

Pollution Incident Response Management Plan

PLR1SOM-GLR-ALL-PE-PLN-000001

Version History Control Box

Date	Revision (TeamBlinder)	Version (Aconex)	Author	Comments
17/12/2021	A	1	EPS Manager	Initial draft
02/02/2022	A	2	EPS Manager	For issue
06/10/2022	A	3	EPS Manager	Change of contacts

Approval Box

Action	Responsible Person
Approved by	Alan Brittain - Project Director
Document owner	Imtiaz Risha - EPS Manager

Table of Contents

1	Terms and Definitions	2
2	Introduction	3
2.1	Purpose of this PIRMP	3
2.2	Scope of this PRIMP	3
2.3	Premises Maps.....	4
2.4	Relationship with Other IMS Documents	4
2.4.1	CEMP and Sub-Plans	5
2.4.2	Interaction with other management plans and procedures	6
3	Implementation of this PIRMP	8
3.1	When to Implement this PIRMP	8
3.2	Actions to be Taken During or Immediately after a Pollution Incident	8
4	Notifications	10
4.1	Notification of Relevant Authorities	10
4.2	Notification of Neighbours and the Local Community	11
5	Potential Pollution Impacts	13
5.1	Inventory of Potential Hazardous Materials	13
5.2	Description and Likelihood of Hazards	13
6	Mitigation of Pollution Impacts	15
6.1	Pre-emptive Actions to be Taken	15
6.2	Potential Actions to Respond to a Pollution Incident	15
6.3	Minimising Harm to Persons on the Premises	16
6.4	Safety Equipment	17
6.5	Staff Training	17
6.5.1	Environmental Inductions	17
6.5.2	Toolbox Talks, Training and Awareness	18
6.5.3	Daily Pre-Start Meetings	18
7	Continual Improvement and Availability of this PIRMP	20
7.1	Testing and Review of this PIRMP	20
7.2	Update of this PIRMP	20
7.3	Availability of this PIRMP	20
	Appendix A – EPL Premises Map at Time of Issue of PIRMP	23
	Appendix B – Environmental Risk Register at Time of Issue of this PIRMP	27

1 Terms and Definitions

Term	Meaning
BOCC	Back Up Operating Centre
CEMP	Construction Environmental Management Plan (PLR1SOM-GLR-ALL-PM-PLN-000014)
CEP	Consultation and Engagement Plan (PLR-SOM-GLR-PJT-PM-PLN-000007)
CoA	Condition of Approval
Contractor	A company, partnership, trust or individual business contracted to carry out defined packages of work for GRCLR. A signed contract must exist.
E&S	Environment and Sustainability
ECM	Environmental Control Map
Environmental Incident	An occurrence or set of circumstances, as a consequence of which pollution (air, water, noise, and land) or an adverse environmental impact has occurred, is occurring, or is likely to occur.
EPL	Environment Protection Licence
EPO	Environmental Performance Outcome
EPS	Environment, Planning and Sustainability
ER	Environmental Representative
GRCLR	Great River City Light Rail Pty Ltd
IMS	Integrated Management System
Incident	Is an unintended, unplanned and or unforeseen occurrence that results in actual or potential injury, disease, property, plant damage. Incidents include near hits.
Notifiable Incident	An incident which must be notified to a regulator, within specified time, as required by relevant legislation.
PIRMP	Pollution Incident Response Management Plan (PLR1SOM-GLR-ALL-PE-PLN-000001)
POEO Act	Protection of the Environment Operations Act 1997 (NSW)
Pollution	Water, air, land or noise pollution
Pollution Incident	Pollution incident means an incident or set of circumstances during or as a consequence of which there is or is likely to be a leak, spill or other escape or deposit of a substance, as a result of which pollution has occurred, is occurring or is likely to occur. It includes an incident or set of circumstances in which a substance has been placed or disposed of on premises, but it does not include an incident or set of circumstances involving only the emission of any noise.
REMMM	Revised Environmental Mitigation and Management Measure
SaMF	Stabling and Maintenance Facility
SDS	Safety Data Sheet
SMP	Safety Management Plan
SMS	Safety Management System
SMT	Senior Management Team
SOM	Supply, Operate and Maintain
Supply Contractor	CAF Australasia Pty Ltd
TfNSW	Transport for New South Wales
TPS	Traction Power Substation
WHS	Work Health and Safety

2 Introduction

2.1 Purpose of this PIRMP

Great River City Light Rail Pty Ltd (GRCLR) holds an Environment Protection Licence (EPL – EPL 21606) with the NSW Environment Protection Authority (EPA) for Parramatta Light Rail Stage 1 – Westmead to Carlingford Package 5. As per the *Protection of the Environment Operations Act 1997* (the POEO Act), the holder of an EPL must prepare, keep, test and implement a Pollution Incident Response Management Plan (PIRMP) that complies with Part 5.7A of the POEO Act in relation to the activity to which the licence relates.

If a pollution incident occurs in the course of an activity so that material harm to the environment (within the meaning of section 147 of the POEO Act) is caused or threatened, the person carrying out the activity must immediately implement this plan in relation to the activity, as required by Part 5.7A of the POEO Act.

The purposes of this PIRMP are to:

- ensure comprehensive and timely communication about a pollution incident to the project team, the EPA, other relevant authorities specified in the POEO Act, and people in the vicinity who may be impacted by the pollution incident.
- minimise and control the risk of a pollution incident by requiring identification of risks and the development of planned actions to minimise and manage those risks.
- ensure that the PIRMP is properly implemented by trained staff, identifying persons responsible for implementing it, and ensuring that the PIRMP is regularly tested for accuracy, currency and suitability.

2.2 Scope of this PIRMP

This PIRMP applies to the activities undertaken under EPL 21606, namely Parramatta Light Rail Stage 1 – Westmead to Carlingford – Package 5. Package 5 is the Supply, Operate and Maintain (SOM) Contract, being delivered by GRCLR (and its subcontractors) for Transport for NSW (TfNSW).

The SOM works include the construction of the following:

- Stabling and Maintenance Facility (SaMF)
- Traction Power Substations (TPSSs)
- Light rail stops above slab level
- Overhead wire, conductors and insulator installation
- Back Up Operating Centre (BOCC).

GRCLR's main subcontractor is CAF Rail Australia (the Supply Contractor), responsible for the supply of light rail vehicles and the construction and commissioning of the SOM works. Laing O'Rourke Australia, Thales and General Electric have been contracted by CAF Rail Australia to construct various components of the SOM works.

Other packages of Parramatta Light Rail have been or are being constructed by other TfNSW contractors. In particular, the Infrastructure Contractor (Parramatta Connect) is constructing the

tracks, underground services and other components of the project (Package 4) under EPL 21347.

GRCLR is undertaking the SOM works under EPL 21606. The details of EPL 21606 are provided in Table 1.

Table 1 Details of EPL 21606

Name of licensee:	Great River City Light Rail Pty Ltd
ACN:	622 239 605
EPL number:	21606
Issue date:	14/12/2021
Premises name and address:	Parramatta Light Rail Stage 1 – Westmead to Carlingford Package 5 Parramatta NSW 2123
Company or business contact details:	Name: Imtiaz Risha Position or title: EPS Manager Business hours contact number/s: 0459 595 709 After hours contact number/s: 0459 595 709 Email: imtiaz.risha@greatrivrcity.com.au
Website address:	https://greatrivercity.com.au/
Scheduled activity/activities on EPL:	Railway activities – railway infrastructure construction
Fee-based activity/activities on EPL:	Railway infrastructure construction (<50,000T)

2.3 Premises Maps

A number of maps are available that illustrate the location of SOM works, the premises covered by EPL 21606, the potential receivers and impacts, as well as the management measures and equipment in place, these include:

- EPL Premises Maps
- Environmental Control Maps (ECMs).

The EPL Premises Maps available at the time of issue of this PIRMP are included in Appendix A. Note that these maps are updated regularly and the current EPL Premises Maps are available at each construction site.

2.4 Relationship with Other IMS Documents

The construction of the Project is managed in accordance with the GRCLR Integrated Management System (IMS) which includes an Environmental Management System (EMS). The EMS has been adopted as the guiding environmental management framework for the Project. The EMS is compliant with AS/NZS ISO 14001:2015. The EMS is integrated with the project wide IMS which includes assurance, quality and health and safety management systems

The EMS guides the development of the Project's governance documentation to achieve the commitments established by the GRCLR Environment and Sustainability Policy and to ensure environmental performance and sustainability objectives and targets are achieved. This

documentation includes the Construction Environmental Management Plan (CEMP – PLR1SOM-GLR-ALL-PM-PLN-000014), associated management plans (e.g. this PIRMP), procedures and management tools

All works carried out on the site will be in accordance with:

- Minister’s Conditions of Approval (CoA) SSI-8285
- Revised Environmental Mitigation and Management Measures (REMMMs)
- Environmental Performance Outcomes (EPOs)
- AS/NZ ISO 14001
- All applicable legislation
- Project Deed
- GRCLR IMS.

2.4.1 CEMP and Sub-Plans

A CEMP has been prepared for the Project. This CEMP provides the system to manage and control the environmental aspects of the Project during construction. It also provides the overall framework for the system and procedures to ensure environmental impacts are minimised and legislative and other requirements are fulfilled.

The CEMP has been endorsed by the Environmental Representative (ER) and approved by the Secretary of DPIE.

Subject-specific environmental management sub-plans have been prepared to support the CEMP. These documents have been prepared to identify requirements and processes applicable to specific impacts or aspects of the Project. They address the relevant requirements of the CoAs, REMMMs and EPOs. A list of construction management plans for the SOM contract (Package 5) and their approval requirements are provided in Table 2.

Table 2 CEMP Sub-Plans

Document	Document Number	Approval Requirement
Traffic, Transport and Access Management Plan	PLR1SOM-GLR-ALL-PM-PLN-000032	REMMM GEN-1 CoA C3 (a) REMMM TT-25
Flora and Fauna Management Plan	PLR1SOM-GLR-ALL-PM-PLN-000033	REMMM GEN-1 CoA C3 (e) REMMM BI-3
Noise and Vibration Management Plan	PLR1SOM-GLR-ALL-PM-PLN-000034	REMMM GEN-1 CoA C3 (b) REMMM NV-1
Soil and Water Management Plan	PLR1SOM-GLR-ALL-PM-PLN-000035	REMMM GEN-1 and HY-6
Heritage Management Plan	PLR1SOM-GLR-ALL-PM-PLN-000037	REMMM GEN-1 CoA C3 (d) REMMM AB-2 REMMM HE-21
Air Quality Management Plan	PLR1SOM-GLR-ALL-PM-PLN-000038	REMMM GEN-1 and AQ-1

Document	Document Number	Approval Requirement
Construction Waste and Resource Management Plan	PLR1SOM-GLR-ALL-PM-PLN-000039	REMMM GEN-1 and WM-2
Contaminated Land Management Plan	PLR1SOM-GLR-ALL-PM-PLN-000040	REMMM GEN-1 REMMM CM-3
Site Establishment Management	PLR1SOM-GLR-ALL-PE-PLN-001002	REMMM GEN-1 CoA C18 REMMM GEN-2
Flood Management Plan	PLR1SOM-GLR-ALL-PM-PLN-000047	REMMM GEN-1 CoA C3 (c) REMMM HY-4
PIRMP (this plan)	PLR1SOM-GLR-ALL-PE-PLN-000001	POEO Act

2.4.2 Interaction with other management plans and procedures

Key interactions for this PIRMP with other GRCLR management plans include:

- Air Quality Management Plan (PLR1SOM-GLR-ALL-PM-PLN-000038), which details the controls and requirements for managing dust and wind erosion.
- Delivery Phase Sustainability Management Plan (PLR1SOM-GLR-ALL-PM-PLN-000015), which defines the sustainability targets, addresses the tracking and reporting of waste and energy, and provides detailed strategies to achieve resource reductions.
- Communication and Engagement Plan (PLR-SOM-GLR-PJT-PM-PLN-000007), which defines how GRCLR will communicate and engage with the community and other stakeholders during project delivery.
- Construction Waste and Resource Management Plan (PLR1SOM-GLR-ALL-PM-PLN-000039), which details the controls and requirements for managing waste and resources.
- Contaminated Land Management Plan (PLR1SOM-GLR-ALL-PM-PLN-000040), which addresses management of contaminated land and unexpected contamination finds, chemical storage and spill response and stockpile management.
- Noise and Vibration Management Plan (PLR1SOM-GLR-ALL-PM-PLN-000034), which details the control and requirements for managing noise and vibration.
- Risk Management Plan (PLR1SOM-GLR-ALL-PM-PLN-000005), which details risk management requirements for GRCLR.
- Safety Management Plan (PLR1SOM-GLR-ALL-PM-PLN-000008), which detail GRCLR's approach to work health and safety (WHS).
- Soil and Water Management Plan (PLR1SOM-GLR-ALL-PM-PLN-000035), which details the control and requirements for managing water and water erosion.

This PIRMP applies to all works performed as part of the SOM scope of work. Subcontractors engaged on the project, to perform defined packages of work under their own management systems, may operate under incident notification investigation and reporting provisions of their management systems. However, these systems must meet or exceed requirements of this PIRMP. Incident notification, management, investigation and reporting processes and requirements will be clarified and agreed upon prior to commencement of each major sub-contractor on site.

To the extent of any conflict, this PIRMP does not cover initial response and management of incidents or emergency situations for the SOM works, where an emergency has been declared and a Construction Emergency Coordinator has been appointed under the GRCLR Emergency Preparedness and Response Management Procedure (PLR1SOM-GLR-ALL-PM-PRO-000069).

3 Implementation of this PIRMP

3.1 When to Implement this PIRMP

This PIRMP must be implemented immediately if, in the course of any activity at the premises, a notifiable pollution incident occurs. A pollution incident is required to be notified if there is actual or potential material harm to the environment, which is defined in section 147 of the POEO Act as follows:

- (a) *harm to the environment is material if:*
 - (i) *it involves actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial, or*
 - (ii) *it results in actual or potential loss or property damage of an amount, or amounts in aggregate, exceeding \$10,000 (or such other amount as is prescribed by the regulations), and*
- (b) *loss includes the reasonable costs and expenses that would be incurred in taking all reasonable and practicable measures to prevent, mitigate or make good harm to the environment.*

In summary:

This PIRMP must be implemented immediately in the event of a pollution incident that results in actual or potential harm to the health or safety of humans or ecosystems that is not trivial.

Incidents that do not actually or potentially cause material harm to the environment do not trigger the implementation of this PIRMP. For these incidents, the requirements of the relevant incident management procedures will apply.

