – 11 spaces – 2P unmetered, 8.30 am to 6 pm, Monday to Friday (permit holders excepted).

The allocation of parking spaces is shown spatially in Figure 3-3.

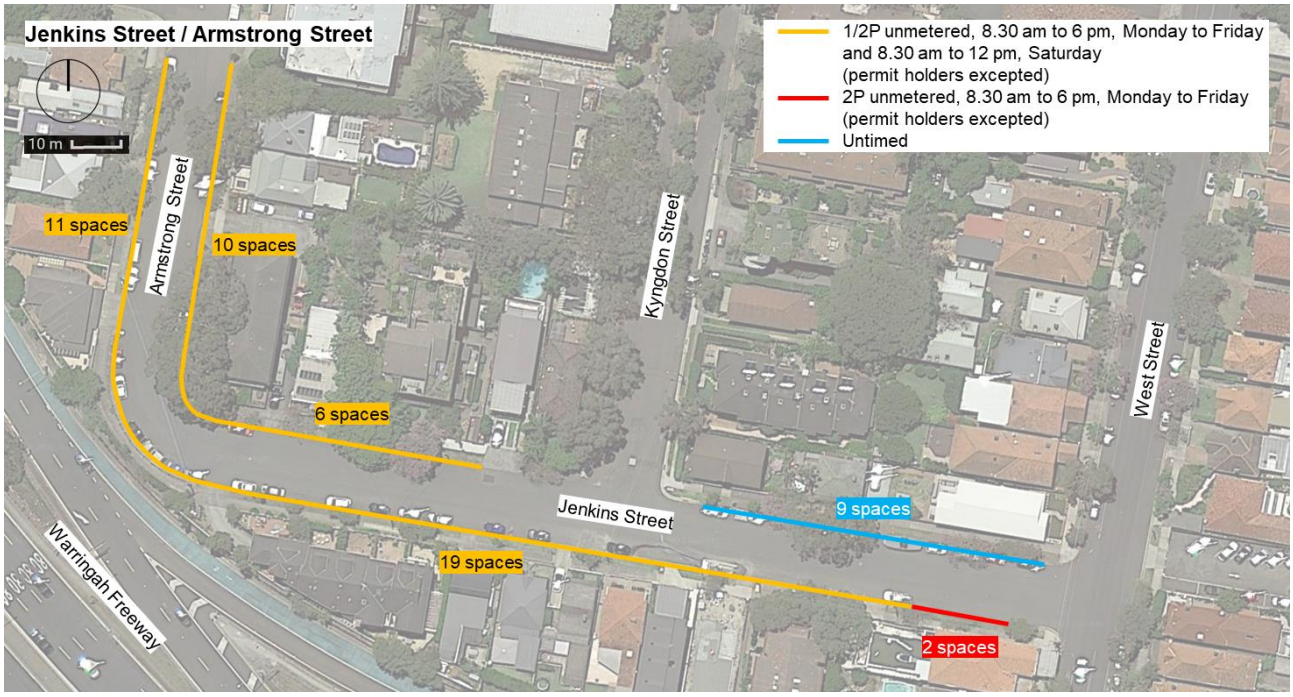


Figure 3-3 Existing parking supply – Jenkins Street / Armstrong Street, Cammeray

3.2.2 Parking occupancy

Existing parking occupancies on Jenkins Street / Armstrong Street during the various surveyed days and times are detailed in Table 3-2. The results show high occupancies of over 75 per cent in all surveyed periods. Existing parking is likely associated with long-term resident / visitor parking servicing adjoining residential properties.

Table 3-2 Existing parking occupancy – Jenkins Street / Armstrong Street, Cammeray

Day	Time period	Occupied spaces	Unoccupied spaces	Total available spaces	Parking occupancy
Average weekday	8.30 am (weekday morning peak / school drop-off)	43	14	57	75%
	3 pm (school pick up)	46	11	57	81%
	5 pm (weekday evening peak)	44	13	57	77%
	10 pm (weekday evening off-peak)	50	7	57	88%
Average weekend	12 pm (weekend day)	48	9	57	84%
	11 pm (weekend evening)	51	6	57	89%

3.3 Massey Street, Cammeray

3.3.1 Parking supply

There is a total of 17 parking spaces on Massey Street. These spaces are allocated as follows:

- Northern side – nine spaces – 2P unmetered, 8.30 am to 6 pm, Monday to Friday (permit holders excepted)
- Southern side – eight spaces – untimed.

