Pre-Construction Minor Works Approval Form

Minor Works are defined as any low impact activities that are undertaken prior to the commencement of 'construction' as defined in the project's applicable planning approval. However, if Minor Works affect or potentially affect heritage items, threatened species, populations or endangered ecological communities, these works are defined as 'construction' unless otherwise determined by the applicable planning authority.

Minor Works approvals do not remove any obligation to comply with the project's applicable planning approval conditions (including requirements prior to 'any works' commencing) or obtain any other applicable permits, licenses or approvals as necessary.

This application and all supporting information must be submitted to Sydney Metro/the Environmental Representative as one (1) PDF file at least 10 business days prior to the commencement of the proposed Minor Works.

Part 1: Application	
Contractor:	Martinus
Project:	Southwest Metro
Application Title: (e.g. Smith St trenching works)	Corridor Intrusion Risk Assessment (CIRA) – Belmore Site Office set-up, Occupation and Operation
Application Number:	MWA-MR-006
Application Date:	DRAFT: 06/09/2024 REV A: 10/09/2024
Planning Approval:	Sydney Metro City and Southwest Infrastructure Approval SSI-8256 (inclusive of CSSI 8256 MOD 1 determined 22 October 2020 and accompanying updated REMM's modification report) Sydney Metro City and Southwest – Sydenham to Bankstown – Environmental Impact Statement (EIS) Sydney Metro City and Southwest – Sydenham to Bankstown – Submissions and Preferred Infrastructure Report (SPIR) (inclusive of Revised Mitigation Measures: REMM)
Minor Works Categories: • Highlight as applicable. • If Items 4, 8 or 11 are applicable, this form must be endorsed by an Environmental Representative.	1. Survey, survey facilitation and investigations works (including road and building dilapidation survey works, drilling and excavation). 2. Treatment of contaminated sites. 3. Establishment of ancillary facilities (excluding demolition), including construction of ancillary facility access roads and providing facility utilities. 4. Operation of ancillary facilities that have minimal impact on the environment and community. 5. Minor clearing and relocation of vegetation (including native). 6. Installation of mitigation measures, including erosion and sediment controls, temporary exclusion fencing for sensitive areas and acoustic treatments. 7. Property acquisition adjustment works, including installation of property fencing and utility relocation and adjustments to properties. 8. Utility relocation and connections. 9. Maintenance of existing buildings and structures. 10. Archaeological testing under the Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales (DECCW, 2010) or archaeological monitoring undertaken in association with other Minor Works to ensure there is no impact on heritage items. 11. Any other activities that have minimal environmental impact, including construction of minor access roads, temporary relocation of pedestrian and cycle paths and the provision of property access.

Planning Authority Determination: Will the proposed works affect or have the potential to affect heritage items, threatened species, populations or endangered ecological communities?	*If 'Yes', this completed form must be endorsed by an Environmental Representative, approved by Sydney Metro and submitted to the applicable planning authority to determine that the works are not defined as 'construction'.* The minor works are for making amendments to, and occupying an Ancillary Facility that is already approved under SSI 8256 CoA A1. The amendments to the Ancillary Facility fall under Category 3 of this Minor Works Approval, and the operation falls under Category 4. The establishment and operation will involve the following: • Maintenance of the compound to Martinus operating standards. • Installation of several site sheds to facilitate office desks, lunch rooms and first aid rooms. • Occupation of the existing parking spaces within the Ancillary Facility for site staff. The minor works are considered 'Low Impact Activities' in accordance with Condition A1 of SSI 8256 and Minor Works Approval categories 3, 4, 8 and 9. Additionally, this will be a minor ancillary facility, as per SSI 8256 CoA A19, and has been assessed by ER to have: (i) minor amenity impacts to surrounding residences and businesses, after consideration of matters such as compliance with the Interim Construction Noise Guideline (DECC, 2009), traffic and access impacts, dust and odour impacts, and visual (including light spill) impacts, and (ii) minor environmental impact with respect to waste management and flooding, and (iii) no impacts on biodiversity, soil and water, and heritage items beyond those already approved under other terms of this approval. The minor works proposed would have no adverse effects on State Heritage-listed items, areas of potential archaeological significance, threatened species, populations of, or endangered ecological communities. There will be no disturbance or impact on movable heritage items during any phase of the planned works outlined in this application. All environmental constraints have been identified in Environmental Control Map with associated avoidance and mitigation conditions to ensure the category of Low Impact Activities is adhered to and the environmental, social and economic features and values are protected, retained and conserved. Furthermore, Martinus will adhere to the Sydney Metro Unexpected Heritage Finds Procedure v5.0 and the Sydney Metro Unexpected Finds Contamination and Asbestos Procedure. These protocols will be implemented diligently across all minor works associated with this application, ensuring rigorous environmental and safety controls are in place. **Minor Works Categories & Mitigation Measures** **Item 3 - Establishment of ancillary facilities (excluding demolition), including construction of ancillary facility access roads and providing facility utilities.** The Belmore Site Office is already established under SSI 8256 CoA A1. Martinus are proposing to make minor amendments to the Ancillary Facility through the installation of additional site sheds for the purposes of office desks, lunch and first aid rooms. These activities will not require groundbreaking and are located within a pre-cleared area avoids and minimises impacts to heritage areas and areas containing threatened species, populations, or endangered ecological communities. The works would likely be undertaken during normal construction hours. However, Out of Hours Works (OOHW) works may be proposed to undertake the works where it is not reasonable or permitted during construction hours (such as oversized deliveries for example). In the event OOHW applications were required these would be developed as the project progresses. This Minor Works Approval would provide the base planning pathway to undertake future works in accordance with the OOHW application and approvals process. The additional minor work sites would be assessed and approved under a separate OOHW application. **Item 4 – Operation of ancillary facilities that have minimal impact on the environment and community.**

	The Belmore Site Office is an already established ancillary facility, with existing access in and out the premise. Operation of the facility would be limited to 15-20 car at maximum usage, where car-pooling will be encouraged throughout the work teams. Confirming there will be no minor clearing and relocation of vegetation however, considering the surrounding areas shown on the ECM (see Appendix 1) it was relevant to identify and confirm these constraints and no impacts. **Item 8 and 9 - Utility relocation and connections, Maintenance of existing buildings and structures.** Utility connections will be limited to utilising existing connections within the premise and connecting the several new site sheds to electricity and utilising amenities. Maintenance will involve cleaning and enhancing the existing facilities to Martinus operating standards following our WH&S Management Procedures.

Part 2: Details

Describe the proposed Minor Works: Including work methodologies, site location(s) and site description(s) (e.g. landscape type, waterways, etc.).	**Site Location and Descriptions:** In accordance with the Environmental Impact Statement (EIS) approved as part of SSI 8256 under the Environmental Planning & Assessment Act 1979 and associated Conditions of Approval, the Project areas lie within the railway corridor of the T3 Bankstown Line. This corridor encompasses stations, overbridges, overhead wiring structures, tracks, services, and ballast, stretching from Sydenham Station to Bankstown Station. All minor works outlined in this application are situated within the existing project boundaries specified in the approval. **General Biophysical Environment:** The Belmore Site Office is an existing Ancillary Facility (AF) that has had vegetation cleared historically, with asphalt lined access roads in and out of the facility. There is no adjacent watercourse to the AF, nor exposed soils requiring ERSED management. **Land use:** Land use within he surrounding locality of the Belmore Site Office is highly urbanised mixed land uses, ranging from high to low medium density residential and commercial with the inclusion of community, health, education, and recreation. The community has been suitably notified of the planned minor works through Community Notifications shown in Appendix 2. **Traffic and Transport:** As the intended additions are to an existing Ancillary Facility with established and paved access roads, no additional considerations are required to be made regarding interface with public roads. There will be approximately 20 vehicles using this Ancillary Facility at peak usage, where car-pooling will be implemented as an initiative amongst the work teams to reduce the amount of thoroughfare at any given point in time. **Noise & Vibration** This minor ancillary facility maybe used by Martinus to support OOHW (sign-in and pre-start briefs) and a separate OOHW approval will be applied where required. For ongoing use/operation of the facility, any utilisation of a generator would be connected to the mains power therefore minimising any noise impacts from the operation of this minor ancillary facility. CoA E19 defines standard Sydenham to Bankstown hours of work as: • Monday to Friday 7am to 6pm and Saturdays 8am to 6pm. The works associated with this Minor Works Approval would all be undertaken during construction hours as per CoA E19. Any works planned to occur outside standard work hours must be assessed and approved in advance in accordance with Sydney Metro's approved

City and Southwest Out of Hours Works Strategy/Protocol with supporting noise and vibration assessment.

Heritage

The nearest item listed on the State Heritage Register is Belmore Station and its central brick column associated with the Burwood Road overbridge. These items are approximately 200 metres from the Belmore Site Office. Noting that the Belmore Station and its associated listing are also listed within the Canterbury Bankstown Local Environmental Plan 2023 as local heritage significance.

