



BlueScope MCL7 Project
25-55 Templar Rd, Erskine Park NSW 2759

CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN

Revision 06
21st August 2024





DOCUMENT RECORD

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FIGURES

Figure 1	Site Locality and Layout
Figure 2	Erosion and Sediment Control Strategies

APPENDICES

A	Erosion Sediment Control Plan
B	Environmental Management Plan
C	Waste and Resources Management Plan
D	Asbestos Management Procedure
E	Dust Management Plan
F	Construction Noise Management Plan (Updated)



- G Construction Traffic Management Plan (Updated)
- H Construction Waste Management Plan
- I Construction Waste Management Plan

GLOSSARY OF TERMS

A list of the common abbreviations used throughout this report is provided below:

ANZECC	Australian and New Zealand Environment and Conservation Council
ASS	Acid Sulfate Soils
CEMP	Construction Environmental Management Plan
DA	Development Approval
DP&I	Department of Planning and Infrastructure
DPI	Department of Primary Industries
EMP	Environmental Management Plan
EMS	Environmental Management System
EPA	NSW Environmental Protection Authority
ESAP	Environmentally Sensitive Area Plan
ESWMS	Environmental Work Method Statement
LEP	Local Environmental Plan
OEH	Office of Environment & Heritage
PASS	Potential Acid Sulfate Soil
REF	Review of Environmental Factors
SEPP	State Environmental Planning Policy

1. INTRODUCTION

Sydney Environmental Group Pty Ltd (SE) was engaged by Prime Constructions Pty Ltd & BlueScope Ltd (the client), to prepare a Construction Environmental Management Plan (CEMP) for the proposed development at 25-55 Templar Road, Erskine Park NSW (refer **Figure 1**).

SE has the following project appreciation:

- The site is comprised of Lot 3 DP1094504 encompassing an area of 10.3 ha;
- The site is proposed for redevelopment comprising expansion of carpark and construction of additional warehouses and associated offices for general industrial use; and
- A CEMP is required for submission to the Principal Certifying Authority.

SE were engaged to:

- Prepare a CEMP for the proposed construction activities of the client at the site.

The site identification details, and associated information are presented in **Table 1** below.

Table 1. Site Identification Information

Attribute	Description
Street Address	25-55 Templar Road, Erskine Park NSW
Lot and Deposited Plan (DP)	Lot 3 DP1094504
Geographical Coordinates	33°49'8.8"S 150°47'37.32"E (Centre of site)
Site Area	≈ 10.3 ha
Local Government Area (LGA)	Penrith City Council
Zoning	IN1 General Industrial (State Environmental Planning Policy (Industry and Employment) 2021)

The locality and the general layout of the site are set out in **Figure 1**.

1.1. Project Description

The proposed development consists of expansion of carpark and construction of a Metal Coating Line including additional warehouses and associated offices for general industrial use.

The purpose of this CEMP is to avoid or minimise the potential environmental impacts associated with the project. The CEMP sets out all the safeguards required to minimise any adverse impacts to the environment. The main environmental risks of the proposal are associated with sediment runoff into the local stormwater network, disruption of the local traffic network, loss of local amenity, discharge of groundwater and noise generated during construction. The Construction Methodology has identified mitigation measures that will be implemented to reduce and effectively manage these impacts. Any residual impacts will not be significant if the mitigation measures are implemented. The overall environmental risk level of the project has been identified as not significant.

1.1.1. Construction Activities

The project requires a site management plan to be prepared in order to facilitate construction activities. The key aspects included:

- Works zone located within the site;
- Materials storage areas within the site;
- Single point of entry and exit to the site compound to maximise security, eliminate entry from unauthorised visitors and maintain good environmental controls within the site;
- Protection of existing vegetation and trees; and
- Location of temporary water, power and drainage services for connection to site facilities.

Following the implementation of appropriate safety and environmental controls, including fencing, signage, sediment and erosion controls, and delivery and placement of site amenities as per the site management plan, construction works may proceed.

1.1.2. Construction Timetable and Hours of Work

Site establishment will commence as soon as possible, and works are expected to be completed within one year of commencement. In general, the proposed work hours are 7 am to 6 pm Monday to Friday and 8 am to 1 pm on Saturdays (including the warming up of plant / machinery or noise above conversation levels), with no construction work scheduled to take place on Sundays or public holidays. No out of hours work is proposed or expected for this development.

SE also notes that as of the date of this revision, the following additional construction hours are proposed:

- For a total of 15 Saturdays prior to end December 2024, from 1pm to 3pm; and
- For a total of 15 Sundays prior to end December 2024, from 8am to 3pm.

The works proposed during these extended hours will be limited to works with minimal potential for noise generation, such as formwork, reo-fixing and metal roofing and cladding. Furthermore, no deliveries are proposed during the extended construction hours on Saturday and Sunday, with all delivered undertaken during normal construction hours, already approved for the site.

An acoustic assessment has been carried out in support of the extended hours, and appended to this report (Appendix F). An updated Traffic Management Plan (Appendix G) has been prepared in relation to the proposed extended construction hours, per B24 of the Development Consent.

1.2. Objectives of CEMP

The objectives of the CEMP are to:

- Outline the environmental objectives and outcomes to be achieved in the project's construction;
- Identify measures to protect the environment, and ensure compliance with environmental legislation drawing from the commitments outlined within the DA documentation;
- Review and manage identified environmental risks of construction;
- Specify the detailed requirements on how environmental mitigation measures should be implemented in practice;
- Detail the legal and other obligations of the project and ensure compliance;
- Ensure that personnel are fully aware of their environmental obligations under this plan, relevant regulations and the contract;
- Define responsibilities and reporting lines for the environmental mitigation matters during construction;
- Identify the need for, and facilitate obtaining external permits;
- Facilitate consultation and communication with external stakeholders such as the local community and government agencies;
- Provide a basis for environmental audits, monitoring and reporting of the construction works;

- Ensure all employees are provided with sufficient training, development and support to recognise, avert and if necessary, effectively manage an environmental accident or non-conformance;
- Satisfy Condition B1 and B2, Section 4.38 of the *Environmental Planning and Assessment Act 1979* by including a Construction Traffic Management Plan within Appendix G;
- Satisfy Condition B26 and B27, Section 4.38 of the *Environmental Planning and Assessment Act 1979* by including a Construction Noise Management Plan within Appendix F;
- Satisfy Condition B48 and B49, Section 4.38 of the *Environmental Planning and Assessment Act 1979* by including a Construction and Demolition Waste Management Plan within Appendix H;
- Satisfy Condition C1 and C2, Section 4.38 of the *Environmental Planning and Assessment Act 1979*; and
- Ensure all project sites are returned to a satisfactory condition on completion of the Contract.

1.3. Context of CEMP

1.3.1. Environmental Management System

This CEMP is an integral part of the site Environmental Management System (EMS) as it details specific construction phase requirements that will ensure regulatory policy, continual improvement, and that objectives and targets are met throughout construction of the proposed development.

The CEMP is also the key environmental management document that Project Managers rely on to ensure appropriate environmental management practices are followed during the project activities. A controlled copy of the CEMP will be located on the client electronic server and will be available to all members of the client team. The CEMP will also be available at the site office.

1.3.2. Policy

The site EMS is governed by national and state legislation and guidelines including:

- *Environmental and Planning Assessment Regulation (2000)*;
- *Protection of the Environment Operations Act (1997)*;
- *SafeWork NSW Code of Practice: How to Manage and Control Asbestos in the Workplace (2022)*;
- *SafeWork NSW Code of Practice: How to Safely Remove Asbestos (2022)*; and
- *NSW EPA Guidelines for Consultants Reporting on Contaminated Sites (2020)*.

1.3.3. Subcontractor Management

All subcontractors utilised by the client throughout the course of the project are to be made aware of their environmental obligations and requirements of this CEMP. It is envisaged that all subcontractors will work under the requirements of this CEMP.

The environmental performance of potential subcontractors is assessed prior to their award and environmental conditions are incorporated into relevant subcontracts. All sub-contractors will be subject to the site induction and assessment process. If a sub-contractor fails to carry out their environmental responsibilities under the contract, they will be issued with a non-conformance and managed accordingly.

2. PLANNING REQUIREMENTS

2.1. Development and Approval Process

The client is responsible for obtaining all legislative approvals and maintaining environmental documentation throughout the project. They will ensure that all activities undertaken as part of the Project are done in accordance with the Development Approval for the site.

As part of the project review process, legislative and other requirements applicable to the project scope should be identified in a client Legal Register. The Construction Manager is responsible for ensuring that all applicable approvals, permits and licenses are held for the project.

All relevant environmental legal requirements should be identified at a corporate level and recorded on an Environmental Legal Obligation Register. A review of legislative changes and their impact on the client operations is to be conducted monthly at a corporate level (where appropriate) and communicated to site through the EHS Manager. Changes to local legislative and other requirements are reviewed by the EHS Manager. Any changes will be communicated to the client and the Environmental Legal Obligation Register and other areas of the CEMP will be amended to ensure legal compliance.

2.2. Statutory Obligations and Requirement

The DA identifies the applicable planning instruments and legislation. The approvals that have the potential to be required are listed in the following table (**Table 3**). For more information about the statutory obligations refer to the site's DA and local council Development Control Plans (DCPs).

2.2.1. Environmental Objectives, Targets and Program

The client objectives and targets have been developed to align with these identified environmental aspects and impacts that may arise as a result of the project.

In addition, the client will maintain an aspects and impacts register as part of the EMS. The register will identify construction activities, and assess the environmental risk associated with each activity. The objectives and targets have been developed to align with these identified aspects and impacts.

The objectives and targets program (**Table 4**) also details specific actions, reporting requirements, responsibilities and timeframes to ensure that these objectives and targets are achieved. **Table 4** identifies relevant overall Environmental objectives and targets that this project contributes to.

Table 3. Potential list of environmental approvals prior or during construction

Regulatory Requirements					
Activity requiring approval	Legislation, Licences, Permits or Consents	Authority	Date required / construction stage	Person responsible	Reporting requirements
Construction works likely to result in a relic being discovered, exposed, moved, damaged or destroyed	Permit under Section 139 of the Heritage Act 1977	NSW Heritage Council	During detailed design / Before construction	Project Manager	Prepare and submit an Archaeological Research Design and Methodology to the NSW Heritage Council. Submit application for approval of S139 exception based on discussions with NSW Heritage Council.
Excavations intercepting groundwater	Water access licence under Part 5 of the Water Act 1912	DPIE Water	During detailed design / Before construction	Project Manager	Consult with DPIE Water during detailed design and before submitting any licence applications. Provide the geotechnical assessment and pre-construction groundwater monitoring results with the licence application.
Dewatering of open excavations	Licence to discharge under the Protection of the Environment Operations Act 1997 Commercial Trade Wastewater Agreement	Penrith City Council / Sydney Water	During detailed design / Before construction	Project Manager	Consultation with Council and Sydney Water are required to discharge groundwater to existing stormwater system. Preparation and submission for a licence with the EPA may also be required. Application for trade waste agreement with Sydney Water if discharge to sewerage system is required.
Tree removal / pruning as a result of the project	Tree removal / pruning permit under the local Council Local Environment Plan and relevant conditions outlined within the DA	Penrith City Council	Before removal or pruning of any trees	Project Manager	Consult with the Penrith City Council. Written consent is required from Council.
Remediation / Removal of asbestos materials	Class A or B Asbestos Removal licence issued by Safe Work NSW	Safe Work NSW	During detailed design / Before construction	Project Manager	Consult with Safe Work NSW regarding permit requirements
Storage of Construction related equipment in	No building materials, work sheds, vehicles, machines, or the like shall remain	Penrith City Council	During all phases of construction if required	Project Manager	Consult with Penrith City Council. Written consent is required from Council.

the road verge	in the road reserve during works without the written consent from Penrith City Council.				
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Table 4. Objectives and Targets Program

Objective	Target	Actions	Reporting	Responsible	Time-frame
A Minimise Harm Minimise harm to the environment as a result of our works	A1 No major environmental incidents.	► To be managed through the implementation of Construction Environment Management Plan and standalone tasks managed by the Project Manager.	► In accordance with project incident Response Plan and in Monthly Reports.	► Overall responsibility for this target lies with the Project Manager. ► All incidents to be reported in Monthly Reports.	► Review of incidents and potential incidents as they occur. ► Overall review through monthly reporting.
B Employee awareness To continually improve our environmental performance (and implementation of environmental practices) through increased employee knowledge and development of a positive attitude.	B1 Develop and maintain a program of ongoing environmental training.	► Develop and refer to the client Training Guidelines and Procedures.	► Training records to be maintained in accordance with the client Training Guidelines and Procedures. ► Environmental training activities and their effectiveness are to be reported in the six-monthly audits	► Overall responsibility for this target lies with the Project Manager.	► The environment training program is to be reviewed every six months for monthly effectiveness. Opportunities for improved training are to be raised and implemented as required.
C Waste minimisation To adopt waste minimisation principles and appropriate waste management practices through all stages of the clients operation.	C1 Track and review the amount of waste produced on site on a monthly basis.	► To be managed through implementation of Construction Environment Management Plan	► To be reported in Monthly Report	► Overall responsibility for this target lies with the Project Manager. ► All incidents to be reported in Monthly Reports.	► Overall review every six months.



Objective	Target	Actions	Reporting	Responsible	Time-frame
D Waste disposal To classify and treat waste spoil generated from construction activities.	D1 No instances of illegal transportation and disposal of either classified or unclassified waste.	▶ Undertake soil sampling of spoil to increase understanding of material for disposal at an appropriate waste management facility. ▶ Develop and implement Construction Environment Management Plan	▶ Ensure log books are filled out. ▶ Maintain a waste log on-site. ▶ To be reported in Monthly Reports	▶ Project Manager is to report on waste tracking in Monthly Reports. ▶ Undertake appropriate waste classification, treatment, handling and disposal of all waste.	▶ Additional soil sampling for areas are to commence before construction. ▶ Excess spoil may be tested in situ before construction or in stockpiles during construction.
E Dust minimisation To prevent excess generation of dust	E1 Dust related complaints are minimised and any instances of dust related complaints from the public are closed out within the timeframe agreed with the complainant.	▶ To be managed through implementation of Construction Environment Management Plan	▶ To be reported in Monthly Reports	▶ Overall responsibility for this target lies with the Project Manager. ▶ All incidents to be reported in Monthly Reports.	▶ Overall review monthly.
F Vegetation To prevent unnecessary vegetation clearance	F1 No instances of unapproved vegetation / damage.	▶ To be managed through implementation of Construction Environment Management Plan and Aborists Report.	▶ To be reported in Monthly Reports	▶ Overall responsibility for this target lies with the Project Manager. ▶ All incidents to be reported in Monthly Reports.	▶ Overall review monthly.
G Noise Minimisation To minimise noise disturbance to residents	G1 No work outside approved working hours. G2 No work to contravene licence conditions, approvals, permits etc.	▶ To be managed through implementation of Construction Environment Management Plan.	▶ To be reported in Monthly Reports	▶ Overall responsibility for this target lies with the Project Manager. ▶ All incidents to be reported in Monthly Reports.	▶ Overall review monthly.
H Erosion and sedimentation To minimise erosion and sediment loss	H1 No instances of sediment loss off-site due to inappropriate or poorly maintained erosion and sediment controls.	▶ To be managed through implementation of Construction Environment Management Plan.	▶ To be reported in Monthly Reports	▶ Overall responsibility for this target lies with the Project Manager. ▶ All incidents to be reported in Monthly Reports.	▶ Overall review monthly.
I Heritage To avoid impacts on heritage items / places	I1 No unapproved impact on heritage items and places.	▶ To be managed through implementation of Construction Environment Management	▶ To be reported in Monthly Reports	▶ Overall responsibility for this target lies with the Project Manager. ▶ All incidents	▶ Overall review monthly.

Objective	Target	Actions	Reporting	Responsible	Time-frame
J Vibration To minimise instances of property damage from vibration generated from construction activities.	J1 No instances of structural damage caused by vibration.	► To be managed through implementation of Construction Environment Management Plan.	► To be reported in Monthly Reports	► Overall responsibility for this target lies with the Project Manager. ► All incidents to be reported in Monthly Reports.	► Overall review monthly.
K Visual amenity To minimise visual impacts caused by construction	K1 Visual amenity complaints are minimised and any complaints from the public in regard to static construction activities are closed out within the timeframe agreed with the complainant.	► To be managed through implementation of Construction Environment Management Plan.	► To be reported in Monthly Reports	► Overall responsibility for this target lies with the Project Manager. ► All incidents to be reported in Monthly Reports.	► Overall review monthly.
L Traffic and access To avoid disruption to traffic and access	L1 Traffic and access related complaints are minimised and any instances of traffic related complaints from the public and closed out within the timeframe agreed with the complainant.	► To be managed through implementation of Construction Environment Management Plan.	► To be reported in Monthly Reports	► Overall responsibility for this target lies with the Project Manager. ► All incidents to be reported in Monthly Reports.	► Overall review every six months.

2.2.1. Critical Construction Activities

The entire site will have a site-specific Safe Work Method Statement (SWMS) outlining controls required during specific construction activities.

The SWMS is an approved work plan outlining controls required during specific construction activities. The SWMS highlights site-specific issues and appropriate environmental control measures (such as sediment and erosion control devices, exclusion fencing, etc). By implementing the controls on the SWMS and the requirements of the Environmental Management Plan (**Appendix B**), the CEMP will be achieved. Works in all areas will be conducted in accordance with the approved SWMS.

All SWMS's will also incorporate any environmentally sensitive areas outlined in previous investigations/reports. The areas outlined will typically take the form of overhead plans showing locations of sensitive areas along the entire project. These will contain, but not be limited to:

- Topographic features including slopes, watercourses and drainage lines;
- Location of known indigenous and non-indigenous heritage items (if any);
- Potential and known areas of contamination (if any); and
- Threatened species, habitat areas and vegetation cover both native and exotic.

SWMS's that are appropriate in areas outside Environmentally Sensitive Areas may take the form of a written document outlining appropriate environmental controls.

All SWMS may be revised during the course of construction if additional environmental controls are required. All SWMS require Project Manager approval prior to commencement of works.

3. IMPLEMENTATION AND OPERATION

3.1. Environmental Management Plan

The management of environmental aspects relevant to construction works are detailed in the Environmental Management Plan and other designated Sub-Plans, as per **Appendix B**. **Appendix B** also includes all safeguards to be implemented.

3.2. Structure and Responsibilities

A summary of the organisational structure and responsibilities illustrating the relationship of key members of the client management team, is provided below. Any subcontractors used on the proposed development will be required to work in accordance with this CEMP and as such are treated as the client team members in terms of Environmental Roles and Responsibilities.

The client Project Manager will maintain an up-to-date version of the organisation chart for each management team with names of responsible individuals. This is to be displayed at each worksite and should include contact details.

The client team members responsible for the proposed development will undertake environmental duties in accordance with the CEMP requirements listed in the environmental management plan and sub-plans and in conjunction with the relevant Position Description.

Client team members have an obligation to protect the environment through carrying out their work with due diligence. All client team members and subcontractors must:

- Comply with the requirements of the CEMP as they apply to the type of work the employee is involved in;
- Report all incidents or activities that may result in environmental harm; and
- Implement appropriate measures to control environmental risks.

3.2.1. Project Manager

The role of the Project Manager is to:

- Provide the leadership and direction whereby environmental protection is and remains an integral element of all program and project activities;
- Support the implementation of the CEMP;
- Be familiar with the relevant regulatory and project requirements and their effect on delivery;
- Ensure compliance with this CEMP;
- Aim to achieve an outstanding outcome of CEMP implementation;
- Obtain and comply with all necessary environmental approvals / licences;
- Implement, maintain, monitor, report and advise the RMT on all environmental management;
- Provide direction and guidance to engineers and supervisors to implement the CEMP;
- Ensure that all the environmental incidents are reported and investigated;
- Ensure all subcontractors are informed of environmental management requirements; and
- Monitor and act to ensure environmental management requirements are implemented throughout the life of the workplace.

3.2.2. EHS Manager

The role of the EHS Manager is to:

- Establish the Environment Policy.
- Establish environmental objectives and targets.
- Develop and support strategies to meet these objectives and targets.
- Develop the site environmental aspects and impacts register.
- Encourage environmental innovation and ensure that environmental initiatives are incorporated in the approach to project management and performance.
- Coordinate ongoing training in environmental awareness for all levels of the Construction staff.
- Coordinate, manage and approve the preparation of the project's Construction Environmental Management Plan.
- Review environmental legislation and communicate relevant information to the wider team.
- Develop and review internal environmental documents for the client (E.g., CEMP, procedures etc).
- Ensure compliance with all environmental approvals and permit requirements.

3.2.3. Site Supervisor

The role of the Site Supervisor is to:

- Comply with the relevant environmental regulatory and project requirements as identified in the CEMP.
- Exercise diligence in enforcing work practices that minimise adverse environmental impacts.
- Ensure the development and implementation of environmental controls for the work activity.
- Ensure all employees in the workplace (including contractors) comply with environmental requirements.
- Require all employees to report environmental risks or hazards.
- Liaise with employee / subcontractors so that prompt responses are given when environmental issues are raised.
- Participate in regular environmental inspections.
- Ensure that workplace environmental records are maintained.
- Assist the construction manager in ensuring that all environmental incidents are reported, investigated and corrective action taken to prevent recurrence.
- Assist the project team in the implementation and maintenance of environmental controls.
- Ensure that all relevant employees and contractors receive environmental inductions and ongoing training as appropriate.
- Participate in regular workplace inspections to ensure compliance with the CEMP.
- Assist with environmental hazard and risk identification and elimination.
- Assist in the development and management of tasks to ensure statutory requirements relating to environmental management and performance are met.
- Provide support and advice to the Project Teams on environmental management matters as required.

3.3. Training and Environmental Awareness

All persons working at the site must undergo the following training prior to starting the work and acknowledge receipt of same by signing relevant project documentation:

- A site induction including the requirements of the CEMP, SWMS and ESAPs;
- Emergency response training;
- Familiarisation with the site environmental features requiring protection and controls; and
- Specific environmental training of relevant employees as required.

All visitors to the site must be accompanied by a person working at the site who has been fully inducted as per the requirements of persons working at the site. In addition, visitors must undergo the following training:

- General site induction;
- Familiarisation with site evacuation plan; and
- Familiarisation with site features and hazard awareness.

Toolbox talks will also be utilised for training and environmental awareness.

3.4. Communication

3.4.1. Interested Parties

Interested parties relevant to the project include BlueScope inter-departments, service providers, Environment Protection Agency, Sydney Water, Penrith City Council, Department of Planning & Environment, and the neighbouring community.

Policies and procedures are already in place at BlueScope and will apply to the project to ensure compliance with the needs and expectations of interested parties is achieved. This will occur through a range of activities including the effective management of legal obligations, reporting of environmental requirements and performance, communication with regulatory authorities where applicable, employee/contractor engagement activities, and community consultation.

3.4.2. Community Consultation

The client team will:

- Be responsible for informing the community about the construction works including methods, duration and timing of construction and be the primary contact for any community enquiries or issues.
- Notify residents of any access obstructions (in advance of the obstruction) through advice in the local press and/or letters. Accurate public information and signs will also be displayed while construction works are in progress.
- Will consult with Local Councils, the Road and Maritime Services (RMS), emergency services and bus companies (as required) prior to any full or partial road closures. A Traffic Management Plan and associated Traffic Control Plans would be submitted to RMS as part of application for a road occupancy licence, if required.

3.4.3. Complaints Handling

BlueScope has an established complaints handling procedure, Contact Procedure for Complaints and Enquiries (SP-ENV-07-03), that is applicable to the project. The procedure addresses external complaints and enquiries as well as internal complaints, enquiries, or self-reports and defines the key contacts and actions to be taken following a complaint or enquiry.

3.5. Emergency Preparedness and Response

3.5.1. Emergency response and Contacts

The client is to develop an Emergency Management Plan to assign responsibilities and define the process to be followed in the event of an emergency situation occurring at the project.

Emergency response contacts will be on display in the site office.

3.5.2. Incident Management and Emergency Response

An Emergency Response Plan (MD-PLNT-HSE-PP-008) is already in place at the Western Sydney Service Centre Site and has been updated to incorporate risks specific to the Metal Coating Line.

The Emergency Response Plan includes:

- The roles of key emergency personnel;
- Personnel responsibilities and contact details;
- The location of on-site information on hazardous materials, including SDSs and spill containment material, type and location;
- Evacuation routes;
- The procedures to follow to minimise/control environmental incidents; and
- Procedures for notifying the public and/or external authorities if required.

An Emergency Services Information Package has also been prepared and will be stored in an emergency information cabinet directly adjacent to the main entry point to the site.

An environmental incident is defined as an event that has resulted in, or could have resulted in an adverse environmental impact. The client has an existing HSE Incident Management Procedure (BSL-HSE-SD-12-01) which incorporates processes to be followed in the event of any environmental incident.

Incident investigation shall include the following basic elements:

- Identify the cause of the incident;
- Identify the necessary corrective action(s);
- Identify personnel responsible for carrying out corrective action(s);
- Implement or modify controls necessary to avoid repetition.

All incidents must be managed in accordance with the HSE Incident Management procedure and documented in an incident and risk management system. Corrective and preventative actions relating to incidents will be included in the incident report.

A BlueScope Environment Officer on call is available 24 hours 7 days per week on 1800 640 252 or (02) 4275 7522. The Environment Officer will receive and respond to incident reports, provide clean-up assistance where required, and will notify appropriate governing agencies, such as the EPA, DPE, and Penrith City Council in accordance with relevant statutory requirements.

BlueScope has an existing Pollution Incident Response Management Plan (PIRMP) for the Western Sydney Service Centre as required by the Protection of the Environment Operations Act 1997 (POEO). The existing PIRMP (MA-ENV-11-04) applies to all activities on the premises, including those associated with the project. In the event of an environmental incident causing or threatening 'material harm' to the environment, the PIRMP will be activated.

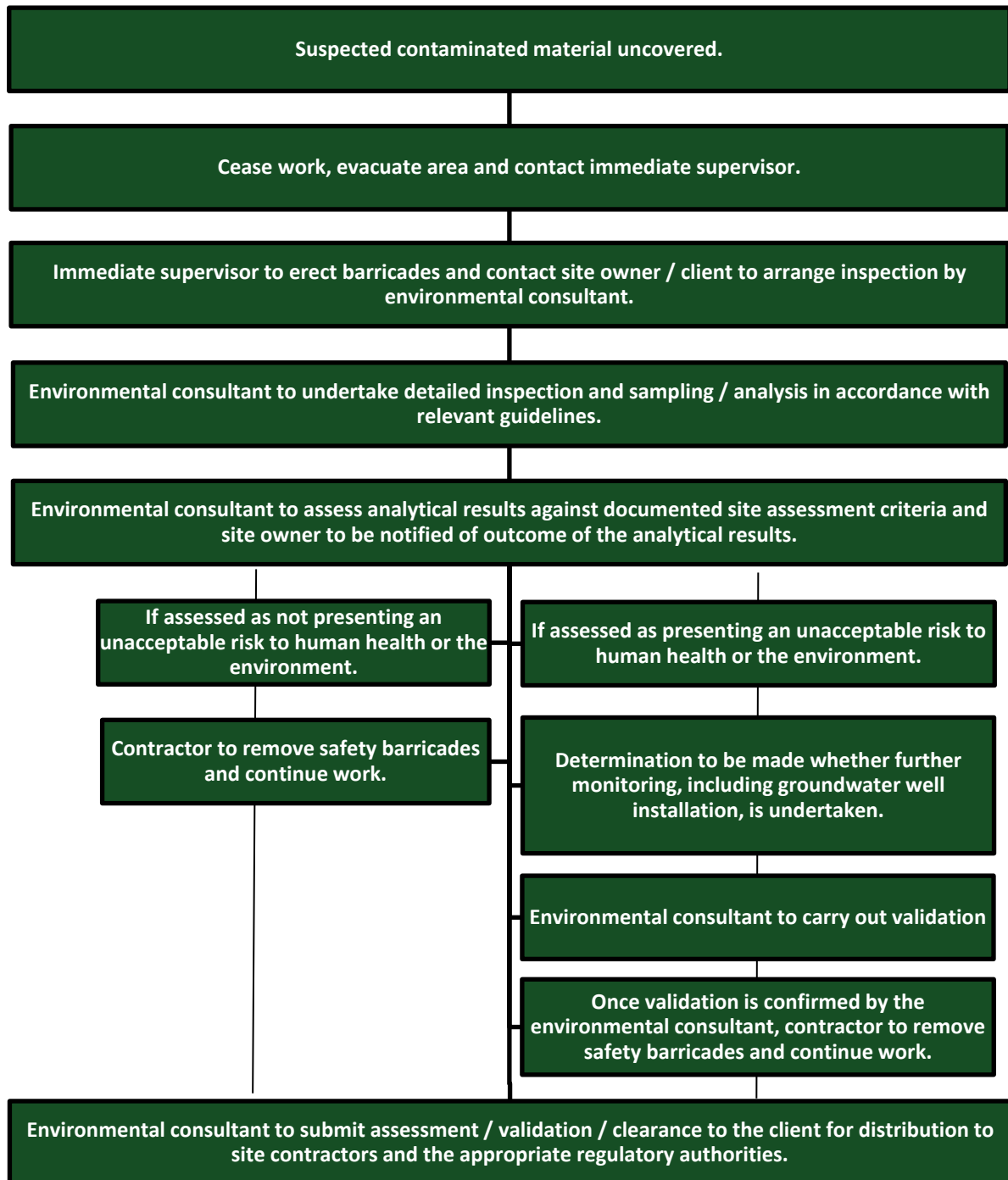
3.6. Unexpected Finds Protocol

There is currently no known soil or groundwater contamination at the site that is unacceptable for the proposed land use. However, it is possible that unexpected finds may be present within the fill materials. To this end, an Unexpected Finds Protocol has been compiled, and is summarised herein. Unexpected finds could include, but are not limited to:

- Other underground storage tanks that are previously not identified;
- Buried containers and drums;
- Phase separated hydrocarbons;
- Powders and other suspicious buried material;
- Potentially hazardous materials; and
- Evidence of contamination including significant staining, odours and discolouration.

In the event that any material suspected of containing potentially hazardous substances is found during remediation works, the following Unexpected Finds Protocol is to be followed:

Unexpected Finds Protocol



4. MONITORING AND REVIEW

4.1. CEMP Audit

Environmental audits are carried out as planned in accordance with the Audit Procedure. The client will conduct six monthly audits in addition to other inspections, to verify compliance with the CEMP, SWMS and Legal Compliance.

The audit schedule will be incorporated into the site diary and will be conducted in accordance with the Audit Procedure.

The internal audits conducted on this project will address the following areas:

- Compliance with SWMS.
- Compliance with legal and other requirements (e.g. licence and project approval conditions).
- All monitoring and operational reports required by any Licences are adequate.
- Environmental mitigation measures specified in EMP are being implemented and are effective.
- Environmental training records are in order.
- Environmental reports are being completed and acted on.
- Environmental events are being recorded and acted on and
- Environmental targets are being achieved.

4.2. Environmental Site Checklist

During the project works, environmental monitoring will be conducted to ensure compliance to legislation, as well as the objectives and targets stipulated in this CEMP.

All regular environmental monitoring activities such as vehicle checks, inspections and audits will be detailed in the site's diary, which is reported against monthly. Any unpredicted impacts or improvement opportunities identified during these inspections will be recorded and investigated. Corrective and/or follow up actions arising from investigations will be assigned to a suitable person with an appropriate timeframe for completion.

The frequency and specific monitoring criteria will be assessed periodically throughout the project to ensure that they are consistent with the aspects and impacts' section of the EHS Risk Register, as well as the current level of risk to the environment.

Any unpredicted impacts or improvement opportunities identified during these inspections will be recorded and investigated. Corrective and/or follow up action arising from investigations will be assigned to a suitable person with an appropriate timeframe for completion.

4.3. Non-Conformance and Corrective and Preventative Action

Environmental non-conformances are situations or events that do not comply with the safeguards and procedures stipulated by this CEMP. Any such finding is to be documented and kept up to date by the client in the Process Improvement Database (PI Database) which tracks and documents recommended improvement (RI) and non-conformances request (NCR).

Any corrective and preventative action plans identified are to be implemented by the client to the satisfaction of EHS Manager and Penrith City Council.

Records of all non-conformances and corrective action plans shall be held onsite for inspection by relevant authorities (if required).

4.4. Records

All documentation received, generated or stored pertaining to environmental matters of this project will be managed in accordance with the Quality Management System, in particular document approval, identification, storage, protection, retention, distribution, revision, retrieval and when appropriate disposal.

Environmental records, which will be collated and held on site by the Project Manager and Environment Officer during the construction phase of the Project, shall include the following:

- Licences, permits, consents or conditions of approval as relevant;
- CEMP, ESAPs and EWMSs;
- Training and inductions weekly;
- Weekly environmental checklist;
- Environmental audits;
- Non-conformance and corrective and preventative actions;
- Complaints;
- Environmental event/incident and investigation reports;
- Waste dockets;
- Plant and equipment registers and daily checks;
- MSDSs and chemical registers training and induction registers;
- Environmental complaint records; and
- Environmental monitoring data and reports.

4.5. Contingency Plan

It is assumed that a contingency plan will be prepared by the appointed contractor. An indicative contingency plan has been provided in **Table 4.5.1** overleaf.

Table 4.5.1 Indicative Contingency Plan

Observation	Response
Construction Volumes	
Construction volumes in accordance with forecast volumes and schedule	No response required
Construction volumes exceed forecast volumes, however within permissible range.	Review and investigation operations, and implement measures to reduce construction volumes where practical, including: - Temporarily halting deliveries until conditions improve - Review CTMP, updating as necessary
Construction volumes exceed forecast volumes and are outside permissible range	Review and investigate operations, and implement measures to reduce construction volumes where practical, including: - Temporarily halting deliveries until conditions improve - Stop all movements in/out of the site - Review CTMP, updating as necessary
Construction Haulage Routes	
Construction traffic adheres to approved haulage route	No response required
Construction traffic mostly adheres to approved haulage routes	Review and investigate operations, and implement measures to correct haulage routes where practical, including: - Remind drivers of nominated truck routes - Provide additional training including review of Driver Conduct Code
Construction traffic does not adhere to approved haulage routes	Review and investigate operations, and implement measures to correct haulage routes where practical, including: - Temporarily halting deliveries until conditions improve - stop all movements in/out of the site until conditions improve - review CTMP, updating as necessary - provide additional training including review of Driver Conduct Code
Dust and Spoil	
No observable dust on roadway and in air	No response required
Minor quantities of dust on roadway and in air	Review and investigate operations, and implement measures to reduce dust production where practical, including: - Use of additional water sprays - Temporarily halting site operations until conditions improve - Investigate and modify dust generating sources
Large quantities of dust on roadway and in air	Review and investigate operations and implement measures to reduce dust production where practical. If construction activities were responsible for excessive dust production, then submit an incident report to the relevant government body. Implement measures to avoid the incident occurring in the future.

4.6. CEMP Review

This CEMP is a 'live' document with the ability to change as the project situation changes. These changes can be in the form of recommendations from the EHS Manager, the Project Manager, the client or site employees. An environmental management review can be called by the client at any time to improve the environmental performance of the project, to assess the performance of the CEMP and to suggest changes to improve the environmental performance of the project.

The CEMP will be reviewed at a minimum of six-monthly intervals or a lesser frequency if required by other factors such as the results of audit reports, complaints, incidents or changes in site conditions or scope of works. Reviews will be carried out by consulting documents such as Development Approval, subcontractor documentation, Environmental Work Method Statements, incident logs, complaint logs, variation orders to scope of works, completed inspection check sheets and Inspection and Test Plans as appropriate.

Changes to the CEMP will be recorded and issued as per the document control at the start of this CEMP. The review will adequately address all sections of the CEMP and action them. Where improvements are identified as a result of the review, relevant changes to the CEMP will be recorded and issued as per the document control at the start of this CEMP.

5. STATEMENT OF LIMITATIONS

The findings presented in this plan are based on information provided by the client, specific searches of relevant, government historical databases and anecdotal information that were made available during the course of this investigation. To the best of our knowledge, these observations represent a reasonable interpretation of the general condition of the site at the time of report completion.

This plan has been prepared solely for the use of the client to whom it is addressed, and no other party is entitled to rely on its findings.

No warranties are made as to the information provided in this plan. All conclusions and recommendations made in this plan are of the professional opinions of personnel involved with the project and while normal checking of the accuracy of data has been conducted, any circumstances outside the scope of this report or which are not made known to personnel and which may impact on those opinions is not the responsibility of Sydney Environmental Group Pty Ltd. Should information become available regarding conditions at the site including previously unknown sources of contamination, SE reserves the right to review the plan in the context of the additional information.

This plan must be reviewed in its entirety and in conjunction with the objectives, scope and terms applicable to SE's engagement. The plan must not be used for any purpose other than the purpose specified at the time SE was engaged to prepare the plan.

Logs, figures, and drawings are generated for this report based on individual SE consultant interpretations of nominated data, as well as observations made at the time site walkover/s were completed.

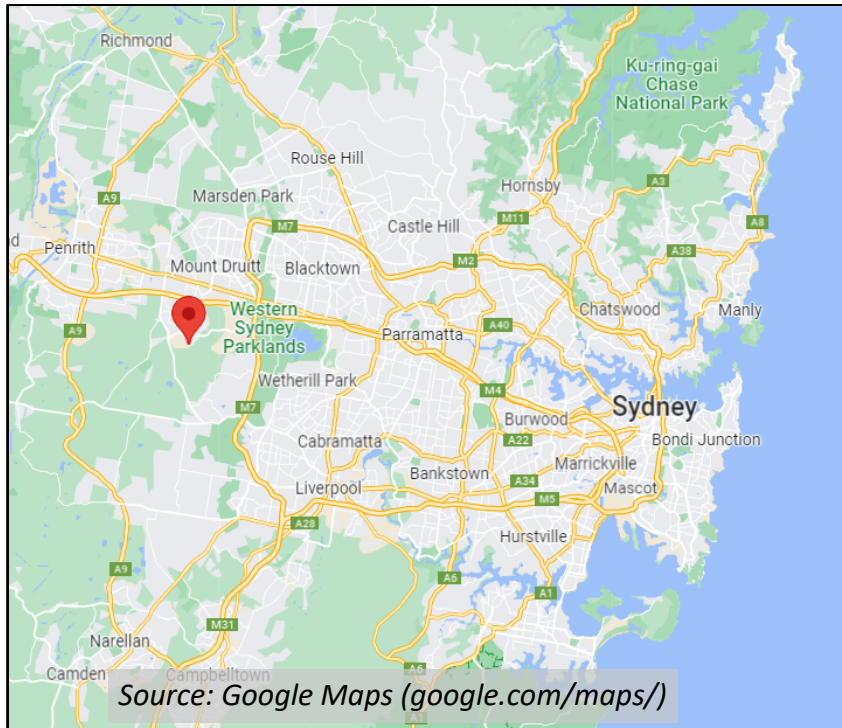
Data and/or information presented in this report must not be redrawn for its inclusion in other plans or documents, nor should that data and/or information be separated from this report in any way.

Should additional information that may impact on the findings of this plan be encountered or site conditions change, SE reserves the right to review and amend this plan.



