

## Rail Operating Procedure

**SM-18-00058353**

### Metro Body of Knowledge (MBoK)

**Version:** 7.0

**Status:** Final

**Document owner:** Director, Technical Health and Safety

**System:** Health and Safety

**Applicable to:** Sydney Metro

**Issue date:** 16/10/2025

**Next review date:** 16/10/2028

### Document Approval:

Name	Position	Date	Signature
Carmel Soccorsi	Executive Director, Health & Safety	28/10/2025	Electronic Approval

# Table of Contents

<b>1.</b>	<b>Introduction .....</b>	<b>4</b>
<b>2.</b>	<b>Purpose .....</b>	<b>4</b>
<b>3.</b>	<b>Scope .....</b>	<b>4</b>
<b>3.1</b>	<b>Safe Working Rules .....</b>	<b>5</b>
<b>4.</b>	<b>Definitions.....</b>	<b>6</b>
<b>5.</b>	<b>Roles and Responsibilities .....</b>	<b>8</b>
<b>6.</b>	<b>Procedure.....</b>	<b>10</b>
<b>6.1</b>	<b>Planning Work in the Sydney Metro Rail Corridor.....</b>	<b>10</b>
<b>6.2</b>	<b>Planning Work Around Electrical Infrastructure.....</b>	<b>10</b>
	6.2.1 Planning Work Around Underground Electrical Assets .....	11
<b>6.3</b>	<b>Planning Work During Dynamic Train Testing .....</b>	<b>11</b>
<b>6.4</b>	<b>Rail Safety Work .....</b>	<b>11</b>
	6.4.1 Rail Safety Workers.....	12
	6.4.2 Verifying Rail Safety Worker Competencies .....	12
<b>6.5</b>	<b>Working in the Sydney Metro Rail Corridor.....</b>	<b>12</b>
	6.5.1 Working in the Danger Zone .....	12
	6.5.2 Sydney Metro Local Possession Authority .....	13
	6.5.3 Protecting Sydney Metro Local Possession Authority Limits.....	14
<b>6.6</b>	<b>Worksite Protection Plan .....</b>	<b>14</b>
<b>6.7</b>	<b>Safety Critical Communication.....</b>	<b>15</b>
	6.7.1 Safe Notices.....	15
	6.7.2 Pre-Work Briefing.....	16
	6.7.3 Change of Possession Protection Officer .....	16
	6.7.4 Protection Officer Records.....	16
	6.7.5 Incidents and Unsafe Events .....	17
	6.7.6 Emergency Communication .....	17
<b>6.8</b>	<b>Worksite Protection.....</b>	<b>17</b>
	6.8.1 Temporary Fencing.....	18
	6.8.2 Worksite Delineation.....	18
	6.8.3 Boundary Demarcation .....	20
<b>6.9</b>	<b>Mobile Plant in the Rail Corridor.....</b>	<b>20</b>

6.9.1	Road Rail Plant and Track Machines .....	20
<b>6.10</b>	<b>Working Around Electrical Infrastructure.....</b>	<b>21</b>
<b>6.11</b>	<b>Record Keeping.....</b>	<b>22</b>
<b>7.</b>	<b>Related Documents and References .....</b>	<b>22</b>
<b>8.</b>	<b>Superseded Documents .....</b>	<b>22</b>
<b>9.</b>	<b>Document History.....</b>	<b>23</b>
<b>Appendix A</b>	<b>Worksite Protection Plan and Pre-Work Briefing.....</b>	<b>24</b>
<b>Appendix A.1</b>	<b>Worksite Protection Plan and Pre-Work Briefing.....</b>	<b>24</b>
<b>Appendix A.2</b>	<b>Pre-Work Briefing Record .....</b>	<b>26</b>
<b>Appendix B</b>	<b>Communication Principles .....</b>	<b>27</b>
<b>Appendix C</b>	<b>Protection Officer (PO) Diary .....</b>	<b>28</b>

## 1. Introduction

Sydney Metro is an accredited rail infrastructure manager (RIM) under the *Rail Safety National Law* (RSNL) for the purpose of carrying out railway operations. Such rail operations include constructing, managing, commissioning, maintaining, repairing, modifying, installing, operating and decommissioning:

- Railway tracks and associated railway track structures.
- Railway signalling and communications systems; and
- Other rail infrastructure necessary to enable safe rail operations.

## 2. Purpose

The purpose of this procedure is to detail and describe processes that ensure health and safety risks associated with working on or near the Sydney Metro rail corridor are controlled in a systematic manner to prevent asset damage, injuries, and fatalities to personnel, including members of the public.

This Procedure applies to all persons accessing, visiting and working in Sydney Metro rail corridor, including all Sydney Metro employees, delivery partners, their contractors and third-party stakeholders. All such persons, in one form or another must ensure adherence to strict procedures to ensure safety, including:

- Following systematic processes to assess and control risks.
- Planning and obtaining relevant authorisation(s) to work on track.
- Clearly communicating and coordinating with workers, supervisors, and rolling stock operators; and
- Establishing and maintaining measures that ensure the safe separation and protection of persons from rolling stock and electrical hazards.

## 3. Scope

This procedure is applicable where Sydney Metro is the accredited Rail Infrastructure Manager (RIM), and must be applied in circumstances where:

- persons are working in the Sydney Metro rail corridor.
- work on or near the Sydney Metro rail corridor has the potential to impact:
  - electrical infrastructure.
  - adjacent operators (e.g. ARTC network); and
- Rolling stock will be operated on the Sydney Metro network.

This Procedure does not apply:

- To representatives from the Office of the National Rail Safety Regulator, Safe Work and the National Heavy Vehicle Regulator when undertaking official work duties; or
- In emergency circumstances where emergency response personnel require urgent and immediate access to project site(s).

In such circumstances, regulatory and emergency personnel must be accompanied by a project site representative with Protection Officer Level 2 (minimum) competency.

The term *worksite* used herein shall mean a clearly defined physical location where work is carried out, and which, when within the rail corridor is protected from rolling stock by specific worksite protection arrangements.