The allocation of parking spaces is shown spatially in Figure 3-4.

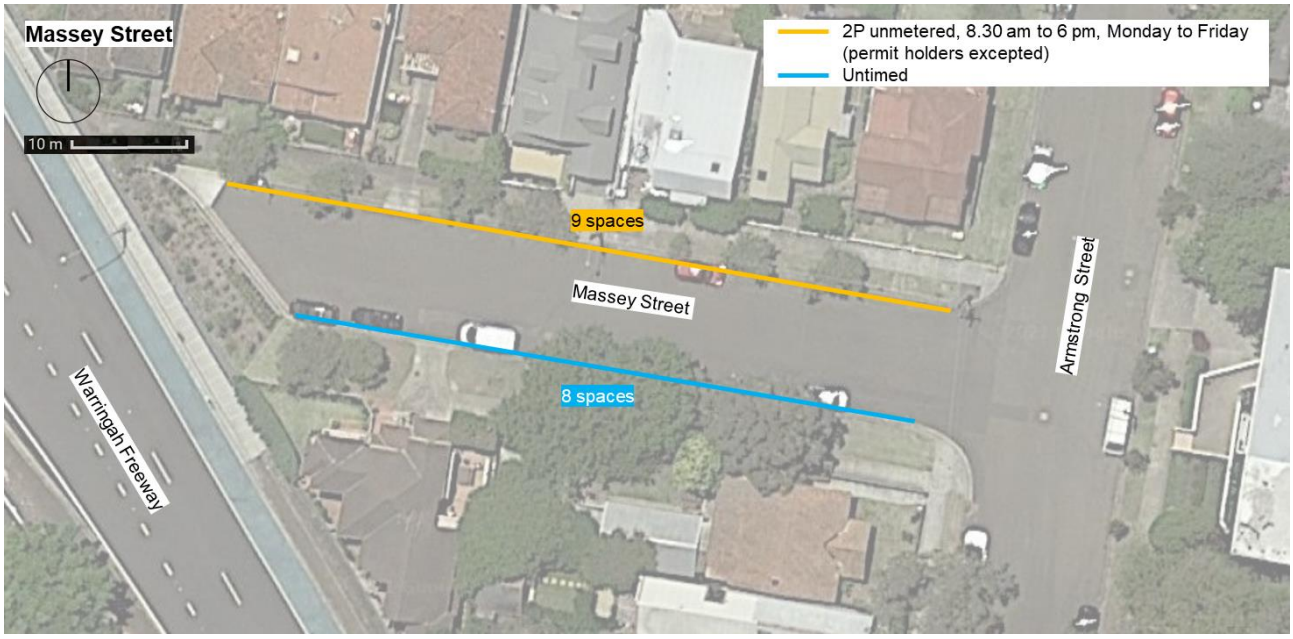


Figure 3-4 Existing parking supply – Massey Street, Cammeray

3.3.2 Parking occupancy

Existing parking occupancies on Massey Street during the various surveyed days and times are detailed in Table 3-3. The results show moderate occupancies of between 47 and 65 per cent in the surveyed periods. Existing parking is likely associated with long-term resident / visitor parking servicing adjoining residential properties.

Table 3-3 Existing parking occupancy – Massey Street, Cammeray

Day	Time period	Occupied spaces	Unoccupied spaces	Total available spaces	Parking occupancy
Average weekday	8.30 am (weekday morning peak / school drop-off)	8	9	17	47%
	3 pm (school pick up)	10	7	17	59%
	5 pm (weekday evening peak)	9	8	17	53%
	10 pm (weekday evening off-peak)	11	6	17	65%
Average weekend	12 pm (weekend day)	8	9	17	47%
	11 pm (weekend evening)	11	6	17	65%

3.4 Public transport accessibility

The work site associated with the M2A noise wall works (located on the Brook Street on-ramp to the Warringah Freeway and Amherst Street west of West Street) is located near two bus routes. These are detailed in Table 3-4 and shown in Figure 3-5. These bus services provide connections to several railway stations for Sydney Trains services to destinations across Greater Sydney.