FIGURES





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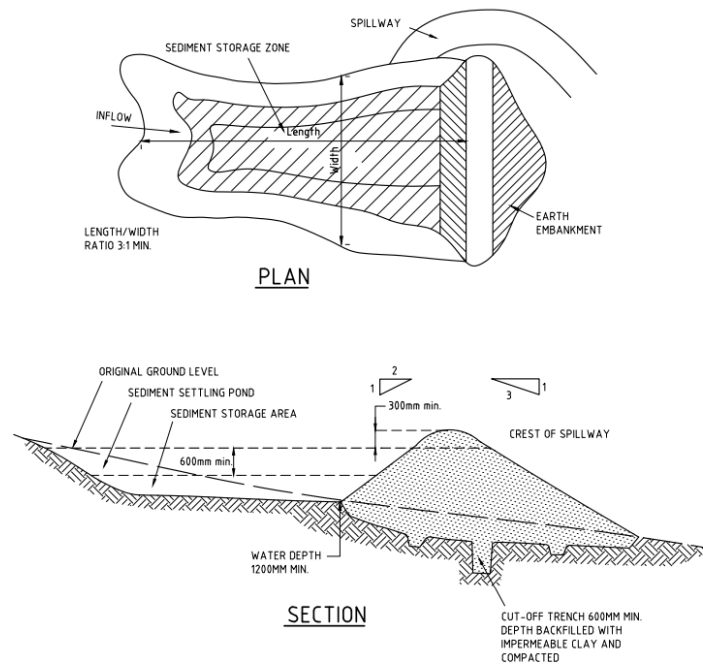
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Site Locality and Layout

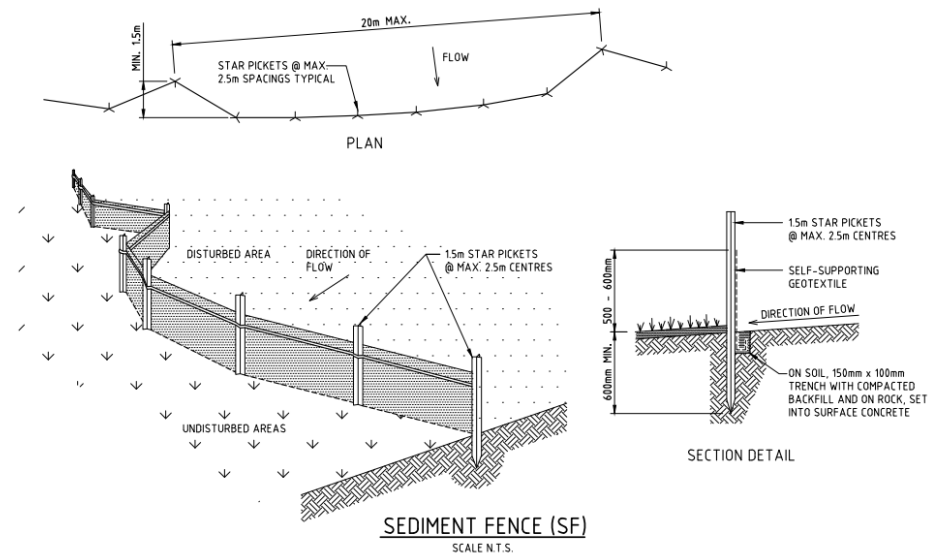
Client Name: Prime Constructions Pty Ltd & BlueScope Ltd
Project Name: Construction Environmental Management Plan
Project Location: 25-55 Templar Road, Erskine Park NSW



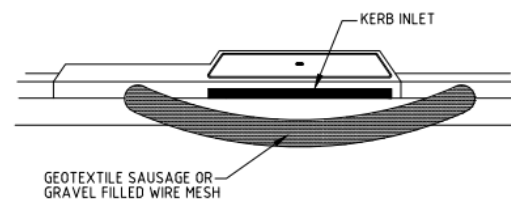
Figure Number: 1
Figure Date: 21 August 2024
Report Number: 2245-CEMP-01-180923.v6f



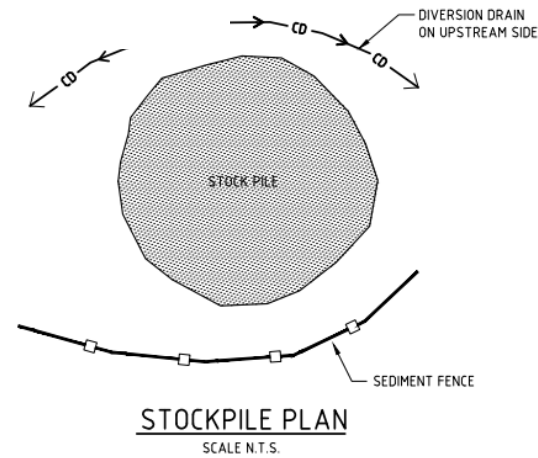
TEMPORARY SEDIMENTATION BASIN
SCALE N.T.S.



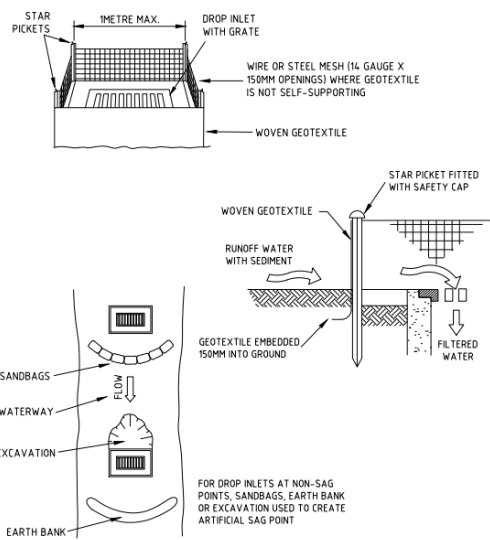
SEDIMENT FENCE (SF)
SCALE N.T.S.



GRAVEL SAUSAGE (GS)
SCALE N.T.S.

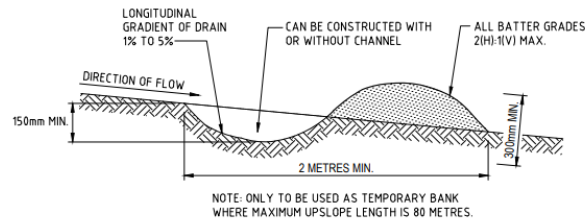


STOCKPILE PLAN
SCALE N.T.S.

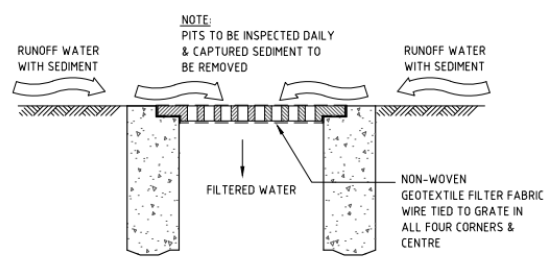


- CONSTRUCTION NOTES**
1. FABRICATE A SEDIMENT BARRIER MADE FROM GEOTEXTILE OR STRAW BALES.
 2. SUPPORT GEOTEXTILE WITH MESH TIED TO POSTS SPACED AT 1METRE CENTRES.
 3. DO NOT COVER INLET WITH GEOTEXTILE.
 4. CONSTRUCTION DETAILS ARE SIMILAR TO STANDARD DRAWING 6-6 AND 6-7.

INLET SEDIMENT BARRIER (ISB)
SCALE N.T.S.

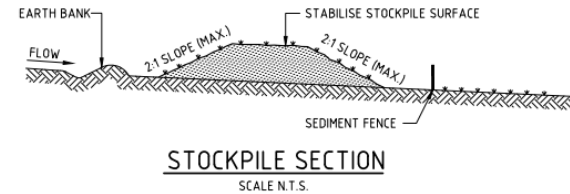


CATCH DRAIN (CD)
SCALE N.T.S.

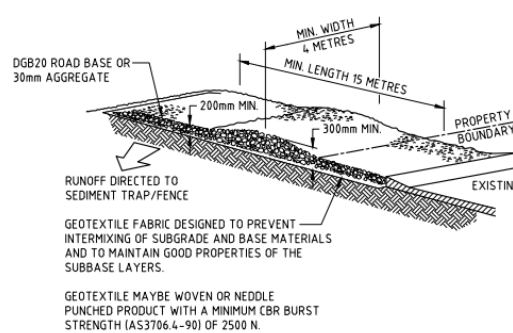


INLET TRAP
SCALE N.T.S.

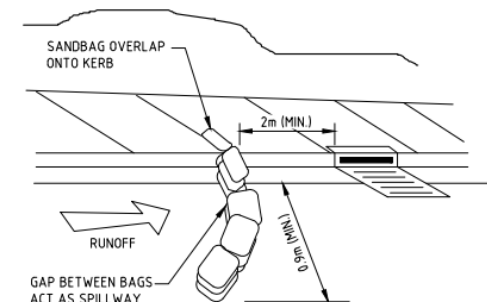
NOTE:
TO BE USED IN PAVED AREAS
WHERE TRAFFIC ACCESS IS REQUIRED



STOCKPILE SECTION
SCALE N.T.S.



STABILISED SITE ACCESS
SCALE N.T.S.



SANDBAG KERB INLET PROTECTION
SCALE N.T.S.

Sediment Fence Construction Notes

1. Construct sediment fences as close as possible to being parallel to the contours of the site, but with small returns as shown in the drawing to limit the catchment area of any one section. The catchment area should be small enough to limit water flow if concentrated at one point to 50 L/s in the design storm event, usually the 10 yr event.
2. Cut a 150 mm deep trench along the upslope line of the fence of the fabric to be entrenched.
3. Drive 1.5 m long star pickets into ground @ 2.5 m intervals (max.) at the downslope edge of the trench. Ensure star pickets have safety caps
4. Fix self-supporting geotextile to the upslope side of the posts ensuring it goes to the base of the trench. Fix the geotextile with wire ties or similar. Only use geotextile specifically produced for sediment fencing.
5. Join sections of fabric at a support post with > 150 mm overlap.
6. Backfill the trench over the base of the fabric and compact it thoroughly over the geotextile.

Stockpile Construction Notes

1. Place stockpiles at least more than 2 -5 m from existing vegetation, concentrated water flows, roads, and hazard areas.
2. Construct on the contour as low, flat, elongated mounds.
3. Where there is sufficient area, topsoil stockpiles shall be less than 2 m height.
4. Where they are to be placed for more than 10 days, stabilise following the approved ESCP to reduce the C-factor to less than 0.10.
5. Construct earthen banks on the upslope side to divert water flows around stockpiles, and install sediment fences 1 - 2 m downslope.

Stabilised Site Access Construction Notes

1. Strip topsoil, level the site, and compact the sub-grade.
2. Cover the area with needle punched geotextile.
3. Construct a 200 mm thick pad over the geotextile using road base or 30 mm aggregate.
4. Ensure the structure is at least 15 metres long or to building alignment and at least 3 m wide.
5. Where a sediment fence joins onto the stabilised access, construct a hump in the stabilised access to divert water to the sediment fence.

Inlet Sediment Barrier Notes

1. Fabricate a sediment barrier made from geotextile or straw bales.
2. Support geotextile with mesh tied to posts spaced at 1 m intervals.
3. Do not cover inlet with geotextile.
4. Construction details are similar to standard Drawing 6-6 and 6-7

Earthen Bank Construction Notes

1. Build with gradients between 1 % and 3 %.
2. Avoid removing trees and shrubs if possible.
3. Ensure the structures are free of projections or other irregularities that could impede water flow.
4. Build drains with circular, parabolic, or trapezoidal cross-sections.
5. Ensure banks are properly compacted to prevent failure.
6. Complete permanent or temporary stabilisation within 10 days of construction.

EROSION AND SEDIMENT CONTROLS

1. ALL WORK SHALL BE GENERALLY CARRIED OUT IN ACCORDANCE WITH THESE DOCUMENTS AND
 - A LOCAL AUTHORITY REQUIREMENTS
 - B EPA REQUIREMENTS
 - C NSW DEPARTMENT OF HOUSING MANUAL 'MANAGING URBAN STORM WATER, SOILS AND CONSTRUCTION', 4TH EDITION, MARCH 2004.
2. MAINTAIN THE EROSION CONTROL DEVICES INDICATED TO THE SATISFACTION OF THE SUPERINTENDENT AND THE LOCAL AUTHORITY.
3. WHEN STORM WATER PITS ARE CONSTRUCTED, PREVENT SITE RUNOFF ENTERING UNLESS SILT FENCES ARE ERECTED AROUND THE PITS.
4. CONTRACTOR IS TO ENSURE ALL EROSION AND SEDIMENTATION CONTROL DEVICES ARE MAINTAINED IN GOOD WORKING ORDER AND OPERATE EFFICIENTLY. REPAIRS AND/OR MAINTENANCE SHALL BE UNDERTAKEN AS REQUIRED, PARTICULARLY FOLLOWING STORM EVENTS.
5. CONTRACTOR TO PROVIDE 1m WIDE TURF STRIPED BEHIND ALL KERBS.



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Erosion and Sediment Control Strategies

Client Name: Prime Constructions Pty Ltd & BlueScope Ltd
Project Name: Erosion and Sediment Control Plan
Project Location: 55 Emplar Road, Erskine Park NSW



Figure Number: 2
Figure Date: 21 August 2024
Report Number: 2245-CEMP-01-180923.v6f



APPENDICES

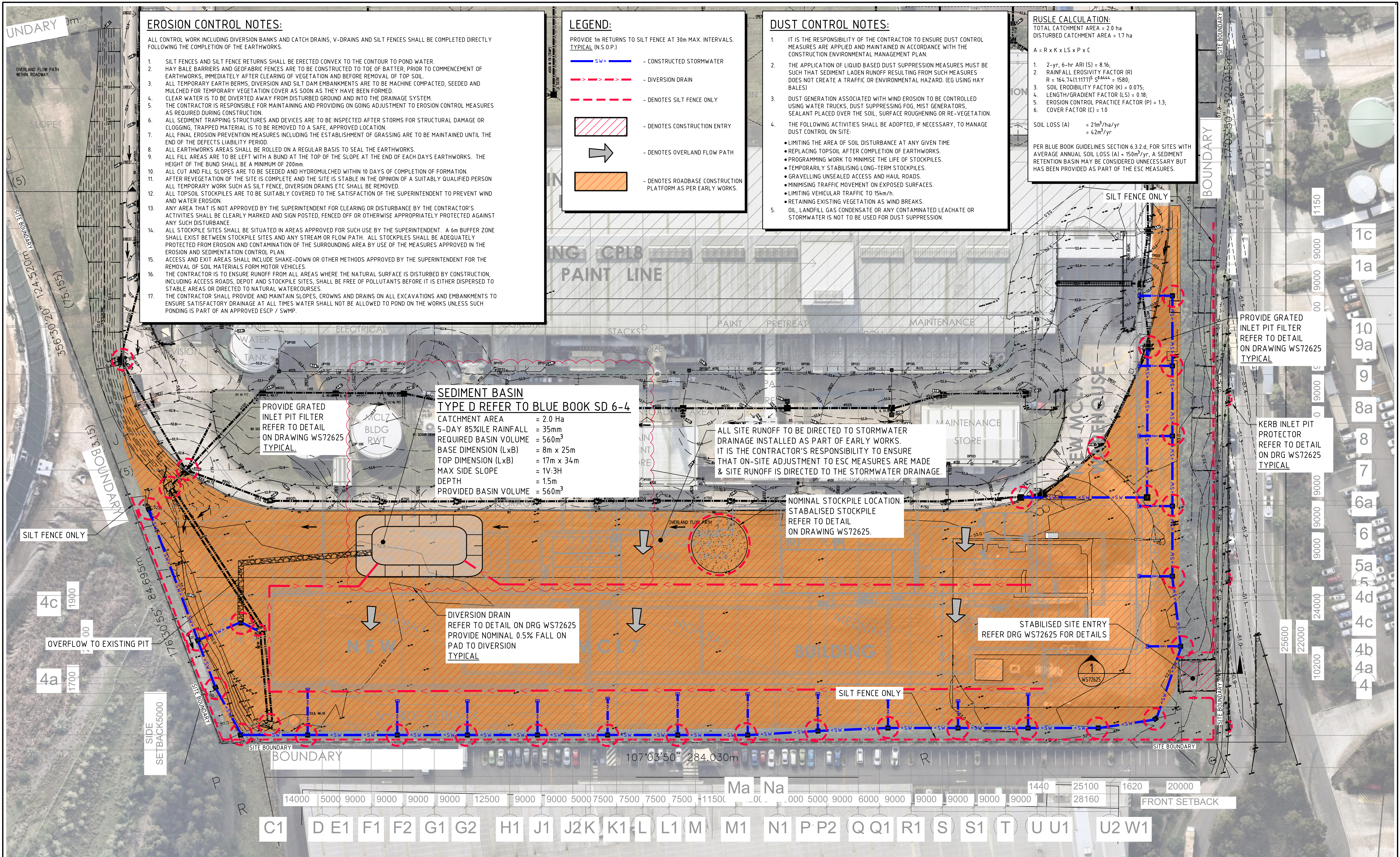




APPENDIX A

Erosion Sediment Control Plan





EROSION CONTROL NOTES:

- ALL CONTROL WORK INCLUDING DIVERSION BANKS AND CATCH DRAINS, V-DRAINS AND SILT FENCES SHALL BE COMPLETED DIRECTLY FOLLOWING THE COMPLETION OF THE EARTHWORKS.
1. SILT FENCES AND SILT FENCE RETURNS SHALL BE ERECTED CONVEX TO THE CONTOUR TO POND WATER.
 2. HAY BALE BARRIERS AND GEOTEXTILE FENCES ARE TO BE CONSTRUCTED TO TOE OF BATTER, PRIOR TO COMMENCEMENT OF EARTHWORKS, IMMEDIATELY AFTER CLEARING OF VEGETATION AND BEFORE REMOVAL OF TOP SOIL.
 3. ALL TEMPORARY EARTH BERM, DIVERSION AND SILT DAM EMBANKMENTS ARE TO BE MACHINE COMPACTED, SEEDING AND MULCHED FOR TEMPORARY VEGETATION COVER AS SOON AS THEY HAVE BEEN FORMED.
 4. CLEAR WATER IS TO BE DIVERTED AWAY FROM DISTURBED GROUND AND INTO THE DRAINAGE SYSTEM.
 5. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING AND PROVIDING ON GOING ADJUSTMENT TO EROSION CONTROL MEASURES AS REQUIRED DURING CONSTRUCTION.
 6. ALL SEDIMENT TRAPPING STRUCTURES AND DEVICES ARE TO BE INSPECTED AFTER STORMS FOR STRUCTURAL DAMAGE OR CLOGGING, TRAPPED MATERIAL IS TO BE REMOVED TO A SAFE, APPROVED LOCATION.
 7. ALL FINAL EROSION PREVENTION MEASURES INCLUDING THE ESTABLISHMENT OF GRASSING ARE TO BE MAINTAINED UNTIL THE END OF THE DEFECTS LIABILITY PERIOD.
 8. ALL EARTHWORKS AREAS SHALL BE ROLLED ON A REGULAR BASIS TO SEAL THE EARTHWORKS.
 9. ALL FILL AREAS ARE TO BE LEFT WITH A BUND AT THE TOP OF THE SLOPE AT THE END OF EACH DAYS EARTHWORKS. THE HEIGHT OF THE BUND SHALL BE A MINIMUM OF 200mm.
 10. ALL CUT AND FILL SLOPES ARE TO BE SEEDING AND HYDROMULCHED WITHIN 10 DAYS OF COMPLETION OF FORMATION.
 11. AFTER REVEGETATION OF THE SITE IS COMPLETE AND THE SITE IS STABLE IN THE OPINION OF A SUITABLY QUALIFIED PERSON ALL TEMPORARY WORK SUCH AS SILT FENCE, DIVERSION DRAINS ETC SHALL BE REMOVED.
 12. ALL TOPSOIL STOCKPILES ARE TO BE SUITABLY COVERED TO THE SATISFACTION OF THE SUPERINTENDENT TO PREVENT WIND AND WATER EROSION.
 13. ANY AREA THAT IS NOT APPROVED BY THE SUPERINTENDENT FOR CLEARING OR DISTURBANCE BY THE CONTRACTOR'S ACTIVITIES SHALL BE CLEARLY MARKED AND SIGN POSTED, FENCED OFF OR OTHERWISE APPROPRIATELY PROTECTED AGAINST ANY SUCH DISTURBANCE.
 14. ALL STOCKPILE SITES SHALL BE SITUATED IN AREAS APPROVED FOR SUCH USE BY THE SUPERINTENDENT. A 6m BUFFER ZONE SHALL EXIST BETWEEN STOCKPILE SITES AND ANY STREAM OR FLOW PATH. ALL STOCKPILES SHALL BE ADEQUATELY PROTECTED FROM EROSION AND CONTAMINATION OF THE SURROUNDING AREA BY USE OF THE MEASURES APPROVED IN THE EROSION AND SEDIMENTATION CONTROL PLAN.
 15. ACCESS AND EXIT AREAS SHALL INCLUDE SHAKE-DOWN OR OTHER METHODS APPROVED BY THE SUPERINTENDENT FOR THE REMOVAL OF SOIL MATERIALS FORM MOTOR VEHICLES.
 16. THE CONTRACTOR IS TO ENSURE RUNOFF FROM ALL AREAS WHERE THE NATURAL SURFACE IS DISTURBED BY CONSTRUCTION, INCLUDING ACCESS ROADS, DEPOT AND STOCKPILE SITES, SHALL BE FREE OF POLLUTANTS BEFORE IT IS EITHER DISPERSED TO STABLE AREAS OR DIRECTED TO NATURAL WATERCOURSES.
 17. THE CONTRACTOR SHALL PROVIDE AND MAINTAIN SLOPES, CROWNS AND DRAINS ON ALL EXCAVATIONS AND EMBANKMENTS TO ENSURE SATISFACTORY DRAINAGE AT ALL TIMES WATER SHALL NOT BE ALLOWED TO POND ON THE WORKS UNLESS SUCH PONDING IS PART OF AN APPROVED ESCP / SWMP.

LEGEND:

- PROVIDE 1m RETURNS TO SILT FENCE AT 30m MAX. INTERVALS. TYPICAL (N.S.O.P.)
- CONSTRUCTED STORMWATER
 - DIVERSION DRAIN
 - DENOTES SILT FENCE ONLY
 - DENOTES CONSTRUCTION ENTRY
 - DENOTES OVERLAND FLOW PATH
 - DENOTES ROADBASE CONSTRUCTION PLATFORM AS PER EARLY WORKS.

DUST CONTROL NOTES:

1. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE DUST CONTROL MEASURES ARE APPLIED AND MAINTAINED IN ACCORDANCE WITH THE CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN.
2. THE APPLICATION OF LIQUID BASED DUST SUPPRESSION MEASURES MUST BE SUCH THAT SEDIMENT LADEN RUNOFF RESULTING FROM SUCH MEASURES DOES NOT CREATE A TRAFFIC OR ENVIRONMENTAL HAZARD. (EG USING HAY BALES)
3. DUST GENERATION ASSOCIATED WITH WIND EROSION TO BE CONTROLLED USING WATER TRUCKS, DUST SUPPRESSING FOG, MIST GENERATORS, SEALANT PLACED OVER THE SOIL, SURFACE ROUGHENING OR RE-VEGETATION.
4. THE FOLLOWING ACTIVITIES SHALL BE ADOPTED, IF NECESSARY, TO MANAGE DUST CONTROL ON SITE:
 - LIMITING THE AREA OF SOIL DISTURBANCE AT ANY GIVEN TIME
 - REPLACING TOPSOIL AFTER COMPLETION OF EARTHWORKS.
 - PROGRAMMING WORK TO MINIMISE THE LIFE OF STOCKPILES.
 - TEMPORARILY STABILISING LONG-TERM STOCKPILES.
 - GRAVELLING UNSEALED ACCESS AND HAUL ROADS.
 - MINIMISING TRAFFIC MOVEMENT ON EXPOSED SURFACES.
 - LIMITING VEHICULAR TRAFFIC TO 15km/h.
 - RETAINING EXISTING VEGETATION AS WIND BREAKS.
 - OIL, LANDFILL GAS CONDENSATE OR ANY CONTAMINATED LEACHATE OR STORMWATER IS NOT TO BE USED FOR DUST SUPPRESSION.

RUSLE CALCULATION:

TOTAL CATCHMENT AREA = 2.0 ha
DISTURBED CATCHMENT AREA = 1.7 ha

$A = R \times K \times L \times S \times P \times C$

1. 2-yr, 6-hr ARI (S) = 8.16;
2. RAINFALL EROSIONIVITY FACTOR (R)
- $R = 164.74(1.1177)^S = 1580$;
3. SOIL ERODIBILITY FACTOR (K) = 0.075;
4. LENGTH/GRADIENT FACTOR (L) = 0.18;
5. EROSION CONTROL PRACTICE FACTOR (P) = 1.3;
6. COVER FACTOR (C) = 1.0

SOIL LOSS (A) = $21m^3/ha/yr$
= $42m^3/yr$

PER BLUE BOOK GUIDELINES SECTION 6.3.2.d, FOR SITES WITH AVERAGE ANNUAL SOIL LOSS (A) < $150m^3/yr$, A SEDIMENT RETENTION BASIN MAY BE CONSIDERED UNNECESSARY BUT HAS BEEN PROVIDED AS PART OF THE ESC MEASURES.

SEDIMENT BASIN
TYPE D REFER TO BLUE BOOK SD 6-4

CATCHMENT AREA = 2.0 Ha
5-DAY 85%ILE RAINFALL = 35mm
REQUIRED BASIN VOLUME = $560m^3$
BASE DIMENSION (LxB) = 8m x 25m
TOP DIMENSION (LxB) = 17m x 34m
MAX SIDE SLOPE = 1V:3H
DEPTH = 1.5m
PROVIDED BASIN VOLUME = $560m^3$

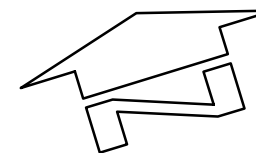
ALL SITE RUNOFF TO BE DIRECTED TO STORMWATER DRAINAGE INSTALLED AS PART OF EARLY WORKS.
IT IS THE CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT ON-SITE ADJUSTMENT TO ESC MEASURES ARE MADE & SITE RUNOFF IS DIRECTED TO THE STORMWATER DRAINAGE.

NOMINAL STOCKPILE LOCATION
STABILISED STOCKPILE
REFER TO DETAIL ON DRAWING WS72625.

STABILISED SITE ENTRY
REFER DRG WS72625 FOR DETAILS

PROVIDE GRATED INLET PIT FILTER
REFER TO DETAIL ON DRAWING WS72625 TYPICAL

KERB INLET PIT PROTECTOR
REFER TO DETAIL ON DRG WS72625 TYPICAL



EROSION AND SEDIMENT CONTROL PLAN
SCALE 1:500

5m 0 10 20 30 40 50m
SCALE 1:500 AT A1 SIZE SHEET

FOR CONSTRUCTION CERTIFICATE

SEDIMENT BASIN RELOCATED AS PER PRIME COMMENTS	21.09.23	D
FOR CC - REVISED FOR SEDIMENT BASIN AND RUSLE CALCS	20.09.23	C
STORMWATER PIPES COORDINATED WITH EW PACKAGE	23.02.23	B
ISSUED FOR TENDER	02.02.23	A
AMENDMENTS	DATE	ISSUE

ARCHITECT

PACE
ARCHITECTS

CLIENT

PRIME
CONSTRUCTIONS

PROJECT

MCL7 PROPOSED PLANT EXPANSION
CIVIL D+C TENDER PACKAGE
55 TEMPLAR ROAD, ERSKINE PARK, NSW 2759

DESIGNED	DRAWN	DATE	CHECKED	SIZE	SCALE	CAD REF.
XC	JB	JAN '23	XC	A1	AS SHOWN	WS72620

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ABN 50 003 696 446

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CRC
COSTIN ROE CONSULTING

CIVIL & STRUCTURAL ENGINEERS

CRC DRAWING No	C08332.09-C20
DRAWING TITLE	EROSION AND SEDIMENT CONTROL PLAN
DRAWING No	WS72620
ISSUE	D



APPENDIX B

Environmental Management Plan





Outcome	Environmental Action	Timeframe	Monitoring / Reporting	Person Resp.
General				
To minimise the risk of environmental incidents and complaints and to effectively manage incidents and complaints if they occur.	All project staff and contractors will be inducted on the environmental sensitivities of the work site(s) and relevant safeguards prior to commencement.	Prior to construction	Induction records	Project Manager (PM)
	The Project Manager will be notified immediately of any complaints relating to management of environmental issues.	As required	Complaint register	PM
	To ensure compliance with Section 148(3) of the Protection of the Environment Operations Act 1997, all employees and contractors will inform the Project Manager and as soon as they become aware of any pollution incidents that have caused or threaten material harm to the environment.	As required	Incident reports	All
Topography, Geology and Soils				
Ensure adequate restoration	Restore the landform of the site(s) as close as possible to the pre-works condition.	Completion	Weekly checklist / Site plan	PM
	The work site to be rehabilitated to as close to existing condition as possible following the completion of works.	During construction	Weekly checklist	PM
	Monitor adopted site stabilisation and restoration measures for effectiveness and modify them, as required.	Completion of works	Weekly checklist / Site plan	PM
	Compact post construction backfill level across the site to prevent settlement and uneven surfaces.	Completion of works	Weekly checklist / Site plan	PM
Erosion and Sediment Control				
No sedimentation to enter waterways.	Erosion and sediment control measures will be consistent with those specified in the DECC's Urban Erosion and Sediment Control Manual (DLWC, 1992) OR the NSW Government's Blue Book (4th Edition, 2004) on erosion and sediment control.	Site establishment	Weekly checklist Site plan	Site Supervisor (SS)
	All surface runoff is to be diverted away from areas of soil disturbance and stockpiles of erodible material.	Site establishment	Site plan	SS
	We will establish erosion and sediment control measures as per the Loka Erosion and Sediment control plans before work begins and maintain them in effective working order during works, until the site has been stabilised to prevent on-site erosion and off-site transport of eroded sediments.	Site establishment / Prior to works / During construction	SWMS	SS
	We will establish appropriate sediment controls at the site boundary adjacent to any stormwater drains and channels to minimise sediment entering the stormwater system.	Site establishment	Weekly checklist	SS
	Sediment and erosion control devices will be inspected weekly and immediately after rainfall to ensure effectiveness over the entire duration of the project. Any damage to erosion and sediment controls will be rectified immediately.	During construction	Weekly checklist	SS



Outcome	Environmental Action	Timeframe	Monitoring / Reporting	Person Resp.
	Any stockpiles of soils or fill are to be managed in an appropriate manner to prevent dust, erosion and sediment runoff.	During construction	Weekly checklist Site plan	SS
	Measures will be taken to prevent tracking of soils/sediments from work sites to roadways and footpaths as a result of work vehicle/machinery movement.	During construction	Weekly checklist	SS
	Any sediment/soil transferred from work sites to adjacent roadways/footpaths will be swept up at least daily or prior to the onset of rainfall, and reused on site where appropriate.	During construction	Weekly checklist	SS
	Disturbance of any kind to ground surfaces will be kept to an absolute minimum.	During construction	Site plan	SS
	Equipment, plant and materials will be situated in designated lay-down areas with bunding where they are least likely to cause erosion or damage vegetation.	Prior to works	Site plan	SS
	In the event of rain developing during works execution, work site/s will be made secure against soil erosion.	Prior to rain	Weekly checklist	SS
	The Erosion Sediment Control Plan will include a contingency plan and emergency procedures for dealing with the unexpected onset of rainfall during the work period.	Prior to establishment	IMP	PM
	If possible, disturbed areas will be stabilised as soon as possible and in a progressive manner as works are completed.	Completion of works	Weekly checklist Site plan	SS
	Prepare and implement site specific environmental management plans for any work sites and construction compounds.	Prior to works	Site Plan	PM
Minimise tracking of sediment and mud onto public roads	Minimise transport of dust and mud onto public roads through the use of rumble grids or wheel washes. Ensure streets are swept as needed.	During construction	SWMS / Weekly checklist	SS
	All vehicles carrying waste materials capable of discharging free liquid will be watertight to prevent leaks and we will check them to confirm the absence of leaks before they leave the site.	During construction	Vehicle checklist	SS
Water Quality and Hydrology				
No pollution of waterways by sewage.	Portable site amenities will not be located where a spillage could cause pollution to a watercourse or drainage line.	Site establishment	Site plan	SS
No pollution of waterways from fuels or chemicals.	A functioning 'spill kit' will be kept on site at all times for clean-up of accidental chemical/fuel spills.	During construction	Weekly checklist	SS
	All chemicals and fuels will be stored within designated bunded areas. The storage areas will be identified with appropriate signage.	During construction	Weekly checklist	SS



Outcome	Environmental Action	Timeframe	Monitoring / Reporting	Person Resp.
	Equipment will not be used if there are any signs of fuel, oil or hydraulic leaks. Leaks will be repaired immediately or the equipment will be removed from site and replaced with a leak-free item.	During machinery use	Plant checklists	SS
	All chemicals stored on site will be recorded on a register. The relevant Safety Data Sheets will also be kept on site.	During construction	SDS Chemical register	SS
	Spillage of chemical/fuel will be managed in accordance with Spill Response Guidelines and where applicable, Emergency Response Plans.	Prior to construction	IMP	PM
Minimise pollution of waterways from upstream sources	We will apply water sensitive urban design planning controls on new development.	During detailed design	Design drawings	PM
Flora, Fauna and Ecosystems				
No harm to or unapproved removal of vegetation.	Mature native trees (including standing dead trees) will not be removed without prior approval from Penrith City Council.	Prior to vegetation removal	Correspondence	PM
	Vegetation clearance and disturbance will be kept to an absolute minimum.	Site establishment	SWMS	SS
	Where possible, clearing will be limited to trimming of branches rather than the removal of whole plants.	Vegetation trimming	SWMS	SS
	Arborist advice will be sought and implemented where there is a risk of damage to trees.	Site establishment	SWMS	PM
	If any damage occurs to vegetation outside of the nominated work area, the Project Manager will be notified so that appropriate remediation strategies can be developed.	During construction	SWMS / Correspondence	SS
	The Arborist to be consulted to provide recommendations regarding species selection for replacement or compensatory plantings.	As required	Correspondence	PM
	We will only cut roots when absolutely necessary and this will be done by a qualified arborist.	Vegetation trimming	SWMS	PM
	We will delineate the location and full extent of any lopping, trimming, clearing or other vegetation disturbance required for the works.	Site establishment	SWMS	PM
No harm to threatened flora or fauna species or ecological communities.	If any threatened species (flora or fauna) is discovered during the works, all work will stop immediately and the Project Manager will be notified. Work will only recommence once the impact on the species has been assessed and appropriate control measures provided.	During construction	Correspondence	PM
Minimise the spread of weeds	Any weed removal/control will be done by suitably qualified and/or experienced licensed sub-contractors.	As required	Monthly report	PM
	We will manage declared noxious weeds according to the requirements of the Noxious Weeds Act 1993.	As required	Site plan	PM



Outcome	Environmental Action	Timeframe	Monitoring / Reporting	Person Resp.
Noise and Vibration				
Minimise construction noise	Work and deliveries will only occur during the following times: Monday to Saturday 7am to 5pm. No construction work or deliveries will occur on Sundays or public holidays.	During construction	Inductions / Toolbox	PM
	Surrounding residences and businesses will be given reasonable notice of the proposed works (including proposed start date, work methods and works duration)	Prior to works	Correspondence	PM
	Equipment used will have efficient muffler design and be well maintained.	Prior to works	Vehicle checklist	SS
	We will install construction hoarding where required, to provide acoustic shielding to potentially noise affected residential receivers.	As required	Site plans	PM
	We will select smaller equipment options or rubber-tracked equipment where equipment is fit-for-purpose and it is economically feasible.	Prior to works	NA	PM
	We will maintain and operate all equipment efficiently, according to manufacturer's specifications, to reduce adverse noise impacts.	During construction	Vehicle checklist	PM
	We will consider alternative work practices, which generate less noise in high impact locations, for example using electric equipment instead of diesel- or petrol-powered equipment.	Prior and during works	NA	PM
	We will turn off plant and equipment when it is not being used.	During construction	Weekly checklist	SS
No noise complaints from high noise impact activities	We will schedule respite periods in consultation with the community for construction activities expected to generate noise levels at or in excess of 75 dB(A) at any receiver.	During construction	Correspondence	PM
	We will limit noise intensive works to the least sensitive times of the day, wherever possible.	During construction	Weekly checklist	PM
No vibration damage to surrounding buildings from construction activities	Where vibration from construction activities may affect residential receivers (human comfort), we will manage them according to the British Standard BS 6472-1992 and Australian Standard AS 2436-1981.	During construction	Monitoring report	PM
	Where vibration from construction activities may affect nearby structures, we will manage them according to British Standard BS 7385: Part 1- 1993 Evaluation and Measurement of Vibration on Buildings.	During construction	Monitoring report	PM
	We will consult with landowners and business owners to determine any specific vibration requirements. We will propose appropriate construction methods and schedules that comply with the agreed vibration requirements and Standards BS 6472-1992 and AS 2436-1981.	Prior to construction	Correspondence	PM



Outcome	Environmental Action	Timeframe	Monitoring / Reporting	Person Resp.
No vibration damage to heritage buildings from construction activities	For historic buildings, which have a higher sensitivity to vibration, we will manage impacts according to German Standard DIN 4150: Part 3.	During construction	Monitoring report	PM
Air Quality and Energy				
No construction site dust is to leave the site.	Time between ground disturbance and rehabilitation will be minimised as far as practical.	Construction planning	Weekly checklist	PM
	All work areas and stockpiles will be closely monitored for dust generation.	During construction	Weekly checklist	SS
	We will manage stockpiles to minimise dust generation, either by keeping them moist, or covering them.	During construction	Weekly checklist	PM
	In the event of dust generation, appropriate dust suppression measures (e.g. watering, covering exposed areas/stockpiles with tarpaulins or geotextile fabric, appropriate seeding and/or avoidance of dust generating activities during dry or windy conditions).	During construction	Weekly checklist	SS
	All loads of excavated material, soil, fill and other erodible matter that is transported to or from the work site will be kept covered at all times during transportation.	Materials transport	Weekly checklist	SS
	A street sweeper will clean streets and access roads as required.	During construction	Weekly checklist	SS
Minimise air pollution.	No matter of any kind is to be burnt.	During construction	Weekly checklist	SS
	All work vehicles/machinery will be maintained to a standard such that visible particulates in exhaust emissions are not visible for a continuous period of more than 10 seconds	Machinery use	Plant checklists	SS
	We will implement measures to minimise energy use and greenhouse gas emissions during construction, including appropriately maintaining equipment and machinery, and not leaving work vehicles or machinery running when not in use.	Machinery use	Weekly checklist	SS
	Vehicle movements will be limited to designated entries and exits, haulage routes and parking areas.	During construction	Weekly checklist	SS



Outcome	Environmental Action	Timeframe	Monitoring / Reporting	Person Resp.
Heritage				
Minimise damage to known or unknown items of heritage significance.	If there are unexpected or unidentified historic finds (of unknown origin or significance) during construction, we will cease work and seek the advice of a qualified archaeologist. The following procedure will guide the management of unexpected and previously unidentified finds during construction: • All work in the area is to cease immediately. • Alert the Project Manager. • If necessary, protect the area with fencing. • Engage a suitably qualified archaeologist to assess the find/s. • Assess the find using the guidelines for Assessing Significance for Historical Archaeological Sites and 'Relics' (NSW Heritage Branch, 2009) • If the archaeologist advises us to, an Impact Assessment and Research design and methodology is to be prepared and submitted to the Heritage Council for a Section 140 excavation permit or exception. • We will complete archaeological mitigation according to the prepared documents and the permit/exception issued by the Heritage Council. Once the site is mitigated to the satisfaction of the archaeologist and the Heritage Council, construction may resume.	During construction	Specific Management plan	All staff
Minimise damage to human remains if identified.	In the event that human remains are identified during construction, the following procedure must be followed: • All work in the area is to cease immediately. • Alert the PM who is then to alert NSW Police (000) and NSW Heritage (13 15 55) as soon as practicable providing any available details of the remains and their location. • Work at the location must not recommence unless authorised in writing by Heritage NSW	During construction	Specific Management plan	All staff
Public Assets				

Outcome	Environmental Action	Timeframe	Monitoring / Reporting	Person Resp.
Carry out Pre-Construction Dilapidation Survey	Prior to the start of construction work, the principal contractor should arrange for inspection of the site and preparation of a dilapidation report for submission to council on any existing infrastructure damage and latent defects identified. This report should be submitted in conjunction with the application for an asset protection permit (where required). Failure to notify council of existing infrastructure damage or latent defects may result in the assumption of builder liability.	Prior to construction	Pre-Construction Dilapidation Survey	PM
Minimise damage Public Assets	Preventative action should be taken to protect / minimise damage to council infrastructure. If there are any suspected damage during constructions works, the following procedure will guide the management of the unexpected damage: • All work in the area is to cease immediately. • Alert the Project Manager. • If necessary, protect the area with fencing. • Record the damage for future reinstatement. • Reinstatement asset to pre-construction condition.	During construction	Specific Management plan	All contractors / subcontractors
Carry out Post-Construction Dilapidation Survey	At the completion of construction work, the principal contractor should arrange for the inspection and preparation of a dilapidation report for submission to council on any existing infrastructure damage and latent defects identified. This report should be submitted in conjunction with required CC documentation. Failure to reinstate damages or to notify council of infrastructure damage / latent defects may result in the assumption of builder liability, and delays of certification.	At completion of construction	Post-Construction Dilapidation Survey	PM
Social and Visual environment				
No complaints about the visual condition of the construction site.	All work equipment and materials will be contained within the designated boundaries of the work site or works compound.	During construction	Weekly checklist Site plan	SS
	The spread of stockpiles, waste, and vehicle parking will be minimised.	During construction	Weekly checklist	SS
	Accurate public information signs will be displayed while work is in progress and until site restoration has been completed.	During construction	Site plan	PM
No complaints on prolonged loss of land use	On completion of the works, all vehicles, construction equipment, materials, and refuse relating to the works will be removed from the work site(s) and any adjacent affected areas.	At completion of construction	Weekly checklist	SS
	Work sites will be restored as close to their original condition as possible following the completion of the proposed works.	At completion of construction	Weekly checklist	PM