3.2 Actions to be Taken During or Immediately after a Pollution Incident

In the event of a notifiable pollution incident, the actions detailed in Table 3 will be implemented.

Table 3 Actions to be Taken During or Immediately after a Notifiable Pollution Incident

Action	Responsibility	Reference
1 Immediately advise key GRCLR contacts that pollution has occurred, is occurring or could occur. Direct verbal contact must be made; sending an SMS/text/email and/or leaving a voicemail message does not constitute contact. Where a person is not able to be contacted, the worker is to attempt to contact the next listed person until contact is made.	All Workers	Table 4
2 Immediately notify GRCLR Senior Management, CAF Senior Management, TfNSW Environment Team and the ER that pollution has occurred, is occurring or might occur.	GRCLR EPS Manager	Table 5
3 Immediately notify EPA and other authorities (as appropriate) of the incident.	GRCLR EPS Manager in consultation with TfNSW	Section 4.1
4 Implement actions to minimise and control any pollution and ensure the safety of site personnel, neighbours and the community.	Supply Contractor E&S Manager with Site Supervisor	Sections 6.2 and 6.3
5 Implement actions to clean up pollution and dispose of waste appropriately.	Supply Contractor E&S Manager with GRCLR WHS Manager and Site Supervisor	Section 6.2

Action	Responsibility	Reference
6 Determine if neighbours or the community are affected and method of community notification.	GRCLR Communications Manager	Section 4.2
7 Notify neighbours and the community of the pollution incident (if required).	GRCLR Communications Manager	Section 4.2

Table 4 GRCLR Contact List for Incident Notification

Role	Name	Contact Number
GRCLR EPS Manager	Imtiaz Risha	0459 595 709
GRCLR Project Delivery Director	Alan Brittain	0436 830 524
GRCLR Managing Director	Peter Matthews	0433 166 175
GRCLR WHS Manager	Greg Lipka	0407 214 793
GRCLR Communications Manager	Coral Reynolds	0417 917 979
Supply Contractor E&S Manager	Raju Divakarla	0439 903 906

Table 5 TfNSW and ER Contact List for Incident Notification

Role	Name	Contact Number
TfNSW Senior Manager Environment & Sustainability	Megan Haberley	0488 442 284
ER	Gillian Lehn	0419 253 787

4 Notifications

4.1 Notification of Relevant Authorities

Under Part 5.7A of the POEO Act, in the event of a notifiable pollution incident relevant authorities must be notified. Potentially relevant authorities and their contact details are listed in Table 6.

Relevant information required to be given to the relevant authorities when making a notification is specified in Section 150 of the POEO Act 1997 as follows:

- (a) *the time, date, nature, duration and location of the incident;*
- (b) *the location of the place where pollution is occurring or is likely to occur;*
- (c) *the nature, the estimated quantity or volume and the concentration of any pollutants involved;*
- (d) *the circumstances in which the incident occurred (including the cause of the incident (if known));*
- (e) *the action taken or proposed to be taken to deal with the incident and any resulting pollution or threatened pollution; and*
- (f) *other information prescribed by the regulations.*

The GRCLR EPS Manager is required to report to relevant authorities the information as known at the time of the notification. If all of the information required above is not known at the time of initial notification but becomes known afterwards it must be reported to each relevant authority immediately after it becomes known.

Table 6 Contact Details for Relevant Authorities

Relevant Authority	Name/Location/Purpose	Contact Number
Emergency Services	NSW Ambulance NSW Police Fire and Rescue NSW	000 Only ring 000 if the incident presents an immediate threat to human health or property and response by an emergency services agency is warranted. If the incident does not require an initial combat agency, or once the 000 call has been made, notify as listed below.
NSW Ambulance	Parramatta	(02) 4731 2167
NSW Police	Parramatta	(02) 9633 0799
Fire and Rescue NSW	Parramatta Fire Station Wentworthville Fire Station	(02) 9895 4620 (02) 9631 0908
EPA Pollution Line	Notify actual or potential material harm to the environment	13 15 55
NSW Health		(02) 9391 9000
SafeWork NSW	Incident notification (including after hours), information, advice and assistance	13 10 50
City of Parramatta Council	Where any council-owned or governed asset is affected	1300 617 058

Relevant Authority	Name/Location/Purpose	Contact Number
Cumberland City Council	Where any council-owned or governed asset is affected	8757 9000
Department of Planning, Industry and Environment	TfNSW Senior Manager Environment to contact via the Major Projects Portal	Major Projects Portal
Sydney Water (Water and Sewerage)		13 20 90
Jemena (Gas)		13 19 09
Endeavour Energy (Electricity)		13 10 03

4.2 Notification of Neighbours and the Local Community

The GRCLR Communications Manager, in consultation with TfNSW Senior Community Liaison Officer, will coordinate all community and stakeholder communications and interactions for the SOM works. The process for notification of stakeholders of a notifiable pollution incident relates directly to the nature of the hazard. In the event that there is an unacceptable risk to the community from the incident, the impacted community stakeholders will be notified.

Mechanisms for early warnings, notification of emergency construction works or ongoing regular updates to the community for reportable pollution incidents may include:

- door knock of residents, businesses and others (e.g. schools) potentially impacted by the incident
- phone contact/messages/social media networks
- distribution of advice to residents, businesses and vehicle owners, pedestrians, commuters and schools as required
- publication of information on the TfNSW/project website
- dissemination of information to local and metropolitan media via TfNSW
- liaison with local council and other government stakeholders
- liaison with utilities providers
- installation of temporary directional signage.

In the event of a reportable pollution incident, the GRCLR EPS Manager shall advise the GRCLR Communications Manager. The GRCLR Communications Manager will determine, in consultation with the GRCLR Project Delivery Director and TfNSW, if community notification is required, and the mechanism(s) by which notification shall be made. Notification to any residents, businesses or other premises that may be affected by the pollution incident will include the following information:

- details of the pollution incident and extent of impact (as known at the time)
- safety warnings and recommendations to prevent/minimise impacts, if required
- potential impacts on the operation of local businesses, if required.

The area which may be affected by a pollution incident is dependent on the transport vector (water, air or land), pollutant (type, concentration and concentration) and meteorological conditions. The GRCLR Communications Manager, in consultation with the GRCLR WHS Manager and the GRCLR EPS Manager, will determine an appropriate geographical extent of

the public notification and details to be provided in the notification. The Premises Maps and ECMs can be used to help determine the location of any sensitive premises (e.g. schools, preschools, hospitals, nursing homes) in the vicinity of the incident and the extent of public notification required.

Note that if a media release from GRCLR is considered necessary, the approval of the GRCLR Managing Director is required for all media releases.

In accordance with the Communication and Engagement Plan (PLR-SOM-GLR-PJT-PM-PLN-000007), the steps listed in Table 7 will be undertaken to notify the community of an emergency or incident.

Table 7 Community Notification Requirements for Notifiable Pollution Incidents

Action	
1	The GRCLR Communications Manager will be notified of the pollution incident by the GRCLR EPS Manager.
2	The GRCLR Communications Manager and the GRCLR WHS Manager will determine if the community is at risk from the incident.
3	If it is determined that the incident does not impact the community no further action is required.
4	If it is determined that members of the community will be impacted, the GRCLR Communications Manager will prepare an appropriate notification to the community (dependent upon the circumstances) in consultation with the GRCLR Project Delivery Director.
5	Should a media response be required, it is the responsibility of GRCLR to provide the appropriate information with technical input from the Project Delivery Director. Media releases require the approval of the GRCLR Managing Director.
6	No staff member has authority to speak with the media.
7	In the event that the incident is unable to be contained or managed in a safe manner using site resources and intervention by an emergency service is required, the relevant emergency service will direct and control the response to the incident including any evacuation or rescue of any community members.
8	Any further follow up required after the incident will be undertaken by the GRCLR Communications Manager.

5 Potential Pollution Impacts

5.1 Inventory of Potential Hazardous Materials

Under GRCLR’s Chemical Substances, Hazardous Materials and Dangerous Goods Procedure (PLR1SOM-GLR-ALL-PM-PRO-000039), a Safety Data Sheet (SDS) database for all hazardous materials at the project site is available online for all GRCLR and subcontractor staff. This database is live, updated as required for all hazardous materials present on site.

Table 8 provides a list of potential hazardous materials that may be present on site. Waste and other materials are managed as required by the Construction Waste and Resource Management Plan (PLR1SOM-GLR-ALL-PM-PLN-000039).

Table 8 Potential Hazardous Materials on Site

Aspect	Material	Waste Classification (If relevant)	Estimated Quantity
Earthworks and utilities	Excavated waste/ spoil	General Solid Waste	150T – To be re-used on-site where possible
	Asbestos containing materials	Contaminated Waste or Special Waste	Unknown – Subject to unexpected finds
Structures and building infrastructure	Construction waste, timber, formwork, concrete	General Solid Waste (non-putrescible)	20T/month
	Piling	General Solid Waste (non-putrescible)	<20T
	Steel	Recycling	Estimated 50T
General construction	Sewage	Effluent (sewage)	100T/month
	Office waste	General Solid Waste (putrescible)	2T/month
		Comingled Recycling	0.5T/month
	Construction waste	General Solid Waste (non-putrescible)	20T/month
	Contaminated water	Contaminated Liquid Waste	Unknown – subject to rain events and groundwater ingress
	Oils and used chemicals	Trackable Liquid Waste	TBD

5.2 Description and Likelihood of Hazards

Under the Risk Management Plan (PLR1SOM-GLR-ALL-PM-PLN-000005), GRCLR undertakes risk and opportunity assessment and management on an ongoing basis. Environmental risk assessment workshops are held by GRCLR on a regular basis and generate an environmental risk register as required under the CEMP.

Key environmental risks identified for the SOM works are:

- Noise impacts from out of hours works
- Uncontrolled discharge of water from site
- Contaminated land and water management

- Dust and air quality impacts
- Impact on local roads from construction traffic (light and heavy vehicles).

An extract from the environmental risk register available at the time of issue of this PIRMP is included in Appendix B.

6 Mitigation of Pollution Impacts

6.1 Pre-emptive Actions to be Taken

All aspects of the SOM works with potential to impact on the environment are identified in the CEMP (PLR1SOM-GLR-ALL-PM-PLN-000014), associated sub-plans and area specific ECMs. The CEMP and associated sub-plans detail the pre-emptive management measures, controls and responsibilities required to carry out the environmental objectives of SOM works, prevent pollution incidents and to minimise impacts to the environment.

The CEMP, associated sub-plans and ECMs apply to GRCLR, the Supply Contractor and all subcontractors working on the SOM works.

6.2 Potential Actions to Respond to a Pollution Incident

Actions to minimise and control any pollution and ensure the safety of site personnel, neighbours and the community and to clean up pollution and dispose of waste appropriately will be determined by the Supply Contractor E&S Manager with the GRCLR WHS Manager and Site Supervisor.

Workers are responsible for responding to pollution incidents under the direction of the Supply Contractor E&S Manager. In the event of an environmental emergency, the incident response will be directed in accordance with the GRCLR Emergency Preparedness and Response Management Procedure (PLR1SOM-GLR-ALL-PM-PRO-000069).

Where an environmental incident or other event results on the need for emergency construction works, the GRCLR EPS Manager must notify the TfNSW Senior Manager Environment and the ER of the need for those activities or works (SMS or email). The GRCLR Communications Manager will use best endeavours to notify all affected sensitive receivers of the likely impact and duration of those works as outlined in Section 4.2.

Potential actions to respond to a notifiable pollution incident are outlines in Table 9.

Table 9 Potential Actions to Respond to a Pollution Incident

Type of Incident	Description of Incident	Response Actions
Water or Land	<p>Leak, spill or escape of any substance in a manner that harms or is likely to harm the environment.</p> <p>Examples include:</p> <ul style="list-style-type: none"> ■ Discharge of untreated water from site during wet weather event ■ Sewer or watermain strike (loss of sediment and polluted water to land, stormwater or receiving waterways) ■ Generator leak to land ■ Fuel spill to land ■ Spill of non-destructive digging material during transfer. 	<ul style="list-style-type: none"> ■ Deploy spill kit materials to contain and absorb the spill. ■ Establish and/or strengthen controls around stormwater drains including drain wardens and sandbags around the drain perimeter. ■ Mobilise a vacuum truck to remove excess water/liquid from the site and dispose to an appropriately licensed facility. ■ Remove used spill kit materials from the site and dispose to an appropriately licensed facility. ■ Ensure spill kits are restocked following the event.

Type of Incident	Description of Incident	Response Actions
Noise	Excessive or intrusive noise emissions arising from: <ul style="list-style-type: none"> Inadequate controls Poorly maintained plant/equipment Failure to comply with Out of Hours Works Permit. 	<ul style="list-style-type: none"> Cease noise generating activity if an approved Out of Hours Works Permit is not in place. Ensure equipment is adequately maintained. Conduct noise monitoring to determine if noise levels are in accordance with predicted levels. Replace noisy equipment with quieter alternatives. Review controls and revise as necessary.
Air	Gas main strike resulting in loss of gas	<ul style="list-style-type: none"> Evacuate the work site and move to a well-ventilated area. Ensure no naked flames or smoking. Do not touch or operate electrical equipment. Ensure no mobile phones are used in the vicinity of the leak.
Air	Excessive and intrusive dust emissions	<ul style="list-style-type: none"> Cease dust generating activity. Apply dust suppression (water cart, hose, etc). Review the adequacy of controls (e.g. dust suppression, site barriers). Recommence works following implementation of controls, and monitor effectiveness. In the event of high winds, reschedule works if dust cannot be controlled to reasonable levels.

6.3 Minimising Harm to Persons on the Premises

The GRCLR Safety Management Plan (PLR1SOM-GLR-ALL-PM-PLN-000008) has been developed around 17 core elements. These core elements outline GRCLR’s approach to WHS management to effectively manage WHS and to continuously ensure best practice level of safety performance during the construction of the SOM works.

Each core element contains guiding principles in terms of context, application, minimum requirements and key accountabilities. The core elements are:

- Leadership and Commitment
- Responsibility, Accountability and Authority
- Planning and Performance Indicators
- Risk Management
- Performance Monitoring, Measurement and Reporting
- Hazard Identification Risk Assessment and Control
- Capability, Integrity and Operation of Plant and Equipment
- Training and Competence
- Communication and Consultation
- Incident Management

11. Occupational Health and Hygiene
12. Contractors and Suppliers
13. Reviews, Audits, Inspections and Corrective Actions
14. Management of Chemical Substances, Hazardous Materials and Dangerous Goods
15. Emergency Preparedness and Response
16. Managing Compliance
17. Management Review

The implementation of the Safety Management Plan and associated plans and procedures aims to minimise harms to workers and other people on and around the premises, including in the event of a pollution incident.