Table 3-4 Bus services at each compound and work site

Location	Nearest bus stops	Distance from work site	Bus services	Connections to Sydney Trains services
M2A noise wall work site, located on the Brook Street on-ramp to the Warringah Freeway and Amherst Street west of West Street	Stop ID 206221 – Amherst Street after West Street	150 m	Route 263 – Crows Nest to City Bridge Street Route 267 – Crows Nest to Chatswood	Chatswood
	Stop ID 206213 – Miller Street opposite Abbott Street	390 m	Routes 194, 201-209, 260, 263, 267 – services to North Sydney, Milsons Point, Crows Nest and Sydney CBD	North Sydney, Milsons Point and Sydney CBD stations
	Stop ID 206218 – Miller Street at Abbott Street	400 m	Routes 194, 202-209, 260, 267 – services to various destinations across the North Shore	Chatswood

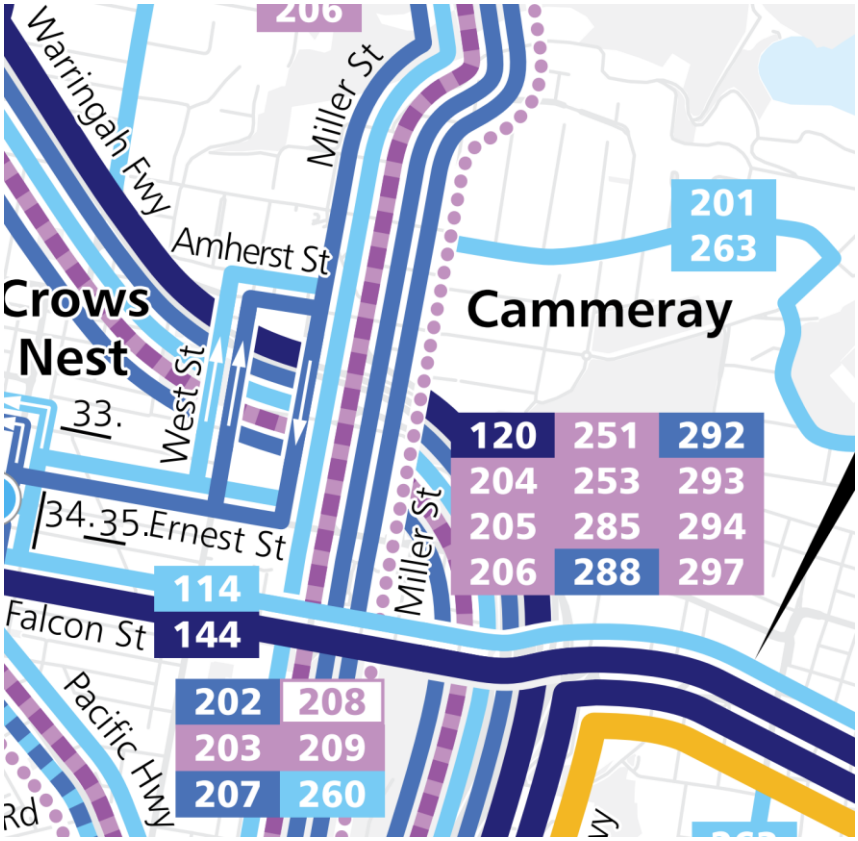


Figure 3-5 Bus network in Cammeray

4 Proposed parking and access changes and impacts

The temporary removal of on-street parking spaces during the M2A noise wall works is located outside the approved CSSI footprint and is addressed in Sections 4.2 4.3and 4.3. Car parking requiring removal inside the approved CSSI footprint has been considered in the EIS and has already been approved under the Infrastructure Approval (SSI-8863). Throughout construction there may be occasional times when short-term on-street car parking removal (i.e., for the period of one shift) will be required under a Road Occupancy Licence (ROL). In this case, any short-term on-street car parking that is removed will be reinstated at the end of each shift following expiration of the ROL. Any such short-term car parking removal will be managed in accordance with the TTAMP.

4.1 Construction workforce parking

The construction workforce will comprise of trades and construction personnel, and engineering staff. The maximum size of the construction workforce is expected to be 25 people at any one time.

Construction workforce parking will be contained within the footprint of the work site however, during peak periods there may be a need for some vehicles to use local parking spaces as an overflow arrangement.

