Heavy Vehicle Movement Report: Use of Barwon Park Road

Project Name: WestConnex New M5

Project number:	15.7020.2597
Document number:	M5N-TM-RPT-LRW-0002
Revision date:	11/1/2018
Revision:	02

Document Approval

Rev.	Date	Prepared by	Reviewed by	Recommended by	Approved by	Remarks
00	14/12/17	CDS-JV				
01	19/12/17	CDS-JV				
02	11/01/18	CDS-JV				
Signature:						

Details of Revision Amendments

Document Control

The Project Director is responsible for ensuring that this Plan is reviewed and approved. The Support Services Director (SSD) is responsible for updating this Plan to reflect changes to the Project, legal and other requirements, as required.

Amendments

Any revisions or amendments must be approved by the Project Director before being distributed or implemented.

Revision Details

Revision	Details
00	Prepared for WCX M5 AT/RMS review
01	Updated to address WCX M5 AT/RMS comments
02	Updated to address DP&E comments

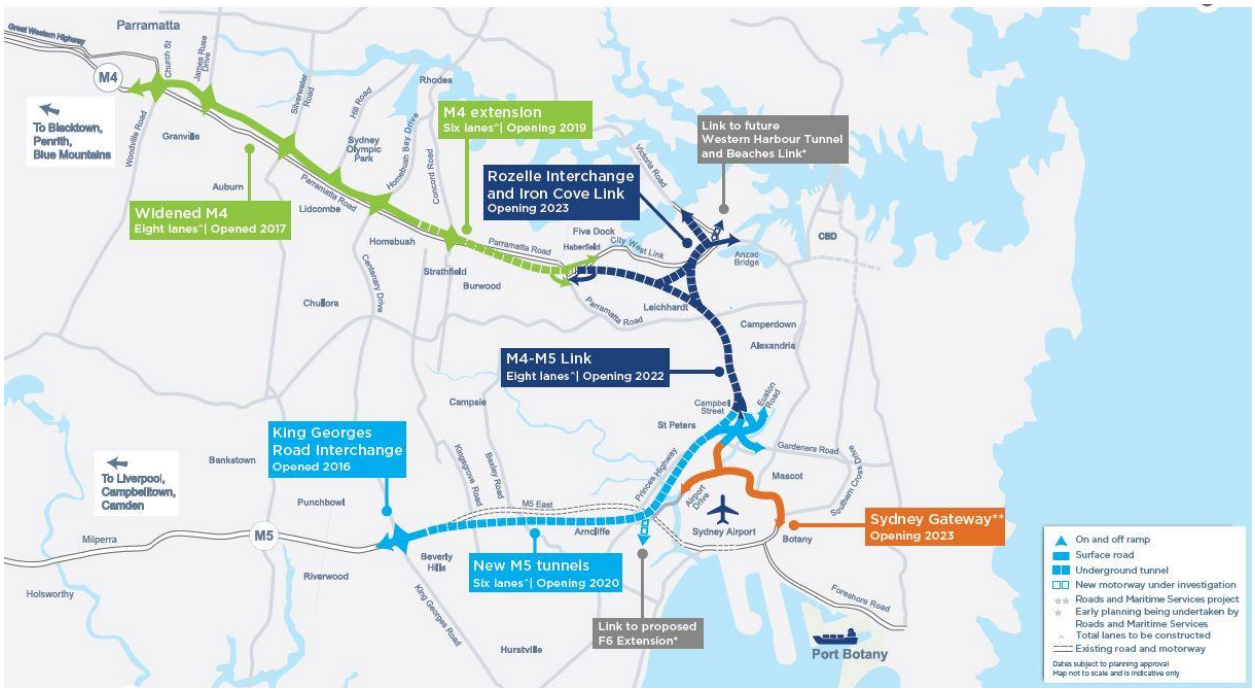
Contents

1. Introduction

1.1 Project description

WestConnex is one of the NSW Government's key infrastructure projects which aims to ease congestion, create jobs and connect communities. It is the largest integrated transport and urban revitalisation project in Australia.

The 33 kilometre project was a key recommendation of the State Infrastructure Strategy released in October 2012. It brings together a number of important road projects which together form a vital link in Sydney's Orbital Network. They include a widening of the M4 east of Parramatta, a duplication of the M5 East and new sections of motorway to provide a connection between the two key corridors.



The New M5 Project (New M5, the project) is designated as State Significant Infrastructure (SSI 6788) and is the Stage 2 component of the WestConnex scheme. The proponent for the project is Roads and Maritime Services (RMS) and the project company (WCX M5 AT). WCX M5 AT has engaged the CPB Samsung Dragados Joint Venture (CDS-JV) to deliver the design and construction of the project. The project was approved by the Minister for Planning on 20 April 2016, subject to conditions.