The AF is located within the Belmore AMZ catchment, however as no ground disturbance is required, no further approval for the establishment and operation of this AF is needed.

Methodologies

Site maintenance and preparation for site shed installation

Site maintenance and preparation for site shed installation:

- Utility connections will be limited to utilising existing connections within the premise and connecting the several new site sheds to electricity and utilizing amenities.
- Maintenance will involve cleaning and enhancing the existing facilities to Martinus operating standards following Martinus WH&S Management Procedures.

Installation of the additional site sheds

Plant involved:

- Delivery trucks (with crane attachment)
- Site utes
- Hand tools
- Handheld survey equipment

During the delivery of the site sheds, Traffic Guidance Schemes (Appendix 3) will be followed, ensuring minimal disruption to the surrounding community during the delivery.

Operation of the Belmore Site Office

While in operation, it is estimated that 15-20 vehicles will utilise the AF at peak usage. This figure does not exceed the estimated amount of vehicles indicated within the previous SSI 8256 CoA A1 inclusion of this AF. The stakeholders located within a 100 radius of the premises will be notified, in which the information is attached within Appendix 2.

Areas of biodiversity value including Planted Native Vegetation and are identified on the environmental control map. These areas would be fenced where appropriate and practicable and their locations identified to all personnel during induction. Where applicable, vegetation would be protected in accordance with the following:

- Vegetation within the impact area is to be protected generally in accordance with AS4970 – Protection of trees on development sites
- Tree Protection Zones (TPZ) are to be demarcated prior to commencing works where proposed works impact the TPZ or canopy of retained specimens.

Planned Commencement Date:	The minor works scope items planned to commence during standard Construction Hours (CoA E19) from the 12th of September 2024 at the Belmore Site Office.
Local Sensitivities: Describe the presence (if any) of local sensitive environmental areas and community receptors	There are a number of residential and commercial properties located within close proximity to the. Due to the proximity of these receivers to the works, these properties may be sensitive to excessive noise. The works specific to this application shall be conducted during construction hours where reasonable and feasible. Any potential impacts to these properties would be managed in accordance with the Construction Noise and Vibration Strategy, including relevant notifications. There are no vibratory activities associated with the works. Any potential noise and vibration will also be managed in accordance with the following criteria: • Construction 'Noise affected' noise management levels established using the Interim Construction Noise Guideline (DECC, 2009); The proposed works would implement the standard construction noise and vibration mitigation measures required on all Sydney Metro projects and delivered via relevant procedures, systems, environmental assessment, and all relevant contract documentation. Preliminary environmental site assessments identified the potential risk of contamination within the investigation area, with potential contamination sources being historical rail activities, and commercial and residential land use in surrounding areas. Potential contaminants identified in low to medium risk areas included: • Asbestos • Hydrocarbons • Heavy metals • Herbicides. Contamination will be managed in accordance with the Sydney Metro City and Southwest Unexpected Contamination Finds Procedure. Works are non-invasive and therefore risks associated with the disturbance of PASS/ASS are negligible. Minor works will occur within archaeological management zones as defined in the AARD. However, as the works within this zone are specifically related to above ground site establishment and operation, the likelihood of an archaeological find is low. No areas within the Belmore Site Office potentially contain aboriginal archaeology, known as PADs (Potential Archaeological Deposit) which are located within the EIS study area. Visual amenity – the visual aspects of the work sites would be consistent with the industrial nature of the rail corridor. Lighting towers would be pointed away from receivers to minimise the impacts of lighting spill when required for future OOHW scenarios (if applicable). Works may occur in the vicinity of local stormwater systems. Localised erosion and sediment controls will be in place at all locations where materials associated with the works may leave the corridor, including via stormwater drainage. Appropriate approvals, including Road Occupancy Licences and Traffic Guidance Schemes as identified in Appendix 3, must be in place where works on roadways are required. Pedestrian access will be maintained in any area where works are occurring, noting that pedestrian access is not permitted within the rail corridor.

Part 3: Environmental Risk Assessment and Management

Prepare an Environmental Risk Assessment (in accordance with the Sydney Metro Risk Management Standard) and an Environmental Control Map for the proposed Minor Works and attach as Appendix 1.

If an Environmental Risk Assessment and/or an Environmental Control Map for the proposed Minor Works is/are already contained in existing documentation, attach the relevant section(s) as Appendix 1.

Documentation: List any existing documents (including those referenced above) that the proposed Minor Works will be undertaken in accordance with and attach.	• An Environmental Risk Assessment and ECMs for the proposed works are included in Appendix 1 • Community Notifications in Appendix 2 • Traffic Guidance Schemes in Appendix 3 • Landowner's Consent in Appendix 4.

Part 4: Workforce Notification

How will the environmental and community risks and associated mitigation measures of the proposed Minor Works be communicated to the contractor's workforce?	Prior to any minor works a site induction will be provided to all personnel working on the project site. The induction will include relevant environmental aspects and risks associated with works on the project site.

Part 5: Community Consultation

What community consultation has been undertaken already?	The Southwest Metro project has been ongoing since 2021 and substantial community consultation has taken place about project activities.
What community consultation is planned to be undertaken?	Ongoing consultation will occur through the Monthly Community Notice with the addition of the installation of signage to advise the community of any impacts to any parking. The community will be notified of any use of these areas outside of standard construction hours in accordance with the Additional Mitigation Measures specified in the Construction Noise and Vibration Strategy.
If drafted already, attach applicable Community Notification as Appendix 2.	

Part 6: Contact Details

Nominate contractor's project manager, environmental and communications contact(s).

Name:	[redacted]	**Position:**	Project Manger	**Phone:**	[redacted]
	[redacted]		Environment Manager		[redacted]
	[redacted]		Communications Manager		[redacted]

Part 7: Signature

This signature acknowledges that the proposed Minor Works will be undertaken in accordance with this application, have minimal environmental impact and are not defined as 'construction' in accordance with the applicable planning approval.

Name:	[redacted]		
Signature:	[redacted]	**Date:**	06/09/2024

Determination Page

(Sydney Metro/Environmental Representative Use Only)

12. **Endorsement/Approval**			
These signatures represent formal endorsement/approval for the proposed Minor Works to commence in accordance with this application and the applicable planning approval requirements (subject to any determination from the applicable planning authority as may be required by the planning approval conditions).			
	Director Project Communications – Endorsement (required for all applications)	**Director Environment, Sustainability & Planning** – Approval (required for all applications)	**Environmental Representative** – Endorsement (required as necessary in accordance with the applicable planning approval, optional for all other circumstances)
Signature:	[redacted]	[redacted]	[redacted]
Name:	[redacted]	[redacted]	[redacted]
Date:	11/9/2024	12 September 2024	11/09/2024
Comments:			
Conditions:			The operation of this minor ancillary facility is to include amenities, site offices and ablution block as per the scope of this MWA. No other plant, equipment, materials, stockpiles are allowed to be stored within this MAF.

☑	Approved (by Sydney Metro)
☑	Endorsed (by Environmental Representative)
☐	Rejected

Appendix 1: Environmental Risk Assessment and Environmental Control Maps.

ECM – Belmore Site Office (Ancillary Facility)		**PCBU / COMPANY DETAILS: Martinus**	
		Address: 23 – 27 Waratah St, Kirrawee NSW 2232	
		ABN: 87 155 894 894	**Phone no.:** 87 155 894 894
PROJECT: Sydenham to Bankstown Corridor Intrusion Risk Assessment		**CLIENT / PC DETAILS Name**:	
Address: Burwood Road, Belmore, 2191, Australia	**Start date: 12/09/2024**	**Contact: Luis Barroso**	**Phone no.** 0481 302 347
Document date: 10/09/2024			
Reviewed by: Phil Matevski			

Work Activity

The objective of this site is to add to and operate an existing Ancillary Facility under SSI 8256 CoA A1. This site is intended on acting as the principal site office for the Errant Hostile Vehicle Mitigation Treatments (EHVMT) project.

SCOPE OF WORK COVERED BY ECM

This Environmental Control Map (ECM) & document provides instruction relating to environmental requirements for Ancillary Facility establishment and operation. This document incorporates environmental legislative requirements, approval conditions and proponent commitments made during the environmental approvals process as well as sound industry practice.

The scope of works includes:

- Adding site sheds within an existing compound for the purposes of site offices, first aid, lunchrooms and amenities.
- Connection to mains power
- Temporary laydown of materials (no stockpiled spoil).

TIMING

Establishment and operation would be carried out during standard construction hours from 12th September 2024.

RELEVANT APPROVALS & LICENCES

The approvals and licences relevant to this ECM include:

- Approved SSI 8256 under the *Environmental Planning & Assessment Act 1979*
- Minor Works, Pre-construction Minor Works.