6.4 Safety Equipment

Under the CEMP, Safety Management Plan and associated plans and procedures, safety and other equipment is provided on-site to prevent, control and/or respond to pollution incidents. The location of this equipment is indicated in the ECMs, where applicable:

- Spill Kits – in key locations across the premises
- Safety Data Sheets – in designated chemical storage containers and at site compounds
- Sediment control equipment – including sandbags, gravel, geofabric and sediment fences.

Other plant and equipment present at the site or sourced externally may be used in the management of a pollution incident, including excavators, sucker trucks etc. The equipment required in response to a pollution incident would be determined by the Site Superintendent in consultation with the Supply Contractor E&S Manager and Safety Manager.

Emergency Response Plans and maps are displayed in strategic locations within site compound offices/notice boards, identifying safety equipment locations on-site (e.g. fire extinguishers, hose reels), assembly and evacuation points.

Under GRCLR's Chemical Substances, Hazardous Materials and Dangerous Goods Procedure (PLR1SOM-GLR-ALL-PM-PRO-000039), a SDS database for all hazardous materials at the project site is available online for all GRCLR and subcontractor staff. This database is live, updated as required for all hazardous materials present on site.

6.5 Staff Training

To ensure the effective implementation of the CEMP, each level of management is responsible for ensuring that all personnel reporting to them are aware of its requirements. The Supply Contractor E&S Manager will coordinate the environmental training in conjunction with other training and development activities (e.g. WHS).

Environmental training is undertaken by GRCLR in three streams as described below.

6.5.1 Environmental Inductions

All personnel (including subcontractors) are required to attend a compulsory project and site inductions that includes an environmental component prior to commencement on-site. Inductions are undertaken on-line and in person.

Short-term visitors to site undertaking inspections/entering the site will be required to undertake a visitors' induction prior to accessing the site and must be accompanied by inducted personnel at all times. Temporary visitors to site for purposes such as deliveries, will be required to stay in designated delivery areas, or otherwise be accompanied by inducted personnel at all times.

The environmental component of the induction covers all elements of the CEMP and includes (among other topics)"

- Conditions of environmental licences, permits and approvals
- Potential environmental emergencies/incidents on site and the required response
- Reporting and notification requirements for pollution and other environmental incidents
- Mitigation measures for the control of environmental issues
- High risk activities and associated environmental safeguards
- Working in or near environmentally sensitive areas
- ECMs, their purpose, scope and use
- Role specific environmental management requirements and responsibilities.

6.5.2 Toolbox Talks, Training and Awareness

Toolbox talks will raise awareness and educate personnel on issues related to all aspects of construction including environmental issues. The toolbox talks are used to ensure environmental awareness continues throughout construction.

Toolbox talks will include details of ECMs and be tailored to specific environmental issues relevant to upcoming works.

Key environmental issues relevant to construction of the SOM works include (but are not limited to):

- Hours of work, including management strategies to be implemented for out of hours works
- The scope and requirements of the specific site environment plans and ECMs
- Erosion and sediment control
- Wet weather shut down procedures and responsibilities
- Emergency and spill response
- Noise and vibration goals and specific mitigation measures
- Soil and water issues and controls and dewatering and discharge requirements
- Air quality and dust issues and management
- Contamination issues and management
- Sensitive receivers such as the local community and appropriate mitigation measures
- Recent environmental incidents and lessons learnt.

6.5.3 Daily Pre-Start Meetings

The pre-start meeting is a tool for informing the workforce of the day's activities, safe work practices, environmental protection practices, work area restrictions, activities that may affect the works, coordination issues with other trades, hazards and other information that may be relevant to the day's work.

Site Supervisors will conduct a daily pre-start meeting with the site workforce before the commencement of work each day, at the start of each new shift, or when there are changes to work activities or the risks present onsite during a shift.

The environmental component of pre-starts will be developed by the Supply Contractor E&S Manager and will include any environmental issues that could potentially be impacted by, or impact on, the day's construction activities.

7 Continual Improvement and Availability of this PIRMP

7.1 Testing and Review of this PIRMP

Testing of this PIRMP may be integrated into other emergency and incident testing and training programs and may include a desktop simulation, practical exercise or drill. The GRCLR EPS Manager will determine the method and date of testing, and will coordinate the test, including advising all relevant personnel as required prior to the test. The testing will be carried out in such a manner as to ensure the information included in the plan is accurate and up to date and that each plan is capable of being implemented in a workable and effective manner.

As a minimum, the PIRMP will be tested at least once every 12 months or whenever there is a significant change to site activities. Additional testing may be required at the discretion of the GRCLR EPS Manager in response to notifiable pollution incidents.

The mock exercise will involve personnel responsible for the implementation of this PIRMP. This will include (but not be limited to) the following personnel:

- GRCLR Project Delivery Director
- GRCLR EPS Manager
- Supply Contractor Construction Manager
- Supply Contractor E&S Manager
- Site Supervisors.

A report detailing a record of the testing of the PIRMP will be prepared after each test of the PIRMP is undertaken. The report will recommend amendments to the PIRMP, if required, to ensure that the PIRMP is workable and effective in achieving the stated objectives. The PIRMP Test Report may also recommend amendment to other plans and procedures associated with the test.

7.2 Update of this PIRMP

This PIRMP will be updated by the GRCLR EPS Manager in response to the following:

- Any recommendation made in a PIRMP Test Report
- Any changes in law that necessitate amendment to the PIRMP.

PIRMP updates are recorded in Table 10.

Table 10 Details of PIRMP Updates

Date	Revision No.	Reason for Update	Details of Changes
17/12/2021	1A	Initial version	NA
25/01/2022	1B	For issue	Updated to include details from Supply Contractor and address internal comments

7.3 Availability of this PIRMP

Electronic and hard copies of this PIRMP will be maintained on the premises at location(s) as determined by the GRCLR EPS Manager. At a minimum a hard copy of this PIRMP will be maintained at each construction compound. The PIRMP must be made available to an authorised officer (of the EPA) at their request.

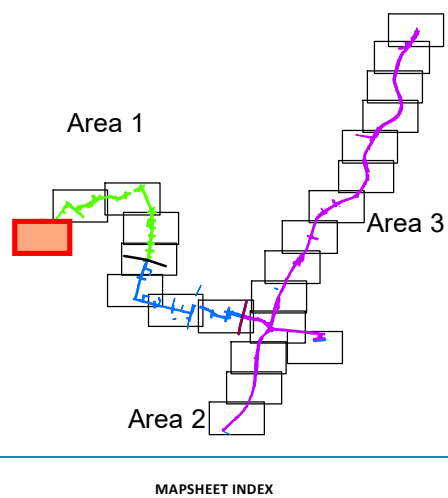
Some sections of the PIRMP must be made publicly available in accordance with the POEO (General) Regulation 2021. A redacted version of this PIRMP will be made available on the GRCLR website.

Appendix A – EPL Premises Map at Time of Issue of PIRMP



Revision History

REV	AMENDMENT DESCRIPTION	BY	CHECK	ACCEPTANCE	DATE
35	Removal of PCPLR work areas in Areas 1, 2 & 3;	AN	DC	DC, MW	04/08/2022
35	Additional PCPLR work areas in Areas 2 and 3	AN	DC	DC, MW	04/08/2022
36	Removal of PCPLR work areas in Areas 1 & 2	AN	DC	DC	07/10/2022
37	Removal of PCPLR work areas in Areas 1, 2 & 3	AN	DC	DC	07/12/2022
	Additional GRCLR work areas in Areas 1, 2 & 3				



- PCPLR EPL 21347 Premise Area
- PCPLR EPL 21347 Removed Premise Area
- GRCLR EPL 21606 Premise Area
- PCPLR EPL 21347 Premise Area added in this revision
- PCPLR EPL 21347 Removed Premise Area removed this revision
- GRCLR EPL 21606 Premise Area added in this revision

SCALES: 1:110,588 (at A3)
 2,000 0 2,000 Meters
 Coordinate System: GDA 1994 MGA Zone 56

Disclaimer
 Issued for implementation of the Construction Environmental Management Plan and associated sub-plans.
 Design elements illustrated on these plans may not be IFC.



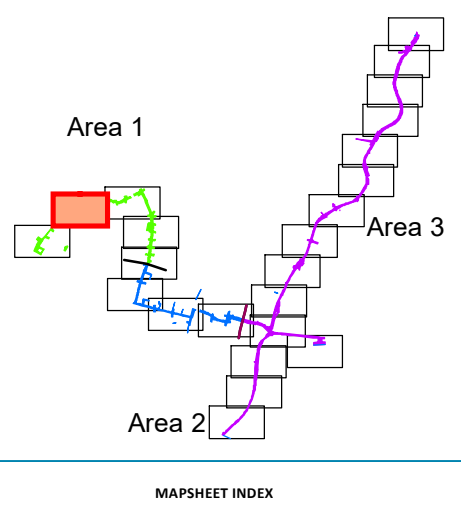
Parramatta Light Rail Infrastructure EPL Premises Maps

DOCUMENT No.: PLR1ALL-APP-ALL-EN-IMG-000001.04
 SHEET No.: 1 of 23
 UNCONTROLLED COPY WHEN PRINTED



Revision History

REV	AMENDMENT DESCRIPTION	BY	CHECK	ACCEPTANCE	DATE
35	Removal of PCPLR work areas in Areas 1, 2 & 3;	AN	DC	DC, MW	04/08/2022
35	Additional PCPLR work areas in Areas 2 and 3 Additional GRCLR work areas in Areas 1, 2 & 3	AN	DC	DC, MW	04/08/2022
36	Removal of PCPLR work areas in Areas 1 & 2	AN	DC	DC	07/10/2022
37	Removal of PCPLR work areas in Areas 1, 2 & 3 Additional GRCLR work areas in Areas 1, 2 & 3	AN	DC	DC	07/12/2022



-
 PCPLR EPL 21347 Premise Area
-
 PCPLR EPL 21347 Removed Premise Area
-
 GRCLR EPL 21606 Premise Area
-
 PCPLR EPL 21347 Premise Area added in this revision
-
 PCPLR EPL 21347 Removed Premise Area removed this revision
-
 GRCLR EPL 21606 Premise Area added in this revision

SCALES:
 1:110,588 (at A3)
 2,000 0 2,000 Meters
 Coordinate System: GDA 1994 MGA Zone 56

Disclaimer
 Issued for implementation of the Construction Environmental Management Plan and associated sub-plans.
 Design elements illustrated on these plans may not be IFC.



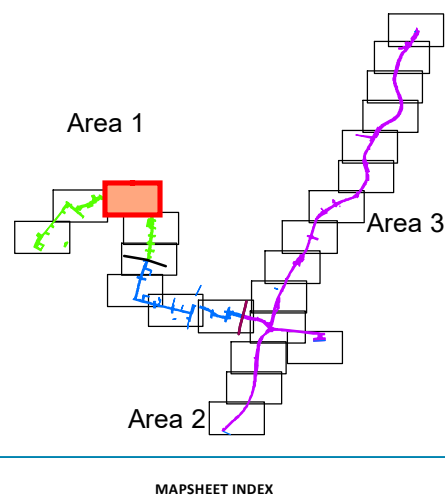
Parramatta Light Rail Infrastructure EPL Premises Maps

DOCUMENT No.: PLR1ALL-APP-ALL-EN-IMG-000001.04
 SHEET No.: 2 of 23
 UNCONTROLLED COPY WHEN PRINTED



Revision History

REV	AMENDMENT DESCRIPTION	BY	CHECK	ACCEPTANCE	DATE
35	Removal of PCPLR work areas in Areas 1, 2 & 3;	AN	DC	DC, MW	04/08/2022
35	Additional PCPLR work areas in Areas 2 and 3	AN	DC	DC, MW	04/08/2022
36	Additional GRCLR work areas in Areas 1, 2 & 3	AN	DC	DC, MW	04/08/2022
36	Removal of PCPLR work areas in Areas 1 & 2	AN	DC	DC	07/10/2022
37	Removal of PCPLR work areas in Areas 1, 2 & 3	AN	DC	DC	07/12/2022
37	Additional GRCLR work areas in Areas 1, 2 & 3	AN	DC	DC	07/12/2022



- PCPLR EPL 21347 Premise Area
- PCPLR EPL 21347 Removed Premise Area
- GRCLR EPL 21606 Premise Area
- PCPLR EPL 21347 Premise Area added in this revision
- PCPLR EPL 21347 Removed Premise Area removed this revision
- GRCLR EPL 21606 Premise Area added in this revision

SCALES: 1:110,588 (at A3)
 2,000 0 2,000 Meters
 Coordinate System: GDA 1994 MGA Zone 56

Disclaimer
 Issued for implementation of the Construction Environmental Management Plan and associated sub-plans.
 Design elements illustrated on these plans may not be IFC.



