



Appendix B1

Traffic and Access Management Procedure

M6 Stage 1: Preliminary Construction including commencement activities

October 2021

M6S1-CGU-NWW-ENPE-PRO-000418

Rev 01


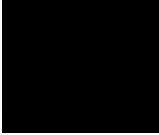

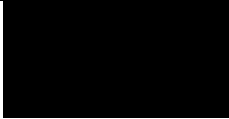


THIS PAGE LEFT INTENTIONALLY BLANK

Contents

1	Introduction to Procedure	1
1.1	Context	1
1.2	Impacts and Risks	1
1.3	Scope	3
1.4	Anticipated Peak Daily Vehicle Movements	8
1.5	Parking Impacts	10
1.6	Access Impacts	10
1.7	Impacts to pedestrians, cyclists and bus stops	13
2	Management and Mitigation Measures	14
2.1	Vehicle movements	14
2.2	Road Occupancy Licenses	15
2.3	Parking and Idling	15
2.4	Access	15
2.5	Changes to pedestrian footpaths, cyclists and bus stops	16
2.6	Communication and training	16

Document control

Approval and authorisation

Title	M6 Stage 1 Traffic and Access Management Procedure
Endorsed by Environment Representative	
Signed	
Dated	20/10/2021
Approved on behalf of TfNSW by	
Signed	
Dated	21/10/2021
Approved on behalf of CGU by	
Signed	
Dated	20/10/2021

Document status

Revision	Date	Description	Approval
A.01	23/07/2021	Draft issued for TfNSW review	
A.02	18/08/2021	Updated with TfNSW comments and issued for consultation	
00	17/09/2021	Issued for Approval	
01	20/10/2021	Updated in accordance with DPIE Stage 1 CEMP comments	

Distribution of controlled copies

This Procedure as part of the CEMP for preliminary construction including commencement activities is available to all personnel and sub-contractors via the Project document control management system. An electronic copy can be found on the Project website.

The document is uncontrolled when printed. One controlled hard copy of the Procedure as part of the CEMP and supporting documentation will be maintained by the Quality Manager at the Project Office.

Copy number	Issued to	Version

1 Introduction to Procedure

1.1 Context

This Traffic and Access Management Procedure (the Procedure) forms part of the Construction Environmental Management Plan (CEMP) for preliminary construction including commencement activities of the M6 Stage 1 Motorway (the Project). The full scope of activities which will occur under the CEMP for preliminary construction are outlined in Section 1.1 of the CEMP and Staging Report.

A Construction Traffic and Access Management Plan (CTAMP) will be prepared as part of the Stage 2 CEMP. The CTAMP will detail processes to minimise delays and disruptions and identify and respond to changes in road safety as a result of project construction works.

The CTAMP will be prepared in accordance with applicable guidelines and relevant standards, guides and manual and will include Project staging plans in consultation with relevant traffic and transport stakeholders, which would include measures to manage impacts during special events (such as sporting events), Minimise the number of changes to the road users' travel paths and, where changes are required, implement a high standard of traffic controls which effectively warn, inform and guide and Comprehensively communicate changes in traffic conditions on roads or paths to emergency services, public transport operators, other road user groups and other affected stakeholders. This information is not included within this Procedure as it is not applicable to Stage 1 works and these impacts will not occur.

An Aspects and Impacts Register was developed (refer to Appendix A2 of the CEMP) and identified minor residual traffic and access impacts associated with preliminary construction including commencement activities. This Procedure has been developed to address and manage the minor residual impacts.

1.2 Impacts and Risks

Traffic and Access aspects and impacts are listed within the Aspects and Impacts Register contained within CEMP Appendix A2. These Traffic and Access Impacts, specific to preliminary construction activities at each site have been extracted and presented in Table 1 (C1 Arncliffe construction ancillary facility), Table 2 (C2 Rockdale depot construction ancillary facility) and Table 3 (C3 President Ave construction ancillary facility).

Table 1 Extract from A2 Aspects and Impacts Register for C1 Arncliffe construction ancillary facility

Issue	Construction activity/aspect	Potential impact	Risk level prior to mitigation	Indicative Mitigation Measures	Risk level following mitigation	Management Documents / Training Required
Traffic and Access	<ul style="list-style-type: none"> • Light vehicles entering site: <ul style="list-style-type: none"> • Anticipated peak daily light vehicle movements (i.e. movement of vehicle in and out of site): 68 • Workforce, staff and visitors vehicles • Delivery of small-scale construction materials in vans • Heavy vehicles entering site: <ul style="list-style-type: none"> • Anticipated peak daily heavy vehicle movements (i.e. movement of vehicle in and out of site): 30 • Delivery of plant and equipment on semi-trailers, some oversized • Delivery of construction materials on flatbed trucks • Delivery of concrete and shotcrete via concrete agitator • Delivery and removal of portable buildings • Fuel tankers distributing fuel and refilling at designated refuelling area • Other: <ul style="list-style-type: none"> • Street sweeper routinely maintaining internal haul roads and Marsh Street • Special purpose trucks servicing waste skips and front-loading bins • Vacuum trucks conducting service investigation, cleaning of drains, pipes and services within construction ancillary facility 	Increased vehicle movements into construction ancillary facility	12 (moderate)	Direct: <ul style="list-style-type: none"> • The preliminary construction and commencement activities undertaken at C1 will not include activities which impact the operation of the road network • Spoil haulage will not be undertaken during preliminary construction including commencement activities • All utility services are connected to the existing C1 construction ancillary facility and there are no foreseeable changes which would require works to be undertaken outside of the C1 ancillary facility • Access to C1 will be via the existing access point (Marsh Street): <ul style="list-style-type: none"> • When travelling in north bound lane, access to site will only occur from designated right turning lane at signalised intersection • When travelling in south bound lane, access to site can occur in far-left hand lane • Left hand turn to exit site only • No access from Flora Street • All site personnel would undergo a site induction and ongoing toolbox talks detailing traffic, parking, transport and access management measures • Vehicle Management Plan will be distributed to all subcontractors who need to attend site Indirect: <ul style="list-style-type: none"> • Implementation of management measures outlined in the Appendix B1 Traffic and Access Management Procedure • Implementation of Construction Access and Parking Strategy 	6 (minor)	Appendix B1 Traffic and Access Management Procedure which includes: <ul style="list-style-type: none"> • Anticipated peak daily vehicle movements to C1 • Development of Vehicle Management Plans • Access arrangements for C1 • Communication and training to be undertaken