4.2 Jenkins Street / Armstrong Street, Cammeray

Impact of parking changes

The M2A noise wall works will result in the intermittent temporary removal of six on-street parking spaces at the junction of Jenkins Street and Armstrong Street between late 2021 and mid-2022 for a total of about six weeks (refer to Figure 4-1). The intermittent temporary removal of these spaces is required to facilitate works on the grass verge behind the existing chain wire fence.

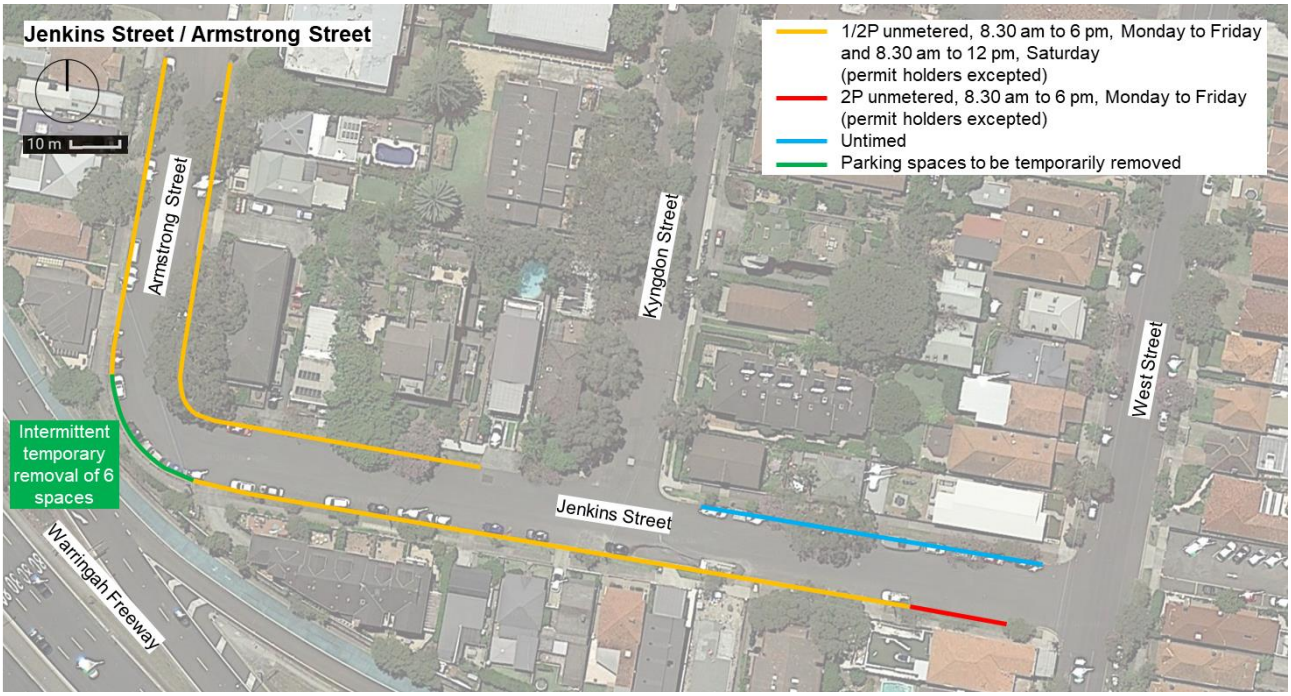


Figure 4-1 Intermittent temporary removal of on-street parking – Jenkins Street / Armstrong Street, Cammeray (indicative only – exact location subject to change)

The removal of these spaces will impact resident / visitor parking servicing adjoining houses. However, existing parking occupancy as detailed in Table 3-2 shows there is spare capacity to accommodate the displacement of parking with a minimum of six unoccupied spaces elsewhere on Jenkins Street / Armstrong Street during the surveyed periods. Therefore, the impact is considered minor and mitigation measures are not required.

Comparison with impacts assessed in the EIS

The WHTWFU EIS did not assess the impact of parking changes on Jenkins Street / Armstrong Street.

4.3 Massey Street, Cammeray

Impact of parking changes

The M2A noise wall works will result in the intermittent temporary removal of five on-street parking spaces at the western end of Massey Street between late 2021 and mid-2022 for a total of about six weeks (refer to Figure 4-2). The intermittent temporary removal of these spaces is required to facilitate access to the work site for the removal of the existing noise wall and installation of the new noise wall.