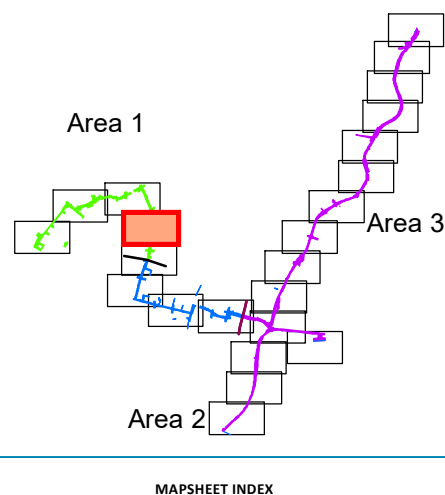
Parramatta Light Rail Infrastructure EPL Premises Maps

DOCUMENT No.: PLR1ALL-APP-ALL-EN-IMG-000001.04
 SHEET No.: 3 of 23
 UNCONTROLLED COPY WHEN PRINTED



Revision History

REV	AMENDMENT DESCRIPTION	BY	CHECK	ACCEPTANCE	DATE
35	Removal of PCPLR work areas in Areas 1, 2 & 3;	AN	DC	DC, MW	04/08/2022
35	Additional PCPLR work areas in Areas 2 and 3	AN	DC	DC, MW	04/08/2022
36	Removal of PCPLR work areas in Areas 1 & 2	AN	DC	DC	07/10/2022
37	Removal of PCPLR work areas in Areas 1, 2 & 3	AN	DC	DC	07/12/2022
	Additional GRCLR work areas in Areas 1, 2 & 3				



- PCPLR EPL 21347 Premise Area
- PCPLR EPL 21347 Removed Premise Area
- GRCLR EPL 21606 Premise Area
- PCPLR EPL 21347 Premise Area added in this revision
- PCPLR EPL 21347 Removed Premise Area removed this revision
- GRCLR EPL 21606 Premise Area added in this revision

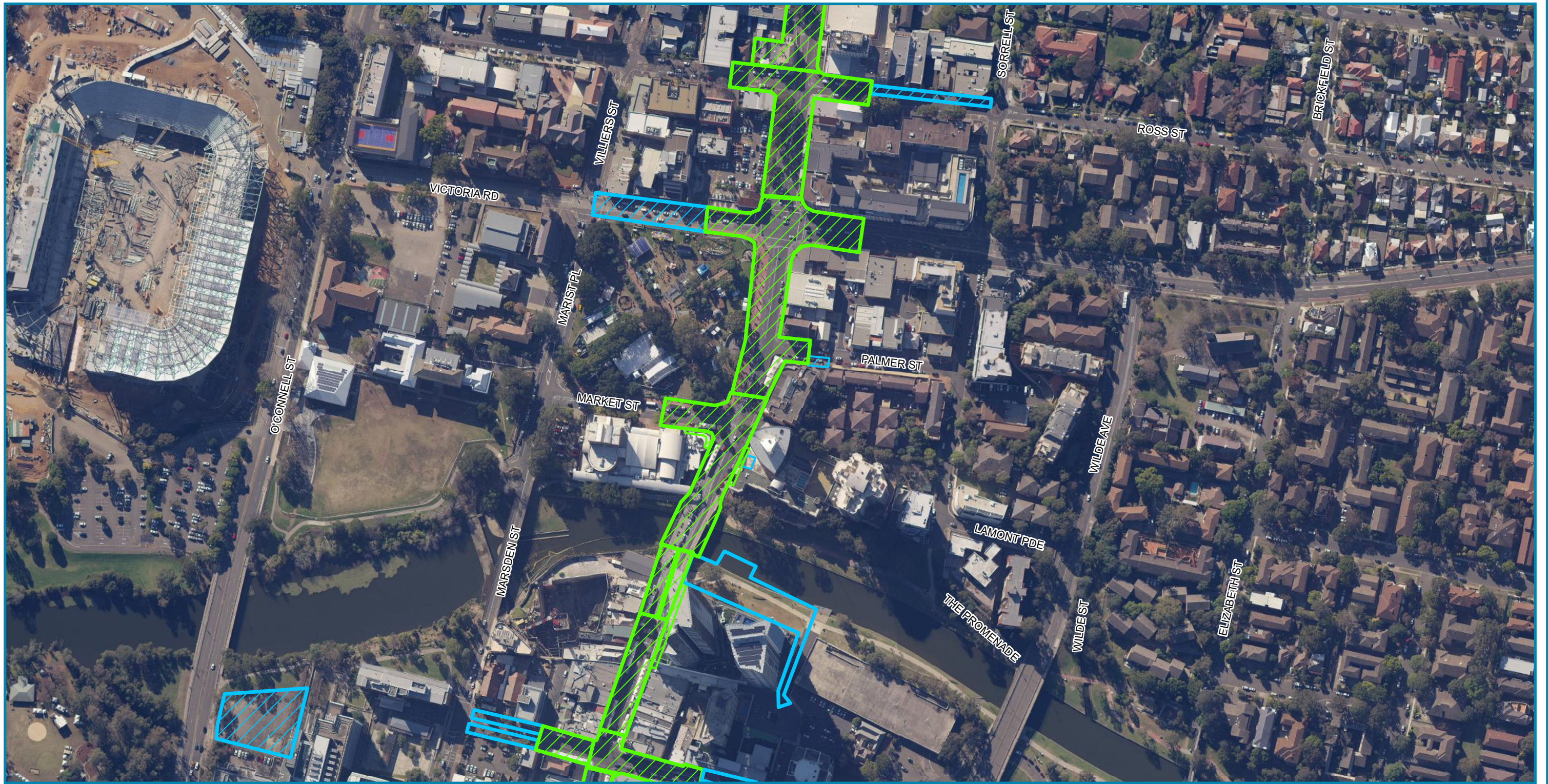
SCALES: 1:110,588 (at A3)
 2,000 0 2,000 Meters
 Coordinate System: GDA 1994 MGA Zone 56

Disclaimer
 Issued for implementation of the Construction Environmental Management Plan and associated sub-plans.
 Design elements illustrated on these plans may not be IFC.



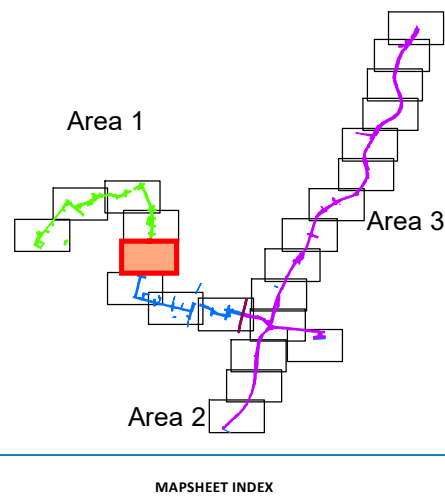
Parramatta Light Rail Infrastructure EPL Premises Maps

DOCUMENT No.: PLR1ALL-APP-ALL-EN-IMG-000001.04
 SHEET No.: 4 of 23
 UNCONTROLLED COPY WHEN PRINTED



Revision History

REV	AMENDMENT DESCRIPTION	BY	CHECK	ACCEPTANCE	DATE
35	Removal of PCPLR work areas in Areas 1, 2 & 3;	AN	DC	DC, MW	04/08/2022
35	Additional PCPLR work areas in Areas 2 and 3	AN	DC	DC, MW	04/08/2022
36	Removal of PCPLR work areas in Areas 1 & 2	AN	DC	DC	07/10/2022
37	Removal of PCPLR work areas in Areas 1, 2 & 3	AN	DC	DC	07/12/2022
	Additional GRCLR work areas in Areas 1, 2 & 3				



- PCPLR EPL 21347 Premise Area
- PCPLR EPL 21347 Removed Premise Area
- GRCLR EPL 21606 Premise Area
- PCPLR EPL 21347 Premise Area added in this revision
- PCPLR EPL 21347 Removed Premise Area removed this revision
- GRCLR EPL 21606 Premise Area added in this revision

SCALES:
 1:110,588 (at A3)
 2,000 0 2,000 Meters
 Coordinate System: GDA 1994 MGA Zone 56

Disclaimer
 Issued for implementation of the Construction Environmental Management Plan and associated sub-plans.
 Design elements illustrated on these plans may not be IFC.



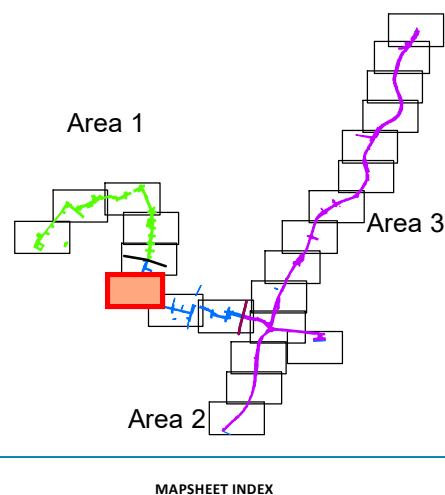
Parramatta Light Rail Infrastructure EPL Premises Maps

DOCUMENT No.: PLR1ALL-APP-ALL-EN-IMG-000001.04
 SHEET No.: 5 of 23
 UNCONTROLLED COPY WHEN PRINTED



Revision History

REV	AMENDMENT DESCRIPTION	BY	CHECK	ACCEPTANCE	DATE
35	Removal of PCPLR work areas in Areas 1, 2 & 3;	AN	DC	DC, MW	04/08/2022
35	Additional PCPLR work areas in Areas 2 and 3	AN	DC	DC, MW	04/08/2022
36	Additional GRCLR work areas in Areas 1, 2 & 3	AN	DC	DC, MW	04/08/2022
36	Removal of PCPLR work areas in Areas 1 & 2	AN	DC	DC	07/10/2022
37	Removal of PCPLR work areas in Areas 1, 2 & 3	AN	DC	DC	07/12/2022
37	Additional GRCLR work areas in Areas 1, 2 & 3	AN	DC	DC	07/12/2022



- -
 -
 -
 -
 -
- PCPLR EPL 21347 Premise Area
 PCPLR EPL 21347 Removed Premise Area
 GRCLR EPL 21606 Premise Area
 PCPLR EPL 21347 Premise Area added in this revision
 PCPLR EPL 21347 Removed Premise Area removed this revision
 GRCLR EPL 21606 Premise Area added in this revision

SCALES: 1:110,588 (at A3)
 2,000 0 2,000 Meters
 Coordinate System: GDA 1994 MGA Zone 56



Parramatta Light Rail Infrastructure EPL Premises Maps

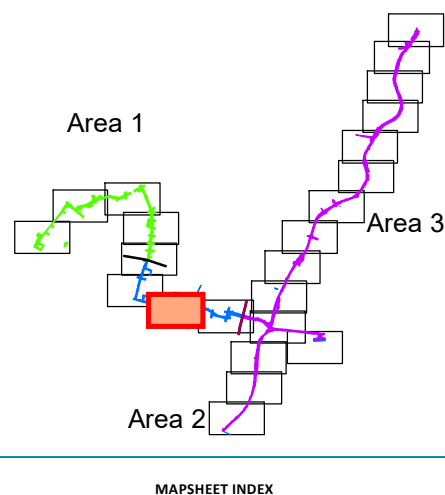
DOCUMENT No.: PLR1ALL-APP-ALL-EN-IMG-000001.04
 SHEET No.: 6 of 23
 UNCONTROLLED COPY WHEN PRINTED

Disclaimer
 Issued for implementation of the Construction Environmental Management Plan and associated sub-plans.
 Design elements illustrated on these plans may not be IFC.



Revision History

REV	AMENDMENT DESCRIPTION	BY	CHECK	ACCEPTANCE	DATE
35	Removal of PCPLR work areas in Areas 1, 2 & 3;	AN	DC	DC, MW	04/08/2022
35	Additional PCPLR work areas in Areas 2 and 3	AN	DC	DC, MW	04/08/2022
36	Removal of PCPLR work areas in Areas 1 & 2	AN	DC	DC	07/10/2022
37	Removal of PCPLR work areas in Areas 1, 2 & 3	AN	DC	DC	07/12/2022
	Additional GRCLR work areas in Areas 1, 2 & 3				



- PCPLR EPL 21347 Premise Area
- PCPLR EPL 21347 Removed Premise Area
- GRCLR EPL 21606 Premise Area
- PCPLR EPL 21347 Premise Area added in this revision
- PCPLR EPL 21347 Removed Premise Area removed this revision
- GRCLR EPL 21606 Premise Area added in this revision

SCALES: 1:110,588 (at A3)

2,000 0 2,000 Meters

Coordinate System: GDA 1994 MGA Zone 56

Disclaimer
 Issued for implementation of the Construction Environmental Management Plan and associated sub-plans.
 Design elements illustrated on these plans may not be IFC.



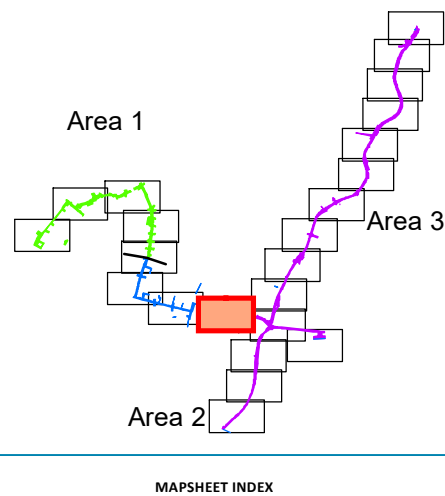
Parramatta Light Rail Infrastructure EPL Premises Maps

DOCUMENT No.: PLR1ALL-APP-ALL-EN-IMG-000001.04
 SHEET No.: 7 of 23
 UNCONTROLLED COPY WHEN PRINTED



Revision History

REV	AMENDMENT DESCRIPTION	BY	CHECK	ACCEPTANCE	DATE
35	Removal of PCPLR work areas in Areas 1, 2 & 3; Additional PCPLR work areas in Areas 2 and 3	AN	DC	DC, MW	04/08/2022
35	Additional GRCLR work areas in Areas 1, 2 & 3	AN	DC	DC, MW	04/08/2022
36	Removal of PCPLR work areas in Areas 1 & 2	AN	DC	DC	07/10/2022
37	Removal of PCPLR work areas in Areas 1, 2 & 3 Additional GRCLR work areas in Areas 1, 2 & 3	AN	DC	DC	07/12/2022



- PCPLR EPL 21347 Premise Area
- PCPLR EPL 21347 Removed Premise Area
- GRCLR EPL 21606 Premise Area
- PCPLR EPL 21347 Premise Area added in this revision
- PCPLR EPL 21347 Removed Premise Area removed this revision
- GRCLR EPL 21606 Premise Area added in this revision

SCALES: 1:110,588 (at A3)
 2,000 0 2,000 Meters
 Coordinate System: GDA 1994 MGA Zone 56

Disclaimer
 Issued for implementation of the Construction Environmental Management Plan and associated sub-plans.
 Design elements illustrated on these plans may not be IFC.