Issue	Construction activity/aspect	Potential impact	Risk level prior to mitigation	Indicative Mitigation Measures	Risk level following mitigation	Management Documents / Training Required
		Out of hour works that could disrupt sensitive receivers including: <ul style="list-style-type: none"> Deliveries of plant and equipment 	12 (moderate)	Direct: <ul style="list-style-type: none"> Out of hour deliveries may be unloaded within existing acoustic sheds and in the mechanical workshop only Impacted sensitive receivers to be notified of any OOH deliveries The OOH and Construction Fatigue Protocol to be implemented Indirect: <ul style="list-style-type: none"> Implementation of management measures outlined in the Appendix B1 Traffic and Access Management Procedure Implementation of management measures outlined in the Appendix B3 Noise and Vibration Preliminary Sub-plan 	6 (minor)	Appendix B1 Traffic and Access Management Procedure: <ul style="list-style-type: none"> Section 2.2 Road occupancy licenses Section 2.6 Communication and training Appendix B3 Noise and Vibration Preliminary Sub-plan: <ul style="list-style-type: none"> Appendix C OOH and Construction Fatigue Protocol Appendix F CNVIA preliminary construction including commencement activities Community Communication Strategy
		Parking in local streets	12 (moderate)	Direct: <ul style="list-style-type: none"> Parking is available on site for workforce, staff and visitors All on site personnel would undergo a site induction and ongoing toolbox talks that detail parking and transport management measures Indirect: <ul style="list-style-type: none"> Implementation of management measures outlined in the Appendix B1 Traffic and Access Management Procedure. Implementation of Construction Parking and Access Strategy. 	7 (minor)	Appendix B1 Traffic and Access Management Procedure: <ul style="list-style-type: none"> Section 2.6 Communication and training Construction Parking and Access Strategy
		Vehicles using local roads	12 (moderate)	Direct: <ul style="list-style-type: none"> All construction traffic will use the most direct route to the closest arterial and motorway network to minimise impacts on local roads. No access to C1 ancillary facility from Flora Street. Indirect: <ul style="list-style-type: none"> Implementation of management measures outlined in the Appendix B1 Traffic and Access Management Procedure Implementation of Construction Access and Parking Strategy 	6 (minor)	Appendix B1 Traffic and Access Management Procedure which includes: <ul style="list-style-type: none"> Access arrangements for C1 Communication and training which would be undertaken

Table 2 Extract from A2 Aspects and Impacts Register for C2 Rockdale Depot construction ancillary facility

Issue	Construction activity/aspect	Potential impact	Risk level prior to mitigation	Indicative Mitigation Measures	Risk level following mitigation	Management Documents / Training Required
Traffic and Access	<ul style="list-style-type: none"> Light vehicles entering site: <ul style="list-style-type: none"> Anticipated peak daily light vehicle movements (i.e. movement of vehicle in and out of site): 30 Workforce, staff and visitors vehicles Delivery of small-scale construction materials in vans Heavy vehicles entering site: <ul style="list-style-type: none"> Anticipated peak daily heavy vehicle movements (i.e. movement of vehicle in and out of site): 40 Delivery of plant and equipment on semi-trailers, some oversized Delivery of construction materials on flatbed trucks Delivery of concrete and shotcrete via concrete agitator 	Increased vehicle movements into construction ancillary facility	12 (moderate)	Direct: <ul style="list-style-type: none"> The preliminary construction and commencement activities undertaken at C2 will not include activities that impact the operation of the road network Spoil haulage will not be undertaken during preliminary construction including commencement activities Access to C2 will be via the existing access point from West Botany Street (shared with existing depot): <ul style="list-style-type: none"> Access to site is from left hand lane when travelling in south bound lane Egress from site is left out of site into the south bound lane No access via Bay Street All on site personnel would undergo a site induction and ongoing toolbox talks that will detail traffic and access management measures Vehicle Management Plan will be distributed to all subcontractors who need to attend site Indirect: <ul style="list-style-type: none"> Implementation of management measures outlined in the Appendix B1 Traffic and Access Management Procedure Implementation of Construction Parking and Access Strategy 	6 (minor)	Appendix B1 Traffic and Access Management Procedure which includes: <ul style="list-style-type: none"> Anticipated peak daily vehicle movements to C2 Development of Vehicle Management Plans Outline of access/egress to C2 Communication and training which will be undertaken CEMP preliminary construction including commencement activities: <ul style="list-style-type: none"> Section 3.4 Resources, responsibilities and authority Section 3.5 Selection and management of subcontractors Section 3.6 Competence, training and awareness Construction Parking and Access Strategy
	<ul style="list-style-type: none"> Delivery and removal of portable buildings Fuel tankers distributing fuel and refilling at designated refuelling area Importing clean material to build pads, haul roads and laydown areas Other: <ul style="list-style-type: none"> Street sweeper routinely maintaining West Botany Street Special purpose trucks servicing waste skips and front-loading bins 	Congestion at shared access point with TfNSW depot	12 (moderate)	Direct: <ul style="list-style-type: none"> Consultation with adjacent stakeholders will be undertaken in accordance with Community Consultation Strategy Access to depot to remain available to stakeholders Where works temporarily restrict access, stakeholders will be engaged to determine access arrangements Indirect: <ul style="list-style-type: none"> Implementation of management measures outlined in the Appendix B1 Traffic and Access Management Procedure Implementation of Construction Parking and Access Strategy Implementation of management measures outlined in the Community Communication Strategy 	6 (minor)	Appendix B1 Traffic and Access Management Procedure which includes: <ul style="list-style-type: none"> Development of Vehicle Management Plans Outline of access rules to C2 Community Communication Strategy CEMP preliminary construction including commencement activities: <ul style="list-style-type: none"> Section 3.4 Resources, responsibilities and authority Section 3.4 Communication