PERMITS/NOTIFICATIONS

☒ Traffic
☒ Other: Specify: Minor Works, Pre-construction minor works approval

INSTRUCTION FOR ECM

Prior to commencing construction, all staff must be inducted as to the requirements of this ECM and all construction activities must adhere to the environmental control measures outlined herein. The ECM must be retained and accessible for the duration of construction works including revised versions. Works will be subject to inspections and approval by Sydney Metro NER/ER and Martinus Environmental Team.

Environmental high-risk activities (Check any that are applicable to this job)					
	Impacts to soil resources due to soil erosion or contamination from spill or hydrocarbons or other chemicals.		Impacts to **water** resources (surface and groundwater) due to contamination or excessive water use for construction work		Introduction of **invasive plants** or **animals** to the construction site
	Damage to **protected vegetation**, **threatened flora/fauna** and their supporting habitat or other ecological values		Damage to sites of **cultural heritage** significance	✓	**Increased traffic** in local area due to light and heavy vehicle movements to and from the site
	Environmental harm caused due to poor **waste management** practices		Nuisance to sensitive receptors and nearby work camps due to **emissions** from the track construction works		Adverse impact to surrounding environment because of an **environmental emergency**
✓	Communications with **external parties** during construction works		Other: Specify:		

Environmental Control Map

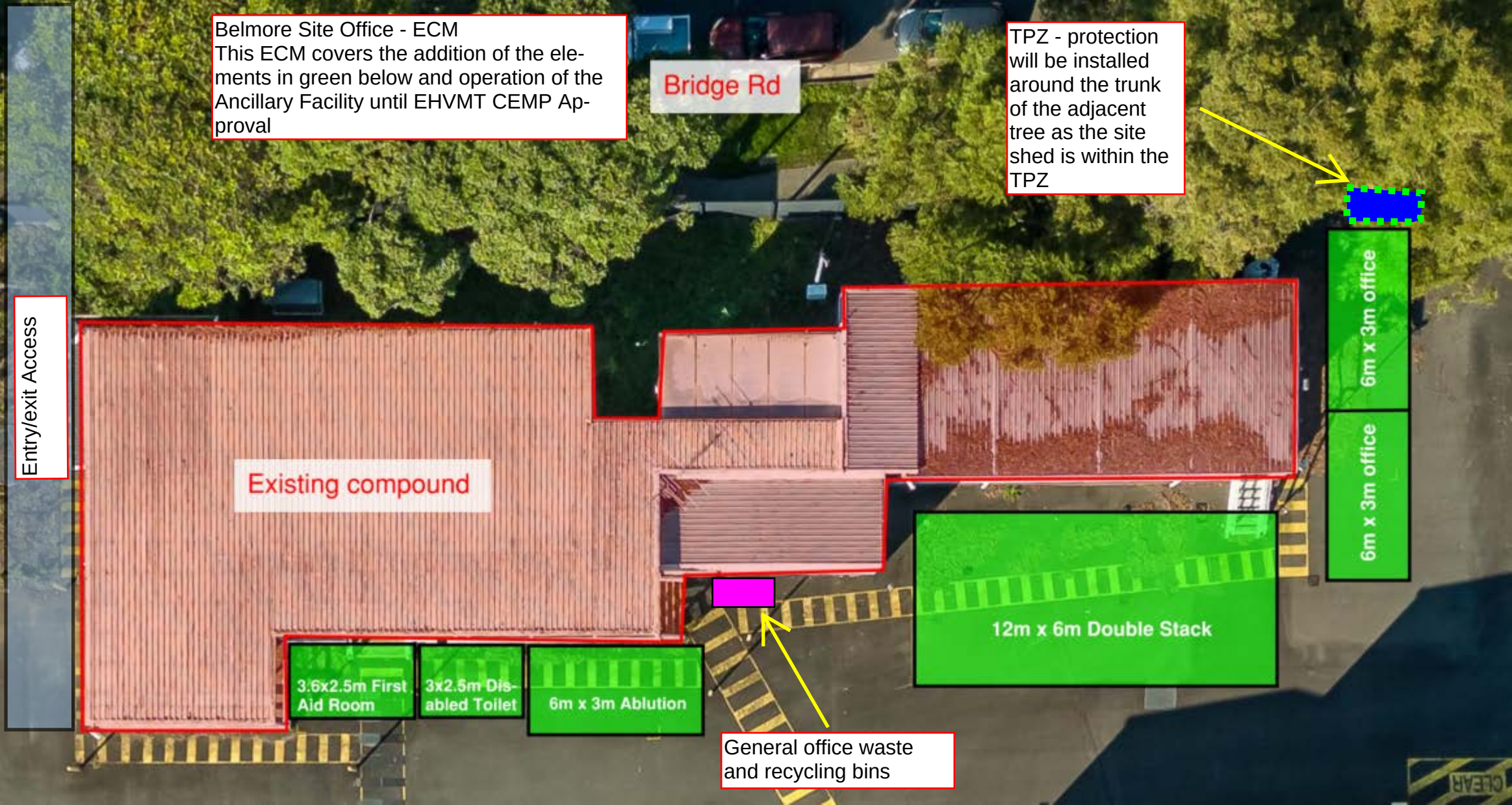
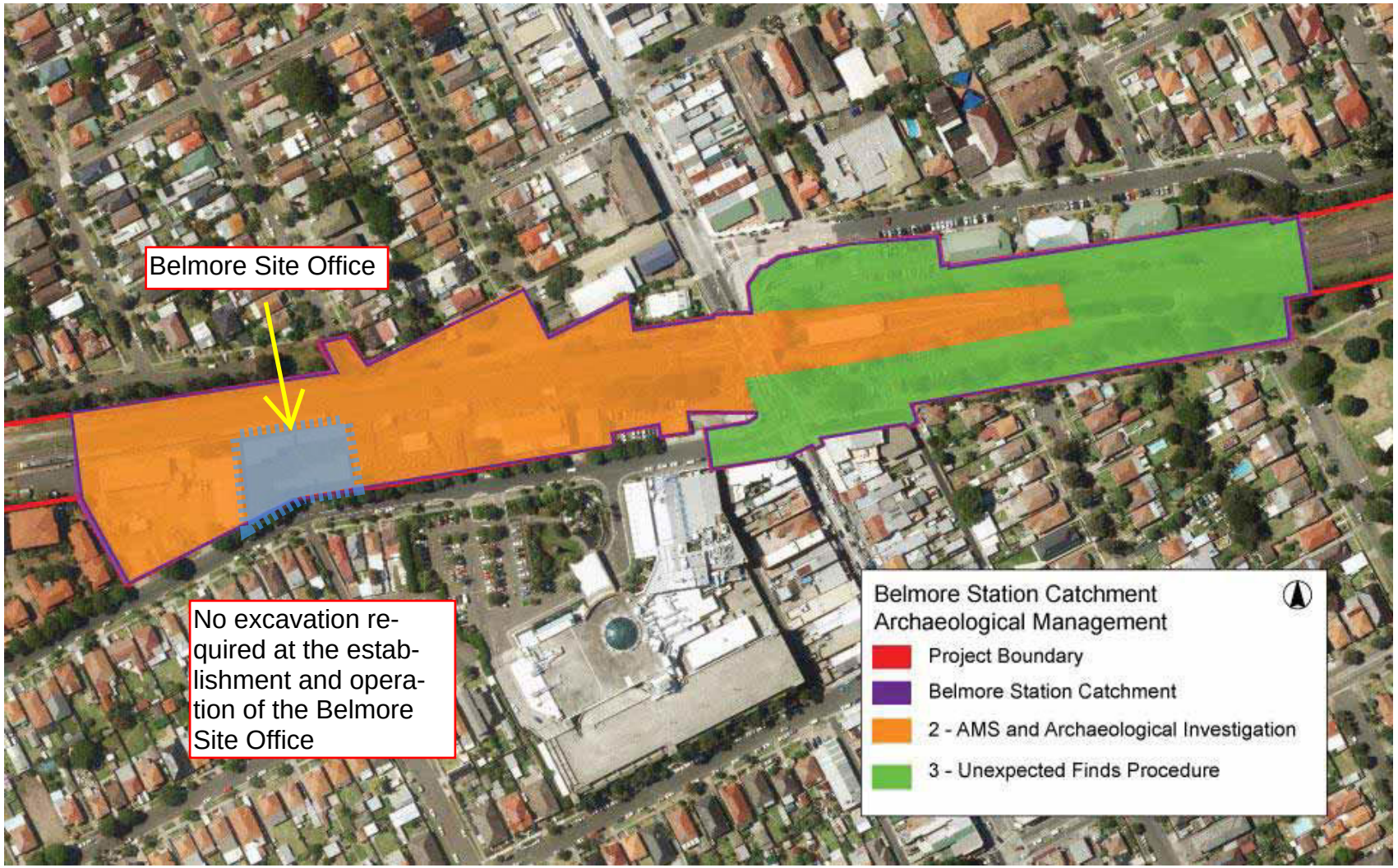