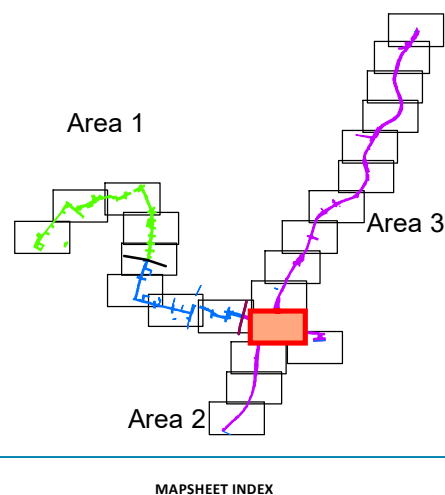
**Parramatta Light Rail Infrastructure
 EPL Premises Maps**

DOCUMENT No.: PLR1ALL-APP-ALL-EN-IMG-000001.04
 SHEET No.: 8 of 23
 UNCONTROLLED COPY WHEN PRINTED



Revision History

REV	AMENDMENT DESCRIPTION	BY	CHECK	ACCEPTANCE	DATE
35	Removal of PCPLR work areas in Areas 1, 2 & 3;	AN	DC	DC, MW	04/08/2022
35	Additional PCPLR work areas in Areas 2 and 3	AN	DC	DC, MW	04/08/2022
36	Removal of PCPLR work areas in Areas 1 & 2	AN	DC	DC	07/10/2022
37	Removal of PCPLR work areas in Areas 1, 2 & 3	AN	DC	DC	07/12/2022
	Additional GRCLR work areas in Areas 1, 2 & 3				



-
- PCPLR EPL 21347 Premise Area
-
- PCPLR EPL 21347 Removed Premise Area
-
- GRCLR EPL 21606 Premise Area
-
- PCPLR EPL 21347 Premise Area added in this revision
-
- PCPLR EPL 21347 Removed Premise Area removed this revision
-
- GRCLR EPL 21606 Premise Area added in this revision

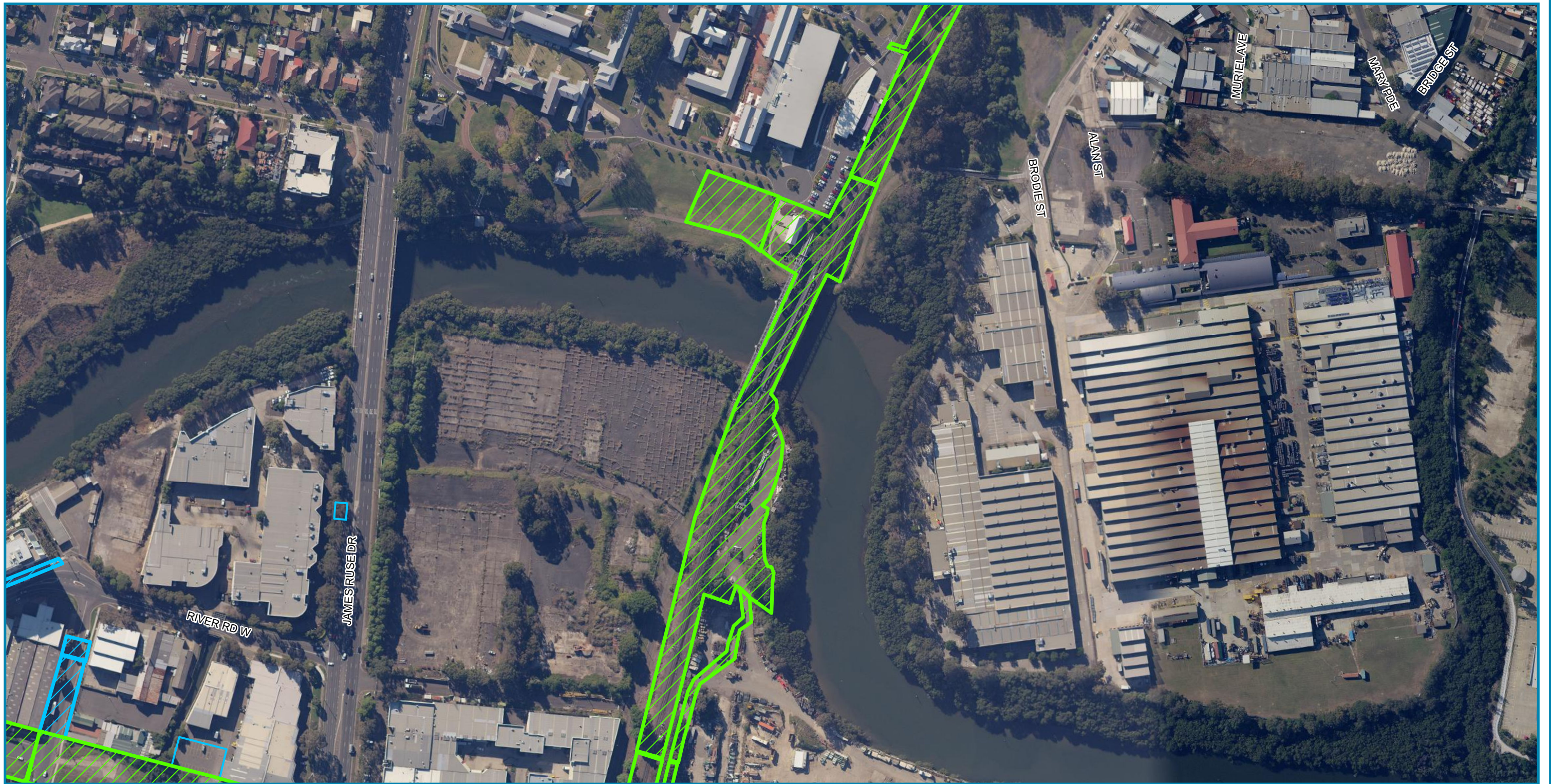
SCALES: 1:110,588 (at A3)
 2,000 0 2,000 Meters
 Coordinate System: GDA 1994 MGA Zone 56

Disclaimer
 Issued for implementation of the Construction Environmental Management Plan and associated sub-plans.
 Design elements illustrated on these plans may not be IFC.



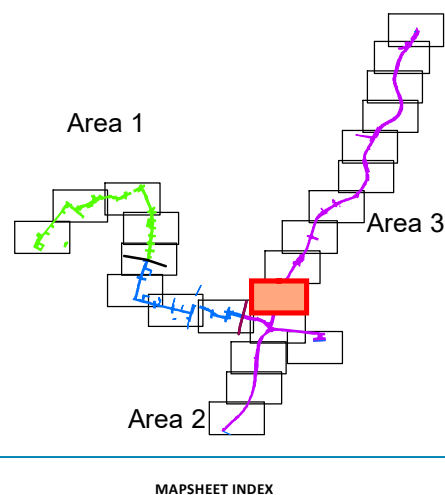
Parramatta Light Rail Infrastructure EPL Premises Maps

DOCUMENT No.: PLR1ALL-APP-ALL-EN-IMG-000001.04
 SHEET No.: 9 of 23
 UNCONTROLLED COPY WHEN PRINTED



Revision History

REV	AMENDMENT DESCRIPTION	BY	CHECK	ACCEPTANCE	DATE
35	Removal of PCPLR work areas in Areas 1, 2 & 3;	AN	DC	DC, MW	04/08/2022
35	Additional PCPLR work areas in Areas 2 and 3	AN	DC	DC, MW	04/08/2022
36	Additional GRCLR work areas in Areas 1, 2 & 3	AN	DC	DC, MW	04/08/2022
36	Removal of PCPLR work areas in Areas 1 & 2	AN	DC	DC	07/10/2022
37	Removal of PCPLR work areas in Areas 1, 2 & 3	AN	DC	DC	07/12/2022
37	Additional GRCLR work areas in Areas 1, 2 & 3	AN	DC	DC	07/12/2022



- PCPLR EPL 21347 Premise Area
- PCPLR EPL 21347 Premise Area added in this revision
- PCPLR EPL 21347 Removed Premise Area
- PCPLR EPL 21347 Removed Premise Area removed this revision
- GRCLR EPL 21606 Premise Area
- GRCLR EPL 21606 Premise Area added in this revision

SCALES: 1:110,588 (at A3)
 2,000 0 2,000 Meters
 Coordinate System: GDA 1994 MGA Zone 56

Disclaimer
 Issued for implementation of the Construction Environmental Management Plan and associated sub-plans.
 Design elements illustrated on these plans may not be IFC.



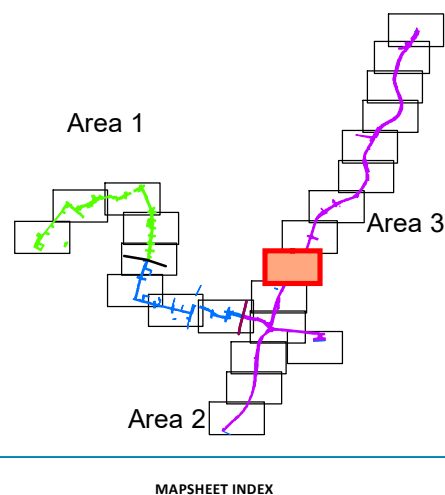
Parramatta Light Rail Infrastructure EPL Premises Maps

DOCUMENT No.: PLR1ALL-APP-ALL-EN-IMG-000001.04
 SHEET No.: 10 of 23
 UNCONTROLLED COPY WHEN PRINTED



Revision History

REV	AMENDMENT DESCRIPTION	BY	CHECK	ACCEPTANCE	DATE
35	Removal of PCPLR work areas in Areas 1, 2 & 3;	AN	DC	DC, MW	04/08/2022
35	Additional PCPLR work areas in Areas 2 and 3	AN	DC	DC, MW	04/08/2022
36	Removal of PCPLR work areas in Areas 1 & 2	AN	DC	DC	07/10/2022
37	Removal of PCPLR work areas in Areas 1, 2 & 3	AN	DC	DC	07/12/2022
	Additional GRCLR work areas in Areas 1, 2 & 3				



- -
 -
 -
 -
 -
- PCPLR EPL 21347 Premise Area
 PCPLR EPL 21347 Removed Premise Area
 GRCLR EPL 21606 Premise Area
 PCPLR EPL 21347 Premise Area added in this revision
 PCPLR EPL 21347 Removed Premise Area removed this revision
 GRCLR EPL 21606 Premise Area added in this revision

SCALES: 1:110,588 (at A3)
 2,000 0 2,000 Meters
 Coordinate System: GDA 1994 MGA Zone 56



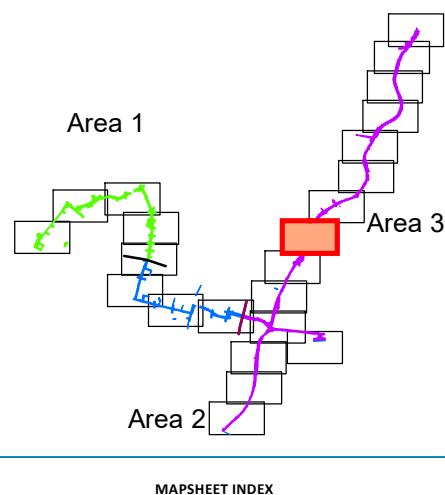
Parramatta Light Rail Infrastructure EPL Premises Maps

DOCUMENT No.: PLR1ALL-APP-ALL-EN-IMG-000001.04
 SHEET No.: 11 of 23
 UNCONTROLLED COPY WHEN PRINTED



Revision History

REV	AMENDMENT DESCRIPTION	BY	CHECK	ACCEPTANCE	DATE
35	Removal of PCPLR work areas in Areas 1, 2 & 3;	AN	DC	DC, MW	04/08/2022
35	Additional PCPLR work areas in Areas 2 and 3	AN	DC	DC, MW	04/08/2022
36	Additional GRCLR work areas in Areas 1, 2 & 3	AN	DC	DC, MW	04/08/2022
36	Removal of PCPLR work areas in Areas 1 & 2	AN	DC	DC	07/10/2022
37	Removal of PCPLR work areas in Areas 1, 2 & 3	AN	DC	DC	07/12/2022
	Additional GRCLR work areas in Areas 1, 2 & 3	AN	DC	DC	07/12/2022



- -
 -
 -
 -
 -
- PCPLR EPL 21347 Premise Area
 - PCPLR EPL 21347 Removed Premise Area
 - GRCLR EPL 21606 Premise Area
 - PCPLR EPL 21347 Premise Area added in this revision
 - PCPLR EPL 21347 Removed Premise Area removed this revision
 - GRCLR EPL 21606 Premise Area added in this revision

SCALES: 1:110,588 (at A3)
 2,000 0 2,000 Meters
 Coordinate System: GDA 1994 MGA Zone 56

Disclaimer
 Issued for implementation of the Construction Environmental Management Plan and associated sub-plans.
 Design elements illustrated on these plans may not be IFC.



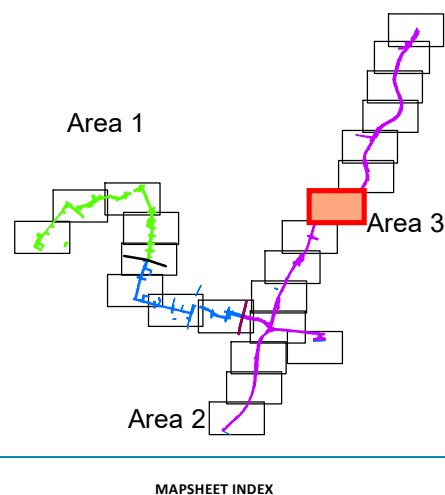
Parramatta Light Rail Infrastructure EPL Premises Maps

DOCUMENT No.: PLR1ALL-APP-ALL-EN-IMG-000001.04
 SHEET No.: 12 of 23
 UNCONTROLLED COPY WHEN PRINTED



Revision History

REV	AMENDMENT DESCRIPTION	BY	CHECK	ACCEPTANCE	DATE
35	Removal of PCPLR work areas in Areas 1, 2 & 3;	AN	DC	DC, MW	04/08/2022
35	Additional PCPLR work areas in Areas 2 and 3	AN	DC	DC, MW	04/08/2022
36	Additional GRCLR work areas in Areas 1, 2 & 3	AN	DC	DC, MW	04/08/2022
36	Removal of PCPLR work areas in Areas 1 & 2	AN	DC	DC	07/10/2022
37	Removal of PCPLR work areas in Areas 1, 2 & 3	AN	DC	DC	07/12/2022
37	Additional GRCLR work areas in Areas 1, 2 & 3	AN	DC	DC	07/12/2022



-
- PCPLR EPL 21347 Premise Area
-
- PCPLR EPL 21347 Removed Premise Area
-
- GRCLR EPL 21606 Premise Area
-
- PCPLR EPL 21347 Premise Area added in this revision
-
- PCPLR EPL 21347 Removed Premise Area removed in this revision
-
- GRCLR EPL 21606 Premise Area added in this revision

SCALES:
 1:110,588 (at A3)
 2,000 0 2,000 Meters
 Coordinate System: GDA 1994 MGA Zone 56

Disclaimer
 Issued for implementation of the Construction Environmental Management Plan and associated sub-plans.
 Design elements illustrated on these plans may not be IFC.



