Construction Traffic and Access Management Plan

Moorebank Precinct East Stage 1 RALP No. 1

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Signature:					

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Document Control

The Project Director is responsible for ensuring that this plan is reviewed and approved. The Environment Manager is responsible for updating this plan to reflect changes to legal and other requirements, as required.

Amendments

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

Revision Details

Revision	Details
A	Initial draft for SIMTA review
B	Updated to address SIMTA comments
C	For SIMTA's second review
D	Updated for final CoAs and for consultation
E	For submission to DP&E. Updated to address stakeholder consultation and ER review.
F	Updated in response to comments from DP&E
G	Updated to address further DP&E comments
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01	Updated following Road Safety Audit
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05	Update access routes in GWS
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1. Introduction

1.1 Purpose

This Construction Traffic and Access Management Plan (CTAMP) addresses traffic and access management on Sydney Intermodal Terminal Alliance's (SIMTA) Moorebank Precinct East (MPE) Stage 1 – Rail Access Land Package (RALP) No. 1 (the Project, the Rail Link) and the management of impacts to the environment and community.

This CTAMP addresses the following key requirements:

- Services Agreement – Schedule 5 Principal's Project Requirements
- Conditions of Approval under SSD-6676 SIMTA Intermodal Terminal Facility – Stage 1 (NSW)
- Stage 1 EIS (including Framework CEMP and Preliminary Traffic Management Plan)
- Stage 1 Response to Submissions Report (including Final Compilation of Mitigation Measures)
- Conditions of Approval under MP10_0193 SIMTA Moorebank Intermodal Terminal Facility – Concept Plan (NSW)
- NSW Concept Plan EIS
- NSW Concept Plan Submissions Report (including Revised Statement of Commitments)
- Conditions of Approval under EPBC 2011/6229 SIMTA Intermodal Terminal (Commonwealth)
- Commonwealth Concept Plan EIS (including Framework CEMP)
- Other applicable legislative obligations
- Address the requirements of the EPL.

1.2 Scope

SIMTA's MPE Stage 1 Development involves the construction and operation of the necessary infrastructure to support a container freight road volume of 250,000 twenty-foot equivalent units (TEU).

CPB Contractors' scope of work specifically applies to MPE Stage 1 RALP No. 1 which consists of a 2.8 kilometre rail line, along with its required infrastructure, to connect the Import-Export Terminal and Interstate Terminals to the Southern Sydney Freight Line (SSFL), and capable of accommodating trains up to 1,800m in length.

The SIMTA site is located in the Liverpool local government area. It is 27 kilometres south-west of the Sydney Central Business District (CBD), 26 kilometres west of Port Botany, 16 kilometres south of the Parramatta CBD, 0.6 kilometres from the M5 South-West Motorway, five kilometres east of the M5 South-West Motorway / Westlink M7 Motorway Interchange and connecting to the main north–south rail line via the Southern Sydney Freight Line.

The RALP No. 1 is the first package of Stage 1 of the overall MPE project and its construction will include:

- A northbound connection and a southbound connection to the SSFL
- Civil and earthworks, including remediation works and benching
- A Reinforced Earth Embankment (RE-Wall) through a section of the Glenfield Waste Services landfill site
- A bridge over the Georges River
- A culvert crossing over Anzac Creek
- Installation of new Moorebank Avenue overbridge
- Service relocation and protection
- Track work
- Signalling systems
- Security fencing

An indicative map of the Project is provided in Figure 1 below.

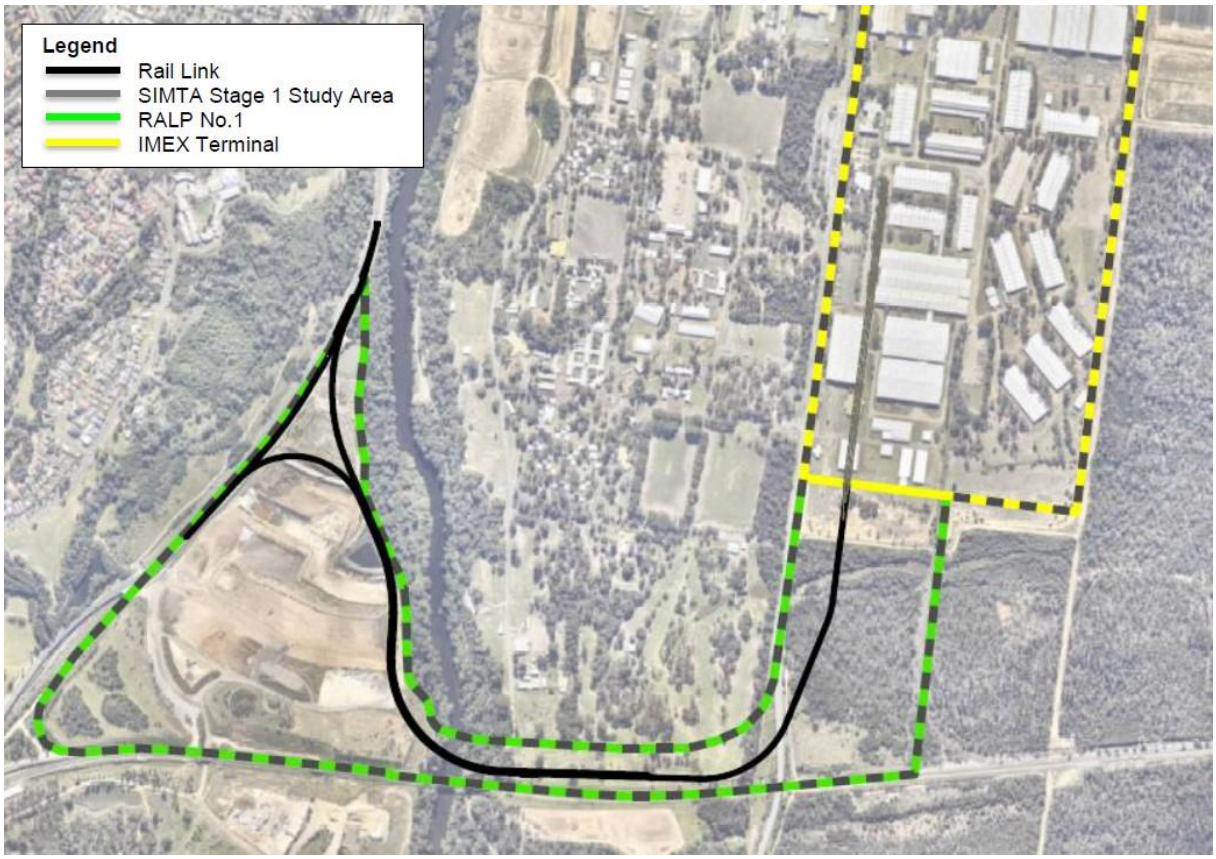

Figure 1: Indicative Project Map

1.3 Objectives

The following traffic and access management objectives will apply to the construction of the Project:

- Provide a safe environment for workers, visitors and the general public from traffic hazards
- Minimise disruption, congestion and delays to all road users
- Maintain the network performance at an acceptable level throughout the construction period
- Eliminate or mitigate risks of damage or degradation to the road environment through appropriate construction traffic management practices
- Provide timely, accurate and comprehensive traffic and transport information to all potential and existing road users to reduce impacts due to the construction work
- Minimise effects on pedestrian and cyclists movements and amenity
- Effectively manage and control vehicular access and egress movement to and from the site
- Maintain access to other properties within the vicinity of the site
- Restrict vehicle activity to designated truck routes through the area
- Provide appropriate access to the site for demolition, excavation and clearing traffic
- Manage and control vehicle activity in the vicinity of the site.

1.4 Definitions

Definitions for terms used in this plan are contained in the Glossary in Attachment B.

1.5 Interactions with Other Management Plans

The CTAMP is designed to be an overarching traffic management plan that provides guidance for the location specific and detailed Traffic Controls Plans and/or Specific Traffic Management Plans (STMP). It is not the intention of this Plan to contain site specific details, these would be developed on an as-needs basis dependent on the requirements of the site conditions and level of traffic management needed (including pedestrian, cyclists etc).

This CTAMP is part of the Construction Environmental Management Plan (CEMP). Figure 2 below sets out interactions of this CTAMP with the other management plans implemented on the Project.

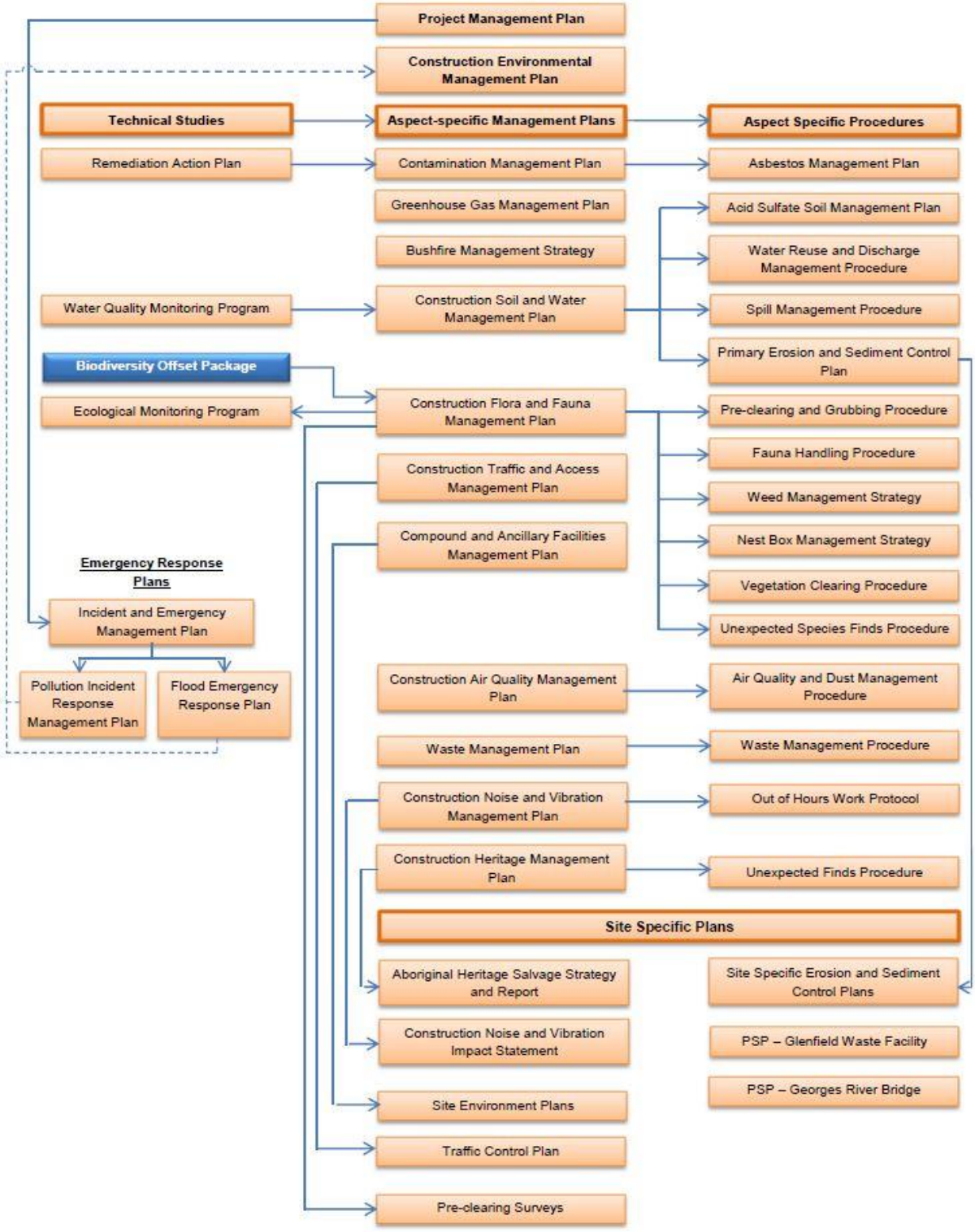

Figure 2: Environmental Documents Map

2. Legal and Other Requirements

2.1 Compliance Requirements

A compliance matrix against the relevant Conditions of Approval and other traffic and access requirements is detailed in Attachment A.

2.2 Relevant Legislation

Legislation relevant to traffic management for this project includes:

- *Environmental Planning and Assessment Act 1979* (EP&A Act)
- *Roads Act 1993*
- *Transport Administration Act 1988*
- *Work Health and Safety Act 2011*

Section 138 of the *Roads Act 1993* requires that consent is obtained from the appropriate roads authority for the erection of a structure or the carrying out of work in, on or over a public road. If the applicant is a public authority, the roads authority must consult with the applicant, before deciding whether or not to grant consent.

RMS will be the principal road authority for the majority of the roads to be impacted as part of the Project. However, as detailed in Table 4, local councils and the Department of Defence are applicable road authorities for specific roads or sections of roads within the impacted area and will be consulted as required.

2.3 Guidelines

The key guidelines, specifications and policy documents relevant to traffic management include:

- Roads and Maritime Specification (RMS) QA Specification G10 – Control of Traffic
- Australian Standard 1742.3-2009 Traffic control devices for works on roads
- Australian Standard 1742 Parts 1 to 14, Manual of uniform traffic control devices (as required)
- Australian / New Zealand Standard – AS/NZS3845 Road Safety Barrier Systems
- AGTM 02-08 Guide to Traffic Management Part 2: Traffic Theory
- AGTM 06-07 Guide to Traffic Management Part 6: Intersections and Crossings – General
- AGRD 04-09 Guide to Road Design Part 4: Intersections and Crossings – General
- RMS Traffic Control at Worksites Manual Version 4, June 2010
- RMS Delineation Manual March 2008
- RMS Road Safety Audit Technical Direction TD2003/RS03, Version 2 – August 2005
- RMS Road Occupancy Manual
- RMS Road Design Guide
- RMS Regulatory Signs Guide
- RMS's VMS Policy – Technical Directions TDT 2002/11 and TDT2005/02A
- RMS DCM R132 Safety barrier systems
- RMS DCM R141 Pavement marking
- Relevant RMS Technical Directions and Guide updates
- Traffic Management Guide: Construction Work – Safe Work Australia
- RMS Road Rules 2014.

2.4 Additional Permits and Approvals

The following permits and approvals, specific to traffic and access management, have been identified and will be required to be in place before associated works may commence.

2.4.1 Road Occupancy Licences

Where feasible, construction works will be staged to limit road occupancy and minimise potential impacts on the existing road network. However, where road occupancy cannot be avoided, a Road Occupancy Licence (ROL) under Section 138 of the *Roads Act 1993* will be sought from the appropriate authority, to occupy a portion of the road network for an approved period of time over an approved number of days. CPB Contractors will liaise with these authorities and key stakeholders (if required) during construction.

Moorebank Avenue is owned by the Commonwealth of Australia and, as such, the *Roads Act 1993* does not apply. Notwithstanding, an assessment of Moorebank Avenue was undertaken in Section 7 and Appendix L of the Stage 1 EIS (May 2015).

More information relating to the application process of a ROL and supporting information is provided in Section 7.6.3.

2.4.2 Speed Zone Authorisations

Temporary roadwork speed zones, both short and long term, will be implemented during construction to manage the speed of traffic approaching and passing through and/or past work sites. In order to temporarily alter a speed limit, a Speed Zone Authorisation (SZA) is required to be in place. Both long term and short term SZA will be sought from the appropriate road authority during the course of construction.

More information relating to the SZA application process and supporting information is provided in Section 7.6.4.

2.4.3 Environmental Protection Licence

Environment Protection Licence clauses that specifically address traffic and access management are detailed in Table 1 below.

Table 1: Environment Protection Licence

EPL Reference	Requirement	Where Addressed
L3.3 (c)	**Approved out of hours works** (c) Deliveries of plant, equipment, materials or structures that have been determined by the police or other authorised authorities to require special arrangements for transport along public roads for safety reasons.	S7.4.8
L3.3 (d)	**Approved out of hours works** (d) Works that if carried out in compliance with Conditions L2.1 or L2.2 would cause unacceptable risks to construction personnel safety, public safety, road or rail network operational performance and/or essential utility services.	S7.4.8
O4.3	**Waste Management** Excavated material suitable for re-use within the premises may be transported from one part of the premises to another part by road in accordance with Condition O4.4.	S6.8 S7.4.6
O4.4	**Waste Management** The licensee must ensure that: (a) the body of any vehicle or trailer, used to transport waste or excavation spoil from the premises, is covered before leaving the premises to minimise any spill or escape of any dust, waste, or spoil from the vehicle or trailer; and (b) mud, splatter, dust and other material likely to fall from or be cast off the wheels, underside or body of any vehicle, trailer or motorised plant leaving the premises, is removed to the greatest extent practicable before the vehicle, trailer or motorised plant leaves the premises; and	S7.4.2 S7.4.6 S7.6.1 S7.8

EPL Reference	Requirement	Where Addressed
	(c) road surfaces subject to the tracking of material by vehicles leaving the premises are effectively cleaned at the end of each work day.	

3. Consultation and Stakeholders

3.1 Consultation on this Plan

The Stage 1 Conditions of Approval (CoA) requires that the CTAMP be prepared in consultation with certain stakeholders and road user groups. These are listed below:

- TfNSW
- RMS
- Liverpool City Council
- Campbelltown City Council
- Emergency services
- Road user groups
- Pedestrian and bicycle user groups
- Landowners and residents affected by Moorebank Avenue temporary closure
- Department of Defence

Further, this CTAMP as a Sub Plan to the CEMP is required to be approved by Department of Planning and Environment (DP&E) prior to construction as required by the CoA.

Consolidated management plan consultation and approval requirements are identified in the CEMP.

This consultation is intended to assist in development and finalisation of the plan. Evidence of consultation is included in Attachment C. For further information on consultation of all the management plans, refer to section 3 in the CEMP and Appendix G of the CEMP, which details all efforts to contact the various stakeholder groups, including those required to be consulted as part of this plan.

Table 2 summarises relevant stakeholder comments as well as CPB Contractors' response including how we will address issues raised.

Table 2: Summary of Consultation

Agency	Status	Document Reference	Stakeholder Comment	CPB Response
Roads and Maritime Services (RMS)	CTAMP provided to RMS on 11/01/2017. RMS contacted multiple times on 31/01/2017 and re-sent the CTAMP. RMS called on 8/02/2017 requesting update on comments – no response. RMS called again 21/03/2017 – RMS advised CTAMP had not been looked at. RMS emailed again on 28/03/17 Comments received on 3/04/2017 Consultation will continue with RMS as part of the development of Traffic Management Plans		The proposed construction works will need to be consistent with the approved plans and conditions of consent for the Stage 1 Development Application for the Moorebank Intermodal Project East Precinct. Please check the proposed haulage routes because truck movements may be restricted on Cambridge Avenue.	Haulage routes are shown in Attachment E Section 7.4.5 and TA53 in Table 10 detail that a specific Traffic Control Plan (TCP) will be developed for Cambridge Avenue (including the causeway) prior to major haulage in order to set out site specific control measures. Section 7.5.2 details that a road safety audit will be undertaken for Moorebank Avenue and Cambridge Avenue, with additional controls incorporated into localised TCPs/TMPs and the CTAMP as required.
			Please note any road closures will need to be referred to the Transport Management Centre (TMC) - TransportManagementCentre @transport.nsw.gov.au or 132 701.	Section 7.6 and Section 7.6.3 detail road closure (ROL) requirements, including submitting the ROL application to the relevant road authority. CPB notes that Moorebank Avenue is privately owned (Department of Defence).