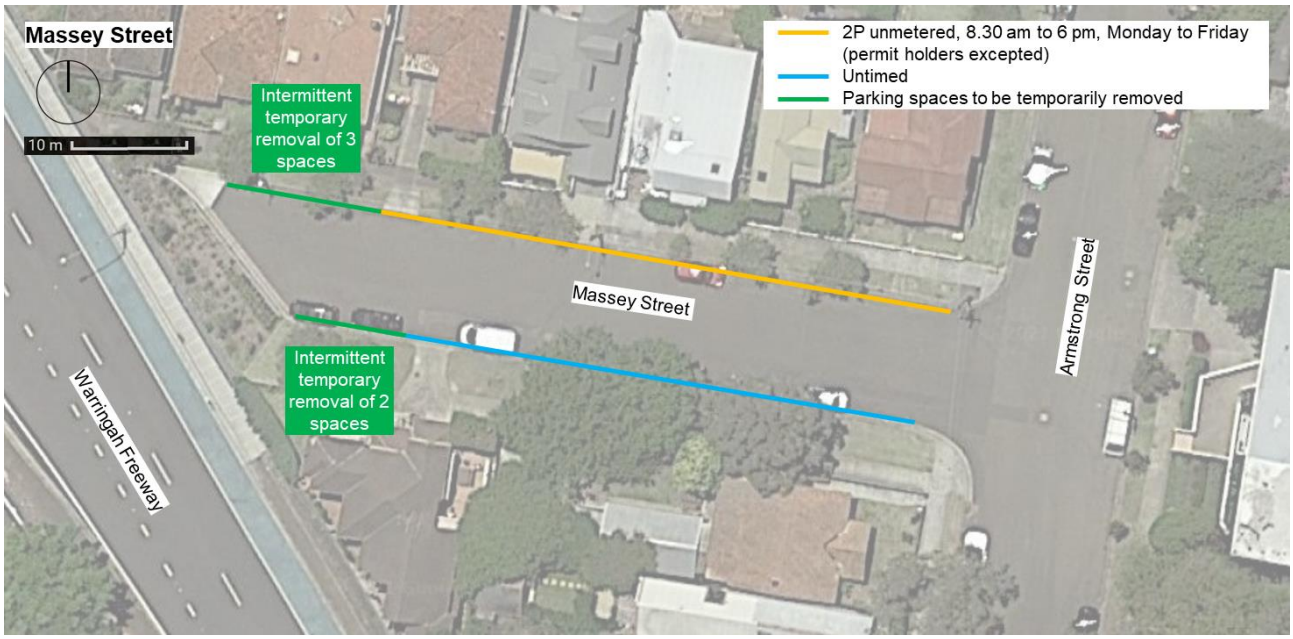


Figure 4-2 Intermittent temporary removal of on-street parking – Cammeray Avenue (adjacent to ANZAC Avenue Reserve), Cammeray (indicative only – exact location subject to change)

The removal of these spaces will impact resident / visitor parking servicing adjoining houses. However, existing parking occupancy as detailed in Table 3-3 shows there is spare capacity to accommodate the displacement of parking with a minimum of six unoccupied spaces elsewhere on Massey Street during the surveyed periods. Therefore, the impact is considered minor and mitigation measures are not required.

Comparison of impacts assessed in the EIS

The WHTWFU EIS did not assess the impact of parking changes on Massey Street.

5 Mitigation measures

5.1 Potential mitigation measures

Potential measures that were considered to mitigate the identified impacts of the intermittent temporary removal of on-street parking include the following:

- Consultation with affected stakeholders of parking proposed to be removed
- Staging the removal of on-street parking
- Consideration of alternative parking locations and / or arrangements
- Provision of a shuttle bus service for the construction workforce
- Introduction of parking restrictions near work sites where they currently do not exist, or alteration of existing parking restrictions
- Daily workforce parking to be contained within the footprint of individual work sites
- Provision of parking at ancillary facilities
- Ancillary facility design to considered impacts to pedestrian and shared user paths
- Encouraging use of public transport
- Encouraging carpooling (subject to easing of covid restrictions)
- Ongoing communication with the construction workforce on measures to reduce impacts to parking and access
- Parking demand reduction (through the use of other transport modes).