### 3.1 Safe Working Rules

The following safe work rules must underpin all activities conducted in the Sydney Metro rail corridor:

**Rule 1:** All work is planned and risk assessed.

**Rule 2:** All persons are competent to undertake their work.

**Rule 3:** All persons are fit for the work they are undertaking.

**Rule 4:** All plant and equipment are certified and fit for use.

**Rule 5:** All work on or near rail infrastructure is authorised.

**Rule 6:** Rolling stock is separated from people and other rolling stock.

Scan the below QR code to directly access all documents referenced in this procedure.



## 4. Definitions

All terminology in this Procedure is considered the generally accepted or dictionary definition. Other terms specific to this Procedure are defined within the [Sydney Metro Glossary](#). Definitions specific to this Procedure are listed below.

	Definitions
<b>Associated Railway Track Structures</b>	As defined under the Rail Safety National Law (NSW) No 82a of 2012
<b>Competency</b>	The ability to consistently and successfully demonstrate the required knowledge, skills, and qualifications to perform a job safely and to the expected standard.
<b>Coordinated Worksite</b>	A worksite that consists of multiple individual worksites that are less than 500m apart and separated using approved worksite delineation markers.
<b>Coordinating Protection Officer</b>	A Coordinating Protection Officer is a role nominated by the Possession Protection Officer to manage the worksite protection arrangements of a coordinated worksite
<b>Coordinating Protection Officer Assistant (CPO Assist)</b>	A Qualified Worker who has been delegated duties by the Coordinating Protection Officer to assist in coordinating rail safe working activities under the authority of the Coordinating Protection Officer.
<b>Danger Zone</b>	The space surrounding the tracks where workers and equipment are at risk of being struck by rolling stock, including: <ul style="list-style-type: none"> <li>everywhere within 3 metres horizontally of the nearest rail; and</li> <li>any distance above or below these 3 metres unless a safe place exists or has been created.</li> </ul>
<b>Distribution Network Service Provider (DNSP)</b>	An entity that owns, operates, or controls a system for distributing electricity.
<b>Electrical Infrastructure</b>	Network of equipment, facilities, and systems that are necessary to generate, transmit, and distribute electricity, including: <ul style="list-style-type: none"> <li>High-voltage and low-voltage wires, and electrical equipment, on poles.</li> <li>Overhead wiring and associated equipment.</li> <li>Electrical conductors carried in above-ground troughs, return bonds, or buried in the ground.</li> <li>Low-voltage electrical switch rooms.</li> <li>Substations.</li> </ul>
<b>Electrical Controller</b>	A person authorised to control power supply to electrical infrastructure, including isolating and reinstating power supply following isolation.
<b>Local Possession Authority (LPA)</b>	A system of work authorising the closure of a portion of rail track for a defined period of time.
<b>ONRSR</b>	Office of the National Rail Safety Regulator
<b>Pilot</b>	A Qualified Worker whose primary role is to direct, or guide Rolling stock Operators and tell them about local conditions and operating restrictions on running lines and at worksites.
<b>Possession Protection Officer (PPO)</b>	The Qualified Worker responsible for coordinating the rail safety component and worksite protection under a Sydney Metro Local Possession Authority (SMLPA)
<b>Possession Protection Officer Assist (PPO Assist)</b>	A Qualified Worker who has been delegated duties by the Possession Protection Officer to assist in coordinating rail safe working activities under the authority of the Possession Protection Officer.
<b>Protection Assistant (Assist)</b>	A role is a support position designed to help either the PPO, CPO or a PO to manage complex worksite protection arrangements, often in circumstances where multiple-workgroup areas are established over an extensive area within a SMLPA.
<b>Protection Officer (PO)</b>	The Qualified Worker responsible for managing the rail safety component of worksite protection

	Definitions
<b>Protection Officer Assist</b>	A Qualified Worker who has been delegated duties by the Protection Officer to assist in managing the worksite protection arrangements of an individual worksite.
<b>Rail Corridor</b>	From fence-line to fence-line, or if there are no fences, everywhere within 15 metres of the outer rails.
<b>Rail Infrastructure</b>	As defined under the Rail Safety National Law (NSW) No 82a of 2012
<b>Rail Infrastructure Manager (RIM)</b>	As defined under the Rail Safety National Law (NSW) No 82a of 2012
<b>Rail Safety Risks</b>	Safety risks arising from railway operations, including risks to: <ul style="list-style-type: none"> <li>• Worker safety.</li> <li>• Passenger safety.</li> <li>• Train safety.</li> <li>• Infrastructure safety; and</li> <li>• Rolling stock operations.</li> </ul>
<b>Rail Safety Work</b>	As defined under section 8 of the Rail Safety National Law (NSW) No 82a of 2012
<b>Rail Safety Worker</b>	an individual who has carried out, is carrying out, or is about to carry out, rail safety work
<b>Rail Transport Operator (RTO)</b>	As defined under the Rail Safety National Law (NSW) No 82a of 2012
<b>Rail Workplace</b>	As defined under the Rail Safety National Law (NSW) No 82a of 2012
<b>Railway Operations</b>	As defined under the Rail Safety National Law (NSW) No 82a of 2012
<b>Railway Track Signals (RTS)</b>	A device that explodes on impact is used to attract drivers' attention and track vehicle operators. RTS's are also known as detonators and audible track warning devices.
<b>Rolling Stock</b>	As defined under the Rail Safety National Law (NSW) No 82a of 2012
<b>Safe Approach Distance</b>	The minimum separation, in air, from an exposed conductor or exposed electrical equipment that shall be maintained by a person, or any object held by or in contact with that person (other than insulated objects designed for contact with live conductors), or any mobile plant operated or controlled by that person.
<b>Safe Notice</b>	An authorised notice with instructions in addition to those provided in the Network Rules and Procedures.
<b>Safe Place</b>	A safe place is where people or equipment cannot be struck by rolling stock
<b>Supervisor</b>	The person responsible for managing day-to-day work activities and ensuring compliance with safety, quality, and regulatory standards on a rail site.
<b>Sydney Metro Local Possession Authority (SMLPA)</b>	A written authority from Sydney Metro that: <ul style="list-style-type: none"> <li>• Authorises the closure of a defined portion of track for a specified period.</li> <li>• Provides exclusive occupancy for that defined portion of track.</li> <li>• Is issued exclusively to a nominated Possession Protection Officer (PPO).</li> </ul> The term 'SMLPA' can be used interchangeably to mean either a written authority or the area to be occupied under the authority (i.e. a Sydney Metro Local Possession Area), as apparent from the context in this Procedure.
<b>Sydney Metro Site</b>	Any physical location where work is conducted by a Sydney Metro contractor, including all offices and sites controlled by Metro Operations and Project Delivery Partners (Principal Contractors (PC's)).
<b>Train</b>	As defined under the Rail Safety National Law (NSW) No 82a of 2012
<b>Train Testing Zone</b>	A portion of the network approved specifically for the dynamic testing of passenger trains. All work activities not part of train testing are prohibited in the Train Testing Zone.
<b>WAA</b>	Sydney Metro Work Activity Advice

Definitions	
<b>Worksite</b>	A clearly defined physical location where work is carried out, and which, when within the rail corridor is protected from rolling stock by specific worksite protection arrangements.