Agency	Status	Document Reference	Stakeholder Comment	CPB Response
	for specific work packages. Final CTAMP will be provided to RMS once approved.		If not already done so, please submit the CTMP to Liverpool Council's and Campbelltown Council's traffic committee.	The CTAMP was provided to LCC on 5/01/2017. Comments were provided on 1/02/2017. The CTAMP was provided to CCC on 5/01/2017. No comments were received.
Liverpool City Council (LCC)	Comments received on 1/02/2017	N/A – no document reference given	Council has no objection to the proposed haulage routes as shown in the Attachment E of CTAMP and operational time. All heavy vehicle movements shall be via the proposed haulage routes.	Noted Final CTAMP will be provided once approved.
		N/A – no document reference given	A Pre-construction road dilapidation report as specified in Section 7.1 of Construction Traffic and Access Management Plan (CTAMP) should be submitted to Council prior to the commencement of any construction works.	Noted – pre-construction road dilapidation report will be provided to council.
		N/A – no document reference given	A copy of Road Safety Audit report should be forwarded to Council for review prior to the commencement of any construction works. Corrective actions should be provided and implemented to resolve any safety issues identified in the report.	Noted – Road Safety Audit will be provided to council for information. It is noted that Council are not an approval authority.
		N/A – no document reference given	A copy of Specific Traffic Management Plans (STMP) and a Traffic Management Plan (TMP) with Traffic Control Plans (TCPs) should be submitted to Council for review prior to the commencement of any construction works.	Noted – specific Traffic Management Plans and Traffic Control Plans will be provided to council for information. It is noted that Council are not an approval authority.
		N/A – no document reference given	A TMP and associated TCPs should be submitted to Council for review for any temporary closures or part closures and changes to the operation of Moorebank Avenue at least 7 days prior to the commencement of the proposed changes.	Noted – Traffic Management Plans and Traffic Control Plans for any temporary or part closures/changes to the operation of Moorebank Avenue will be provided to council for information. It is noted that Council are not an approval authority
		N/A – no document reference given	All construction vehicles should park within the compound sites. If required, Council will request the proponent to install parking restrictions along Moorebank Avenue.	Noted – no street side parking is proposed. Parking arrangements included in inductions.
Campbelltown City	CTAMP provided to RMS on 5/01/2017.	N/A – no comments	N/A – no comments received as at 27/03/2017	Consultation is considered closed due to lack of

Agency	Status	Document Reference	Stakeholder Comment	CPB Response
Council (CCC)	CTAMP re-sent on 3/02/2017. CCC contacted again on 17/1/2017, 24/1/2017, 31/01/2017, 3/02/2017, 8/02/2017, 20/03/2017 and 21/03/2017. No comments received as at 27/03/2017.	received as at 8/02/2017		response to multiple attempts of contact CCC. See appendix G in the CEMP for full consultation log, including CCC.Specific consultation log for the CTAMP is also included in Attachment C. CPB note that its works do not predominantly occur within CCC's LGA and it is unlikely they will comment on areas that are the responsibility of LCC. Final CTAMP will be provided once approved.
NSW Police Force	Advice received on 23/01/2017	N/A	NSW Police Force advised that they had no comments	Noted Final CTAMP will be provided once approved.
Fire and Rescue NSW (FRNSW)	CTAMP provided to RMS on 5/01/2017. FRNSW were contacted again on 9/01/2017, 16/01/2017, 18/01/2017 and 30/01/2017. No written comments received as at 8/02/2017.	N/A	N/A – no written comments received as at 17/03/2017. Meeting held with representative from FRNSW (Edward Salinas – Local Area Commander) on 18/01/2017 to go over CTAMP. Representative was happy with the plans and requested on site meetings once construction had commenced.	See appendix G in the CEMP for evidence of attempts to consult with FRNSW. Meeting minutes attached Edward Salinas will be invited on site after works have commenced. Final CTAMP will be provided once approved.
Ambulance Service of NSW	CTAMP provided to RMS on 5/01/2017. Ambulance NSW were contacted again on 16/01/2017 and 25/01/2017. No comments received as at 17/03/2017	N/A	N/A – no comments received as at 17/03/2017	See appendix G in the CEMP for attempts to consult with Ambulance NSW. Specific consultation log for the CTAMP is also included in Attachment C. Final CTAMP will be provided once approved.
RFS	Provided advice on 25/01/2017	N/A	RFS advised that they do not wish to comment	Noted
DoD	Email provided to SIMTA on 25/01/2017	N/A	DoD do not wish to comment.	Noted
Road user, Pedestrian and Cycling Groups (3)	3 local cycling groups sent CTAMP on 5/01/2017. Cycling groups contacted again on 24/01/2017. No comments received as at 17/03/2017.	N/A	N/A – no comments received as at 17/03/2017	See appendix G in the CEMP for evidence of attempts to consult with Cycling groups. Specific consultation log for the CTAMP is also included in Attachment C. No other road user or pedestrian groups located within close proximity to RALP work areas (located

Agency	Status	Document Reference	Stakeholder Comment	CPB Response
				predominantly on private land) or were identified in the EIS.

4. Roles and Responsibilities

The following role titles are used in this plan:

Table 3: Roles and Responsibilities

Role	Responsibility
Project Director	▪ Oversee implementation of the CTAMP during Project delivery ▪ Ensure the traffic management objectives detailed within this CTAMP are achieved ▪ Review the CTAMP and issue to client and agencies ▪ Coordinates traffic management activities within the construction team ▪ Provides direction and support to the Project team to enable effective planning of temporary traffic management arrangements ▪ Ensures all construction team members receive the appropriate training
Environment Manager	▪ Ensure compliance of Traffic Management activities with the project's environmental obligations ▪ Monitor traffic management procedures during construction works and manage environmental aspects ▪ Liaise with construction personnel regarding traffic activities ▪ Implement measures within the CTAMP and Traffic Control Plans (TCP), in consultation with Project team ▪ Monitor temporary works and signage ▪ Ensure the traffic management objectives are achieved ▪ Ensure Traffic Incidents and status of traffic controls are recorded correctly.
Environment Coordinator	▪ Monitor traffic management procedures during construction works and manage environmental aspects ▪ Review and update SEPs for the duration of construction activities in consultation with the Traffic Specialist
Environmental Representative	▪ Responsible for monitoring compliance with the mitigation measures and safeguards documented in CEMP, this Sub Plan and associated environmental documentation (Procedures, Work Packs, etc). ▪ Oversee the environmental performance of the project, including those controls to manage traffic and access, for the duration of construction. ▪ Reports to regulators and stakeholders.
Construction Manager	▪ Coordinate the preparation of TCPs and review TCPs ▪ Submit TCPs for approval to relevant authorities, where required ▪ Ensure compliance with the CTAMP ▪ Implementation of the CTAMP and TCP ▪ Monitoring of temporary works and signage ▪ Ensure the traffic management objectives of CPB Contractors are achieved ▪ Ensure Traffic Incidents and status of traffic controls are recorded correctly ▪ Manage the Road Occupancy Licence (ROL) application process for all relevant local roads ▪ Manage the Speed Zone Authorisation (SZA) process including maintaining detailed records.
Project Engineer	▪ Assist with the preparation of TCPs ▪ Manage correct execution of the TCPs ▪ Coordinate Traffic Management activities ▪ Liaise with construction personnel regarding traffic activities ▪ Monitoring of temporary works and signage ▪ Ensure the traffic management objectives of CPB Contractors are achieved ▪ Ensure Traffic Incidents and status of traffic controls are recorded correctly.

Role	Responsibility
Supervisor	▪ Ensure compliance with the CTAMP ▪ Execution and monitoring of the TCPs ▪ Ensure adequate plant and labour are made available for the installation and maintenance of temporary Traffic Control Devices ▪ Ensure Traffic Incidents and status of traffic controls are recorded correctly ▪ Order and arrange traffic control materials, plant and resources ▪ Monitoring of temporary works and signage ▪ Monitor temporary traffic control devices to ensure they are clean and operable ▪ Supports the delivery of the road safety and traffic management objectives ▪ Assists with the implementation of the CTAMP ▪ Ensures all field members involved with traffic management receive the appropriate training.
Communications Manager	▪ Undertake prior notification of traffic changes to the community ▪ Community consultation for traffic planning ▪ Conducts consultation with stakeholders and the wider public for traffic and access issues and provides an ongoing liaison role ▪ Liaise with Project team to resolve traffic complaints
Commercial Manager	▪ Ensure that requirements associated with traffic and transport are accounted for during procurement of materials and services
Health & Safety Manager	▪ Represents the project for all work safety and health matters ▪ Conducts inspections of Traffic Control Subcontractor in respect to safety ▪ Prepares toolboxes and inductions to address project traffic and transport issues ▪ Reviews and approves SHEWMS
Traffic Specialist	▪ Traffic specialists will be engaged to undertake investigations and develop specific traffic plans (eg. STMPs, TCPs)

Key environmental responsibilities are detailed throughout each Element in Part B of the CEMP.

4.1 Traffic Controllers

CPB Contractors will also engage a traffic control organisation registered under RMS' Registration Scheme Category G (Traffic Control) who will supply traffic control personnel when required.

4.2 Training

All personnel, including employees, contractors and subcontractors, are required to complete a project induction containing relevant environmental information before they are authorised to work on the project. Traffic and access specific information to be covered in the project induction will include:

- Obligations under the project's approval conditions:
- maintaining access to private properties
- the efficient and safe egress and ingress of vehicles from site; access routes to be utilised
- onsite, offsite and remote parking
- minimising idling and queuing in local streets
- safe pedestrian and cyclist access through or around worksites to be maintained
- No use of compression brakes permitted for construction vehicles in the vicinity of the site
- Encourage use of car-pooling and public transport
- Obligations under the Driver's Code of Conduct (see Section 7.4.2 and Attachment D)
- Details of potential traffic issues to raise awareness and to increase their understanding of methods to reduce community and traffic impacts

- Where reasonable and feasible, transportation of materials will be managed to maximise vehicle loads and therefore reduce number of vehicle movements
- Access routes to be utilised to minimise heavy vehicle movements on local roads
- Responsibilities under the other relevant legislation
- Incident response procedures in the event of an unplanned traffic incident.

Toolbox talks will be undertaken regularly to inform all site personnel of changes to the traffic management and control measures.

Records of all training activities, including inductions, will be maintained.

Records will include the name and role of the attendee, the name of the course and, where applicable, reference to the document controlled version of the material presented, and a copy of the assessment completed.

5. Existing Environment

5.1 Surrounding Road Network

Table 4 provides details of the public roads located in close proximity to the Project site, including road classification, responsible road authority and network significance.

Table 4: Roads located close to the Project site

Road	Classification	Description	Network Significance
M5 South West Motorway	Motorway – operated by Interlink Roads	The M5 South West Motorway (M5) is a 22 km tolled road with generally three lanes in each direction between Camden Valley Way, Prestons and King Georges Road, Beverly Hills	It forms part of the M5 transport corridor, the main passenger, commercial and freight route between Sydney Airport, Port Botany and south west Sydney. It is also a key part of the Sydney Orbital Network, a series of interconnected roads that link key areas of the Greater Sydney Metropolitan Region.
Moorebank Avenue	State Road (North of M5 Motorway) / Local Road (South of M5 Motorway)	Moorebank Avenue is currently a two lane undivided road (one lane on each direction) between Cambridge Avenue and M5 South West Motorway (adjacent to the site) and four lane undivided road (two lane on each direction) north of the M5 South West Motorway.	This road provides a north-south link between Liverpool and Glenfield. It also forms a grade separated interchange with the M5 South West Motorway. Moorebank Avenue between M5 and Anzac Road is owned and maintained by Liverpool City Council. Moorebank Avenue between Anzac Road and Cambridge Avenue is a private road on Commonwealth land.
Anzac Road	Local Road	This is generally a two-lane undivided road.	Anzac Road is an east-west local road that connects Moorebank Avenue and Heathcote Road. It provides access to Moorebank Business Park and the residential area of Wattle Grove. The study area includes the section between Yulong Close and Moorebank Avenue. At the intersection with Moorebank Avenue, Anzac Road is owned by the Department of Defence.
Newbridge Road	State Road	Within the study area it is a six lane, divided road.	Newbridge Road is an east-west road that provides access to Canterbury Road and Liverpool. Newbridge Road is maintained by Roads and Maritime.
Heathcote Road	State Road	From Sandy Point to Moorebank, Heathcote Road ranges between a two-lane, undivided road and a four lane, divided road.	Heathcote Road is an arterial road that connects Heathcote to Liverpool in a north-westerly direction. It is generally used by local and commercial traffic including, the Department of Defence at Holsworthy and is maintained by Roads and Maritime.
Cambridge Avenue	Local Road	It is generally a two lanes road (one lane each direction). Cambridge Avenue crosses the Georges River via a low level narrow bridge (subject to flooding).	Cambridge Avenue is a local road which connects Moorebank Avenue from the south to Macquarie Fields through to Campbelltown. Cambridge Avenue is owned and maintained by Campbelltown City Council.

5.2 Existing Traffic Volumes and Intersection Performance

The performance of the eight intersections were assessed under the existing traffic conditions using the intersection Level of Service (LoS) criteria prescribed under RMS' Guide to Traffic Generating Development (2002).

The intersections assessed were noted to be performing at a satisfactory LoS; however, the intersection of Moorebank Avenue / Heathcote Road was found to be currently operating at capacity in the AM peak and near capacity in the PM peak. The intersection of Moorebank Avenue / Newbridge Road was found to be nearing its operational capacity during the PM peak.

Peak hour traffic volumes were also assessed and the results are presented in Table 5 below.

Table 5: Peak Hour Traffic Volumes on Key Roads

Locations	AM Peak		PM Peak	
	NB/EB	SB/WB	NB/EB	SB/WB
Moorebank Ave, South of Anzac Rd	1,150	650	490	1,290
Anzac Rd, East of Moorebank Avenue	560	390	480	680
Moorebank Ave, South of Jacquinot Road	1,190	340	340	1,340
Cambridge Avenue, East of Canterbury Road	1,140	320	340	1,340

Source: PTMP, November 2014 traffic survey, Hyder
Note: (1) Northbound (NB), Eastbound (EB), Southbound (SB), Westbound (WB)

5.3 Current Road Condition

Table 5 also details the general configuration of the public roads to be utilised by construction traffic in the vicinity of the Project site.

A pre-construction dilapidation survey and report of local roads (not subject to upgrade) will be completed prior to construction, in conjunction with the relevant road authority, to record the existing condition of roads used to access the site. Refer to Section 7.1 for further detail.

These roads will be regularly inspected for damage during the project and on completion of the project. Any maintenance required to public roads will be highlighted to the appropriate road authority for resolution and, if considered appropriate, CPB Contractors will undertake the necessary road maintenance works.

5.4 Existing Pedestrian and Cyclist Facilities and Usage

Moorebank Avenue has wide verges, however no formal cycle lanes. Moorebank Avenue connects to a series of cycle routes in the surrounding area, in the form of either on-street cycle lanes, shared pedestrian-cycle paths or along local roads. Moorebank Avenue, south of Anzac Road and Cambridge Avenue are not identified as cycle routes on the Liverpool Bike Plan (2010) and are not considered to be highly utilised as cycle routes.

A sealed footpath is provided on the western side of Moorebank Avenue and pedestrian crossing facilities are provided at the existing signalised intersections along Moorebank Avenue, spaced between 250 m and 600 m apart. Sightlines along Moorebank Avenue are generally clear, allowing motorists suitable opportunity to view pedestrians if needed. Overall, pedestrian connectivity is considered suitable for the area, given the relatively low pedestrians volumes.

5.5 Current Public Transport Infrastructure

The current low public transport usage is largely identified in the Moorebank catchment area may be due to the limited supply of public transport services to some areas. This seems to be the case with the SIMTA site, which is currently poorly serviced by public transport. A number of bus stops are located along Moorebank Avenue, including at the SIMTA site frontage, however these are serviced on a limited basis, with a single bus service provided in the peak AM and PM periods. During non-peak services the closest bus stop operating near the site is at the intersection of Moorebank Avenue and Anzac Road, approximately 750 m from the Stage 1 site entry.

Liverpool train station is located approximately 4 km from the SIMTA site, with Holsworthy and Casula trains stations both approximately 7 km from the site, which is generally considered further than the acceptable walking distance.

5.6 Crash Data

A total of 524 accidents were recorded in the five year period (from 2009 to 2013). Of these, 240 (46 percent) of crashes resulted in injuries and 284 (54 percent) of crashes were recorded as non-casualty. No fatal crashes occurred across the wider road network, including Moorebank Avenue and Cambridge Avenue. The majority of crashes occurred on State roads, particularly the M5 Motorway (47 percent), between the Hume Highway and Heathcote Road.

6. Aspects and Potential Impacts

6.1 Activities, Hazards and Risks

Construction traffic aspects and impacts were identified and assessed in the EIS and supplementary reports. The EIS determined that Project has the potential to result in additional traffic volumes and disruptions to the existing road and transport network and local community as a result of the construction works. Overall, the traffic and access impacts of construction are anticipated to be relatively minor, considering the existing traffic volumes and scope of works. Any traffic and access impacts will be managed through the application of mitigation measures as detailed in Section 7.

Potential traffic and access impacts associated with Project works may include:

- Safety impacts for the workforce and local community
- Temporary cyclist and/or pedestrian diversions
- Changed road conditions during the Moorebank Ave overpass bridge works which may result in temporary delays and increased travel times
- Increase in construction traffic volumes on public roads resulting in potential traffic delays to other road users
- Safety impacts to road users due to construction traffic entering and leaving the site compounds
- Impacts to bus users, including passenger set-down and pick-up locations
- Damage to local roads, particularly on corners, from heavy vehicle movements
- Heavy plant (haul trucks) mixing with light construction traffic and other road users
- Increase incidence of native fauna road kills
- Potential alterations to property access
- Increased dust and noise emissions (these are addressed in the Construction Air Quality Management Plan and Construction Noise and Vibration Management Plan)
- Reduced roadwork speed limits which will potentially increase travel times
- Haulage operations and over-dimension vehicle movements which may create temporary traffic hazards for other vehicles.

Where the risks are assessed as significant, specific strategies for mitigating traffic and access impacts will be further addressed in the Work Packs and/or Specific Traffic Management Plans (STMP) or Traffic Control Plans (TCP) for those specific work sites and/ or activities.

6.2 Traffic Generation

The construction works will result in an increase in traffic volumes on the surrounding road network which consists of a range of vehicle types involving cars, light vehicles, heavy vehicles and specialised vehicles, mainly associated with the delivery and on-site movement of materials. The proposed construction access routes for heavy vehicles are illustrated in Attachment E.

Construction activities that are likely to affect traffic generation include the following works:

- Anzac Creek culvert
- Georges River bridge
- New Moorebank Avenue underbridge
- General earthworks
- Works within the Glenfield Waste Facility
- Heavy vehicle movement for vegetation removal and processing
- Water management and drainage works for the Rail link, replicating existing drainage patterns and discharge points, where possible
- Utility connections (including enabling works)

It is expected that typical staff levels during peak construction for the Rail Link, approximately 60 office staff and 100 work personnel will be travelling to and from the site on a daily basis. Numbers may vary but would remain below the peak of 350 predicted in the EIS. The traffic volumes expected to be generated during construction are based on the experience of previous projects with similar staff numbers. The adopted vehicle occupancy rates for office staff, design staff, managers, supervisors,

and technical staff, are 1 per vehicle, and 3 per vehicle for construction workers. In addition, due to the nature of their work, managers, supervisors and surveyors generally undertake more trips throughout the day. In this regard, it has been estimated that these staff on average will undertake two in and two out movements per day. All other staff will undertake one in and one out movement per day. Therefore, predicted daily peak light vehicle movements will range between 200 and 350 light vehicle movements, with the average expected to far less. Truck numbers for the Rail Link are expected to peak between 240-320 trucks (including 2 movements) however these numbers are variable and are predicted daily maximums. Refer to Section 6.8 for more details on truck movements.

It was assumed that 80 percent of staff vehicles will access the site between 6am and 7am, during the morning period and will depart between 3pm and 6pm, in the afternoon peak. It is anticipated that construction truck movements will be evenly distributed across the construction day, between 7am and 6pm on weekdays.

The EIS determined that the volume of traffic generated by construction will be relatively low when compared to the existing traffic volumes. In addition, Moorebank Avenue will be anticipated to experience only a 10% increase in vehicle movements due to construction traffic. Haulage operations will be managed to minimise the impact on the local road network and will utilise major arterial roads and regional roads wherever possible.

Therefore, construction traffic will result in a short-term increase in traffic volumes on the existing road network however; this will not significantly impact road safety or travel times in the vicinity of the project. Any traffic and access impacts will be mitigated through the implementation of the management measures described in Section 7.

Prior to construction, all local roads potentially used/affected by construction traffic will be part of a dilapidation survey (excluding regional or arterial roads). Specific information on the details of the dilapidation survey is provided in Section 7.1.

Campbelltown City Council has also raised concerns about the safety of heavy vehicles using Cambridge Avenue, and in particular the causeway. This relates to restricted line of sight when approaching the causeway at speed and the limited width of the causeway that will restrict two large vehicles from passing. Condition of Approval 24 requires that a Road Safety Audit is completed, by an independent TfNSW accredited road safety auditor in consultation with TfNSW and the relevant Council, prior to construction. If additional controls are recommended, these will be implemented and incorporated into the CTAMP as relevant.

It is estimated that approximately 160 trucks (not including 2 movements) will use Cambridge Avenue each day during construction. This is expected to be the average peak, lasting between 6-9 months, after which truck numbers into GWS via Cambridge Avenue will drop back significantly to approximately 25% (100 movements). Truck movements and potential conflicts along the causeway will be managed as detailed in Section 7.

6.3 Site Compounds

The areas selected for the site compounds were identified in the EIS and their locations were refined further by CPB Contractors to offer the best proximity to the worksites while minimising impacts to the community, nearby businesses and sensitive environments.

The majority of the compounds, stockpiling and material storage locations have been previously cleared, however some minor road verge vegetation may need to be cleared to improve access and sight lines as well as to maximise laydown and stockpiling areas. This will be managed as per the requirements in the Construction Flora and Fauna Management Plan.

The proposed construction compound sites are detailed in Table 6 below and depicted in Attachment F.

Table 6 Construction Compound Site Location

Construction Compound Sites	Facilities
Rail East Compound – located adjacent to the Moorebank Avenue	The compound will support the eastern portion of the Rail Link construction. This compound will provide worker amenities, general storage and laydown and car parking. The Rail East compound will be accessed and egressed directly to and from Moorebank Avenue.
Georges River Compound –located to the east of the Georges River and north of the East Hills Rail Line.	The compound will primarily support the construction of the proposed rail bridge over the Georges River. This compound will provide worker amenities, administration, general storage and laydown and car parking. The Georges River compound will be accessed and egressed directly to and from Moorebank Avenue.
Rail West Compound – located adjacent to the Rail Link within the Glenfield Waste Facility.	The compound will have approximately 65 car parking spaces. The compound will support the western portion of the Rail link construction from the Georges River Bridge to the SSFL. This compound will provide worker amenities, general storage and laydown and car parking. The Rail West compound will be accessed and egressed from Cambridge Avenue through the Glenfield Waste Facility.

6.3.1 Car Parking

The Rail East compound site will have sufficient space for workforce parking and limited parking will be available at the other construction compounds. No street parking will be permitted and no roadside queuing of trucks is expected during the works.

6.3.2 Compound Access and Egress

Access and egress to the construction compounds are proposed along Moorebank Avenue and Cambridge Avenue, depending on the construction compounds accessed. The access and egress points proposed as detailed in Attachment F.