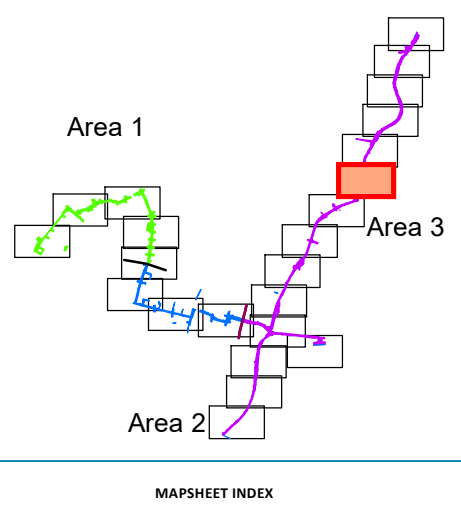
Parramatta Light Rail Infrastructure EPL Premises Maps

DOCUMENT No.: PLR1ALL-APP-ALL-EN-IMG-000001.04
 SHEET No.: 13 of 23
 UNCONTROLLED COPY WHEN PRINTED



Revision History

REV	AMENDMENT DESCRIPTION	BY	CHECK	ACCEPTANCE	DATE
35	Removal of PCPLR work areas in Areas 1, 2 & 3;	AN	DC	DC, MW	04/08/2022
35	Additional PCPLR work areas in Areas 2 and 3 Additional GRCLR work areas in Areas 1, 2 & 3	AN	DC	DC, MW	04/08/2022
36	Removal of PCPLR work areas in Areas 1 & 2	AN	DC	DC	07/10/2022
37	Removal of PCPLR work areas in Areas 1, 2 & 3 Additional GRCLR work areas in Areas 1, 2 & 3	AN	DC	DC	07/12/2022



	PCPLR EPL 21347 Premise Area		PCPLR EPL 21347 Premise Area added in this revision
	PCPLR EPL 21347 Removed Premise Area		PCPLR EPL 21347 Removed Premise Area removed this revision
	GRCLR EPL 21606 Premise Area		GRCLR EPL 21606 Premise Area added in this revision

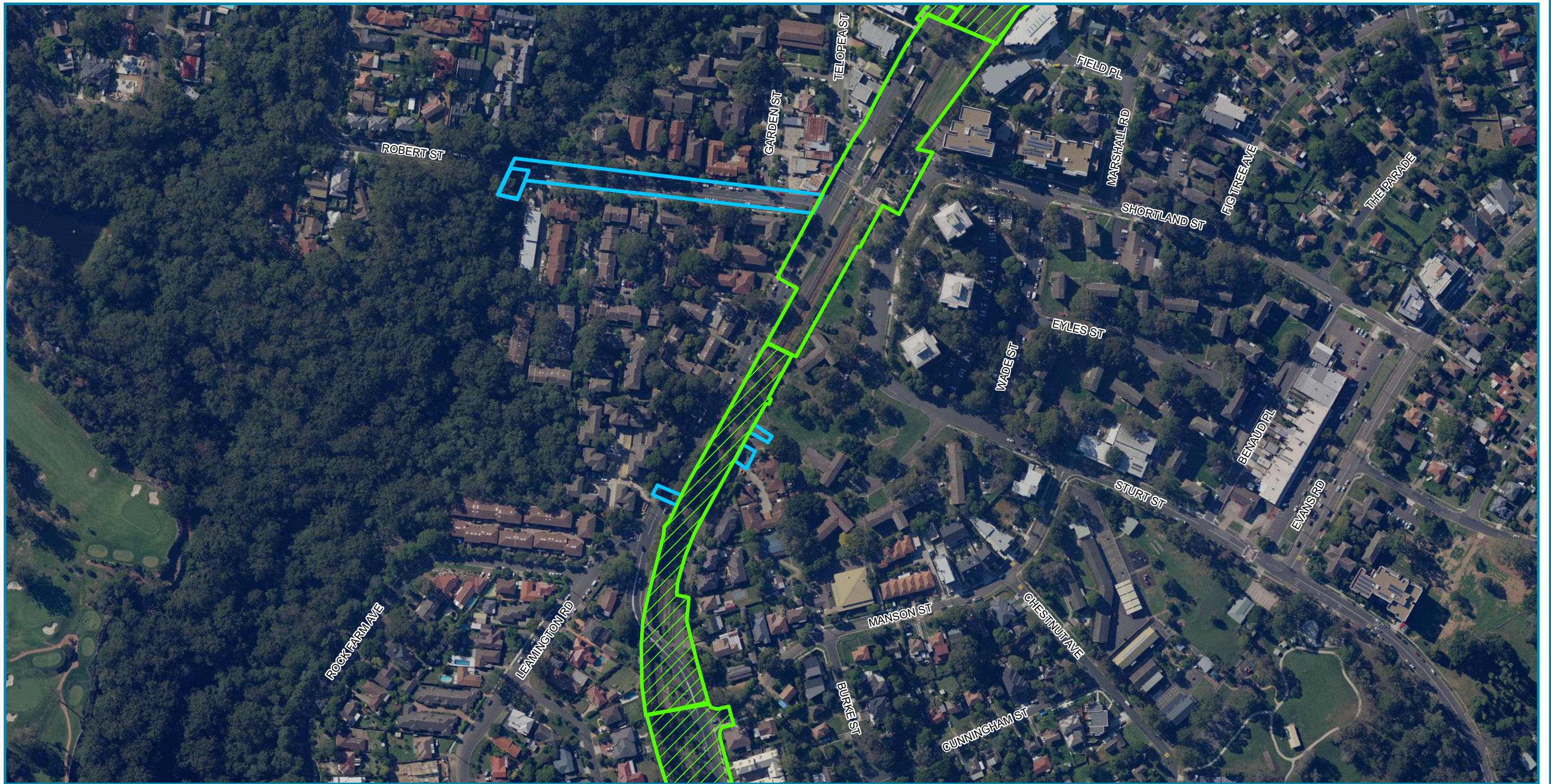
SCALES:
 1:110,588 (at A3)
 2,000 0 2,000 Meters
 Coordinate System: GDA 1994 MGA Zone 56

Disclaimer
 Issued for implementation of the Construction Environmental Management Plan and associated sub-plans.
 Design elements illustrated on these plans may not be IFC.



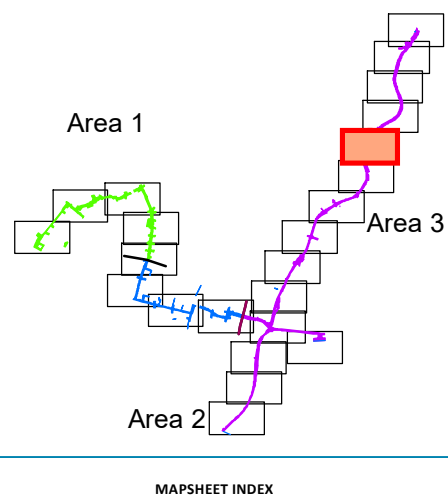
Parramatta Light Rail Infrastructure EPL Premises Maps

DOCUMENT No.: PLR1ALL-APP-ALL-EN-IMG-000001.04
 SHEET No.: 14 of 23
 UNCONTROLLED COPY WHEN PRINTED



Revision History

REV	AMENDMENT DESCRIPTION	BY	CHECK	ACCEPTANCE	DATE
35	Removal of PCPLR work areas in Areas 1, 2 & 3;	AN	DC	DC, MW	04/08/2022
35	Additional PCPLR work areas in Areas 2 and 3	AN	DC	DC, MW	04/08/2022
36	Additional GRCLR work areas in Areas 1, 2 & 3	AN	DC	DC, MW	04/08/2022
36	Removal of PCPLR work areas in Areas 1 & 2	AN	DC	DC	07/10/2022
37	Removal of PCPLR work areas in Areas 1, 2 & 3	AN	DC	DC	07/12/2022
37	Additional GRCLR work areas in Areas 1, 2 & 3	AN	DC	DC	07/12/2022



- PCPLR EPL 21347 Premise Area
- PCPLR EPL 21347 Removed Premise Area
- GRCLR EPL 21606 Premise Area
- PCPLR EPL 21347 Premise Area added in this revision
- PCPLR EPL 21347 Removed Premise Area removed this revision
- GRCLR EPL 21606 Premise Area added in this revision

SCALES: 1:110,588 (at A3)
 2,000 0 2,000 Meters
 Coordinate System: GDA 1994 MGA Zone 56



Parramatta Light Rail Infrastructure EPL Premises Maps

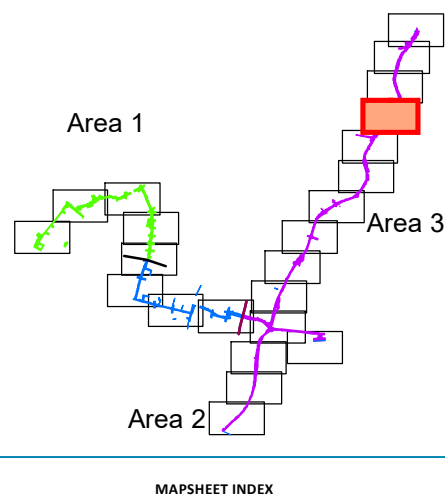
DOCUMENT No.: PLR1ALL-APP-ALL-EN-IMG-000001.04
 SHEET No.: 15 of 23
 UNCONTROLLED COPY WHEN PRINTED

Disclaimer
 Issued for implementation of the Construction Environmental Management Plan and associated sub-plans.
 Design elements illustrated on these plans may not be IFC.



Revision History

REV	AMENDMENT DESCRIPTION	BY	CHECK	ACCEPTANCE	DATE
35	Removal of PCPLR work areas in Areas 1, 2 & 3;	AN	DC	DC, MW	04/08/2022
35	Additional PCPLR work areas in Areas 2 and 3	AN	DC	DC, MW	04/08/2022
36	Additional GRCLR work areas in Areas 1, 2 & 3	AN	DC	DC, MW	04/08/2022
36	Removal of PCPLR work areas in Areas 1 & 2	AN	DC	DC	07/10/2022
37	Removal of PCPLR work areas in Areas 1, 2 & 3	AN	DC	DC	07/12/2022
37	Additional GRCLR work areas in Areas 1, 2 & 3	AN	DC	DC	07/12/2022



- -
 -
 -
 -
 -
- PCPLR EPL 21347 Premise Area
 PCPLR EPL 21347 Removed Premise Area
 GRCLR EPL 21606 Premise Area
 PCPLR EPL 21347 Premise Area added in this revision
 PCPLR EPL 21347 Removed Premise Area removed this revision
 GRCLR EPL 21606 Premise Area added in this revision

SCALES:
 1:110,588 (at A3)
 2,000 0 2,000 Meters
 Coordinate System: GDA 1994 MGA Zone 56

Disclaimer
 Issued for implementation of the Construction Environmental Management Plan and associated sub-plans.
 Design elements illustrated on these plans may not be IFC.



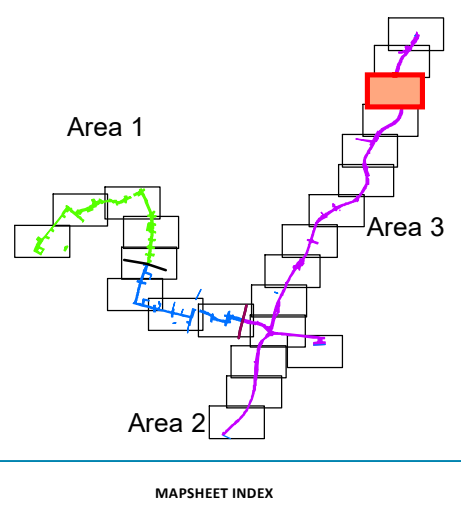
Parramatta Light Rail Infrastructure EPL Premises Maps

DOCUMENT No.: PLR1ALL-APP-ALL-EN-IMG-000001.04
 SHEET No.: 16 of 23
 UNCONTROLLED COPY WHEN PRINTED



Revision History

REV	AMENDMENT DESCRIPTION	BY	CHECK	ACCEPTANCE	DATE
35	Removal of PCPLR work areas in Areas 1, 2 & 3;	AN	DC	DC, MW	04/08/2022
35	Additional PCPLR work areas in Areas 2 and 3 Additional GRCLR work areas in Areas 1, 2 & 3	AN	DC	DC, MW	04/08/2022
36	Removal of PCPLR work areas in Areas 1 & 2	AN	DC	DC	07/10/2022
37	Removal of PCPLR work areas in Areas 1, 2 & 3 Additional GRCLR work areas in Areas 1, 2 & 3	AN	DC	DC	07/12/2022



- PCPLR EPL 21347 Premise Area
- PCPLR EPL 21347 Removed Premise Area
- GRCLR EPL 21606 Premise Area
- PCPLR EPL 21347 Premise Area added in this revision
- PCPLR EPL 21347 Removed Premise Area removed this revision
- GRCLR EPL 21606 Premise Area added in this revision

SCALES:
 1:110,588 (at A3)
 2,000 0 2,000 Meters
 Coordinate System: GDA 1994 MGA Zone 56

Disclaimer
 Issued for implementation of the Construction Environmental Management Plan and associated sub-plans.
 Design elements illustrated on these plans may not be IFC.



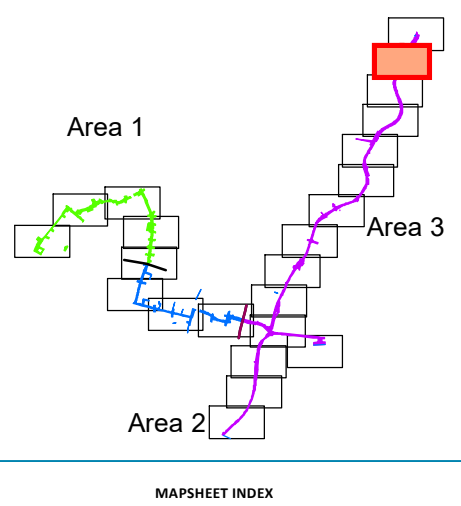
Parramatta Light Rail Infrastructure EPL Premises Maps

DOCUMENT No.: PLR1ALL-APP-ALL-EN-IMG-000001.04
 SHEET No.: 17 of 23
 UNCONTROLLED COPY WHEN PRINTED



Revision History

REV	AMENDMENT DESCRIPTION	BY	CHECK	ACCEPTANCE	DATE
35	Removal of PCPLR work areas in Areas 1, 2 & 3;	AN	DC	DC, MW	04/08/2022
35	Additional PCPLR work areas in Areas 2 and 3 Additional GRCLR work areas in Areas 1, 2 & 3	AN	DC	DC, MW	04/08/2022
36	Removal of PCPLR work areas in Areas 1 & 2	AN	DC	DC	07/10/2022
37	Removal of PCPLR work areas in Areas 1, 2 & 3 Additional GRCLR work areas in Areas 1, 2 & 3	AN	DC	DC	07/12/2022



- PCPLR EPL 21347 Premise Area
- PCPLR EPL 21347 Removed Premise Area
- GRCLR EPL 21606 Premise Area
- PCPLR EPL 21347 Premise Area added in this revision
- PCPLR EPL 21347 Removed Premise Area removed this revision
- GRCLR EPL 21606 Premise Area added in this revision

SCALES:
 1:110,588 (at A3)
 2,000 0 2,000 Meters
 Coordinate System: GDA 1994 MGA Zone 56

Disclaimer
 Issued for implementation of the Construction Environmental Management Plan and associated sub-plans.
 Design elements illustrated on these plans may not be IFC.