Outcome	Environmental Action	Timeframe	Monitoring / Reporting	Person Resp.
Minimise visual impacts to existing residents	We will retain existing vegetation (street trees) to help minimise the visual impact to nearby businesses.	During detailed design	Site plans	PM
Land use and services				
No customer complaints.	The Project Manager will be notified immediately of any complaints received and will respond as soon as possible.	During construction	Complaints register	PM
	Any accidental damage to property occurred by the works must be repaired and apologies issued at the project manager's discretion.	During construction	Communications register	PM
	All services in the vicinity of the works will be located in the field and pegged-out and noted in the Environmental Management Plan and/or work plans prior to excavation works - "Dial 1100 Before You Dig".	Prior to excavation	DBYD records	PM
	We will notify residents in advance of traffic, noise and service disruptions, for example, through advice in the local press and letters. Notification will follow Sydney Water's customer notification policies.	Prior to works	Communications register	PM
	We will repair any damage to tracks, steps or other recreational/management structures in consultation with relevant agencies/stakeholders.	During construction	Communications register	PM
	We will induct all project staff and contractors on the environmental sensitivities of the work site(s) and relevant mitigation measures before starting work.	Prior to works	Induction records	PM
Waste				
No pollution to land.	We will re-use suitable excavated spoil on site for backfilling, landscaping and other uses, wherever possible. If we cannot re-use suitable spoil on-site, we will investigate opportunities for off-site re-use. If we cannot identify re-use opportunities or the spoil is unsuitable due to its geotechnical or contamination characteristics, we will classify spoil according to the Waste Classification Guidelines (DECCW, 2009) and dispose of it at an appropriately licensed facility. We will identify suitable spoil storage areas along the project alignment, during the detailed design stage. We will classify and store spoil separately, to avoid contamination.	During construction	Disposal dockets	PM
	Documents and records of the transport and fates of all materials removed from the site will be kept and submitted to the project manager as proof of correct disposal and for audit purposes.	Waste disposal	Disposal dockets	PM
	Any fuel, lubricant or hydraulic fluid spillages will be collected using absorbent material and the contaminated material disposed of at a licensed waste depot.	As required	Disposal dockets	PM
	All wastes will be securely stored to ensure that any pollutants do not escape.	During construction	Weekly checklist	PM



Outcome	Environmental Action	Timeframe	Monitoring / Reporting	Person Resp.
	We will handle all storage, transport and handling of dangerous goods according to the relevant Australian Standards and guidelines.	During construction	Specific Management Plan / Onsite waste log and register	PM
Efficient use of resources.	Any potentially re-useable or recyclable materials and fittings will be removed and stored safely and securely.	During construction	Disposal dockets	PM
	We will avoid generating surplus materials by planning construction appropriately, including managing construction material quantities.	Procurement process	Specific Management Plan / Onsite waste log and register	PM
	We will minimise waste according to the hierarchy of avoid, re-use, recycle and finally disposal.	During construction	Specific Management Plan / Onsite waste log and register	PM
No asbestos contamination	We will survey hazardous material at all sites set for demolition, to determine the extent of any asbestos or other hazardous construction materials and waste.	Prior to works	Specific Management Plan / Onsite waste log and register	PM
	We will remove asbestos containing material according to the regulations and requirements of the NSW Work Health and Safety Regulation 2011 and the How to Safely Remove Asbestos Code of Practice issued by Safe Work Australia in 2011	As required	Specific Management Plan / Onsite waste log and register	PM
	We will inspect and receive visual clearance before re-opening asbestos removal areas for demolition	Prior to works	Specific Management Plan / Onsite waste log and register	PM
No hazardous waste contamination	We will manage other hazardous materials according to the relevant ANZECC, federal or state legislative guidelines.	As required	Specific Management Plan / Onsite waste log and register	PM
Assess and manage Potential and Actual Acid Sulphate Soils	A suitably qualified ASS specialist will prepare the Acid Sulphate Soil Management Plan, if required.	Prior to works	Specific Management Plan	PM
	Manage ASS according to the Acid Sulphate Soils Assessment Guidelines (ASSMAC, 1998)	During construction	Specific Management Plan / Onsite waste log and register	PM
	Materials specifications will include a requirement that materials are capable of resisting corrosion in ASS or aggressive conditions.	Prior to works	Design specifications	PM

Outcome	Environmental Action	Timeframe	Monitoring / Reporting	Person Resp.
Undertake spoil classification for appropriate spoil disposal	Based on the findings of the contamination assessment, we will test soils to classify material for disposal according to the NSW EPA Waste Classification Guidelines 2014.	Prior to works	Specific Management Plan	PM
Ensure asbestos contaminated material is managed and disposed of appropriately	We will induct all site workers to ensure they are aware that asbestos may be present on-site and that if they find any or suspect they have found any asbestos, they must stop work and report it immediately to the site manager and/or manager.	Arrival to site	Induction records	PM
	The site supervisor will ensure that a licensed contractor removes all asbestos contaminated materials.	As required	Specific Management Plan / Onsite waste log and register	PM
	If asbestos is found, we will conduct validation sampling of the asbestos contaminated material excavation areas and analyse samples for asbestos. Should the soils beneath the asbestos contaminated material be impacted by asbestos fibres, we will excavate those soils and dispose of them appropriately off-site.	Prior to works	Specific Management Plan / Onsite waste log and register	PM
Ensure adequate handling of contaminated spoil	We will consult with property owners about proposed remediation and validation works, where the project will disturb known contaminated fill or soil.	Prior to works	Existing remediation action plan / Consultation records	PM
	If staff and contractors become aware of pollution incidents that have caused or threaten material harm to the environment, they must notify the project manager who will determine the appropriate course of action to comply with the NSW Protection of the Environment Operations Act 1997.	As required	Incident Management Plan	PM
Traffic and Access				
Minimise traffic impacts to local residents	We will complete a Traffic Management Plan in consultation with Penrith City Council.	Prior to works	Correspondence	PM
	We will comply with any council or RMS requirements regarding traffic control, access and road/footway restoration issues.	During construction	Site plan / TMP	PM
	Appropriate signs will be erected to inform public road users of the proposed works and any temporary road closures.	Site establishment	Weekly checklist	SS
	Work vehicles will not obstruct vehicular or pedestrian traffic on roadways, or access to private driveways, public facilities or businesses, unless absolutely necessary and only if appropriate notification has been provided to potentially affected property owners, local residents and businesses.	During construction	Site plan / Weekly checklist	SS



Outcome	Environmental Action	Timeframe	Monitoring / Reporting	Person Resp.
	We will notify emergency service providers of upcoming works at least two weeks before work starts and/or implement any traffic control plan for traffic movements.	Prior to works	Correspondence / TMP	PM
	We will position construction vehicles and equipment within the boundaries of the work site where possible or (where no on-site parking is available) in the nearest available roadway parking space so that it minimises disruption to other road users, businesses and the public.	During construction	Site plan / Weekly checklist	SS
Ensure safe access to site	We will use qualified traffic controllers to direct traffic around the work site.	During construction	TMP	PM
	Any proposed disruptions to site access as a result of delivery of large loads will be communicated to relevant stakeholders in adequate time. Alternative arrangements will be communicated as required.	During construction	Weekly checklist	PM
	The static signposting will cover information, regulatory, warning and guide signs as defined in national and RMS standards.	Site establishment	Site plan	PM
	We will liaise with the traffic authority in regard to works that occur within or bordering a road.	Prior to works	Correspondence	PM
Ensure construction sites are clearly delineated and secure	We will fence and secure worksites to avoid pedestrians inadvertently entering the work sites, during both work hours and outside work hours.	Site establishment	Site plan	PM

Notes to Table: SS = Site Supervisor, PM = Project Manager



APPENDIX C

Waste and Resources Management Plan



WASTE AND RESOURCES MANAGEMENT PLAN

This procedure summarises requirements for waste produced in constructing the proposed development. Construction waste will be managed in accordance with the waste management hierarchy:

1. Avoid waste as a first priority
2. Re-use waste, recycle or reprocess
3. Dispose of waste as a last resort

The construction of the proposed development will generate the most amount of waste from demolition of structures and spoil excavation. The following waste types are likely to be present:

- General demolition waste, including waste concrete, bricks, timber, potential low-level ACM materials, metal and glass;
- Surplus materials used during site establishment, such as safety fencing and barriers possibly including plastics and metal;
- General construction waste, such as excess concrete, redundant pieces of pipe/fittings, broken bricks, timber, paper, plastic and metal; and
- Domestic waste, including food scraps, aluminium cans, glass bottles, plastic and paper containers, and putrescibles waste generated by site construction staff.

Construction will generate a relatively large amount of waste, however, the client will adequately manage and minimise impacts by implementing waste mitigation measures.

The potential for reuse through backfilling will be limited by geotechnical factors and space constraints onsite.

Fill Material

Investigative sampling will be undertaken on all spoil materials that require excavation and disposal. Specific waste management plans will be developed as an outcome of the investigative sampling. The management plans will ensure crews confidently identify specific disposal options and techniques based on any contamination found at the project location.

Naturally occurring sand / Re-usable backfill material

The fill material will typically be underlain by Wianamatta group shale with sandstone beds. This naturally occurring layer typically may contain suitable geotechnical properties for backfilling however due to site space constraints, construction crews will excavate and dispose of all excavated material.

When suitable quantities are achieved, validation samples will be taken for laboratory analysis and the results compared against the National Environment Protection Measures (NEPM 2013) Commercial / Industrial (HIL/HSL/ESL D) land use criteria (including material with low-level asbestos concentrations). A spoil management plan will be developed to identify specific construction techniques to re-use excavated soils including backfilling sections of the project at a depth which requires a 'clean fill' capping layer to be placed on top of the backfill material.

Any excess material unable to be reused will undergo validation sampling and disposal in accordance with the EPA Resource Recovery Exemption and Waste Classification Guidelines.



APPENDIX D

Asbestos Management Procedure



ASBESTOS MANAGEMENT PROCEDURE

NON-FRIABLE AND FRIABLE ASBESTOS

Non-friable asbestos is material containing asbestos that is not friable asbestos, including material containing asbestos fibres reinforced with a bonding compound. Asbestos removal work must only be carried out by an appropriately licenced person depending upon the type of asbestos. Friable asbestos is defined by Safe Work NSW (2022) as material that is in powder form or that can be crumbled, pulverised or reduced to a powder by hand pressure when dry and contains asbestos. In relation to asbestos in soils, friable asbestos is further defined as free asbestos fibres, or friable asbestos (FA) and asbestos fines (AF). Asbestos fines are defined as small fragments of non-friable ACM that are sufficiently degraded or damaged to fit through a 7 mm grid filter and are therefore deemed damaged enough to be friable. There are two types of licences required to handle and remove asbestos. The differences between them are presented in **Table 5** below:

Table 5. The differences between Class A and Class B asbestos removal works

Class A licence/removal works	Class B licence/removal works
Can remove any amount of non-friable or friable asbestos or ACM.	Can remove any amount of non-friable asbestos or ACM (a licence is required to remove more than 10m ² of non- friable asbestos or ACM).
Can remove any amount of asbestos containing debris.	Can remove any amount of non-friable asbestos containing debris associated with the removal of ACM (a licence is required to remove more than 10 m ² of non- friable asbestos or ACM).
An asbestos removal control plan (ARCP) must be prepared for any licenced asbestos removal works.	An ARCP must be prepared for any licenced asbestos removal works.
A licenced asbestos removalist must notify a regulator in writing at least five days before the licenced asbestos removal work commences.	A licenced asbestos removalist must notify a regulator in writing at least five days before the licenced asbestos removal work commences.
A licensed asbestos assessor must carry out air monitoring before and during removal works and during the clearance works.	Air monitoring is not required but may be considered to ensure compliance with the duty to minimise or eliminate exposure to airborne asbestos.
A licensed asbestos assessor must carry out a clearance inspection and issue a clearance certificate.	An independent competent person (a person not involved in the removal of asbestos for that specific job and not involved in the business or undertakings involved in the removal of asbestos for that specific job) must carry out a clearance.
The asbestos removal supervisor must be present at the asbestos removal site whenever work is being carried out.	The asbestos removal supervisor must be readily available whenever work is being carried out.

WASTE DISPOSAL

Disposal of fragments of ACM

All work shall be carried out in accordance with the Safe Work NSW Code of Practice: How to Safely Remove Asbestos (2022) prepared under section 274 of the Work Health and Safety Act 2011. Handling and disposal of asbestos waste material should also be carried out in accordance with the Protection of the Environment Operations (POEO) Act (Waste) Regulation (2005) and NSW EPA Waste Classification Guidelines (2014).

Waste classification for off-site disposal of soil or fill

Waste classifications are required for any excavated soil or fill material which is to be disposed off-site. Soil or fill material to be taken off-site for disposal shall be assessed in accordance with the NSW EPA Waste Classification Guidelines (2014).

Materials excavated from the site should be tracked from 'cradle to grave', in order to provide detailed and accurate information about the location and quantity of all materials both on and off-site from the time of their excavation until their disposal.

For any truck or bin leaving the site, the following information would be recorded:

- Origin of material;
- Material type;
- Approximate volume; and
- Truck and/or bin registration number.

For all soils known or having the potential to contain asbestos, the following applies:

The POEO Act defines 'asbestos waste' as any waste that contains asbestos, including fragments or fibres. It is understood that as a result, the NSW EPA considers asbestos contaminated soil to be an asbestos waste. In addition, the Protection of the Environment Operations (Waste) Regulation (2014) provides certain requirements for the transportation of asbestos. It is understood that the NSW EPA requires any management of soil containing asbestos waste on or off the site to be at least equal to controls set out by the Regulation.

All asbestos contaminated soil or fill leaving site will be transported in a leak proof covered vehicle and disposed of at a licensed facility in accordance with NSW EPA Waste Classification Guidelines (2014).

ASBESTOS ACTION PLAN (AAP)

Before ground disturbance takes place, asbestos-impacted fill material will be removed from the site surface and disposed of off-site as special waste (asbestos). The depth of the fill to be removed will be advised by a suitably qualified consultant and specified in the SWMS for the subject works. The following AAP will be utilised for these works, in addition to direction from an experienced occupational hygiene consultant.

IMPLEMENTATION

Responsibilities

A copy of this AAP will be kept on site at all times if asbestos is encountered during excavation works, and the project manager shall also be in possession of copies of this plan. Responsibilities are outlined in **Table 6** below.

Table 6. Summary of responsibilities

Position/ Organisation	Reports to	Summary of Responsibilities
The Client	SafeWork NSW	- Manage any asbestos removal in accordance with scope of works and contract. - Ensure Work Health and Safety (WHS) requirements for the site are met by all subcontractors including the Occupational Hygienist. - Supervise work by subcontractors.
Asbestos Removal Contractor	The Client	- Be licensed to undertake demolition and management of asbestos waste (ASA or ASB as required). - Undertake the works in accordance with the contract. - Undertake the works in a safe manner & ensure the environment and staff WHS is protected at all times during the works. - Implement measures outlined in the AAP.
Suitably qualified Consultant (e.g. occupational hygiene consultant / environmental scientist)	The Client	- Should be experienced with hazardous materials management, asbestos identification and risk assessment. - Provide environmental and WHS consulting services in accordance with contract. - Ensure works are undertaken in compliance with the AAP and prepare any final environmental report/s required.
Suitably licenced and qualified asbestos removal supervisor	Asbestos Removal Contractor	- Should hold a suitable supervisor licence and be employed by a suitably licenced asbestos removal company for friable or non-friable removals. - Prepare ARCPs and provide notification to regulator of licensable asbestos removal 5 days prior to work commencing. - Ensure works undertaken in compliance with the AAP and with relevant guidance to meet legislative requirements such as the SafeWork NSW Code of Practice: How to Safely Remove Asbestos (2022), and WA Department of Health Guidelines for Asbestos in Soils (2009).
Asbestos awareness trained specialist contractor.	The Client	- Undertake asbestos works in accordance to direct supervision from the licenced asbestos removalist supervisor, in the limited capacity of his or her specific role. - Ensure works are undertaken in compliance with the AAP

Training and awareness

All relevant site personnel will undergo a site induction prior to commencement to ensure that staff and contractors are adequately trained to recognise environmental aspects, hygiene and WHS issues. The induction will incorporate the activities required to manage contamination issues as detailed in this plan.

All employees undertaking work in and around asbestos removal should have, as a minimum, undertaken Asbestos Awareness training, undertaken by a competent individual, such as a suitably experienced occupational hygienist or hazardous materials consultant and record of this induction should be kept on file by the client.

Where possible, employees undertaking removal should have appropriate TAFE or other accredited training in friable or non-friable asbestos removal.

Communication

All complaints received will be referred to the client Authorised Person(s) who will adopt an appropriate course of action to manage and address the complainant's concerns in a timely manner.

Adjoining residents must receive at least 2 working days' notice prior to the commencement of asbestos removal works. All notifications to adjoining residents will include:

- The date and time when asbestos removal works will commence;
- The name, address and business hours telephone number of the client and the name and licence number of the asbestos removalist and the number for SafeWork NSW;
- Appropriate warning signs informing people nearby that asbestos removal work is occurring; and
- Appropriate barricades installed prior to commencement of removal works as appropriate to prevent public access and prevent escape of asbestos fibres.

PERFORMANCE CRITERIA

The performance criteria for asbestos excavation are:

- No discernible release of contaminated sediment into any waterway as a consequence of the works;
- No discernible release of dust and asbestos fibres into the atmosphere as a consequence of the works;
- No pollution incidents;
- All staff are aware of the requirements of relevant sections of documents to be adhered to; and
- Effective communication is maintained with statutory authorities and all statutory requirements are carried out to control impacts on the environment and prevent pollution.

DOCUMENT REVISION

This AAP is required to be reviewed annually and to be updated or amended when/where necessary. A table of revisions is included at the beginning of this document.

It is the responsibility of the client to ensure the AAP supplied to any person is the current updated or amended version.

It is the responsibility of the supervisor or person-in-charge of works proposed to be undertaken to ensure they have the current version of the AAP.

The up-to-date version of the AAP will be available from the client.

MANAGEMENT MEASURES AND MITIGATION STRATEGIES

Overview

This AAP is aimed at ensuring the health and safety of staff, contractors and visitors with regard to any fragments containing asbestos or potentially containing asbestos in or on the soil. The plan is to be implemented during all major works which comprises excavation and other subsurface works, construction/maintenance works which involve soil disturbance, construction and maintenance of subsurface services such as gas, electricity, stormwater, surface drainage, telephone cabling and water supply, installation of equipment (e.g. additional building foundations, extensions etc.) that require excavation of soils for placement of footings which are likely to disturb significant areas of vegetation and soil at the site where the fill has been identified to be impacted with fragments of ACM or potential ACM and friable asbestos fibres or potential friable asbestos fibres.

The objective of the plan is to describe procedures to minimise exposure of all site occupants to asbestos materials through the development and implementation of the management systems outlined herein.

It is the responsibility of the client to ensure that each time an action is undertaken in areas described above, that the action is recorded and signed off.

Asbestos impacted soil excavation works

When excavation works are carried out within the identified asbestos zones, works must be carried out under the direct supervision of a contractor holding an appropriate asbestos licence (either a Class A or Class B licence) from Safe Work NSW. The appropriate level of licence required is determined in consultation with the consultant prior to the engagement of the contractor. The consultant can be utilised to provide on-site support to ensure all works are conducted in accordance with the contractor's licensing conditions.

This will include putting the following measures in place to address potential impacts:

- Preparation of an ARCP. Details of what can be included in an ARCP, as provided in SafeWork NSW;
- Notification to SafeWork NSW five days prior to licensed asbestos removal works commencing;
- The area will be defined as containing asbestos and appropriate buffer zones (asbestos work area) will be established in accordance with the on-site recommendations of an independent NSW Licensed Asbestos Assessor (LAA) / qualified Occupational Hygienist such as Sydney Environmental Group;
- Wash bays should be installed on-site to prevent tracking of contaminated soil outside the buffer zone;
- All relevant site personnel will undergo a site induction prior to entering the asbestos work area to ensure that staff and contractors are adequately trained to recognise environmental aspects, hygiene and WHS issues. The induction will incorporate the activities required to manage contamination issues as detailed in this plan;
- A water supply is to be on site for dust suppression during loading;
- At the end of each day an inspection of the work area will be made to ensure no asbestos impacted material is loose outside of the excavation area;
- Appropriate personal protective equipment (PPE) will be used within the asbestos work area including disposable overalls, a minimum P2 respirator (dust mask) and gloves;
- A decontamination area will be installed on site to enable on-site personnel to remove any dust that may contain asbestos fibres. Overalls, P2 masks, gloves and any other potentially contaminated PPE or equipment must be disposed of or properly decontaminated before leaving the decontamination area;
- Water from wash down and decontamination units will be filtered prior to re-use on site;
- Continuous asbestos fibre monitoring will be conducted by an independent NSW Licensed Asbestos Assessor (LAA) / qualified Occupational Hygienist such as Sydney Environmental Group at the perimeter of the area and within excavator cabs and checked daily in accordance with Guidance Note on the Membrane Filter Method for Estimating Airborne Asbestos Fibres 2nd Edition [NOHSC: 3003(2005)], April 2005;
- If all material (and fill or soil) impacted with asbestos has been removed off site, an independent NSW Licensed Asbestos Assessor (LAA) / qualified Occupational Hygienist such as Sydney Environmental Group should be engaged to carry out a visual assessment of the excavation base and walls following the completion of the surface excavation works; and
- It should be noted that any disturbance of the subsurface including excavation works constitute asbestos removal works.

PERSONAL PROTECTIVE EQUIPMENT

PPE will be used to protect individuals from actual or potential exposure to asbestos fibres. All personnel within the work area are to wear the appropriate equipment consisting of disposable overalls and respiratory protection.

Personnel undertaking asbestos removal work must be supplied with, and use, PPE that is suitable for the work being undertaken. The type of PPE to be provided must be identified or approved by a competent person as part of the SWMS/JHA process.

- Normal safety glasses are suitable for performing minor asbestos removal work. Due to the irritating nature of synthetic mineral fibre (SMF), safety goggles are recommended.
- Disposable coveralls are the preferred PPE clothing to be provided wherever possible. Coveralls should be of a suitable standard to prevent tearing or penetration of asbestos fibres.

All disposable overalls must be disposed of at the end of each duration of work (exposure). The asbestos removalist will be responsible for the selection, introduction, maintenance training and use of PPE for all workers.

The licenced asbestos contractor management will be responsible for the provision of their PPE in accordance with the contract provisions. The selection of PPE will be determined as per the Code of Practice on how to safely removed asbestos. Worn or damaged PPE must be discarded and suitably replaced.

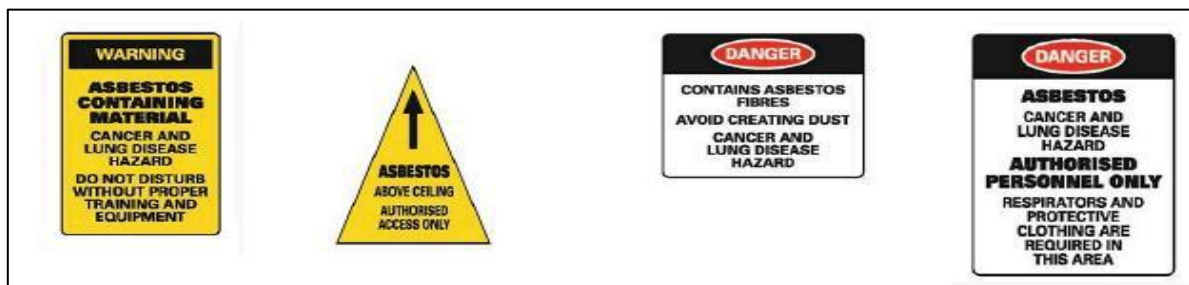
BARRICADING AND SIGNAGE

The project will ensure that all necessary measures are in place for the effective exclusion of unauthorised persons to areas undergoing asbestos removal.

All areas of a workplace that contain ACM, including plant, equipment or components, must be signposted with warning signs, or labels, as appropriate to ensure personnel are not unknowingly exposed to asbestos when undertaking operational activities.

Where removal work is being undertaken the work area must be barricaded to prevent unauthorised personnel entering the hazardous area.

The location, type and positioning of signs and labels must be decided, or authorised, by a competent person. Asbestos warning signs must comply with the requirements of AS 1319-1994 for size, illumination, location and maintenance. Warning signs may include some of the following examples:





APPENDIX E

Dust Management Plan



DUST MANAGEMENT PLAN

PURPOSE

The purpose of this Dust Management Plan (DMP) is to facilitate the ongoing implementation of dust control measures in order to minimize the generation and offsite migration of dust from the site.

SCOPE

The plan addresses:

- Sources of Dust;
- Dust management practices;
- Development of Dust Management Controls; and
- Ongoing Monitoring.

SOURCES OF DUST

Fugitive dust emissions may occur from the following sources at the site:

- Excavation / intrusive works;
- Onsite transfers of soil and building materials;
- Wind erosion of stockpiles;
- Wind erosion of cleared areas;
- Vehicle movements on paved and unpaved areas; and
- Combustion emissions from vehicles onsite.

DUST MANAGEMENT PROCEDURES

The following dust management procedures must be implemented during any works on site which may result in the generation of airborne dust particulates:

- Water carts must be used to regularly wet down exposed areas. One (1) water cart per 7.5 hectares of disturbed terrain is required, with contingency of additional water carts should site conditions warrant.
- A dust cloth / wind fencing must be installed along the perimeter of the site prior to the commencement of any intrusive / bulk excavation works.
- Consideration should be given to dust control at the source, such as machine mounted sprinklers, ground mounted water cannons where material is being excavated, loaded and placed and measures to ensure loads are covered. This is dependent on-site conditions.
- Heavy vehicles must always obey onsite speed limits.
- Stockpile management such as location, orientation, volume and height must be carefully considered to minimise impacts on neighbouring properties and adjacent roadway.
- Stockpiles should be covered with geofabric or plastic where warranted, dependent on current / forecasted onsite conditions and the duration of the stockpile.
- Final topsoil placement and planting or seeding exposed areas should be carried out as soon as possible.
- It is the responsibility of the site supervisor to check the relevant weather forecasts to predict adverse weather conditions that will allow for early action for dust management and to avoid dust generating activities when weather conditions are unfavourable.
- All site personnel should be educated on dust management procedures and reducing dust during induction / pre-start toolbox talks.

- All complaints relating to dust will be received, recorded, resolved and responded to by the Project Manager.

ONGOING MONITORING OF DUST AND CONTROLS

Based on the size of the site and proposed scope of works, there are no explicit requirements pertaining to the monitoring of airborne particulates (i.e. instrumental), other than periodic visual assessment of dust and the above mentioned controls by the project manager / site supervisor.

Should elevated airborne dust levels become evident, works should cease, and current controls reviewed / revised. This may include additional water carts / dust suppression techniques during dust generating works.



APPENDIX F

Construction Noise Management Plan





**Sydney
Environmental**
Group

Construction Noise Management Plan

25-55 Templar Road, Erskine Park NSW

Prime Constructions Pty Ltd & BlueScope Ltd

Report No: 2245-CNMP-01-250923.v2f

Report Date: 25 September 2023



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DOCUMENT RECORD

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Author Signature		Reviewer Signature	
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Title	Environmental Scientist	Title	Managing Consultant

Document Title:	Construction Noise Environmental Plan, 25-55 Templar Road, Erskine Park NSW
Site Address:	25-55 Templar Road, Erskine Park NSW
Client Name:	Prime Constructions Pty Ltd & BlueScope Ltd
Site Size:	≈ 10.3 ha
Reference Number:	2245-CNMP-01-250923.v2f
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Prepared by Sydney Environmental Group Pty Ltd ABN: 14 631 026 214

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FIGURES

Figure 1	Site Locality
Figure 2	Nearby Sensitive Noise Receptors



GLOSSARY OF TERMS

A list of the common abbreviations used throughout this report is provided below:

LA_{max}	Maximum Noise Level
ABL	Assessment Background Level
RBL	Rating Background Level
CNMP	Construction Noise Management Plan
NCA	Noise Catchment Area
NML	Noise Management Level
dBA	Decibels A
L_w	Sound Power Level
NPfI	Noise Policy for Industry
ICNG	Interim Construction Noise Guideline

1. INTRODUCTION

Sydney Environmental Group Pty Ltd (SE) was engaged by Prime Constructions Pty Ltd & BlueScope Ltd (the client), to prepare a Construction Noise Management Plan (CNMP) for the proposed development at 25-55 Templar Road, Erskine Park NSW (hereafter referred to as 'the site') (refer **Figure 1**).

SE has the following project appreciation:

- The site is comprised of Lot 3 DP1094504 encompassing an area of 10.3 ha;
- The site is proposed for redevelopment comprising expansion of carpark and construction of additional warehouses and associated offices for general industrial use; and
- A CNMP is required for submission with the Construction Environmental Management Plan.

SE were engaged to:

- Prepare a CNMP for the proposed construction activities of the client at the site.

The site identification details and associated information are presented in **Table 1.1.** below.

Table 1.1. Site Identification Information

Attribute	Description
Street Address	25-55 Templar Road, Erskine Park NSW
Lot and Deposited Plan (DP)	Lot 3 DP1094504
Geographical Coordinates	33°49'8.8"S 150°47'37.32"E (Centre of site)
Site Area	≈ 10.3 ha
Local Government Area (LGA)	Penrith City Council
Zoning	IN1 General Industrial (State Environmental Planning Policy (Industrial and Employment) 2021)

The locality of the site is set out in **Figure 1**.

The general layout and boundary of the site is set out in **Figure 2**.

1.1. Project Description

The proposed development consists of expansion of carpark and construction of a Metal Line Coating including additional warehouses and associated offices for general industrial use.

The purpose of this CNMP is to outline the potential noise impacts on the surrounding sensitive receivers from construction and operation of the development.

1.2. Operation Activities

In general, the proposed work hours are 7 am to 6 pm Monday to Friday and 8 am to 1 pm on Saturdays (including the warming up of plant / machinery or noise above conversation levels), with no construction work scheduled to take place on Sundays or public holidays. No out of hours work is proposed or expected for this development.

1.3. Nearest Sensitive Receptors

The area surrounding the development has been divided into two (2) Noise Catchment Areas (NCAs). The NCAs group together sensitive receptors with similar existing noise environments.

The NCAs and associated sensitive receptors are outlined in Table 1.1 below.

Table 1.1 Nearby Sensitive Receptors

NCA	Direction from Development	Description
NCA01	North, East and West	This NCA includes proposed receivers to the north, east and west of the development where noise is currently influenced by industrial noise from adjacent industrial sites. Local road traffic associated with vehicles and heavy motor vehicles are included in this NCA. The nearest sensitive receivers of this NCA include surrounding industrial warehouses. The closest residential receivers of this NCA are located approximately 850 m north of the site.
NCA02	South	This NCA includes proposed receivers to the south of the development where noise is currently influenced by industrial noise from adjacent industrial sites. Local road traffic associated with vehicles and heavy motor vehicles are included in this NCA. The nearest sensitive receivers of this NCA include surrounding industrial warehouses. The closest residential receiver of this NCA is a retirement village located approximately 715 m south of the site.

1.4. Development Consent Conditions

The existing Development Consent includes the following relevant Conditions relating to noise.

1.4.1. Hours of Work

B24. The applicant must comply with the following hours, unless otherwise agreed in writing by the Planning Secretary:

- *Earthworks and Construction: Monday – Friday (7 am to 6 pm) and Saturday (8 am to 1 pm)*

B25. Works outside of the hours identified in condition B24 may be undertaken in the following circumstances:

- *Works that are inaudible at the nearest sensitive receivers;*
- *For the delivery of materials required outside these hours by the NSW Police Force or other authorities for safety reasons; or*
- *Where it is required in an emergency to avoid the loss of lives, property or to prevent environmental harm.*

1.4.2. Construction Noise Limits

B26. The development must be constructed to achieve the construction noise management levels detailed in the Interim Construction Noise Guidelines (DECC, 2009) (as may be updated or replaced from time to time). All feasible and reasonable noise mitigation measures must be implemented and any activities that could exceed

the construction noise management levels must be identified and managed in accordance with the management and mitigation measures in Appendix B of the Construction Environmental Management Plan.

1.4.3. Construction Noise Management Plan

B27. The Applicant must prepare a Construction Noise Management Plan for the development to the satisfaction of the Planning Secretary. The Plan must form part of a CEMP in accordance with condition C2 and must:

- (a) Be prepared by a suitably qualified and experienced noise expert;*
- (b) Describe procedures for achieving the noise management levels in EPA's Interim Construction Noise Guideline (DECC, 2009) (as may be updated or replaced from time to time);*
- (c) Describe the measures to be implemented to manage;*
 - i. high noise generating works (such as piling);*
 - ii. potential vibration impacts to nearby properties; and*
- (d) Include a complaints management system that would be implemented for the duration of the development.*

B28. The Applicant must:

- (a) Not commence construction of any relevant stage of the development until the Construction Noise Management Plan required by condition B27 is approved by the Planning Secretary; and*
- (b) Implement the most recent version of the Construction Noise Management Plan approved by the Planning Secretary for the duration of construction.*

1.4.4. Operational Noise Limits

*B29. The Applicant must ensure that noise generated by operation of the development does not exceed the noise limits listed in **Table 1.2** below.*

Table 1.2 Noise Limits (dB(A))

Location	Day (L _{Aeq} (15 minute))	Evening (L _{Aeq} (15 minute))	Night (L _{Aeq} (15 minute))
All Residential Receivers	40	35	35
Industrial Receivers	68		

1.4.5. Operational Noise Verification Report

B30. Within three (3) months of the completion of commencement of operation for the development, the Applicant must prepare and submit a noise verification report for the development. The noise verification report must:

- (a) Be prepared in consultation with the EPA;*
- (b) Be prepared to the satisfaction of the Planning Secretary;*
- (c) Demonstrate that noise verification has been carried out by a suitably qualified and experienced acoustic consultant in accordance with:*
 - i. The Australian Standard AS 1055:2018 Acoustics – Description and measurement of environmental noise (Standards Australia, 2018); and*
 - ii. The EPA Approved Methods for the Measurement and Analysis of Environmental Noise in NSW (EPA, 2022);*
 - iii. The monitoring and reporting requirements detailed in Section 7 of the Noise Policy for Industry (EPA, 2017);*
- (d) Include:*
 - i. An analysis of compliance with noise limits specified in condition B29;*
 - ii. An outline of management actions to be taken to address any exceedances of the limits specified in condition B29; and*
 - iii. A description of contingency measures in the event management actions are not effective in reducing noise levels to an acceptable level.*

2. EXISTING ENVIRONMENT

2.1. Prevailing Weather Conditions

Certain meteorological/weather conditions can increase noise levels. This can occur during temperature inversions (where temperature increases with height above ground level), or where there is a wind gradient (where wind speed increases with height).

In order to determine the prevailing weather conditions for the development area, twelve (12) months of weather data was obtained from the Bureau of Meteorology automatic weather station at Horsley Park Equestrian Centre AWS (ID: 067119), located approximately 6 km south-east of the site. This data was analysed to determine the frequency of noise-enhancing wind and temperature inversion conditions which may affect noise levels at the site.

2.1.1. Wind

Wind has the potential to increase noise at a receiver when it is light and stable and blows from the direction of the source of noise to the receiver. At higher wind speeds, the noise produced by the wind can obscure noise generated from industrial and transport sources.

Wind effects need to be considered where wind is a feature of the project area. The measured weather data was analysed to determine the frequency of occurrence of wind speeds up to 3 m/s in each period. The results of the wind analysis for the daytime, evening and night-time periods are presented in **Table 2.1**, **Table 2.2** and **Table 2.3**, respectively. In each table, the wind direction and percentage occurrence are those dominant during each season.

Table 2.1 Seasonal Frequency of Occurrence of Wind Speed Intervals in 2016 - Daytime

Season	Dominant Wind Direction	Frequency of Occurrence (%)			
		Calm	Up to 2 m/s	2 to 3 m/s	Up to 3 m/s
Annual	N	10.2	14.7	5.7	20.4
Summer	NNE	11.2	14.3	7.3	21.6
Autumn	N	10.9	15.9	5.9	21.8
Winter	NW	12.8	18.8	5.6	24.4

Table 2.2. Seasonal Frequency of Occurrence of Wind Speed Intervals in 2016 - Evening

Season	Dominant Wind Direction	Frequency of Occurrence (%)			
		Calm	Up to 2 m/s	2 to 3 m/s	Up to 3 m/s
Annual	N	17.8	9.1	6.1	15.2
Summer	NNE	9.5	10.4	10.3	20.8
Autumn	N	25.4	12.1	6.3	18.4
Winter	NW	24.1	15.3	8.2	23.5

Table 2.3. Seasonal Frequency of Occurrence of Wind Speed Intervals in 2016 – Night Time

Season	Dominant Wind Direction	Frequency of Occurrence (%)			
		Calm	Up to 2 m/s	2 to 3 m/s	Up to 3 m/s
Annual	N	37.8	17.9	8.7	26.6
Summer	NNE	42.0	18.7	8.8	27.5
Autumn	N	44.0	21.0, 20.7	10.6, 9.7	31.6, 30.3
Winter	NW	32.1	17.6	9.9	27.5

The above indicates that during the daytime and evening periods, winds of up to 3 m/s did not exceed the 30 % threshold during any season. However, the 30 % threshold was exceeded during the night-time period in autumn, in both the SW and WSW directions.

On this basis, assessment of noise-enhancing weather during the daytime and evening periods is not required, although consideration of noise-enhancing conditions (wind) for night time operations is required.

2.1.2. Temperature Inversions

Temperature inversions have the ability to increase noise levels by focusing sound waves towards sensitive receivers. Temperature inversions occur predominantly at night-time when the atmosphere is stable and temperatures are cooler. For a noise-enhancing temperature inversion to be a significant characteristic of the area, the NPfI requires it to occur for at least 30 % of the total night-time during any one season. This equates to approximately two (2) nights per week.

There are seven (7) atmospheric stability classes, ranging from extremely unstable (A) to extremely stable (G), as outlined below in **Table 2.4**.

Table 2.4 Description of Atmospheric Stability Classes

Atmospheric Stability Class	Category Description
A	Extremely unstable
B	Moderately unstable
C	Slightly unstable
D	Neutral
E	Slightly stable
F	Moderately stable
G	Extremely stable

The measured weather has been analysed to determine frequency of occurrence of each stability class and is presented below in **Table 2.4**. Noise enhancing temperature inversions are categorised as atmospheric stability Class F or Class G.



Table 2.5 Night Time Stability Class Distribution - 2016

Stability Class	Frequency of Occurrence (%)				
	Annual	Summer	Autumn	Winter	Spring
A	0.0	0.0	0.0	0.0	0.0
B	0.0	0.0	0.0	0.0	0.0
C	0.0	0.0	0.0	0.0	0.0
D	39.5	37.4	34.7	45.2	41.5
E	12.0	11.7	10.5	12.4	13.6
F	12.9	11.2	13.7	14.0	12.9
G	35.5	39.7	41.1	28.5	32.0
F+G	48.4	50.9	54.8	42.4	44.9

The above indicates that temperature inversions of Class F or Class G occur more than 30 % of the night time period during all four (4) seasons. Therefore, noise-enhancing temperature inversions are required to be included in the assessment of noise impacts during the night time period.

3. CONSTRUCTION NOISE CRITERIA

The Interim Construction Noise Guideline (ICNG) provides the noise goals for construction noise to be achieved for the Project.

All construction works will be carried out during the daytime period only and it is expected that the approval will typically condition standard construction hours. Standard construction hours per the ICNG are typically Monday to Friday 7.00am-6.00pm, and Saturday 8.00am-1.00pm.

On this basis and specifically for residences, the construction Noise Management Level (NML) is that the noise should not exceed the RBL by more than 10 dBA.

It should be noted, the NML are considered as guidelines and not necessarily numeric noise levels to be complied with. The ICNG also prescribes a noise limit of 75 dBA. This limit represents the likelihood of a strong reaction from surrounding receivers. Error! Reference source not found.. presents the applicable noise management levels for non-residential receivers.