Belmore Site Office - ECM
This ECM covers the addition of the elements in green below and operation of the Ancillary Facility until EHVMT CEMP Approval
Bridge Rd
TPZ - protection will be installed around the trunk of the adjacent tree as the site shed is within the TPZ
Entry/exit Access
Existing compound
6m x 3m office
6m x 3m office
12m x 6m Double Stack
3.6x2.5m First Aid Room
3x2.5m Disabled Toilet
6m x 3m Ablution
General office waste and recycling bins

Figure 8-3 Belmore Station Catchment archaeological management zones



ENVIRONMENTAL CONTROL MEASURES				
Key Environmental Risks	**Environmental Controls**	**Timing**	**Responsibilities**	**Check**
General	All site personnel to be inducted as to the requirements of this ECM including but not limited to the key environmental risks: • Heritage • Noise and vibration and nearest sensitive receivers • Vegetation protection • Access and egress • Unexpected finds procedure for sensitive areas.	Minor Works, Pre-construction and during construction	Site Manager, Project Manager, Environmental Manager	
	Pre-start register and toolbox attendance register signed by all site personnel.	Minor Works, Pre-construction	Site Manager, Project Manager, Environmental Manager and all inducted staff	
	Clearly ID and segregate work zones from public as required ensuring no works outside approved project boundary as per SSI 8256 and associated approvals.	During construction	Site Manager	
	Ensure all service identification activities have been completed with ground-truthed service locations marked out	During construction	Site Manager	
	Working areas would be maintained, kept free of rubbish and cleaned up at the end of each working day.	Minor Works, Pre-construction and during construction	Site Manager	
	During construction, graffiti on the site and associated construction fencing would be removed in accordance with Sydney Metro's Standard Requirements.	Minor Works, Pre-construction, during construction and post construction	Site Manager, Project Manager	
Soil and Water (CoA E8, E9, E38 – E41)	The spill kit and clean up gear is located within plant operating zone/s. Ensure the following controls are implemented:	Minor Works, Pre-construction, during construction and post construction	Site Manager, Project Manager, Environmental Manager and all inducted staff	
	When refuelling, follow 'Refuelling Procedure'.			
	In the event of a pollution incident, cease working in the immediate vicinity and report all spills to the SM. SM is to notify the Environmental Manager, who would then notify NER/ER.			
	Plant and equipment (including deliveries) to be refuelled within the site work zone and would be checked regularly for oil and fuel leaks. No contaminants to enter rail Corridor or stormwater system.			

	Subcontractors are to have spill kits readily accessible from work vehicles or placed on site during bulk liquid movement or when operating plant.			
	To adhere to Australian Standards, EPA Guidelines, and Transport for NSW's Chemical Storage and Spill Response Guidelines (Transport for NSW, 2018e), all fuels, chemicals, and hazardous liquids must be stored in an impervious bunded area situated away from drainage lines. This designated area is specifically designed to contain spills and leaks effectively.			
	Material stockpiled at an ancillary facility for future utilisation must undergo contamination testing in accordance with the NEPM (ASC) criteria tailored for commercial and industrial land use.			
	All concrete spills to be cleaned immediately and the Sydney Metro Concrete Washout Guideline (DMS-SD-112) is to be followed	During construction	Site manager, Environmental Manager and all inducted staff	
Erosion and Sediment Controls (CoA E8, E9, E38 – E41)	All erosion and sediment controls will be conducted in accordance with the Blue Book. The following measures are to be implemented:	During construction	Site manager, Environmental Manager and all inducted staff	
	Minimise the disturbance footprint.			
	Minimise the duration of the disturbance, backfill or cover in timely manner.			
	Street sweeping will be used as an additional contingency measure where sediment is observed within the Ancillary Facility.			
	Implement an effective monitoring and maintenance program for the site that includes periodic checks & inspections of all environmental controls.			
	Heavy rainfall controls: • Monitor the weather forecast for heavy rainfall events • Undertake risk assessments based on the forecast and site conditions • Where appropriate, works will be rescheduled to avoid heavy rain • During heavy rain events, exposed areas will be protected to prevent erosion.		Site manager	
Heritage (CoA E10 – E17)	All relevant personnel and contractors involved in the Project will be advised of the relevant heritage considerations, legislative requirements and mitigation measures and recommendations in the Construction Noise and VIbration Impact Statement (CNVIS).	Minor Works, Pre-construction and during construction	Site manager, Environmental Manager, Heritage Advisor and Project manager	
	Any heritage items or relics that are uncovered as part of the works will be reported to Sydney Metro as required. Implement Sydney Metro Unexpected Finds Procedure (SM-18-00105232).			

	All works to significant heritage fabric should be coordinated with the contractor's heritage advisor to ensure they are conducted in accordance with relevant heritage controls in this heritage memo and other heritage related documents.			
	All works should be conducted in accordance with the relevant provisions of the heritage subplan and in the Construction Environmental Management Plan for the project.			
	If unanticipated archaeological deposits are identified within the project site during construction: • Stop work immediately • Notify EM, SM and PM • Notify the Heritage Advisor • Notify Sydney Metro • Do not recommence work without explicit approval to do so. If unforeseen Aboriginal objects are uncovered during construction: • Stop work immediately • Notify EM, SM and PM • Notify the Heritage Advisor • Notify Sydney Metro • Do not recommence work without explicit approval to do so.	Minor Works, Pre-construction and during construction		
	In the event human remains are found, work would cease, the site would be secured and the NSW Police and Heritage NSW would be notified. Where required, further archaeological investigations and an Aboriginal Heritage Impact Permit would be obtained prior to works recommencing at the location.			
Noise and Vibration (CoA E18 – E37)	Staff are to be inducted as to the requirements outlined in the CNVIS for the project and corresponding sensitive receivers.	Minor Works, Pre-construction	Site manager, Environmental Manager and Project manager	
	Staff are expected to: • Respect neighbours by refraining from swearing or shouting • Minimise noise by using appropriate equipment in good condition • Limit engine idling to the necessary minimum • Turn off plant and machinery when not in active use.	During construction	All inducted staff	
	Non-tonal reversing/movement alarms such as broadband (nontonal) alarms or ambient noise sensing alarms would be used for all plant used regularly onsite (greater than one day), and for any OOHW.		Site manager, Project manager and all inducted staff	

	Works must comply with the minimum working distances for vibration intensive activities as set out in Appendix D of the Sydney Metro Construction Noise and Vibration Strategy (plus addendum).		Site manager, Project manager and all inducted staff	
	All relevant personnel and contractors involved in the Project will be advised of the relevant noise and vibration considerations, legislative requirements and mitigation measures and recommendations in the Noise and Vibration Assessment.		Site manager and Project manager	
	Any OOHW would be subject to OOHW approval and will need to be undertaken in accordance with the Approval Conditions.	Minor Works, Pre-construction, during construction and post construction (V monitoring)	Site manager, Environmental Manager and all staff.	
	Regular monitoring at noise verification locations would be implemented in accordance with the Noise and Vibration Assessment Report and indicative monitoring locations are identified on the ECM.	During construction		
	Regular maintenance of all plant and machinery used for the project will assist in minimising noise emissions, including the reporting of the results.	During construction		
	Where feasible and reasonable, heavy vehicle movements would be limited to daytime hours.	During construction		
Waste and Sustainability (E74 – E76)	All recyclable waste would be recycled where practicable. Apply waste management hierarchy (avoid, reuse, recycle and finally dispose at landfill).	Minor Works, Pre-construction, during construction and post construction	Site manager, Environmental Manager and Project manager	
	All waste would be separated and classified in accordance with the NSW EPA Waste Classification Guidelines 2014 and disposed of to a suitably licensed facility.			
	<u>Minimising waste during construction</u> Undertake the following steps with 'a' being preferred: a. Implement waste avoidance, including action to reduce the amount of waste generated b. Implement resource recovery, including reuse, recycling, reprocessing and energy recovery c. Implement waste disposal, including management of all disposal options in the most environmentally responsible manner and in line with legislative requirements.		Site manager, Project manager and all inducted staff	
	Order quantities of material as required only.			
	Recycle maximum packaging and waste.			