5.2 Construction workforce parking

As described in Section 4.1, construction workforce parking will have a minimal impact on on-street parking given construction workforce parking will be predominantly contained within the footprint of the work site. In addition:

- Where practical, essential vehicles (i.e., vehicles carrying tools, plant and other equipment to facilitate works) will be contained within the footprint of each work site with no impact on adjacent on-street parking
- The provision of parking within the footprint of the work site means there will be no requirement to idle and queue on state and regional roads
- The provision of parking within the footprint of the work site, and the limited number of deliveries required at the work site, means there will be no requirement to marshal construction vehicles
- The work site is located on a section of road where pedestrian access is currently not permitted and where cyclists will be diverted onto other routes for the duration of works.

In addition, the following measures will be in place for the construction workforce to reduce the potential for an unexpected impact to occur:

- Encouragement of the use of public transport – through the recruitment and onboarding process and site toolbox talks to reduce the number of private vehicles travelling to and from the work site
- Encouragement of carpooling – site toolbox talks will be utilised to encourage the construction workforce on the same shifts to coordinate with others to carpool to / from similar locations (subject to easing of covid restrictions)

- Communication of parking restrictions to the construction workforce – parking restrictions around the compounds and work sites will be communicated to the construction workforce through site inductions where they will be supplied with a Project Worker Code of Conduct, site toolbox talks, and pre-start meetings as required. Where workers are impacting the amenity of adjacent residents, are not complying with the Project Worker Code of Conduct, or are repeatedly parking inappropriately, they may be required to re-attend the site inductions. Stronger sanctions, up to and including dismissal, may be implemented for repeat offenders at the discretion of the Project Manager.

5.3 Jenkins Street / Armstrong Street, Cammeray

As described in Section 4.2, the impact of the intermittent temporary removal of on-street parking on Jenkins Street / Armstrong Street is considered minor. Potential measures that have been considered to mitigate the potential impacts of the intermittent temporary removal of on-street parking on Jenkins Street / Armstrong Street are detailed in Table 5-1.

Table 5-1 Consideration of potential mitigation measures – Jenkins Street / Armstrong Street, Cammeray

Potential mitigation measure	Applicability to location	Justification
Consultation with affected stakeholders	Yes	Consultation will occur with affected stakeholders prior to the removal of car parking.
Staging the removal of on-street parking	Yes	The removal of on-street parking will be staged to occur intermittently to reduce impacts on residents.
Consideration of alternative parking locations and / or arrangements	No	Alternative parking locations have not been considered given there is a minimum of six unoccupied spaces elsewhere on Jenkins Street / Armstrong Street in all surveyed periods to accommodate the displacement of parking.
Provision of a shuttle bus service for the construction workforce	No	A shuttle bus service would not be practical given: • There is sufficient parking within the footprint of the work site to cater for the expected maximum size of the construction workforce • The scope of the M2A noise wall works is tool and equipment-intensive rather than labour-intensive • The varied nature of the works means construction workforce numbers are highly variable.

Potential mitigation measure	Applicability to location	Justification
Introduction of parking restrictions near compounds and work sites where they currently do not exist, or alteration of existing parking restrictions	No	Existing parking restrictions already provide priority to residents with permits.
Daily workforce parking to be contained within the footprint of individual work sites	Yes	Construction workforce parking will be contained within the footprint of the work site. A limited number of on street carparking will be required for overflow/peak periods.
Provision of parking at ancillary facilities	No	Construction workforce parking will be contained within the footprint of the work site and therefore provision of parking at ancillary facilities will not be required.
Ancillary facility design to considered impacts to pedestrian and shared user paths	No	The work site is located on a section of road where pedestrian access is currently not permitted and where cyclists will be diverted onto other routes for the duration of works.
Encouraging use of public transport	Yes	The construction workforce will be encouraged to use public transport throughout construction.
Encouraging carpooling	Yes	The construction workforce will be encouraged to carpool throughout construction.
Ongoing communication with workforce on measures to reduce impacts to parking and access	Yes	Parking and access impacts will be communicated to the workforce throughout construction via inductions and toolbox talks.
Parking demand reduction (through the use of other transport modes)	No	Parking demand reduction measures have not been considered given there is a minimum of six unoccupied spaces elsewhere on Jenkins Street / Armstrong Street in all surveyed periods to accommodate the displacement of parking.