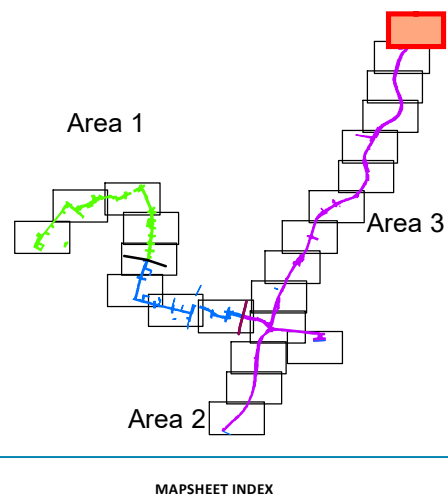
Parramatta Light Rail Infrastructure EPL Premises Maps

DOCUMENT No.: PLR1ALL-APP-ALL-EN-IMG-000001.04
 SHEET No.: 18 of 23
 UNCONTROLLED COPY WHEN PRINTED



Revision History

REV	AMENDMENT DESCRIPTION	BY	CHECK	ACCEPTANCE	DATE
35	Removal of PCPLR work areas in Areas 1, 2 & 3;	AN	DC	DC, MW	04/08/2022
35	Additional PCPLR work areas in Areas 2 and 3	AN	DC	DC, MW	04/08/2022
36	Removal of PCPLR work areas in Areas 1 & 2	AN	DC	DC	07/10/2022
37	Removal of PCPLR work areas in Areas 1, 2 & 3	AN	DC	DC	07/12/2022
	Additional GRCLR work areas in Areas 1, 2 & 3				



- PCPLR EPL 21347 Premise Area
- PCPLR EPL 21347 Removed Premise Area
- GRCLR EPL 21606 Premise Area
- PCPLR EPL 21347 Premise Area added in this revision
- PCPLR EPL 21347 Removed Premise Area removed this revision
- GRCLR EPL 21606 Premise Area added in this revision

SCALES:
 1:110,588 (at A3)
 2,000 0 2,000 Meters
 Coordinate System: GDA 1994 MGA Zone 56

Disclaimer
 Issued for implementation of the Construction Environmental Management Plan and associated sub-plans.
 Design elements illustrated on these plans may not be IFC.



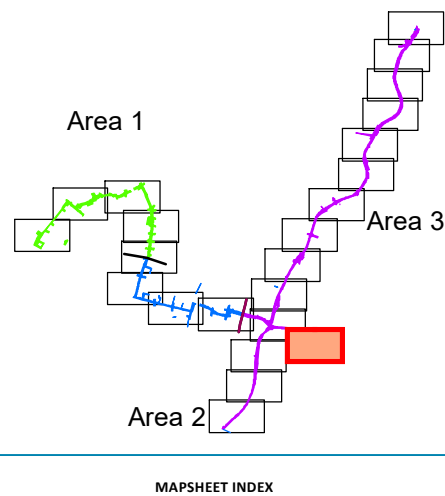
Parramatta Light Rail Infrastructure EPL Premises Maps

DOCUMENT No.: PLR1ALL-APP-ALL-EN-IMG-000001.04
 SHEET No.: 19 of 23
 UNCONTROLLED COPY WHEN PRINTED



Revision History

REV	AMENDMENT DESCRIPTION	BY	CHECK	ACCEPTANCE	DATE
35	Removal of PCPLR work areas in Areas 1, 2 & 3;	AN	DC	DC, MW	04/08/2022
35	Additional PCPLR work areas in Areas 2 and 3	AN	DC	DC, MW	04/08/2022
36	Removal of PCPLR work areas in Areas 1 & 2	AN	DC	DC	07/10/2022
37	Removal of PCPLR work areas in Areas 1, 2 & 3	AN	DC	DC	07/12/2022
	Additional GRCLR work areas in Areas 1, 2 & 3				



- PCPLR EPL 21347 Premise Area
- PCPLR EPL 21347 Removed Premise Area
- GRCLR EPL 21606 Premise Area
- PCPLR EPL 21347 Premise Area added in this revision
- PCPLR EPL 21347 Removed Premise Area removed this revision
- GRCLR EPL 21606 Premise Area added in this revision

SCALES: 1:110,588 (at A3)

2,000 0 2,000 Meters

Coordinate System: GDA 1994 MGA Zone 56

Disclaimer
 Issued for implementation of the Construction Environmental Management Plan and associated sub-plans.
 Design elements illustrated on these plans may not be IFC.



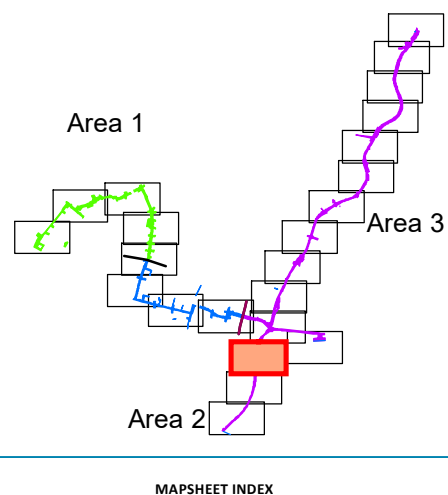
Parramatta Light Rail Infrastructure EPL Premises Maps







DOCUMENT No.: PLR1ALL-APP-ALL-EN-IMG-000001.04
 SHEET No.: 20 of 23
 UNCONTROLLED COPY WHEN PRINTED



Revision History

REV	AMENDMENT DESCRIPTION	BY	CHECK	ACCEPTANCE	DATE
35	Removal of PCPLR work areas in Areas 1, 2 & 3; Additional PCPLR work areas in Areas 2 and 3	AN	DC	DC, MW	04/08/2022
35	Additional GRCLR work areas in Areas 1, 2 & 3	AN	DC	DC, MW	04/08/2022
36	Removal of PCPLR work areas in Areas 1 & 2	AN	DC	DC	07/10/2022
37	Removal of PCPLR work areas in Areas 1, 2 & 3 Additional GRCLR work areas in Areas 1, 2 & 3	AN	DC	DC	07/12/2022



 PCPLR EPL 21347 Premise Area	 PCPLR EPL 21347 Premise Area added in this revision
 PCPLR EPL 21347 Removed Premise Area	 PCPLR EPL 21347 Removed Premise Area removed this revision
 GRCLR EPL 21606 Premise Area	 GRCLR EPL 21606 Premise Area added in this revision

SCALES: 1:110,588 (at A3)
 2,000 0 2,000 Meters
 Coordinate System: GDA 1994 MGA Zone 56

Disclaimer
 Issued for implementation of the Construction Environmental Management Plan and associated sub-plans.
 Design elements illustrated on these plans may not be IFC.



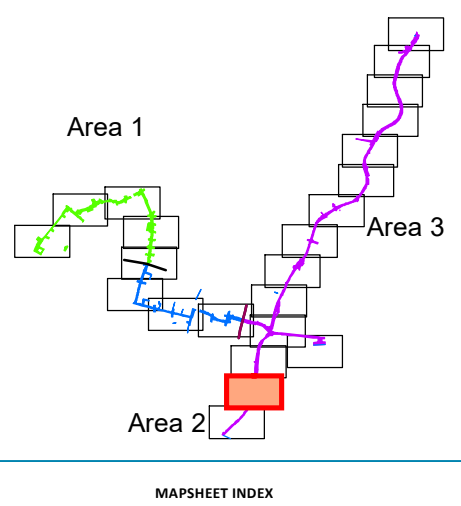
Parramatta Light Rail Infrastructure EPL Premises Maps







DOCUMENT No.: PLR1ALL-APP-ALL-EN-IMG-000001.04
 SHEET No.: 21 of 23
 UNCONTROLLED COPY WHEN PRINTED



Revision History

REV	AMENDMENT DESCRIPTION	BY	CHECK	ACCEPTANCE	DATE
35	Removal of PCPLR work areas in Areas 1, 2 & 3; Additional PCPLR work areas in Areas 2 and 3	AN	DC	DC, MW	04/08/2022
35	Additional GRCLR work areas in Areas 1, 2 & 3	AN	DC	DC, MW	04/08/2022
36	Removal of PCPLR work areas in Areas 1 & 2	AN	DC	DC	07/10/2022
37	Removal of PCPLR work areas in Areas 1, 2 & 3 Additional GRCLR work areas in Areas 1, 2 & 3	AN	DC	DC	07/12/2022



 PCPLR EPL 21347 Premise Area	 PCPLR EPL 21347 Premise Area added in this revision
 PCPLR EPL 21347 Removed Premise Area	 PCPLR EPL 21347 Removed Premise Area removed this revision
 GRCLR EPL 21606 Premise Area	 GRCLR EPL 21606 Premise Area added in this revision

SCALES: 1:110,588 (at A3)
 2,000 0 2,000 Meters
 Coordinate System: GDA 1994 MGA Zone 56



Parramatta Light Rail Infrastructure EPL Premises Maps

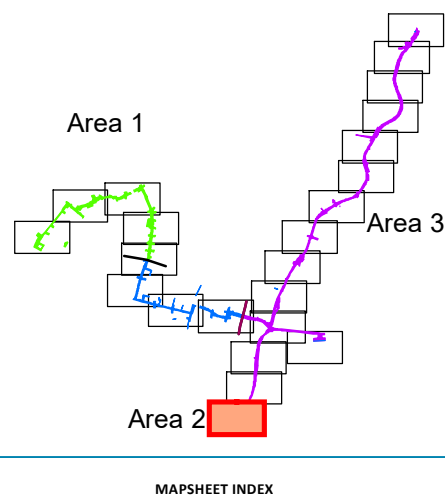
DOCUMENT No.: PLR1ALL-APP-ALL-EN-IMG-000001.04
 SHEET No.: 22 of 23
 UNCONTROLLED COPY WHEN PRINTED

Disclaimer
 Issued for implementation of the Construction Environmental Management Plan and associated sub-plans.
 Design elements illustrated on these plans may not be IFC.



Revision History

REV	AMENDMENT DESCRIPTION	BY	CHECK	ACCEPTANCE	DATE
35	Removal of PCPLR work areas in Areas 1, 2 & 3;	AN	DC	DC, MW	04/08/2022
35	Additional PCPLR work areas in Areas 2 and 3 Additional GRCLR work areas in Areas 1, 2 & 3	AN	DC	DC, MW	04/08/2022
36	Removal of PCPLR work areas in Areas 1 & 2	AN	DC	DC	07/10/2022
37	Removal of PCPLR work areas in Areas 1, 2 & 3 Additional GRCLR work areas in Areas 1, 2 & 3	AN	DC	DC	07/12/2022



-
- PCPLR EPL 21347 Premise Area
-
- PCPLR EPL 21347 Removed Premise Area
-
- GRCLR EPL 21606 Premise Area
-
- PCPLR EPL 21347 Premise Area added in this revision
-
- PCPLR EPL 21347 Removed Premise Area removed this revision
-
- GRCLR EPL 21606 Premise Area added in this revision

SCALES:
 1:110,588 (at A3)
 2,000 0 2,000 Meters
 Coordinate System: GDA 1994 MGA Zone 56

Disclaimer
 Issued for implementation of the Construction Environmental Management Plan and associated sub-plans.
 Design elements illustrated on these plans may not be IFC.



Parramatta Light Rail Infrastructure EPL Premises Maps

DOCUMENT No.: PLR1ALL-APP-ALL-EN-IMG-000001.04
 SHEET No.: 23 of 23
 UNCONTROLLED COPY WHEN PRINTED

Premises Maps to be added

Appendix B – Environmental Risk Register at Time of Issue of this PIRMP

Environmental Risk Identification								Risk analysis and evaluation using existing standard controls and assumptions			Risk Management
Risk Ref #	Environmental Aspect*	Impact **	Impact Category	Site Specific Risk Description ***	Risk category	Project-Specific Location(s)	Existing Standard Controls and Assumptions	Consequence	Likelihood	Rating	Additional Project or Site-Specific Management Actions
1.1	Project vehicle movements in the public domain - all activities	Traffic congestion due to high volume of construction vehicles around the TPS and Stop construction zones and SaMF	Traffic, Transport and Access	Complaints received on community hotline	Reputation - Community	Haulage routes to SAMF and construction sites Construction zones at the TPS and Stop construction areas BOCC	Traffic, Transport and Access Management Sub Plan - Road deliveries would be scheduled to avoid peak road congestion periods Traffic Management/Control Plan developed by Traffic team detailing haulage routes and delivery timeframes. Road closures and traffic changes will be undertaken during off peak times where possible	Minor	Likely	Low	The structural elements of the TPS and Stops will be prefabricated off site and lifted into place.
1.2	Project vehicle movements in the public domain - all activities	Noise emissions from construction vehicles impacting sensitive receivers	Noise and Vibration	Complaints received on community hotline	Reputation - Community	Haulage routes to SAMF site Construction zones at the TPS and Stop construction areas BOCC	Traffic, Transport and Access Management Sub Plan - Road deliveries would be scheduled to avoid key sensitive periods as much as is practicable. The Noise and Vibration Management Plan (NVMS) details the protocols and assessment requirements for working outside the approved construction hours specified in CoA E21 and E22.	Minor	Likely	Low	The Project will implement the DPIE approved Parramatta Light Rail – Stage 1 Out-of-Hours Work Protocol (Rev 8.3 4 November 2019).
2.1	Light emissions during night-time activities - all activities	Disturbance of nearby receivers	Community	Complaints received on community hotline	Reputation - Community	Residents adjacent to night works during construction for TPS and Stop construction areas and Back Up Control Centre	The Project will implement the DPIE approved Parramatta Light Rail – Stage 1 Out-of-Hours Work Protocol (Rev 8.3 4 November 2019) which includes light spill control provisions. OOHW inspections will review and address identified light spill issues.	Minor	Likely	Low	None
3.1	Greenhouse gas emissions - all activities	Contribution to climate change	Community	Not applicable - due to its relatively small scale and temporary nature, the construction works would have a minor influence on climate change through greenhouse gas emissions.	Environment - Environment Effects / Cultural Heritage	Whole alignment	Delivery Phase Sustainability Management Plan includes greenhouse gas reduction strategies to be implemented during construction.	Minor	Very Likely	Low	None
4.1	Waste production - all activities	Excessive waste production and landfill reliance	Waste and Hazardous Material	Cost to project for disposal of waste.	Financial - Project / Program / TPD Budgets	SAMF site TPS and Stop construction zones	Waste and Resources Management Sub Plan - The following strategies would be employed to minimise impacts: Apply waste management hierarchy, classification and segregation of waste to minimise landfill quantities, use licenced waste facilities and track waste movements, training of staff to minimise landfill waste volumes and manage waste appropriately.	Minor	Likely	Low	None