	Use energy efficient plant/equipment and conserve water wherever possible.			
	The importation of waste and the storage, treatment, processing, reprocessing or disposal of such waste must comply with the Protection of the Environment Operations Act 1997, under the Protection of the Environment Operations (Waste) Regulation 2014, and orders or exemptions made under the regulation			
Traffic and Pedestrian Management (CoA E46 – E53, E54)	Traffic and pedestrians are to be management in accordance with the Traffic Management Plan (TMP) and/or Traffic Guidance Scheme (TGS).	Minor Works, Pre-construction and during construction	Site manager and Project manager	
	Local traffic laws and controls are to be observed for incoming/outgoing deliveries.		Site manager, and all inducted staff	
	Pedestrians and vehicle movements are to be managed in accordance with approved Project TGS and TTMP. Pedestrian access to the commuter carpark and station would remain throughout construction.		Site manager and all inducted staff	
	<u>Parking</u> • Site personnel to park within the Ancillary Facility using available spacing.		Site manager and all inducted staff	
Air Quality (CoA E2)	Air quality will be periodically monitored (qualitative) for dust leaving the site. If required, additional dust controls will involve scheduling works to avoid high wind events, wetting down of works areas. Prevent mud and dirt being tracked onto sealed road surfaces and remove as required. Access points would be inspected to identify whether sediment is being transferred to the surrounding locality.	During construction	Site manager, Environmental Manager and all inducted staff	
Flora & Fauna (CoA E3 – E6)	Unless otherwise agreed to in writing with the Environmental Advisor or shown on this ECM, no native vegetation is to be removed or impacted as part of these works.	Minor Works, Pre-construction and during construction	Site manager, Environmental Manager, Project manager	
	Where impacts to threatened ecological communities or endangered species cannot be avoided, they must be offset in accordance with the requirements of the NSW Biodiversity Offsets Policy for Major Projects (OEH, 2014) in agreement with OEH.	Minor Works, Pre-construction	Site manager, Environmental Manager and all inducted staff	
	In the event, threatened species are encountered, call the project ecologist/fauna spotter catcher for advice.	Minor Works, Pre-construction, during construction and post construction		
	Vegetation protection is unlikely to be required however, in the event it is required: • Vegetation within the impact area is to be protected generally in accordance with AS4970 – Protection of trees on development sites			

	• Tree Protection Zones (TPZ) are to be demarcated prior to commencing works where proposed works impact the TPZ or canopy of retained specimens • Vegetation spotters should be utilised when machinery is operating within the canopy or TPZ of retained specimens.	Minor Works, Pre-construction and during construction		
	In the event common fauna is encountered, avoid the area, and wait for the fauna to disperse. Contact the Environmental Manager as required.			
	Areas of biodiversity value including Planted Native Vegetation and Plant Community Type mapping are identified on the environmental control map. These areas would be fenced where appropriate and practicable and their locations identified to all personnel during induction. No areas would be impacted as a result of these works.			
	Weed inspection & controls: Undertake the following measures to manage the potential dispersal and establishment of weeds during construction: • Periodically inspect access road for weeds • Undertake all weed control measures in accordance with Sydney Metro's Weed Management and Disposal Guideline (DMS-SD-110). This guideline is to be implemented periodically as required based on inspections • Where weed spraying is scheduled to occur, undertake a pesticides application record and submit the document to the relevant stakeholders • Weed disposal is to be undertaken in accordance with the Biosecurity Act 2015.	Minor Works, Pre-construction and during construction		
Services, risk and unexpected finds	Potentially contaminated materials: • If previously unidentified contamination (including acid sulfate soils) is found within the site, cease work and follow the Unexpected Find Procedure. • In the event, contamination is identified, notify SM, PM and ER • Clearance Certificate must be retained for all recycled material imported to site, and contaminated material leaving site.	Minor Works, Pre-construction and During construction	Site manager, Environmental Manager and all inducted staff	
	Stormwater services: • The existing drainage systems would remain operational.			
Other Environmental Mitigation Measures	Inspections: • Site inspections to monitor environmental compliance and performance would be undertaken at appropriate intervals. Existing permanent fencing: • Where temporary removal of existing fencing for access purposes occurs, the fence is to be relocated and reinstalled in accordance with Sydney Metro standards.	Minor Works, Pre-construction and during construction	Site manager and Environmental Manager	

PROJECT CONTACTS		
Position	**Name**	**Contact**
Site Manger	Andrew Osborn	0438 977 274
Project Manger	Luis Barroso	0481 302 347
Environmental Manager	Phil Matevski	0420 353 980
Sydney Metro Manager	Robel Chowdhury	0481 059 128
Sydney Metro Environmental Manager	Emmanuel Smith	0488 310 438
Construction Response Team	-	1800 755 465
Transport Projects Delivery Office Infoline	-	1800 684 490
Heritage Advisor	Sandra Wallace	(02) 9518 8411
Community Manager	Shelley Addison-Bell	0434 370 740
EPA/OEH Pollution Hotline	-	131 555
WIRES	-	1300 094 73
Emergency	-	000

EMPLOYEE'S ACCEPTANCE

We, the undersigned, confirm that we have been consulted on the development and given opportunity to provide inclusions of the ECM nominated above and the details have been explained and clearly understood. We also confirm that our required qualifications to undertake this activity are current. We also clearly understand that the controls in this ECM must be applied as documented, otherwise work is to cease immediately.

WORKER CONSULTATION, INSTRUCTION AND SIGN OFF			
Date	**Name**	**Employer**	**Signature**

Environmental risk assessment

This appendix includes a risk assessment for the Project. All relevant environmental issues have been assessed in accordance with the table below:

Risk Assessment Rankings:

- >31 Very High;
- 22 to 30 High;
- 11 to 21 Medium; and
- 1 to 10 Low.

Issues or activities that represent a Very High risk after the application of control measures are not to be undertaken.

Sydney Metro Consequence Criteria

	ENTERPISE RISK CONSEQUENCES					
	C6 Insignificant	C5 Minor	C4 Moderate	C3 Major	C2 Severe	C1 Catastrophic
Environment	No appreciable changes to environment and/or highly localised event.	Change from normal conditions within environmental regulatory limits & environmental effects are within site boundaries.	Short-term and/or well-contained environmental effects. Minor remedial actions probably required.	Impacts external ecosystem & considerable remediation is required.	Long-term environmental impairment in neighbouring or valued ecosystems. Extensive remediation required.	Irreversible large-scale environmental impact with loss of valued ecosystems.

Sydney Metro Likelihood Criteria and Risk Matrix

Probability: One off event How likely?	Frequency: Repeated How often?	Likelihood		Consequences C6 Insignificant	C5 Minor	C4 Moderate	C3 Major	C2 Severe	C1 Catastrophic *Transformational for opportunities*
Expected to occur frequently during time of activity or project. Greater than a 90% chance of occurring.	10 times or more every year	Almost certain	L1	20	22	29	32	34	36
Expected to occur occasionally during time of activity or project. A 75-90% chance of occurring.	1-10 times every year	Very Likely	L2	14	18	23	28	31	35
More likely to occur than not occur during time of activity or project A 50-75% chance of occurring.	Once each year	Likely	L3	9	12	16	24	27	33
More likely not to occur than occur during time of activity or project. A 25-50% chance of occurring.	Once every 1 to 10 years	Unlikely	L4	6	7	11	17	25	30
Not expected to occur during the time of activity or project. A 10-25% chance of occurring.	Once every 10 to 100 years	Very Unlikely	L5	3	4	8	13	19	26
Not expected to ever occur during time of activity or project. Less than 10% chance of occurring.	Less than once every 100 years	Almost Unprecedented	L6	1	2	5	10	15	21

Aspect	Potential Environmental Impact	Initial Rating L x	C	Risk	Control Measures	Residual Rating L x	C	Risk	Management of Residual Risk
Approvals and Licensing									
Not identifying appropriate approvals, licenses or permits required and proceeding without them	Works delayed, infringements, prosecution, poor community relations and reputational loss.	L4	C3	17	Review the project planning approval and statutory documentation for requirements relevant to the Project. Follow the advice of Subject Matter Experts providing advice to the Minor Works Approval. Check contract documentation. Identify and implement requirements from the Contract. Establish a register of approvals, licenses and permits.	L5	C4	8	Maintain Compliance Risk Matrix
Noise									
Noise from general construction activities resulting in impact to residents	Disturbance to residents or neighbouring businesses. Potential for complaints.	L2	C5	18	Implement mitigation measures as per the CNVIS. Respond to community enquiries and complaints in accordance with Sydney Metro requirements and implement the OCCS. Consult with the community in relation to upcoming activities within the ancillary facility that may result in anything greater than a minor and temporary disturbance to the surrounding community.	L4	C5	7	Noise performance will be continually monitored as per the mitigation measures of the Construction Noise and Vibration Impact Statement (CNVIS) for this Minor Works Approval. The Sydney Metro Construction Noise and Vibration Strategy (CNVS) is to be implemented.
Noise during works required to be undertaken out of standard construction hours	Disturbance to residents or neighbouring businesses with potential for complaints.	L2	C5	18	In the case the ancillary facility requires operation during OOHW, ensure control measures as per the mitigation measures recommended within the respective OOHW approval are adhered to.	L4	C5	7	Noise performance will be continually monitored as per the requirements of the NVMP. The Sydney Metro Construction Noise and Vibration Strategy (CNVS) is to be implemented
Vibration									
Vibration intensive activities undertaken on the site such as hammering, vibratory rolling, etc (noted not occurring but monitoring to be conducted)	Disruption, annoyance and nuisance to residents.	L3	C5	12	Standard mitigation measures as per the CNVIS are to be implemented. No foreseeable impacts from vibration resulting from the operation of this ancillary facility.	L4	C5	7	Standard and additional mitigation measures for sensitive receptors around the Project works will be applied as per the CNVS and CNVIS.