Table 3.1 Construction NML for Non-Residential Receivers, L_{Aeq} , 15 min dBA

Land Use	Period	NML
Industrial Premises	When in Use	External 75 dBA

3.1. Modelled Noise Sources

Noise sources including onsite vehicle movements have been modelled for construction activities. As details of specific items and exact usage of warehouse facilities are not yet known, a conservative approach to modelling has been conducted.

The following noise level data for vehicle-related noise sources has been used for the assessment.

Table 3.2 Operational Noise Sound Power Levels

Noise Source	Noise Characteristic	Sound Power Level
Forklift operational on hardstand	Quasi-steady	93 L_{Aeq}
Light vehicles on site, up to speed of 40 km/h	Quasi-steady	90 L_{Aeq}
Heavy Vehicle ¹ @ 25 km/h	Quasi-steady	106 L_{Aeq}
Heavy Vehicle ¹ @ 5 km/h	Quasi-steady	111 L_{Aeq}

Notes to Table:

1 – Heavy vehicle defined as any cargo vehicle with three or more axles with gross vehicle weight > 12,000 kg.

3.2. Modelled Line Sources

Light vehicles are represented as line sources travelling 40 km/hr with a sound power level (L_w) of 90 dBA and a height of 0.5 m.

Heavy vehicle traffic movements on the access handle are represented as line sources travelling 25 km/hr with a L_w of 106 dBA.

Heavy vehicle movements over hardstand and loading areas have been modelled travelling at 5 km/hr with a L_w of 106 dBA, respectively. Locations where vehicles require greater engine capacity, such as accelerating from a stationary position, cornering, or accessing entry/exit ramps have been modelled as line sources travelling 5 km/hr with a L_w of 111 dBA for heavy vehicles.

Heavy vehicles reversing into delivery docks, including reversing alarm and airbrake release have been modelled as a single line source with L_w of 115 dBA, respectively. Duration of heavy vehicle reversing is assumed to be not greater than 30 seconds and includes reversing alarm and air-break release events.

Source height for medium and heavy vehicles is 1.5 m with the exception of the reversing alarm and air-brake release modelled at 1 m.

3.3. Modelled Fix Sources

Mechanical plant serving the proposed development will require review to determine potential noise impacts prior to issue of a construction certificate. Upon final selection, noise emissions from plant to be installed should be compared with the project noise trigger levels listed in **Table 3.2**. Considerations must be made such that the cumulative noise emissions from mechanical plant and other operational noise sources do not exceed the project noise trigger level.

3.4. Sleep Disturbance

As the Project proposes to operate 24 hours per day, noise emissions during the night time period require an assessment for potential sleep disturbance at the nearest noise sensitive receivers. A summary of the L_{Amax} sound power levels of typical activities that may occur at the facility with the potential to cause sleep disturbance is presented in **Table 3.3**.

Table 3.3 Sleep Disturbance Noise Events

Noise Source	L_w L_{Amax}	Source Height (m)
Truck Engine Starting	100	2
Reversing Alarm	111	1
Roller Door	94	4
Forklift loading / unloading	100	2
Air Brake Release	115	1

Review of **Table 3.3**. indicates that air brake release could have the greatest impact on sleep disturbance if residential receivers were applicable to the site.

3.5. Recommended Mitigation and Management

Although noise predictions have indicated compliance with the noise trigger levels, appropriate noise mitigation and management measures should be implemented to ensure noise impacts from the Project is minimal. These could include:

- Turning off all engines when not required;
- Where possible, schedule heavy vehicle movements to day and/or evening periods;
- Minimise use of reversing alarms or alternatively installing “squawkers” for forklifts;
- Training of staff and employers should include noise awareness component, community consultation and response to complaints; and
- Keeping roller shutter doors closed when not in use.

3.6. Community Consultation

Notification detailing work activities, dates and hours, impacts and mitigation measures, indication of work schedule over the night time period (if applicable), any operational noise benefits from the works (where applicable) and contact telephone number.

The notification should be a minimum of seven (7) calendar days prior to the start of works. For projects other than maintenance works more advanced consultation or notification may be required.

4. CONSTRUCTION NOISE ASSESSMENT

4.1. Noise Modelling

Construction is proposed to only occur during the standard hours and so only daytime predictions have been completed.

4.2. Construction Equipment Noise Source Levels

At this stage, a detailed list of equipment likely to be used during the construction project was not provided.

Therefore, based on experience from similar projects, the construction project is divided into three separate work stages. The typical equipment expected to be used is also assumed in each construction stage. The stages and assumptions include:

- Stage 1: Site Clearing, Demolition, and Earthworks
 - Typical plant will be dozer/front end loader, haul trucks, and excavators
 - It has been assumed that no rock-breaking would be required.
 - Total sound power level for such works is typically 112 dBA to 118dBA
- Stage 2: Concrete Works
 - Bored piling/auger expected in this stage initially
 - Concrete trucks and pumps will largely dominate the main works in this stage
 - Total sound power level for such works is typically 105dBA to 109dBA for bored piling but during the concreting part of this stage, typically 108dBA to 115dA is expected depending on the number of teams of trucks and pumps.
- Stage 3: Building Construction
 - This stage is largely expected to include truck deliveries, cranes, and the use of elevated platforms and powered hand tools.
 - There will be up to several teams on each warehouse with expected sound power levels of 108dBA to 114dBA expected with some of the work elevated to greater than 10m when roofing works are being conducted.

Given the early stage of the Project, preliminary assumptions to provide noise predictions are provided in **Table 4.1**.

Table 4.1 Indicative Construction Noise Source Levels, $L_{Aeq, 15min}$ dBA

Stage	Total Sound Power Level
Stage 1 – Site clearing, demolition, and earthworks	118
Stage 2 – Concrete works	115
Stage 3 – Building construction	114

4.3. Predicted Construction Noise Levels

Predictions assume a “typical worst-case” scenario whereby all the plant is running continuously. As such, the impact predictions represent the likely noise levels that would occur during intensive periods of construction.

The presented noise levels can be considered in the upper range of noise levels that can be expected at surrounding receivers when the various construction stages occur.

Based on the above, resultant noise levels at receivers have been predicted, as shown in **Table 4.2**. **Table 4.2** indicates that construction noise levels are expected to comply with the relevant NMLs at all representative receivers.

Table 4.2 Construction Noise Predictions, $L_{Aeq, 15min}$ dBA

Receiver ID	Predicted Noise Level			NML Daytime
	Heavy Vehicle			
	Total			
	Stage 1	Stage 2	Stage 3	
NCA01	70	67	66	75
NCA02	70	67	66	75

4.4. Construction Noise Management

4.4.1. Noise Management Control

The predicted noise levels comply with the NMLs for all receivers. However, noise management control measures should be implemented in order to minimise and prevent impacts on the surrounding receivers.

Prior to commencement of works, it is recommended that a Construction Noise and Vibration Management Plan (CNVMP) should be prepared and implemented in accordance with the requirements of the ICNG, and the recommendations documented herein. The CNVMP should take into consideration measures for reducing the source noise levels of construction equipment by construction planning and equipment selection where practicable. Reasonable and feasible noise mitigation measures should be outlined to reduce the noise impact from construction activities. The following preliminary controls are recommended:

- Site Induction Training – Training should include noise awareness component, community consultation and response to complaints as provided in the CNVMP.
- Operator Instruction – Operators should be trained in order to raise their awareness of potential noise problems and to increase their use of techniques to minimise noise emission.
- Site Noise Planning – Where practical, the layout and positioning of fixed noise-producing plant and activities away from the nearby receivers.
- Scheduling – Where practical, minimise the number of tools and machines operating simultaneously.
- Plant Equipment – Where possible, plant and equipment with a low sound power level should be selected while still maintaining efficiency of function.

4.4.2. Community Consultation

Consultation with and the provision of information to the surrounding community is regarded as a major factor in controlling the negative reaction to the inevitable impacts associated with construction works. Contact details should be prominently displayed on the site boundary fence.

4.4.3. Response to Complaints

Should ongoing complaints of excessive noise and vibration impacts occur, measures shall be undertaken to investigate the complaint, the cause of the complaint identified and changes to work practices implemented by the contractor.

Documentation and training of site staff shall occur to ensure the practices that produced the exceedances are not repeated. If a noise and vibration complaint is received the complaint should be recorded. The complaint form should list:

- The name and location of the complainant (if provided) as well as the time, date and nature of the complaint received.
- The name of the employee who received the complaint, actions taken to investigate the complaint, and a summary of the results of the investigation.
- Required remedial action, if required.
- Validation of the remedial action by a site manager.

- Summary of feedback to the complainant.

A permanent Register of Complaints should be held. All complaints received should be fully investigated and reported to management. The complainant should also be notified of the results and actions arising from the investigation.

The investigation of a complaint shall involve where applicable:

- Measurements at the affected receiver;
- An investigation of the activities occurring at the time of the incident;
- Inspection of the activity; and
- Whether work practices were being carried out either within established guidelines or outside these guidelines.

5. CONCLUSION

The noise emissions from operation and construction of the project will require an initial round of background noise monitoring to be undertaken in order to present more accurate site-specific noise trigger values.

Presuming background noise concentrations do not significantly alter the noise trigger values, noise emissions will likely comply with relevant regulatory guidelines.

As such, it is expected that the noise impacts from the development of the project is low. An initial round of background noise monitoring should be undertaken prior to the start of the project.

6. STATEMENT OF LIMITATIONS

The findings presented in this plan are based on information provided by the client, specific searches of relevant, government historical databases and anecdotal information that were made available during the course of this investigation. To the best of our knowledge, these observations represent a reasonable interpretation of the general condition of the site at the time of report completion.

This plan has been prepared solely for the use of the client to whom it is addressed, and no other party is entitled to rely on its findings.

No warranties are made as to the information provided in this plan. All conclusions and recommendations made in this plan are of the professional opinions of personnel involved with the project and while normal checking of the accuracy of data has been conducted, any circumstances outside the scope of this report or which are not made known to personnel and which may impact on those opinions is not the responsibility of Sydney Environmental Group Pty Ltd. Should information become available regarding conditions at the site including previously unknown sources of contamination, SE reserves the right to review the plan in the context of the additional information.

This plan must be reviewed in its entirety and in conjunction with the objectives, scope and terms applicable to SE's engagement. The plan must not be used for any purpose other than the purpose specified at the time SE was engaged to prepare the plan.

Logs, figures, and drawings are generated for this report based on individual SE consultant interpretations of nominated data, as well as observations made at the time site walkover/s were completed.

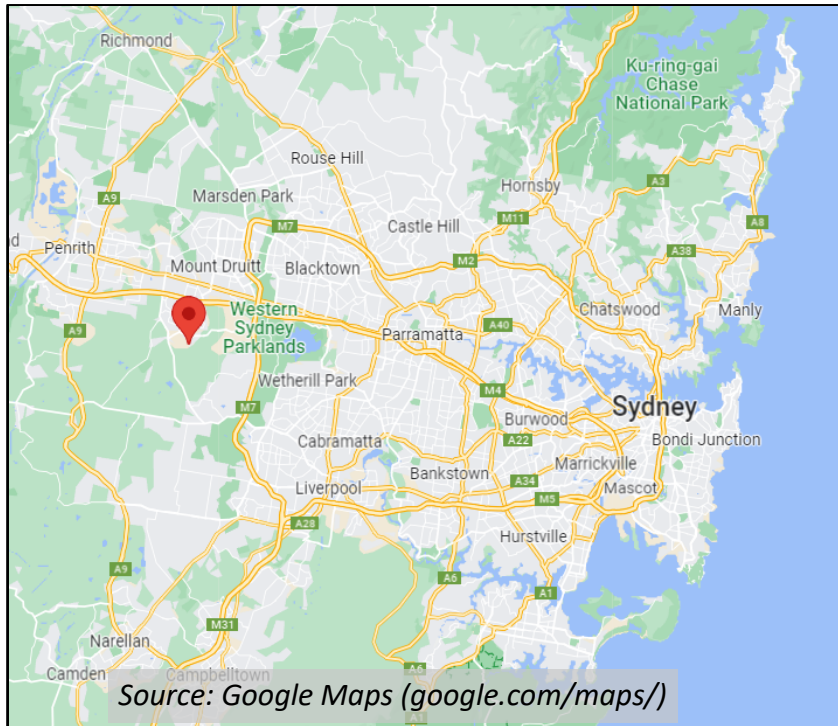
Data and/or information presented in this report must not be redrawn for its inclusion in other plans or documents, nor should that data and/or information be separated from this report in any way.

Should additional information that may impact on the findings of this plan be encountered or site conditions change, SE reserves the right to review and amend this plan.



FIGURES





**Sydney
Environmental**
Group

Scale: 50 m

Site Locality and Layout

Client Name: Prime Constructions Pty Ltd & BlueScope Ltd
Project Name: Construction Noise Management Plan
Project Location: 25-55 Templar Road, Erskine Park NSW



Figure Number: 1
Figure Date: 25 September 2023
Report Number: 2245-CNMP-01-250923.v2f



**Sydney
Environmental**
Group

Scale: 507 m

Site Layout

Client Name: Prime Constructions Pty Ltd & Bluescope Ltd

Project Name: Construction Noise Management Plan

Project Location: 25-55 Templar Road, Erskine Park NSW



Figure Number: 2

Figure Date: 25 September 2023

Report Number: 2245-CNMP-01-250923.v2f



Western Sydney Service Centre – Erskin Park MCL 7 Construction Noise Monitoring

Noise Compliance Monitoring - 2024

BlueScope Steel Ltd.

25-55 Templar Road
Erskine Park NSW 2759

Prepared by:

SLR Consulting Australia

SLR Project No.: 610.06077.01103

12 August 2024

Revision: 0.1

Revision Record

Revision	Date	Prepared By	Checked By	Authorised By
v0.1	12 August 2024	Jonathan Caine	Aaron McKenzie/ Martin Davenport	DRAFT
	Click to enter a date.			
	Click to enter a date.			
	Click to enter a date.			
	Click to enter a date.			

Basis of Report

This report has been prepared by SLR Consulting Australia (SLR) with all reasonable skill, care and diligence, and taking account of the timescale and resources allocated to it by agreement with BlueScope Steel Ltd. (the Client). Information reported herein is based on the interpretation of data collected, which has been accepted in good faith as being accurate and valid.

This report is for the exclusive use of the Client. No warranties or guarantees are expressed or should be inferred by any third parties. This report may not be relied upon by other parties without written consent from SLR.

SLR disclaims any responsibility to the Client and others in respect of any matters outside the agreed scope of the work.



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1.0 Introduction

SLR Consulting Australia Pty Ltd (SLR) has been engaged by BlueScope Steel Limited (BlueScope) to carry out noise compliance monitoring for construction works in relation to the Metal Coating Line Number 7 (MCL7) at its Western Sydney Service Centre (WSSC) located at 55 Templar Road, Erskine Park.

The noise survey is required to determine compliance with the requirements of Condition B36 of the Development Consent (SSD-45510464) are achieved at two receivers near the site:

- R01: An industrial receiver located at 57 Templar Road, Erskine Park, adjacent to the southern boundary of the WSSC.
- R02: Emmaus Retirement Village (residential) located at 85 Bakers Lane, Kemps Creek. This receiver is located around 720 m to the south of the WSSC.

This report presents the methodology, results and findings of the noise monitoring survey for the monitoring period 24 July 2024 to 7 August 2024.

A summary of acoustic terminology used within this report is provided in Appendix A.

2.0 Site Layout, Surroundings and Noise Monitoring Locations

The site is located at 55 Templar Road, Erskine Park, NSW. The facility is surrounded by other industrial developments and is approximately 720 m away from the nearest residential receivers at Emmaus Retirement Village to the south and approximately 780 m from the nearest residential receivers to the north. An aerial photograph displaying the proximity of the WSSC to the nearest potentially affected receivers is shown in Figure 1.





Data Source: Nearmap Imagery July 2024



Coordinate System: GDA 1994 MGA Zone 56
Scale: 1:6,000 at A4
Project Number: 610.06077
Date Drawn: 8/9/2024
Drawn by: DC

LEGEND

-  Noise Monitoring Locations
-  WSSC Site Boundary

BLUESCOPE WSSC

**PROJECT SITE AND
NOISE MONITORING
LOCATIONS**



DISCLAIMER: All information within this document may be based on external sources. SLR Consulting Pty Ltd makes no warranty regarding the data's accuracy or reliability for any purpose.

FIGURE 1

3.0 Noise Assessment Criteria

The WSSC is currently operating under the Environment Protection Authority (EPA) Environment Protection Licence (EPL) No. 12495 (amended under Licence Variation 1551518 dated 27 April 2017). The relevant noise criteria as defined in Section L4 of EPL No. 12495 are reproduced below:

B26. The development must be constructed to achieve the construction noise management levels detailed in Interim Construction Noise Guideline (DECC, 2009) (as may be updated or replaced from time to time). All feasible reasonable noise mitigation measures must be implemented and any activities that could exceed the construction noise management levels must be identified and managed in accordance with the management and mitigation measures in Appendix 2.

A CNMP for MCL7 construction works was prepared by Sydney Environmental Group (ref:2245-CNMP-01-250923.v2f) and with reference to the ICNG provides the construction noise management levels (NML) as shown in Table 1.

In the absence of background ambient noise monitoring in the vicinity of Emmaus Retirement Village prior to construction works commencing, a minimum Rating Background Level (RBL) of 35 dBA in accordance with the NSW EPA Noise Policy for Industry (NPfI) has been applied. This is considered to be a conservative approach given the proximity of the Emmaus Retirement Village to the surrounding road network and nearby industrial districts.

Table 1 Construction NML LAeq(15minute) dBA

Land Use	Period	NML (dBA)
Residential	Day	45 ¹
Industrial Premises	When in use	75
Note 1: Minimum NPfI daytime RBL of 35 dBA has been adopted.		

4.0 Noise Monitoring Survey and Equipment

Noise monitoring was conducted during construction works at the monitoring locations shown in Figure 1. Real-time noise monitoring equipment was installed on 24 July 2024 at two (2) locations around the project site to measure airborne noise representative of the nearest industrial and residential receivers to the south of the project site. The reported noise monitoring period is from 24 July 2024 to 7 August 2024.

The real-time noise monitoring portal available with the equipment allows for Multiplex to receive email and text notifications if the noise levels exceed the relevant NMLs.

Table 2 Monitoring Locations

Monitoring Location	Address	Approx. Distance to Works
R01	57-65 Templar Road, Erskine Park	<20 m
R02	85 Bakers Lane, Kemps Creek	780 m

4.1 Noise Equipment

The noise levels were continuously monitored using a SiteHive Hexanode, which included the measurement of the LA90, LA10, LAmax and LAeq noise descriptor over the 15-minute measurement duration.



The monitored levels were analysed for the period 7:00 am to 6:00 pm Monday to Friday and 8:00 am to 1:00 pm Saturday, standard construction hours as described by the ICNG.

The noise monitoring equipment was setup to measure A-weighted and Fast-response noise levels. The microphones were mounted at a height of 1.5 m above ground level.

Monitoring equipment details are listed in Table 3.

Table 3 Noise Monitoring Equipment Details

Location	Monitoring dates	Equipment details	Representative photo
R01 Lat:-33.820923 Long: 150.79463	24/7/2024 to 7/8/2024	SiteHive Hexanode (HEX-000 600)	
R02 Lat:-33.82705 Long: 150.7926	24/7/2024 to 7/8/2024	SiteHive Hexanode (HEX- 000594)	



The monitored levels include the $L_{Aeq(15\text{minute})}$ descriptor, which is equivalent to the total sound energy occurring during the 15-minute period and can be thought of as an ‘average’ noise level for the monitoring period.

Attended noise measurements were conducted at the monitoring locations using a Brüel and Kjær 2250L Type 2 Sound Level Meter (S/N: 3004636).

Attended monitoring instrumentation used was Class 1 compliant in accordance with the requirements of AS/NZS IEC 61672.1:2019 *Electroacoustics-Sound level meters Part 1: Specifications* and was fitted with a microphone windshield. Reference field checks of the equipment calibration were performed prior to and following the measurements, with the drift in calibration not exceeding ± 1 dB (as required by AS 1055).

A summary of the results of the attended noise measurements is provided in Table 4.

Table 4 Attended Noise Monitoring Results

Location / Start Date & Time / Weather	Primary Noise Descriptor (dBA re 20 μ Pa)					Description of Noise Levels, Observed Instantaneous Noise Levels (dBA)
	L_{Amax}	L_{A1}	L_{A10}	L_{A90}	L_{Aeq}	
R01 23/07/2024 1:44 pm 18 C 1.2 m/s NW	88	76	63	52	62	Excavator: 60-63 Traffic: 66-78 Truck Air Brake: 88 Birdsong: 62-63
R02 23/07/2024 2:47 pm 19 C 0.4 m/s W	64	56	45	39	44	Birds 43-64 Roadworks to south 42-43 Urban/Industrial Hum 39

Attended noise measurements conducted at R01 during the daytime on 23 July 2024 indicate that the noise environment is dominated by the project site works, local industrial noise and traffic on Templar Road.

Attended noise measurements conducted at R02 indicate that the noise environment is dominated by birdsong, local roadworks to the south of the village and urban hum contributing to the background noise level.

5.0 Noise Monitoring Results

Daily graphs showing the statistical ambient noise levels at each location are graphically presented in Appendix B.

Measurement periods affected by inclement weather conditions (wind and rain) have been excluded from the unattended noise monitoring data (shaded in grey) using weather data from the nearest Bureau of Meteorology weather station located in Horsely Park Equestrian Centre, Horsely Park ID 067119 in accordance with Noise Policy for Industry data exclusion methodology.

The daily graphs show the overall ambient measured noise levels: that is the noise level containing all measurable noise sources within the surrounding environment, and in many



instances, a combination of multiple noise sources contributing to an overall noise level greater than a single source alone.

The unattended ambient noise measurements obtained at monitoring locations R01 and R02 were used to determine the $L_{Aeq(15\text{minute})}$ noise levels during the standard construction hours described by the ICNG. A summary of the unattended measurement results is provided in Table 5.

Table 5 Summary of Measured Noise Levels During Construction Hours

Location	Monitoring Period	Noise Level $L_{Aeq(15\text{minute})}$ dBA				Comments
		NML L_{Aeq} 15minute	Range of measured L_{Amax}	Range of measured L_{Aeq}	Range of measured L_{A90}	
R01	24/07/2024 to 7/08/2024	70	63-94	51-70	46-64	Measured levels influenced by MCL 7 construction
R02		45	51-101	39-79	36-50	Ambient environment influenced by local noise sources

R01 results indicates that overall noise levels are below the NML at the monitoring location indicative of the nearest industrial receiver.

R02 results in table 5 and the daily noise level graphs included in Appendix B indicate an ambient noise environment which is typically louder than the NML..

Taking into account distance and barrier attenuation from intervening buildings, the noise levels at R01 have been used to calculate the likely construction noise level at R02. Based on this, noise levels of up to 35 dBA have been predicted at R02.

Review of peak noise events at R02 did not indicate a correlation with high noise events recorded at R01. As a result, noise levels above 45 dBA at R02 are considered to be due to local noise sources closer to R02 such as fauna and local activities at the village.

Based on the observed noise sources and calculated attenuated noise levels calculated from measurement data R01 construction noise levels are not expected to have been above the NML at R02.

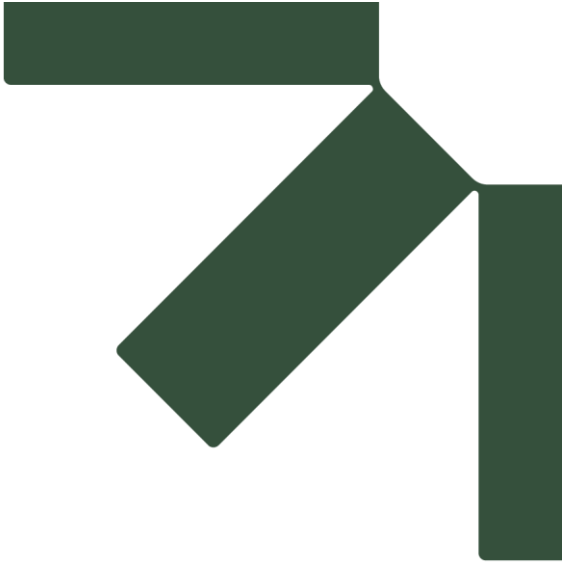
6.0 Conclusion

Noise monitoring was undertaken at locations representative of the nearest noise sensitive receivers to the south of the construction of the BlueScope MCL7 Western Sydney Service Centre over the monitoring period 24 July to 7 August 2024.

The long-term unattended monitoring of noise levels at 55-65 Templar Road, Erskine Park (Location R01) was found to not exceed the NMLs during the monitoring period.

The Emmaus Retirement Village monitoring (Location R02) was found to have elevated ambient noise levels above the NML however these levels are not related to construction activity at BlueScope.





Appendix A Acoustic Terminology

Western Sydney Service Centre – Erskin Park MCL 7 Construction Noise Monitoring

Noise Compliance Monitoring - 2024

BlueScope Steel Ltd.

SLR Project No.: 610.06077.01103

12 August 2024

Sound Level or Noise Level

The terms 'sound' and 'noise' are almost interchangeable, except that 'noise' often refers to unwanted sound.

Sound (or noise) consists of minute fluctuations in atmospheric pressure. The human ear responds to changes in sound pressure over a very wide range with the loudest sound pressure to which the human ear can respond being ten million times greater than the softest. The decibel (abbreviated as dB) scale reduces this ratio to a more manageable size by the use of logarithms.

The symbols SPL, L or LP are commonly used to represent Sound Pressure Level. The symbol LA represents A-weighted Sound Pressure Level. The standard reference unit for Sound Pressure Levels expressed in decibels is 2×10^{-5} Pa.

'A' Weighted Sound Pressure Level

The overall level of a sound is usually expressed in terms of dBA, which is measured using a sound level meter with an 'A-weighting' filter. This is an electronic filter having a frequency response corresponding approximately to that of human hearing.

People's hearing is most sensitive to sounds at mid frequencies (500 Hz to 4,000 Hz), and less sensitive at lower and higher frequencies. Different sources having the same dBA level generally sound about equally loud.

A change of 1 dB or 2 dB in the level of a sound is difficult for most people to detect, whilst a 3 dB to 5 dB change corresponds to a small but noticeable change in loudness. A 10 dB change corresponds to an approximate doubling or halving in loudness. The table below lists examples of typical noise levels.

Sound Pressure Level (dBA)	Typical Source	Subjective Evaluation
130	Threshold of pain	Intolerable
120	Heavy rock concert	Extremely noisy
110	Grinding on steel	
100	Loud car horn at 3 m	Very noisy
90	Construction site with pneumatic hammering	
80	Kerbside of busy street	Loud
70	Loud radio or television	
60	Department store	Moderate to quiet
50	General Office	
40	Inside private office	Quiet to very quiet
30	Inside bedroom	
20	Recording studio	Almost silent

Other weightings (eg B, C and D) are less commonly used than A-weighting. Sound Levels measured without any weighting are referred to as 'linear', and the units are expressed as dB(lin) or dB.

Sound Power Level

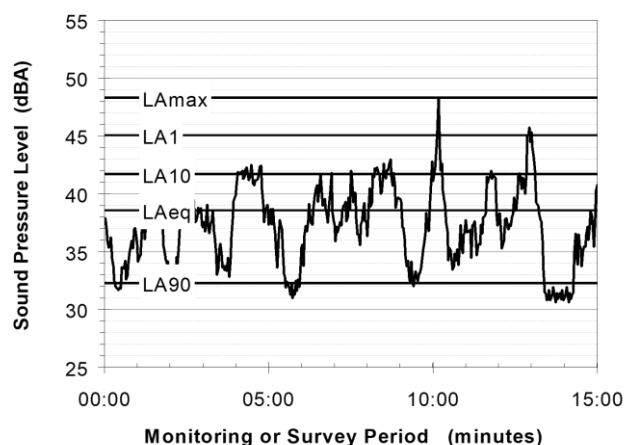
The Sound Power of a source is the rate at which it emits acoustic energy. As with Sound Pressure Levels, Sound Power Levels are expressed in decibel units (dB or dBA), but may be identified by the symbols SWL or LW, or by the reference unit 10^{-12} W.

The relationship between Sound Power and Sound Pressure is similar to the effect of an electric radiator, which is characterised by a power rating but has an effect on the surrounding environment that can be measured in terms of a different parameter, temperature.

Statistical Noise Levels

Sounds that vary in level over time, such as road traffic noise and most community noise, are commonly described in terms of the statistical exceedance levels LAN, where LAN is the A-weighted sound pressure level exceeded for N% of a given measurement period. For example, the LA1 is the noise level exceeded for 1% of the time, LA10 the noise exceeded for 10% of the time, and so on.

The following figure presents a hypothetical 15 minute noise survey, illustrating various common statistical indices of interest.



Of particular relevance, are:

- LA1 The noise level exceeded for 1% of the 15 minute interval.
- LA10 The noise level exceeded for 10% of the 15 minute interval. This is commonly referred to as the average maximum noise level.
- LA90 The noise level exceeded for 90% of the sample period. This noise level is described as the average minimum background sound level (in the absence of the source under consideration), or simply the background level.
- LAeq The A-weighted equivalent noise level (basically, the average noise level). It is defined as the steady sound level that contains the same amount of acoustical energy as the corresponding time-varying sound.

Frequency Analysis

Frequency analysis is the process used to examine the tones (or frequency components) which make up the overall noise or vibration signal.

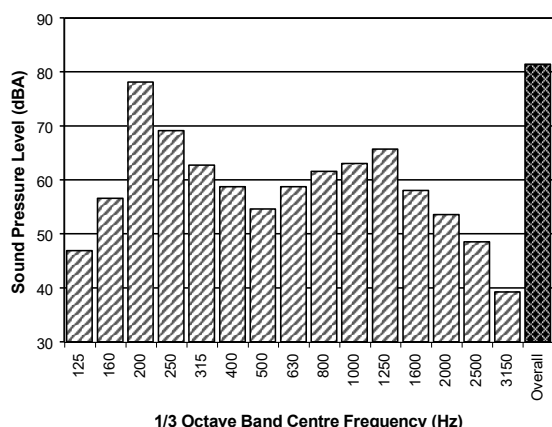
The units for frequency are Hertz (Hz), which represent the number of cycles per second.

Frequency analysis can be in:

- Octave bands (where the centre frequency and width of each band is double the previous band)
- 1/3 octave bands (three bands in each octave band)
- Narrow band (where the spectrum is divided into 400 or more bands of equal width)



The following figure shows a 1/3 octave band frequency analysis where the noise is dominated by the 200 Hz band. Note that the indicated level of each individual band is less than the overall level, which is the logarithmic sum of the bands.



Annoying Noise (Special Audible Characteristics)

A louder noise will generally be more annoying to nearby receivers than a quieter one. However, noise is often also found to be more annoying and result in larger impacts where the following characteristics are apparent:

- **Tonality** - tonal noise contains one or more prominent tones (ie differences in distinct frequency components between adjoining octave or 1/3 octave bands), and is normally regarded as more annoying than 'broad band' noise.
- **Impulsiveness** - an impulsive noise is characterised by one or more short sharp peaks in the time domain, such as occurs during hammering.
- **Intermittency** - intermittent noise varies in level with the change in level being clearly audible. An example would include mechanical plant cycling on and off.
- **Low Frequency Noise** - low frequency noise contains significant energy in the lower frequency bands, which are typically taken to be in the 10 to 160 Hz region.

Vibration

Vibration may be defined as cyclic or transient motion. This motion can be measured in terms of its displacement, velocity or acceleration. Most assessments of human response to vibration or the risk of damage to buildings use measurements of vibration velocity. These may be expressed in terms of 'peak' velocity or 'rms' velocity.

The former is the maximum instantaneous velocity, without any averaging, and is sometimes referred to as 'peak particle velocity', or PPV. The latter incorporates 'root mean squared' averaging over some defined time period.

Vibration measurements may be carried out in a single axis or alternatively as triaxial measurements (ie vertical, longitudinal and transverse).

The common units for velocity are millimetres per second (mm/s). As with noise, decibel units can also be used, in which case the reference level should always be stated. A vibration level V , expressed in mm/s can be converted to decibels by the formula $20 \log (V/V_0)$, where V_0 is the reference level (10^{-9} m/s). Care is required in this regard, as other reference levels may be used.

Human Perception of Vibration

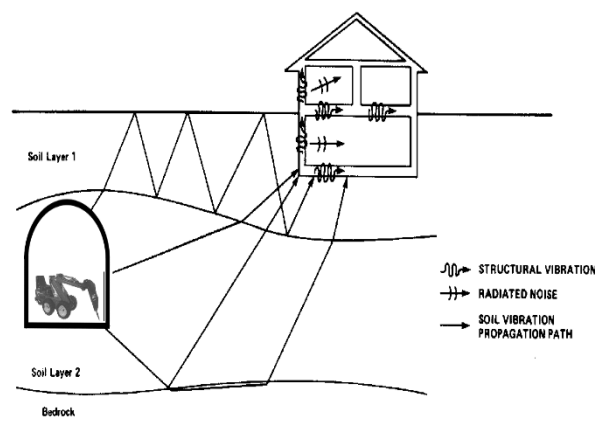
People are able to 'feel' vibration at levels lower than those required to cause even superficial damage to the most susceptible classes of building (even though they may not be disturbed by the motion). An individual's perception of motion or response to vibration depends very strongly on previous experience and expectations, and on other connotations associated with the perceived source of the vibration. For example, the vibration that a person responds to as 'normal' in a car, bus or train is considerably higher than what is perceived as 'normal' in a shop, office or dwelling.

Ground-borne Noise, Structure-borne Noise and Regenerated Noise

Noise that propagates through a structure as vibration and is radiated by vibrating wall and floor surfaces is termed 'structure-borne noise', 'ground-borne noise' or 'regenerated noise'. This noise originates as vibration and propagates between the source and receiver through the ground and/or building structural elements, rather than through the air.

Typical sources of ground-borne or structure-borne noise include tunnelling works, underground railways, excavation plant (eg rockbreakers), and building services plant (eg fans, compressors and generators).

The following figure presents an example of the various paths by which vibration and ground-borne noise may be transmitted between a source and receiver for construction activities occurring within a tunnel.



The term 'regenerated noise' is also used in other instances where energy is converted to noise away from the primary source. One example would be a fan blowing air through a discharge grill. The fan is the energy source and primary noise source. Additional noise may be created by the aerodynamic effect of the discharge grill in the airstream. This secondary noise is referred to as regenerated noise.



Appendix B Statistical Ambient Noise Level Charts

Western Sydney Service Centre – Erskin Park MCL 7 Construction Noise Monitoring

Noise Compliance Monitoring - 2024

BlueScope Steel Ltd.