The most hazardous movement for construction vehicles occurs when the vehicle is entering or exiting the construction site to and from the public road as drivers do not expect vehicles to be turning from or entering the traffic flows. The mitigation measures required to safety manage traffic and access impacts associated with the construction access and egress points are detailed in Section 7.8.

If larger vehicles are required to deliver materials, such as low loaders delivering beams or other prefabricated materials or machinery, there may be a need for approval process for oversized vehicles subject to a separate traffic management plan. Where possible, access to the site compounds will be designed to safely accommodate large vehicles up to B-doubles and those used to float machinery to and from the site. In addition, while these vehicles are turning into or out of the site there may be a need to temporarily close one lane of Moorebank Avenue or Cambridge Avenue to allow the safe turning of these vehicles into or from the construction site. In this situation, traffic control personnel would be utilised.

As required under the Roads Act and the Heavy Vehicle National Law, Over-sized and Over-mass (OSOM) vehicles and loads will be transported outside of peak periods and may require an RMS permit. Management of OSOM vehicles is detailed in Section 7.4.7.

6.4 Worksite Access Points

Access tracks will be constructed to facilitate construction and on-going maintenance of the Rail Link. These will also enable access for the Glenfield Waste Facility operators (on the Glenfield Waste Facility site) and for Sydney Trains (within the RailCorp Land and the East Hills Rail Corridor).

The access tracks will be a mix of pedestrian and vehicular. These access tracks will be located within the identified footprint of the Rail link and will utilise previously disturbed corridors where possible. A summary of the access tracks is provided in Table 7.

Table 7: Rail Link Access Tracks

Work Location	Track Section	Description
West of Georges River	From the proposed Georges River bridge to the SSFL, through the Glenfield Waste Facility	▪ A level area will be provided near the southern and northern connections to facilitate maintenance. ▪ An informal level crossing will be provided over the southern connection at this location. ▪ Access through existing gate into ARTC/ Sydney Trains Rail Corridor ▪ Street access provided from Cambridge Avenue through the Glenfield Waste Facility main entrance. ▪ Access also provided from Railway Parade via Cambridge Avenue through the Glenfield Waste Facility alternate access point.
East of Georges River	From the proposed Georges River bridge to Moorebank Avenue	▪ Main access track located on the northern side of the Rail link. ▪ The access track provides the opportunity to access under the proposed Georges River Bridge via an existing access track. ▪ Pedestrian (restricted personnel) access is available under the Moorebank Avenue overbridge. ▪ Street access will be from Moorebank Avenue.
East of Moorebank Avenue	From Moorebank Avenue to Stage 1 site	▪ Vehicle access (from the north) will be from the Stage 1 site to the proposed Anzac Creek culvert ▪ Another vehicle access (from the south) will be from Moorebank Avenue to the proposed Anzac Creek culvert ▪ 3 existing fire trails and /or rail maintenance tracks will be utilized during construction to provide access to the Moorebank Ave bridge supports ▪ Pedestrian access is available over the proposed Anzac Creek culvert ▪ An informal level crossing and safety warning signal will be provided over the Rail link immediately east of the Moorebank Avenue overbridge to maintain RailCorp access.

6.5 Impacts on Residents and Businesses

Residences and businesses within the vicinity of the Project have been considered for potential sensitivity to traffic and access impacts. Potentially affected receivers were assessed within the EIS and the Community Communication Strategy and are at:

- Specific locations along Moorebank and Cambridge Avenues
- Glenfield Waste Facility.

Impacts to residents and businesses due to the Rail Link works are expected to be minimal, with expected numbers of 100 personnel working on site. Light vehicle movements at peak will be between 200-350 per day and up to truck movements of 320 per day.

In addition to these sensitive receivers, local road users will also be potentially impacted by road works and increased construction traffic volumes associated with the project.

The existing local accesses along Moorebank and Cambridge Avenues will be maintained during construction. No private residence access disruptions are expected as a result of the Project. If residential or business access is to be temporarily affected or changed, the property owner or tenant will be notified in advance as per the notification requirements detailed within the Community Communication Strategy. Community consultation requirements to manage traffic and access impacts are addressed in Section 3.1 and further detailed in the Community Communication Strategy.

6.6 Pedestrian and Cyclist Impacts

Construction of the Project has the potential to impact on cyclists and pedestrians travelling along haul routes and past the construction area. Pedestrian movements along Moorebank and Cambridge Avenues are low and these roads are not identified as cycle routes on the Liverpool Bike Plan (2010). Therefore, impacts to and potential conflicts with cyclists and pedestrians travelling within the immediate vicinity of the Project site are not expected to be significant. Potential impacts include:

- Potential conflict between cyclists crossing compound access and egress points

- Shared access to haul routes, particularly Cambridge Ave causeway
- Potential conflict around road work zones, including Moorebank Ave bridgeworks
- Potential conflict with general road traffic particularly associated with road diversions and other changes in road conditions.

However, as cyclists and pedestrians are vulnerable road users, consideration for the provision of safe access will be included within the design of the site access points and as part of any planned road works. Formalised pedestrian crossings and pathways will be incorporated into the design of construction access points to ensure pedestrians and cyclists in conflict with entering and/ or exiting vehicles, through a TCP or STMP.

6.7 Public Transport Impacts

As detailed in Section 5, public transport in the immediate vicinity is limited to one bus service, which operates in the morning and evening peak periods and services corresponding bus stops on either side of Moorebank Ave. Given that the majority of construction activities will be contained on site, or within road work zones to the south of these stops, it is considered unlikely that there will be any significant impacts to public transport services.

Short delays may be experienced by commuters; however, any works on Moorebank Avenue will be undertaken outside of peak hours to limit impacts to the network operation, wherever possible. There is not expected to be any impacts on bus routes or bus stop facilities as a result of the construction works.

6.8 Truck Movement Interface for RALP

Significant truck movements will be based on the earthworks movements, import and placement of Structural/Engineered Fill, Capping and Ballast. Indicative truck numbers have been refined since the EIS and initial Rail Link project planning due to additional geotechnical investigations and further development of the projects Bulk Earthworks strategy.

Daily truck numbers will vary depending on the construction works period, with the numbers shown in table 8 below:

Table 8: Rail Link Heavy Vehicle Movements

Construction Period	Daily Maximum Heavy Vehicle Numbers*
Works Period 1 – Pre-Construction Works, Site Clearing / Preparation	25 – 45
Works Period 2 – Earthworks, Drainage, Utilities	240-320
Works Period 3 – Structures (Georges River, Moorebank Avenue, Culvert, and Anzac Creek) and Structural/Engineered Fill	240-320
Works Period 4 – Track and Turnout Construction, Signalling Construction	45 – 75
Works Period 5 – Misc. Finishing Works, Demobilisation	15 – 25

Note: *Numbers involve 2 trips per day (in and out). Numbers are peak only, with the average daily truck numbers during a works period not expected to be near this high.

It is noted that the worst case daily truck movements for the whole SSD-6766 project (Rail Link and IMEX), is predicted to be up to 400 trucks movements per day (200 trucks). The numbers by proposed by CPB are consistent with the predictions in the EIS and the updated predicted maximum truck movements. Truck numbers between the RALP package and IMEX package will be coordinated by the project proponent (SIMTA), to ensure that the EIS is complied with.

6.8.1 Transporting Surplus West of George River

There is surplus of material West of George River in Glenfield Waste Services which is potentially required to be relocated to other areas of the project site or within the wider precinct footprint, provided that it meets suitability requirements and is not required by GWS. If required, the surplus material west of Georges River is planned to be transported by truck. 35 to 75 truck and dogs per day will travel from GWS tip site to Moorebank Avenue in this period if this undertaking is required.

6.8.2 Large Vehicle Access Points

Figure 3 below shows the construction access points for large vehicles

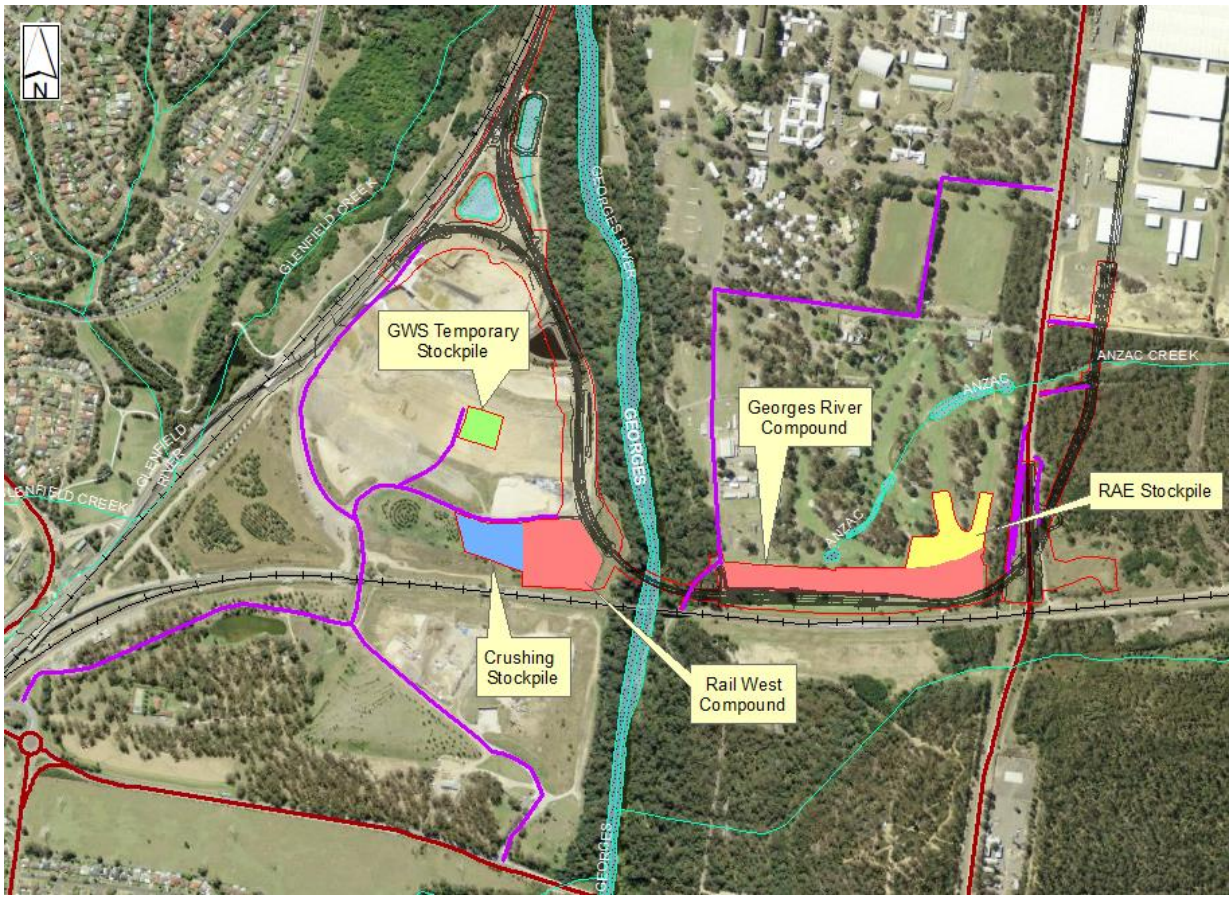

Figure 3: Construction Access points

6.9 Temporary or part closures of Moorebank Avenue

The construction of the Moorebank Avenue Overbridge is programmed to commence in mid-2017 and continue into early 2018. Traffic changes on Moorebank Avenue may include:

- Introduction of roadwork speed limit of 40km/hr
- Temporary realignment of traffic lanes
- Short term stop / slow operations during normal work hours
- Out-of-hours road closures

7. Management, Controls and Mitigation Measures

Mitigation measures to be implemented during construction works to manage traffic and access impacts are listed in Table 11. Specific strategies are described in the following sections and will also be applied to mitigate impacts.

7.1 Dilapidation Reports

CPB Contractors will prepare a Pre-construction Road Dilapidation Report for affected roads (excluding regional, arterial and other major roads) likely to be used by construction traffic prior to commencement of construction. Pre-construction Road Dilapidation Reports are used to assess the current condition of the road and describe mechanisms to restore damage that may result due to construction traffic related to the project.

As required under CoA C17, CPB Contractors will engage a suitably qualified independent person to prepare the report prior to the commencement of construction. The Pre-construction Dilapidation Report will take into account the following (but not limited to):

- Kerb and gutter (likely to be within a vehicle/s path)
- Speed humps
- Existing vegetation
- Street furniture
- Any existing damage to road pavement or road furniture
- Existing potholes/pavement damage
- Cracking and rutting
- Road pavement deflection testing of the construction truck routes at 20 metre intervals along all wheel paths
- Any existing structures
- Any existing damaged items.

The Pre-construction Road Dilapidation Report will be submitted to the satisfaction of the Certifying Authority and a copy is to be forwarded to Campbelltown City Council, Liverpool City Council, RMS and the Secretary of the Department of Planning and Environment.

Affected local roads will be regularly inspected for damage during the project and on completion of the project. Following completion of construction, a Post-construction Road Dilapidation Report shall be prepared to assess potential damage that may have resulted from the construction of the project. The Post-construction Road Dilapidation report is to take into consideration the findings of the Road Pre-construction Dilapidation Report. Any maintenance required to public roads will be highlighted to the appropriate road authority for resolution and, if considered appropriate, CPB Contractors will undertake the necessary road maintenance works.

7.2 Road User Delay Management

A key issue for the works is to minimise the delays and inconveniences experienced by road users during the construction phase of the project. CPB Contractors will develop delay minimisation strategies and specific measures within area/ activity STMP for any proposed changes in road conditions.

Measures to minimise road user delays starts during the concept design phase and continues through to the opening and operation phase. CPB Contractors acknowledges there are various measures that can be applied to minimise road user delays, which are generally divided in four categories as illustrated in Table 9 below.

Table 9: Road User Delay Management Techniques

Category No.	Description	Measure / Technique
1	During the design phase, develop traffic staging and temporary works that:	▪ Avoid conflicts with the existing road network ▪ Maximises separation between work areas and travel lanes or isolates work areas ▪ Maintains existing Level of Service of the road network.
2	Isolate work areas from traffic flows, such as:	▪ Using alternative routes ▪ Temporary side-tracks ▪ Lane deviations / widenings ▪ Temporary safety barriers
3	Consider alternative work methods that may reduce traffic or access impacts	▪ The use of more efficient plant / equipment ▪ The application of an innovative design solution ▪ The use of enclosed work platforms ▪ Consideration of alternative work periods
4	Plan all lane closures / road occupancies with the aim to:	▪ Minimise the actual work area ▪ Limit obstructions and restrictions ▪ Maximise the roads capacity ▪ Coordinate work activities ▪ Avoid peak traffic flow periods ▪ Comply with Road Occupancy Licence periods

In addition, Project Engineers will analyse existing and proposed traffic volume data to establish the capacity of the road; assess the potential impact on traffic flows, and identify the best time to apply temporary traffic arrangements to minimise the inconvenience to road users.

7.3 Communications and Notifications

A community information and awareness strategy, as detailed in the Community Communication Strategy (CCS), will be implemented to inform local residents of proposed construction activities. The strategy will be initiated prior to the commencement of construction to ensure that the community are aware of proposed construction activities and potential traffic and access impacts. The program will establish communication protocols for community feedback on traffic and access issues.

Active community consultation and the maintenance of positive relationships with local residents and businesses will assist in alleviating concerns related to traffic, access and road construction issues, thereby minimising potential traffic complaints. The aim of consultation and broad communication on traffic and access matters is to:

- Facilitate community feedback regarding traffic issues
- Recommend alternative and appropriate travel patterns during periods of change
- Manage traffic impacts to protect affected residential and business amenity
- Record and action any community complaints
- Modify and reach compromises on traffic management measures as required to meet the specific needs of individual community members to further minimise community disruption or inconvenience
- Provide timely, accurate and comprehensive traffic information using all relevant media to inform road users and the community of the project's potential traffic and access impacts.

The Communications Manager will manage the distribution of information pertaining to changes in traffic and access conditions to the community in accordance with the CCS, as indicated in Table 10.

Table 10: Methods to Distribute Information to the Community

Method	Purpose	Frequency	Responsibility
Static road user signposting	Information signage at the location of the traffic change to give advice to road users and/ or pedestrians on alternate paths and their duration.	At least 7 days prior to the change	CPB Contractors

Method	Purpose	Frequency	Responsibility
Variable message signs (VMS)	Electronic variable message sign to provide advanced notice to road users of major traffic changes.	At least 7 days prior to the change	SIMTA and CPB Contractors in liaison with TMC
Meetings with individual groups, e.g. local schools, businesses	To discuss project activities including work in progress or upcoming work, including potential traffic and access issues	As required	SIMTA with assistance from CPB Contractors
Community updates and newsletters	Quarterly project newsletter for all project stakeholders	Quarterly or as per conditions of approval	CPB Contractors to provide information SIMTA to design, print and distribute
Letterbox notifications	Notification letters to inform local residents and businesses affected by changes to road network and traffic conditions	At least 5 days prior to change	SIMTA with assistance from CPB Contractors
Traffic alert email	Communication to transport authorities, operators and emergency services to advise of traffic changes including road or lane closures and detours	5 to 7 days prior to the change	SIMTA with assistance from CPB Contractors in liaison with TMC
Community information line	Allows access to project team during construction hours with message service after hours. Number to be publicised on all communication materials. Refer to the CCS for details.	N/A	CPB Contractors
CPB Contractors contact email address	Allows communication with the project team. Email address to be publicised on all communication materials. Refer to the CCS for details.	N/A	CPB Contractors

All information to be released to the community in relation to the management of road networks and traffic systems will be submitted to SIMTA for approval before being publicly distributed.

The Environment Manager and Communications Manager shall be kept fully informed of forthcoming traffic sequencing operations and notification requirements. The following stakeholders are to be involved in traffic planning where required:

- RMS
- SIMTA
- Liverpool and Campbelltown Councils
- Department of Defence
- Emergency Services.

The Communications Manager is to be kept informed of the construction activities impacting property access or interruptions to Services, in sufficient time (minimum 4 weeks) to ensure that the required community consultation and notification processes can be carried out in a timely manner. Should existing residential or business accesses require modification the following principles will be applied:

- The location of the entry is to be as close as practicable to the existing entrance
- Entrances to businesses are to be sign-posted
- Changes to level of access during business hours will be by written agreement from the Owner/tenant
- Temporary restrictions to access, for construction reasons, shall be managed in consultation with the owner of the premises – refer to Community Communication Strategy (CCS)

- Arrangements will be made with all affected persons in relation to the impacts and consequences of the interruption of any Utility Services.

Any traffic and access complaints will be received and processed by the Communications Manager and duly handled by the project team. All complaints involving vehicle movements relating to construction activity will be responded to as per the CCS.

7.4 Construction Vehicle Management

7.4.1 Vehicle Maintenance

Prior to being used on site, plant and vehicles will undergo a Plant Induction performed by the Safety team. This induction will include a mechanical inspection to ensure that the plant or vehicle is in good working order, and the appropriate emission controls are in place.

Supervisors, Project Engineers and the Environment Manager will undertake visual inspections of the construction activities to ensure that plant and vehicles are not producing excessive noise, smoke or emissions during operation and are turned off when not in use.

These inspections are to be recorded and are to be carried out in a regular basis to ensure vehicles are well maintained and operating effectively.

7.4.2 Driver Obligations

All drivers employed on the project, whether direct employees or not, have a responsibility to drive safely, comply with State road regulations and the Australian Road Rules and any other directives issued by CPB Contractors. In particular, before any deliveries are undertaken, all heavy vehicle drivers will be required to read and endorse the Drivers' Code of Conduct as stated below (also refer to Attachment D).

Drivers of construction vehicles or plant are to be instructed in the following, by their supervisors, and during the induction process, prior to commencing on site:

- Loose material to be covered with tarpaulins
- Trucks to be fitted with tight tailgates
- Use of exhaust brakes to be kept to a minimum when in close proximity to local housing
- Vehicles operating on site to have flashing amber lights attached to roof of cab
- Trucks removing material from site are to brush off any excess material likely to fall off the body or back on site prior to re-entering the haul road or public roads
- All trucks shall be loaded so as not to exceed the legal weight limitations in force at the time, noting weight restrictions of any bridges along designated routes
- Adhere to 40km/hr speed limit for heavy construction vehicles in residential areas and 20km/hr in the construction corridor, unless stated otherwise
- Responsible driving practices are essential and particular care is to be taken in school zones
- Reverse alarms are to be used at all times when reversing onsite
- No use of compression brakes by construction vehicles in the vicinity of the site
- Ensure all loading and unloading of materials and equipment is undertaken with regard to safety issues.

Drivers of construction vehicles or plant are to adhere to requirements listed above in carrying out work on this Project.

7.4.3 Light Vehicles

Personnel will be informed during induction of basic site rules, which include:

- Light vehicles are to give way to plant and equipment unless specified otherwise
- Vehicles are to maintain radio contact and utilise 4WD when onsite
- Light vehicles are to use any designated light vehicle road to minimise the interface with heavy plant / haul trucks

- Foot and vehicular traffic are not to approach within reach of operating plant until the driver of the plant has acknowledged their presence
- Reverse alarms are to be used at all times when reversing onsite
- Flashing amber light to be on whilst the vehicle is in motion
- No riding in the backs of utes and trucks
- Persons travelling in vehicles on site that have seat belts fitted are to wear them at all times.

7.4.4 Speed Limits

The speed limits in place on site will be covered in the induction and in the Driver's Code of Conduct. Local speed limits will apply for the roads outside the project area. If road conditions have changed, additional speed limits may be enforced, as per the STMP, TCP and SZA (Refer to Section 7.6).