Aspect	Potential Environmental Impact	Initial Rating L x	C	Risk	Control Measures	Residual Rating L x	C	Risk	Management of Residual Risk
Water Quality, Erosion and Sedimentation									
Sediment laden runoff from construction works leaving site	Degradation of local watercourses. Increased turbidity in local water ways resulting in impact on aquatic life. Fines for sediment escaping site.	L4	C4	11	Install erosion and sediment controls within the project area, where Non-destructive digging (NDD) is occurring, to ensure stormwater drains are protected. Ensure measures are inspected and maintained as the works progress and also prior to and post rainfall events. Provide training and awareness on the need to prevent pollution. Relevant people to undertake Erosion and Sediment Control training.	L5	C4	8	Undertake regular inspections of work areas pre, during and after works to ensure controls are in good condition.
Waste									
Waste disposal during site investigations	Incorrect disposal of waste, further costs incurred for classifications and disposal, fines may be issued.	L3	C5	12	Provide facilities on site for source separation and recycling. Ensure accurate waste records are retained. Removal of wastes from the site would only be undertaken by a licensed contractor as required by the POEO Act and with appropriate approvals, if required, for contaminated materials, etc. All material to be recovered off-site to be appropriately classified in accordance with the Resource Recovery Exemptions. All material that requires off-site disposal to be appropriately tested and classified against the Waste Classification Guidelines (NSW EPA, 2014)	L4	C5	7	Undertake regular inspections of work areas pre, during and after works to ensure controls are in good condition. Monitor and ensure reporting of all movements of waste form the worksite.
Contamination									
Potential for discovery of unexpected contaminated spoil during site establishment .	Health effects resulting from airborne contamination, e.g. asbestos. Complaints received from odours	L4	C4	11	If contaminated soil is encountered, all works are to stop in the vicinity of the find and investigations commence. Unexpected finds procedure within this Minor Works Approval to be implemented.	L5	C4	8	Undertake regular inspections of work areas pre, during and after works to ensure controls are in good condition. Complete regular toolbox talks on how to manage unexpected finds.

Aspect	Potential Environmental Impact	Initial Rating L x	C	Risk	Control Measures	Residual Rating L x	C	Risk	Management of Residual Risk
	released during excavations. Classification of spoil is changed and disposal options altered, costs incurred associated with disposal of higher classification of waste.				Induct personnel on location, type, nature, concentration of contaminants on site if found.				
Hazardous Materials									
Storage of hazardous substances, leaking plant and equipment and spillage from refuelling.	Localised ground contamination / pollution of stormwater and requiring clean-up and/or receiving fines. Risk of igniting volatile substances. Unauthorised access to site / potential vandalism/damage leading to pollution.	L3	C4	16	Induction, toolbox talks and training on appropriate handling and storage of liquids. All storm water drains should be identified prior to works and protection installed. Environmental Control Maps show storage locations and associated controls e.g. spill kits, etc. Training in use of spill kits. Reduce/eliminate need for hazardous substances. Ensure all work sites are secure before leaving the site.	L5	C4	8	Regular inspections of temporary storage areas during site investigation works
Fuel contaminated runoff from construction works leaving site	Fuel contaminated runoff entering stormwater or waterways (i.e. polluting – not compliant with discharge criteria).	L3	C4	16	All storm water drains should be identified prior to works and controls implemented. Appropriate bunding/storage of substances. Toolbox on site procedures for sediment controls and chemical storage. Educate site staff on requirements and consequences of prosecution.	L5	C5	7	Regular inspections of works site to ensure all controls are in good condition and working.
Heritage									
Unexpected heritage items encountered.	Work delays, additional studies, approvals required,	L3	C4	16	General inductions toolbox training on heritage management protocols. Label any known heritage items on Environmental Control Maps.	L5	C5	7	Undertake regular inspections of work areas pre, during and after works to ensure controls are in good condition.

Aspect	Potential Environmental Impact	Initial Rating		Risk	Control Measures	Residual Rating		Risk	Management of Residual Risk
		L x	C			L x	C		
	damage to heritage item.				If suspected heritage item encountered. Works to stop immediately and implement the Sydney Metro Unexpected Heritage Finds Procedure (within this Minor Works Approval).				Provide frequent toolbox talks on Unexpected Heritage Finds Procedure
Impact to Heritage Items	Damage to heritage fabric of heritage items by Project works	L3	C3	24	General inductions toolbox training on heritage management protocols. Label any known heritage items on Environmental Control Maps. No subsurface impact of removal of asphalt without prior heritage and environmental approval.	L5	C4	8	Undertake regular inspections of work areas pre, during and after works to ensure controls are in good condition. Provide frequent toolbox talks on managing change.
Biodiversity									
Loss, damage or injury to endangered or threatened species or localised trees within compounds.	Removal, death, damage or injury to endangered or threatened species by plant and equipment	L4	C3	17	Implement the controls within the ECMs within Appendix 1 of this Minor Works Approval. All personnel attending site will be advised of controls and management during the onsite induction. Toolbox talks will be carried out prior to ground disturbance /site clearing works to ensure onsite personnel are made aware of potential loss of endangered species. If threatened flora or fauna species are identified on site, work in the vicinity of these species would stop immediately. (for the purposes of this application this specifically relates to the identified presence of the Ibis and potential habitat trees) spotter/catcher/botanist/ ecologist to be present during fauna removal works in accordance with ecologist advice and mitigation measures.	L5	C4	8	Ensure that vegetation within the ancillary facility remains protected throughout both establishment and operation of the ancillary facility.
Clearing and grubbing of vegetation within work site.	Wrong vegetation removed. Potential for injury to native fauna.	L3	C4	16	Implement the controls within the ECMs within Appendix 1 of this Minor Works Approval. Inductions and toolbox training on erosion and sediment controls.	L5	C4	7	Undertake regular inspections of work areas pre, during and after works to ensure controls are in good condition.

Aspect	Potential Environmental Impact	Initial Rating		Risk	Control Measures	Residual Rating		Risk	Management of Residual Risk
		L x	C			L x	C		
					No vegetation is to be removed as part of these works.				
Loss, damage or injury to endangered or threatened species.	Removal, death, damage or injury to endangered or threatened species by plant and equipment	L4	C3	17	Implement the controls within the ECMs within Appendix 1 of this Minor Works Approval. All personnel attending site will be advised of controls and management during the onsite induction. Toolbox talks will be carried out prior to ground disturbance /site clearing works to ensure onsite personnel are made aware of potential loss of endangered species. If threatened flora or fauna species are identified on site, work in the vicinity of these species would stop immediately. spotter/catcher/botanist would be engaged to survey the	L5	C4	8	Implement Vegetation Removal Permit System. Undertake regular inspections of work areas pre, during and after works to ensure controls are in good condition.
Air Quality									
General Construction works; site establishment	Dust activity in close proximity to residential and commercial premises, complaints received.	L3	C5	12	Toolbox training on dust and air quality Management. Provide dust mitigation measures through water sprays/misting as required.	L4	C5	7	Undertake regular inspections of work areas pre, during and after works to ensure controls are in good condition.
Exhaust from plant and equipment.	Emissions resulting in air pollution.	L3	C5	12	Inductions and toolbox training on dust and air quality management. Well maintained plant/ equipment and prestart checks and servicing. Non-compliant vehicles removed from site / repaired.	L4	C5	7	Review plant check list prior to operating on site. Undertake verification checks as required.
Traffic									
Loss of on-street car parking in adjacent residential streets and commercial areas / existing station carparks during construction.	Loss of parking availability to adjacent residential and commercial properties could result in community complaints.	L3	C5	12	Community notifications via monthly notifications and VMS boards / signage and consultation with adjacent businesses (localised cafes for example) in accordance with the OCCS. Follow and implement the TGS within Appendix 3 of this Minor Works Approval.	L4	C5	7	Complete regular toolbox talks on how to minimise impacts in relation to traffic. Undertake regular inspections of worksite and adjacent streets. Supervisor and traffic controller to enforce traffic management requirements

Aspect	Potential Environmental Impact	Initial Rating		Risk	Control Measures	Residual Rating		Risk	Management of Residual Risk
		L x	C			L x	C		
General construction traffic disturbing public access between local roads.	Disturbance to local residents resulting in complaints being made, limited access, potential for delays at local road access points resulting in complaints.	L3	C5	12	Site vehicles shall be parked within the approved temporary works area, following the TGS in Appendix 3 of this Minor Works Approval. Scheduled road movements shall be minimised where possible. Detour routes to be advertised/ notified. Clear notifications / detour and directional signage	L4	C5	7	Complete regular toolbox talks on how to minimise impacts in relation to traffic. Undertake regular inspections of worksite and adjacent streets.
Management of heavy vehicles / access routes.	Complaints from sensitive receivers due to increased level and frequency of noise.	L3	C5	12	Deliveries of plant and materials shall be undertaken outside of peak periods where possible. Site vehicles shall be parked within the rail corridor and not affect public parking areas. Scheduled road movements shall be minimised where possible. Community Notifications. Pedestrian management with traffic controller in place where required.	L4	C5	7	Complete regular toolbox talks on how to minimise impacts in relation to traffic. Permits from local council and/or RMS
Visual Amenity									
Plant and equipment movement, Lighting and Mobile Crib	Surrounding aesthetic temporary altered during construction Lighting towers used during out of hours works may spill on nearby residents	L3	C5	12	The work area shall be maintained in an orderly manner Lighting required during night works (if required following a separate OoHW approval) shall be directed towards the work area and away from adjacent sensitive receivers	L4	C5	7	Undertake regular inspections of work areas pre, during and after works to ensure controls are in good condition.
Ancillary facilities									
The nature of this Minor Works Application is to utilise the existing Belmore Site Office	Inadequate assessment of impacts to surrounding business and residential receivers and environmental receptors.	L4	C4	11	Ensure that additional site shed delivery is kept within the lane closure under the control of traffic management.	L5	C4	8	Undertake regular inspections of work areas pre, during and after works to ensure the work area is restored to the state it was found in.