5.4 Massey Street, Cammeray

As described in Section 4.3, the impact of the intermittent temporary removal of on-street parking on Massey Street is considered minor. Potential measures that have been considered to mitigate the potential impacts of the intermittent temporary removal of on-street parking on Massey Street are detailed in Table 5-2.

Table 5-2 Consideration of potential mitigation measures – Massey Street, Cammeray

Potential mitigation measure	Applicability to location	Justification
Consultation with affected stakeholders	Yes	Consultation will occur with affected stakeholders prior to the removal of car parking.
Staging the removal of on-street parking	Yes	The removal of on-street parking will be staged to occur intermittently to reduce impacts on residents.
Consideration of alternative parking locations and / or arrangements	No	Alternative parking locations have not been considered given there is a minimum of six unoccupied spaces elsewhere on Massey Street in all surveyed periods to accommodate the displacement of parking.
Provision of a shuttle bus service for the construction workforce	No	A shuttle bus service would not be practical given: • There is sufficient parking within the footprint of the work site to cater for the expected maximum size of the construction workforce • The scope of the M2A noise wall works is tool and equipment-intensive rather than labour-intensive • The varied nature of the works means construction workforce numbers are highly variable.
Introduction of parking restrictions near compounds and work sites where they currently do not exist, or alteration of existing parking restrictions	No	Existing parking restrictions already provide priority to residents with permits.
Daily workforce parking to be contained within the footprint of individual work sites	Yes	Construction workforce parking will be contained within the footprint of the work site.
Provision of parking at ancillary facilities	No	Construction workforce parking will be contained within the footprint of the work site and therefore provision of parking at ancillary facilities will not be required.

Ancillary facility design to considered impacts to pedestrian and shared user paths	No	The work site is located on a section of road where pedestrian access is currently not permitted and where cyclists will be diverted onto other routes for the duration of works.
Encouraging use of public transport	Yes	The construction workforce will be encouraged to use public transport throughout construction.
Encouraging carpooling	Yes	The construction workforce will be encouraged to carpool throughout construction.
Ongoing communication with workforce on measures to reduce impacts to parking and access	Yes	Parking and access impacts will be communicated to the workforce throughout construction via inductions and toolbox talks.
Parking demand reduction (through the use of other transport modes)	No	Parking demand reduction measures have not been considered given there is a minimum of six unoccupied spaces elsewhere on Massey Street in all surveyed periods to accommodate the displacement of parking.

6 Monitoring and reporting

6.1 Monitoring of mitigation measures

Monitoring to assess the effectiveness of this CPAS will be undertaken on roads that have been impacted by the intermittent temporary removal of on-street parking, i.e., Jenkins Street / Armstrong Street and Massey Street, Cammeray.

Inspections will be undertaken once a week when parking has been temporarily removed and will involve the following:

- Confirmation that where alternative parking arrangements have been provided, these are being implemented
- Monitoring the impacts of the removal of on-street parking on surrounding roads
- Inspections for the presence of construction workforce parking on local roads.

Inspections will be undertaken by project engineers. The Project Manager will be responsible for implementing the mitigation measures contained in this CPAS with support from the Traffic Manager.

6.2 Corrective actions

Where monitoring or community complaints identify non-conformances with this CPAS, corrective actions will be undertaken through the project's non-conformance works procedure. Corrective actions will be documented as per the procedure. Where practicable, non-conformances and corresponding corrective actions will be communicated to the construction workforce and reinforced through various communications including but not limited to:

- Site toolbox talks
- Pre-start meetings
- Project alerts
- Investigation and implementation of alternative methods to reinforce this CPAS
- Investigation and implementation of other viable options for the construction workforce to use public transport
- Issue warning notices where the owner of an offending vehicle can be identified
- Documenting actions in weekly and monthly internal reports.

Refer to the Construction Environmental Management Plan (CEMP) for further detail on environmental non-conformances.

6.3 Reporting

A quarterly summary report will be provided to North Sydney Council, DPIE and TfNSW regarding the outcomes of the monitoring that has been undertaken in the preceding quarter. Details of non-conformances and corrective actions will be summarised.

6.4 Contingency measures

Contingency measures will depend on the issues / non-conformances identified during monitoring and the effectiveness of corrective actions that have been implemented as described in Sections 6.1 and 6.2, respectively.