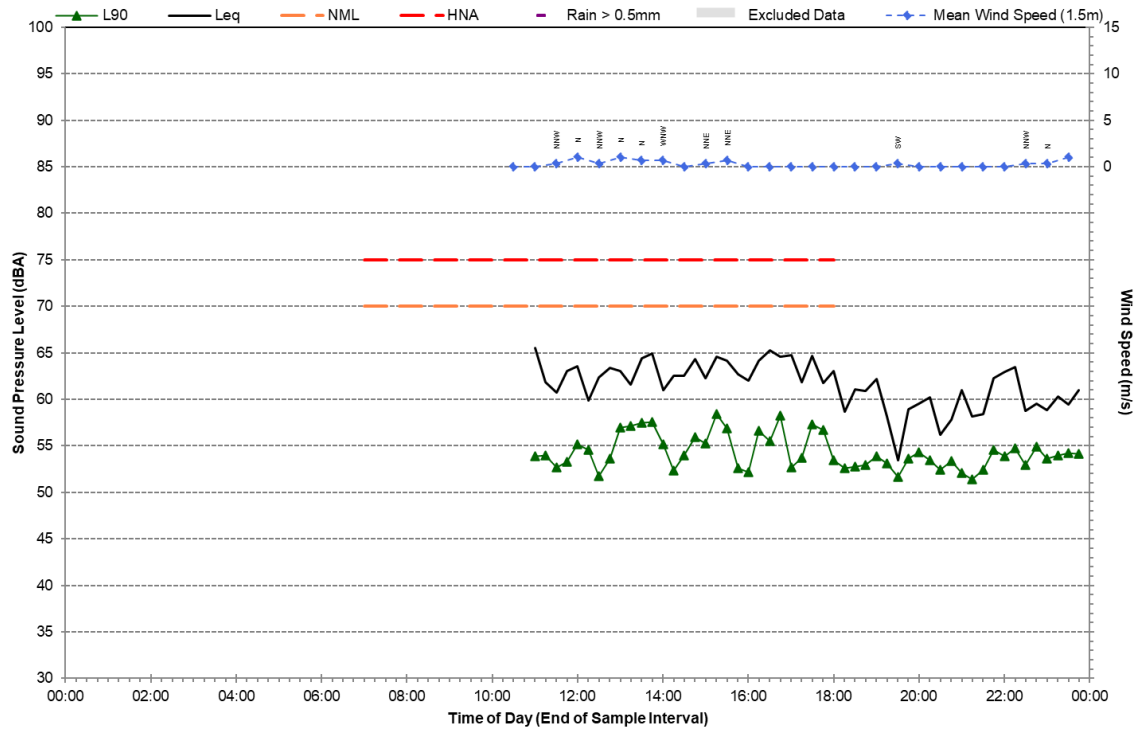
SLR Project No.: 610.06077.01103

12 August 2024



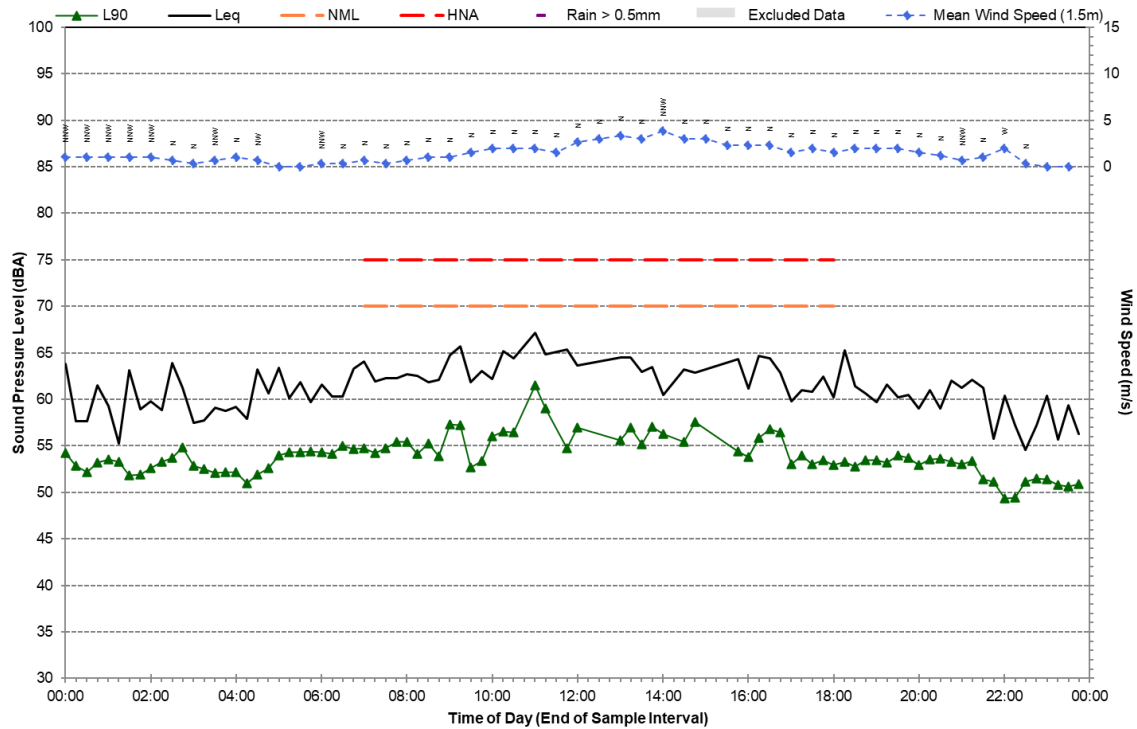
Statistical Ambient Noise Levels

R01 - 57-65 Templar Road, Erskine Park - Wednesday, 24 July 2024



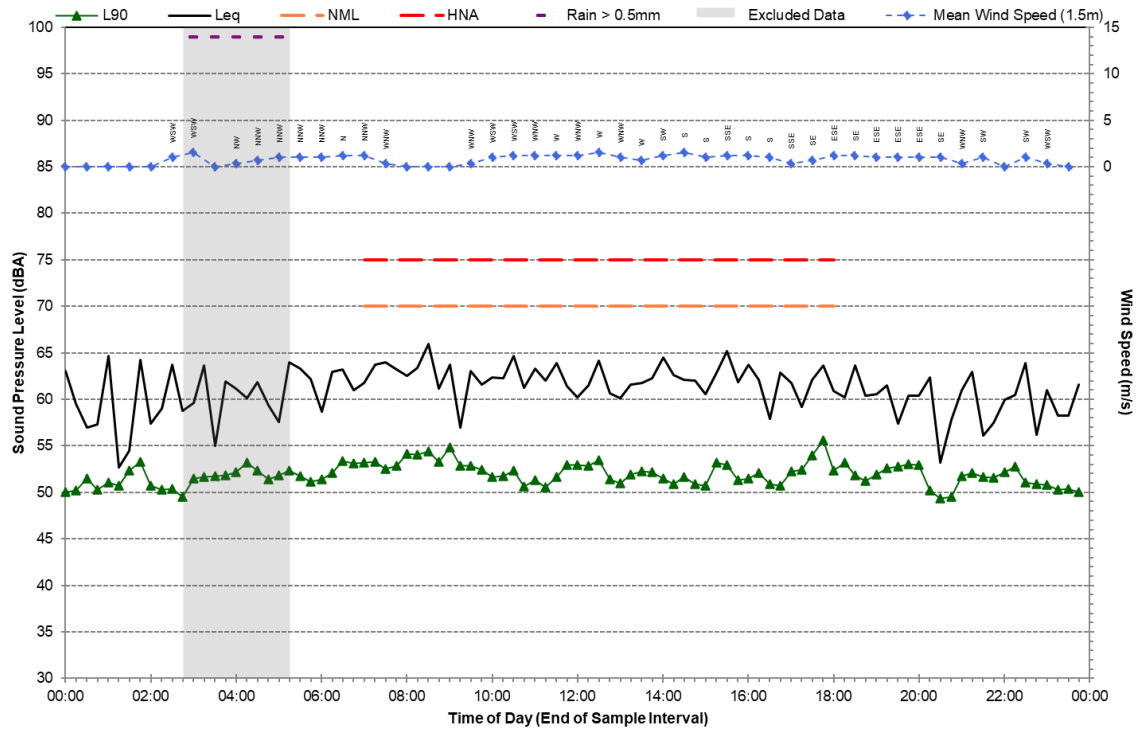
Statistical Ambient Noise Levels

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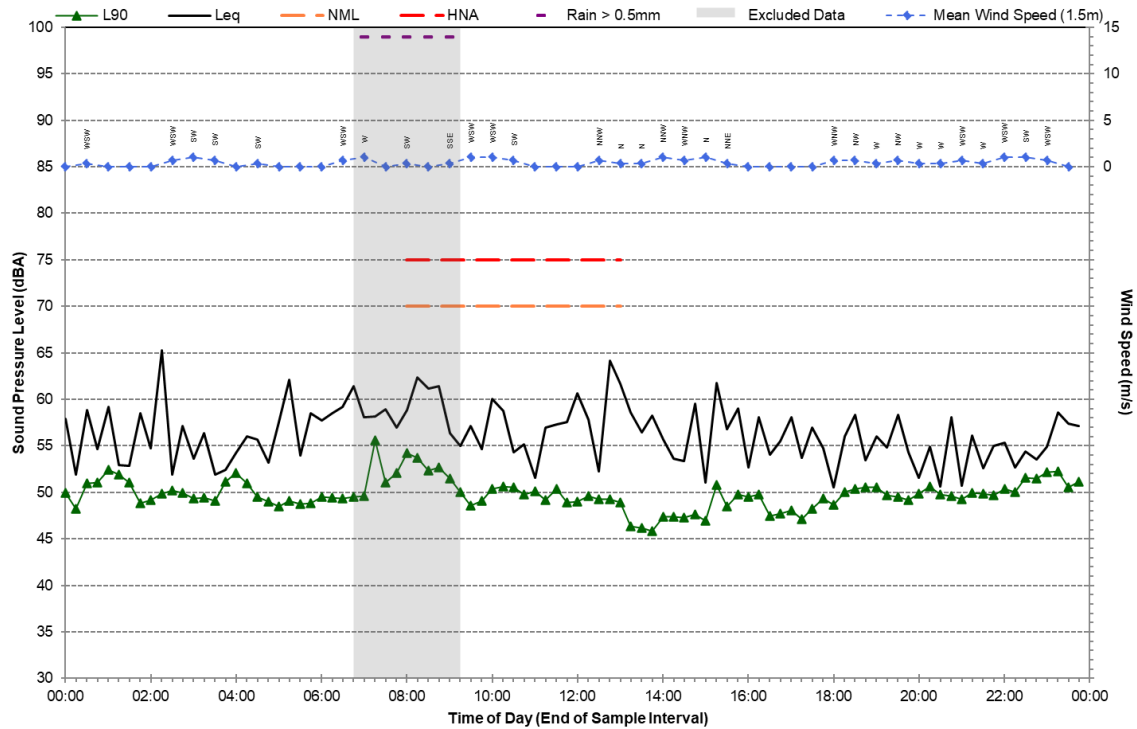
Statistical Ambient Noise Levels

R01 - 57-65 Templar Road, Erskine Park - Friday, 26 July 2024



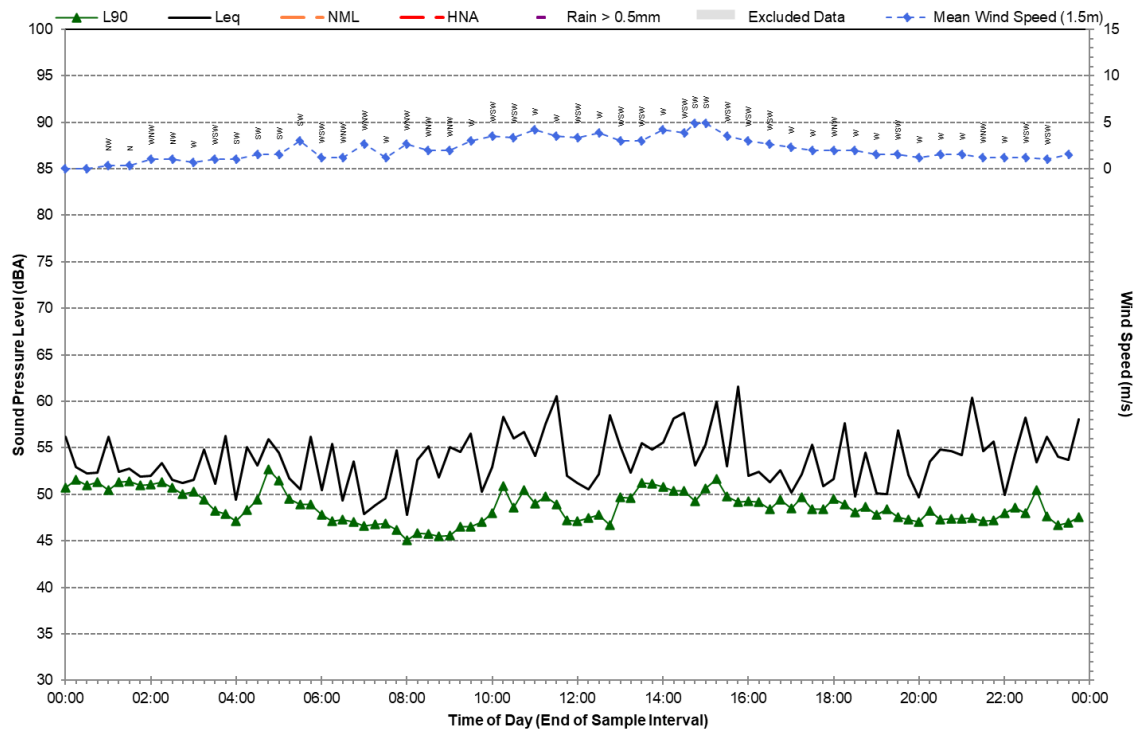
Statistical Ambient Noise Levels

R01 - 57-65 Templar Road, Erskine Park - Saturday, 27 July 2024



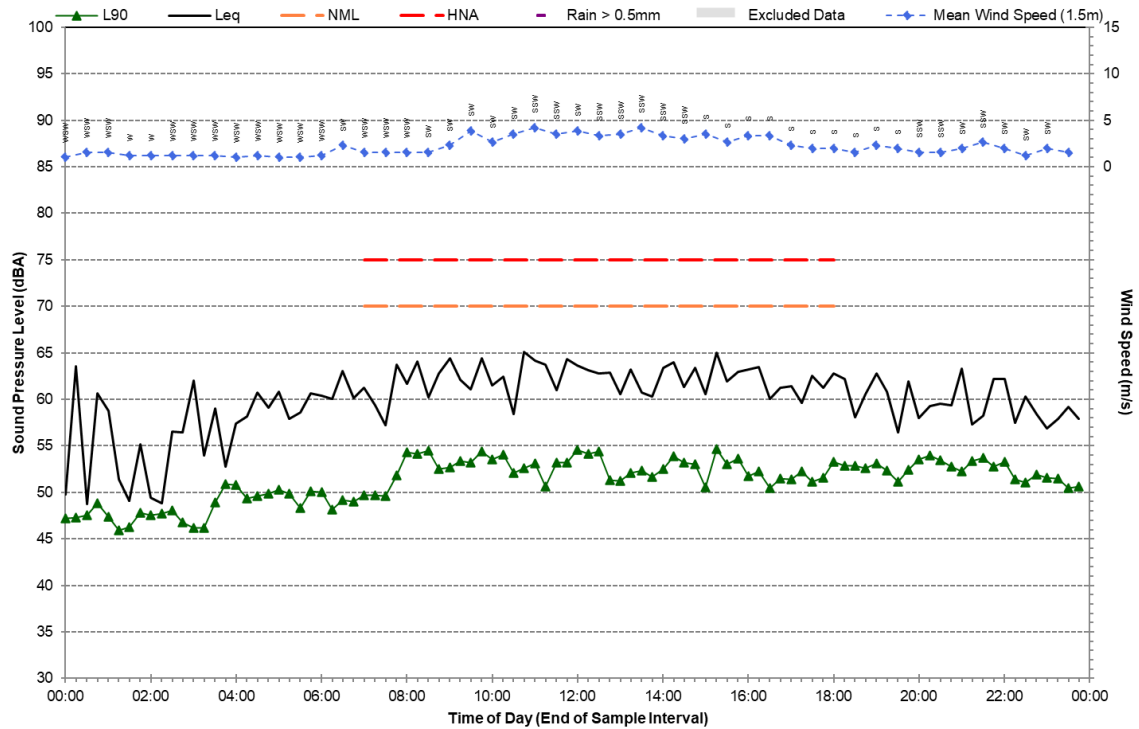
Statistical Ambient Noise Levels

R01 - 57-65 Templar Road, Erskine Park - Sunday, 28 July 2024



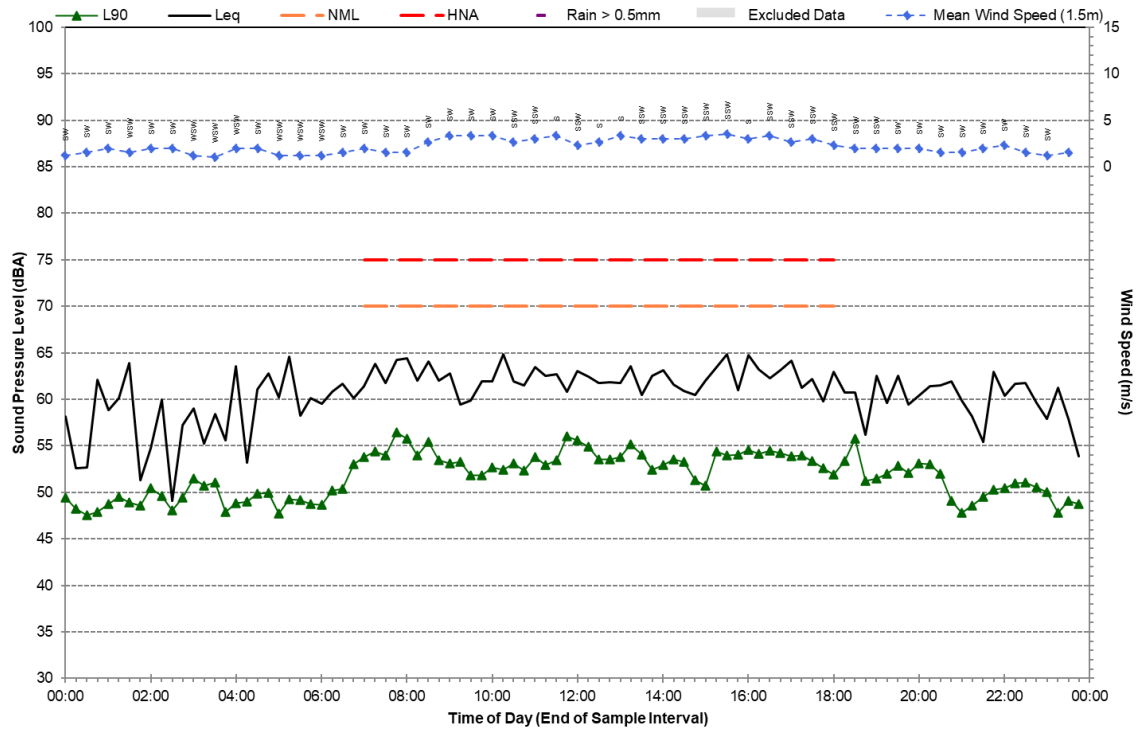
Statistical Ambient Noise Levels

R01 - 57-65 Templar Road, Erskine Park - Monday, 29 July 2024



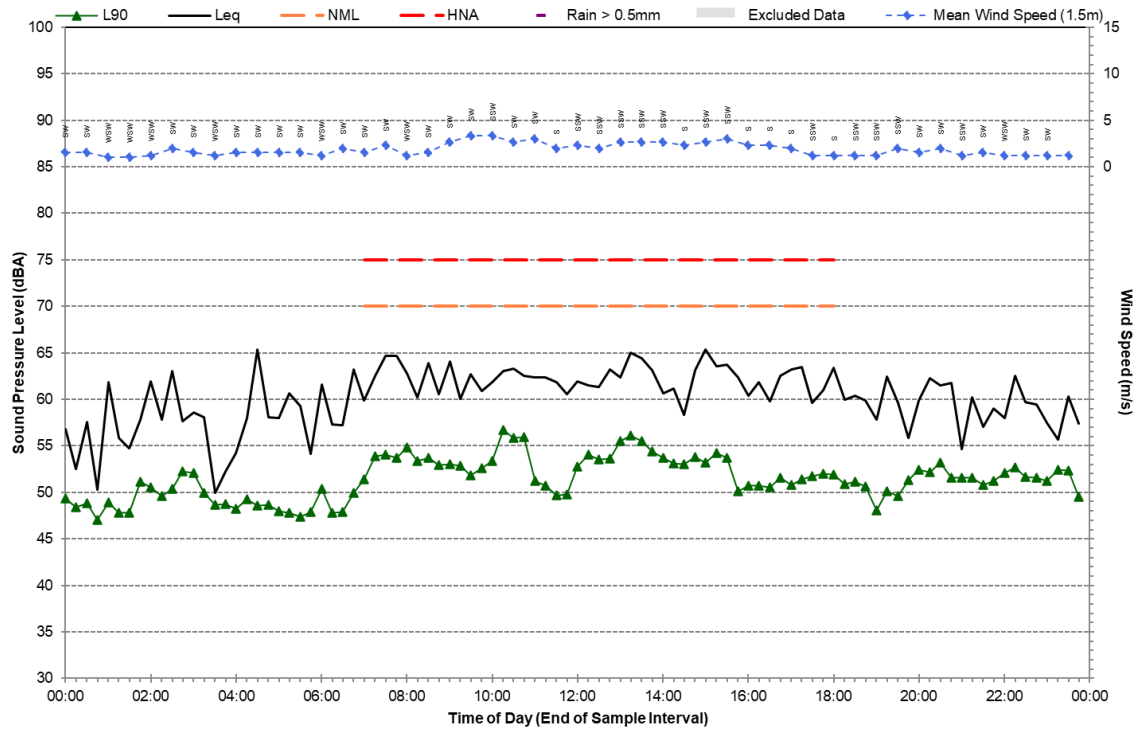
Statistical Ambient Noise Levels

R01 - 57-65 Templar Road, Erskine Park - Tuesday, 30 July 2024



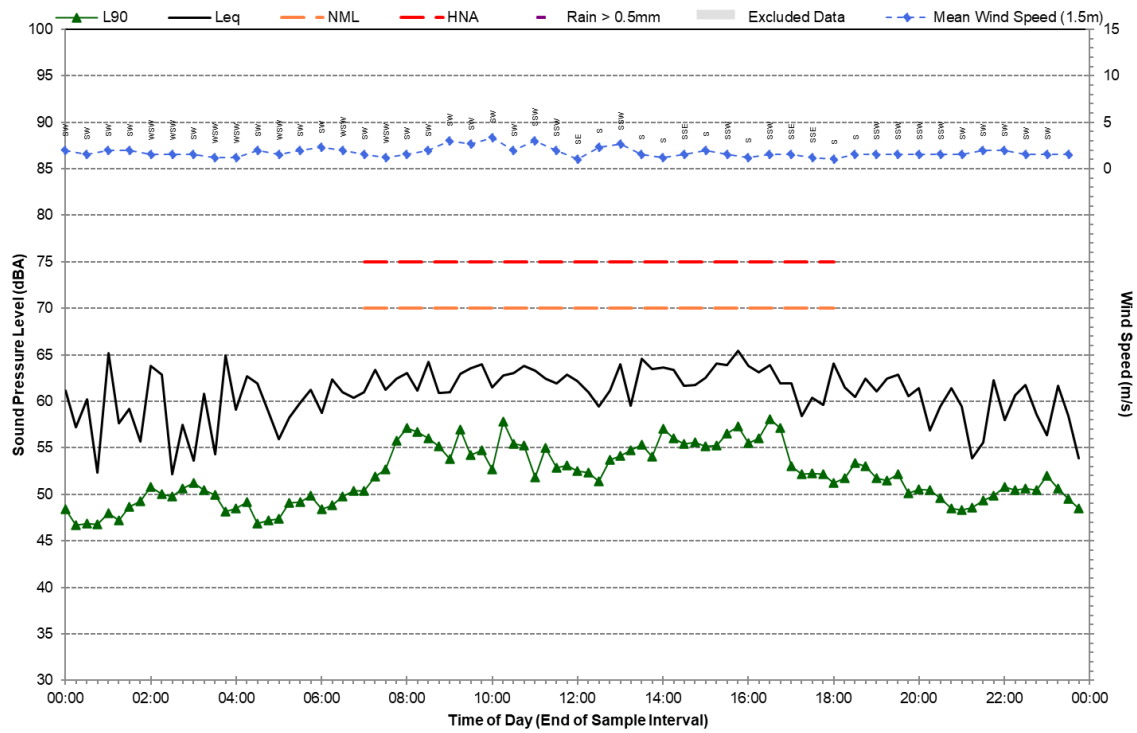
Statistical Ambient Noise Levels

R01 - 57-65 Templar Road, Erskine Park - Wednesday, 31 July 2024



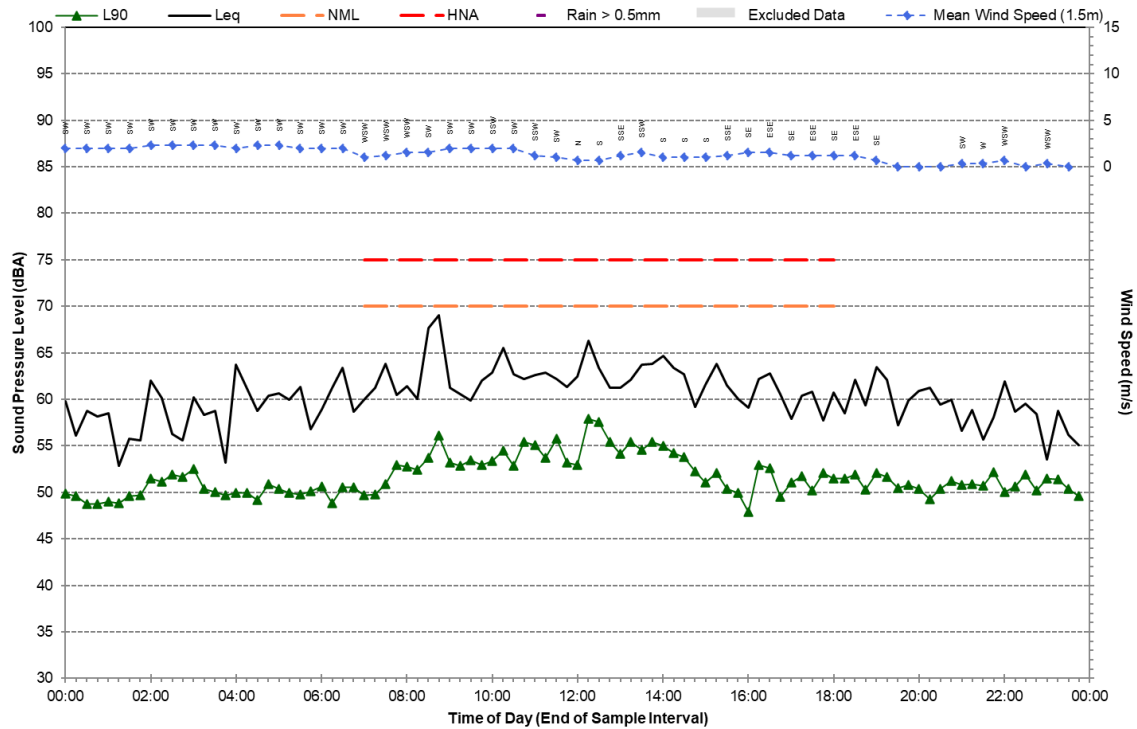
Statistical Ambient Noise Levels

R01 - 57-65 Templar Road, Erskine Park - Thursday, 1 August 2024

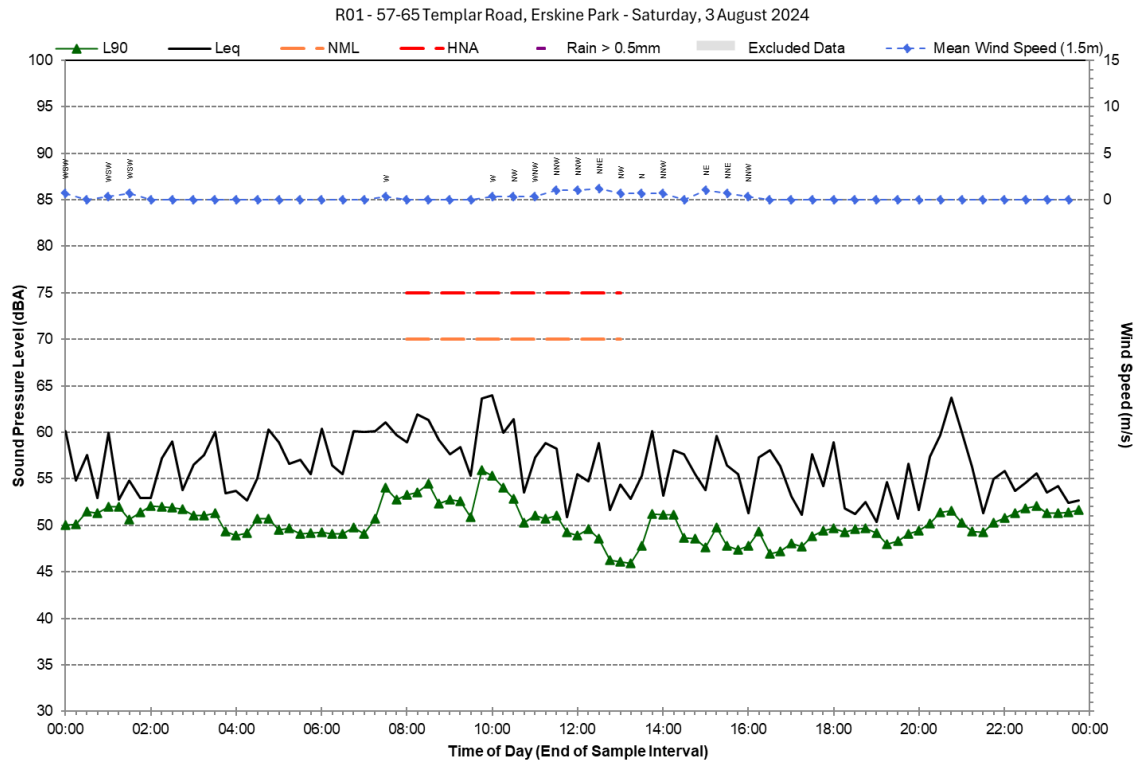


Statistical Ambient Noise Levels

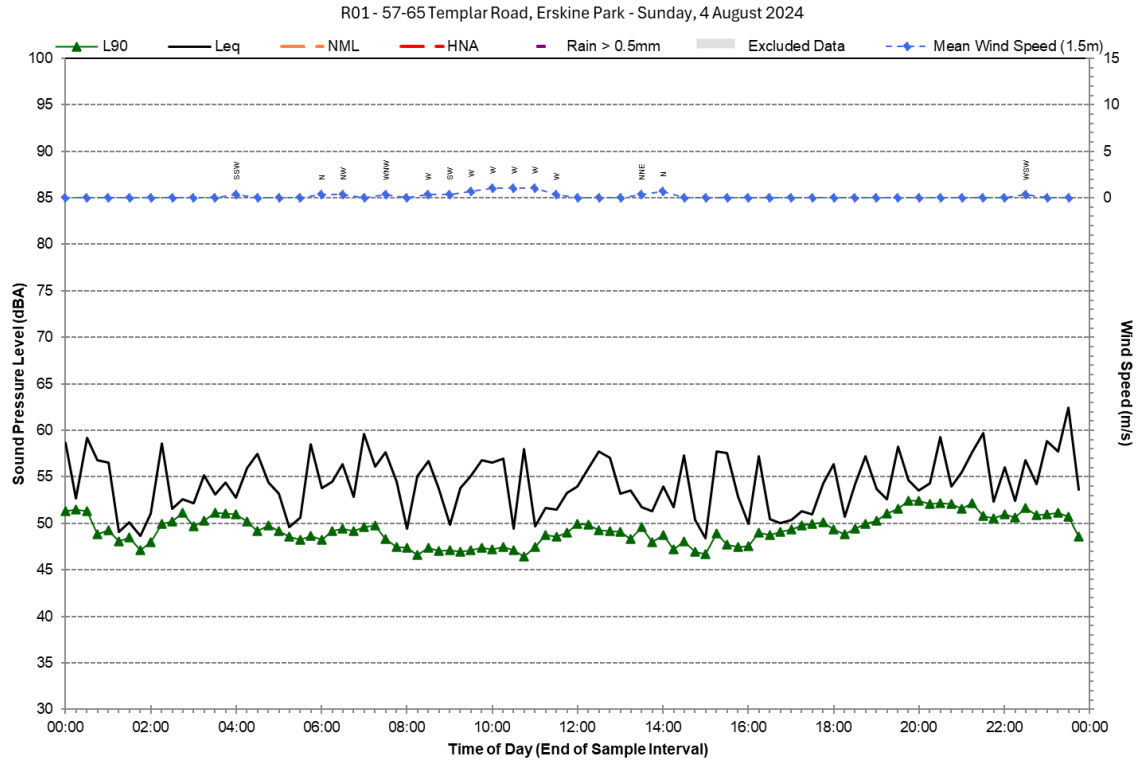
R01 - 57-65 Templar Road, Erskine Park - Friday, 2 August 2024