Issue	Construction activity/aspect	Potential impact	Risk level prior to mitigation	Indicative Mitigation Measures	Risk level following mitigation	Management Documents / Training Required
	<ul style="list-style-type: none"> Vacuum trucks conducting service investigation, cleaning of drains, pipes and services within construction ancillary facility Traffic control facilitating the removal of overhead powerlines at entrance to C2 construction ancillary facility 	<p>Out of hour works that could disrupt sensitive receivers including:</p> <ul style="list-style-type: none"> Deliveries of plant and equipment Relocation of overhead powerlines 	12 (moderate)	<p>Direct:</p> <ul style="list-style-type: none"> Out of hour deliveries are to be unloaded during standard construction hours to avoid disruption to sensitive receivers Sensitive receivers to be notified of any OOH deliveries or works Where possible, removal of overhead powerlines will be removed during standard construction hours <ul style="list-style-type: none"> Where this is not permitted under a ROL, the OOHW and Construction Fatigue Protocol will be implemented (Appendix C of the Noise and Vibration Preliminary CEMP Sub-plan Mitigation measures will follow those outlined in the CNVIA for Preliminary construction including commencement activities <p>Indirect:</p> <ul style="list-style-type: none"> Implementation of management measures outlined in the Appendix B1 Traffic and Access Management Procedure Implementation of management measures outlined in the Appendix B3 Noise and Vibration Preliminary Sub-plan 	6 (minor)	<p>Appendix B1 Traffic and Access Management Procedure:</p> <ul style="list-style-type: none"> Section 2.2 Road occupancy licenses Section 2.6 Communication and training <p>Appendix B3 Noise and Vibration Preliminary Sub-plan:</p> <ul style="list-style-type: none"> Appendix C OOHW and Construction Fatigue Protocol Appendix F CNVIA preliminary construction including commencement activities <p>Community Communication Strategy</p>
		Parking in local streets	12 (moderate)	<p>Direct:</p> <ul style="list-style-type: none"> Parking on site would be available for workforce, staff and visitors Parking at C2 ancillary construction facility would be nearby and would be utilised by workforce, staff and visitors if additional spaces are required All on site personnel would undergo a site induction and ongoing toolbox talks that will detail parking and transport management measures <p>Indirect:</p> <ul style="list-style-type: none"> Implementation of management measures outlined in the Appendix B1 Traffic and Access Management Procedure Implementation of Construction Parking and Access Strategy 	6 (minor)	<p>Appendix B1 Traffic and Access Management Procedure:</p> <ul style="list-style-type: none"> Section 2.6 Communication and training <p>Construction Parking and Access Strategy</p>
		Vehicles using local roads	12 (moderate)	<p>Direct:</p> <ul style="list-style-type: none"> All construction traffic will use the most direct route to the closest arterial and motorway network to minimise impacts on local roads No access to C2 ancillary construction facility from Bay Street. <p>Indirect:</p> <ul style="list-style-type: none"> Implementation of management measures outlined in the Appendix B1 Traffic and Access Management Procedure Implementation of Construction Access and Parking Strategy 	6 (minor)	<p>Appendix B1 Traffic and Access Management Procedure which includes:</p> <ul style="list-style-type: none"> Outline of access rules to C2 Communication and training which will be undertaken

Table 3 Extract from A2 Aspects and Impacts Register for C3 President Avenue (Bicentennial Park and MOC3) construction ancillary facility