Aspect	Potential Environmental Impact	Initial Rating		Risk	Control Measures	Residual Rating		Risk	Management of Residual Risk
		L x	C			L x	C		
	Potential for complaints.								
Utilities									
Utility Management	Service strike leading to environmental degradation	L3	C4	16	Develop and implement the Utilities Management Strategy in accordance with the Utilities Management Framework Engage a Utilities Coordination Manager (UCM) to oversee the coordination of utility works across the project and with third part service providers. The UCM will collaborate with the Community and Stakeholder Manager, the Place Manager and, where required, the Community Complaint Mediator to mitigate impacts to the local community during utility works and to resolve any community complaints relating to utility works. Detailed Site Survey to be managed by an appropriately qualified surveyor.	L5	C4	8	Service searching Detailed Site Survey management

Appendix 2: Community Notifications

Parking removal for upcoming over-sized delivery – day work

Temporary work facility delivery on Bridge Road, Belmore – 16 September

You may have noticed an increase in plant and materials being removed from our sites as contractors change over along the alignment. Martinus will be establishing work sites and laydown areas for temporary worker facilities during construction and temporary storage of construction materials along the Sydenham to Bankstown line.

At Belrose, from Thursday 12 September you will see deliveries and work vehicles accessing the existing site compound and laydown area at Bridge Road, Belmore. Please see the map overleaf.

On **Monday 16 September**, a large delivery using a semi-truck is scheduled. **To facilitate the 12 metre truck module operation and access, kerbside parking removal is required on Bridge Road** on both sides, directly adjacent to the entrance of the compound and laydown area. **No parking is permitted from 10pm Sunday 15 September until 6pm Monday 16 September. We will contact surrounding residents if the delivery date changes.**

To ensure the safety of the community and workers, traffic control will facilitate truck movements on Bridge Road during the delivery. Bridge Road remains open to traffic in both directions. When the truck approaches, there will be a delay to commuters until the truck is safely within the laydown and compound area. Access to driveways will be maintained at all times.

The delivery is not expected to be noisy, however noise is to expected when dismantling and removing the equipment on the truck and during truck movements.

Please follow signage and the directions of traffic controllers and allow more time for your travel.

We will park our vehicles along the rail corridor where possible however, please be aware that on-street parking may be limited near worksites.

If you have any questions please contact the community team via our 24 hour community information line on 1800 171 386 (ask for the CIRA - Corridor Intrusion Risk Assessment team) or e-mail southwestmetro@transport.nsw.gov.au.

Work location map – Bridge Road, Belmore

Contact us

24-hour Community Information Line **1800 171 386**

southwestmetro@transport.nsw.gov.au

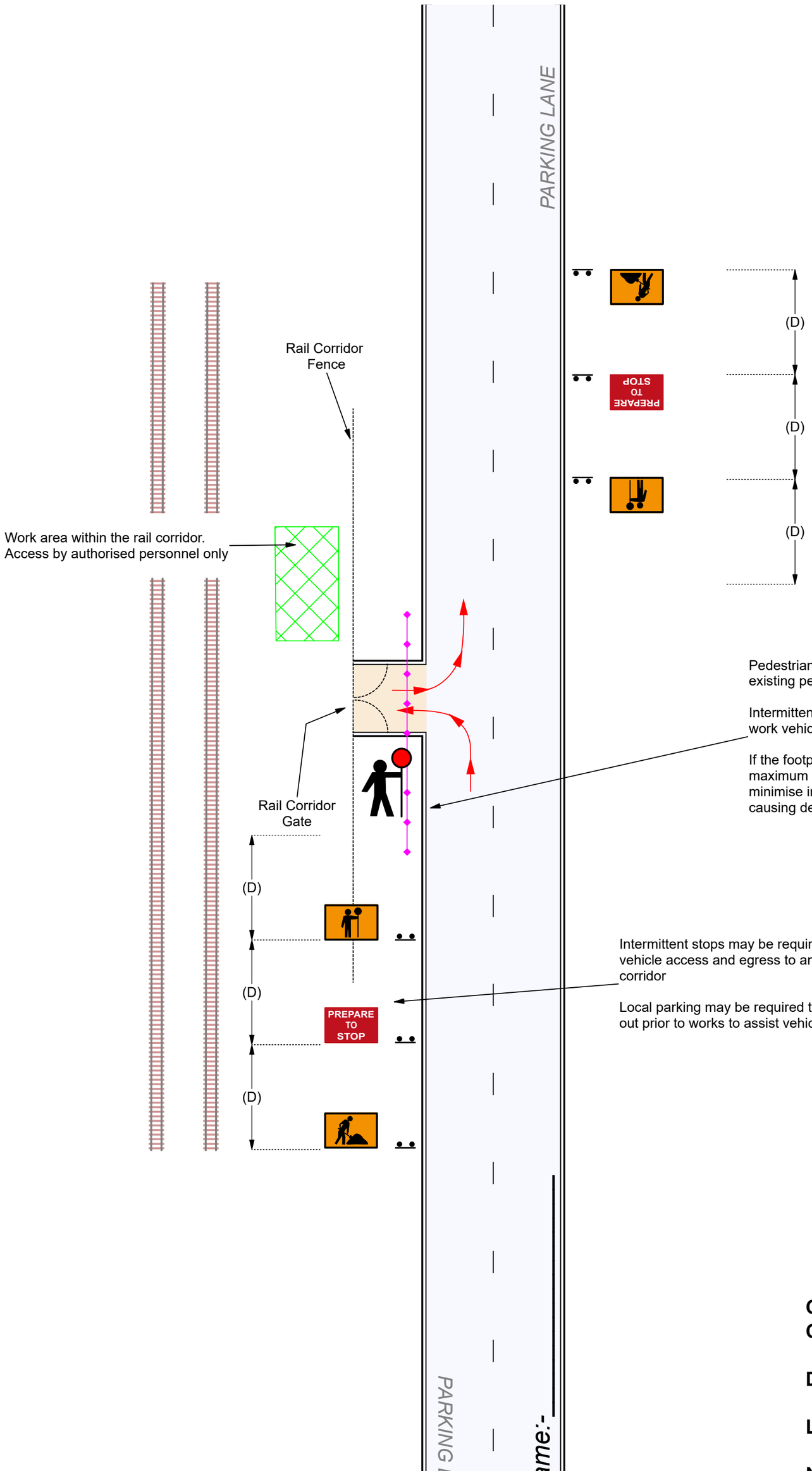
Sydney Metro City & Southwest, PO Box K659,
Haymarket NSW 1240

Translating and interpreting service

If you need help understanding this information, please contact the Translating and Interpreting Service on **131 450** and ask them to call us on **1800 171 386**

Appendix 3: Traffic Guidance Schemes

Gate Access: Intermittent Stops



NOTES

Implementation:
1.1 - A site Risk Assessment must be conducted prior to implementing TGS
1.2 - Some locations do not allow for signs to be placed on left hand side of the road, in these the locations the sign shall be positioned on the right hand side and may be repeated at 0.5D if necessary for driver awareness.
1.3 - Signs placed along parking bays should be positioned to ensure clear sight distance is maintained.
1.4 - Sign spacing may be adjusted within the allowable tolerance as stated in TCAWs v6.1.
1.5 - Signs are NOT to be positioned such that they block a pedestrian pathway

Operation:
2.1 - Traffic controllers are to ensure driveway access adjacent to the temporary compound remains accessible. TC to assist local access as required.
2.2 - If traffic is to be temporarily held, it shall be held for no longer than 2 minutes
2.3 - A traffic controller must NOT step out to control traffic unless a clear escape route is available and sight distance is 1.5D
2.4 - Traffic controllers to direct pedestrians past the rail corridor gate, a min 1.5m wide pathway is to be maintained at all times
2.5 - Any adjacent driveways to remain accessible unless prior consent has been received
2.6 - Existing Lane widths to be maintained on any road supporting bus routes
2.7 - Works are not to effect existing bus services