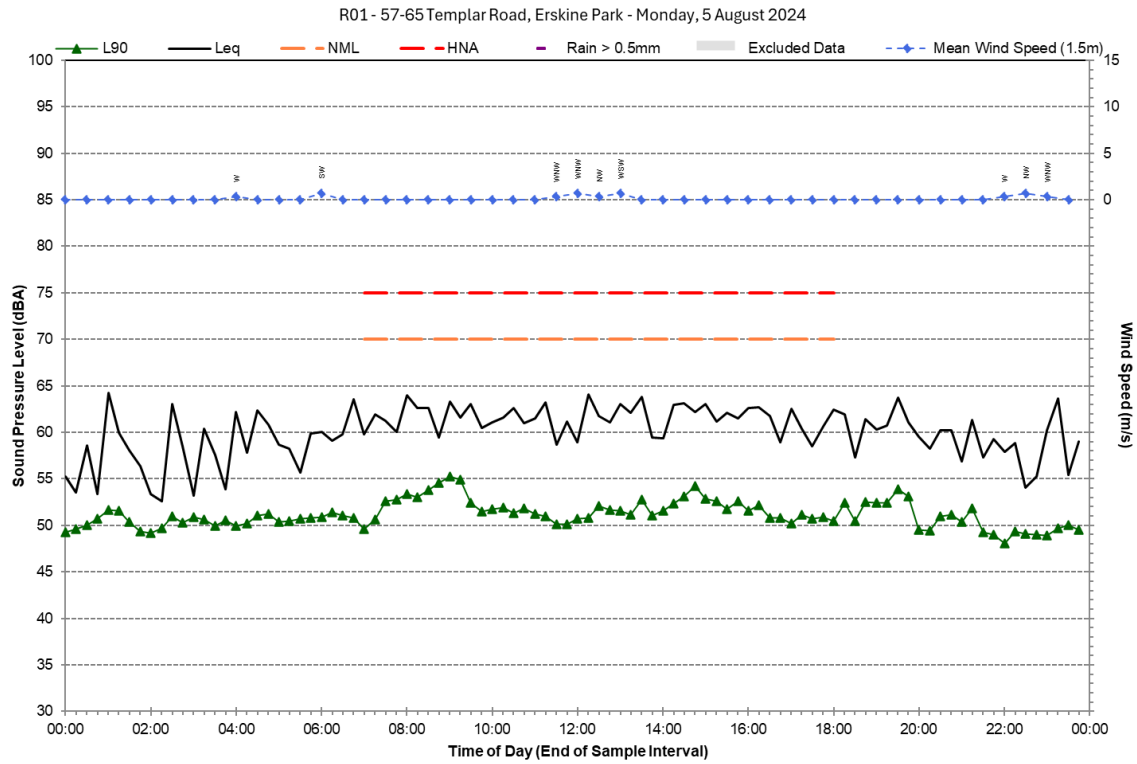
Statistical Ambient Noise Levels



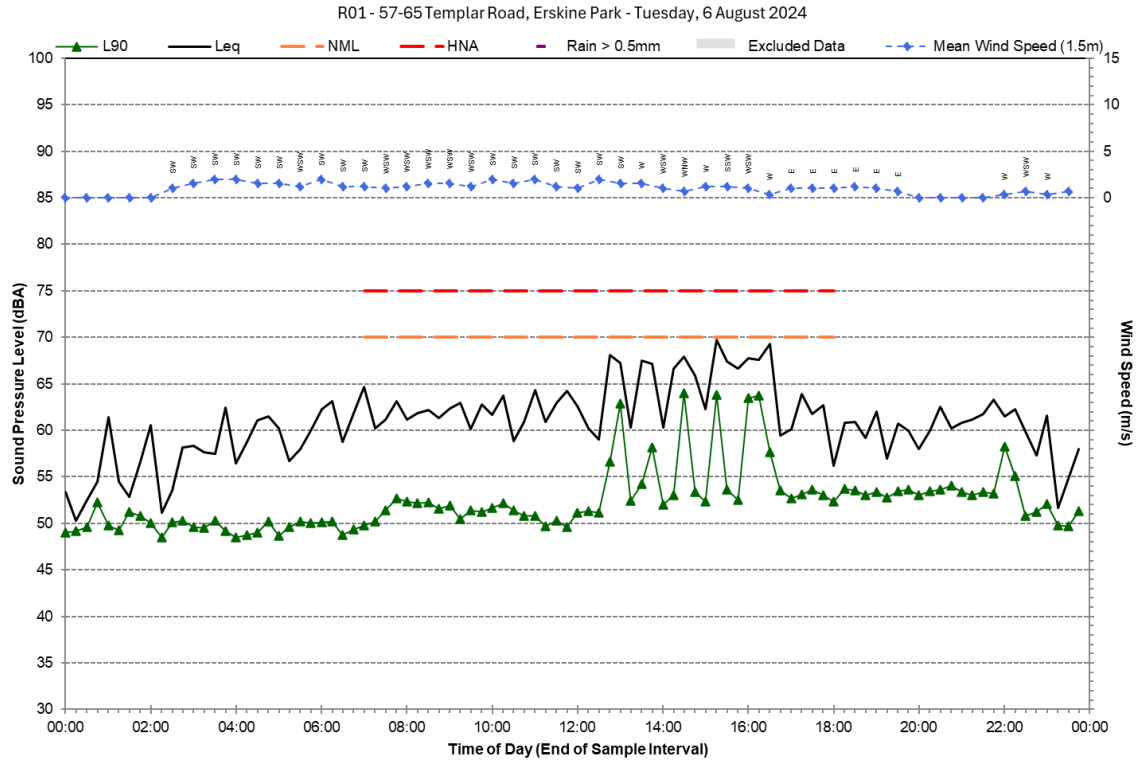
Statistical Ambient Noise Levels



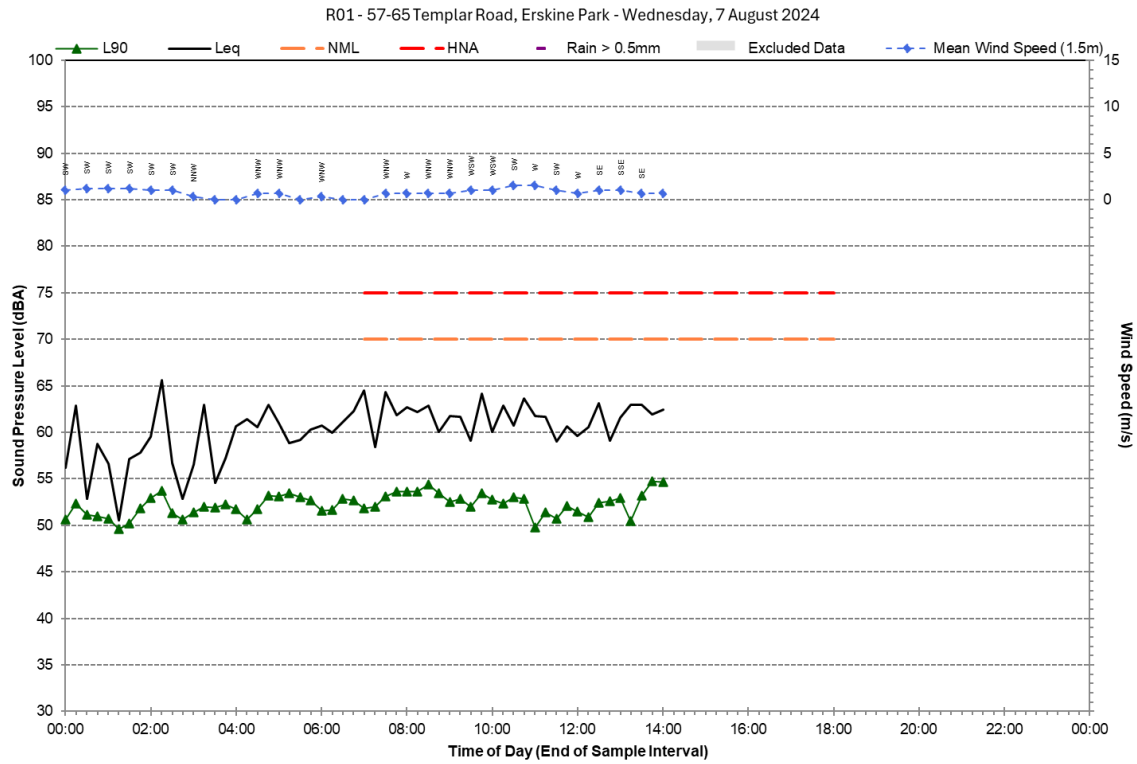
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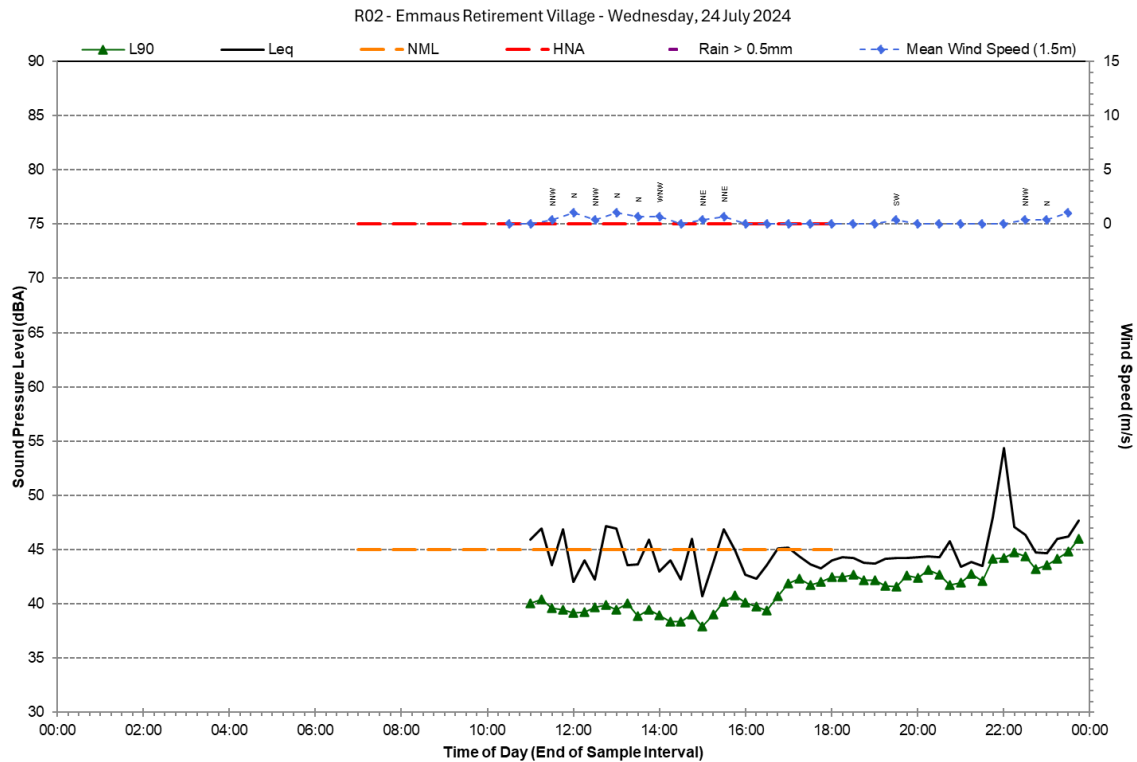
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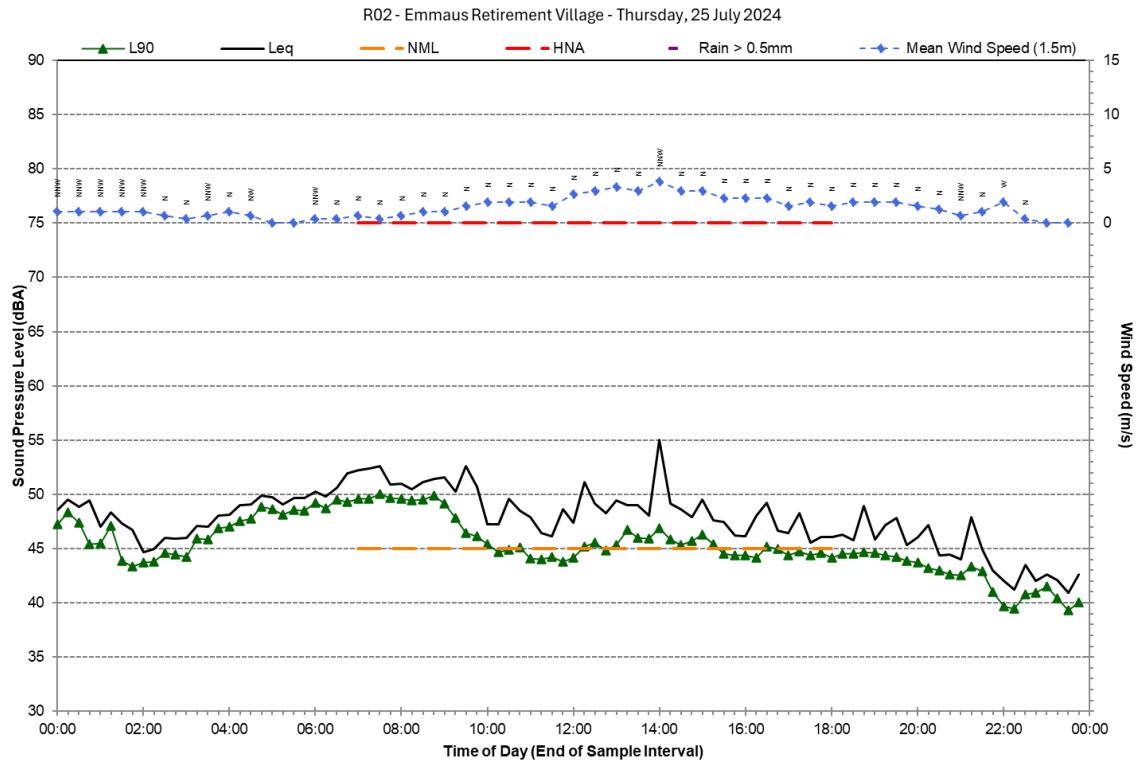
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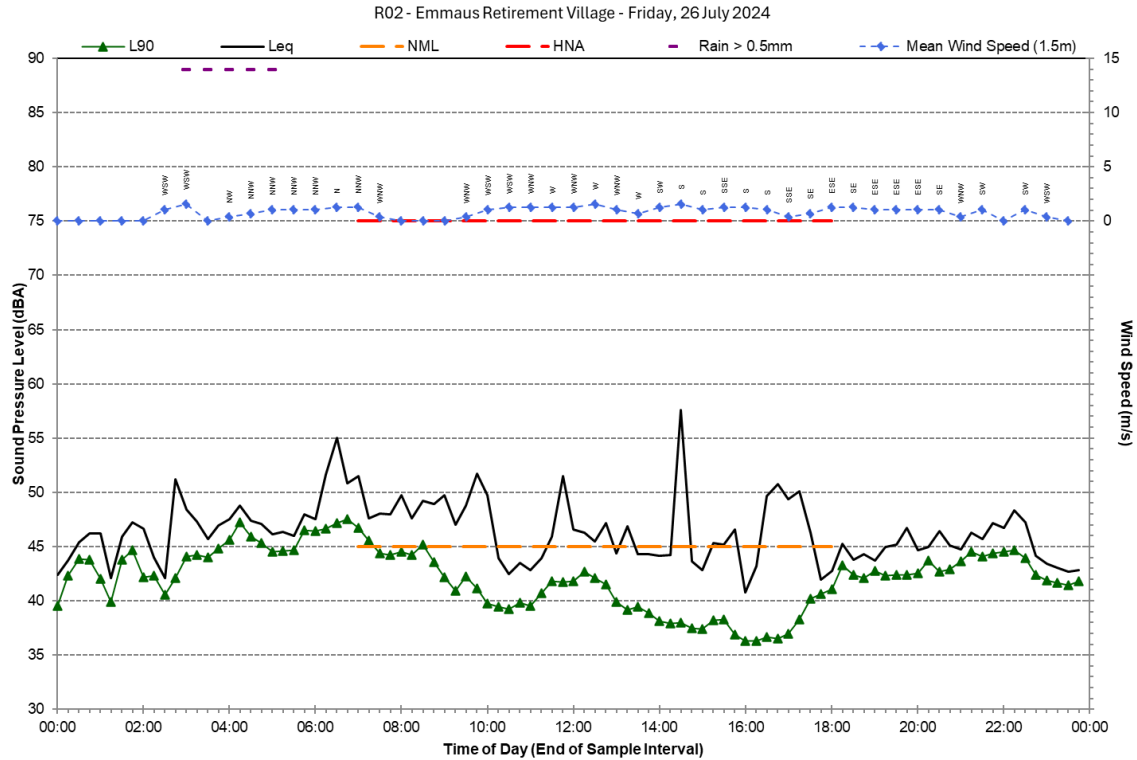
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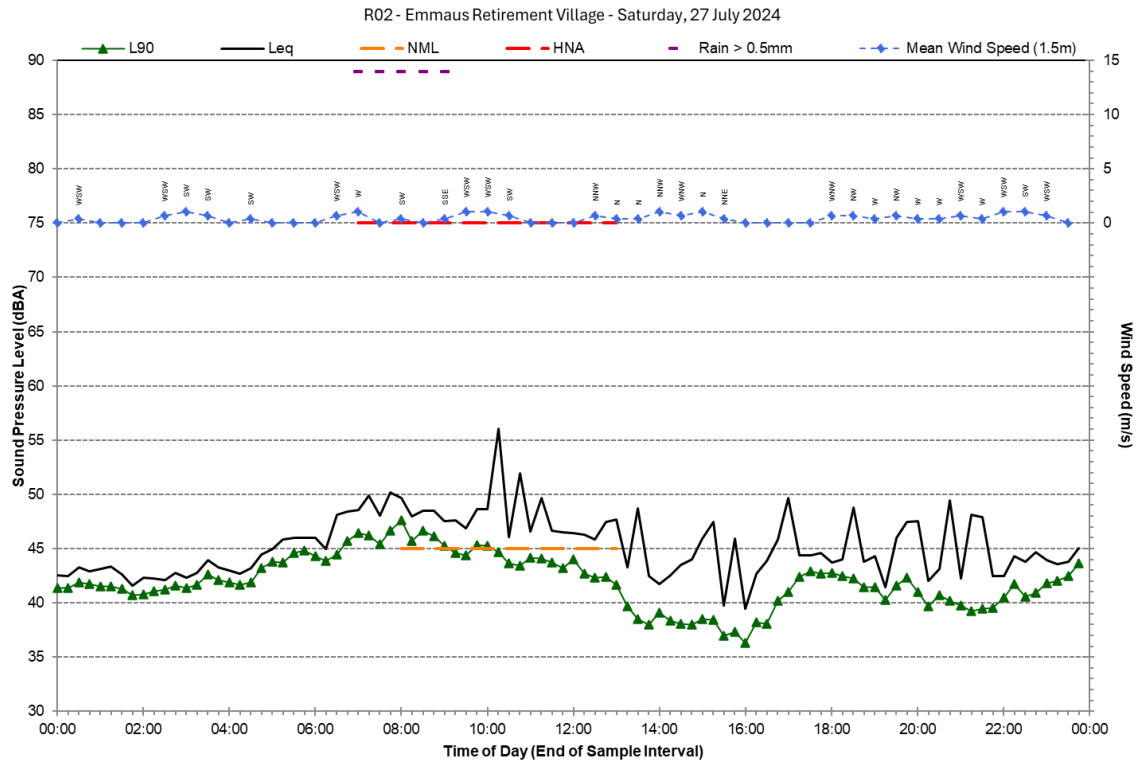
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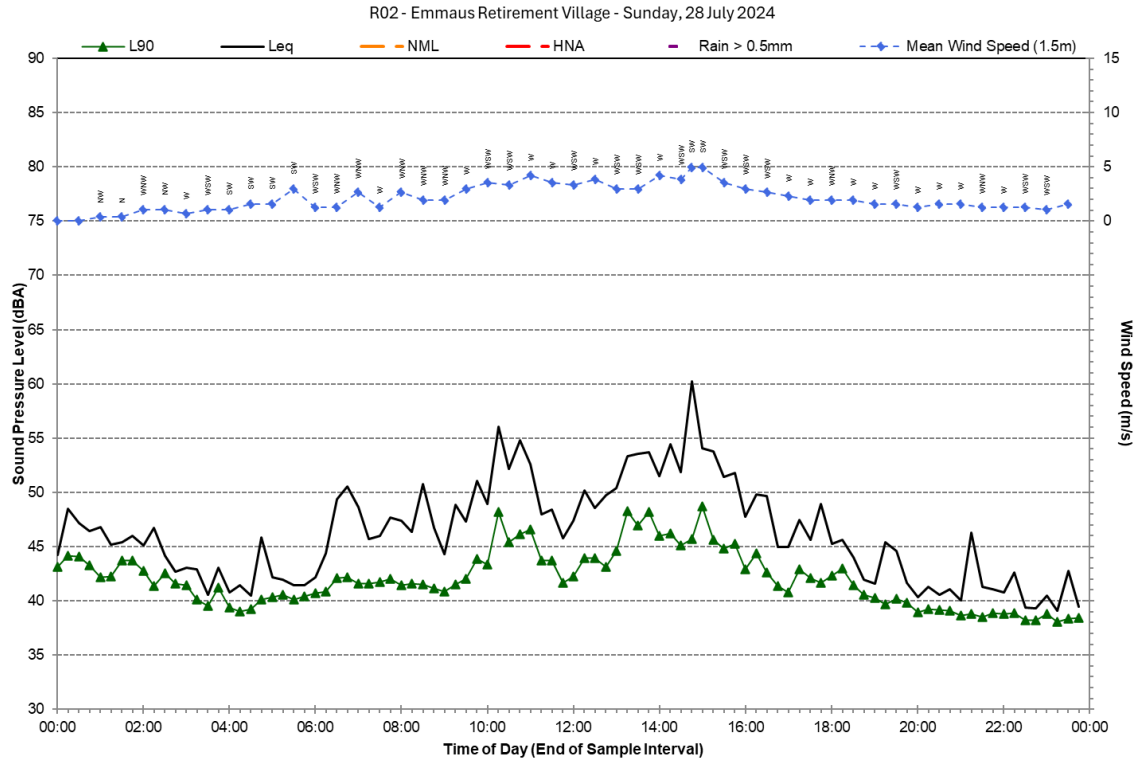
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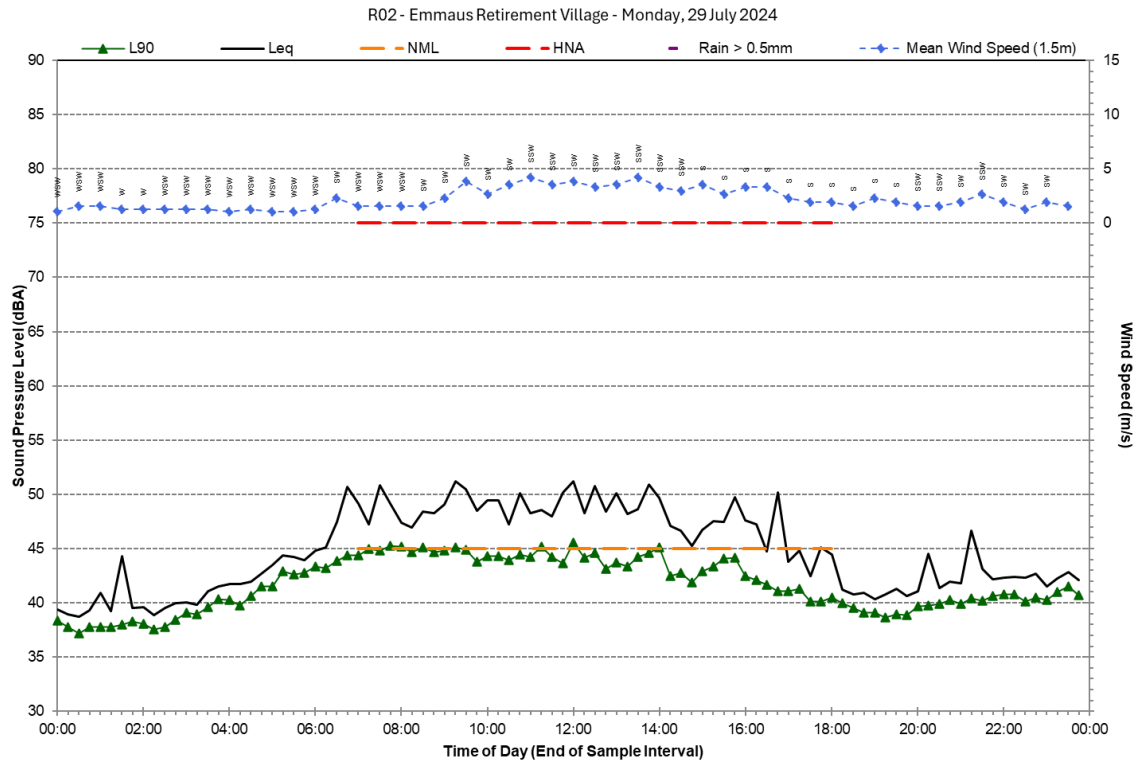
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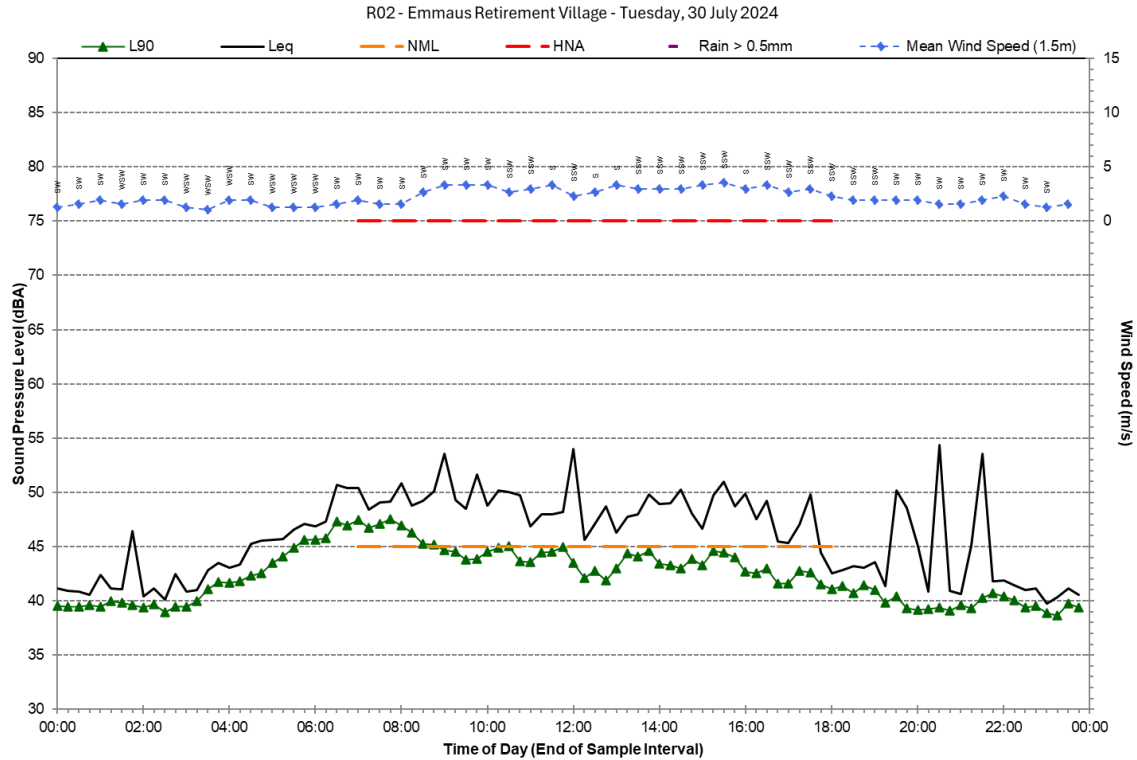
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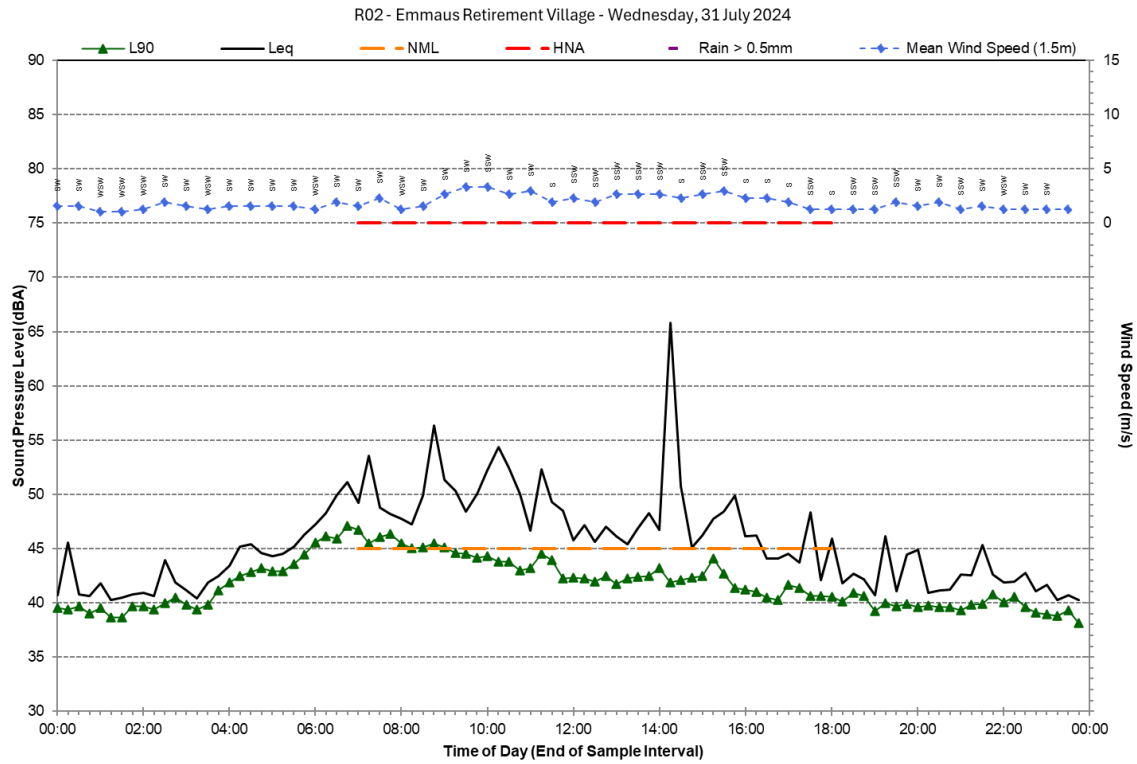
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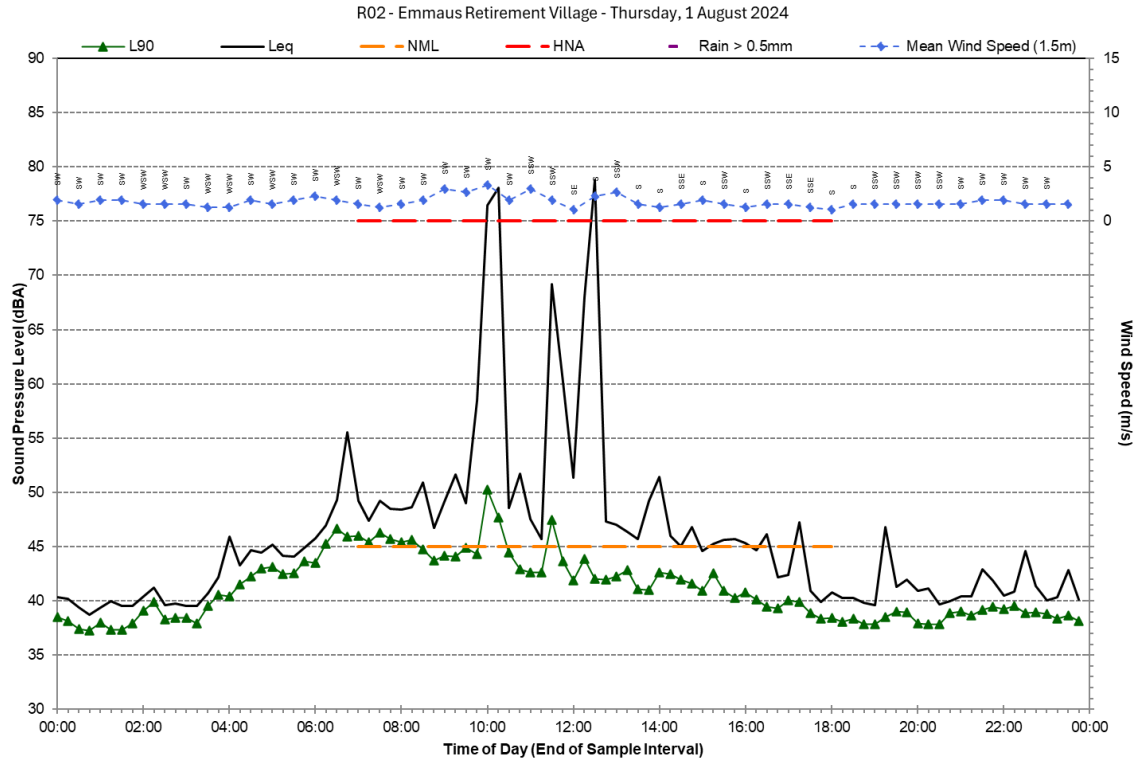
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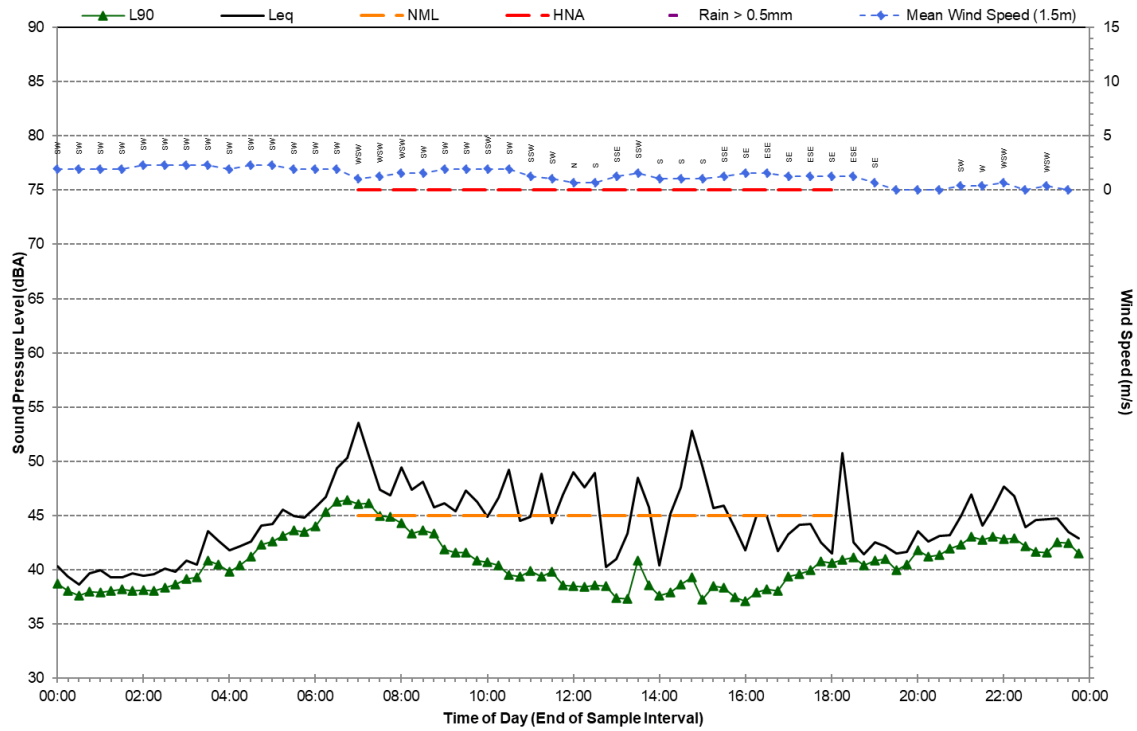


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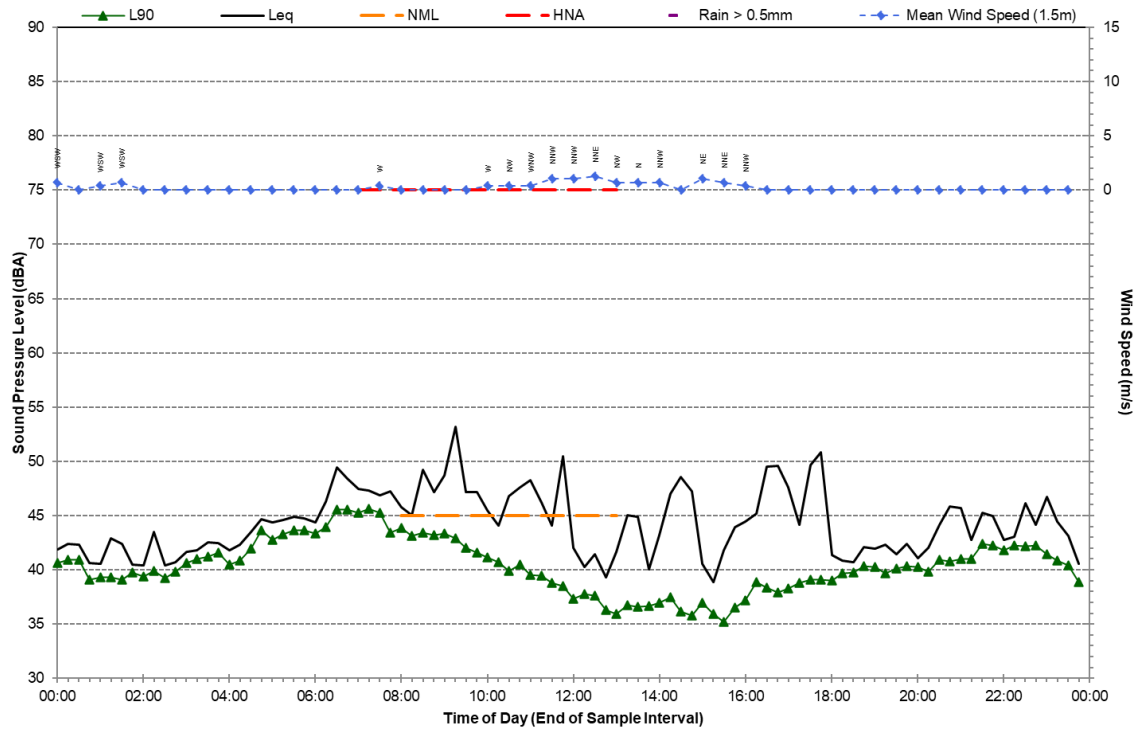
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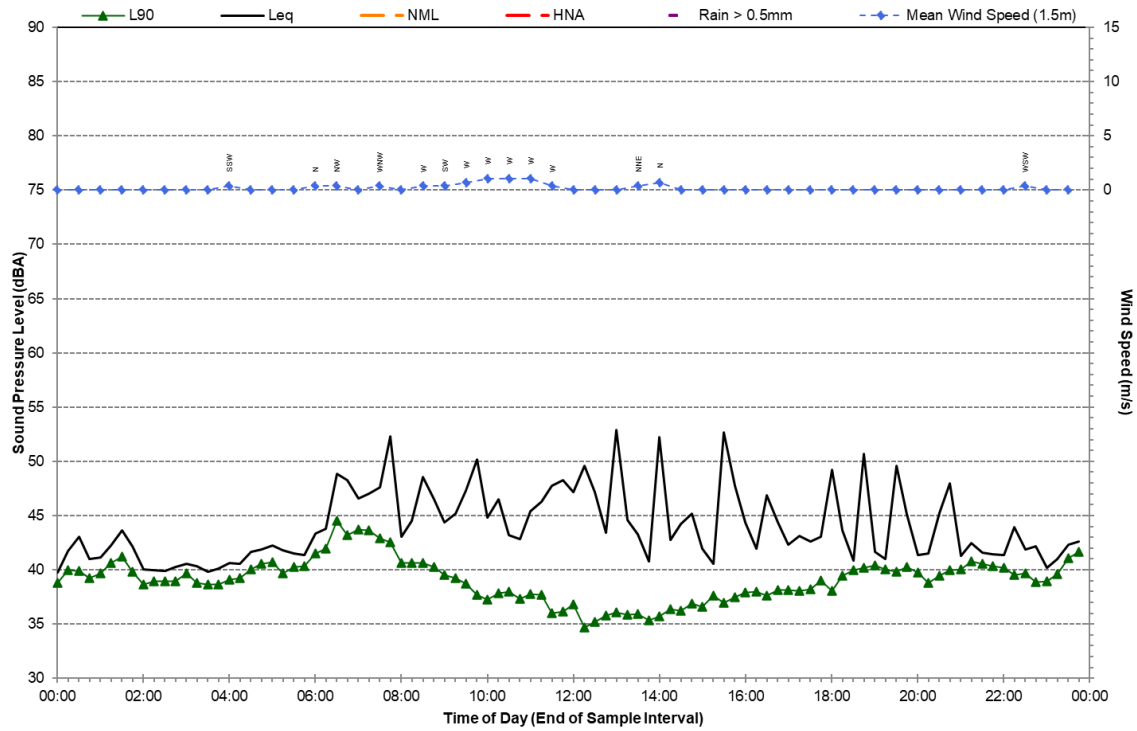
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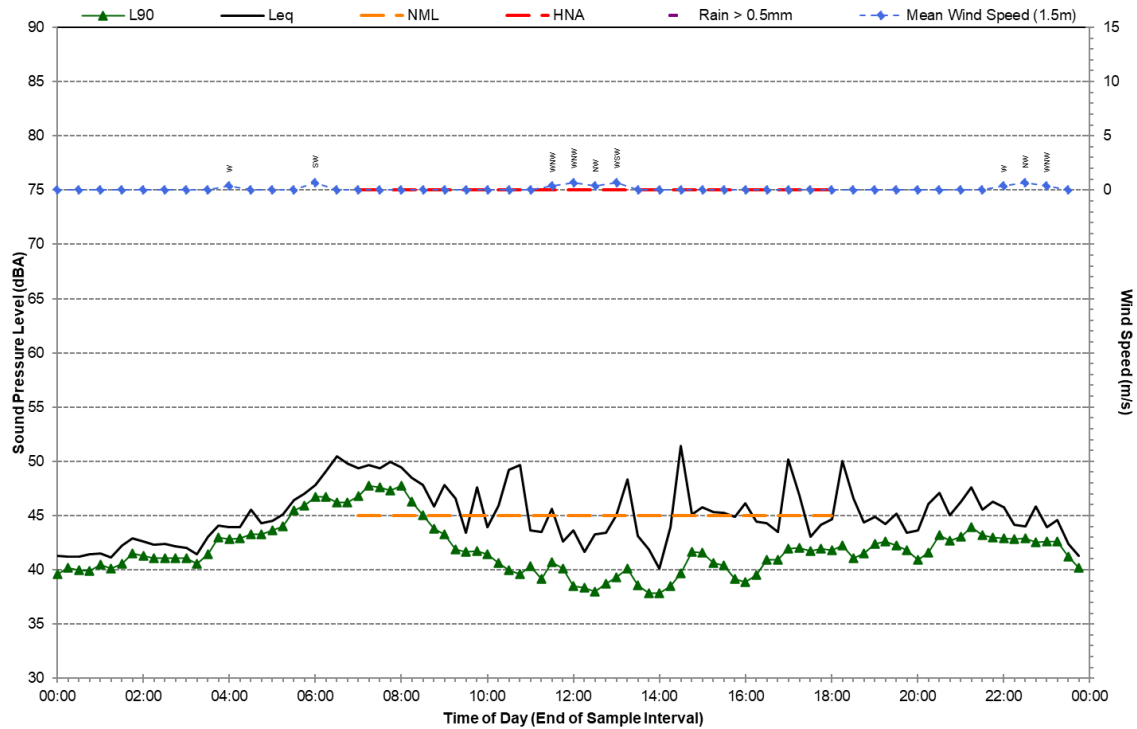
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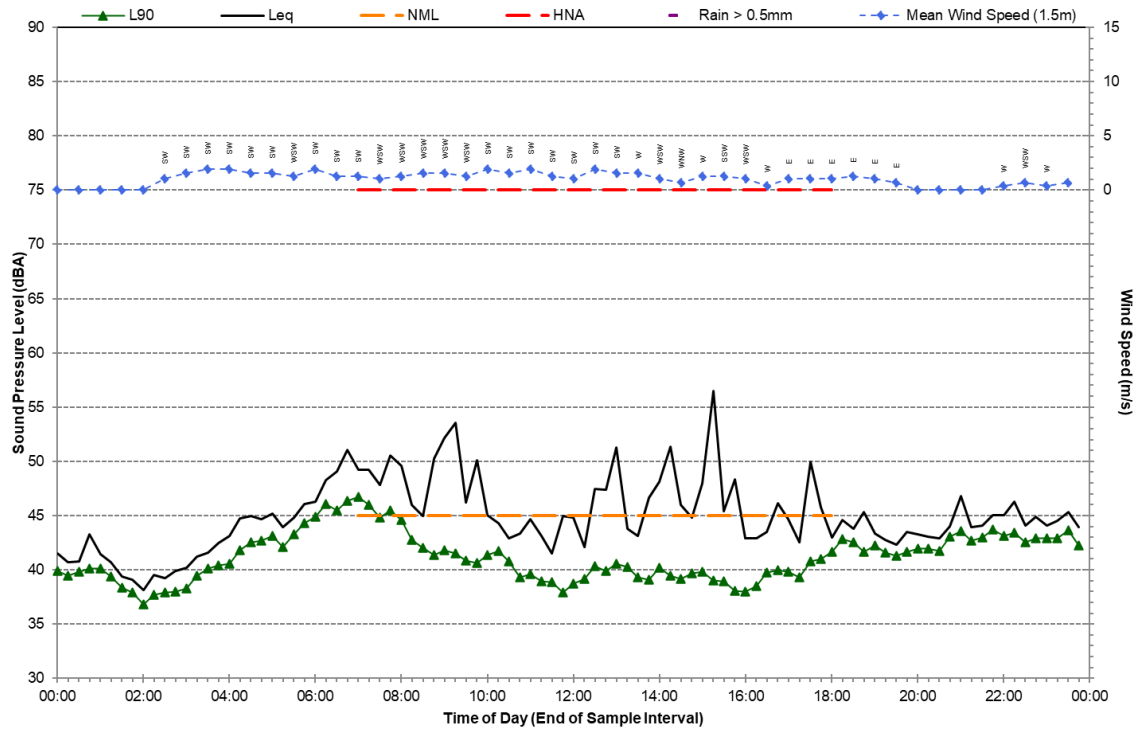
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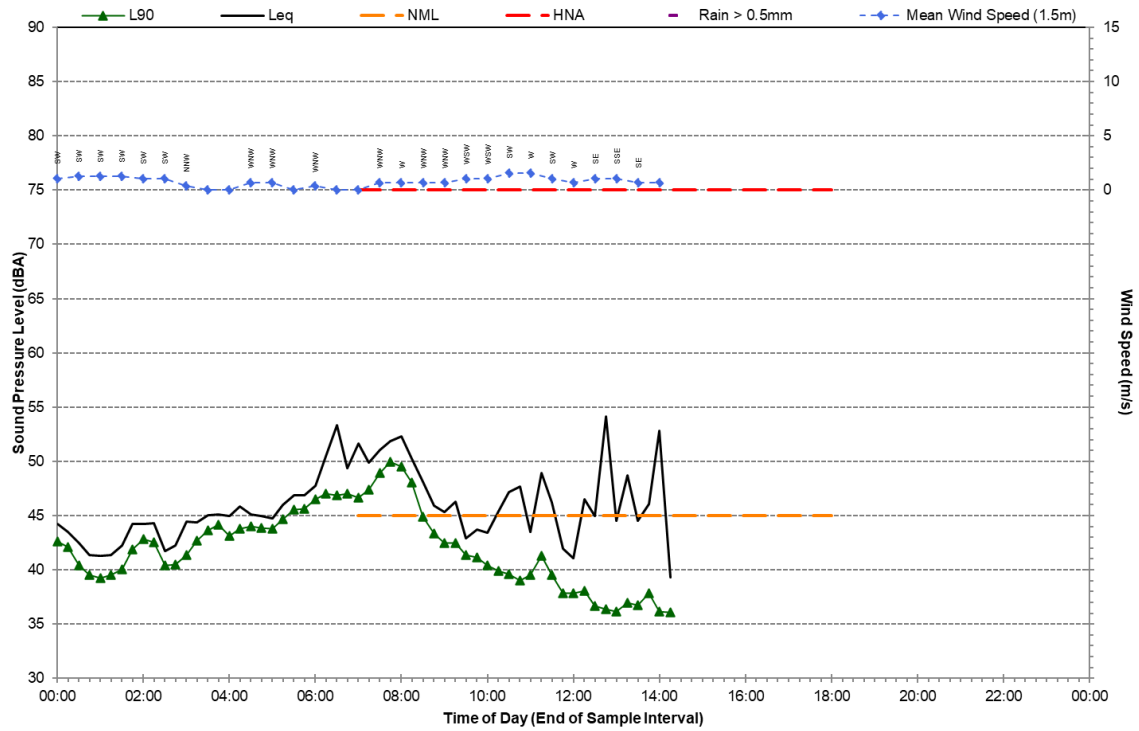
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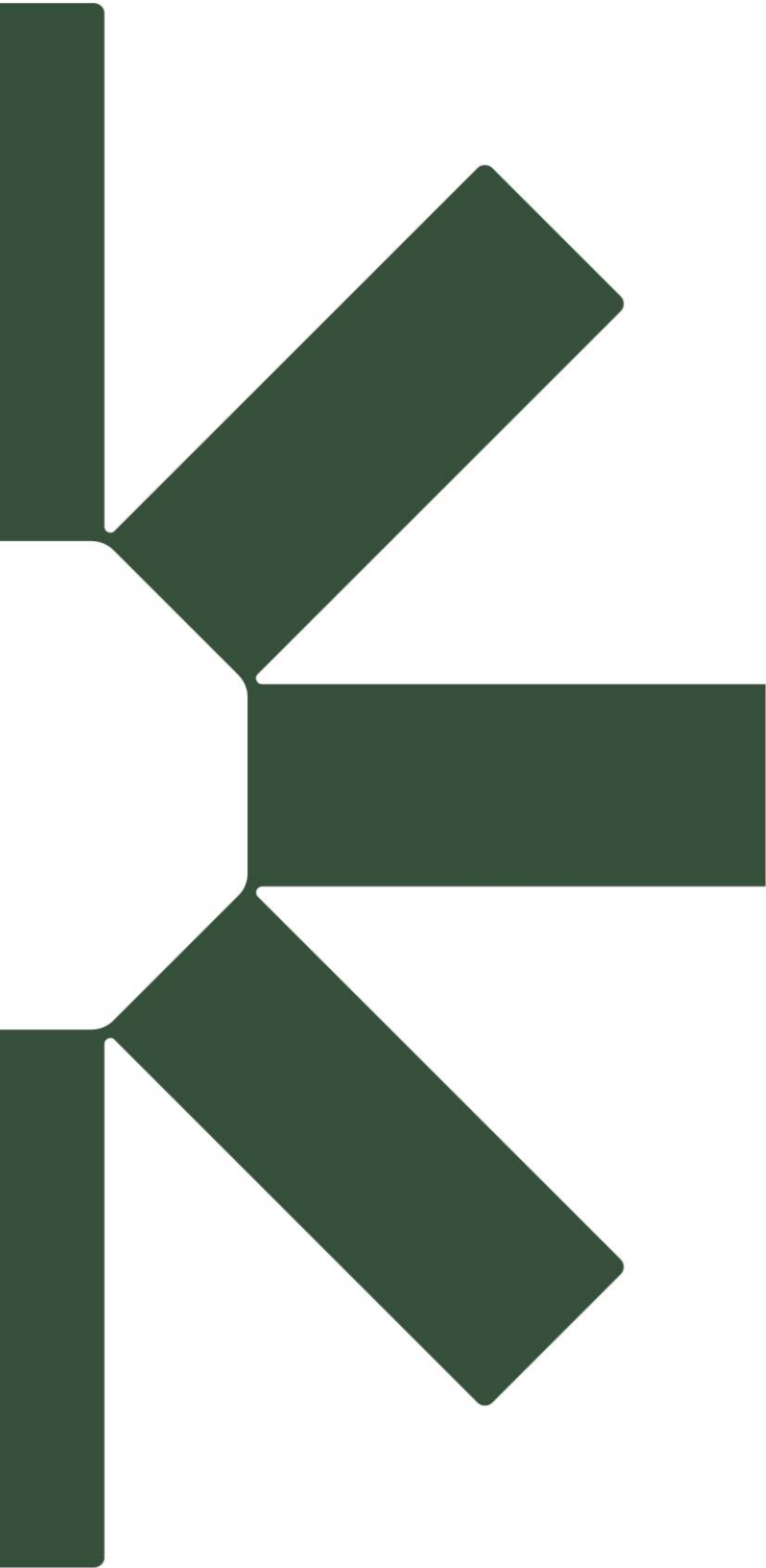
R02 - Emmaus Retirement Village - Tuesday, 6 August 2024



Statistical Ambient Noise Levels

R02 - Emmaus Retirement Village - Wednesday, 7 August 2024





Making Sustainability Happen



APPENDIX G

Construction Traffic Management Plan



Updated Construction Traffic Management Plan

55 Templar Road, Erskine Park

PREPARED FOR:
BlueScope Ltd

REFERENCE:
0618r02v07

DATE:
6/08/2024



Updated Construction Traffic Management Plan

55 Templar Road, Erskine Park

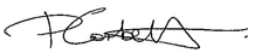
Prepared for: BlueScope Ltd

Reference: 0618r02v07

Date: 6/08/2024

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Revision History

VERSION	DATE	PREPARED	REVIEWED	APPROVED	SIGNED
01-06	Per prior report version	Julius Boncato	Ben Midgley	Paul Corbett	Original Signed
07	6/08/2024	Julius Boncato	Julius Boncato	Paul Corbett	

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1. Introduction

1.1. Overview

1.1.1. Extended Construction Hours of Work Overview

PDC Consultants has been commissioned by BlueScope Ltd to prepare an updated Construction Traffic Management Plan (the Updated Plan) for construction works relating to the development under State Significant Development Application (SSDA), SSD-45510464 (the Project), for the site at 55 Templar Road, Erskine Park (the Site). BlueScope Ltd has advised that due to unseasonably wet weather in the last six months, the progress of construction work has been significantly impacted. In an attempt to recover from the delays in the construction schedule, approval is sought to extend the permissible hours of construction work as outlined in Condition B24 of the SSDA.