## 5. Roles and Responsibilities

### Sydney Metro Executive Director, Health and Safety

The Executive Director, Health and Safety is responsible for:

- This *Rail Operating Procedure* (SM-18-00058353), including approving it, monitoring its effectiveness, and formally reviewing it.
- Authorising and issuing any Sydney Metro Local Possession Authority; and
- Authorising and issuing Safe Notices.

### Possession Protection Officer (PPO)

The Possession Protection Officer (PPO) is a *Protection Officer Level 4* qualified worker responsible for coordinating worksite protection and safe working arrangements under a Sydney Metro Local Possession Authority (SMLPA). The responsibilities of the PPO include:

- Placing protection and managing all rail safety aspects associated with a LPA.
- Ensuring the limits of the SMLPA are protected against unauthorised rolling stock.
- Authorising rolling stock to enter or exit SMLPA limits.
- Authorising all rolling stock movements within SMLPA limits.
- Approving the establishment of individual or coordinated worksites within the SMLPA.
- Liaising with electrical authorities and ensuring required electrical permits are obtained.
- Maintaining communication with worksite Protection Officer's (PO's).
- Managing worksite interfaces.
- Recording the condition of rail assets (booked in/booked out) within the SMLPA.
- Recording, reporting and managing responses to incidents.
- Coordinating responses to emergencies; and
- Ensuring PPO correct handover processes are followed.

A PPO may delegate the above listed responsibilities to an assistant ("PPO Assist")<sup>1</sup> however the PPO shall retain overall accountability for worksite protection coordination and safe working arrangements under the SMLPA.

### Protection Officer (PO)

The Protection Officer (PO) is a Protection Officer Level 2 to 4 qualified worker responsible for managing the protection of individual worksites where work is conducted in the Rail Corridor. The responsibilities of the PO include:

- Completing a risk assessment to identify protection arrangements to be implemented.
- Documenting necessary worksite protection in the Worksite Protection Plan.
- Conducting work briefings with all personnel prior to commencing work in the rail corridor.
- Briefing all team members so that they understand the necessary worksite protection documented in the Worksite Protection Plan and sign the pre-work briefing record.

<sup>1</sup> Possession Protection Officer Assistants ("PPO Assist") must possess a *Protection Officer Level 4* qualification.

- Ensuring work does not commence until worksite protection are in place and contact with the PPO is made.
- Authorising the entry and exit of rolling stock into or out of the worksite limits.
- Advising the PPO immediately of any incident or change to agreed arrangements; and
- Establishing and maintaining written records including the WPP and a PO Diary (Appendix C).

A PO may delegate the above listed responsibilities to an assistant ("PO Assist")<sup>2</sup> however the PO shall retain overall accountability for managing the protection of individual worksites where work is conducted in the Danger Zone.

#### Coordinating Protection Officer

A Coordinating Protection Officer (CPO) is a Level 2 to 4 qualified worker nominated by the Possession Protection Officer to manage the worksite protection arrangements of a coordinated worksite (Refer to Section 6.8.2.5). A Coordinating Protection Officer's responsibilities include:

- Authorising the entry and exit and coordinating the movement of rolling stock into or out of the Coordinated worksite.
- Maintaining communication and coordinating safe working requirements with Protection Officers, and where appointed CPO Assistants within the Coordinated worksite.
- Managing changes to protection arrangements of the Coordinated Worksite; and
- Recording and reporting incident and response information.

A CPO may delegate the above listed responsibilities to an assistant ("CPO Assist")<sup>2</sup> however the CPO shall retain overall accountability for managing the worksite protection arrangements of a coordinated worksite.

#### Protection Assistant

A Protection Assistant ("Assist") role is a support position designed to help either the PPO, CPO or a PO to manage complex worksite protection arrangements, often in circumstances where multiple-workgroup areas are established over an extensive area within a SMLPA.

Protection Assistants support with the direct, on-site execution and administrative load of the protection plan, thus allowing the delegating role (PPO, CPO or PO) to concentrate on higher-level coordination and critical communication with the Possession Protection Officer (PPO).

All Protection Assistants must possess the equivalent competency as the delegating role.

#### Work Supervisors

Work supervisors are responsible for:

- Managing day-to-day work activities.
- Ensuring compliance with safety, quality, and regulatory standards; and
- Confirming persons working under their direction have the correct, and current competencies.

#### Work Planners and Co-Ordinators

Work Planners and Co-Ordinators are responsible for:

- Accessing the RIW system verify workers have the correct and current competencies; and
- Including evidence of worker competencies in each supervisor's work pack prior to work commencement.

---

<sup>2</sup> Both Protection Officer Assistants ("PO Assist") and Coordinating Protection Officer Assistants ("CPO Assist") must possess a *Protection Officer Level 2 to 4* qualification.

## 6. Procedure

### 6.1 Planning Work in the Sydney Metro Rail Corridor

Work to be undertaken in the Sydney Metro rail corridor, or that has the potential to impact the Sydney Metro rail corridor shall be planned, assessed by a Protection Officer, and authorised by Sydney Metro at least four weeks before the planned start of the work and in accordance with the Sydney Metro *Work Activity Advice Procedure* (SM-18-00090009).

For any request to be considered, a Work Activity Advice (WAA) (SM-17-00000069) must be prepared for all planned work and must detail the controls that will be implemented to mitigate risks to the health and safety of workers and members of the public. Such controls must be identified with consideration of:

- Potential impact on the Danger Zone.
- Other rail transport operators (RTO's) authorised works.
- Safety critical assets.
- Adjacent live tracks.
- Worksite access and egress.
- Encroaching the Safe Approach Distance of electrical infrastructure.
- Duration; and
- Risks specific to the location and scope of work.