Issue	Construction activity/aspect	Potential impact	Risk level prior to mitigation	Indicative Mitigation Measures	Risk level following mitigation	Management Documents / Training Required
Traffic and Access	<ul style="list-style-type: none"> Light vehicles entering site: <ul style="list-style-type: none"> Anticipated peak daily light vehicle movements (i.e. movement of vehicle in and out of site): 52 Workforce, staff and visitors vehicles Delivery of small-scale construction materials in vans Heavy vehicles entering site: <ul style="list-style-type: none"> Anticipated peak daily heavy vehicle movements (i.e. movement of vehicle in and out of site): 80 Delivery of plant and equipment on semi-trailers, some oversized 	Increased vehicle movements into construction ancillary facility	12 (moderate)	Direct: <ul style="list-style-type: none"> The preliminary construction and commencement activities undertaken at C3 will not include activities that impact the operation of the road network Spoil haulage will not be undertaken during preliminary construction including commencement activities Access to C3 would be via the existing access points on West Botany Street (Access arrangements and direction within procedure). All on site personnel would undergo a site induction and ongoing toolbox talks that will detail traffic and access management measures Vehicle Management Plan will be distributed to all subcontractors who need to attend site Indirect: <ul style="list-style-type: none"> Implementation of management measures outlined in the Appendix B1 Traffic and Access Management Procedure Implementation of Construction Parking and Access Strategy 	6 (minor)	Appendix B1 Traffic and Access Management Procedure which includes: <ul style="list-style-type: none"> Anticipated peak daily vehicle movements to C3 Development of Vehicle Management Plans Outline of site access requirements Communication and training which will be undertaken CEMP preliminary construction including commencement activities: <ul style="list-style-type: none"> Section 3.4 Resources, responsibilities and authority Section 3.5 Selection and management of subcontractors Section 3.6 Competence, training and awareness Construction Parking and Access Strategy
	<ul style="list-style-type: none"> Delivery of construction materials on flatbed trucks Delivery of concrete and shotcrete via concrete agitator Delivery and removal of portable buildings Fuel tankers distributing fuel and refilling at designated refuelling area Other: <ul style="list-style-type: none"> Street sweeper routinely maintaining internal haul roads and Marsh Street Special purpose trucks servicing waste skips and front-loading bins Vacuum trucks conducting service investigation, cleaning of drains, pipes and services within construction ancillary facility Traffic control facilitating the removal of overhead powerlines outside MOC3 construction ancillary facility, sewer relocation and street trees which limit access into site 	Out of hour works that could disrupt sensitive receivers including: <ul style="list-style-type: none"> Deliveries of plant and equipment Removal of overhead powerlines 	12 (moderate)	Direct: <ul style="list-style-type: none"> Out of hour deliveries would be unloaded during standard construction hours to avoid disruption to sensitive receivers Sensitive receivers to be notified of any OOH deliveries or works Where possible, overhead powerlines will be removed during standard construction hours <ul style="list-style-type: none"> Where this is not permitted under a ROL, the OOHW and Construction Fatigue Protocol will be implemented (Appendix C of the Noise and Vibration Preliminary CEMP Sub-plan) Mitigation measures will follow those outlined in the CNVIA for Preliminary construction including commencement activities Indirect: <ul style="list-style-type: none"> Implementation of management measures outlined in the Appendix B1 Traffic and Access Management Procedure Implementation of management measures outlined in the Appendix B3 Noise and Vibration Preliminary Sub-plan 	6 (minor)	Appendix B1 Traffic and Access Management Procedure: <ul style="list-style-type: none"> Section 2.2 Road occupancy licenses Section 2.6 Communication and training Appendix B3 Noise and Vibration Preliminary Sub-plan: <ul style="list-style-type: none"> Appendix C OOHW and Construction Fatigue Protocol Appendix F CNVIA preliminary construction including commencement activities Community Communication Strategy
			Parking in local streets	12 (moderate)	Direct: <ul style="list-style-type: none"> Parking on site would be available for workforce, staff and visitors All on site personnel would undergo a site induction and ongoing toolbox talks that will detail parking and transport management measures Indirect: <ul style="list-style-type: none"> Implementation of management measures outlined in the Appendix B1 Traffic and Access Management Procedure. Implementation of Construction Parking and Access Strategy. 	6 (minor)

Issue	Construction activity/aspect	Potential impact	Risk level prior to mitigation	Indicative Mitigation Measures	Risk level following mitigation	Management Documents / Training Required
		Vehicles using local roads	12 (moderate)	Direct: <ul style="list-style-type: none"> All construction traffic would use the most direct route to the closest arterial and motorway network to minimise impacts on local roads Access to C3 construction ancillary facility from West Botany Road Indirect: <ul style="list-style-type: none"> Implementation of management measures outlined in the Appendix B1 Traffic and Access Management Procedure Implementation of Construction Access and Parking Strategy 	6 (minor)	Appendix B1 Traffic and Access Management Procedure which includes: <ul style="list-style-type: none"> Outline of access requirements Communication and training which will be undertaken Construction Parking and Access Strategy
		Traffic disruption	12 (moderate)	Direct: <ul style="list-style-type: none"> Traffic control will be carried out in accordance with Traffic Guidance Schemes Programming of works to minimise the duration of works Community liaison and notification All complaints will be handled in accordance with the Complaints Management System Where required, pedestrians will be directed around work areas on alternative footpaths using signage, variable message boards or traffic controllers Indirect: <ul style="list-style-type: none"> Implementation of management measures outlined in the Appendix B1 Traffic and Access Management Procedure 	7 (minor)	Appendix B1 Traffic and Access Management Procedure which includes: <ul style="list-style-type: none"> Mitigation Measures for Vehicle Movements Communication and training which will be undertaken

1.3 Scope

To facilitate delivery of the Project, the CGU has elected to stage construction of the Project. A Staging Report (M6S1-CGU-NWW-ENPE-PLN-000401) has been prepared and details the strategy for staging and the compliance requirements for each of the two construction stages:

- Stage 1 – Preliminary Construction; and
- Stage 2 - Construction.

Activities which would impact the operation of the road network (such as bulk excavation, spoil haulage and traffic staging for road upgrade works) will not commence in Stage 1 (preliminary construction). Based on the limited scope of works within Stage 1 (primarily site establishment and enabling works), few impacts to the local community and road users are anticipated. This Procedure addresses residual impacts that may occur during preliminary construction including commencement activities.