Table 1 reproduces the permissible hours of work (both construction and operation) as outlined in Condition B24 of the SSDA. Additionally, **Table 1** outlines the proposed extension of construction work under this Updated Plan.

Table 1: Hours of Work & Proposed Extension

ACTIVITY	IN ACCORDANCE WITH CONDITION B24		PROPOSED CONSTRUCTION HOURS OF WORK	
	DAY	DURATION	DAY	DURATION
Earthworks and Construction	Monday – Friday	7 am – 6 pm	Monday – Friday	7 am – 6 pm (no change)
	Saturday	8 am – 1 pm	Saturday	1 pm – 3 pm (+2 hours)
	-	-	Sunday	8 am – 3 pm
Operation	Monday – Sunday	24 hours	Monday – Sunday	24 hours (no change)

It is noted that the proposed extension of construction work will only last until for a total of approximately 15 Saturdays and 15 Sundays and prior to the end of December 2024.

This Updated Plan details the proposed traffic management measures during the proposed extended hours of work and associated impacts.

1.1.1. Project Overview

An overview of the Project as outlined in the BlueScope Erskine Park Metal Coating Line No. 7 (MCL7) Environmental Impact Statement (ref: 0628175, version 1.2) prepared by ERM and dated 28/02/2023, is as follows:

The Project will produce ZINCALUME® steel, which is a zinc-aluminium coated steel product manufactured through the process of coating a cold rolled steel strips with a zinc-aluminium alloy. The throughput will be approximately 240 kilo tonnes per annum (ktpa), that includes 80 ktpa of “bare” ZINCALUME® steel products and 160 ktpa of paint line feed products. The Project will involve the construction, installation and operation of the metal coating line buildings and processing plant/equipment, ancillary infrastructures and temporary facilities. The key elements of the Project include:

- *MCL7 buildings:*
 - *A main building located to the south of the Project Area.*
 - *A warehouse building adjoining the main building to the east for the storage and despatch of finished products from the Project.*
- *Ancillary infrastructures, such as:*
 - *A new chemical and oil waste storage area located north of the main building and adjacent to warehouse building.*
 - *A new car parking area adjacent to the existing Coil Paint Line No. 8 (CPL8) car parking.*
 - *Storage and associated areas (e.g., ingot and pot equipment maintenance, offices and crib facilities, laboratory and test facility, high voltage switch room, electrical equipment rooms, hydrogen and nitrogen and truck parking and unloading area, fire water tanks and pumps, and a maintenance shed).*
 - *Three (3) stacks (main direct fired furnace, passivation drying stack and resin curing oven stack) located above the main building.*

It should be emphasised that the construction works has been approved as detailed in the previous version of the CTMP (ref: 0618r02v06). This updated Plan is to address the construction traffic impacts relating to the extended hours of work that is sought for approval.

The purpose of this Plan is to detail the proposed traffic management arrangements that are to be implemented for the construction of the Project which seeks to minimise the impact on public amenity and safety. This Plan has been prepared in accordance with Condition B1 of the SSDA, which have been reproduced in **Table 2**. **Table 2** also references the relevant section in this Plan where the requirements of Conditions B1 has been addressed.

Table 2: Relevant Conditions & Where Addressed in this Plan

CONDITON NO.	DESCRIPTION	RELEVANT PLAN SECTION
B1	Construction Traffic Management Plan Prior to the commencement of construction of the development, the Applicant must prepare a Construction Traffic Management Plan for the development to the satisfaction of the Planning Secretary. The plan must form part of the CEMP required by condition C2 and must: (a) Be prepared by a suitably qualified and experienced person(s); (b) Be prepared in consultation with Council. (c) Detail the measures that are to be implemented to ensure road safety and network efficiency during construction. (d) Detail heavy vehicle routes, access and parking arrangements – including for construction staff and operational staff associated with the adjoining CPL8 facility. (e) Included a Traffic Guidance Scheme which includes details for pedestrian management and is prepared in	Refer to Appendix A Refer to Section 1.2 and Appendix B. Refer to Section 4 For heavy vehicle routes, refer to Section 4.2 For construction access, refer to Section 4.1 For parking arrangements, refer to Section 5.1 and Site Establishment Plans provided as Appendix C Refer to Section 4.6 and Traffic Guidance Scheme provided as Appendix D

CONDITON NO.	DESCRIPTION	RELEVANT PLAN SECTION
	accordance with AS 1742.3 Traffic Control Devices for Works on Roads and the Traffic Control at Worksites Technical Manual (TfNSW). (f) Include a Driver Code of Conduct to: (i) Minimise the impacts of earthworks and construction on the local and regional road network; (ii) Minimise conflicts with other road users; (iii) Minimise road traffic noise; (iv) Ensure truck drivers use specified routes. (g) Include a program to monitor the effectiveness of these measures; and (h) If necessary, detail procedures for notifying residents and the community (including local schools), of any potential disruptions to routes.	Refer to Section 5.6 and Driver Code of Conduct included as Appendix E Refer to Section 5.9 Refer to Section 4.7

1.2. Consultation

Table 3 outlines the initial consultation undertaken by PDC as part of the preparation of the previous version of the Plan (ref: 0618r02v06).

Table 3: Key Consultation Timeline with Council

KEY DATE	DESCRIPTION
27/09/2023	PDC liaised with Council's Development Assessment Coordinator to establish initial communication with Council in preparation of this Plan and to discuss the CTMP requirements. Council's Development Assessment Coordinator advised PDC to contact Council's Infrastructure Officer for further Council input into the CTMP when preparing the initial Plan. PDC emailed Council summarising the consultation process which will incorporate the following steps: • PDC to prepare a draft Plan. • PDC to issue the draft Plan to Council for review and comment. • Council to provide PDC with comments (if any) for consideration. • PDC to consider comments and incorporate in the final Plan.
30/09/2023	PDC contacted Council's Development Assessment Officer via phone call to further discuss the CTMP requirements and advised the following initial considerations: • Truck routes to and from the Site. Council noted that generally, access to and from the site should be acceptable noting that the site is in an industrial area and whilst Templar Road is a local road, it has immediate access to Lenore Drive, being a state road. • Construction staging and associated truck movements, volumes and types. • Any requirements for Oversized and/or Overmass (OSOM) vehicles to travel to/from the site.

KEY DATE	DESCRIPTION
10/10/2023	Council issued an email confirming review of the CTMP (ref: 0618r02v05) and provided the following comment: <i>Council's assets unit has reviewed the referred document and made the following comment for your address:-</i> <i>In section 4.1 it is nominated that only heavy rigid vehicles will utilise the temporary construction access driveway at the southern end of the site. More specifics should be provided in terms of vehicles sizes. Dependant on the vehicle size, swept paths may need to be provided to ensure that the temporary construction driveway has been appropriately constructed to support vehicle entry into the site.</i> <i>Please address the above request and refer the revised version to Council for final review and comment against the SSD Conditions of consent.</i> In response to the above, Section 4.1 has been revised to specifically state that heavy rigid vehicles up to 12.5m lengths will use the temporary construction driveway.

A copy of the email consultation undertaken to date is included as **Appendix B** for reference.

1.3. Structure of this Report

This Plan is based upon information provided by BlueScope Limited and Prime Constructions, and should be read in the context of other construction documentation submitted separately. Reference should be made to the Site Establishment Plans prepared by Prime Constructions Pty Ltd (included as **Appendix C**) which detail the general layout of the construction work within the Site. The remainder of this Plan is structured as follows:

- Section 2: Describes the site and existing traffic and parking conditions in the locality.
- Section 3: Provides an overview of the construction program.
- Section 4: Discusses the proposed traffic management measures.
- Section 5: Discusses the expected impacts resulting from the construction activities.
- Section 6: Presents the overall study conclusions.

1.4. References

In preparing this Plan, reference has been made to the following guidelines, standards and reports:

- Roads and Maritime Services (RMS) Traffic Control at Work Sites Manual, Version 6.1.
- Australian Standard AS 1742.3-2009, Part 3: Traffic Control for Works on Roads (AS 1742.3).
- Australian Standard AS 2890.2-2018, Part 2: Off-Street Commercial Vehicle Facilities (AS 2890.2).
- Integrated Public Transport Service Planning Guidelines, Sydney Metropolitan Area, 2013 (Integrated Public Transport Planning Guidelines 2013).



- BlueScope Erskine Park Metal Coating Line No. 7 Environmental Impact Statement (ref: 0628175, version 1.2), prepared by ERM dated 28/02/2023 (EIS Report).
- BlueScope Metal Coating Line 7 Traffic Impact Assessment (ref: 21464, version 5) prepared by TTPP Transport Planning, dated 24/02/2023.

2. Existing Conditions

2.1. Location and Site

The Site is located at 55 Templar Road, Erskine Park, being approximately 39 kilometres west of the Sydney CBD. More specifically, it is located on the western side of Templar Road to the south of its intersection with Lockwood Road.

The Site is comprised of a single lot, formally identified as Lot 3, DP 1094504. The Site is irregular in configuration with an approximate site area of 10.3 hectares. The Site has a single street frontage, being Templar Road to the east, having a length of approximately 320 metres. The Site borders neighbouring industrial buildings to the north and south of the Site and C2 Environmental Conservation zoned land to the west.

Figure 1 and **Figure 2** provide an appreciation of the Site's location in both a broad and local context respectively.

2.2. Road Network

The road network in the vicinity of the Site is shown in **Figure 1** with the following roads considered noteworthy as detailed in **Table 4**.

Table 4: Road Network Details

ROAD NAME	MAMRE ROAD	ERSKINE PARK ROAD	LENORE DRIVE	TEMPLAR ROAD
ROAD CLASSIFICATION	State Road (MR 536)	State Road (MR 629)	State Road (MR 693)	Local Road
ROAD ALIGNMENT	North to south	North-east to south-west	East to west	North to south
RUNS BETWEEN	North: St Marys South: Kemps Creek	North-east: Roper Road South-west: Mamre Road	East: Old Wallgrove Road West: Mamre Road	North: Lenore Drive South: <i>Terminates</i>
SPEED ZONING NEAR SITE	80 km/h	80 km/h	80 km/h	60 km/h ¹
TRAFFIC LANES NEAR THE SITE	One (1) lane in each direction	One (1) to two (2) lanes in each direction	Two (2) lanes in each direction	One (1) lane in each direction
ROAD WIDTH	8 metres	18-20 metres	21 metres	16 metres
KERBSIDE PARKING	No	No	No	Yes
PARKING RESTRICTIONS	'No Stopping' along both sides	'No Stopping' along both sides	'No Stopping along' both sides	Unrestricted parallel parking
FORMS SITE FRONTAGE	No	No	No	Yes

¹: No posted speed limit along Templar Road. Presumed to be 60km/h speed zoning, consistent with Compass Drive & Lockwood Road.

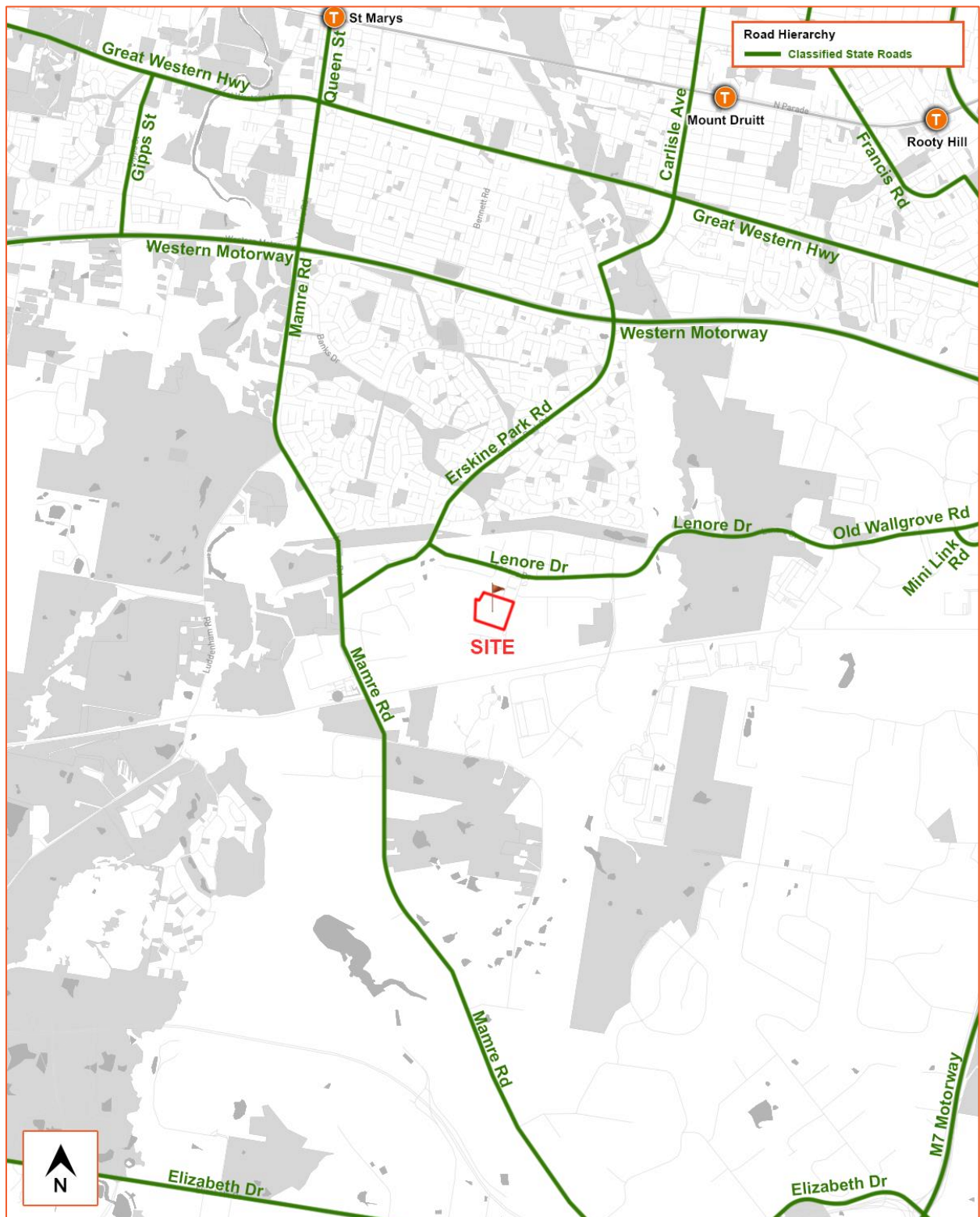


Figure 1: Location & Road Hierarchy Plan



Figure 2: Site Plan

2.3. Public Transport

2.3.1. Bus Services

The Integrated Public Transport Service Planning Guidelines 2013, states that the walking catchment for metropolitan bus services includes all areas within a 400-metre radius of a bus stop. It is evident from **Figure 3** that there are no bus stops within 400 metres of the Site. Notwithstanding, there are several bus stops within approximately 500 metres of the Site, along Lenore Drive. These bus stops are serviced by two (2) bus routes. Accordingly, it is expected a proportion of workers will utilise these services for journeys to and from the Site.

Table 5 below shows the notable town centres that are accessible via the two (2) bus routes servicing the bus stops along Lenore Drive and the average service headways during peak and off-peak periods.

Table 5: Bus Services

ROUTE NO.	TO / FROM	ROUTE DESCRIPTION	AVERAGE HEADWAY
779	Kemps Creek to Erskine Park	Via Erskine Park	Weekdays: 30 minutes Weekends: 1 hour
835	Prairewood to WSU Penrith	Via Bossley Park, Horsley Park, Eastern Creek, St Clair, St Marys Station, WSU Penrith & Kingswood	Weekdays: 30 minutes peak only Weekends: No services

2.3.2. Rail Services

The Integrated Public Transport Service Planning Guidelines 2013, states that the walking catchment for metropolitan railway stations includes all areas within an 800-metre radius of a station. It can be seen from **Figure 3** that Mount Druitt Railway Station is located approximately 6.0 kilometres from the Site and hence, falls outside the typical walking catchment area. Notwithstanding, it is expected that a proportion workers may still utilise the railway services (and bus services) operating from Mount Druitt Railway Station as part of a multi-modal journey to / from the Site (e.g. car, as passenger and rail).

Mount Druitt Railway Station is serviced by the T1 Western Line. **Table 6** shows the notable town centres that are accessible along the abovementioned railway line and the average service headways during peak and off-peak periods.

Table 6: Rail Services

RAILWAY LINE	NOTABLE TOWN CENTRES ALONG LINE	AVERAGE HEADWAYS
T1 Western Line	Emu Plains, Penrith, St Marys, Blacktown, Seven Hills, Parramatta, Lidcombe, Strathfield, Redfern, Central, Town Hall, Wynyard, North Sydney & Chatswood	Weekdays: 10 minutes peak / 15 minutes off peak Weekends: 15 minutes

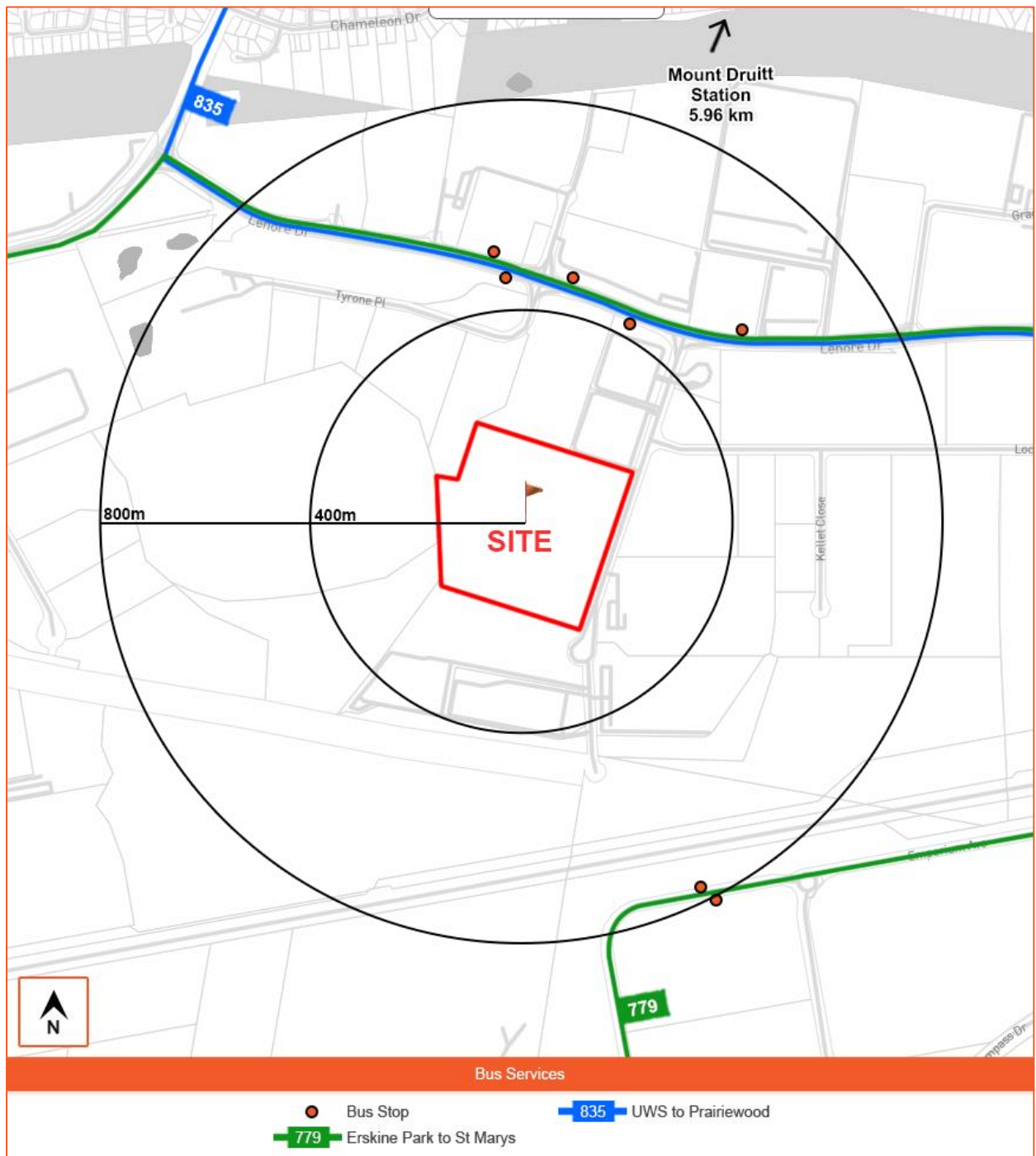


Figure 3: Public Transport Services

3. Overview of Construction Program

3.1. Hours of Construction Work

3.1.1. Approved Hours of Work

The hours of work (earthworks and construction) will be in accordance with Conditions B24 of the SSDA, which have been summarised below for reference:

- Monday – Friday: 7am – 6 pm.
- Saturday: 8am – 1pm.
- Sunday and Public Holidays: No work.

3.1.2. Proposed Extension of Hours of Work

The proposed extension of hours of construction work is detailed in Section 1.1.1 and **Table 1** and summarised below:

- For a total of approximately 15 Saturdays and prior to end of December 2024: 1 pm – 3 pm (+2 hours).
- For a total of approximately 15 Sundays and prior to end of December 2024: 8 am – 3 pm.

Reference should be made to Section 4.8 which discusses the nature of work that will be undertaken during the extension of hours of work.

3.2. Construction Phasing & Duration of Works

Table 7 shows the construction works will be broken into three construction phases and will require approximately 21 months to complete.

Table 7: Construction Phasing & Duration

PHASE	DESCRIPTION	APPROXIMATE COMMENCEMENT DATE	DURATION
1	Site Preparation	November 2023	1 months
2	Structures	December 2023	12 months
3	Installation Works ¹	July 2025	15 months

¹: There will be over between phases.

3.2.1. Site Preparation Phase

This phase will also require approximately one month to complete and will require in the order of 30 on-site workers. These works will incorporate the following:

- Establishment of the 'Construction Village' at the northern portion of the Site, adjacent to the existing car park.
- Construction of permanent perimeter fencing (for the remaining duration of works).

The largest vehicles to access the Site during this stage will be an AV. At the commencement of this phase, truck site entry and exit movements will conform to the arrangements outlined in Section 4.1.1.

3.2.2. Structures

The structure phase will require 12 months to complete and will require in the order of 120 workers. These works will incorporate the following:

- Piling, foundations and footings.
- Delivery of materials, building steelwork and cladding.
- Road pavements and drainage works.

The largest vehicle to access the Site during this stage will be a 28-metre-long AV. The use of this vehicle is required to deliver special structural steelwork sections for the MCL7 building. Truck site entry and exit movement will conform to the arrangements outlined in Section 4.1.2.

3.2.3. Installation Works

This construction phase will require approximately 15 months to complete and will require up to 250 on-site workers. These works will incorporate the following:

- Electrical and mechanical equipment installation.
- Piping and ancillary services installation.

The largest vehicle to access the Site during this stage will be an AV. Truck site entry and exit movement will conform to the arrangements outlined in Section 4.1.2 and the Site Establishment Plans included as **Appendix C**.

4. Construction Traffic Management

4.1. Construction Vehicle Access

4.1.1. Phase 1 Vehicle Access

For truck movements:

- All truck entry movements will occur either the existing entry-only driveway at the north-eastern corner of the site or via the temporary entry-only construction driveway at the south-eastern corner of the site. The temporary entry-only construction driveway will be restricted to use by heavy rigid vehicles only (up to 12.5-metre lengths). Swept path analysis included as **Appendix D** confirm satisfactory access by a 12.5-metre-long Heavy Rigid Vehicle as defined under AS 2890.2.
- All truck exit movements will occur in a forward direction, via the existing truck exit-only driveway at the north-eastern corner of the Site.

For light vehicle movements:

- All entry movements will occur either the existing car-only driveway at the north-eastern corner of the site (between the existing entry-only and exit-only driveways) or via the temporary entry-only construction driveway at the south-eastern corner of the site.
- All exit movements will occur in a forward direction either via the existing exit-only driveway at the north-eastern corner of the Site or via the same car-only driveway (two-way) onto Templar Road.

4.1.2. Phase 2-3 Vehicle Access

The construction vehicle access arrangements will be similar to Phase 1 with the following exceptions:

For truck movements:

- All truck entry movements will primarily occur via the existing entry-only driveway at the north-eastern corner of the site.
- All truck exit movements will occur in a forward direction, via the existing truck exit-only driveway at the north-eastern corner of the Site.
- Use of the temporary entry-only construction driveway at the south-eastern corner of the site will be restricted and will be used by 12.5-metre heavy rigid vehicles only (as required by the builder).

For light vehicle movements:

- All entry movements will occur via the existing car-only driveway at the north-eastern corner of the site (between the existing entry-only and exit-only driveways).

- All exit movements will occur in a forward direction, via the same car-only driveway (two-way) onto Templar Road.

With regard to Phase 2, the largest vehicle to access the site will be a 28-metre-long AV. Whilst swept path analysis has not been undertaken of the truck exit movement at the north-eastern corner of the site, it is noted that the driveway arrangements have been designed to accommodate vehicles up to and including a 32-metre-long B-Triple. Having regard for the above, all construction vehicles will be able to satisfactorily access the site and importantly, all entry and exit movements will occur in a forward direction.

Figure 4 provides an appreciation of the truck movements within the site during Phases 1-3.



Figure 4: Truck Access and Internal Circulation (Illustrative)

4.2. Truck Routes

The proposed truck routes to / from the work area are illustrated by **Figure 5** and can be summarised as follows:

4.2.1.1 Inbound

- From the North: M7 Motorway, Mini Link Road, Old Wallgrove Road, Lenore Drive and Templar Road.
- From the South:
 - Mamre Road, Erskine Park Road and Templar Road; or
 - M7 Motorway, Old Wallgrove Road, Lenore Drive and Templar Road.
- From the East:
 - Great Western Highway, Wallgrove Road, Old Wallgrove Road, Lenore Drive and Templar Road; or
 - Western Motorway, M7 Motorway, Mini Link Road, Old Wallgrove Road, Lenore Drive and Templar Road.
- From the West:
 - Great Western Highway, Mamre Road, Erskine Park Road and Templar Road; or
 - Western Motorway, Mamre Road, Erskine Park Road and Templar Road.

4.2.1.2 Outbound

- To the North: Templar Road, Lenore Drive, Old Wallgrove Road and M7 Motorway.
- To the South:
 - Templar Road, Erskine Park Road and Mamre Road; or
 - Templar Road, Lenore Drive, Old Wallgrove Road and M7 Motorway.
- To the East:
 - Templar Road, Lenore Drive, Old Wallgrove Road and M7 Motorway and Western Motorway; or
 - Templar Road, Lenore Drive, Old Wallgrove Road, Wallgrove Road and Great Western Highway.
- To the West:
 - Templar Road, Erskine Park Road and Mamre Road and Great Western Highway; or
 - Templar Road, Erskine Park Road and Mamre Road and Western Motorway.

Truck drivers will be notified of the above truck routes to / from the Site to ensure construction traffic on local streets is minimised. Additionally, it is noted that a copy of the truck routes illustrated in **Figure 5** is required to be provided to all drivers prior to attending the Site.

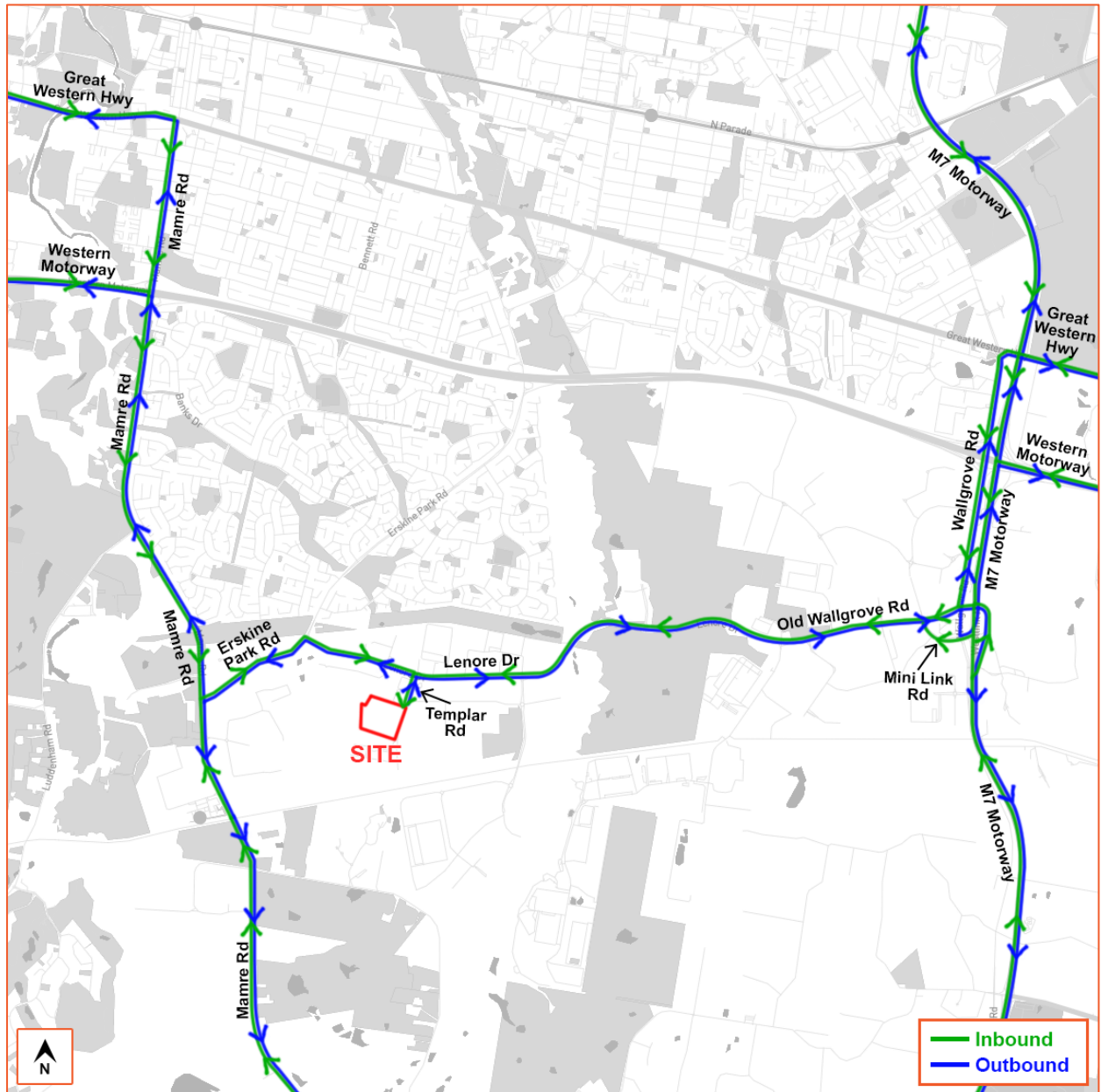


Figure 5: Truck Routes – Inbound & Outbound

4.3. Pedestrian Access & Protection

With reference to the Site Establishments Plans provided as **Appendix C**, temporary and permanent construction fencing with shade cloth will be provided throughout the Site to provide separation between the construction area and existing (and ongoing) operations of the CPL8 building. It is noted that as works progress, fencing will be shifted, as required, to facilitate “tie-in” works with existing infrastructure associated with sewer, stormwater, road pavement and the like. During these works, coordination will be undertaken with the facilities manager of the CPL8 building and the project manager of the construction works.

Along the western side of Templar Road, pedestrian access will be maintained at all times (along the footpath). In this regard, exiting vehicles from the Site are to wait for a suitable gap in both pedestrian and vehicular traffic before proceeding, ensuring that impacts on both vehicle and pedestrian traffic flow are minimised.

These pedestrian protection arrangements are considered acceptable and will ensure that pedestrian safety and access is maintained at all times.

4.4. Crane Requirements

The use of a mobile / tower crane will be required during these works and will be wholly accommodated on-site.

4.5. Oversize Overmass Permit

The use of a 28-metre-long AV will be required to deliver structural steel sections for the MCL7 building. Accordingly, an Oversize Overmass (OSOM) Permit will be required to be applied for by BlueScope Limited / head contractor prior to the 28-metre-long AV being brought to the site.

4.6. Traffic Guidance Schemes

One site-specific TGSs have been prepared for Phases 1-3 and is included as **Appendix E**. The TGS demonstrates the proposed signage and traffic management measures that are required to be implemented for the traffic management for the vehicle access to the site.

The TGS will ensure that vehicular, pedestrian and cyclist movements are managed safely and efficiently. The TGS has been designed in accordance with the requirement of the TfNSW Traffic Control at Works Site Manual and AS 1742.3 and is recommended for adoption.

4.7. Notice of Construction Works

Adjoining neighbours of the site will be notified by letterbox drop of the construction works and expected timeframes for completion, seven (7) days prior to the commencement of each phase of construction.

4.8. Nature of Construction Work During the Extended Hours

As advised by BlueScope Ltd, the nature of construction work during the extended hours of work are to be as follows:

- Work will be relatively 'quiet' compared to other construction work that will occur during the approved hours. This will comprise of formwork, reo-fixing, metal roofing and cladding.
- No deliveries will occur during the extended hours on Saturday or Sunday. All materials that will be used during the extended hours will be delivered during the approved construction hours. Accordingly, no heavy vehicle movements will arrive or depart the site after 1 pm on Saturdays or at all on Sundays.
- Light vehicle trips associated by tradespersons and generated during the extended hours of work on Saturdays and on Sundays will be consistent with the respective construction phase. The number of tradespersons on-site will not exceed what is outlined in Sections 3.2.1 - 3.2.3.

5. Construction Impacts

5.1. Contractor Parking Demand & Impacts

5.1.1. During Approved Hours of Construction Work

As illustrated by **Figure 3** the site has relatively good access to public transport services and a proportion of the workforce is expected to utilise such services to / from the Site. The use of public transport and car-pooling will be actively encouraged by the builder and all sub-contractors to reduce the reliance on private vehicles and minimise parking demands.

Phase 3 has been assessed to consider the worst-case contractor parking demands and impacts given this is the busiest construction phase and is expected to require a maximum workforce of up to 250 persons. In this regard, the following is noted:

- Approximately 20% of workers are expected to utilise public transport to and from site.
- An average car occupancy of 2.5 persons / car is expected for the remaining 80% of workers travelling to / from the site in a private vehicle.

It is evident from the above that the expected peak car parking demand under Phase 3 will be in the order of 80 car spaces. In this regard, the following comments on contractor parking is made below:

- The extension of the existing car park is currently being undertaken by BlueScope Limited. Upon completion, this would provide an additional some 40 car spaces for contractor parking.
- Per the Site Establishment Plan provided as **Appendix C**, designated car parking is provided south of the 'BSL Project Village' area which is able to accommodate approximately 40 car spaces.

- As advised by BlueScope Ltd, a temporary car park has been constructed at the north-western corner of the site. The provision of the temporary ensures contractor car parking does not spill onto Templar Road and all parking demands are accommodated on-site.
- From discussions with Prime Constructions, the site parking within the vicinity of the 'BSL Project Village' area can be extended to accommodate additional contractor parking.

Having regard for the above, all contractor parking demands will be readily accommodated off-street, with no reliance on on-street parking and will therefore have little to no impact on on-street parking along Templar Road. Additionally, no impacts are expected on the existing car parking conditions associated with the CPL8 staff. Furthermore, it is noteworthy to mention that the above assesses the 'peak' parking demand and is expected that contractor parking will be within much lower levels over the course of construction.

5.1.2. During the Extended Hours of Construction Work

As discussed in Section 4.8, the number of workers on-site at any one time during the extended hours of work would be consistent with the maximum workforce outlined in Sections 3.2.1 - 3.2.3. Accordingly, the parking demand generated would be readily accommodated on-site per the discussion in Section 5.1.1.

5.2. Traffic Generation & Impacts

5.2.1. During Approved Hours of Construction Work

The traffic generated by the construction activities will vary across the construction stages. **Table 8** provides an estimate of the maximum number of truck and contractor vehicle trips per day that will be generated by the construction activities.

Table 8: Trip Generation of Trucks & Contractor Vehicles – During Approved Hours of Work

TYPE	PHASE 1	PHASE 2	PHASE 3
DAILY HEAVY VEHICLE (TRUCK) TRIPS	20	50	40
DAILY LIGHT VEHICLE (WORKER) TRIPS ¹	20	77	160

¹: Accounts for 20% of workers utilising public transport and remaining 20% of workers travelling using private car and car occupancy rate of 2.5 persons / car.

Truck movements will fluctuate over the course of the construction works with peak daily truck volumes to occur during the Phase 2 with 50 truck trips / day (25 trips in / 25 trips out). These movements will be spread across a period of approximately 11 hours during a typical weekday. Phases 1 and 3 will generate much lower daily truck volumes and in the order of 20 trips / day and 40 trips / day respectively.

Similarly, light vehicle movements will fluctuate over the course of the construction works with peak daily light vehicle volumes to occur during Phase 3 with up to 160 trips (80 trips in / 80 trips out).

The site has excellent access to the arterial road network including Lenore Drive, Great Western Highway, M4 Motorway and M7 Motorway which all carry very high traffic volumes. The increase of up to 200 vehicle trips (truck and cars) per day, being the worst scenario during Phase 3, is considered negligible in comparison to the background traffic and accordingly, it is expected that this increase would be accommodated with minimal impacts.

The construction traffic impacts of the proposed development activities are therefore considered acceptable, as well as being necessary to construct the development.

5.2.2. During the Extended Hours of Construction Work

The additional construction traffic generation resulting from the extended hours of construction work is outlined in **Table 9**.

Table 9: Trip Generation of Trucks & Contractor Vehicles – During Extension of Hours of Work

TYPE	DAY	PHASE 1	PHASE 2	PHASE 3
DAILY HEAVY VEHICLE (TRUCK) TRIPS	Monday – Saturday	20 (no change)	50 (no change)	40 (no change)
DAILY LIGHT VEHICLE (WORKER) TRIPS ¹	Monday – Saturday	20 (no change)	77 (no change)	160 (no change)
	Sundays	+20 (10 in / 10 out)	+77 (37 in / 36 out)	N/A ²

¹: Accounts for 20% of workers utilising public transport and remaining 20% of workers travelling using private car and car occupancy rate of 2.5 persons / car.

²: Extended hours of construction work not proposed for Phase 3.

On Saturdays, there is expected to be no change to the trip generation as a result of the extension hours of work.

On Sundays, the trip generation will be consistent with Monday – Saturday and dependent on the construction phase. It is expected that the associated construction traffic impacts on Sunday would be consistent with what already occurs on Saturday. It is noteworthy to mention the local external road network is expected to exhibit lower traffic volumes due to nearby businesses are not operating which would result in additional capacity to accommodate the construction traffic that will be generated on Sunday.

Notwithstanding the above, it is emphasised that the extension of hours of work will be restricted to 15 Saturdays and 15 Sundays prior to the end of December 2024.

The construction traffic impacts arising from activities during the extension hours of work are therefore considered acceptable, as well as being necessary to construct the development.

5.3. Pedestrian & Cyclist Access

The pedestrian management measures throughout the construction period have been discussed in Section 4.3 and will ensure that there will be minimal impact to pedestrians and cyclists.

5.4. Public Transport

The construction activities will have no impact on existing public transport services within the vicinity of the site.