Where the planned work will impact, or has the potential to impact adjacent rail infrastructure and/or an adjoining network, the Protection Officer must:

- Confirm necessary protection arrangements.
- Obtain authorisation from the relevant Network Control Officer, and
- Ensure conformance with network rules, procedures and competency requirements.

Each WAA must be formally submitted to Sydney Metro via TeamBinder, along with other possession planning documentation, if available, such as a worksite protection plan, electrical isolation permits and Safe Work Method Statements (SWMS) applicable to the proposed work. Sydney Metro's nominated contact (noted in TeamBinder) will review the WAA and approve the request.

Where requested, the applicant must revise the WAA to address comments provided by Sydney Metro.

### 6.2 Planning Work Around Electrical Infrastructure

An electrical isolation permit must be sought from the respective asset owner or distribution network service provider for any work that has the potential to encroach the Safe Approach Distance of any electrical asset(s).

A copy of all permit application(s) to undertake works must be provided to Sydney Metro with for review prior to submission to the asset owner or distribution network service provider.

## 6.2.1 Planning Work Around Underground Electrical Assets

Work planning activities must identify and manage sub-surface utilities in and adjacent to the rail corridor, including but not limited to:

- Signalling.
- Electrical; and
- Communication services.

Non-destructive methods to verify the position of sub-surface utilities relevant to the defined work area must be selected, including but not limited to:

- Current information and drawings maintained by the relevant asset manager or network operator; and
- Using metal detectors, ground-penetrating radar and ultrasonic tracing instruments.

Work that is planned to be performed in proximity to high-risk services must only be conducted following non-destructive digging, performed under the supervision of the asset owner or distribution network service provider.

## 6.3 Planning Work During Dynamic Train Testing

Where a Train Testing Zone (TTZ) is to be established, processes and documented procedures must be used to systematically manage the coordination and certification of all rail infrastructure and systems within the established zone.

Such processes must include, however not be limited to:

- Roles, responsibilities and associated competency requirements.
- Conditions associated with:
  - Authorising the limits of the Train Testing Zone
  - Certifying identified infrastructure and systems.
- Methods of booking in and booking out infrastructure and its certified status for train testing.
- Mandatory records and signatures that certify systems and rail infrastructure is safe and ready to be used for train testing.

Limits of the authority must be established before the train enters the SMLPA and testing can only occur after all corresponding rail infrastructure and systems have been certified and fit for use.

## 6.4 Rail Safety Work

Work planning activities must detail and describe the nature and type of planned work activities, including rail safety work. The identification and selection of resources to undertake rail safety work must include identifying corresponding job roles and competency requirements.

Work planning coordinators must identify all rail safety work and ensure persons performing the work:

- Meet all fitness for work requirements.
- Are competent to carry out work roles and hold the relevant certificates of competence.
- Participate in site or corridor specific induction(s) where work will be performed; and
- Are authorised to work in the rail corridor in circumstances where the minimum rail competency requirements are not achieved.

## 6.4.1 Rail Safety Workers

Rail Safety Worker competency requirements must be identified and managed in accordance with the *Rail Safety Worker Competence Management Procedure* (SM-22-00456703).

All persons required to work in the Sydney Metro rail corridor must complete the Sydney Metro network awareness training and possess a Rail Industry Worker (RIW) card evidencing required competencies.

All persons entering the rail corridor must:

- Ensure their RIW card (physical or virtual) is immediately accessible at all times whilst in the rail corridor.
- Ensure competency and medical records are maintained in the RIW system to enable verification of their ability to undertake nominated activities; and
- Provide their RIW card (physical or virtual) when requested by the work supervisor or delegate.

## 6.4.2 Verifying Rail Safety Worker Competencies

All training, competency and awareness records of persons working in the Sydney Metro rail corridor must be maintained using the RIW competency management system and be made available to Work Supervisors, or their delegate upon request.

Prior to any works commencing in the rail corridor, Work Planners and Co-Ordinators must confirm that all workers have the correct and current competencies using one, or more of the following methods:

1. **Scanning the Worker's RIW Card:** Using the RIW mobile app to scan the QR code printed on the worker's physical RIW card; or
2. **Scanning the Sign-In Sticker:** Using the RIW mobile app to scan the QR code printed on the worker's sign-in sticker; or
3. **Searching the RIW App:** Using the workers name to search directly within the RIW mobile app; or
4. **RIW Administrator Search:** Requesting an RIW Administrator to search directly within the RIW web-based system.

Evidence of worker competencies are to be included in work packs and other handover documentation and provided to the Work Supervisor prior to work commencement.

All Work Supervisors are responsible for confirming persons working under their direction have the correct, and current competencies for the work being carried out.

## 6.5 Working in the Sydney Metro Rail Corridor

### 6.5.1 Working in the Danger Zone

Work in the Danger Zone must only be carried out:

- Under a Sydney Metro Local Possession Authority (SMLPA).
- Under the direction of a Level 2 to 4 Protection Officer; and
- Once all required safety measures are in place.

## 6.5.2 Sydney Metro Local Possession Authority

A local possession is the only authority to work in the Sydney Metro rail corridor. This includes all circumstances where dynamic testing is conducted on passenger rolling stock.

Several separate work groups and associated rolling stock and equipment may concurrently occupy the track portion defined by a Sydney Metro Local Possession Authority.

### 6.5.2.1 Authorisation and Issue

A Sydney Metro Local Possession Authority is authorised and issued by the Sydney Metro Executive Director, Health and Safety (or delegate) to a Possession Protection Officer following review and approval of the respective Work Activity Advice (refer to Section 6.1)

Before implementing the Sydney Metro Local Possession Authority (SMLPA), the Possession Protection Officer must:

- Reference the relevant Project Possession Management Plan; and
- Record the protection arrangements in a Worksite Protection Plan (Section 6.6).

The Possession Protection Officer or delegate must brief all Protection Officer's responsible for each corresponding worksite within the limits of the SMLPA.

The Possession Protection Officer must ensure each Protection Officer understands the protection arrangements documented in the Worksite Protection Plan, including but not limited to:

- The limits, time and date of issue of the SMLPA.
- Individual worksite locations and the delineation of such.
- Planned movement of rolling stock.
- Electrical isolations and permits.
- Infrastructure booked out.
- Communication arrangements, following the principles described in Appendix B.
- Methods of preventing entry to or exit from interfacing networks.
- Methods of protecting adjacent lines and adjoining networks.
- Possession Protection Officer details and handover points.
- Details of Protection Officer's and corresponding worksite locations.