Conditions relevant to this Management Procedure are outlined in Table 4 and Table 5 below.

Table 4 Relevant Ministers Conditions of Approval

CoA	Condition text	Where this addressed
E117	Safe pedestrian and cyclist access must be maintained around work sites during construction. In circumstances where pedestrian and cyclist access is restricted or removed due to construction activities, an alternate route which complies with the relevant standards must be provided and signposted prior to the restriction or removal of the relevant pedestrian and cyclist access.	Section 1.7 Section 1.6 Section 2.0 Section 2.4 Section 2.5
E118	During construction, where bus stops are required to be temporarily closed or relocated, such closure must not occur until relocated bus stops are functioning, have similar capacity and amenity and are relocated within a 400 metre walking distance of the existing bus stop. Closures and relocation of bus stops during construction must be undertaken in consultation with Transport for NSW and relevant council(s). Wayfinding signage must be provided directing commuters to adjacent or relocated bus stops. Footpaths and (where required) road crossing facilities must be provided to any relocated bus stops such that accessibility and safety standards are met.	No bus stops will be relocated or temporarily closed during preliminary construction activities.
E119	Prior to the commencement of operation, all bus stops temporarily closed or relocated must be reinstated in a manner that provides equal or improved capacity, amenity and accessibility (including footpaths and road crossings) in consultation with Transport for NSW and relevant council(s).	No bus stops will be relocated or temporarily closed during preliminary construction activities.
E120	Access to all utilities and properties must be maintained during construction, where practicable, unless otherwise agreed with the relevant utility owner, landowner or occupier.	Section 1.6 Section 2.4
E121	Any property access physically affected by the CSSI must be reinstated to at least an equivalent standard, unless otherwise agreed by the landowner or occupier.	Section 2.4
E122	Access to and from the Rockdale construction ancillary facility (C2) by heavy vehicles must only be via West Botany Street, unless otherwise approved by the Planning Secretary.	Section 1.6, Figure 2
E129	Construction vehicles (including staff vehicles) associated with the CSSI must be managed to minimise parking, idling and queuing on public roads.	Appendix A4 Site Establishment Management Plan, Table 6 Section 2.0 Parking: Section 1.5 and Section 2.3 Access: Section 1.6 and Section 2.4 Construction Parking and Access Strategy

CoA	Condition text	Where this addressed
E127	Before any local road is used by a heavy vehicle for the purposes of the CSSI, a Road Dilapidation Report must be prepared for the road. A copy of the Road Dilapidation Report must be provided to the relevant council within three (3) weeks of completion of the survey and no later than one (1) month prior to the road being used by heavy vehicles associated with the CSSI.	Refer to Section 2.1 Communication Strategy
E128	(a) If damage to roads occurs as a result of the CSSI, the Proponent must either (at the relevant road authority's discretion): compensate the relevant road authority for the damage so caused; or (b) rectify the damage to restore the road to at least the condition it was in pre-works as identified in the Road Dilapidation Report(s).	Refer to Section 2.1 Communication Strategy
E130	A Construction Parking and Access Strategy must be prepared and implemented to identify and mitigate impacts resulting from on- and off-street parking changes during construction. The Strategy must include, but not necessarily be limited to: (a) confirmation and timing of the removal of on- and off-street parking associated with construction (including during site establishment when access to off-street parking at construction ancillary facilities has yet to be established); (b) parking accumulation surveys (consistent with Austroads requirements) of parking spaces to be removed to determine current demand during peak, off-peak, school drop off and pickup, and weekend periods; (c) consultation with affected stakeholders, including property occupants with driveway access along President Avenue between Civic Avenue and Princes Highway, utilising existing on- and off-street parking stock which will be impacted as a result of construction and impacted by the introduction of temporary clearways on President Avenue; (d) review of the impacts of changes to on- and off-street parking stock taking into consideration outcomes of consultation with affected stakeholders; (e) identification of mitigation measures to manage impacts to stakeholders as a result of on- and off-street parking changes including, but not necessarily limited to, staged removal and replacement of parking and provision of alternative parking arrangements; (f) strategies to address shortfalls in car parking spaces at individual construction ancillary facilities and disincentivising construction personnel from parking on the street near work sites instead of further afield at a different construction ancillary facility where car spaces are available, including managed staff parking arrangements and working with relevant council(s) to introduce parking restrictions adjacent to work sites and compounds; (g) review of the provision of a shuttle bus service(s) to transport workers to site(s) and details of the shuttle bus service(s), including service timing and frequency, where; reasonable and feasible (h) mechanisms for monitoring, over appropriate intervals, to determine the effectiveness of implemented mitigation measures;	Construction Parking and Access Strategy

CoA	Condition text	Where this addressed
	(i) provision of contingency measures should the results of mitigation monitoring indicate implemented measures are ineffective; and (j) provision of reporting of monitoring results to the Planning Secretary and relevant council(s) at three (3) monthly intervals. The Construction Parking and Access Strategy must be submitted to the Planning Secretary for information prior to the commencement of any works that impact parking.	
E131	During construction, all reasonably practicable measures must be implemented to maintain pedestrian and vehicular access to, and parking in the vicinity of, businesses and affected properties. Disruptions are to be avoided, and where avoidance is not possible, minimised. Where disruption cannot be minimised, alternative pedestrian and vehicular access, and parking arrangements must be developed in consultation with affected businesses and implemented prior to the disruption. Adequate signage and directions to businesses must be provided prior to, and for the duration of, any disruption.	Section 1.6 Section 2.0 Section 2.4