Speed zones for TGS use

	'D'=
40	40m
50	50m
60	60m

Client : _____ **Project** : _____
Contact : _____

Date : _____ **Time** : _____

Location: _____

Nearest cross street : _____

Speed Limit : _____ **Expected duration of works**: _____

TGS Ref No:	**R24-MAR-CIRA-TGS-401**			PAGE 1 of 2
Revision No:				
REV 0	Designed by: Katherine Fabro	TCT0039320	06.05.24	
	Approved by: Michael Kell	TCT0053683	06.05.24	

Retro Traffic

LEGEND

- Permanent/Temp Compound
- Temporary Work Area
- Bushland
- Traffic Cone/Delineation
- Water Filled Barrier
- Concrete Barrier
- ATF (Fencing)
- Klemmfix
- Tiger bars
- Relocated Bus Stop
- Closed Bus Stop
- Traffic Controller (TC)
- Arrow Board
- TMA
- Work Vehicle
- General Traffic
- Detour Route
- Local Traffic Only
- Construction Vehicles
- Bus travel Path
- Pedestrian Ramp
- Pedestrian Route

Client : Martinus Rail **Project** :CIRA
Contact : Andrew Osbourne
Location: T3 Line Non-Bridge Investigation Locations

Scope of works

Work Vehicle Access and Egress to the Rail Corridor Network for Investigation Works.
Traffic Control to Manage Gate Access and Egress.

*To implement this TGS the below checked approvals must be obtained

ROL (Road Occupany Licence) ☐ Council ☐ Bus ☐

Temporary Traffic Management

Road Closure/Detour ☐ Standard lane merge ☐ Contra Flow ☐ Shuttle Flow ☐
Intermittent Stoppages ☒ Footpath Occupation ☐ Speed reduction ☐ PTCD ☐

TGS MODIFICATIONS

Modified by: _____ Date: Signature:
PWZTMP Licence: _____ Time:

Modification Reason:

_____
_____
_____

GENERAL NOTES: 1. This TGS has been designed by a PWZTMP accredited person in accordance with AS1742.3 and requirements of TfNSW TCAWS Manual v6.1, and was developed in line with Retro Traffic's QSE Policies and Procedures 2. A site specific Risk assessment was undertaken prior to development, and this TGS and incorporates the recommended measures of control for site specific risks identified during the Hazard Identification and Risk Management Process undertaken for these works 3. Modification to this TGS must be approved by a person holding a PWZTMP qualification and must also be supported by a TMP or Risk Assessment 4. An ITCP qualified person may vary the positioning of signs and devices provided the requirements outlined in 'Section 7.10.3 - Tolerances on positioning of signs and devices' of TCAWS Manual v6.1 are met.

RETRO TRAFFIC

Traffic Guidance Scheme Risk Assessment & TGS Verification Checklist

Location Details

Road_____ Suburb_____ Road Speed: km/hr

Direction: **N E S W** Nearest Cross Street_____

Temporary Traffic Management **Method:** Around (Past) Through

Reason method selected:

Risk Assessment

Section 1 - General	Yes	No	Description of risks if answered no to any question	Enter Risk Rating
1.1 - Does the TGS define minimum clearances required of workers to live traffic, are distances compliant?	☐	☐		
1.2 - Are worker symbolic signs to be placed in advance of areas where workers will be visible to traffic?	☐	☐		
1.3 - Are all signs placed at correct distances? i.e. D for multiple signs, 2D for single sign above 60km/h	☐	☐		
1.4 - Are Taper lengths compliant and not placed in areas with poor sight distance?	☐	☐		
1.5 - Are lane status signs placed in advance of a lane merge?	☐	☐		
1.6 - Are the correct Tapers being used? i.e. Merge Taper, Traffic Control Taper, Lateral Shift Taper.	☐	☐		
1.7 - Does the TGS clearly define transition zones between tapers on multilane roads, are they compliant?	☐	☐		
1.8 - Does the TGS clearly define Buffer areas, are they compliant and at least 30m in length?	☐	☐		
1.9 - Does the TGS clearly define site access and egress for work vehicles, is impact to traffic managed?	☐	☐		
1.10 - Does the TGS clearly define pedestrian routes, are the routes suitable for all pedestrians?	☐	☐		
1.11 - Does the TGS consider Cyclists, can Cyclists transverse the site safely?	☐	☐		
Section 2 - Does the TGS require traffic to be stopped/held? (Yes) No (If answered no proceed to section 3)	Yes	No	Description of risks if answered no to any question	Enter Risk Rating
2.1 - Is a PTCD used in place of a manual Traffic Controller where existing speed is greater than 45km/h?	☒	☐ *	Traffic Controller Struck By Vehicle	3 H
2.2 - Is the operating speed of the road 60km/h or less where Traffic Control or PTCD are in use?	☒	☐		
2.3 - Are x4 Traffic Cones placed on the edge or center line, approaching the Traffic Controller or PTCD?	☒	☐		
2.4 - Is Prepare to stop and Traffic Control or PTCD symbolic signs installed?	☒	☐		
2.5 - Do Traffic Control and PTCD positions have adequate lighting during low light conditions?	☒	☐		
2.6 - Does sight distance of at least 1.5D exist on approach to Traffic Control or PTCD	☒	☐		
Section 3 - Does the TGS Involve Detours of Traffic Yes (No) (If answered no proceed to section 4)	Yes	No	Description of risks if answered no to any question	Enter Risk Rating
3.1 - Are detour routes suitable for all vehicle classes being detoured?	☐	☐		
3.2 - Is access to local residence and business maintained?	☐	☐		
3.3 - Are detour signs located at decision points to clearly guide motorists through detour?	☐	☐		
3.4 - Can roads and intersections used as detour routes accommodate the additional traffic volume?	☐	☐		
3.5 - Is the same level of safety maintained for turn movements? e.g. Traffic using signalized intersections Being sent through a detour route that involves turn movements at non-signalised intersections.	☐	☐		
Section 4 - Other Hazards & Risks				Enter Risk Rating
4.1 -				
4.2 -				
4.3 -				
4.4 -				

Consequence					
Likelihood	Insignificant	Minor	Moderate	Major	Catastrophic
Almost certain	3 High	3 High	4 Acute	4 Acute	4 Acute
Likely	2 Moderate	3 High	3 High	4 Acute	4 Acute
Possible	1 Low	2 Moderate	3 High	4 Acute	4 Acute
Unlikely	1 Low	1 Low	2 Moderate	3 High	4 Acute
Rare	1 Low	1 Low	2 Moderate	3 High	3 High

TGS Verification Checklist

Section 5 - Verification — Have the below items been addressed on the TGS for this location?	Yes	No
Traffic Volumes	☒	☐
Predicted Queue Length	☒	☐
Shoulder Widths	☒	☐
Sight Distances	☒	☐
Existing Infrastructure	☒	☐
Transport Services (i.e. Bus Stops)	☒	☐
Appropriate Site Access	☒	☐
Appropriate Escape Route for Traffic Controllers	☒	☐

Section 6 - Confirmation (Completed on Site as per Daily HAC)		
Does the TGS require adjustments within tolerances?	☐	☐
Does the TGS require any additional modifications?	☐	☐
Is the TGS appropriate for use for works?	☐	☐
Have key risks been addressed on site?	☐	☐

Additional Comments

Risk Management

If 'No' selected for any question in items 1, 2, 3 or 4 in the Risk Assessment, a control needs to be assigned in the table below to mitigate any additional risk

Item	Control Measures	Remaining Risk Rating
2.1 -	Manual traffic controller used for a single stop of traffic, TC escape path available, advanced warning signs positioned on approach	1 L

TGS Ref: **R24-MAR-CIRA-TGS-401**

REV 0		Name	PWZTMP Licence	Date	Signature
	Designed by:	Katherine Fabro	TCT0039320	06.05.24	
	Approved by:	Michael Kell	TCT0053683	06.05.24	
	1 Up Manager:				

* Denotes approval from one up manager required

Appendix 4: Landowners Consent

RE: Interface: Full PC transfer form

Reply | Reply All | Forward

DL David Luong
To Ghafoor, Wajid
Cc Luis Barroso; Daniel Taylor; Phillip Matevski

Tue 10/09/2024 3:45 PM

This message was sent with High importance.

PC00261_PC Request_FULL - SWM4 - Belmore Site Office_amended.docx 963 KB

RE: CIRA - Belmore Site Compound Outlook item

Hi Wajid,

The form has been amended to reflect the attached SM correspondence.

Please sign the form if you are happy with the content.

Thanks.

David Luong
Interface & Integration Manager

Mobile: +61 428 519 120
www.martinusrail.com.au

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Appendix 5: Environmental Representative Supporting Letter