Environmental Risk Identification								Risk analysis and evaluation using existing standard controls and assumptions			Risk Management
Risk Ref #	Environmental Aspect*	Impact **	Impact Category	Site Specific Risk Description ***	Risk category	Project-Specific Location(s)	Existing Standard Controls and Assumptions	Consequence	Likelihood	Rating	Additional Project or Site-Specific Management Actions
5.1	Resource use - all activities	Excessive resource use	Systems and Documentation	Project cost, resource use and waste volumes	Financial - Project / Program / TPD Budgets	SAMF site TPS and Stop construction zones BOCC	Waste and Resources Management Sub Plan - The following strategies would be employed to minimise impacts: Where practicable, surplus existing materials will be identified and utilised where fit for purpose, products and materials containing recycled content or packaging used as a preference to non-recycled materials, consideration of embodied carbon of construction materials , preference for locally sourced goods and services (Procurement Plan), efficient use of energy and water (DPSMP), training of staff in best practice, monitoring of resource use (DPSMP).	Minor	Likely	Low	None
6.1	Civil construction: - Earthworks - Drainage installation - CSR installation - Fencing and gates installation - Roadworks - Utilities installation	Dust emissions reducing air quality for offsite receivers	Air and Dust	Complaints received on community hotline Complaints received and investigation from regulators resulting in potential stop work	Reputation - Community	SAMF site TPS and Stop construction zones BOCC	Air Quality Management Sub Plan - The following strategies would be employed to minimise impacts: perimeter screening, stabilisation of unsealed ground, modification of activities according to wind speed, dust suppression techniques to work areas and stockpiles, covering of haul loads, visual dust monitoring, training, regular review of mitigation effectiveness.	Minor	Likely	Low	None
6.2	Civil construction: - Earthworks - Drainage installation - CSR installation - Fencing and gates installation - Roadworks - Utilities installation	High noise and vibration levels impacting offsite receivers	Noise and Vibration	Complaints received on community hotline Complaints received and investigation from regulators resulting in potential stop work Breach Project EPL	Reputation - Community	SAMF site TPS and Stop construction zones BOCC	Construction Noise and Vibration Management Sub Plan - The following strategies would be employed to minimise impacts: noise emission monitoring at nearby receivers, application of noise abatement strategies if required, high noise tasks to be scheduled to minimise disruptions to receivers, respite periods to be applied as required, notification of nearby receivers of high noise activities, training, regular review of mitigation effectiveness.	Minor	Likely	Low	The Project will implement the DPIE approved Parramatta Light Rail – Stage 1 Out-of-Hours Work Protocol (Rev 8.3 4 November 2019).

Environmental Risk Identification								Risk analysis and evaluation using existing standard controls and assumptions			Risk Management
Risk Ref #	Environmental Aspect*	Impact **	Impact Category	Site Specific Risk Description ***	Risk category	Project-Specific Location(s)	Existing Standard Controls and Assumptions	Consequence	Likelihood	Rating	Additional Project or Site-Specific Management Actions
6.3	Civil construction: - Earthworks - Drainage installation - CSR installation - Fencing and gates installation - Roadworks - Utilities installation	Sediments, wastes and contaminants impacting land	Land Contamination	Breach of POEO Act Complaints by regulator (EPA) or council resulting in stop work notice	Environment - Environment Effects / Cultural Heritage	SAMF site TPS and Stop construction zones BOCC	Soil and Water Management Sub Plan and Construction Waste and Resources Management Sub Plan - The following strategies would be employed to minimise impacts: Maintenance to ensure effective functioning of the site boundary erosion sediment control fence and water treatment plant, progressive erosion and sediment controls around work areas, good site housekeeping, location of stockpiles, wastes and contaminants outside of drainage lines and flood-prone areas, unexpected contamination finds procedure, environmental incident and emergency response procedure to be followed in case of contaminant spills, availability of spill kits, appropriate storage of contaminants and wastes to prevent escape, training, regular review of mitigation effectiveness.	Moderate	Unlikely	Low	Environmental Control Maps will be prepared for each construction zone and will incorporate relevant sensitive areas, mitigation measures and controls, including those from relevant management sub plans. ECMs are specifically designed to communicate requirements, actions, processes and controls to construction personnel using plans, diagrams and simply written instructions.
6.4	Civil construction: - Earthworks - Drainage installation - CSR installation - Fencing and gates installation - Roadworks - Utilities installation	Sediments, wastes and contaminants impacting water quality	Water Pollution	Breach of POEO Act Complaints by regulator (EPA) or council resulting in stop work notice The Project EPL	Environment - Environment Effects / Cultural Heritage	SAMF site TPS and Stop construction zones BOCC	Soil and Water Management Sub Plan and Construction Waste and Resources Management Sub Plan - The following strategies would be employed to minimise impacts: Maintenance to ensure effective functioning of the site boundary erosion sediment control fence and water treatment plant, progressive erosion and sediment controls around work areas, monitoring of water treatment plant discharge, good site housekeeping, testing and treatment of any groundwater abstracted or rainwater collected prior to discharge, location of stockpiles, wastes and contaminants outside of drainage lines and flood-prone areas, unexpected contamination finds procedure, environmental incident and emergency response procedure to be followed in case of contaminant spills, availability of spill kits, appropriate storage of contaminants and wastes to prevent escape, training, regular review of mitigation effectiveness.	Major	Unlikely	High	Environmental Control Maps will be prepared for each construction zone and will incorporate relevant sensitive areas, mitigation measures and controls, including those from relevant management sub plans. ECMs are specifically designed to communicate requirements, actions, processes and controls to construction personnel using plans, diagrams and simply written instructions.
6.5	Civil construction: - Earthworks - Drainage installation - CSR installation - Fencing and gates installation - Roadworks - Utilities installation	Impact to heritage	Heritage	There is no known heritage within the SAMF site. Remediation of the site would preclude the potential for undiscovered heritage. All works at the Stop construction zones is above ground Minor surface excavation works will take place at the TPS construction zones for	Environment - Environment Effects / Cultural Heritage	TPS construction zones BOCC	Heritage Management Sub Plan - Unexpected Finds Procedure	Moderate	Very Unlikely	Low	Environmental Control Maps will be prepared for each construction zone and will incorporate relevant sensitive areas, mitigation measures and controls, including those from relevant management sub plans. ECMs are specifically designed to communicate requirements, actions,

Environmental Risk Identification								Risk analysis and evaluation using existing standard controls and assumptions			Risk Management
Risk Ref #	Environmental Aspect*	Impact **	Impact Category	Site Specific Risk Description ***	Risk category	Project-Specific Location(s)	Existing Standard Controls and Assumptions	Consequence	Likelihood	Rating	Additional Project or Site-Specific Management Actions
				sub-structure and utilities connections.							processes and controls to construction personnel using plans, diagrams and simply written instructions.
6.6	Civil construction: - Earthworks - Drainage installation - CSR installation - Fencing and gates installation - Roadworks - Utilities installation	Impact to flora and fauna	Flora and Fauna	Non Applicable - All vegetation removal has been completed prior to supply Operate and Maintain Works (Package 5) Construction would not impact vegetation outside of the construction zones.	Reputation - Government / Media / Stakeholders	SAMF site TPS and Stop construction zones BOCC	If any flora or fauna are identified with a construction zone the Flora and Fauna Management Sub Plan requirements will be implemented. Flying Fox Monitoring program will be implemented to assess impacts of construction works.	Minor	Very Unlikely	#N/A	Environmental Control Maps will be prepared for each construction zone and will incorporate relevant sensitive areas, mitigation measures and controls, including those from relevant management sub plans. ECMs are specifically designed to communicate requirements, actions, processes and controls to construction personnel using plans, diagrams and simply written instructions.
6.7	Civil construction: - Earthworks - Drainage installation - CSR installation - Fencing and gates installation - Roadworks - Utilities installation	Disturbance to contaminated land resulting in inappropriate waste disposal / material cross contamination / inappropriate site management of material	Waste and Hazardous Material	Stop work delays affecting project programme, and increased costs (material management / disposal costs) Regulatory fine / prosecution	Environment - Environment Effects / Cultural Heritage	SAMF site and known contaminated areas defined in the EIS.	Contaminated Land Management Plan - The following strategies would be employed to minimise impacts: - Implementation of LTEMP's for sites. - Visual inspections and monitoring will be performed during excavation. - Unexpected contaminated material will be dealt with in accordance with the Unexpected Finds Procedure. Contaminated materials will be stored in an impervious bunded area and covered to avoid the risk of leachate, odours or contaminated dust, as directed by a suitably qualified person. - Staff will be trained on the identification and management of potential contamination issues.	Moderate	Likely	Medium	None
6.8	Civil construction: - Earthworks - Drainage installation - CSR installation - Fencing and gates installation - Roadworks - Utilities installation	Flood impacts to neighbouring properties	Community	Construction activities such as: stockpiling, inappropriate ERSED controls or poor housekeeping obstructing site drainage or water flow path.	Environment - Environment Effects / Cultural Heritage	TPS and Stop construction zones BOCC	The Construction Soil and Water Management Plan and Construction Flood Management Plan requirements will be implemented to avoid flooding impacts to neighbouring properties	Moderate	Very Unlikely	Low	Ensure work site can be evacuated and people and plant if flood is expected.

Environmental Risk Identification								Risk analysis and evaluation using existing standard controls and assumptions			Risk Management
Risk Ref #	Environmental Aspect*	Impact **	Impact Category	Site Specific Risk Description ***	Risk category	Project-Specific Location(s)	Existing Standard Controls and Assumptions	Consequence	Likelihood	Rating	Additional Project or Site-Specific Management Actions
6.9	Civil construction: - Earthworks - Drainage - Landscaping	Contamination of site as a result of contaminated material import	Land Contamination	Materials imported without appropriate certificates containing contaminants	Environment - Environment Effects / Cultural Heritage	SAMF site TPSs BOCC	WRMP details controls for imported material. Engineering team to maintain material import register, internally audited during construction by EPS team	Moderate	Very Unlikely	Low	None
7.1	Testing and commissioning - LRV - BOCC - TPS	Noise impacts to nearby receivers on power up and testing of PLR components	Noise and Vibration	Complaints received on community hotline Complaints received and investigation from regulators resulting in potential stop work	Reputation - Community	Whole alignment	Construction Noise and Vibration Management Sub Plan - The following strategies would be employed to minimise impacts: Pre-works sampling to develop baseline values, noise emission monitoring at nearby receivers, application of noise abatement strategies if required, high noise tasks to be scheduled to minimise disruptions to receivers, respite periods to be applied as required, notification of nearby receivers of high noise activities, training, regular review of mitigation effectiveness.	Minor	Likely	Low	The Project will implement the DPIE approved Parramatta Light Rail – Stage 1 Out-of-Hours Work Protocol (Rev 8.3 4 November 2019).
7.2	Testing and commissioning - LRV - BOCC - TPS	Traffic impacts as a result of testing and commissioning	Traffic, Transport and Access	Complaints received on community hotline Complaints received and investigation from regulators resulting in potential stop work	Reputation - Community	Whole alignment	Construction traffic management plan processes to be followed to undertake testing and commissioning with minimal impact.	Minor	Likely	Low	None
7.3	Whole of project duration	Non-compliance with Legislative requirements (Planning/EPL/Legislation)	Systems and Documentation	Administrative Prosecution or suspension of Project Approval or Licence	Financial - Project / Program / TPD Budgets	N/A	Training to be implemented in accordance with the CEMP and Sub-plans to ensure site staff are aware of environmental obligations. The Project induction and Pre-starts are utilized to address items that are priority at that stage of construction (such as works around heritage items) Periodic compliance reviews and reporting will track performance against CEMP requirements and allow gap analysis for close out actions.	Major	Unlikely	High	None
8.1	Sustainability - Contract	Project unable to meet contractual ISCA Target	Economic	Non-conformance with contractual obligation	Financial - Project / Program / TPD Budgets	N/A	Dedicated sustainability resource engaged to develop and implement sustainability delivery management plan and drive development /support the project during the ISCA submission process.	Moderate	Unlikely	Low	None
8.2	Sustainability - Waste Management	Project unable to meet contractual waste diversion targets	Environment	Non-conformance with contractual obligation and inability to meet ISCA Was 1 & 2 credits	Sustainability Performance	N/A	Implementation of the project WRMP and DPSMP. Frequent auditing and tracking to determine performance against target.	Moderate	Unlikely	Low	None
8.3	Sustainability - Procurement	Unable to meeting procurement requirements in Contract/ISCA due to multiple contractor involvement	Economic	Procurement processes not aligned with Pro 1-4 requirements. Subcontractor assessments not considering sustainability during on-boarding.	Sustainability Performance	N/A	Procurement Policies and plans to be reviewed and assessed across all contractors to ensure alignment with principal contractor procurement principles.	Moderate	Unlikely	Low	None

Environmental Risk Identification								Risk analysis and evaluation using existing standard controls and assumptions			Risk Management
Risk Ref #	Environmental Aspect*	Impact **	Impact Category	Site Specific Risk Description ***	Risk category	Project-Specific Location(s)	Existing Standard Controls and Assumptions	Consequence	Likelihood	Rating	Additional Project or Site-Specific Management Actions
				Missed innovation opportunities.							
8.4	Sustainability - Resource Usage	Design and construction activities do not meet contractual Energy, Water and Material Reduction Targets	Environment	Non-conformance with contractual obligation and inability to meet ISCA Mat 1 & 2, Ene 1 & 2 and Wat 1 & 2 Credits.	Sustainability Performance	N/A	Implementation of reduction strategies outlined in the DPSMP during construction. Dedicated resource to manage and review sustainability considerations during design and model performance.	Moderate	Unlikely	Low	None
8.5	Sustainability - Climate change	Climate change not considered during design and operations	Environment	Climate change adaptations not considered and addressed in detailed design.	Sustainability Performance	N/A	Dedicated resource to manage and review climate change considerations during design and track performance.	Moderate	Unlikely	Low	None
8.6	Sustainability - Social	Community consultation and engagement not sufficient to empower community to provide feedback or be engaged with the project.	Social	Community consultation and engagement not undertaken or consistent enough to inform, include and empower local community groups during design and construction.	Sustainability Performance	N/A	Community engagement team to implement CSEP, supported by Sustainability resource to align with ISCA Requirements.	Moderate	Unlikely	Low	None
<p>* An Environmental Aspect is an element of the organisation's activities or products or services that can interact with the environment. (AS/NZS ISO14001:2004)</p> <p>** An Environmental Impact is defined as any change to the environment or a component of the environment, whether adverse or beneficial, wholly or partially resulting from an organisation's environmental aspects. (AS/NZS ISO14001:2004)</p> <p>*** Risk description. This is the articulation of the resultant risk given the aspect and impact at the site.</p>											