Table 5 Relevant Environmental Mitigation Measures

EMM	Condition text	Where this addressed
TT1	A Construction Traffic and Access Management Plan (CTAMP) will be prepared as part of the Construction Environmental Management Plan. The CTAMP will detail processes to minimise delays and disruptions and identify and respond to changes in road safety as a result of project construction works. The CTAMP will be prepared in accordance with applicable guidelines and relevant standards, guides and manuals. The CTAMP will: <ul style="list-style-type: none"> - Develop project staging plans in consultation with relevant traffic and transport stakeholders, which would include measures to manage impacts during special events (such as sporting events) - Minimise the number of changes to the road users' travel paths and, where changes are required, implement a high standard of traffic controls which effectively warn, inform and guide - Comprehensively communicate changes in traffic conditions on roads or paths to emergency services, public transport operators, other road user groups and other affected stakeholders 	Section 1.1
TT3	During construction, work with the TMC to observe traffic flows and incidents from CCTV footage and where reasonable and feasible, modify sites and activities to address issues identified by TMC.	Section 2.1
TT5	Minimise local road closures and maintain adequate property access to the road network. Property owners would be consulted and agree to any changes to access.	Section 1.6 Section 2.4

EMM	Condition text	Where this addressed
TT7	Prior to impacting roads, a road dilapidation report will be prepared, in consultation with relevant council(s) and road owners, identifying existing conditions of local roads and mechanisms to repair damage to the road network caused by heavy vehicle movements associated with the project.	Refer to Section 2.1 Communication Strategy

1.4 Anticipated Peak Daily Vehicle Movements

Table 6 below outlines the anticipated peak daily vehicle movements for each construction ancillary facility during preliminary construction including commencement activities. The types of vehicles which will be used include:

- Heavy Vehicles:
 - Semi-trailers: delivery of portable buildings.
 - Flat-bed trucks: delivery of construction materials, plant and equipment.
 - Bogies: removal of demolition waste, removal of material associated with preliminary construction and commencement activities (no bulk excavation at Stage 1).
 - Truck and dog: importing clean fill material to construct piling pads and leveling out some areas on site.
 - Concrete agitators: Concrete delivery for construction of hardstands, haul roads and other activities if required
 - Special purpose trucks: delivery, removal and servicing of skip bins.
 - Special purpose vehicles: small tankers distributing fuel to plant and equipment, street sweepers, vacuum trucks.
 - Oversized trucks: delivery of plant and equipment.
- Light Vehicles:
 - Worker and visitor vehicles.
 - Vans: delivery of small-scale construction materials.

Table 6 Anticipated Peak Daily Vehicle Movements

Support Site	Location	Road classification	Anticipated number of daily movements (peak)	
			Light	Heavy
C1 Arncliffe construction ancillary facility	13 Marsh Street, Arncliffe	State Road	68	30
C2 Rockdale construction ancillary facility	400 West Botany Street, Arncliffe	Regional Road	30	40
C3 President Avenue construction ancillary facility	468 West Botany Street, Rockdale 112-132 President Avenue, Rockdale	Regional Road State Road	52	80
C4 & C5 Active Transport Corridor	No works associated with this site will be undertaken during Stage 1 Preliminary Construction			
C6 Princes Highway construction ancillary facility	No works associated with this site will be undertaken during Stage 1 Preliminary Construction			

Work hours for access to the construction ancillary facilities during preliminary construction including commencement activities are outlined in Table 7.

Table 7 Work hours and expected peak travel periods

Activity	Standard Construction Hours	Expected peak travel periods
CEMP Preliminary construction and commencement activities	7am to 6pm Monday to Friday 8am to 6pm* Saturday (no high impact works after 1pm) No works on Sundays or Public Holidays	6am – 7am and 5pm to 7pm Monday to Friday 7am to 8am and 6pm* Saturdays

*in accordance with Condition of Approval E63

1.5 Parking Impacts

Significant impacts to the availability of parking during preliminary construction including commencement activities are not anticipated in the vicinity of the C1 Arncliffe construction ancillary facility and C2 Rockdale construction ancillary facility, due to the availability of onsite parking. However, the establishment of the C3 President Avenue construction ancillary facility, includes occupation of a site which includes 65 public parking spaces. The Construction Access and Parking Strategy (CPAS) will be developed and implemented for this change in parking.

1.6 Access Impacts

Access to construction ancillary facilities will be via existing laybacks and access points during preliminary construction including commencement activities, however some works may commence to facilitate the construction of new access points. The Arncliffe construction ancillary facility (C1) will only be accessed via Marsh Street, with no access from Flora Street (refer to Figure 1). The Rockdale construction ancillary facility (C2) will be accessed via West Botany Street, via a shared driveway with the existing TfNSW Depot (refer to Figure 2). The President Avenue construction ancillary facility (C3), including the MOC3 site, will be accessed from West Botany Street. Access points are illustrated in Figure 3. Management and mitigation measures related to minimising idling and queuing on public roads are outlined in Section 2.4.

Access to properties (i.e. residential, businesses etc.) and utilities will be maintained where possible. Agreement with properties (landowners or occupiers) will be obtained if access cannot be maintained, and where restricting access is unavoidable, disruption should be minimised. Any proposed closures will be consulted on prior to implementation through measures outlined in the Communication Strategy and in accordance with CoA E131, E120 and G36. The Project will provide safe alternatives with adequate signage and directions to alternative arrangements. Where applicable, alternative access to utilities will be agreed upon with the utility owner prior to works commencing.