The Project will run from the existing M5 East corridor at Beverly Hills via tunnel to St Peters, providing improved access to the airport, south Sydney and Port Botany precincts. The Project will substantially improve the east - west corridor access between the Sydney CBD, Port Botany and Sydney Airport precincts and the South West growth areas.

The project comprises the following key features:

- New twin tunnels which are higher, wider and flatter. These will more than double capacity along, the M5 East corridor and provide motorway access to north of Sydney Airport
- A new interchange at an industrial site at St Peters, which reduces the impact on nearby, residential areas
- Connections from the interchange to key roads in the area, including Campbell Road/Street, Euston Road and across the canal to Bourke Road
- Widening of Campbell Road/Street and Euston Road through existing road widening reservations
- Western tunnel entry and exit points at Kingsgrove.

1.2 Purpose and scope of this report

The State Significant Infrastructure (SSI) Ministers Conditions of Approval (CoA) for the SSI 6788, Condition D46 states:

"Unless otherwise approved by the Secretary, heavy vehicle movements associated with the construction of the SSI are not permitted to use Wirega Avenue and Garema Circuit at Kingsgrove, or any other local road not identified for use in the documents referred to in conditions A2(b) and A2(c), unless approved by the Secretary. When seeking the Secretary's approval for use of such local roads, justification must be provided as to why use of the local road(s) is the only feasible and reasonable route along with details on how impacts on surrounding sensitive receivers will be managed."

CDS-JV has prepared this document to seek approval from the Secretary for the use of Barwon Park Road to enable installation of Intelligent Transport Systems (ITS) infrastructure including communications cabling and a Variable Message Sign (VMS), which forms part of the approved SSI. This document details the following:

- A review of the current approved access routes around Barwon Park Road;
- A review of potential construction traffic noise impacts for the proposed route; and
- The mitigation measures that will be employed to manage heavy vehicle movements and traffic noise for sensitive receivers in this area.

1.3 Need for the proposed route

The New M5 Environmental Impact Statement (project EIS) proposes a traffic monitoring and management system for the New M5, using smart motorway infrastructure. This infrastructure includes an intelligent transport system (ITS), to facilitate Variable Message Signage (VMS) and other advisory signage, CCTV and incident detection systems.

ITS installations including communications cabling, VMS and CCTV is required to be installed along Barwon Park Road and Princes Highway from the SPI construction site to May Street, St Peters. In order to carry out these works, access to Barwon Park Road using light and heavy vehicles will be temporarily required for the duration of the works. Both the design and construction methodology have been developed to minimise impacts on road users, the surrounding community and the environment.

Barwon Park Road is not identified in the project EIS for use by construction vehicles and therefore requires the approval of the Secretary under CoA D46.

2. Heavy vehicle access routes

2.1 Approved heavy vehicle routes

The approved heavy vehicle access routes for the SPI and LRW construction compounds (ie C8 – C14) are described in Chapter 9 of the WestConnex New M5 Environmental Impact Statement (EIS)[1] and in the approved Construction Traffic and Access Sub-plan. The roads connecting to each end of Barwon Park Road (Princes Highway and Campbell Road), are approved project routes.

Construction heavy vehicle traffic volumes predicted for the approved access routes for the SPI and LRW construction compounds are provided in Table 9-32 in Chapter 9 of the EIS. A total of 2,218 heavy vehicle movements per day are identified to occur across these approved routes.

2.2 Proposed use of Barwon Park Road

Barwon Park Road is proposed to be used by heavy vehicles for the purposes of the ITS and VMS installation works. These works are anticipated to take 6 to 8 weeks. Details for these works were not specifically identified in the project EIS and have therefore been assessed and approved under RMS Consistency Assessments: RMS Minor Consistency Review for New Variable Message Signs (approved August 2017), and RMS Consistency Assessment Report for ITS Installation, Barwon Park Road (approved December 2017).

Barwon Park Road is a local road and occurs on the boundary between the City of Sydney and Inner West local government areas. Barwon Park Road and the location of the ITS works are shown on Figure 1. The alignment for the ITS cabling in this area has been designed on the eastern side of Barwon Park Road to minimize impacts on the residents and property accesses which occur on the eastern side of the road. The use of an underbore methodology for most of this section of ITS cabling further reduces impacts to road users by minimising surface works in this area.

It is anticipated that up to 20 HV movements[2] would be required per shift[3] to access the construction work site. The ITS works would occur during standard construction hours where possible. Some stages of works will require lane and/or road closures, however, and these works would need to be undertaken outside of standard construction hours.

[1] AECOM Australia Pty Ltd 2015 WestConnex The New M5 Project – Environmental Impact Statement

[2] 20 truck movements means 10 trucks in total (ie in and out of site)

[3] A shift is generally of 10-12 hours duration

Figure 1: Location of ITS cabling works (purple line) to be installed at Barwon Park Road and Princes Highway. New M5 project boundary is shown in red.