5.5. Emergency Vehicle Access

The construction activities will have no impact on emergency vehicle access to the site and accordingly, emergency vehicle access will be available at all times. Should there be a need for emergency vehicle access, on-site workers are to assist as necessary.

5.6. Heavy Vehicle Driver Code of Conduct

Reference should be made to the Heavy Vehicle Driver Code of Conduct included as **Appendix F**, that is required to be adhered to all times in association with the construction of the development. Prime Constructions will ensure all workers including heavy vehicle contractors are provided with a copy of the Heavy Vehicle Driver Code of Conduct prior to arrival at the site.

5.7. Work Health & Safety

Any workers required to undertake works or traffic control shall be suitably trained and hold the required accreditation, and will also be site inducted. All traffic control personnel will be required to hold SafeWork NSW accreditation in accordance with the TfNSW Traffic Control at Worksites Technical Manual.

5.8. Staff Induction

All staff and subcontractors engaged on site will be required to undergo a site induction. The induction will outline the requirements of this Plan, including site access routes, environmental and Work Health and Safety (WHS) responsibilities, emergency procedures, potential carpooling opportunities, etc. Additionally, the on-site manager / project manager will discuss the requirements of this Plan regularly as a part of toolbox talks.

5.9. Traffic Management Monitoring & Reporting

5.9.1. Overview

The effectiveness of the traffic management measures of this Plan and anticipated construction impacts can be assessed through the following criteria:

- Truck movements / routes.
- Construction site access arrangements.
- Contractor car parking.
- Traffic Guidance Scheme implementation.

Following the site audit, a report will be prepared outlining the outcome of the inspection and any recommendations that could be implemented to improve the environmental performance and management of the construction traffic impacts.

5.9.2. Report Review & Update

The following outlines the typical triggers which will require a revision or update of this Plan to be prepared:

- After a substantial deviation between actual on-site construction traffic activities and details documented in this Plan.
- After an incident, complaint or non-compliance with statutory requirements and this Plan.
- Modifications or requirement for new TGS to be prepared.

6. Conclusions

In summary, this Updated Plan has been prepared to detail the construction traffic impacts associated with the proposed extension of construction hours of work relating to the new manufacturing facility building at 55 Templar Road, Erskine Park, under SSD-45510464.

The proposed traffic management arrangements recommended in this Plan satisfy the requirements of the RMS Traffic Control at Worksites Manual, AS 1742.3 and AS 2890.2, and seek to minimise the impact of the construction activities on the surrounding community, in terms of both vehicle traffic and pedestrian amenity. Any minor variation to these standards would be considered acceptable having regard to the constraints inherent by the site and proposed development.



Appendix A



YEARS OF EXPERIENCE

6 years

QUALIFICATIONS & AFFILIATIONS

BE (Civil)

MIEAust

Member AITPM

Member IPWEA

SafeWork NSW – Work Health & Safety Traffic Control Work (PWZ)

Level 1 Road Safety Auditor

KEY SKILLS & COMPETENCIES

Traffic & Parking Impact Assessments

SIDRA Traffic Modelling

Road Safety Audits

Car Park Design

Car Park & Loading Dock Audits

Traffic Management Plans

Loading Dock Management Plans

Design Development & Compliance Statements for Construction & Occupation Certificates

Peer Review

Data Analysis

PROFESSIONAL BACKGROUND

2017-Present - PDC Consultants

JULIUS BONCATO

SENIOR TRAFFIC ENGINEER



PROFESSIONAL OVERVIEW

Julius is a competent traffic engineer with expertise in the areas of traffic engineering and transport planning. Julius has been involved in several development and infrastructure projects, varying in land-use and scale, and has been involved in all project aspects from design and development, through to construction. This experience allows Julius to provide strategic and specialist advice on transport planning issues that ensure the best possible outcome on all projects he is involved in.

Julius is a very effective communicator and a skilled user of many transport related software packages, including, SIDRA Intersection, AutoCAD, Vehicle Tracking and RapidPlan.

RELEVANT PROJECT EXPERIENCE

TRAFFIC & PARKING IMPACT ASSESSMENTS

Winter Sports World

Jamison Rd, Penrith

Cabramatta East Precinct

Cabramatta Rd E, Broomfield St and Fisher St, Cabramatta

Big Bear Shopping Centre

Military Rd, Neutral Bay

Liverpool West Public School

Hoxton Park Rd, Liverpool

Bexley Bowling Club

Laycock St, Bexley North

Mixed-Use Development

Segers Ave, Padstow

Canada Bay Club

William St, Five Dock

Uniting Residential Aged Care & Independent Living Units

Freeburn St & Yamba Rd, Yamba

Roly-Poly Early Learning Centre

Clovelly Rd, Clovelly

Warehouse Development

Interchange Park, Eastern Creek

Mixed-Use Development

Princes Hwy, Wolli Creek

Mixed-Use Development

Castlereagh St, Haymarket

TRAFFIC MANAGEMENT PLANS

Yennora Distribution Centre

Loftus Rd, Yennora

Showground Business Park

Anella Ave, Castle Hill

Hendra Industrial Estate

Nudgee Rd, Nudgee

Great West Distribution Centre

Great Western Hwy, Arndell Park

Big Bear Shopping Centre

Military Rd, Neutral Bay

Ingleburn Logistic Park

Stennett Rd, Ingleburn

Moorebank Distribution Centre

Helles Ave, Moorebank

Chullora Business Park

Hume Hwy, Chullora

PolAir Facility

Bankstown Airport, Bankstown

Parramatta West Public School

Young St, Parramatta

Domremy College

First Ave, Five Dock

Forrester Distribution Centre

Forrester Rd, St Marys

DESIGN DEVELOPMENT & COMPLIANCE STATEMENTS FOR CONSTRUCTION CERTIFICATE

PolAir Facility

Bankstown Airport, Bankstown

Park One

Waterloo Rd, Macquarie Park

Domremy College

First Ave, Five Dock

Boomerang Tower

Olympic Blvd, Sydney Olympic Park

Uniting Mayflower Westmead

Caroline St, Westmead

Mixed-Use Development

Old Princes Hwy, Sutherland



Appendix B

Julius Boncato

From: Gavin Cherry <gavin.cherry@penrith.city>
Sent: Tuesday, 10 October 2023 3:22 PM
To: James Menzel
Cc: Julius Boncato; Katelyn Davies; Hamish Dodson
Subject: Response to Customer on SSD Condition Compliance - 25-55 Templar Rd Erskine Park | SSD-45510464

Afternoon James and Julius

Council's assets unit has reviewed the referred document and made the following comment for your address:-

- *In section 4.1 it is nominated that only heavy rigid vehicles will utilise the temporary construction access driveway at the southern end of the site. More specifics should be provided in terms of vehicles sizes. Dependant on the vehicle size, swept paths may need to be provided to ensure that the temporary construction driveway has been appropriately constructed to support vehicle entry into the site.*

Please address the above request and refer the revised version to Council for final review and comment against the SSD Conditions of consent.

Regards

Gavin Cherry
Development Assessment Coordinator
Development Services

E Gavin.Cherry@penrith.city
T [+61247328125](tel:+61247328125) | F +612 4732 7958 | M
PO Box 60, PENRITH NSW 2751
www.visitpenrith.com.au
www.penrithcity.nsw.gov.au



From: Gavin Cherry <gavin.cherry@penrith.city>
Sent: Monday, October 9, 2023 1:02 PM
To: James Menzel <jmenzel@primeconstruct.com.au>; Julius Boncato <jboncato@pdccconsultants.com.au>
Cc: Katelyn Davies <Katelyn.Davies@penrith.city>; Johnny Vann <jvann@primeconstruct.com.au>; Hamish Dodson <hamish.dodson@penrith.city>
Subject: RE: 25-55 Templar Rd Erskine Park | SSD-45510464

Afternoon James

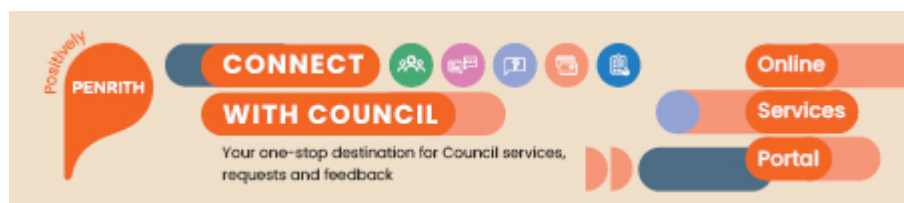
A review of any material lodged takes up to 10 working days and this was only sent late last week.
You will be advised as soon as the response is ready.
regards

Gavin Cherry
Development Assessment Coordinator
Development Services

E Gavin.Cherry@penrith.city
T +61247328125 | F +612 4732 7958 | M
PO Box 60, PENRITH NSW 2751
www.visitpenrith.com.au
www.penrithcity.nsw.gov.au



Follow us



From: James Menzel <jmenzel@primeconstruct.com.au>
Sent: Monday, October 9, 2023 12:38 PM
To: Julius Boncato <jboncato@pdconsultants.com.au>; Gavin Cherry <gavin.cherry@penrith.city>
Cc: Katelyn Davies <Katelyn.Davies@penrith.city>; Johnny Vann <jvann@primeconstruct.com.au>; Hamish Dodson <hamish.dodson@penrith.city>
Subject: Re: 25-55 Templar Rd Erskine Park | SSD-45510464

EXTERNAL EMAIL: This email was received from outside the organisation. Use caution when clicking any links or opening attachments.

Hi All,

Following up this feedback please. Also looping in Hamish.

Thanks,
James

James Menzel | Construction Manager | **Prime Constructions Pty Ltd**
Level 2, 407 Pacific Highway, Artarmon NSW 2064
T (02) 9418 7707 F (02) 9418 7723 M 0478 928 900
www.theprimegroup.com.au



From: Julius Boncato <jboncato@pdconsultants.com.au>
Date: Thursday, 5 October 2023 at 9:24 am
To: gavin.cherry@penrith.city <gavin.cherry@penrith.city>
Cc: katelyn.davies@penrith.city <katelyn.davies@penrith.city>, Johnny Vann <jvann@primeconstruct.com.au>, James Menzel <jmenzel@primeconstruct.com.au>
Subject: RE: 25-55 Templar Rd Erskine Park | SSD-45510464

Caution! This message was sent from outside your organization.

Hi Gavin,

Further to our discussion last week, please find attached our CTMP report for the above site for Council's feedback/comment.

I have also gotten in touch with Hamish last week who was helpful in outlining the key initial considerations for the CTMP.

Any questions, feel free to reach out and looking forward to Council's response following the review.

Kind Regards,

Julius Boncato

Senior Traffic Engineer



PDC Consultants | Traffic + Transport



+61 435 957 061



jboncato@pdcconsultants.com.au



www.pdcconsultants.com.au



www.linkedin.com/company/pdc-consultants



Level 14, 100 William St, Woolloomooloo NSW 2011

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From: Julius Boncato

Sent: Wednesday, September 27, 2023 11:59 AM

To: gavin.cherry@penrith.city

Cc: katelyn.davies@penrith.city; Johnny Vann <jvann@primeconstruct.com.au>

Subject: 25-55 Templar Rd Erskine Park | SSD-45510464

Hi Gavin,

Thanks for your time over the phone earlier.

As mentioned, we have been engaged by the builder to prepare the CTMP and to address Condition B1. Specifically, Condition B1(b) requires the CTMP to be prepared in consultation with TfNSW and Council.

In line with the typical consultation process with Council, we are aiming to undertake the following steps:

1. PDC to prepare a complete CTMP report.
2. PDC to issue the CTMP report to Council for review/feedback.
3. Council to provide any review/feedback to PDC for consideration.
4. PDC to prepare a final updated CTMP report incorporating any comments received from Council (and TfNSW).
5. PDC to issue the final updated CTMP report to Council and TfNSW for information .

As advised, typical timeframes to receive Council feedback would be in the order of 1-2 weeks.

(I have also tried to give Hamish a call, though wasn't able to reach him. I will try again later this afternoon/tomorrow morning).

Any questions, feel free to reach out.

TRAFFIC AND ACCESS

Construction Traffic Management Plan

- B1. Prior to the commencement of construction of the development, the Applicant must prepare Management Plan for the development to the satisfaction of the Planning Secretary. The plan CEMP required by condition C2 and must:
- (a) be prepared by a suitably qualified and experienced person(s);
 - (b) be prepared in consultation with Council and TfNSW;
 - (c) detail the measures that are to be implemented to ensure road safety and network construction;
 - (d) detail heavy vehicle routes, access and parking arrangements;
 - (e) include a Traffic Guidance Scheme which includes details for pedestrian management in accordance with AS1742.3 Traffic Control Devices for Works on Roads and the Traffic Engineering Technical Manual (TfNSW);
 - (f) include a Driver Code of Conduct to:
 - (i) minimise the impacts of earthworks and construction on the local and regional network;
 - (ii) minimise conflicts with other road users;
 - (iii) minimise road traffic noise; and
 - (iv) ensure truck drivers use specified routes;
 - (g) include a program to monitor the effectiveness of these measures; and
 - (h) if necessary, detail procedures for notifying residents and the community (including potential disruptions to routes).

Kind Regards,

Julius Boncato
Senior Traffic Engineer



PDC Consultants | Traffic + Transport



+61 435 957 061



jboncato@pdcconsultants.com.au



www.pdcconsultants.com.au



www.linkedin.com/company/pdc-consultants

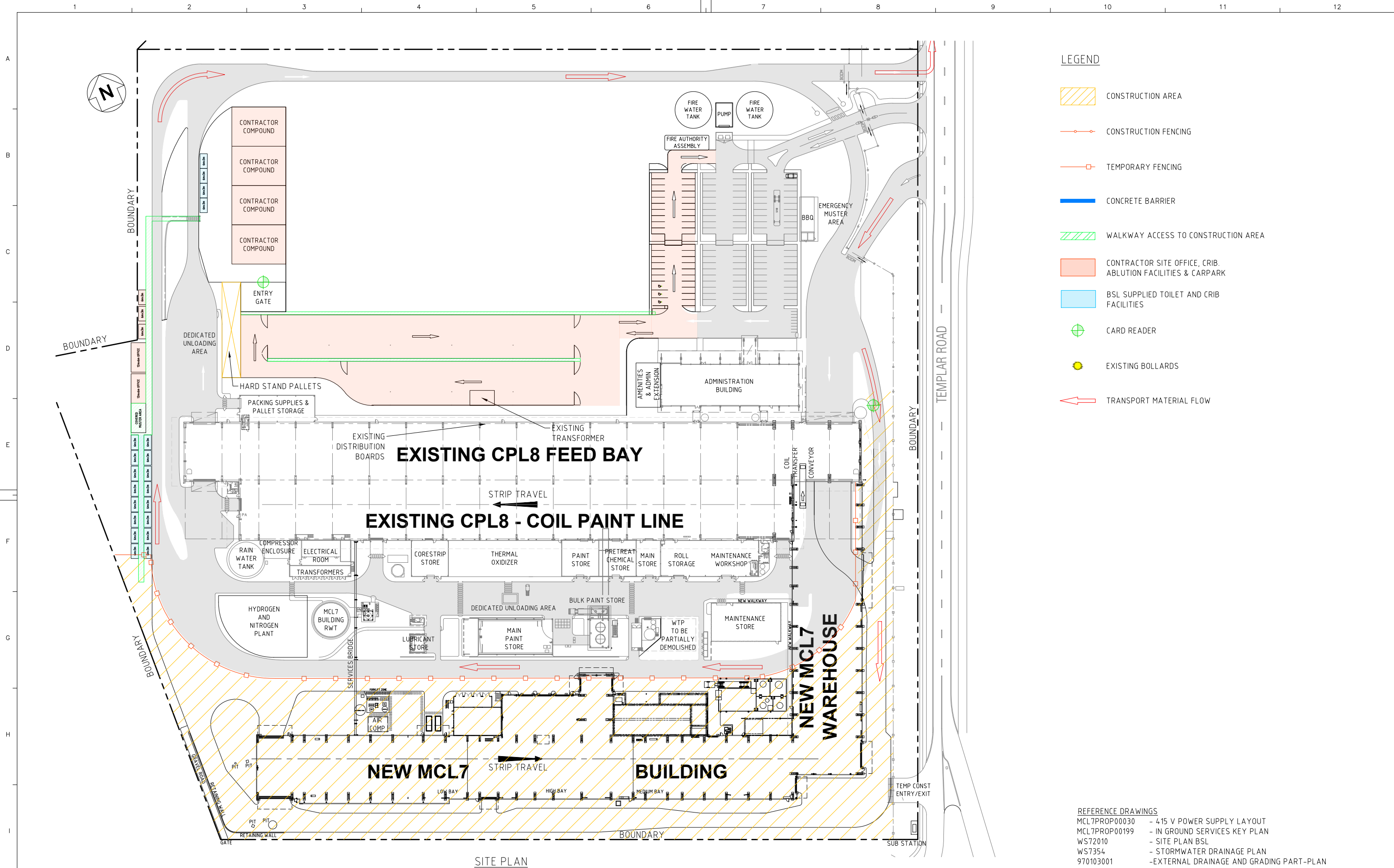


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Appendix C



SITE PLAN

LEGEND

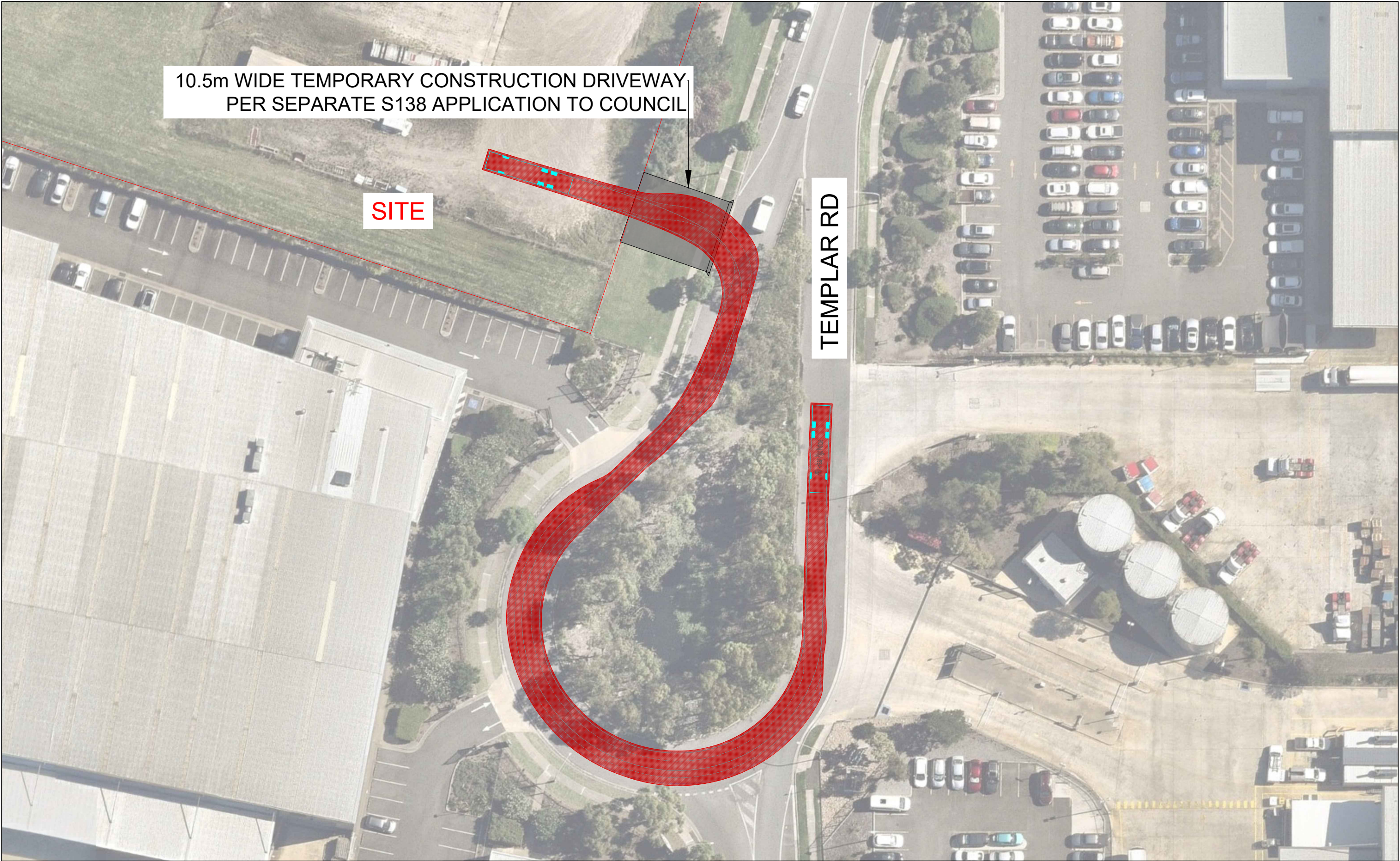
- CONSTRUCTION AREA
- CONSTRUCTION FENCING
- TEMPORARY FENCING
- CONCRETE BARRIER
- WALKWAY ACCESS TO CONSTRUCTION AREA
- CONTRACTOR SITE OFFICE, CRIB, ABLUTION FACILITIES & CARPARK
- BSL SUPPLIED TOILET AND CRIB FACILITIES
- CARD READER
- EXISTING BOLLARDS
- TRANSPORT MATERIAL FLOW

- REFERENCE DRAWINGS
- MCL7PROP00030 - 415 V POWER SUPPLY LAYOUT
 - MCL7PROP00199 - IN GROUND SERVICES KEY PLAN
 - WS72010 - SITE PLAN BSL
 - WS7354 - STORMWATER DRAINAGE PLAN
 - 970103001 - EXTERNAL DRAINAGE AND GRADING PART-PLAN

DATE: 30/07/2024 PROJECT/WBS No: - CHANGE APPROVAL No: - DRAWING STATUS: REFERENCE ONLY ISSUED FOR INFORMATION		DATE: 13/03/2023 PROJECT/WBS No: - CHANGE APPROVAL No: - DRAWING STATUS: REFERENCE ONLY ISSUED FOR INFORMATION		FUNCTIONAL LOCATION CODES		Western Sydney Service Centre		This design is the property of BlueScope Steel Ltd. ABN 16 000 011 058 TITLE BLOCK TO COMPLY WITH SP-ENG-DES-196, VERSION CURRENT AT "DATE DRN"		A1		CHANGE APPROVAL NUMBER: - PROJECT/WBS No: -	
DRAWN: DYLAN ROCHE O/No, CONT. NAME & REF No: - DE/SPEC: - RESP ENG: - REGN APPR: -		CHECKED: - DRAWN: TROY MORRIS O/No, CONT. NAME & REF No: - DE/SPEC: - RESP ENG: - REGN APPR: -		INDEX CODES		DRAWING PRODUCED BY: MCL7 FEASIBILITY PROJECT TEAM		MCL7 - METALLIC COATING LINE No 7 EARLY WORKS CONSTRUCTION MATERIAL MOVEMENT FLOW PLAN A		DRAWN: TROY MORRIS DISC. ENGINEER OR SPECIALIST: - RESPONSIBLE ENGINEER: - REGISTRATION APPROVAL: -		AUTOCAD FILE NAME: MCL7PROP00231_DWG AUTOCAD PRINT: 01/08/2024 10:52 AM	
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Appendix D



No.	Date	Description	Swept Path Key	North	Drawing Prepared By	Architect	Project	Drawing Title	Drawing No.	Revision No.
			----- Vehicle Wheel Path ----- Vehicle Body Envelope ----- 300mm Vehicle Clearance	N 	 PDC Consultants Level 14, 100 William Street Woolloomooloo NSW 2011 t: +61 2 7900 6514 w: www.pdcconsultants.com.au ABN: 70 615 064 670	-	55 Templar Road, Erskine Park	12.5m-long Heavy Rigid Vehicle Swept Path Analysis Entry Movement via Temporary Construction Driveway	001	-
						Client	Project No	Sheet Status	Drawn By	Date
						Prime Constructions Pty Ltd	0618	NOT FOR CONSTRUCTION	JB	10/10/2023
									Scale	
									1:500 @ A3	
									0m 5 10 15 20	



Appendix E

Legend

- Existing Driveways
- Inbound Truck Movements (Phases 1-3)
- Internal Truck Circulation during Construction (Phases 1-3)
- Outbound Truck Movements (Phases 1-3)
- Temporary Construction Driveway

REFER TO SITE
ESTABLISHMENT PLANS
INCLUDED IN CTMP

SITE

EX. CPL8
BUILDING

INTERNAL TRUCK CIRCULATION
DURING PHASES 1-3

TEMPLAR ROAD

JKWOOD ROAD

TRUCK ENTRY
CAR ENTRY & EXIT
TRUCK EXIT

90 m
ON RIGHT

90 m
ON LEFT

90 m
ON LEFT

Notes:

1. This TGS has been designed in accordance with AS 1742.3 (2009) and RMS Traffic Control at Works Site Manual.
2. Dimension D provided in accordance with Austroads Guide to Temporary Traffic Management.
3. Qualified on-site personnel with ITCP accreditation to determine final location of roadwork signs on-site.

North



Title
Construction of MCL7 Building - Traffic Guidance Scheme

Client
Prime Constructions Pty Ltd

SafeWork NSW Certification: Prepare a Work Zone
Traffic Management Plan - TCT0038351

Project
55 Templar Road, Erskine Park

Job Number
0618

Date
04/10/2023



PDC Consultants
a: Level 14, 100 William St
Woolloomooloo NSW 2011
e: info@pdcconsultants.com.au
t: +61 2 7900 6514
w: www.pdcconsultants.com.au



Appendix F



Heavy Vehicle Driver Code of Conduct

- Obey all the laws and regulations that apply to vehicles on public and private roads.
- Respect the rights of others including, drivers, pedestrians and cyclists, to use and share the road space.
- Ensure that the vehicle is clean and good mechanical condition to reduce environmental impacts.
- Ensure all loads are secured and vehicles transporting loose material have the loads covered to prevent any large items, excess dust or debris depositing onto the roadway during travel to and from the site.
- Limit 'hard braking' along local streets including in residential areas, local town centres and schools.
- Follow designated truck routes to / from the site, as outlined in the truck route figures issued separately.
- Abide by the standard hours of construction, as outlined in the Consent.
- Ensure heavy vehicles are standing or parked in designated areas on-site.
- Maintain communication with the site manager / project manager to ensure arrivals are scheduled to minimise the potential for marshalling of trucks within the public road network.

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APPENDIX H

Construction Waste Management Plan





Sydney Environmental Group

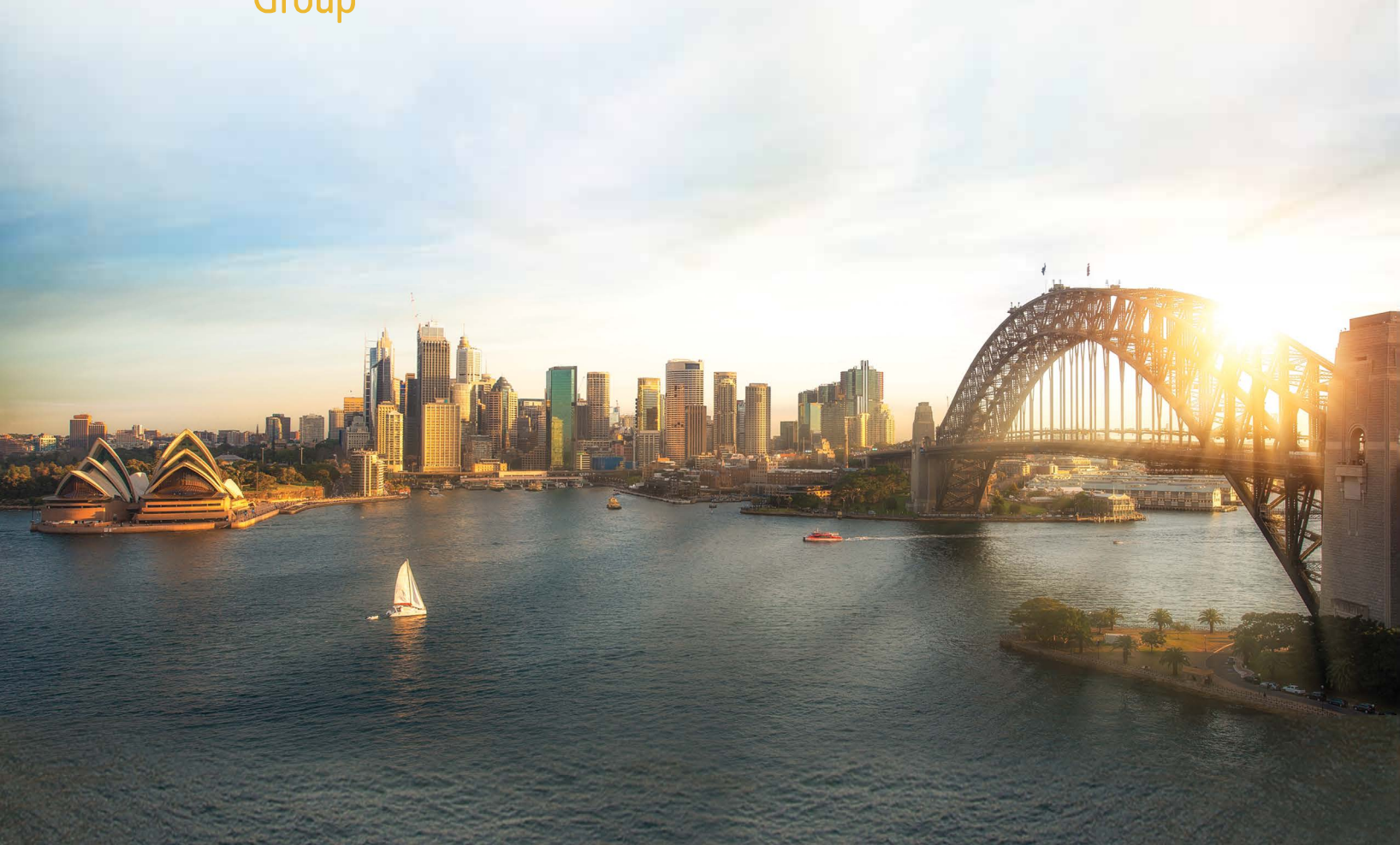
Waste Management Plan

25-55 Templar Road, Erskine Park NSW

Prime Constructions Pty Ltd & BlueScope Ltd

Report No: 2245-WMP-01-180923.v1f

Report Date: 18 September 2023



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DOCUMENT RECORD

Revision	Date	Author	Reviewer
v1f	18 September 2023	Marianne Rajkumar	Steven Wallace

Author Signature		Reviewer Signature	
Name	Marianne Rhea	Name	Steven Wallace
Credentials	B.E. Civil Engineering	Credentials	CEnvP, M.Sc.Envir.Sci, B.Sc. Meteorology
Title	Environmental Scientist	Title	Managing Consultant

Document Title:	Waste Management Plan, 55 Templar Road, Erskine Park NSW
Site Address:	55 Templar Road, Erskine Park NSW
Client Name:	Prime Constructions Pty Ltd & BlueScope Ltd
Site Size:	≈ 10.3 ha
Reference Number:	2245-WMP-01-180923.v1f
Project Type:	Waste Management Plan
Project Type Abbreviation:	WMP
Document Draft:	FINAL
Document Revision No.	v1f

Prepared by Sydney Environmental Group Pty Ltd ABN: 14 631 026 214



1. INTRODUCTION

Sydney Environmental Group Pty Ltd (SE) was engaged Prime Constructions Pty Ltd & BlueScope Ltd (the client), to prepare a Waste Management Plan (WMP) for the proposed alterations and additions to the existing industrial structures located at 25-55 Templar Road, Erskine Park NSW (refer **Figure 1**).

SE has the following project appreciation:

- The site is comprised of Lot 3 DP1094504 encompassing an area of 10.3 ha;
- The site is proposed for redevelopment comprising expansion of carpark and construction of additional warehouses and associated offices for general industrial use.; and
- A WMP is required for submission to the Principal Certifying Authority.

SE were engaged to:

- Prepare a WMP (inclusive of WMP) for the proposed construction activities of the client at the site.

The site identification details and associated information are presented in **Table 1** below.

Table 1. Site Identification Information

Attribute	Description
Street Address	25-55 Templar Road, Erskine Park NSW
Lot and Deposited Plan (DP)	Lot 3 DP1094504
Geographical Coordinates	33°49'8.8"S 150°47'37.32"E (Centre of site)
Site Area	≈ 10.3 ha
Local Government Area (LGA)	Penrith City Council
Zoning	IN1 General Industrial (State Environmental Planning Policy (Industry and Employment) 2021)

The locality and the general layout of the site are set out in **Figure 1**.

1.1. Project Description

The proposed development consists of expansion of carpark and construction of a Metal Coating Line including additional warehouses and associated offices for general industrial use.

The purpose of this WMP is to promote favourable environmental outcomes associated with the management of waste on this project. The WMP sets out all the safeguards required to minimise any adverse impacts to the environment. The project will aim to recycle as much construction waste as possible during demolition and construction.



2. Waste Management Plan

This procedure summarises requirements for waste produced in constructing the proposed development. Construction waste will be managed in accordance with the waste management hierarchy:

1. Avoid waste as a first priority
2. Re-use waste, recycle or reprocess
3. Dispose of waste as a last resort

The construction of the proposed development will generate the most amount of waste from demolition of structures. The following waste types are likely to be present:

- General demolition waste, including waste concrete, bricks, timber, metal and glass;
- Surplus materials used during site establishment, such as safety fencing and barriers possibly including plastics and metal;
- General construction waste, such as excess concrete, redundant pieces of pipe/fittings, broken bricks, timber, paper, plastic and metal; and
- Domestic waste, including food scraps, aluminium cans, glass bottles, plastic and paper containers, and putrescibles waste generated by site construction staff.

Construction will generate a relatively small amount of waste, however, the client will adequately manage and minimise impacts by implementing the waste mitigation measures listed below:

- Establish a combined waste collection system by a reputable service provider;
- Order appropriate quantities of materials to minimise wastage;
- Control the quality of materials supplied to reduce rework and problems due to quality and additional material consumption;
- Use prefabricated elements where practical and reasonable;
- Establish co-mingled recycling receptacles for packaging and food container waste;
- Separate waste steel and dispose in the steel recycling bin provided on-site;
- Reuse form work as often as possible;
- Send waste timber and formwork to a recycling facility;
- Send waste concrete to a recycling facility;
- Mulch and remove any green waste from site. Where possible depending on the species, reuse for landscaping purposes off-site;
- Recycle general waste such as paper, cardboard, aluminium cans and similar materials from offices and site facilities; and
- The potential for reuse through backfilling will be limited by geotechnical factors and space constraints onsite.

2.1. Waste Storage and Handling

During demolition and excavation, waste will be removed by a suitably licensed contractor and sent to preapproved waste and resource recovery facilities. The handling, storage and transport of hazardous materials and waste will be in accordance with the WHSMP, National Code of Practice, relevant SDS on the product, and hazardous materials management procedures.

Waste oils and chemicals will be stored in a purpose-built secured bunded area. The capacity of the bunded area will be at least 110% of the chemical stored within. An emergency response spill kit will be located adjacent to the bunded area. All storage containers and locations for the various waste streams will be clearly labelled to ensure that mixing of wastes is avoided.

All material removed during any de-silting of drainage structures or sediment structures will be disposed in an approved disposal area on-site. Where spoil material is to be removed for off-site disposal, the client will ensure the waste is classified in accordance with the NSW EPA Waste Classification Guidelines.

Records or a material register will be retained detailing the quantity and classification of spoil material removed from the site.



Table 1 Demolition Waste Disposal Forecast

Waste Type	Estimated Volume ^b m ³	Waste Facility	Recycled On/Off Site
Heavy Recyclable Materials (Concrete)	546	Bingo Artarmon	100% recycled off site
Heavy Recyclable Materials (rubble / Brick)	102	Bingo Artarmon	100% recycled off site
Light Recyclable Materials (Timber, plastic)	-	Bingo Artarmon	100% recycled off site
Metals	10	Bingo Artarmon	100% recycled off site
Green Waste	306	Bingo Artarmon	100% recycled off site
General Construction Waste	84	Bingo Artarmon	Disposed of off site
Asbestos	N/A	Bingo Artarmon	Disposed of off site
Approximate Total Waste	1048		
Total Recycled	964		
Total Disposed	84		

Notes:

^A Material density values taken from Advances in Construction and Demolition Waste Recycling (2020)

^B Estimates based of concept plan (**Appendix A**)

Table 2 Construction Waste Disposal Forecast

Waste Type	Estimated Volume ^b m ³	Waste Facility	Recycled On/Off Site
Heavy Recyclable Materials (Concrete)	132	Bingo Artarmon	100% recycled off site
Heavy Recyclable Materials (rubble / Brick)	-	Bingo Artarmon	100% recycled off site
Light Recyclable Materials (Timber, plastic)	52	Bingo Artarmon	100% recycled off site
Metals	9	Bingo Artarmon	100% recycled off site
Green Waste	1970	Bingo Artarmon	100% recycled off site
General Construction Waste	695	Bingo Artarmon	Disposed of off site
Asbestos	N/A	Bingo Artarmon	Disposed of off site
Approximate Total Waste	2163		
Total Recycled	1468		
Total Disposed	695		



Notes:

^A Material density values taken from Advances in Construction and Demolition Waste Recycling (2020)

^B Estimates based of concept plan (**Appendix A**)

2.2. Fill Material

Investigative sampling will be undertaken on all spoil materials that require excavation and disposal if required. Specific waste management plans will be developed as an outcome of the investigative sampling. The management plans will ensure crews confidently identify specific disposal options and techniques based on any contamination found at the project location.

2.3. Naturally occurring sand / Re-usable backfill material

The fill material will typically be underlain by Wianamatta group shale with sandstone beds. This naturally occurring layer typically may contain suitable geotechnical properties for backfilling however due to site space constraints, construction crews will excavate and dispose of all excavated material .

When suitable quantities are achieved, validation samples will be taken for laboratory analysis and the results compared against the National Environment Protection Measures (NEPM 2013) commercial / industrial (HIL/HSL/ESL) land use criteria (including material with low-level asbestos concentrations). A spoil management plan will be developed to identify specific construction techniques to re-use excavated soils including backfilling sections of the project at a depth which requires a 'clean fill' capping layer to be placed on top of the backfill material.

Any excess material unable to be reused will undergo validation sampling and disposal in accordance with the EPA Resource Recovery Exemptions and Waste Classification Guidelines.

2.4. Ongoing Waste Operations and Management

During operations of the proposed development, waste will be removed by local council and sent to preapproved waste and resource recovery facilities. Based on information provided by the client, the proposed alterations will not have a significant impact on expected waste generation.

Based on the size and potential uses of the development, the following waste loads are expected and summarised in **Table 3**.

Table 3 Ongoing Waste Disposal Forecast (weekly)

Waste Type	Volume (L/week) (Approx)	Waste Contractor
General Waste (Disposal)	480	Penrith City Council
Glass (Recycle)	240	Penrith City Council
Cardboard (Recycle)	60	Penrith City Council
Food Waste (Recycle)	480	Penrith City Council
Cooking Waste Oil (Recycle)	-	Penrith City Council

Ongoing management of waste on-site will be managed by the site owner using existing 60 L or 240 L bins. The management of waste will be enforced as part of any lease conditions under standard contractual terms.



3. STATEMENT OF LIMITATIONS

The findings presented in this plan are based on information provided by the client, specific searches of relevant, government historical databases and anecdotal information that were made available during the course of this investigation. To the best of our knowledge, these observations represent a reasonable interpretation of the general condition of the site at the time of report completion.

This plan has been prepared solely for the use of the client to whom it is addressed, and no other party is entitled to rely on its findings.

No warranties are made as to the information provided in this plan. All conclusions and recommendations made in this plan are of the professional opinions of personnel involved with the project and while normal checking of the accuracy of data has been conducted, any circumstances outside the scope of this report or which are not made known to personnel and which may impact on those opinions is not the responsibility of Sydney Environmental Group Pty Ltd. Should information become available regarding conditions at the site including previously unknown sources of contamination, SE reserves the right to review the plan in the context of the additional information.

This plan must be reviewed in its entirety and in conjunction with the objectives, scope and terms applicable to SE's engagement. The plan must not be used for any purpose other than the purpose specified at the time SE was engaged to prepare the plan.

Logs, figures, and drawings are generated for this report based on individual SE consultant interpretations of nominated data, as well as observations made at the time site walkover/s were completed.

Data and/or information presented in this report must not be redrawn for its inclusion in other plans or documents, nor should that data and/or information be separated from this report in any way.

Should additional information that may impact on the findings of this plan be encountered or site conditions change, SE reserves the right to review and amend this plan.



APPENDICES