The Possession Protection Officer must ensure protection arrangements documented in the Worksite Protection Plan are also communicated to any other Rail Transport Operators who may be affected by the planned work.

### 6.5.2.2 Electrical Isolation Communications

Prior to any work commencing in the SMLPA, the Possession Protection Officer must receive positive communication from:

- The electrical controller confirming the affected infrastructure is isolated.
- Each worksite Protection Officer's confirming worksite protection is in place.

### 6.5.3 Protecting Sydney Metro Local Possession Authority Limits

The worksite protection arrangements for SMLPA limits must be documented in an approved Safe Notice or Project Possession Management Plan.

If a worksite is to be established within 500m of an SMLPA limit that adjoins another rail transport operator, the worksite protection must be implemented as per Safe Notice (Section 6.7.1) or Project Possession Management Plan.

The Possession Protection Officer must ensure all points of entry into the limits of the SMLPA are protected against unauthorised rolling stock movement. The limits of new track construction must also be protected to prevent rolling stock from derailling.

Stop Blocks<sup>3</sup> must be installed at:

- Unless points can be secured to exclude rolling stock movements, any location requiring a physical barrier to prevent the movement of rolling stock; and
- Points of entry and exit with other rail networks.

When it is necessary for a track vehicle or rail-mounted plant to proceed past the stop block, it will be permissible to remove the stop block to allow movement after gaining approval from the Possession Protection Officer. Immediately after the track vehicle or rail-mounted plant has proceeded past the protected location, the stop block must be re-secured to the line.

## 6.6 Worksite Protection Plan

A Worksite Protection Plan (WPP) and corresponding pre-work briefing (Section 6.7.2) must be prepared by each Protection Officer for use prior to commencing work within the Sydney Metro rail corridor.

At minimum the WPP must describe the work to be undertaken and corresponding worksite protection arrangements to be implemented for the duration of the work.

When completing the WPP, the Protection Officer must consider:

- The appropriate number of qualified workers necessary to ensure worksite protection.
- The identification of safe worksite access and egress, along with an easy-reach safe place.
- Rolling stock between or within the worksite and on adjacent lines.
- Electrification of infrastructure.
- Potential of Danger Zone intrusion.
- Works performed by others in proximity or adjacent to the worksite, including methods of communication; and
- Additional controls necessary in circumstances where weather conditions change.

Controls detailed in the WPP must be communicated by the Protection Officer to all workers during the pre-work briefing (Section 6.7.2) and prior to works commencing. The WPP must be signed by all workers confirming they have been briefed and understand the safety arrangements.

---

<sup>3</sup> Stop blocks consist of a timber sleeper painted white, fitted with a red flag and/or a red light and fixed to the track to prevent its movement.

The *Sydney Metro Worksite Protection Plan* (Appendix A) must be used on all Sydney Metro rail sites and must include, but not be limited to:

- **Work scope and location**, including:
  - Description of activities.
  - Worksite boundaries and limits of protection.
  - Local protection limits, and details of protection equipment and devices.
  - Date and time the protection is required and expected to be cleared.
- **Protection Officer(s)** details, including qualifications.
- **Worksite protection diagram** clearly illustrating:
  - Critical rail infrastructure e.g., tracks, signals and level crossings.
  - Site-specific hazards such as adjacent live tracks, overhead wiring, proximity to roads and services.
  - Protection arrangements e.g., Stop Block, jersey kerb barrier or temporary buffer stops.
  - Worksite delineation e.g., exclusion zones, barriers.
  - Access and egress routes, and location of emergency muster point.
- **Communication methods**, including:
  - Application of the communication principles described in Appendix B.
  - Emergency communication procedures.
  - Details of communication channels to be used; and
  - Timing and location for conducting the pre-work briefing.

## 6.7 Safety Critical Communication

### 6.7.1 Safe Notices

Safe Notices shall be authorised and issued by the Sydney Metro Executive Director, Health and Safety (or delegate) for purposes of officially communicating:

- Temporary or permanent changes to the Sydney Metro rail corridor; and
- Exceptions to Sydney Metro rules and procedures.

Changes communicated in Safe Notices are to be considered immediate and shall remain in force for the following durations:

- **Temporary**: In force for the period specified in the Notice, or
- **Permanent**.

Safe Notices must be:

- Directly communicated and complied with by all affected operators and qualified workers.
- Published for public access
- Maintained until the Safe Notice expiry date.

## 6.7.2 Pre-Work Briefing

Protection Officers must conduct a formal pre-work briefing with all personnel before work commences within the rail corridor, for purposes of communicating:

- Worksite limits, task description, and planned sequence of activities.
- Identification site and task specific risks (e.g. overhead wires, adjacent track traffic, buried services) and the necessary controls to be implemented.
- Rolling stock and traffic on adjacent lines, including the direction and frequency and designated safe place.
- The emergency muster point, key contact numbers, and the procedure for site evacuation.

### 6.7.2.1 Confirmation and Record

The Protection Officers must brief all team members so that they understand this information before commencing work. The Protection Officers must confirm the understanding of protection arrangement and emergency procedures.

All persons must sign the pre-work briefing record (Appendix A.2) to confirm their attendance and record their understanding.

Persons who do not understand or refuse to sign the pre-work briefing record (Appendix A.2) must not be permitted to enter the rail corridor or commence work.

## 6.7.3 Change of Possession Protection Officer

An outgoing Possession Protection Officer must provide the incoming Possession Protection Officer with all relevant information needed to effectively manage the SMLPA safely, in writing.

This should include but not limited to the following:

- SMLPA protection arrangements.
- Worksite locations and associated Protection Officer contact details.
- Location and details of rolling stock within possession limits.
- Details of rail infrastructure booked out of use, including electrical isolations; and
- Details of any incidents, defects or infrastructure damage requiring follow up or needing rectification.

The outgoing Possession Protection Officer must maintain permanent written records of:

- All activities conducted under the SMLPA, including corresponding information and protection arrangements; and
- All handover activities and information communicated to the incoming Possession Protection Officer.