Speed limits of 40 km/hr will apply for heavy construction vehicles within close proximity to the Project's worksites. Inside construction corridors, including compounds areas, this will reduce to 20km/hr along unsealed access roads or as otherwise specified in a specific vehicle movement plan.

Penalties for disobeying speed limits on site will also be instructed to personnel in the site induction.

7.4.5 Haulage Routes

Heavy vehicles will be limited to designated haulage routes. Haulage routes are limited given the surrounding roads, and close proximity to main roads. The haulage routes are illustrated in Attachment E and no-go zones are provided in Attachment G. Haulage routes and no-go zones will be included in project inductions and will be provided to all sub-contractors. No heavy vehicles are permitted to use Anzac Road.

Campbelltown City Council has also raised concerns about the safety of heavy vehicles using Cambridge Avenue, and in particular the causeway. This relates to restricted line of sight when approaching the causeway at speed and the limited width of the causeway that will restrict two large vehicles from passing.

As per CoA #C24 and FCMM #1A, a Road Safety Audit has been completed of Moorebank Avenue and Cambridge Avenue prior to the commencement of construction to identify safety risks for construction vehicles using these roads and associated access points. The Road Safety Audit identified no safety risks at the Cambridge Avenue causeway attributable to CPB construction traffic. For further details on the RSA, see section 7.5.2 below.

A specific Traffic Control Plan will be produced by an authorised traffic controller to manage truck movement across Cambridge Avenue causeway, with the results of the Road Safety Audit incorporated into the TCP as relevant. This will be completed and implemented prior to any spoil haulage between one-side of the Georges River to the other. The TCP will include measures that will restrict the pass by of two CPB heavy vehicles on the causeway itself. CPB will monitor the performance of heavy vehicle usage on the causeway and if additional safety controls are identified as being needed, beyond those outlined in the TCP, the TCP will be updated and the controls implemented. This is indicated in Attachment E (Heavy Vehicle Routes).

7.4.6 Construction Access

Access and egress to the construction compounds detailed in Section 6.3 are proposed along Moorebank and Cambridge Avenues at various locations, via new priority control junctions as detailed in Attachment F. Priority controlled junctions are traffic intersections where the traffic flow on one or more side arms gives way to the main road. These can be in the form of simple "T" junctions or "T" junctions with a right turn lane on the main road and flared minor road approaches. Priority junctions generally operate efficiently until the main road flow is too high to provide gaps for side road traffic to pull into, thus causing excessive queues on the side roads.

The access and egress points will be constructed and managed in order to:

- Allow site traffic to safely enter and leave the site compound
- Maximise the sight distance to site entry and egress points
- Accommodate the turning movements of the largest vehicle servicing the site

- Minimise the need for reversing truck movements
- Ensure access points are constructed of a suitable all weather surface that prevents debris from being tracked onto the travel lanes
- Ensure all access points are clearly visible to approaching traffic and signposted accordingly
- Ensure each site access is arranged to accommodate required vehicle turning circles
- Provide sufficient site security to restrict public access to the compound area. Ensure security fences and gates are indented to maintain clear sight lines
- Access to properties will be maintained, where reasonable and feasible, unless agreed with property owner or occupier.
- Access physically affected by construction will be reinstated to at least equivalent standard, unless agreed with property owner.

The AUSTROADS Guide to Road Design, Part 4A – Unsignalised and signalised intersections and the RMS Road Design Guide provide guidance on the design of intersections and access points. No matter the type of intersection configuration implemented, temporary traffic controls may be required from time to time to facilitate short term major haulage and the movement of over-dimension vehicles.

All unsealed access tracks used during construction will be:

- constructed to follow ridge line, flat areas or along contours where possible
- stabilised to prevent erosion, which may include appropriate outfall drainage or temporary cross banks across tracks to intercept and divert runoff to stable areas
- Where practical, no access tracks are to be constructed within riparian vegetation until commencement of clearing
- No new tracks are to be formed through heavy weed infestations unless the track is constructed in such a manner to reduce weed spread, i.e. by burying weedy sections under clean material to build up track.

Heavy vehicle routes for have been developed with a view to:

- Minimising heavy vehicle movements during peak traffic times
- Avoiding local roads for heavy vehicle routes, where feasible
- Providing safe pedestrian and cyclist movements around construction sites.

The construction access routes are illustrated in Attachment E. Throughout construction, all approved traffic routes will be used and will be communicated to relevant personnel though the induction process and Drivers' Code of Conduct. Any contractors or suppliers responsible for major deliveries to the site will also be informed of the approved routes prior to visiting the site.

Deliveries to the site will typically include:

- Materials such as steel, pipes and fuel will be transported to each site from various locations across Sydney.
- Concrete will be transported to the relevant construction site using concrete agitators.

7.4.7 Over-sized and Over-mass (OSOM) Vehicles

All over dimensioned vehicles utilised on the project, will be procured through specialist haulage contractors and will abide by the permits obtained from RMS's Special Permits Unit under the Heavy Vehicle National Law. Some permits may also require co-ordination with the NSW Police and be subject to escort and peak hour curfew requirements, which will be co-ordinated by the specialist haulage contractors.

Access to the site compounds will be designed to safely accommodate large vehicles up to B-doubles and those used to float machinery to and from the site. In addition, while these vehicles are turning into or out of the site there may be a need to temporarily close one lane of Moorebank Avenue or Cambridge Avenue to allow the safe turning of these vehicles into or from the construction site.

To minimise need for queuing in the local road network, project compounds will be used as marshalling and staging areas for heavy vehicles. Any OSOM vehicles trips would be managed by radio communication between construction sites and truck drivers.

7.4.8 Out-of-Hours Work including Deliveries

Construction works will generally be undertaken during the standard daytime construction working hours as detailed within the CEMP. However, it is acknowledged that some construction works may be required to be undertaken outside of these hours. Generally these works will be limited to any of the following situations:

- Delivery of oversized plant or other materials as required by the Police or other authorities for safety or network efficiency reasons
- Emergency works to avoid the loss of life, property and / or to prevent environmental harm
- Where the works are determined to comply with the relevant Noise Management Level at the closest sensitive receiver
- Where agreement is reached with affected receivers.

It is envisaged that works outside the standard daytime hours may be required for certain sections of the Rail link, particularly the connection the SSFL and works within the existing East Hills Rail Line corridor which will be undertaken during rail possession periods. Rail possessions are typically scheduled for night-time or over weekends in order to minimise impacts to commuters on the rail network.

In addition, some road works and temporary road occupancies may be undertaken outside standard construction hours to minimise impacts on road network efficiency. This may be considered if existing traffic volumes are consistently high during daytime periods or if there is longer lasting AM and/ or PM traffic peaks.

These Out-of-Hours Work (OOHW) activities, and their potential traffic noise impacts, will be subject to additional assessment requirements in accordance with the EPL and OOHW protocol detailed in the CNVMP and will be subject to additional mitigation measures – see the CNVMP for further information. Supporting documentation, such as noise modelling and TCPs may be required.

As a minimum, the following mitigation measures will be implemented to manage traffic impacts during OOHW:

- All deliveries to be made by designated haulage routes and access tracks.
- Compression breaks will not be used by construction vehicles near the construction site.
- Parking, idling and loading/unloading will be undertaken away from sensitive receivers wherever practicable.
- Parking to be only within designated construction zones and ancillary facilities
- Quieter plant and processes will be selected wherever reasonable and feasible, including retrofitting reversing alarms with quieter versions (e.g. quackers).

When assessing the impacts and any additional mitigation measures for OOHW, traffic impacts will be considered in the application process.

7.5 Safety Management on or Near Public Roads

Where a work process must be carried-out in a strictly controlled manner to meet specified safety and quality requirements, a specific Safe Work Method Statements (SWMS) will be prepared and implemented. The Project Engineer will prepare SWMS, in consultation with workers, for working, on and/or adjacent to roadways. Whilst driving on construction sites, there are a number of hazards a driver may experience, including: rough surfaces; deep excavations; low clearance; other larger plant; steep embankments, existing infrastructure etc. Of equal importance is the safety of unprotected construction personnel working within the construction site. For each phase of work, CPB Contractors will ensure that:

- A risk assessment is conducted for all work activities and vehicle movements

- Regular toolbox meetings to discuss on-site vehicle movements and changes to work areas
- All plant are fitted with flashing yellow lights, reversing alarms, horns and two-way radios
- Access tracks are clearly defined and sign posted
- Pedestrian tracks and crossing points are defined and clearly sign posted
- Where possible, large items of plant, such as scrapers are separated from smaller plant items
- Where possible, workers do not operate within 3 metres of moving plant, and plant operators are tool boxed when moved into a new work area
- Spotters and / or Traffic Controllers are positioned when workers are operating in close proximity to access tracks and plant

Where construction or road works must be undertaken adjacent to public live traffic, the safety of the workers and the travelling public must be addressed. The separation of construction and traffic will be addressed through the formulation of STMPs and TCPs.

These work areas typically involve physically separating construction works from public traffic thoroughfares, often with the use of barricades, water filled barriers or other traffic control devices to ensure a safe separation distance is maintained. Any utilised safety barriers should have minimum offset of 0.3m unless otherwise approved by the relevant authority.

Anti-gawk screens shall be utilised where practical to visually hide the works from traffic and to minimise the chance that plant may slew over the barriers into traffic. In critical situations a spotter must be used.

Traffic diversions and traffic switches may also be used during the staged delivery of elements of the project, such as for the Moorebank Ave underbridge works. These are of a temporary nature and involve a semi-permanent rearrangement of traffic flows to produce a physical separation of traffic from construction works. These must also have an associated TCP and will be localised to each of the work area with varying impacts on the through traffic, local traffic, public transport, cyclists and pedestrians.

A SWMS will be prepared to address the requirements for the movement of any hazardous materials onsite, and will consider:

- Entering and exiting construction sites to and from adjacent travel lanes
- Reversing manoeuvres within the work area and in the adjacent travel lanes (may impose turning bans)
- Travelling through the work area intermingling with construction personnel and in the vicinity of unprotected hazards
- Slew and turning paths of excavators and cranes.

Plant that discharges material, such as concrete, must have adequate protective measures in order to ensure that the discharge is not hazardous to traffic. This may be by installation of physical barriers or modifying the means or manner in which material is discharged. In all cases reference will be made to the Safety Management Plan and to relevant safe work practices under the *Work Health and Safety Act 2011*.

Emergency service agencies provide a vital service to the community, and they need to have up to date information about changed traffic conditions and potential delays they may experience throughout the road network. CPB Contractors will ensure all emergency services agencies are regularly consulted about proposed changes to road and traffic conditions.

7.5.1 Pedestrians and Cyclists

As detailed in Section 6.6, pedestrian movements near the site are low and there are no pre-existing bicycle routes within or around the Project. However, CPB Contractors recognises that pedestrians and cyclists may pass through areas under temporary traffic rearrangements and the applicable STMP/TCP will address the management of pedestrians and cyclists around work areas. The workforce are also advised in the site induction of the possibility for pedestrians and cyclists to use local roads, particularly during AM and PM peak periods.

CPB Contractors will safely manage pedestrians and cyclists movements during construction to limit potential conflict. CPB Contractors recognises the importance of giving consideration to all road users, not just vehicle traffic.

Pedestrians

Unlike motor vehicles, pedestrian movements within and outside of the road reserve are generally unrestricted, with free access available to most areas. CPB Contractors will manage pedestrian requirements by considering:

- Impact of construction works on existing pedestrian footways
- Number of pedestrians
- Type of pedestrian activity: office, retail, residential, school or recreational
- Origin and destination points of the pedestrians and their desired travel path
- Existing needs of vulnerable pedestrians, such as young children, the elderly, vision impaired, disabled people, people with prams and trolleys
- Proximity of pedestrian generation developments, such as schools, shopping centres, bus stops/layovers.

Temporary footpaths and defined walking paths will be considered during the development of STMPs, and TCPs. Where the work areas restrict access to existing footpaths, CPB Contractors will implement alternative routes and facilities. Alternatives may include using the opposite footpath, detours via other streets, or the provision of temporary footpaths through the work area. CPB Contractors will install barriers to segregate works from pedestrian paths and/or pedestrians from traffic flows, particularly near active road work zones.

All temporary footpaths will be:

- Clearly defined
- Signposted appropriately to indicate the direction of the footpath
- Constructed of an all-weather surface, free of trip hazards
- Designed to accommodate the type of pedestrians to be encountered within the area
- Where required, provided with pram ramps, hand rails and street lighting
- The minimum width specified by the RMS
- Kept well maintained whilst in operation.

Cyclists

When planning the alternate route activities, CPB Contractors will give consideration to the:

- Number of cyclists
- Type of cycling activity: school children, recreational, commuter, utility, touring or sport training
- Origin and destination points of the cyclists, and the connectivity of their routes
- Needs of vulnerable cyclists, such as young children
- Proximity of cyclist generating developments, such as schools, universities, public transport terminals etc.
- The travel speed of cyclists.

A STMP and/or TCP will be developed by the CPB Contractors for all alterations to existing cycle paths or existing cycle crossing facilities.

Guidance on the needs of pedestrians and cyclists is provided in various parts of AUSTROADS Guide to Road Design and AUSTROADS Guide to Traffic Management.

7.5.2 Road Safety Audit

Prior to commencement of construction, a Road Safety Audit (RSA) was undertaken of Moorebank Avenue and Cambridge Avenue, in accordance with CoA #C24 and FCMM #1A, to identify the traffic safety risks associated with construction vehicles using these roads and accessing the construction sites for the RALP works. AUSTROADS defines a road safety audit as a formal examination of a

future road or traffic project or an existing road, in which an independent, qualified auditor reports on the road's crash potential and safety performance.

The site inspection for the RSA for the RALP works was undertaken on 4/04/2017 and the report was sent out for consultation to Campbelltown City Council, Liverpool City Council, TfNSW and RMS on 21/04/2017. The RSA report for the RALP works was completed on 15/05/2017. The audit reviewed all current proposed access points on Moorebank Avenue and Cambridge Avenue, as well the Cambridge Avenue causeway. These are identified in Figure 1.1 in Section 1 of the RSA Report. Section 3 and Table 3.1 of the RSA identify all pre-existing potential road safety risks, as well as where the primary responsibility lies. Where the road safety auditor identifies that the potential road safety risk will possibly be influenced by CPB contractor activities, the responsibility has been allocated to CPB Contractors to manage. These issues were concentrated around access points off Moorebank Avenue and suggested improvements involved renewing road pavement markings and formalising road shoulders. CPB's response and proposed actions to the issues allocated to CPB are detailed in Appendix B, which includes renewing road markings and stabilising road shoulders prior to use by large numbers of heavy vehicles.

No potential road safety issues were identified in the Road Safety Audit for the Cambridge Avenue Causeway that were allocated to CPB, indicating that CPB's construction traffic will not have an adverse impact on any potential pre-existing safety issues. However, CPB will produce a site specific TCP for the causeway, which will provide additional controls and will monitor the performance of heavy vehicle use on the causeway. Included in the TCP will be a restriction of the timing of heavy vehicle movements to ensure that two heavy vehicles do not pass by each other on the causeway, where the road is the narrower. This will be managed by coordinating the timing of truck departures from the construction access/egress points either side of the causeway.

If additional safety controls are identified as being needed, beyond those outlined in the TCP, the TCP will be updated and the controls implemented.

7.6 Traffic Planning Documents

All changes in road conditions, temporary road closures and road occupancy to facilitate road works during the construction period will be subject to prior approval from and coordination with the relevant road authority. This section details the specific documents required to enable road construction works on the existing road network to proceed.

7.6.1 Specific Traffic Management Plans

Site and /or activity Specific Traffic Management Plans (STMP) will be developed to allow safe road work sites to be created during construction.

A TMP shall include Traffic Control Plans (TCP), and contain detailed provisions covering (as a minimum) all of the following matters, or how the following outcomes are to be achieved, as the case may be:

- How work practices and equipment must provide for the safe passage of all road users, including public transport, pedestrians and pedal cyclists, at all times during the Works
- Comply with Contract, PTMP, traffic management practices set out in RMS's *Traffic Control at Worksites Manual* (TCAWS) Manual, Austroads and RMS Supplements and Australian Standard AS1742.3 – 2008, other relevant Australian Standards and this CTMP
- Contain scaled drawings of the affected section of road including lane widths, sign spacing and traffic control devices proposed. If temporary pavement marking changes are proposed then a TCP is also required for the pavement marking. The Designer of the TCP must have visited the site to ensure that the proposed location of signage is suitable and practical.
- How access to private land is to be maintained or appropriate detours and arrangements provided
- Contain appropriate signage to warn road users of construction vehicle entry/exit points and of excavations
- Identify a Vehicle Movement Plan (where required by TCAWS) showing signage and other directional devices

- Be signed and dated including the Designer's certificate number
- How and when road safety audits of all traffic management, compliance with the Traffic Management Plan and all TCPs are to be carried out; obtain approval from the relevant road authority and other relevant Government Agencies, prior to implementing any traffic adjustments or interruption, noting that that traffic changes or lane closures which are considered by RMS as likely to cause unnecessary delay or disruption to traffic will not be permitted
- How TCPs must be regularly reviewed and modified in conjunction with the relevant road authority, traffic management personnel, and emergency services personnel and any other relevant Government Agency
- Where road works speed zone restrictions are proposed, a Speed Zone Authorisation is required
- How traffic will be managed during any emergency identified in the Emergency Response Plan or other emergency work
- How CPB Contractors or its subcontractors must manage, control, maintain and operate all construction vehicles including to ensure:
- No loss of fuels, lubricants, loads or other substances, whether in the form of dust, liquids, solids or otherwise and also loads must be covered to prevent loss / nuisance
- That no mud, dirt or other material is deposited onto any road which is open to the public by installing, maintaining and utilising wheel wash facilities or other devices
- That all vehicles involved in the Works must only enter, operate within or exit from a traffic flow in a manner which does not endanger the public and under suitably designed and appropriate traffic control measures.

7.6.2 Traffic Control Plans

A Traffic Control Plan (TCP) is a diagram which illustrates the signs, road markings and devices that will be installed to warn traffic and guide it around, past, or through the construction site. Many standard drawings have been developed or can be modified by competent and trained personnel to better manage the proposed changed road conditions.

All TCPs will be developed with the aim of:

- Warning and informing drivers of changes to the usual road conditions
- Guiding drivers through the work site
- Safety for workers, motorists, pedestrians and cyclists.

The development, management and approval of TCPs are addressed in the guideline: RMS Traffic Control at Work Sites Manual and Australian Standard 1742.3 Manual of Uniform Traffic Control Devices, Part 3: Traffic Control Devices for Works on Roads. TCPs will be developed in consultation with RMS.

Site STCPs will be developed for both long and short term works. TCPs for long-term works are generally more detailed and will be prepared for the installation of side-tracks, diversions, reduced roadwork speed limits, road closures, auxiliary lane closures, shoulder closures, provision of temporary safety barriers and construction access points. Where required, enhanced sign posting and road markings schemes will be applied along side-track and where significant changes have been made to intersections. Long-term TCPs will include wayfinding signage to direct pedestrians, and vehicles around the construction site.

Short-term TCPs will be installed as required to facilitate day-to-day construction activities such as, the: installation of side-tracks, median crossovers, installation of safety barriers, surveying and geotechnical activities, line marking, sign installation, construction of tie-ins of new precinct roads to existing roads, site deliveries and plant movements.

A TCP can only be prepared or modified by a suitably qualified person who has successfully completed RMS's TCAWS select / modify TCPs course (red card). In addition, a TCP can only be designed or audited by a person who has completed the RMS's TCAWS design and inspect TCPs course (orange card).

As part of the Project works, TCPs will likely be required for specific construction staging scenarios, depicting vehicle, pedestrian, bus and cyclist restrictions and protection measures. TCPs will be prepared for offsite works, particularly associated with stringing transmission lines across roads, utility crossings and inspections for dilapidation reports.

7.6.3 Road Occupancy Licence

In the case of an emergency, when directed by Police or Emergency Services, and where required by the relevant road authority, CPB Contractors will obtain a Road Occupancy Licence (ROL) prior to the commencement of any short term works, which:

- Slows, stops or otherwise delays traffic
- Diverts traffic from its normal course along the road carriageway, including lane closures, turning restrictions, detours and diversions
- Occupies any portion of a local road that is normally available as a trafficable lane.

An emergency is defined as *an unforeseen event, which requires urgent attention to protect life or property or an occasion when emergency services (Police, Fire Brigade, Ambulance or State Emergency Services) take control of a portion of the road network*

The ROL application (which includes a TCP) will be submitted to the relevant road authority (for example, TMC) who have the responsibility for processing and approving the ROL. The road authority will be provided at least 10 working days to process and then either grant or reject the application. Minor changes to a ROL application (to obtain approval) will occur within the 10-day period.

Road occupancies include but are not limited to:

- Temporary or permanent installation and/ or change of any regulatory traffic control device on a road
- Shoulder or Lane occupancies and/or closures
- Any occupation of the Construction Site by CPB Contractors' labour, sub-contractors, equipment or plant that requires a Traffic Control Plan
- Any event that causes stoppages and/or slowing or delays of any traffic flow.

Generally, the road authority will apply conditions to the approvals, which may include:

- Maximum traffic stoppage times and maximum queue lengths
- Maximum travel time delays
- Measures to provide information to road users
- Records detailing the date and time of the road occupancy, and the location of all signs, and any other relevant information associated with the traffic control, must be kept.

The road authority may revoke the approvals for breaches of the associated conditions. All approved ROLs will be provided to TMC and other local authorities.