3. Potential impacts

3.1 Traffic noise impacts

The project area has been divided into Noise Catchment Areas (NCAs), to represent areas of a similar acoustic environment. The project NCAs have been developed based on those identified in the EIS, with some modifications to allow for site-specific characteristics. Refer to the approved Construction Noise and Vibration Management Plan (CNVMP) for a detailed description of all project NCAs.

The NCAs that may be affected by the proposed ITS works on Barwon Park Road include NCA01-NCA04, NCA07 and NCA08. Sensitive receivers within these NCAs have been identified in the Construction Noise and Vibration Impact Statement (CNVIS) for the ITS installations, and potential noise and vibration impacts have been assessed. Sensitive receivers surrounding the proposed works include residential receivers to the west and recreational receivers to the east as shown in Figure 2.

The CNVIS identifies that construction traffic noise associated with the works is considered to be insignificant in comparison to the noise and vibration impacts associated with the associated construction activities. Therefore further assessment of construction traffic noise impacts is not necessitated.

3.2 Parking impacts

Parking impacts have been addressed through the Construction Parking and Access Strategy (CPAS). Up to 6 parking spaces may be occupied at any one time on Barwon Park Road as a result of the works. Consultation with Inner West and City of Sydney Councils was undertaken during development of the CPAS (refer to sections 4.2, 5.4 and 5.5 of the CPAS).

Figure 2 Land uses surrounding Barwon Park Road (extract from Construction Noise and Vibration Management Plan, Renzo Tonin & Assoc, 2016)

4. Traffic Management and Mitigation

4.1 Consultation

Notifications for works associated with the use of Barwon Park Road would be provided to the surrounding community in accordance with the Community Communication Strategy. Any complaints associated with the use of the proposed route would be managed in accordance with the Community Communication Strategy and the Construction Complaints Management System.

City of Sydney and Inner West Councils have been consulted in regards to the ITS works and have previously been consulted in regards to parking impacts during preparation of the CPAS (refer section 3.2 above).

4.2 Traffic and noise management and mitigation

Vehicles will be managed in accordance with the relevant sub-plans of the Construction Environment Management Plan (CEMP). In particular, the management measures outlined in the Construction Traffic and Access Sub-Plan and the Construction Noise and Vibration Management Plan (CNVMP) would apply.

Traffic management and mitigation measures described in the CPAS would also apply. This includes the management of staff parking and transport, staging of works and ongoing communication and engagement with stakeholders.

The provision of additional noise mitigation measures would be implemented in accordance with Table 6.4 of the CNVMP, including respite offers and alternative accommodation. Specific noise management measures for the works are also specified in the CNVIS for the ITS installations, which includes measures relevant to construction traffic, summarised in Table 1 below.

Table 1: Summary of noise mitigation measures relevant to heavy vehicle use of Barwon Park Road (Source: Barwon Park Road ITS Construction Noise and Vibration Impact Statement)

Control measure	Typical use
Limit activity duration	Any equipment not in use for extended periods shall be switched off. For example, heavy vehicles should switch engines off when not in use.
Non-tonal reversing alarms	Alternative reverse alarms, such as ‘quackers’ will be installed on all plant and equipment, where practicable.
Site induction and toolbox talks	All employees, contractors and subcontractors are to receive a Project induction. The environmental component may be covered in toolboxes and should include: • location of nearest sensitive receivers • relevant project specific and standard noise and vibration mitigation measures • permissible hours of work • OOHW Procedure and Form • construction employee parking areas.
Community consultation	Inform community of construction activity and potential impacts.
Behavioural practices	No swearing or unnecessary shouting or loud stereos/radios on site. No dropping of materials from height, throwing of metal items and slamming of doors.

4.3 Road dilapidation reports

A road condition report has been completed for Barwon Park Road in accordance with Condition of Approval B59 and has been submitted to the relevant councils (Inner West and City of Sydney Councils). A subsequent road dilapidation report will be prepared at the completion of construction to assess any damage that may have occurred as a result of the project’s use of this road.

5. Conclusion

Use of Barwon Park Road for the ITS installation is considered justified for the following reasons:

- The ITS works on Barwon Park Road are considered in the project EIS and have been approved by RMS through consistency assessments as described above
- Access to Barwon Park Road using heavy vehicles is required for the safe movement of plant, equipment and materials
- The works and therefore the proposed use of the road is of relatively short duration (ie 6-8 weeks).

The use of Barwon Park Road for installation of approved ITS infrastructure, is the only feasible option for heavy vehicles to access the construction site. It is considered that the use of the road would be of relatively short duration and would comprise relatively low volumes of heavy vehicles per day. Only heavy vehicles associated with the ITS installation works will use Barwon Park Road for the duration of the works.

With the implementation of the mitigation and management measures provided in Section 4, the CNVIS and the relevant sub-plans of the CEMP, no major adverse impacts are anticipated to occur.