## 6.7.4 Protection Officer Records

All Protection Officers must maintain permanent written records, including but not limited to:

- Worksite Protection Plan (Appendix A.1)
- Protection Officer Diary (Appendix C), including adjacent line protection arrangements and communication with other Protection Officers.
- Pre-work briefings and supporting documentation (Appendix A.2); and
- Incidents, defects and/or infrastructure damage.

## 6.7.5 Incidents and Unsafe Events

All persons working in the rail corridor must immediately report to the Protection Officer all incidents, and near miss events, including but not limited to:

- Any injury or harm to persons.
- Any damage to infrastructure.
- A breach of an exclusion zone or safe approach distance of any:
  - electrical infrastructure; OR
  - adjacent rail transport operator (e.g. ARTC network).
- Observed or suspected electrical fault, collapsed electrical wires or electrical fire.

The Protection Officer must record the incident details in their diary (Appendix C) and report immediately the following minimum details to the Possession Protection Officer:

- Name of person reporting.
- Incident time and location.
- Description of the event, including immediate actions taken.
- Any injury to persons, including first aid treatment provided and status of injured person(s); and
- Damage to any equipment or infrastructure.

The Possession Protection Officer must review all reported events and escalate based on the consequence severity and level of response required, particularly in circumstances where communication with emergency services, electrical authorities or other rail transport operators is necessary, or the incident is notifiable under the Rail Safety National Law.

## 6.7.6 Emergency Communication

All users of radio channels must immediately stop transmission in circumstances where an emergency message is broadcast on an open-channel radio.

All emergency communications must:

- Start with the words “*emergency, emergency, emergency*”.
- Be given priority.
- Be answered immediately; and
- Confirm location.

The Possession Protection Officer (PPO) shall be responsible for coordinating and managing all emergency response activities during the SMLPA.

## 6.8 Worksite Protection

Worksite protection arrangements must prioritise separating and protecting persons from rolling stock and electrical hazards.

When it is necessary for rolling stock to proceed past worksite protection, it will be permissible to remove the worksite protection to allow movement after gaining approval from the Possession Protection Officer or Protection Officer associated. Immediately after the track vehicle or rail-mounted plant has proceeded past the protection, the worksite protection must be confirmed by the Protection Officer to be in place.

## 6.8.1 Temporary Fencing

Solid fencing shall be selected with the primary objective of isolating persons conducting construction activities from the Danger Zone, and must take into consideration:

- The task and worksite location.
- The ability to withstand the wind load and suction force of passing trains; and
- Stability of the ground upon which it is erected.

### 6.8.1.1 Fencing on Station Platforms

Once rail track has been laid, physical barriers must be erected to separate all construction work on station platforms from the parallel rail corridor.

Fencing shall be erected to prevent all persons, plant, equipment and materials from entering the Danger Zone, and shall at minimum:

- Consider risks arising from interfacing platform screen door installation activities.
- Incorporate access points that permit the controlled access and egress of workers, with consideration of controlling the risk falls from the platform edge; and
- Consider encroachment of safe approach distances to proximal electrical infrastructure.

In circumstances where fencing extends beyond the platform, a safety assurance statement must be prepared for submission and approval by the Sydney Metro Network Assurance Committee.

## 6.8.2 Worksite Delineation

### 6.8.2.1 Approved Worksite Delineation Markers

All approved worksite delineation markers (Figure 1) must either be fixed to the stock rail or within the four-foot with the contact details of the Protection Officer associated with the worksite immediately available.

Other forms of worksite protection and delineation may be used if approved in the Project Possession Management Plan and authorised by the Possession Protection Officer.



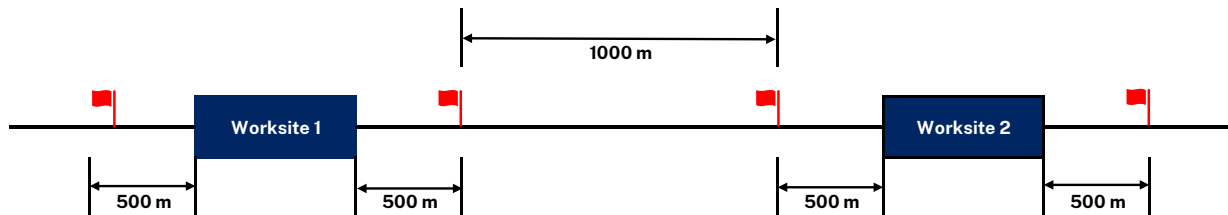
**Figure 1 – Approved Worksite Delineation Markers**

### 6.8.2.2 Individual Worksites

Where an individual worksite is to be established, worksite delineation markers must:

- Be authorised for placement by the Possession Protection Officer (or delegate).
- Be placed between worksites more than 500 m and less than 1000 m apart (Figure 2).

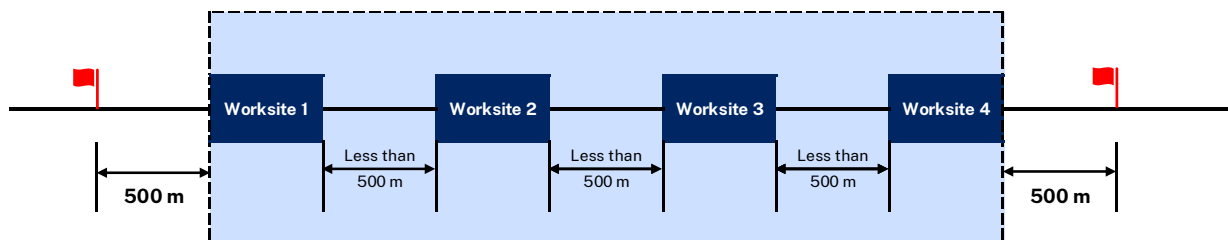
- Be selected with reference to those approved in Figure 1; and
- Include the contact details of Protection Officer accountable for the worksite.