7.6.4 Speed Zone Authorisations

Guidance for applicants applying for SZA is provided in the *Road Occupancy Manual* issued by the TMC and applications for a SZA are made as part of the ROL application process.

The SZA application will be forwarded to the TMC as it has the responsibility for processing and approving an SZA. The TMC generally requires at least 10 working days to process the application and will either grant or reject the application within this period.

The Project Engineer and Safety Manager will assess whether roadwork speed zones are necessary to assist in controlling vehicle speeds in circumstances that may include:

- Traffic travelling directly through a construction site
- Workers placed in danger by the high speed or speeding traffic
- Road occupancy
- Reduction in visibility via smoke, dust, fog or poor weather conditions
- Unusual road conditions such as:
  - Loose material on the road surface

- Road geometry limitations
- Urgent or imperative construction activities adjacent to the travel lanes
- Crossover and temporary contra-flow diversions.

It is expected that TMC will apply conditions to speed limit authorisations and are able to revoke an approval at any time for breaches of the conditions. Typical SZA conditions include, but are not limited to:

- A copy of the SZA must be made available to the local NSW Police Highway Patrol representative, and road authority on request
- The temporary roadwork speed zone must be installed in compliance with conditions, notes, applicable dates and locations stipulated in SZA
- Specific measures required to manage adjacent speed zones, or potential conflicts with other temporary speed zones at construction sites in the immediate area
- All temporary roadwork speed limits must be installed as per the TCP and operated in accordance with the TMC/RMS requirements
- Similar to all regulatory signs, the speed limit signs are to be properly erected, and any contradictory signs or road markings are to be removed or covered
- Records detailing the date and time the speed limit is in operation, the speed limit displayed, and the location of all signs, and any other relevant information associated with the speed limit, must be kept.

7.7 Signage

The installation of roadwork information signs is considered the most effective method to notify road users of changes to the road network.

The design of all signs (i.e. letter height, colours and wording) will comply with the Australian Standards and RMS sign posting guidelines, including RMS's *Traffic Control at Worksites Manual* (TCAWS), RMS's *Delineation Manual*, AUSTROADS *Guide to Traffic Engineering Practice, Part 8 – Traffic Control Devices* and the relevant parts of *Australian Standard 1742*.

As part of the Project works, general signposting of the access roads will be undertaken with appropriate heavy vehicle and construction warning signs. Specific warning signs will be installed at each construction site entrance and will include advance notice signage and gate signage designed specifically for the Project (including project particulars), standard signage to provide advance notice of trucks turning, and traffic control signs facing both entering and exiting vehicle, such as 'Stop' sign, 'No Entry, Construction Vehicles Excepted', 'No Right/Left Turn', depending on the specific requirement of each access point and its location.

Where required, appropriate traffic control and warning signs will be installed for areas identified where potential safety risk issues exist.

Where pedestrian walking routes and crossing points exist, these will be maintained or alternative routes will be established and clearly marked throughout the construction phase.

Several standard roadwork information signs are available for use during construction. These will be utilised to advertise changed traffic conditions, such as road closures, turning restrictions and periods where delays are expected. The use of a specific sign is often a management requirement detailed in site STMP and TCP applicable to those works.

Safety principles for roadside signs are:

- Before approval is given for a new sign a demonstrated need should be established
- All signs should convey a clear message to all users under all conditions
- The sign support structure should not create a safety hazard in itself.

Other types of signs include:

- Variable Message Signs (VMS) – real-time traffic communications tools that help reduce delays, keep traffic flowing smoothly and can enhance road safety. During construction, CPB Contractors may utilise portable VMS to enhance advanced warning signage and provide changed traffic condition information to road users, particularly during the Moorebank Ave works.

- Flashing Arrow Signs (FAS) – mainly used when closing traffic lanes and conducting mobile traffic control operations. When stipulated by the relevant STMP and TCP, CPB Contractors will implement FAS. FAS can be either vehicle or trailer mounted units.

7.8 Mitigation Measures

Construction Traffic and Access Management mitigation measures are listed in Table 11 below.

Table 11: Mitigation Measures

Ref	Control	Timing	Accountability	Source
TA1	Road Conditions Contractor must ensure that any road, footpath, shared path or cycleway which is open to the public is at all times provided in accordance with the relevant Approvals.	Construction	Construction Manager Project Engineer Environment Manager	Contract
TA2	Contractor must obtain approval from relevant Authorities for all road, footpath and shared path occupancies, detours and closures.	Pre-construction Construction	Construction Manager Project Engineer Environment Manager	Contract
TA3	Immediately advise MIC of any accident or incident that involves serious injury, hospitalisation or a fatality.	Construction	Project Director Health & Safety Manager	Contract
TA4	Ensure that suitable access is appropriately maintained to properties and between severed portions of properties. Appropriate detours must be arranged and provided.	Construction	Construction Manager Supervisor Project Engineer	Contract
TA5	Undertake road pavement deflection testing of the construction truck routes at 20 metre intervals along all wheel paths where feasible and reasonable to the extent required by Condition E34(a), prior to commencement of construction.	Pre-construction	Construction Manager	CoA
TA6	Construction impact of the proposed development will be minimised to maintain the existing use of Moorebank Avenue as a public road to a standard commensurate to its current use prior to the development as far as practicable.	Construction	Construction Manager Project Engineer	CoA
TA7	Construction vehicles will operate so as to minimise any construction noise impacts from the construction site. Measures that will be used may include toolbox talks, contracts that include provisions to deal with unsatisfactory noise performance for the vehicle and/or the operator, and specifying non-tonal movement alarms in place of reversing beepers or alternatives such as reversing cameras and proximity alarms, or a combination of these, where tonal alarms are not mandated by legislation.	Pre-construction Construction	Construction Manager Project Engineer Environment Manager	CoA
TA8	Compression brakes will not be used by construction vehicles associated with construction in the vicinity of the subject site.	Construction	Supervisor Project Engineer	CoA

Ref	Control	Timing	Accountability	Source
TA9	A Road Occupancy Licence (ROL) will be obtained from the Transport Management Centre (TMC) for any activity likely to impact on the operational efficiency of the road network, allowing the use of specified public road space at approved times. A minimum of 10 working days will be allowed for processing from date of receipt and include a Traffic Control Plan with any application.	Construction	Supervisor Project Engineer	CoA
TA10	Construction will be carried out, where feasible and reasonable, to avoid the use of local roads (through residential streets) by heavy vehicles to gain access to the site and/or ancillary facilities.	Construction	Supervisor Project Engineer	CoA
TA11	Construction vehicles (including staff vehicles) will be managed to minimise parking or queuing on public roads.	Pre-construction Construction	Project Director Construction Manager Supervisor Project Engineer	CoA
TA12	Construction vehicles (including staff vehicles) will be managed to minimise idling and queuing in local residential streets where practicable.	Pre-construction Construction	Project Director Construction Manager Supervisor Project Engineer	CoA
TA13	Construction vehicles (including staff vehicles) will be managed to adhere to the nominated haulage routes.	Construction	Project Director Construction Manager Supervisor Project Engineer	CoA
TA14	Construction vehicles (including staff vehicles) will be managed to ensure access and egress from construction compounds is undertaken in a safe and lawful manner.	Construction	Project Director Construction Manager Supervisor Project Engineer	CoA
TA15	Safe pedestrian and cyclist access through or around worksites will be maintained during construction. In circumstances where pedestrian and cyclist access is restricted due to construction activities, a satisfactory alternate route shall be provided and signposted, including provision of temporary footpaths where pedestrian access is reliant on grassed verges.	Pre-construction Construction	Construction Manager Supervisor Project Engineer	CoA
TA16	Access to all properties affected by the carrying out of construction will be maintained, where feasible and reasonable, unless otherwise agreed by the relevant property owner or occupier. Any access physically affected by construction will be reinstated to at least an equivalent standard, unless agreed with by the property owner.	Pre-construction Construction	Construction Manager Supervisor Project Engineer Communications Manager	CoA

Ref	Control	Timing	Accountability	Source
TA17	A traffic control mechanism will be located at each of the truck entry and exit points from the construction compounds to assist with vehicle movements and pedestrian/cyclist movements during construction, where necessary	Construction	Construction Manager Supervisor Project Engineer	FCMM
TA18	In consultation with RMS, Liverpool City Council and Campbelltown City Council , general signposting of the access roads will be undertaken with appropriate heavy vehicle and construction warning signs	Construction	Construction Manager Project Engineer Communications Manager	FCMM
TA19	Installation of specific warning signs at entrances/exits to the construction site to warn existing road users of entering and exiting construction traffic will be undertaken	Construction	Construction Manager Supervisor Project Engineer	FCMM
TA20	Speed limits will be developed so as to minimise the potential for fauna to be struck by a vehicle within the construction areas and to minimise dust generation. All vehicles and plant in operation during construction are to adhere to site rules relating to speed limits.	Pre-construction Construction	Construction Manager Project Engineer Environment Manager	FCMM
TA21	Pedestrian walking routes and crossing points will be established and clearly marked throughout the construction phase.	Pre-construction Construction	Construction Manager Project Engineer	FCMM
TA22	Where required, appropriate traffic control and warning signs will be installed for areas identified where potential safety risk issues may exist.	Pre-construction Construction	Construction Manager Project Engineer Health & Safety Manager	FCMM
TA23	The promotion of carpooling for construction staff and other shared transport initiatives during the construction phase will be considered	Construction	Project Director Construction Manager Environment Manager	FCMM
TA24	Where reasonable and feasible, the transportation of construction materials will be managed to maximise vehicle loads and therefore minimise vehicle movements.	Construction	Construction Manager Supervisor Project Engineer	FCMM
TA25	Site and /or activity Specific Traffic Management Plans (STMP) will be developed, where required by the contractor to allow safe work sites.	Construction	Construction Manager Project Engineer Traffic Specialist	FCMM
TA26	In the instance that Moorebank Avenue is to be temporarily closed, an STMP will be developed to include details on the methods for road diversions, detour routes and consulting with surrounding potentially affected landowners/residents.	Construction	Construction Manager Supervisor Project Engineer	FCMM

Ref	Control	Timing	Accountability	Source
TA27	Construction material will be sourced from within metropolitan Sydney and delivered to the SIMTA site primarily via the M5 Motorway, Hume Highway, M7 Motorway and Moorebank Avenue.	Construction	Supervisor Project Engineer	C'th MM
TA28	Unsealed tracks will be regularly maintained (e.g. wetted down) to minimise dust generation.	Construction	Supervisor Project Engineer	Good practice
TA29	Each site will have appropriate drainage and sedimentation control including (where necessary) sedimentation basins and silt traps. Wheel washers and cattle grids will also be used to minimise wheel transfer of mud and silt onto surrounding streets. Street sweepers will be provided to remove any dirt tracked onto roads.	Construction	Supervisor Project Engineer Environment Manager	Good practice
TA30	The access and egress driveways, as well as public footpaths surrounding the site will be regularly inspected for mud and silt with appropriate actions taken to remove/ control the contamination and keep these areas in a serviceable condition.	Construction	Supervisor Project Engineer Environmental Coordinator	Good practice
TA31	Upon completion of the works, all temporary traffic arrangement or detours will be removed and the area restored to at least the state which existed prior to Project commencement	Post construction	Construction Manager Supervisor Project Engineer	Good practice
TA32	Immediately repair any damage caused by CPB Contractors' activities, to any road, footpath, shared path or cycleway which is open to the public, and restore the road, footpath, shared path or cycleway to a condition at least equivalent to the condition it was in immediately prior to the occurrence of the damage.	Construction	Construction Manager Supervisor Project Engineer	Good practice
TA33	Construction machinery and vehicles will be well maintained and in good working order.	Construction	Supervisor Project Engineer	Good practice
TA34	Vehicle emissions will be kept to a minimum by the avoidance of unnecessary engine running time.	Construction	Supervisor Project Engineer	Good practice
TA35	Appropriate directional signage and traffic control will be used to ensure vehicles enter and exit the Project Site with minimal disturbance to other road users and advice of any changes in road conditions.	Pre-construction Construction	Construction Manager Supervisor Project Engineer	Good practice
TA36	Maintain the current level of amenity for all road users during the construction period, wherever practicable.	Construction	Construction Manager Supervisor Project Engineer	Good practice
TA37	Minimise road traffic delays by planning thoroughly.	Construction	Construction Manager Project Engineer Traffic Specialist	Good practice

Ref	Control	Timing	Accountability	Source
TA38	Plan and implement traffic management stages that address the needs of cyclists, pedestrians and public transport.	Pre-construction Construction	Construction Manager Supervisor Project Engineer	Good practice
TA39	Plan and stage all works to avoid lane closures / road occupancies during peak periods on arterial roads and to comply with ROL periods specified in any ROL issued by the relevant road authority.	Construction	Construction Manager Project Engineer Traffic Specialist	Good practice
TA40	Considering the access requirement of adjacent properties when determining compound and construction site access points.	Pre-construction	Construction Manager Project Engineer	Good practice
TA41	Use major arterial roads and regional roads wherever practicable for haulage routes.	Pre-construction Construction	Construction Manager Supervisor Project Engineer	Good practice
TA42	Distribution of day warning notices to advice local road users of scheduled construction activities.	Construction	Construction Manager Supervisor Project Engineer Communications Manager	Good practice
TA43	Plan all lane closures / road occupancies with the aim to minimise the actual work area, limit obstructions and restrictions, maximise the roads capacity, avoid peak traffic flow periods and comply with ROL specified by the TMC.	Construction	Construction Manager Supervisor Project Engineer Traffic Specialist	Good practice
TA44	Analyse traffic volume data to establish the capacity of the road; assess the potential impact on traffic flows, and identify the best time to apply temporary traffic arrangements, to minimise the inconvenience to road users.	Construction	Construction Manager Project Engineer Traffic Specialist	Good practice
TA45	All loads will be covered prior to leaving the site.	Construction	Supervisor Project Engineer	Good practice
TA46	Dust suppression measures will be implemented at loading / unloading areas and along the routes.	Construction	Supervisor Project Engineer	Good practice
TA47	Haulage vehicle noise and pollution emission will be monitored to ensure they are in compliant with the vehicles manufacturer's specifications.	Construction	Supervisor Project Engineer Environmental Coordinator	Good practice
TA48	Drivers must not wait in private properties or block private driveways.	Construction	Supervisor Project Engineer	Good practice

Ref	Control	Timing	Accountability	Source
TA49	All deliveries (except exempt oversized loads) will be planned to be carried out during standard approved construction hours.	Construction	Construction Manager Supervisor Project Engineer Environment Manager Communications Manager	CoA
TA50	To keep the road user delays to a minimum, CPB Contractors will plan and phase all works to avoid road occupancies during peak periods, where possible	Construction	Construction Manager Supervisor Project Engineer Traffic Specialist	Good practice
TA51	At high risk locations and where deemed necessary, a traffic controller will be positioned to reduce potential conflicts between trucks, other vehicles and any pedestrians or cyclists, as well as providing increased site security to limit unauthorised site access.	Construction	Construction Manager Supervisor Project Engineer Traffic Specialist	Good practice
TA52	Staff parking during construction will be provided on site.	Construction	Project Director Construction Manager	CoA
TA53	A special Traffic Control Plan (TCP) will be produced for the use of Cambridge Avenue Causeway by large vehicles, with the results of the Road Safety Audit to be incorporated as relevant. This will be completed and implemented prior to any spoil haulage between one side of the Georges River to the other. The TCP will be provided to all staff/contractors during inductions	Construction	Construction Manager Supervisor Project Engineer Traffic Specialist	Good practice

8. Review and Improvement

8.1 Inspections and Monitoring

Inspections, observations, monitoring and reporting requirements relevant to traffic and access management during construction are as detailed in Table 12. CPB Contractors will undertake monitoring to evaluate the effectiveness of all traffic control and access measures, through:

- Regular inspection
- Consultation with stakeholders
- Toolbox meetings
- Records of incidents and complaints.

Table 12: Monitoring and Inspection Requirements

Inspection	Frequency	Action	Reporting	Responsibility
Pre-start	Daily	Before works start, check required STMP, TCP, ROL and SZA are approved and on site.	Pre-start Brief	Supervisor
Inspection of road condition	Weekly	Affected local roads will be regularly inspected for damage during the project and on completion of the project.	File note Inspection Checklists	Project Engineer
Plant Inspections	Prior to use on site and as required	Plant and vehicles will undergo a **Plant Induction** will include a mechanical inspection to ensure that the plant or vehicle is in good working order, and the appropriate emission controls are in place. Site supervisors, Project Engineers and the Environment Manager will undertake visual inspections to ensure that plant and vehicles are not producing excessive emissions during operation.	Plant Induction Record Inspection Checklists	Health & Safety Manager Project Engineer
Traffic control inspections	Fortnightly progressing to quarterly once long term control in place	Undertaken in accordance with Australian Standard 1742.3 and RMS TCAWS using the drive through video method	Video recording	Project Engineer Traffic Specialist

8.1.1 Environment Site Inspections

The Environment Manager (or delegate) is to conduct weekly site inspections, examining the adequacy of any measures and controls implemented to manage traffic and access impacts. The status of road works and traffic and access mitigation measures will be recorded on the Environmental Checklist. If any new traffic or access impacts are determined, the Environment Manager will liaise with the Health & Safety Manager, Supervisor and the Communications Manager to develop strategies to minimise or reduce the duration of impacts and to inform any residents affected or potentially affected.

8.1.2 Inspection of Traffic Controls

Temporary traffic controls will be regularly inspected by the relevant Project Engineer, to assess compliance with the conditions detailed in site or area STMP, TCP, ROL, SZA and to identify potential safety hazards to enable implementation of corrective solutions.

For each day that traffic controls are in position, signs and devices will be subject to inspection by the area foreman to ensure their integrity. Temporary signage will be kept in good and clean order.

8.2 Implementation of Corrective Actions

Corrective actions will be implemented when monitoring results and inspections indicate a non-conformance with the objectives of this Plan (non-compliances will be processed as per the CEMP and entered into Synergy for tracking and closing out). The specific type of action undertaken will relate to the issue causing non-conformance with respect to the desired management outcomes. Non-conformance may involve not using adequate traffic management controls during construction works. Examples of corrective actions may include:

- Corrective action near road work areas to limit the potential for traffic and access impacts;
- Installation of additional signage or controls to further advice road users of potential traffic impacts;
- Increasing the frequency and extent of education and training of staff and subcontractors about controlling traffic and access impacts; and
- Undertake targeted community consultation to reach practical solutions regarding traffic and/ or access management and disseminate relevant information

These corrective actions will be determined in consultation with SIMTA, Supervisor, Health & Safety Manager and the Environment Manager.

8.3 Reporting

CPB Contractors will report to SIMTA on all traffic and access management issues related to the project, as required. The reporting obligations are described below according to frequency.

8.3.1 Immediate

The CPB Contractors Traffic Specialist (or representative) will contact the relevant CPB Contractors representative, SIMTA and TMC on any incident which has a negative impact on the regular flow of traffic on the road network in close proximity to the project. This includes incident categories such as:

- Motor vehicle accidents (a report will follow within two days, unless otherwise agreed)
- Breaches of any ROL conditions of approval
- Impacts to the regular operation of public vehicles, cyclists or pedestrians from construction traffic management.

Safety incidents will be reported immediately in the Synergy system, as per Safety reporting process.

8.3.2 Monthly

The Project Engineer will provide a schedule and status of current and future ROLs on a monthly basis. The forecast schedule will contain full details on locations and timing of all proposed road occupancies for the forthcoming month.

A monthly report will be submitted to SIMTA in accordance with the requirements of the Project Management Plan.

8.3.3 Six-monthly

As required under the CoA, six-monthly construction compliance reports will be prepared to report on compliance with the Project Approval.

8.4 Auditing

Environmental audits will be conducted at regular intervals during construction of the project to ensure compliance with Project Approval conditions, Management Plans and all other documentation relevant to the CEMP. Internal and external environmental audits will be undertaken in accordance with AS/NZS ISO 19011. Further auditing and reporting requirements are detailed in the CEMP.

Internal audits will also be conducted by the road works engineers and the Health & Safety Manager on the traffic management controls used on site to ensure compliance with this CTAMP, Safety Plan and any other relevant plan (TMPs and TCPs) or traffic control measure (conditions within SZA and ROL).

8.5 Revision of this Plan

This plan will be reviewed and updated in accordance with the CEMP. The updated plan must be endorsed by the Environment Manager and approved internally by the Project Director. Minor changes may be approved by the Environmental Representative as detailed in the CEMP or otherwise referred to the Department of Planning and Environment.

9. Incident Response

A Incident and Emergency Management Plan has been developed by CPB Contractors which will incorporate operating procedures for managing construction site emergencies / incidents which affect workplace health and safety – and not specifically traffic incidents. The Incident and Emergency Management Plan deals with incidents that occur within the construction site boundary.

All traffic incidents and emergencies shall be dealt with according to the Incident and Emergency Management Plan and will be coordinated by the Health & Safety Manager.

9.1 Emergency and Incident Responses

CPB Contractors will provide support to emergency service agencies and road authorities in the management of emergencies and unplanned incidents on roadways approaching and within the construction area, and will assist in the restoration of normal traffic conditions.

The types of emergencies or unplanned incidents that may occur include, but not limited to:

- Motor vehicle crashes
- Grass, bush and building fires
- Environmental spills
- Terrorist attacks and bomb threats
- Construction type incidents involving closure of a lane, shoulder, footpaths or shared path
- Structural/ catastrophic failures
- Police operations
- Inclement weather conditions, including flooding and major storm events
- Anti-social behaviour.