Figure 1 Access to C1 Arncliffe construction ancillary facility



Figure 2 Access to C2 Rockdale Depot construction ancillary facility

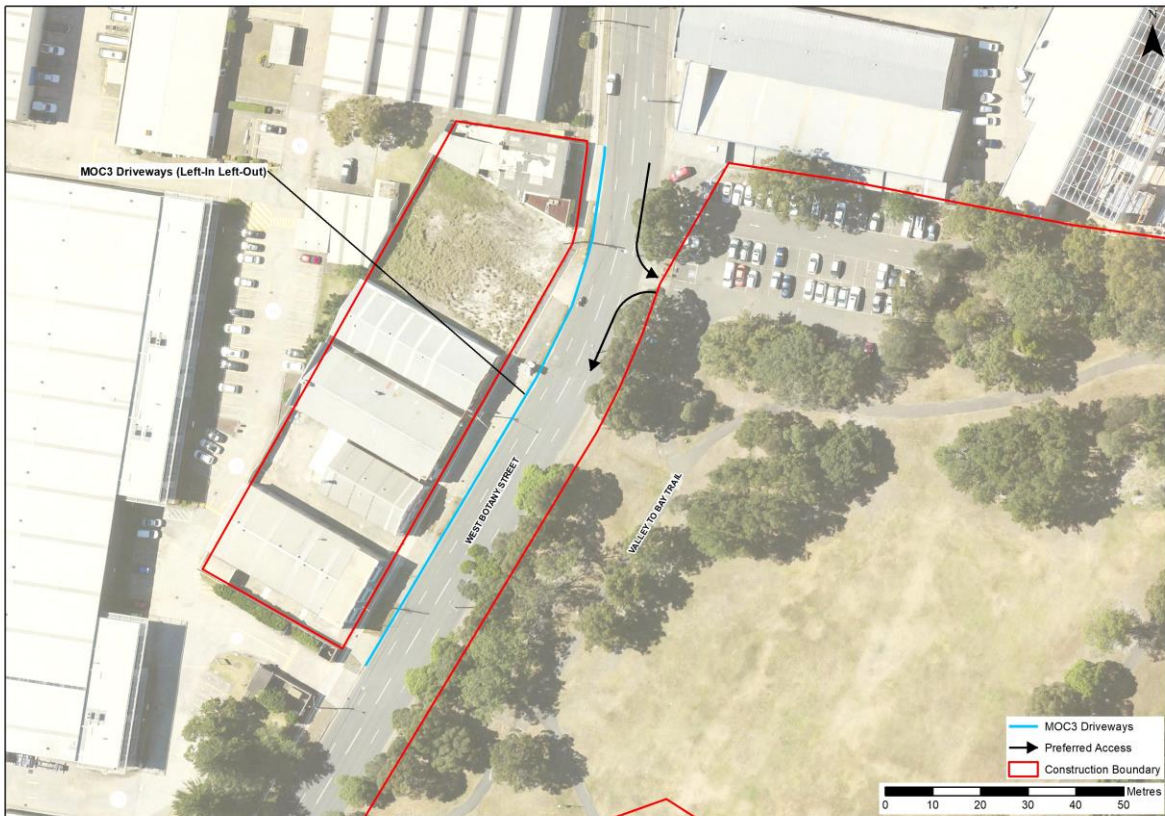


Figure 3 Access to C3 Rockdale Bicentennial Park and MOC3

1.7 Impacts to pedestrians, cyclists and bus stops

There is the potential for impacts to pedestrians (including disabled persons) and cyclists as a result of pedestrian footways and cycle paths being diverted during activities. Pedestrian, cyclists and bus stop impacts will also be identified in the Site-Specific Construction Traffic and Transport Management Plan, which is a requirement under the TfNSW Safety Management System. This Plan is developed in accordance with relevant Standards and Codes, and in consultation with the Customer Journey Planning (CJP), TfNSW, relevant Councils, emergency services, transport operators and any other relevant Authorities.

During preliminary construction including commencement activities, no impacts are anticipated in the vicinity of the Arncliffe construction ancillary facility (C1). Pedestrians will be managed at entrances to the Rockdale construction ancillary facility (C2) to facilitate the delivery of plant and equipment to site. Access to recreational facilities adjacent to the President Ave construction ancillary facility (C3) will be maintained and pedestrians and cyclists will be managed at entrances to the construction ancillary facility (C3) including MOC3. During Stage 2 Construction, the pedestrian footbridge within C3 will be removed. As a result, during Stage 1 Preliminary Construction, a pedestrian footpath will be constructed along the northern boundary of the C3 to provide access from West Botany Street through to Brighton-Le-Sands Public School.

Access to existing recreational facilities at Bicentennial Park will be maintained during preliminary construction.

2 Management and Mitigation Measures

Under TfNSW Safety Management System, CGU will prepare Site Specific Construction Traffic and Transport Management Plans. The purpose of this document is to detail the proposed changes for each discrete construction area that interfaces with the road and pedestrian footpaths. These Plan/s will remain in place over the duration of the Project and will be updated as the construction ancillary facilities evolve, and new stages of work commence and are completed. The Plans may include:

- Work location map and extents of work zone;
- Existing and proposed speed limits for justification;
- Safety barrier positioning and type (including crash cushioning);
- Design drawings, including design speed and certification;
- Impacts on traffic, pedestrian, cyclists, property access, public transport, emergency service vehicles access, parking etc.
- Pavement marking, colour and type;
- Signage details including location, type, size, design;
- Details of existing signs to be maintained, removed relocated, covered and altered (along with new signs which may need to be implemented);
- Traffic signal changes and traffic control signal drawings; and
- Public notifications and communication strategy (in line with Project Communication Strategy), including register of stakeholder consultation.