**Figure 2 – Individual Worksite**

### 6.8.2.3 Multiple Worksites Managed as a Single Worksite

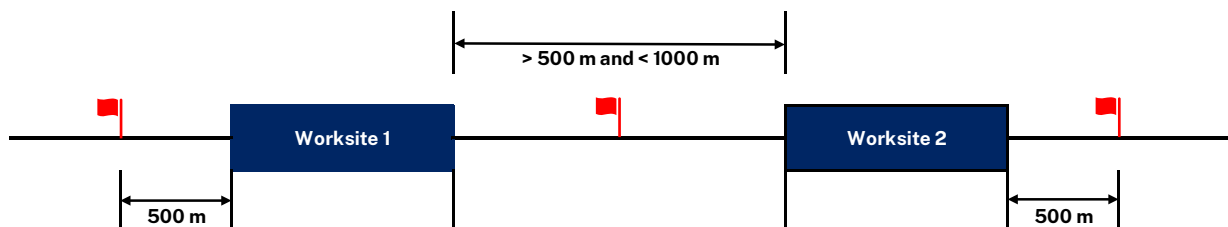
Where multiple worksites less than 500 m apart have been established, they must be managed as a single worksite with a single Protection Officer (Figure 3). One or more work activities may be conducted inside a single worksite.



**Figure 3 – Multiple Worksites Managed as a Single Site**

### 6.8.2.4 Multiple Worksites between 500 m and 1000 m Apart

Where worksites are between 500m and 1000m apart, worksite delineation markers must be placed midway between both worksites (Figure 4).



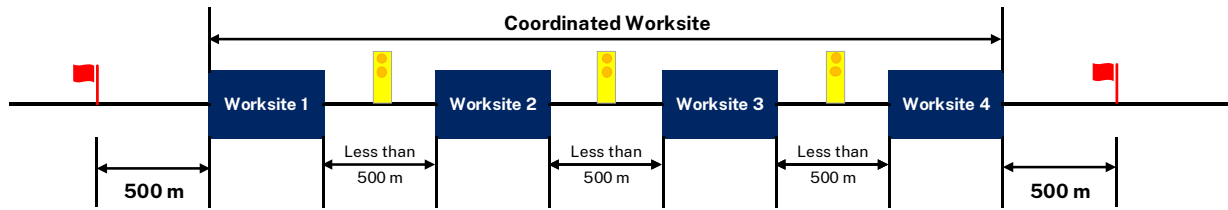
**Figure 4 – Multiple Worksites between 500 m and 1000 m Apart**

### 6.8.2.5 Coordinated Worksite

In circumstances where multiple complex worksites have been established, a Coordinating Protection Officer must be assigned by the Possession Protection Officer to coordinate worksite protection and safe working arrangements of multiple individual worksites that are less than 500 m apart (Figure 5). Such worksites are to be separated using worksite delineation markers (Figure 1).

A Coordinating Protection Officer may appoint a CPO Assistant ("CPO Assist") to support the direct, on-site execution and administration of the worksite protection plan.

Where a coordinated worksite is established, each Protection Officer shall retain responsibility for protecting their individually assigned worksite, however each Protection Officers must comply with the Coordinating Protection Officer's instruction and direction.



**Figure 5 – Coordinated Worksite**

### 6.8.3 Boundary Demarcation

Easily seen demarcation fencing, for example Vortok fencing, may be used as a continuous boundary marker and provide a visual cue to workers.

Demarcation fencing shall only be erected and dismantled during an SMLPA, and at minimum:

- Be established before work commencement.
- Withstand disturbances caused by passing rolling stock; and
- Be regularly inspected and maintained in good condition throughout the work.

Star pickets or similar must NOT be used for temporary or demarcation fencing to prevent risks associated with striking underground electrical services.

## 6.9 Mobile Plant in the Rail Corridor

The Possession Protection Officer (or delegate) must:

- Pilot all rolling stock movements within the limits of the SMLPA.
- Authorise the entry and exit of all rolling stock and manage its movement within the SMLPA.

All mobile plant that has the potential to encroach the Danger Zone or overhead wiring Safe Approach Distance must be fitted with “fail-safe” programmable motion limiting devices.

Limiting devices must be:

- Programmed based on the plant location, danger zone and assets requiring protection.
- Communicated in the pre-work brief.
- Included in the documented worksite protection plan; and
- Tested before operation.

All plant operated in the rail corridor with the potential to encroach the Danger Zone or overhead wiring safe approach distance must be accompanied by a competent spotter.

### 6.9.1 Road Rail Plant and Track Machines

All rail-mounted plant and vehicles must be:

- Used under the accreditation of a nominated Rolling Stock Operator.
- Registered for use in accordance with *Standard on Minimum Rolling Stock Requirements* (SM-20-00046618) and *Rolling Stock Acceptance Procedure* (SM-20-00046300).
- Operated in accordance with the *Sydney Metro Rail Operating Conditions Standard* (SM-18-00058177).
- Specifically designed and fitted with seats and seat belts when used to convey passengers; and
- Inspected at the start of each shift and prior to use.

All inspection activities must be documented and records retained.

Unless authorised, workers must not climb above the normal floor level of rail vehicles on an electrified track.

All self-propelled plant used on track must be equipped with:

- A sticker indicating current registration; and
- Two-way radio equipment.

Trolleys must be fitted with a spring-applied hand brake.

## 6.10 Working Around Electrical Infrastructure

Unless instructed otherwise, all electrical equipment and conductors shall be treated as energised.

An electrical isolation permit must be sought from the respective asset owner or distribution network service provider for any work that may result in, or has the potential to result in:

- The direct contact of a person, mobile plant or equipment with energised equipment; or
- An arc or "flashover" of electricity from a conductor to an object, person, plant or equipment; or
- A person, mobile plant or equipment breaching the safe approach distance of energised electrical equipment, or conductors; or
- The presence of water or fire within the safe approach distance of energised electrical equipment, or conductors; and/or
- Water or debris falling onto overhead wiring.

The Protection Officer must strictly prevent any person, mobile plant or equipment from encroaching or entering a safe approach distance until they have signed onto the applicable electrical isolation permit or other authorised work permit before proceeding with work.

To mitigate electrical hazard exposure so far as is reasonably practicable, the following are not permitted for use in the rail corridor:

- Metal or metal reinforced ladders.
- Metal tape measures.
- Metal reinforced linen tape; and
- Long metal rulers.

Only tools and equipment that have been specifically designed, tested, and certified to provide a safe barrier against live electricity are permitted for use in the rail corridor. Such equipment must be regularly inspected, maintained, and tested to relevant standards to ensure the insulation integrity has not been compromised by damage or wear.