Contingency measures will be investigated if it is determined that the corrective actions implemented are ineffective, and may include:

- Investigating the potential to provide additional off-street parking for the construction workforce
- Revising site induction and site toolbox talk content to better encourage the use of public transport and communicate designated and prohibited locations for construction workforce parking
- Amending carpooling communications to encourage an increase in participation rates
- Implementing disciplinary processes for repeated non-conformances.

6.5 Update and amendment of this CPAS

Any revisions to this CPAS will be in accordance with the process outlined in the CEMP and will be provided to TfNSW for review and comment and forwarded to the Secretary of DPIE for approval.

A copy of the updated CPAS and record of changes will be distributed to all relevant stakeholders in accordance with the approved document control procedure.

Appendix A1 Parking survey data

	Monday 9 Dec				Tuesday 10 Dec				Wednesday 11 Dec				Thursday 12 Nov				Friday 13 Dec				Saturday 14 Nov		Sunday 15 Dec	
	8.30am	3pm	5pm	10pm	8.30am	3pm	5pm	10pm	8.30am	3pm	5pm	10pm	8.30am	3pm	5pm	10pm	8.30am	3pm	5pm	10pm	12pm	11pm	12pm	11pm
Jenkins Street / Armstrong Street	45	42	45	52	40	52	49	50	41	47	44	47	43	45	40	48	45	42	40	51	49	50	47	52
Massey Street	9	7	9	11	7	13	8	9	8	9	12	12	7	10	9	11	9	9	8	10	8	12	8	10

	Average weekday			
	8.30am	3pm	5pm	10pm
Jenkins Street / Armstrong Street	43	46	44	50
Massey Street	8	10	9	11

	Average weekend	
	12pm	11pm
Jenkins Street / Armstrong Street	48	51
Massey Street	8	11

Appendix A2 Additional CoA and REMM compliance table

Additional CoA and REMM relevant to the development of the M2A noise wall CPAS are presented in Table A-6-5 below.

Table A-6-5 CoA and REMM relevant to the development of this CPAS

Source / Condition	Condition requirements	Where addressed in CPAS
CoA E141	During construction, all reasonably practicable measures must be implemented to maintain pedestrian and vehicular access to, and parking in the vicinity of, businesses and affected properties. Disruptions are to be avoided, and where avoidance is not possible, minimised. Where disruption cannot be minimised, alternative pedestrian and vehicular access, and parking arrangements must be developed in consultation with affected businesses and implemented prior to the disruption. Adequate signage and directions to businesses must be provided prior to, and for the duration of, any disruption.	Section 5 Also refer to the TTAMP.
CoA E149	Where bus stops are required to be temporarily closed, such closure must not occur until relocated bus stops that comply with relevant standards, are functioning, have similar capacity and amenity and are relocated within a 400 metre walking distance of the existing bus stop. Closures and relocation of bus stops during construction must be undertaken in consultation with relevant council(s). Wayfinding signage must be provided directing commuters to adjacent or relocated bus stops. Footpaths and (where required) road crossing facilities must be provided to any relocated bus stops such that accessibility and safety standards are met.	N/A – No bus stops will be required to be closed as part of the M2A noise wall works subject to this CPAS.
CoA E150	Prior to the commencement of operation, all bus stops temporarily closed must be reinstated in a manner that complies with relevant standards, provides equal or improved capacity, amenity and accessibility (including footpaths and road crossings) in consultation with relevant council(s).	N/A – No bus stops will be required to be closed as part of the M2A noise wall works subject to this CPAS.
REMM CTT9	Where provision of construction on-site parking cannot accommodate the full construction workforce, feasible and reasonable management measures that minimise impacts on parking on local roads will be identified and implemented. Depending on the	Section 5 Also refer to the TTAMP.

Source / Condition	Condition requirements	Where addressed in CPAS
	location, management measures may include workforce shuttle buses and the use of public transport.	
REMM CTT10	Any adjustments to existing bus stops will be determined in consultation with relevant stakeholders including other divisions of Transport for NSW and advanced notification will be provided to affected bus customers. Relocations will be as close as feasible and reasonable to their existing position.	N/A – No bus stops will be required to be closed as part of the M2A noise wall works subject to this CPAS.