An Incident and Emergency Management Plan has been developed which will incorporate standard operating procedures for managing emergencies and unplanned incidents. This plan will:

- Define CPB Contractors' roles and responsibilities in the event of incident and emergencies
- Establish and define CPB Contractors' emergency response procedures dealing with different category of emergency arising from construction, traffic, environmental incidents
- List the available CPB Contractors' resources
- Define the road authority and emergency services roles and responsibilities in the event of an incident or emergency
- Outline the communication protocols and system (see also the Community Communication Strategy)
- Outline incident administration procedures including training, record keeping etc.
- Establish formal arrangements for the review and maintenance of the plan
- Communicate the incident and emergency procedures to the wider construction team as part of the Site Induction process
- Disseminate summary copies of the procedures to senior staff responsible for traffic and safety on the Project.

In the event of an incident or emergency, the Health & Safety Manager will:

- Immediately notify the Project Director, SIMTA representative and the TMC of the occurrence of the incident or emergency.
- Stop vehicle/personnel involved in the incident immediately (or as appropriate). Operate warning lights and warn other drivers to slow down.
- In the event of spillage, clear the spill whilst engaging appropriate safety standards as relevant to the event.
- Ensure Communications Manager is made aware of the incident as soon as practicable.

- Follow the procedures set down in the Incident and Emergency Management Plan.
- Record the facts and photograph the approach to the accident site including the location of all safety devices and signs as soon as possible after the accident. A report with this information is to be forwarded to the TMC and RMS within 2 days of the accident.
- Provide a recommendation on any changes that may be required to the CTAMP or to the TMP that may be in operation for the area in which the incident occurred.

9.2 Environmental Incident

If the Environment Manager determines that a site emergency or traffic incident causes actual or potential harm to the environment or results in an actual or potential pollution event, then the relevant agencies and authorities will be notified immediately as required under the EPL and POEO Act (and detailed in the Pollution Incident Response Management Plan (PIRMP). The overall incident will be managed in accordance with the IEMP.

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Attachments

Attachment A: Compliance Matrix

Contract Clauses

Specific contract clauses and references which set limits and/or govern impacts associated with construction traffic and access on the project are detailed below:

Table 13: Principal's Project Requirements

Contract Document Ref	Requirement	Where Addressed
Appendix 2 of Schedule 5 PPR 1.1.2	g) "Performing a dilapidation survey prior to commencement of construction/site mobilisation; and"	Section 5.3 Section 7.1
4.8.4	Road Conditions Contractor must ensure that any road, footpath, shared path or cycleway which is open to the public is at all times provided in accordance with the relevant Approvals.	Section 7 Table 11
4.8.5	Traffic and Transport management Contractor must develop, implement, maintain and update a construction traffic management plan for the Works, including:	This Plan STMP & TCP
	a) any relevant traffic management plans and traffic control plans in accordance with the Agreement and Contract; and	Section 7.6
	b) Contractor must obtain approval from relevant Authorities for all road, footpath and shared path occupancies, detours and closures.	Table 11 Section 7.6
4.8.6	Accidents and Incidents a) Manage the accident or incident in accordance with the Incident Management Plan developed in accordance with this PPR to meet the requirements of the Delivery Contracts; and	Incident and Emergency Management Plan Section 9
	b) immediately advise MIC of any accident or incident that involves serious injury, hospitalisation or a fatality.	Table 11 Section 9.1
4.12	Interface Management b) Implement mitigation measures where possible to ensure the Works do not negatively impact the capacity and performance of the surrounding pedestrian, road traffic and public transport network;	Section 7 STMP & TCP
	e) Ensure that suitable access is appropriately maintained to properties and between severed portions of properties. Appropriate detours must be arranged and provided; and	Section 6.5 Section 7

Conditions of Project Environmental Approvals

Conditions of project environmental approvals that specifically address traffic and access management are detailed below.

Stage 1 Conditions of Approval

Table 14: Stage 1 Conditions of Approval

Stage 1 CoA Ref	Requirement	Where Addressed
E1	**Approved Plans to be On-site** A copy of the approved and certified plans, specifications and documents incorporating conditions of approval and certification shall be kept on the site at all times and shall be readily available for perusal by any officer of the Department, relevant Council or the Certifying Authority.	Plan to be available on site
C17	The Applicant shall engage a suitably qualified person to prepare a pre-construction dilapidation report prior to the commencement of construction. This report to ascertain the structural condition of:	Section 7.1 Pre-construction Dilapidation Report
C17 (a)	Local public roads likely to be used by the project's construction traffic identified in the Construction Traffic and Access Management Sub-plan required under condition E34(a).	Section 7.1 Pre-construction Dilapidation Report
C17 (b)	Local public roads, cycleway's, footpaths and other utilities identified in the Construction Traffic and Access Management Sub-Plan required under condition E34(a).	Section 7.1 Pre-construction Dilapidation Report
C17 (c)	The report shall be submitted to the satisfaction of the Certifying Authority and a copy is to be forwarded to Campbelltown City Council, Liverpool City Council, RMS and the Secretary.	Section 7.1 Pre-construction Dilapidation Report
C18	The Applicant shall undertake road pavement deflection testing of the construction truck routes at 20 metre intervals along all wheel paths where feasible and reasonable to the extent required by Condition E34(a), prior to commencement of construction.	Table 11 Section 7.1 Pre-construction Dilapidation Report
C19	The Applicant shall ensure that the construction and operation of the proposed development will not prevent the existing use of Moorebank Avenue as a public road to a standard commensurate to its current use prior to the development.	Table 11 Section 6.2
NOTE:	Temporary closures or part closures and changes to the operation of Moorebank Avenue may occur for limited periods during construction as detailed in the Construction Traffic Management Plan	Section 6.9
C24	Prior to the commencement of construction, the Applicant shall undertake a Road Safety Audit in consultation with TfNSW and the relevant Council for the proposed construction vehicle access points on public roads. The audit shall be undertaken by an independent TfNSW accredited road safety auditor in accordance with the relevant Austroads guidelines to identify any safety issues for the proposed construction vehicle access. The audit shall recommend corrective actions for any identified safety issues and propose appropriate traffic management measures (i.e. temporary traffic signals).	Section 7.5.2 Road Safety Audit
E23	The Applicant is to ensure that construction vehicles operate so as to minimise any construction noise impacts from the construction site. Measures that could be used include toolbox talks, contracts that include provisions to deal with unsatisfactory noise performance for the vehicle and/or the operator, and specifying non-tonal movement alarms in place of reversing beepers or alternatives such as reversing cameras and proximity alarms, or a combination of these, where tonal alarms are not mandated by legislation.	Section 7 Table 11

Stage 1 CoA Ref	Requirement	Where Addressed
E24	No use of compression brakes shall be permitted for construction vehicles associated with construction in the vicinity of the subject site.	Section 4.2 Section 7.4.2 Table 11 Attachment D (Driver's Code of Conduct)
E26	A Road Occupancy Licence (ROL) must be obtained from the Transport Management Centre (TMC) for any activity likely to impact on the operational efficiency of the road network, allowing the use of specified public road space at approved times. The Applicant must allow a minimum of 10 working days for processing from date of receipt and include a Traffic Control Plan with any application.	Section 2.4.1 Section 7.6.3 Table 11
E27	Construction shall be carried out, where feasible and reasonable, to avoid the use of local roads (through residential streets) by heavy vehicles to gain access to the site and/or ancillary facilities.	Section 7.4.5 Table 11 Attachment E (Heavy Vehicle Routes)
E28 (a)	Construction vehicles (including staff vehicles) shall be managed to: Minimise parking or queuing on public roads;	Table 11 Section 6.3.1
E28 (b)	Construction vehicles (including staff vehicles) shall be managed to: Minimise idling and queuing in local residential streets where practicable;	Table 11 Section 6.3 Section 4.2
E28 (c)	Construction vehicles (including staff vehicles) shall be managed to: Adhere to the nominated haulage routes identified in the Construction Traffic and Access Management Plan required under condition E34(a); and	Section 7.4.5 Attachment E (Heavy Vehicle Routes) Attachment F (Construction Access Routes)
E28 (d)	Construction vehicles (including staff vehicles) shall be managed to: Ensure access and egress from construction compounds is undertaken in a safe and lawful manner.	Section 6.3.2 Section 7.4.6
E29	Safe pedestrian and cyclist access through or around worksites shall be maintained during construction. In circumstances where pedestrian and cyclist access is restricted due to construction activities, a satisfactory alternate route shall be provided and signposted, including provision of temporary footpaths where pedestrian access is reliant on grassed verges.	Section 6.6 Section 7.5.1
E30	Access to all properties affected by the carrying out of construction shall be maintained, where feasible and reasonable, unless otherwise agreed by the relevant property owner or occupier. Any access physically affected by construction shall be reinstated to at least an equivalent standard, unless agreed with by the property owner.	Section 7.4.6 Table 11
E34 (a)	As part of the CEMP for the SSD, the Applicant shall prepare and implement: A **Construction Traffic and Access Management Plan** to ensure traffic and access controls are implemented to avoid or minimise impacts on traffic, pedestrian and cyclist access, and the amenity of the surrounding environment.	This Plan

Stage 1 CoA Ref	Requirement	Where Addressed
E34 (a)	The Plan shall be developed in consultation with the relevant Council, emergency services, road user groups, and relevant pedestrian and bicycle user groups, and include, but not necessarily be limited to:	Section 3.1
E34 (a)(i)	Identification of construction traffic routes and construction traffic volumes (including heavy vehicle/spoil haulage) on these routes;	Section 5.2 Section 6.2 Section 7.4.5 Attachment E (Heavy Vehicle Routes)
E34 (a)(ii)	Details of vehicle movements for construction sites and ancillary facilities including parking, dedicated vehicle turning areas, and ingress and egress points;	Section 6.3.1 Section 6.3.2 Section 7.4.6
E34 (a)(iii)	Discussion of construction impacts that could result in disruption of traffic, public transport, pedestrian and cycle access, access to public land, property access, including details of oversize load movements, and the nature and duration of those impacts;	Section 6
E34 (a)(iv)	Details of management measures to minimise traffic impacts, including temporary road work traffic control measures, onsite vehicle queuing and parking areas and management measures to minimise peak time congestion and measures to ensure safe pedestrian and cycle access;	Section 7
E34 (a)(v)	Details of measures to maintain or provide alternative safe and accessible routes for pedestrians throughout the duration of construction;	Section 3.1 Section 6.4 Section 6.6 Section 7.3 Section 7.5.1
E34 (a)(vi)	Details of measures to maintain connectivity for cyclists, with particular emphasis on providing adequate access between key existing cycle routes for commuter cyclists;	Section 3.1 Section 6.4 Section 6.6 Section 7.3 Section 7.5.1
E34 (a)(vii)	Details of measures to manage traffic movements, parking, loading and unloading at ancillary facilities during out-of-hours work;	Section 7.4.8
E34 (a)(viii)	Details of methods to be used to communicate proposed future traffic changes to affected road users, pedestrians and cyclists, consistent with the Community Communication Strategy required under condition D1;	Section 7.3 Section 7.7 CCS
E34 (a)(ix)	An adaptive response plan which sets out a process for response to any traffic, construction or other incident;	Section 9
E34 (a)(x)	Mechanisms for the monitoring, review and amendment of this plan.	Section 8

Stage 1 Final Compilation of Mitigation Measures

Table 15: Stage 1 Final Compilation of Mitigation Measures

Stage 1 FCMM Ref	Requirement	Where Addressed
1A	A Road Safety Audit will be undertaken of Moorebank Avenue and Cambridge Avenue to identify the traffic safety risks associated with construction vehicles using these roads and to determine the appropriate traffic controls to be implemented to mitigate any risks identified as part of the preparation of the Construction Traffic Management Plan (CTMP). The effectiveness of any measures implemented will be monitored during the construction phase.	Road Safety Audit Section 7.5.2
1B	A CTMP will be developed by the construction contractor construction contractor responsible for construction of the Proposal. The CTMP will be developed in accordance with the Preliminary Construction Traffic Management Plan (PCTMP), and will include the following requirements, at a minimum:	This Plan
1B	A traffic control mechanism will be located at each of the truck entry and exit points from the construction compounds to assist with vehicle movements and pedestrian/cyclist movements during construction, where necessary	Section 7.4 Section 7.5
1B	In consultation with RMS, Liverpool City Council and Campbelltown City Council, general signposting of the access roads will be undertaken with appropriate heavy vehicle and construction warning signs	Section 3.1 Section 7.6 Table 11
1B	Installation of specific warning signs at entrances/exits to the construction site to warn existing road users of entering and exiting construction traffic will be undertaken	Section 6.3.2 Section 7.4.6 Section 7.7 Table 11
1B	Speed limits will be developed so as to minimise the potential for fauna to be struck by a vehicle within the construction areas. All vehicles and plant in operation during construction are to adhere to site rules relating to speed limits.	Section 7.4.4 Table 11
1B	Pedestrian walking routes and crossing points will be established and clearly marked throughout the construction phase	Section 7.5.1 Section 7.7 Table 11
1B	Where required, appropriate traffic control and warning signs will be installed for areas identified where potential safety risk issues may exist, such as the Cambridge Avenue causeway	Section 7.7 Table 11 Attachment E (Heavy Vehicle Routes) Attachment F (Construction Access Routes) TCP / STMP
1B	The promotion of carpooling for construction staff and other shared transport initiatives during the construction phase will be considered	Section 4.2 Table 11
1B	Where reasonable and feasible, the transportation of construction materials will be managed to maximise vehicle loads and therefore minimise vehicle movements	Section 4.2 Table 11
1B	Site and /or activity specific Traffic Management Plans (TMPs) will be developed, where required by the contractor to allow safe work sites.	Section 7.6.1 TCP / STMP (prepared as required)

Stage 1 FCMM Ref	Requirement	Where Addressed
1B	In the instance that Moorebank Avenue is to be temporarily closed, an activity specific TMP would be developed to include details on the methods for road diversions, detour routes and consulting with surrounding potentially affected landowners/residents.	Section 7.6.1 TCP / STMP (prepared as required)

NSW Concept Plan Conditions of Approval

Table 16: NSW Concept Plan Conditions of Approval

NSW Concept Plan CoA Ref	Requirement	Where Addressed
2.4	Any future Development Application shall include a Traffic Impact Assessment that assesses intersection and road network impacts, including impacts on Cambridge Avenue. The traffic assessment shall:	Stage 1 EIS
2.4 a)	undertake detailed model analysis commensurate with the stage, to confirm network operation and identify intersection upgrade requirements;	Stage 1 EIS
2.4 b)	consider the constructability constraints of proposed upgrade(s) at key intersections, such as vehicle sweep paths, geometry and sight lines;	Stage 1 EIS
2.4 c)	assess construction traffic impacts, including: i. the identification of routes and the nature of existing traffic on these routes; ii. an assessment of construction traffic volumes (including spoil haulage/delivery of materials and equipment to the road corridor and ancillary facilities); and iii. potential impacts to the regional and local road network (including safety and level of service) and potential disruption to existing public transport services and access to properties and businesses.	Stage 1 EIS
2.4 d)	assess operational traffic and transport impacts to the local and regional road network, including: i. changes to local road connectivity and impacts on local traffic arrangements, road capacity/safety; ii. traffic capacity of the road network and its ability to cater for predicted future growth and iii. monitoring of vehicle numbers on Cambridge Avenue.	Stage 1 EIS
2.4 e)	provide an updated Traffic Management and Accessibility Plan including: i. measures to prevent heavy vehicles accessing residential streets to maintain the residential amenity of the local community ii. public transport; iii. cyclist facilities; and iv. driver code of conduct.	This Plan
2.4	In particular, the Traffic Impact Assessment must identify upgrades and other mitigation measures required to achieve the objective of not exceeding the capacity of the following intersections and roads – (a) Moorebank Avenue/ Newbridge Road (b) Moorebank Ave/ Heathcote Road (c) Cambridge Ave (d) M5 Motorway/ Moorebank Avenue (e) M5 Motorway/ Heathcote Road (f) M5 Motorway/ Hume Highway.	Stage 1 EIS

NSW Concept Plan Revised Statement of Commitments

Table 17: NSW Concept Plan Revised Statement of Commitments

NSW Concept Plan Revised SoC Ref	Requirement	Where Addressed
1.25	The Proponent commits to developing a Construction Traffic Management Plan to minimise the potential impacts of the construction stage(s), including:	This Plan
1.25 a)	Heavy vehicle access routes	Section 7.4.5 Attachment E (Heavy Vehicle Routes)
1.25 b)	Location of construction worker parking	Section 6.3.1 Attachment F (Construction Access Routes)
1.25 c)	Mitigation measures to avoid any unacceptable impacts on the surrounding land uses.	Table 11
1.25 d)	Mitigation measures to avoid any unacceptable impacts on regular bus services and school bus services operating on roads within the vicinity of the site and pedestrian and cyclist access.	Section 6.7 Table 11

Commonwealth Concept Plan Approval

Table 18: Commonwealth Concept Plan Approval

Commonwealth CoA Ref	Requirement	Where Addressed
	Construction Environment Management Plan	
7	For the better protection of Commonwealth land, the person taking the action must engage a suitably qualified expert(s) to prepare a Construction Environment Management Plan (CEMP), for the approval of the Minister. The CEMP must include in relation to construction of the proposed facility:	CEMP
7 b)	Identification and quantification of all potential impacts associated with noise, vibration, air quality, traffic, light spill, hydrological changes, contamination, and indigenous heritage (including cumulative impacts associated with the DoFs proposed intermodal) upon Commonwealth land. Consideration must be given to people and communities at SME, DNSDC, Defence housing, and the environment more generally in neighbouring bushland areas.	Section 6
7 d)	refined details (including implementation timeframes) for the mitigation measures outlined in the EIS (sections 7.4.2, 7.4.3, 7.4.6, 7.4.7, 7.4.8 and 7.4.9) and summarised at Annexure A;	Table 11
7 f)	identification of the trigger values and criteria for all matters mentioned in condition 7(b) (excluding light spill, land contamination and indigenous heritage) that will be adopted for monitoring and managing potential impacts to Commonwealth land;	Section 8
7 g)	details of a comprehensive monitoring program (including locations, frequency and duration) for: i. validating the anticipated impacts associated with condition 7(b); and ii. determining the effectiveness of proposed mitigation/management measures;	Section 8

Commonwealth CoA Ref	Requirement	Where Addressed
7 h)	provisions to revise the approved CEMP in response to monitoring associated with condition 7(g) including, details of response/contingency mechanisms to address any exceedances of the relevant trigger values;	Section 8
7 i)	evidence of consultation with Defence regarding the adequacy of proposed mitigation measures in particular, those measures to mitigate potential light spill impacts upon residential dwellings within SME outside of standard construction hours; and	Section 3.1 Attachment C
7 j)	details of a complaints handling procedure;	Section 9 CCS
	"Commencement of the action may not occur until the CEMP has been approved. The CEMP must be implemented once approved."	Section 3.1

Commonwealth Concept Plan Mitigation Measures

Table 19: Commonwealth Concept Plan Mitigation Measures

Commonwealth MM Ref	Requirement	Where Addressed
7.4.6	**Traffic**	
7.4.6.1	Construction A Construction Traffic Management Plan (CTMP) will be implemented prior to and during construction of the SIMTA proposal.	This Plan
a)	Construction material will be sourced from within metropolitan Sydney and delivered to the SIMTA site primarily via the M5 Motorway, Hume Highway, M7 Motorway and Moorebank Avenue.	Table 11 Attachment E
b)	Site access and egress for all construction traffic will be via Moorebank Avenue.	Not applicable to Rail Link
c)	Construction site entry is proposed just south of the existing signalised intersection, south of Anzac Avenue to minimise construction traffic impacts upon DNSDC.	Not applicable to Rail Link
d)	During later stages of construction, a separate egress point would likely be established to the south of the SIMTA site.	Not applicable to Rail Link

Environmental Protection Licence Requirements

Table 20: EPL Requirements

EPL Reference	Requirement	Where Addressed
L3.3 (c)	**Approved out of hours works** (c) Deliveries of plant, equipment, materials or structures that have been determined by the police or other authorised authorities to require special arrangements for transport along public roads for safety reasons.	S7.4.8
L3.3 (d)	**Approved out of hours works** (d) Works that if carried out in compliance with Conditions L2.1 or L2.2 would cause unacceptable risks to construction personnel safety, public safety, road or rail network operational performance and/or essential utility services.	S7.4.8
O4.3	**Waste Management**	S6.8

EPL Reference	Requirement	Where Addressed
	Excavated material suitable for re-use within the premises may be transported from one part of the premises to another part by road in accordance with Condition O4.4.	S7.4.6
O4.4	**Waste Management** The licensee must ensure that: (a) the body of any vehicle or trailer, used to transport waste or excavation spoil from the premises, is covered before leaving the premises to minimise any spill or escape of any dust, waste, or spoil from the vehicle or trailer; and (b) mud, splatter, dust and other material likely to fall from or be cast off the wheels, underside or body of any vehicle, trailer or motorised plant leaving the premises, is removed to the greatest extent practicable before the vehicle, trailer or motorised plant leaves the premises; and (c) road surfaces subject to the tracking of material by vehicles leaving the premises are effectively cleaned at the end of each work day.	S7.4.2 S7.4.6 S7.6.1 S7.8

Attachment B: Glossary

The following table outlines key terms used in this document and associated procedures:

Term	Definition
Amended Rail Link	The Rail link alignment provided within this Response to Submissions (RtS), which includes an amendment from that provided within the Stage 1 EIS. The amendment relates to a shift of the rail alignment (to the west) within the Southern Boot Lands.
ARTC	Australian Rail Track Corporation
CBD	Central Business District
CAP	Construction Area Plan – The main document prepared during the construction planning for that work area. Includes construction methodology, risk assessment, constructability reviews and Work Pack listing.
CCC	Campbelltown City Council
CCS	Community Communication Strategy
CEMP	Construction Environmental Management Plan
CoA	Condition of Approval
CTAMP	Construction Traffic and Access Management Plan
DNSDC	Defence National Storage and Distribution Centre
DoD	Department of Defence (Commonwealth)
DotE	Department of the Environment (Commonwealth)
DP&E	Department of Planning and Environment
DPI (Fisheries)	Department of Primary Industries, Fishing and Aquaculture
EIS	Environmental Impact Statement
EMS	Environmental Management System
EP&A Act	*Environmental Planning and Assessment Act 1979*
EPBC Act	*Environmental Protection and Biodiversity Conservation Act 1999* (Commonwealth)
EPBC Approval	Approval (No. 2011/6229) granted under the EPBC Act on March 2014 by the Commonwealth Department of the Environment for the development of the SIMTA IMT Facility at Moorebank.
EPL	Environment Protection Licence
FAS	Flashing Arrow Sign
Former DNSDC South	The land to the south of the operational footprint of the Stage 1 site, to the boundary fence of the former DNSDC
IMEX	Import / Export
LCC	Liverpool City Council
LEP	Local Environmental Plan
LGA	Local Government Area

Term	Definition
MIC	Moorebank Intermodal Company
MIC Project	Moorebank Intermodal Terminal Project (SSD-5066) approved under Part 4, Division 4.1 of the *Environmental Planning and Assessment Act 1979*
MIC Site	Refers to the former School of Military Engineering site, which is currently the subject of an approval, under Part 4, Division 4.1 of the *Environmental Planning and Assessment Act 1979* for the development of an intermodal facility, associated commercial infrastructure (warehousing) and a rail link (3 options have been provided).
NSW	New South Wales
Previous Rail Link	The Rail link alignment provided within the Stage 1 EIS dated May 2015
Rail Link	The rail link including the area on either side to be impacted by the construction works included in the Stage 1 Proposal.
RailCorp Land	Lot 1 DP 825352 (part of the Rail Corridor) and owned by RailCorp
RALP No. 1	Rail Access Land Package No. 1 (this Project)
RMS	Roads and Maritime Services
ROL	Road Occupancy Licence
SIMTA	Sydney Intermodal Terminal Alliance – a consortium comprising Qube Holdings and Aurizon
SME	School of Military Engineering
Southern Boot Land	Southern Boot Land includes Commonwealth owned land (Lot 4, DP 1197707) to the south of the former DNSDC south, and to the north of the EHPL (part of the Boot Land as described in the MIC proposal).
SSD	State Significant Development
SSFL	Southern Sydney Freight Line
Stage 1 Site	The subject of this EIS, the western part of the SIMTA site which includes all areas to be disturbed by the Stage 1 Proposal (including the Operational area and Indicative Construction area). This area does not include the Rail Corridor.
STMP	Specific Traffic Management Plan
SZA	Speed Zone Authorisation
TCAWS	RMS's Traffic Control at Worksites Manual
TCP	Traffic Control Plan
TEU	Twenty-foot Equivalent Unit
TfNSW	Transport for NSW
TMC	TfNSW's Transport Management Centre
VMS	Variable Message Sign
Work Area	A separable portion of work that is identified early in construction planning to help drive early definition of construction methodology and alignment of design activities. Work Areas should be listed in the overall construction methodology. The planning document for a work area is called a Construction Area Plan.

Term	Definition
Work Pack	A pack of relevant construction documents that contains relevant information for Project Engineers and foremen to manage the works. There will be multiple Work Packs contained in a CAP. A Work Pack contains safe work method statements, risk assessments, ITPs, drawings, site instructions, environmental controls, etc.
Work Procedure	A document that provides a detailed step-by-step description for how work activities will be carried out. May document Risks & Controls associated with each step

Attachment C: Stakeholder Consultation Response

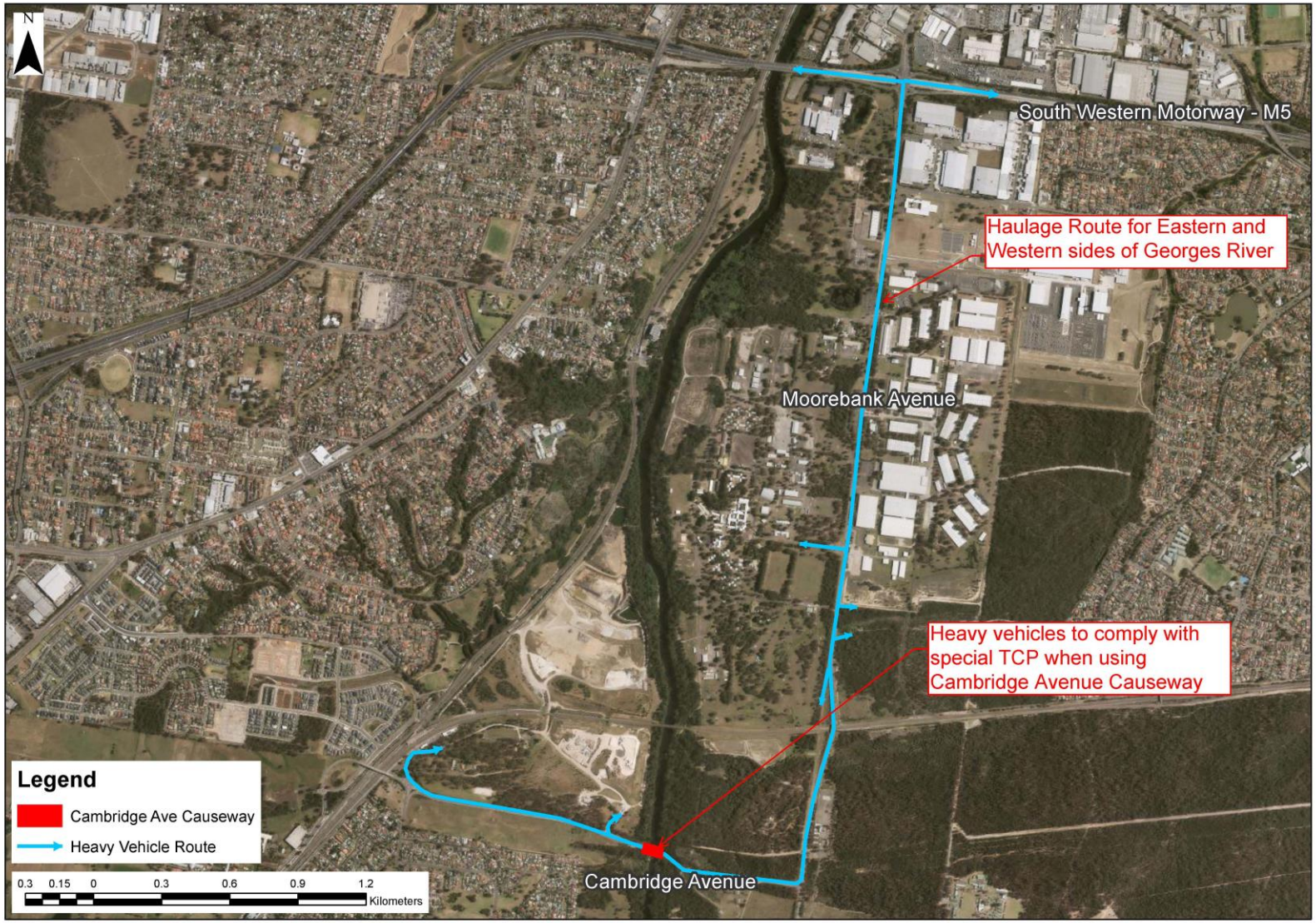
Attachment D: Drivers' Code of Conduct

Drivers of construction vehicles or plant are to be instructed in the following, by their supervisors, and during the induction process, prior to commencing on site:

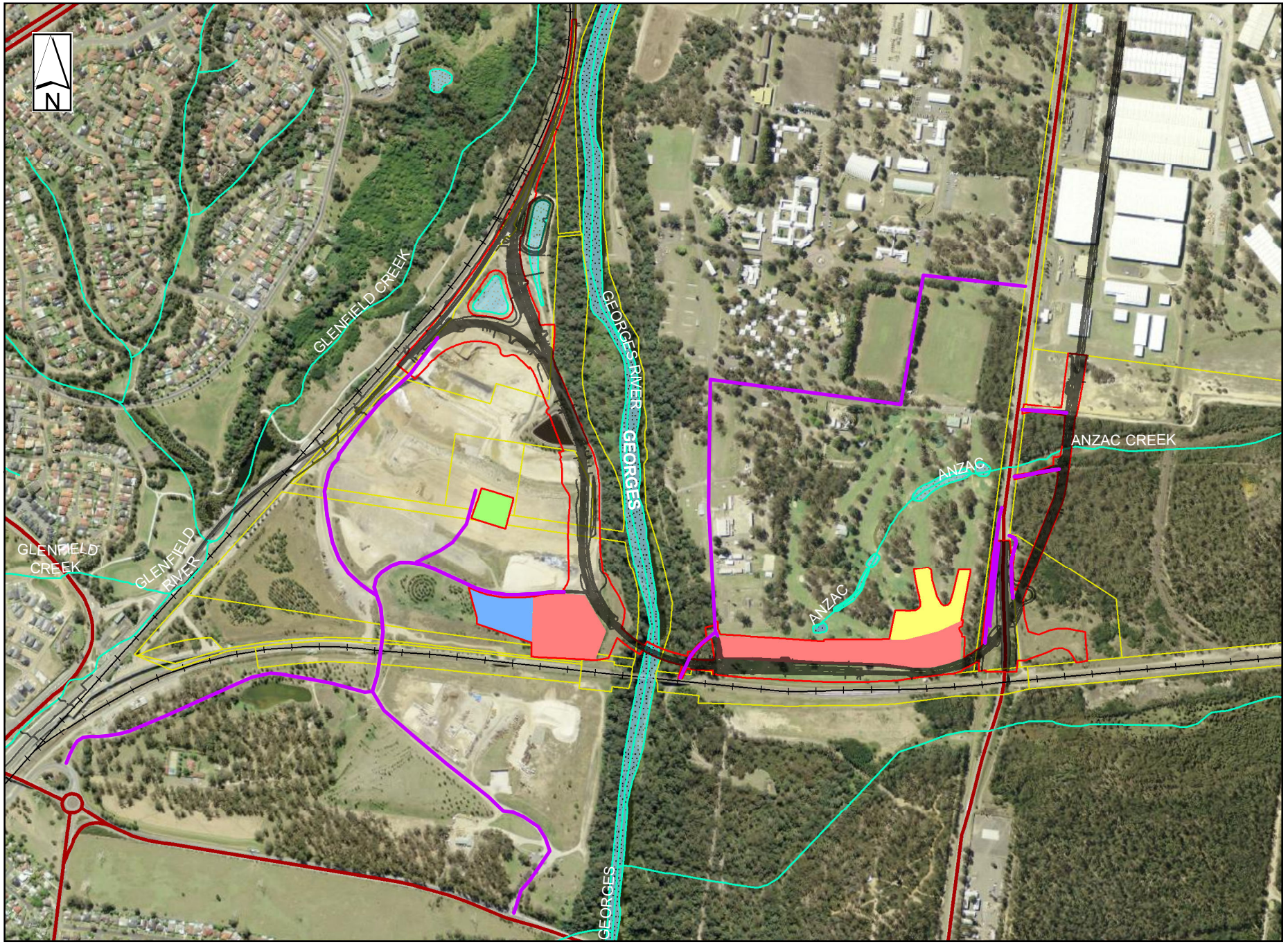
- Loose material to be covered with tarpaulins
- Trucks to be fitted with tight tailgates
- Use of exhaust brakes to be kept to a minimum when in close proximity to local housing
- Vehicles operating on site to have flashing amber lights attached to roof of cab
- Trucks removing material from site are to brush off any excess material likely to fall off the body or back on site prior to re-entering the haul road or public roads
- All trucks shall be loaded so as not to exceed the legal weight limitations in force at the time, noting weight restrictions of any bridges along designated routes
- Adhere to 40km/hr speed limit for heavy construction vehicles in residential areas and 20km/hr in the construction corridor, unless stated otherwise
- Haul route maps will be provided to all staff/contractors, including any specific areas of caution
- Responsible driving practices are essential and particular care is to be taken in school zones
- Reverse alarms are to be used at all times when reversing on site
- No use of compression brakes in the vicinity of the site
- Ensure all loading and unloading of materials and equipment is undertaken with regard to safety issues.

Drivers of construction vehicles or plant are to adhere to Code of Conduct requirements detailed above in carrying out work on this Project.

Attachment E: Heavy Vehicle Routes



Attachment F: Construction Compounds and Worksites Accesses



CPB CONTRACTORS

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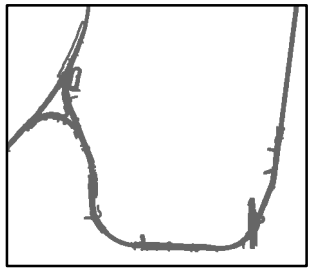


LEGEND

- Access Roads
- Rail Link
- Construction Boundary
- Crushing stockpile site
- GWS Temporary Stockpile
- RAE Stockpile Site
- RALP Compounds
- Cadastral Boundary
- Water Course
- NSW Rail Line
- NSW Road Line

330 165 0 330

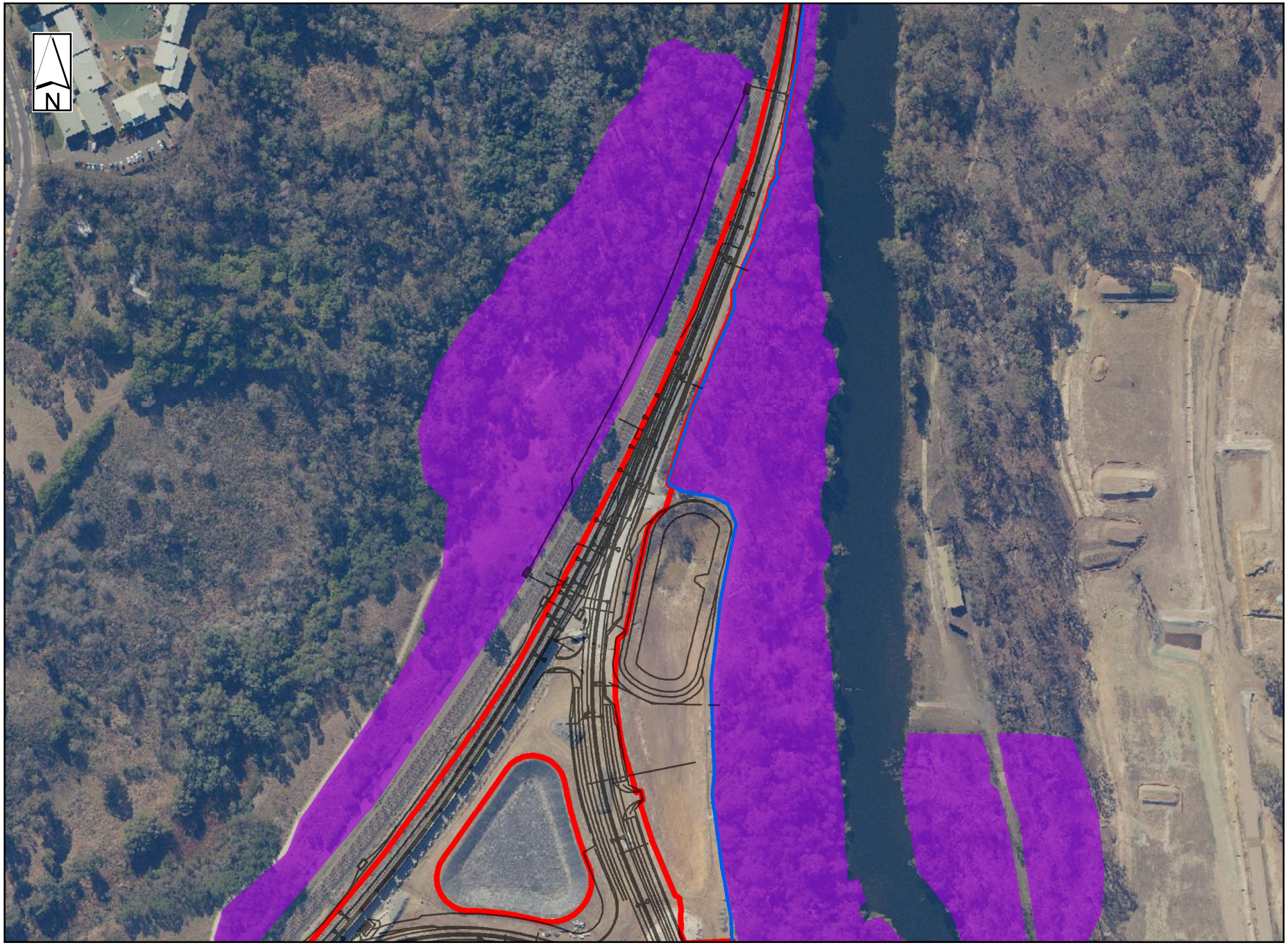
Metres

Coordinate System: GDA 1994 MGA Zone 56
Projection: Transverse Mercator
Datum: GDA 1994
Date: 6/12/2018
Service Layer Credits:

SIMTA Moorebank Intermodal Terminal - Stage 1 - Rail Link

Site Access Roads

Attachment G: No-Go areas map



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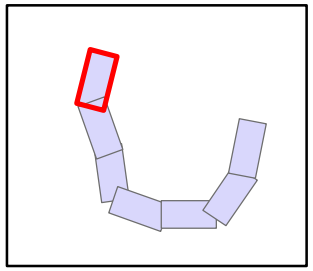


Legend

- No-Go Fencing
- Rail Link
- Preferred Construction Boundary
- No-Go Areas
- Crushing stockpile site
- GWS Temporary Stockpile
- RAE Stockpile Site
- RALP Compounds

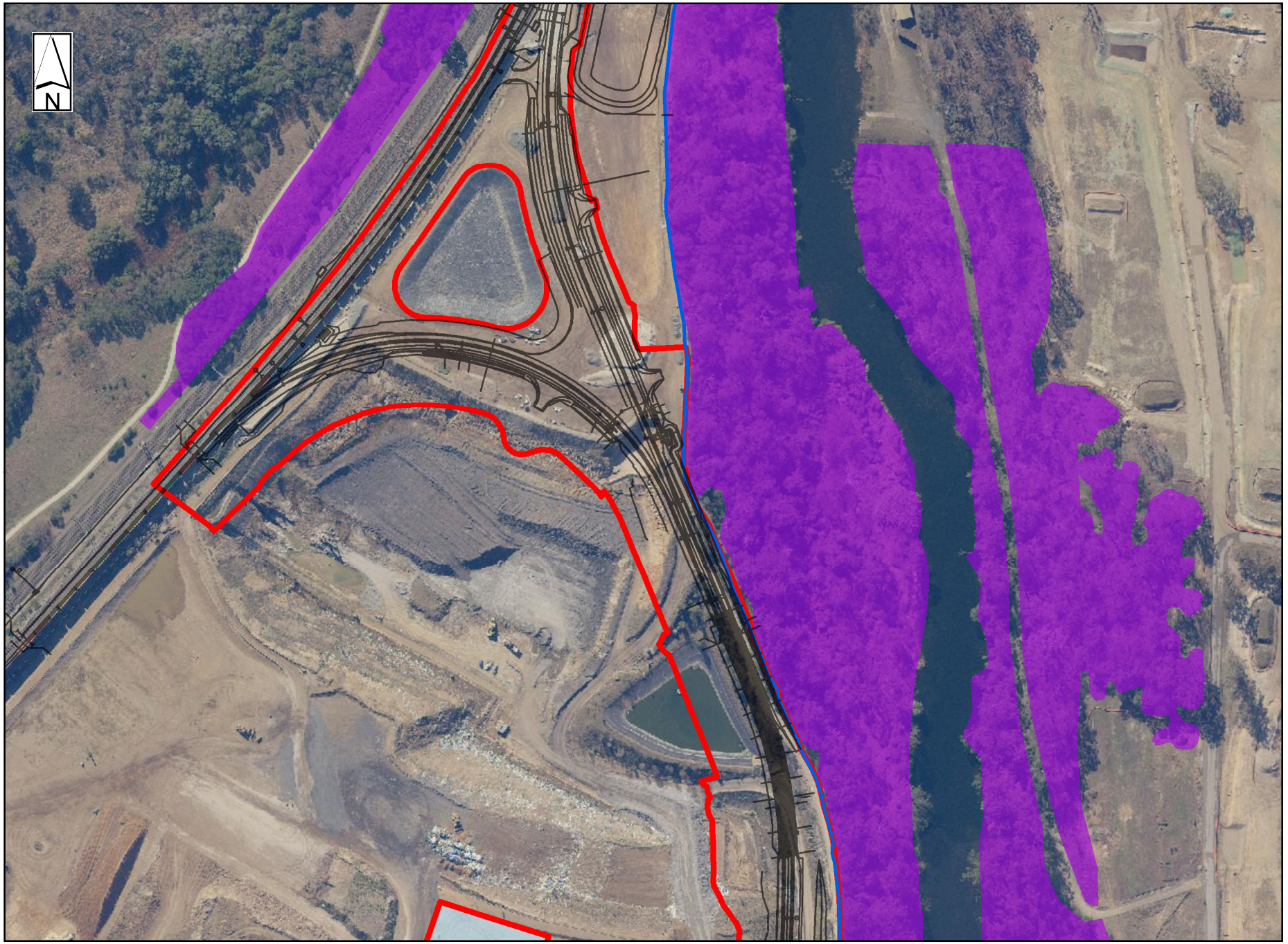
100 50 0 100

Metres

Coordinate System: GDA 1994 MGA Zone 56
Projection: Transverse Mercator
Datum: GDA 1994
Date: 6/12/2018
Service Layer Credits:

SIMTA Moorebank Intermodal Terminal - Stage 1 - Rail Link

Ecology No-Go Area Maps



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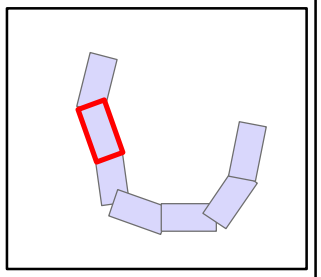

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SIMTA Moorebank Intermodal Terminal - Stage 1 - Rail Link

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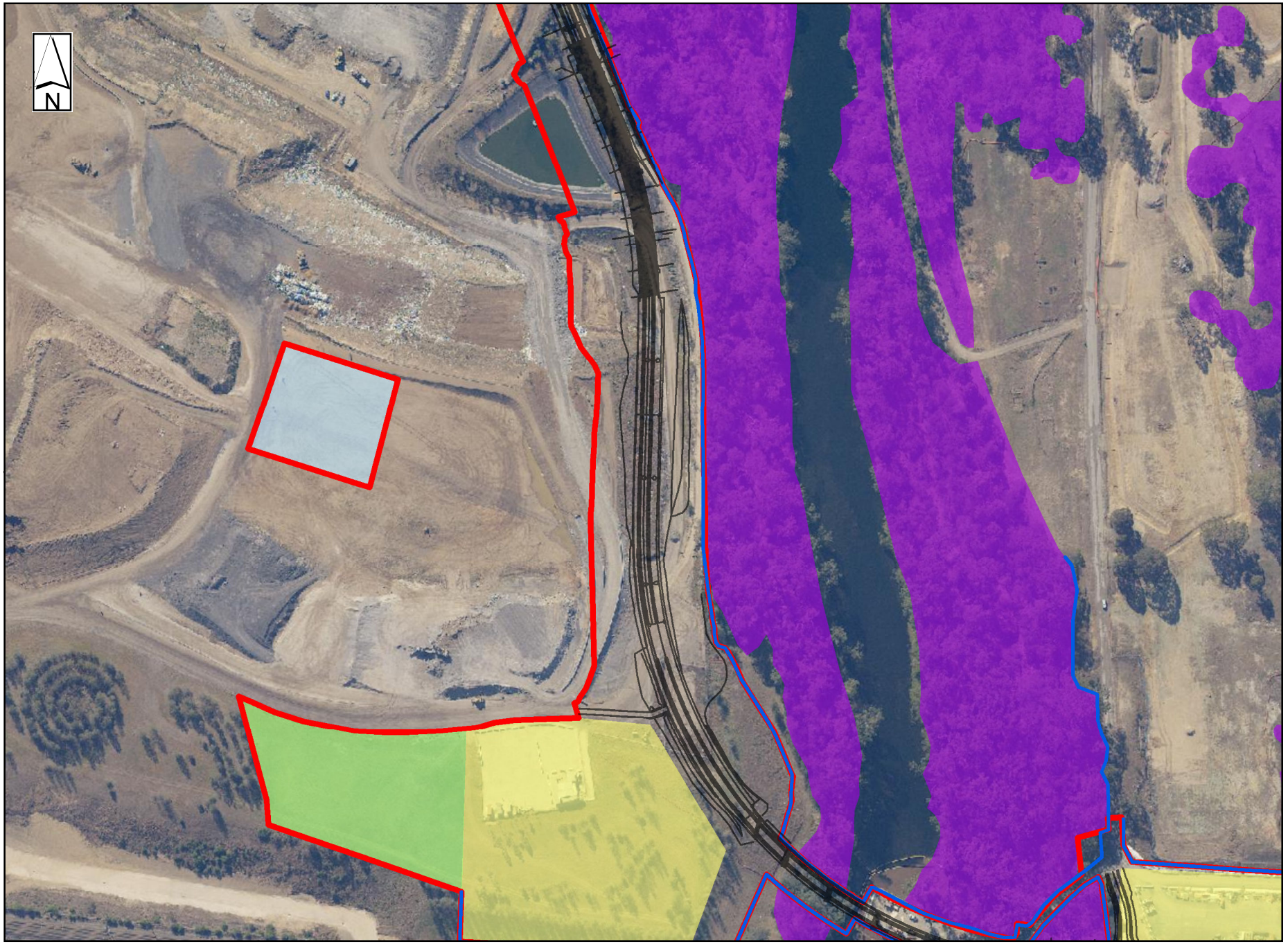

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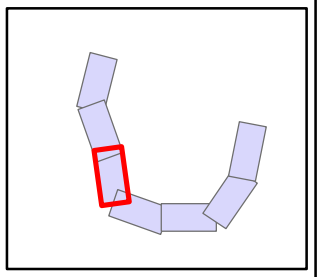

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90 45 0 90

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SIMTA Moorebank Intermodal Terminal - Stage 1 - Rail Link

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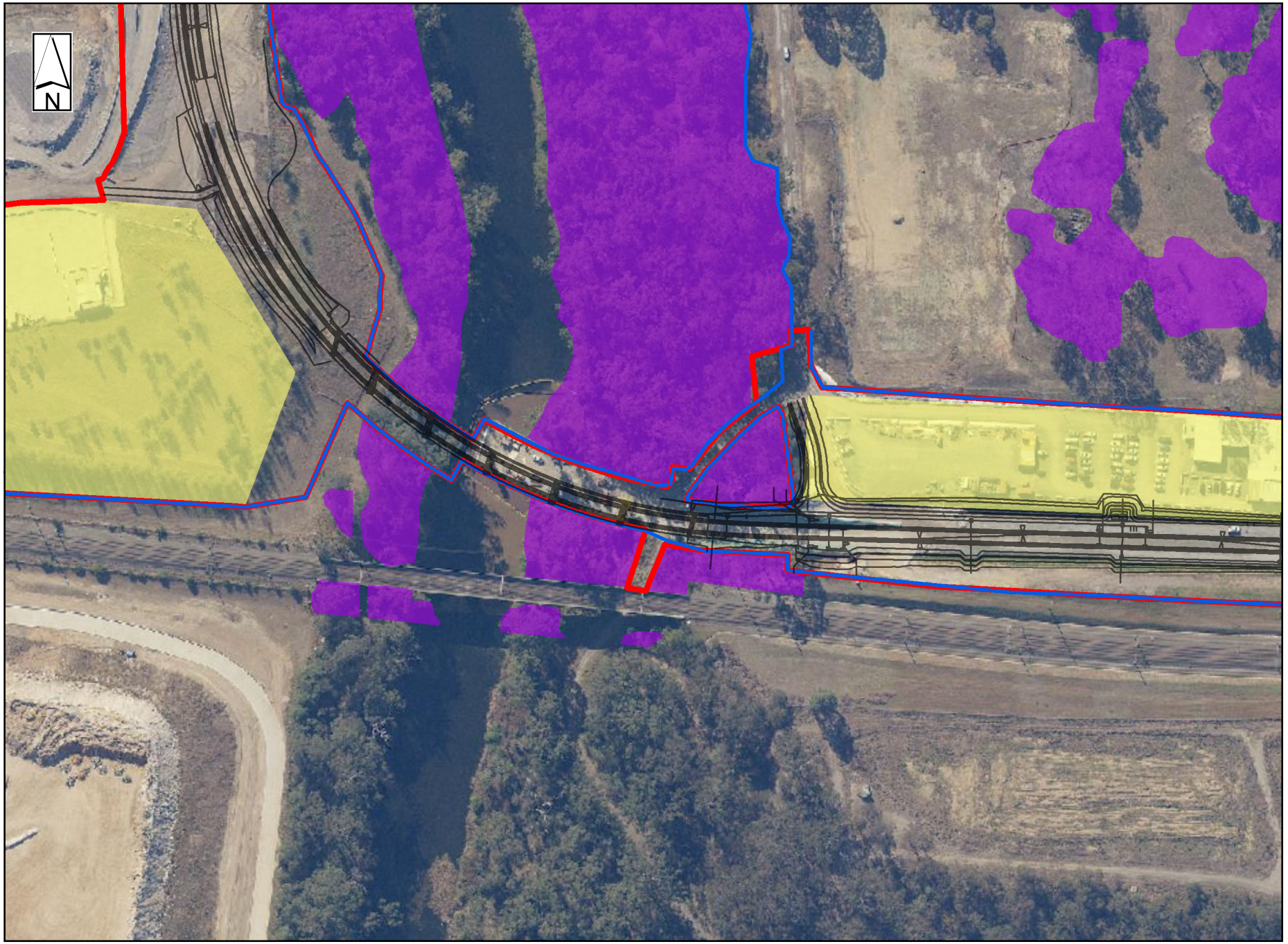

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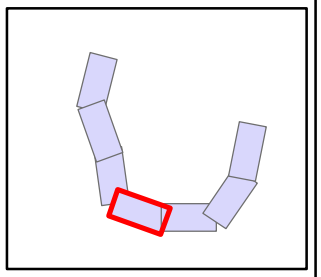

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70 35 0 70

Metres

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SIMTA Moorebank Intermodal Terminal - Stage 1 - Rail Link

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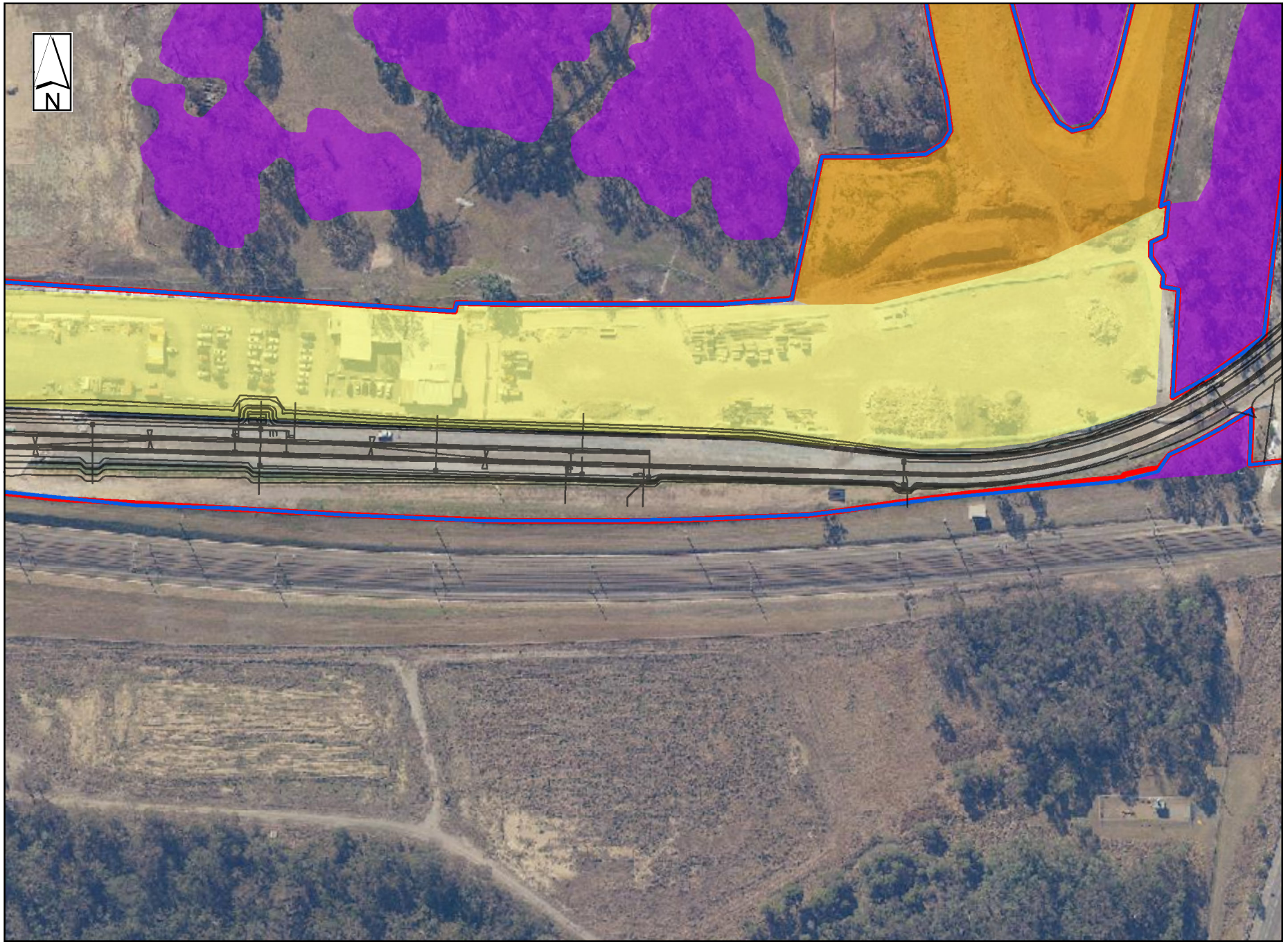

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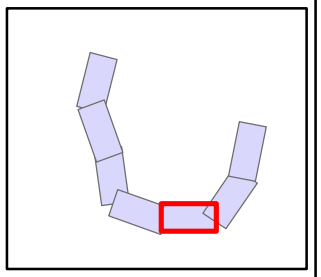

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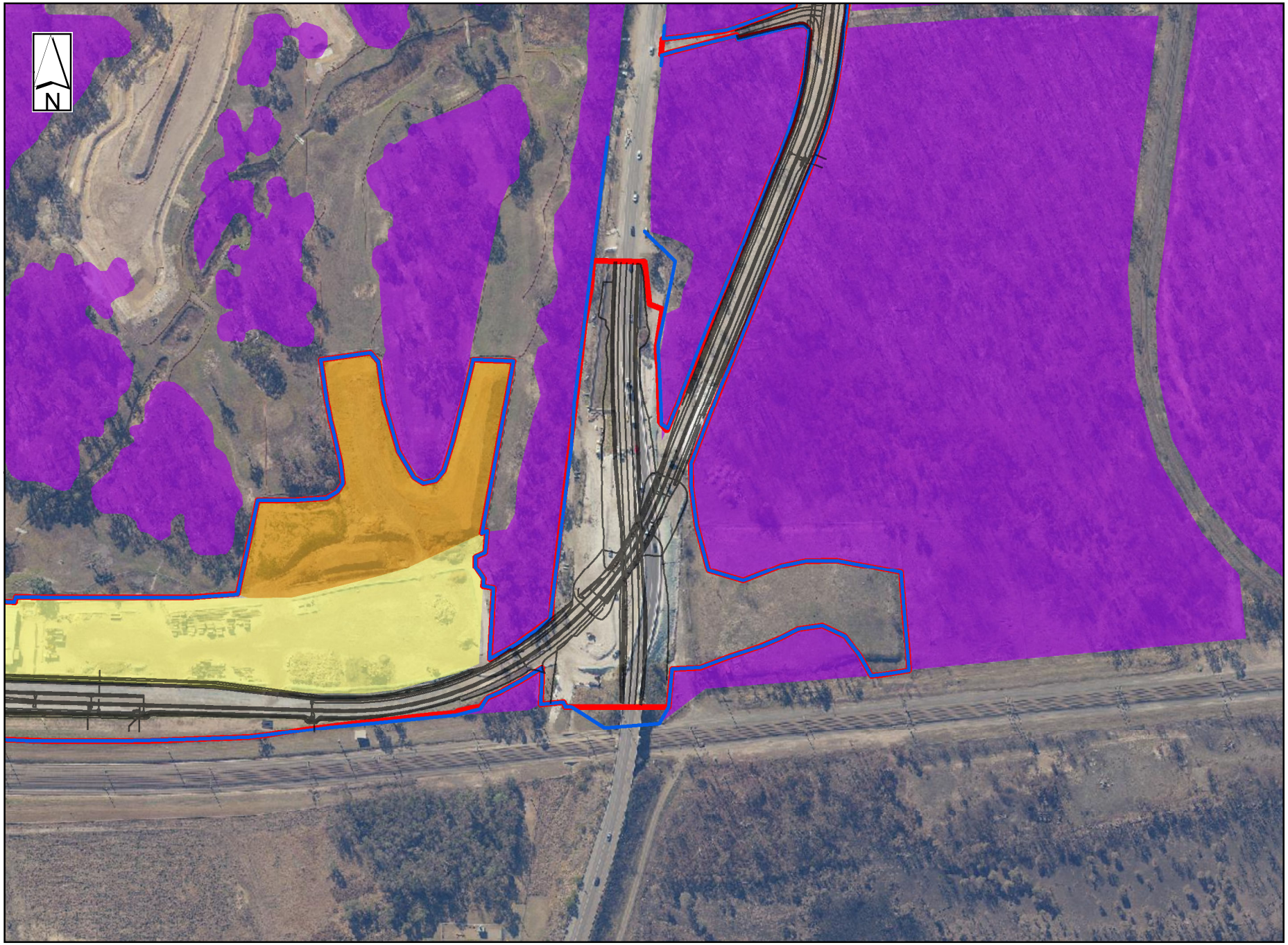

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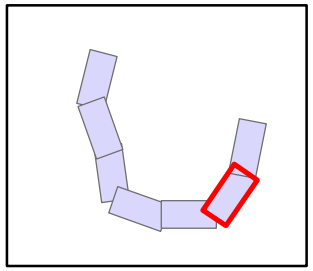

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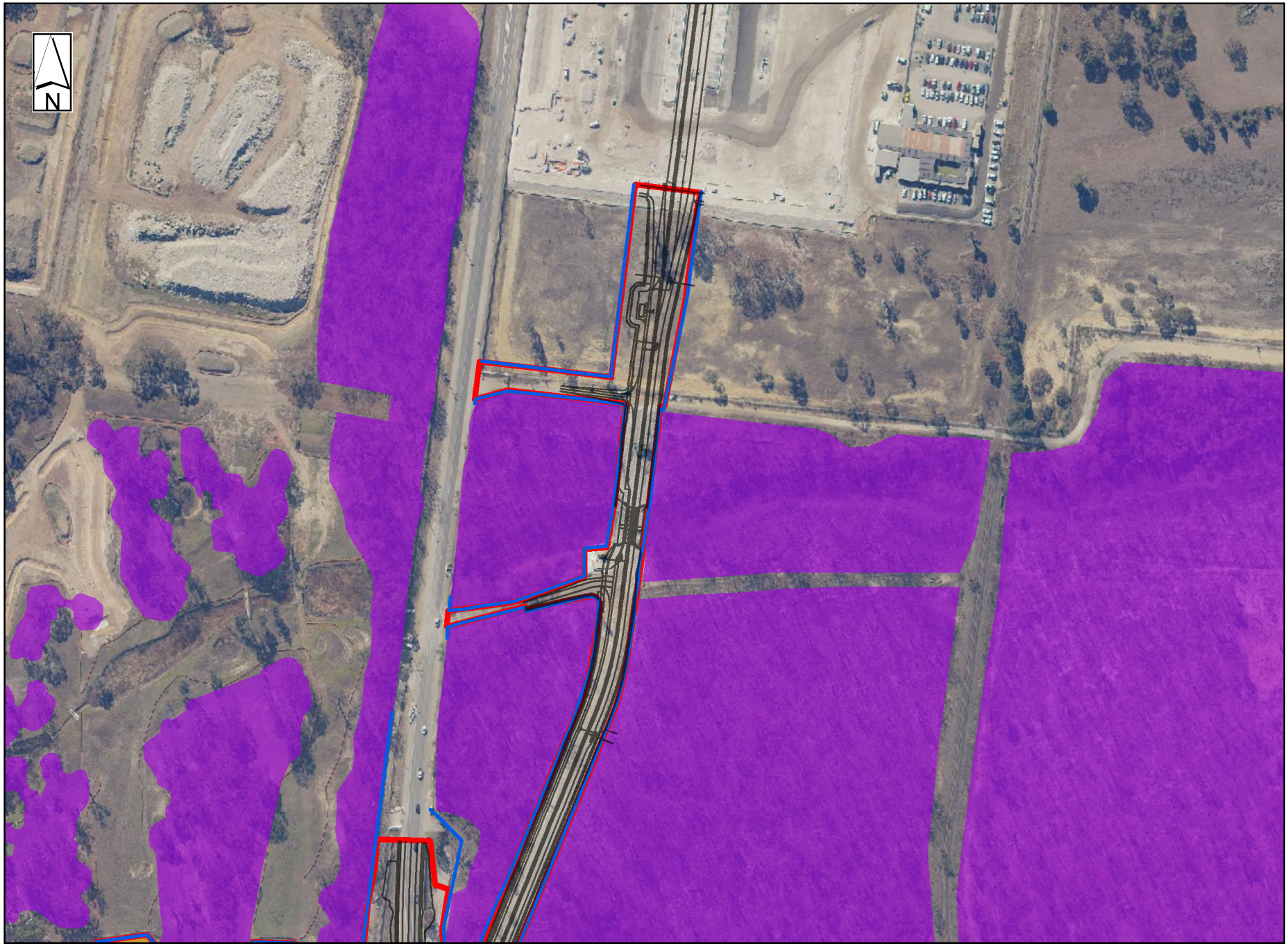

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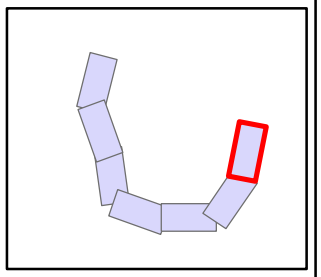

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