## 6.11 Record Keeping

All records associated with the implementation of this procedure shall be retained in TeamBinder and iCentral under each Project Implementation Group iCentral folder, including, but not limited to:

- Work activity advice and corresponding risk assessments.
- Work planning records, including electrical isolation permits.
- Local Possession information and supporting documentation; and
- Safe Notices.

## 7. Related Documents and References

### Related documents and references

[SM-18-00058177 Rail Operating Conditions Standard](#)  
[SM-20-00046618 Minimum Rolling Stock Requirements Standard](#)  
[SM-20-00046300 Rolling Stock Acceptance Procedure](#)  
[SM-17-00000203 Sydney Metro Glossary](#)  
[SM-18-00090009 Work Activity Advice Procedure](#)  
[SM-17-00000069 Work Activity Advice Form](#)  
[SM-17-00000047 Principal Contractor Health & Safety Standard](#)  
[SMCSWSSJ-JHL-WSS-PC-PLN-000125 S2B Possession Management Plan](#)  
Rail Safety National Law (NSW) No 82a of 2012  
Rail Safety National Law National Regulations 2012  
RISSB Good Practice in Mitigating Safety Risks when Planning Works in the Rail Corridor Guideline  
AHNR 3000 Planning work in the rail corridor  
RISSB Development and maintenance of network rules

## 8. Superseded Documents

### Superseded documents

There are no documents superseded as a result of this document.


## 9. Document History

Version	Date of approval	Notes
1.0	8 June 2018	New IMS document.
2.0	23 February 2021	Reviewed and updated.
3.0	6 September 2021	Reviewed and updated
4.0	9 September 2021	Minor changes and updates.
5.0	8 February 2022	Reviewed and updated
6.0	29 March 2023	Reviewed and updated
7.0	16 October 2025	Reviewed and revised to include: <ul style="list-style-type: none"><li>• Methods for verifying RSW competencies.</li><li>• Establishing, issuing and managing LPA.</li><li>• Clear definitions of roles and associated responsibilities.</li><li>• Consistency of key terms and definitions.</li><li>• Refer to Briefing Note #: BN-SM-25-001046 (SM-25-00203044).</li></ul>

**Provide a diagram of the worksite protection arrangements including the worksite boundaries, elements of the rail infrastructure, protection arrangements, types of worksite protection or delineation, location of Protection Officers and Hand signallers (if applicable), etc.**

<b>Site hand back</b>			
Are all workers and equipment clear of the Danger Zone?		Yes <input type="checkbox"/>	No <input type="checkbox"/>
Has all worksite protection and delineation been removed?		Yes <input type="checkbox"/>	No <input type="checkbox"/>
Has the rail infrastructure been inspected and certified fit for use?		Yes <input type="checkbox"/>	No <input type="checkbox"/>
Signature:		Time of hand back to PPO:	
<b>Comments:</b>			

## Appendix A.2 Pre-Work Briefing Record

Participant Acknowledgement					
All persons listed below acknowledge that they: ( <b>NOTE:</b> Persons are to question the Briefer if they do not understand any part of this briefing)			Scan QR code to access Sydney Metro Network Rules & Procedures as well as other Sydney Metro SMS and SMLPA related documentation.		
1. Have been briefed on the work to be carried out and the worksite protection arrangements as shown on the Worksite Protection Plan 2. Have been shown the Worksite Protection Plan diagram 3. Understand the kinds and limits of worksite protection in place 4. Are wearing the mandatory Personal Protective Equipment (PPE)			5. Hold a current Rail Industry Worker Card with the required competencies 6. Have been briefed on the hazards of adjoining worksites (where applicable) 7. Are free from the effects of drugs, alcohol and fatigue 8. Have been informed of the requirements of the electrical permit (if required) 9. Have been inducted into the project site		
Person Entering Worksite					
Name	Signature on	Signature off	Name	Signature on	Signature off

## Appendix B Communication Principles

### Communication in the Rail corridor must be:

- Clear, brief and unambiguous.
- Relevant to the task at hand.
- Confirmed and understood before action is taken.

### Safety critical communication must use the following:

- 24-hour clock to give the time of day.
- Phonetic alphabet and spoken numbers to identify rail vehicles, points, signals and other safety-critical information.
- Communication equipment used for rolling stock operation or work on track must be tested and checked for its intended operation at the start of each shift.
- The receiver must confirm the content of a message by repeating the message back to the sender if the communication is about:
  - An instruction to proceed.
  - Instructions to not proceed.
  - Work on track authority.
  - Work on track vehicle movement Information.
  - Other safety arrangements.
- As far as practicable, communication must be completed without interruption once commenced.
- If communication is interrupted, the sender must restart the communication from the beginning, repeating items already sent.
- The receiver must not act on the communication until the sender confirms the message has been repeated correctly.

### Spoken communication

- Senders and receivers of communications must identify the receiver first and the sender second.
- Communications from an attended location must include the sender's name and location.
- Communications from a rail vehicle must include the sender's rail vehicle number.
- Communications from a worksite must include the senders:
  - Name.
  - Safe working designation.
  - Location.
- Verbal communication must be promptly acknowledged.
- If the meaning or intent of spoken communication is not understood, is incomplete, or ambiguous:
  - The receiver must ask that it be repeated.
  - The sender and receiver must use the phonetic alphabet and spoken numbers to clarify and confirm the message.
  - The receiver must try again as soon as practicable or arrange alternative means to communicate with the sender if the:
    - Receiver cannot understand the message, or
    - Sender cannot hear or understand the reply.

### Written Communication

- Qualified Workers compiling forms, authorities, and records must:
  - Complete all fields on form.
  - Record numbers in numerals, not words, using "12" instead of "twelve."
  - Unless completing an electronic form:
    - Write clearly in ink.
    - Draw a single line through errors, and if required, print the corrections above them.
    - Initial corrections in the margin beside the correction.
  - Where items on forms have a box before them, workers must:
    - Tick the box if it applies, and complete the item; or
    - Place a cross in the box if the item does not apply.
- Unless otherwise specified, forms and records must be kept for at least 90 days.

## Appendix C Protection Officer (PO) Diary

<b>PO name:</b>	
<b>PO signature:</b>	
<b>Date:</b>	

Time (24 hour format)	Event
:	
:	
:	
:	
:	
:	
:	
:	
:	
:	
:	
:	
:	
:	
:	
:	

[illegible]