2.1 Vehicle movements

Management and mitigation measures related to vehicle movements include:

- No heavy vehicles are anticipated to use local roads during preliminary construction activities:
 - If the use of local roads is unavoidable, dilapidation surveys will be completed the local roads which will be used by heavy vehicles (associated with preliminary construction activities).
 - A Road Dilapidation Report will be submitted to the relevant council within 3 weeks of the survey being completed and 1 month prior to the road being used by heavy vehicles.
 - This work will be executed through the Construction Area Plan and coordinated between Construction Project Manager and the Traffic Project Manager.
 - Where damage to a local road by the Project has been identified, the damage will be investigated and rectified to restore the condition the road was in pre-works as identified in the Road Dilapidation Reports, or compensation issued to the relevant road authority.
- Development and implementation of Vehicle Movement Plans (VMP) for implementation on site, which would include:
 - Swept path analysis;
 - Speed limits;
 - Delineation between heavy and light vehicles; and
 - Separation of plant/vehicles and personnel

- Development and implementation of Traffic Guidance Schemes (TGS) (formerly Traffic Control Plans (TCP)), for implementation where sites have access onto and from arterial roads, which would include
 - Outcomes of swept path analysis;
 - Speed limits of public roads;
 - Contact details.
 - Access routes to compound; and
 - Required signage.
- All vehicles must give way to pedestrians and users of footpaths.
- Where reasonable and feasible, sites and preliminary construction activities will be modified and/or adapted to address issues identified by Customer Journey Planning (CJP) through monitoring of CCTV Footage in consultation with the Transport Management Centre (TMC).

2.2 Road Occupancy Licenses

CGU will obtain necessary approvals prior to occupying or conducting works in the road or the road reserve. A Road Occupancy Licence (ROL) authorises the occupation of a portion of the road that would normally be available to traffic and will be obtained for any work which:

- Slows, stops or otherwise delays or affects the normal flow of traffic;
- Diverts traffic from its normal course along the road, including lane closures and detours; and
- Occupies any portion of the road related area, including the footpath that is normally available for vehicular, pedestrian or bicycle movement.

2.3 Parking and Idling

Management and mitigation measures related to parking and idling include:

- Providing onsite parking
- Sub-contractors to provide employee transport strategies as part of the procurement process;
- Communication of parking restrictions to workers;
- Vehicle idling will be limited to a total of 3 minutes within a sixty-minute period.

Detailed management and mitigation measures related to parking are also outlined in Section 5.4 and Section 6 of the CPAS which has been prepared and will be submitted in accordance to E130 prior to the commencement of Stage 1 works.

2.4 Access

Management and mitigation measures related to access include:

- Vehicular and pedestrian access to properties would be maintained throughout activities;
- All vehicles are to access construction ancillary facilities via existing access points (refer to Figure 1, Figure 2 and Figure 3);
- Where reasonable and feasible, access to properties and utilities must be maintained;
 - Where access to properties and utilities cannot be maintained, disruption must be minimised where possible,

- Alternative pedestrian and vehicle access must be developed in consultation with the property owner in accordance with the Communication Strategy,
- Alternative access for the asset owner will be undertaken in accordance with the Communication Strategy prior to works commencing,
- Adequate signage and directions must be displayed prior to the disruption occurring,
- Permanent reinstatement of access must be to the equivalent standard or as agreed with the property owner.
- Access points will be stabilised to minimise loose material from being tracked onto public roads:
 - Controls for minimising tracking onto public road must be carried out in accordance with Appendix B7 Air Quality and Odour CEMP Sub-plan and the Appendix B4 Soil and Surface Water Management Procedure.
- Queuing and congestion on public roads due to increased vehicles movements related to the Project will be minimised through:
 - Coordinating deliveries,
 - Maximising available space within compounds for delivery vehicles,
 - Implementing traffic control where required, and
 - Finalising design for construction access points and signalised intersections for implementation during Stage 2 Construction.

2.5 Changes to pedestrian footpaths, cyclists and bus stops

Management and mitigation measures related to changes in pedestrian footpath and cycling routes and bus stops include:

- Implementation of the Construction Site Specific Traffic and Transport Management Plan, which is developed in accordance with relevant Standards and Codes;
- Access to recreational facilities will be maintained;
- Access between West Botany and Brighton-Le-Sands School will be maintained;
- Alternate pedestrian and cycle arrangements would be implemented where necessary and would aim to minimise inconvenience to users with the primary goal of maintaining clear space between users, vehicular traffic and active work areas; and
- There are no anticipated impacts to bus stop location or operations during preliminary construction including commencement activities.

2.6 Communication and training

Management and mitigation measures related to communication and training include:

- All project personnel will be required to complete a project induction which includes information on the management and mitigation measures of this procedure including information on vehicle routes, parking locations, acceptable delivery hours specific to the site and other relevant practices (i.e. minimising the use of engine brakes, and no extended periods of engine idling);
- Sub-contractor packs will include information of management and mitigation measures outlined in Section 2;
- Adequate signage and directions to businesses must be provided prior to, and for the duration of, any disruption;

- Adequate signage and visual warning of any proposed traffic access changes will be provided, including identification of entrance and exit points and amendments to pedestrian and cyclist access; and
- Ongoing reminders will be communicated through pre-starts and toolboxes, including feedback from residents (where relevant).