

PROJECT ENVIRONMENTAL MANAGEMENT PLAN (PEMP)

Project Pemulwuy

44 Clunies Ross St, Greystanes



E-PLAN-03 (July 2021) | Approved by Andrew Andreou
Uncontrolled copy once printed.

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1. INTRODUCTION

1.1. PROJECT INFORMATION TABLE

Project information table				
Project name	Project Pemulwuy (BUNZL)			
Location	44 Clunies Ross St, Greystanes			
Client	Aliro / ISPT			
Duration of contract	27 weeks			
Taylor contacts information				
Company name	Taylor Construction Group Pty Ltd			
ABN	25 067 428 344			
Address	Level 13, 157 Walker Street, North Sydney 2060			
Telephone and fax	Ph.: 02 8736 9000 Fax: 02 8736 9090			
Position	Contact name	Phone numbers		
Chief Executive Officer	George Bardas	8736 9000		
General Manager Construction	Tim Christie	8736 9000		
Operations Manager	Chris Bellemore	8736 9000		
Construction Manager	Ross Rooke	0438 398 895		
Project Manager	Rob Hancock	0439 458 879		
Site Manager	Tony Florio	0429 354 083		
HSE Manager	Andrew Andreou	0404 492 614		
Safety Advisor	TBC			
Quality & Compliance Manager	Stephen Player	8736 9000		
Contract Manager	N/A			
Contract Administrator	Alaa Naboulsi	0481 835 830		
Project Engineer	Omid Abbasi	0410 356 228		
Site Engineer	N/A			
Foreman/ Leading Hand	TBC			
Cadet	TBC			
Document control	Name	Position	Signature	Date
Prepared by	Rob Hancock	Project Manager		
Prepared by	Tony Florio	Site Manager		
Reviewed by:	Andrew Andreou	WHS&E Manager		
Reviewed by:	Chris Bellemore	Operations Manager		
Reviewed by:	Tim Christie	General Manager		
Revised by	Revision #	Date	Changes made	

1.2. PROJECT DESCRIPTION

The project is known as **Project Pemulwuy** (Building 2) and comprises the design and construction of a new distribution centre including main office, dock office, battery charge room and associated external spaces as depicted in the Preliminary Design. The Project Design Brief provides the detailed scope and performance criteria for the works. The intent of the works is to provide a facility ready for the tenant to commence their racking and operational services and equipment fit out during the Early Access periods and commence operations immediately after Practical Completion. The facility is 6 Star Green Star Design & As-Built Rating for the base building.

The principal has engaged an Early Works Contractor to undertake site clearing, demolition, remediation, and bulk earthworks across the site, and construct the boundary retaining walls for the facility. It is envisaged that Building 2 construction works and remaining estate civil / infrastructure work will occur concurrently.

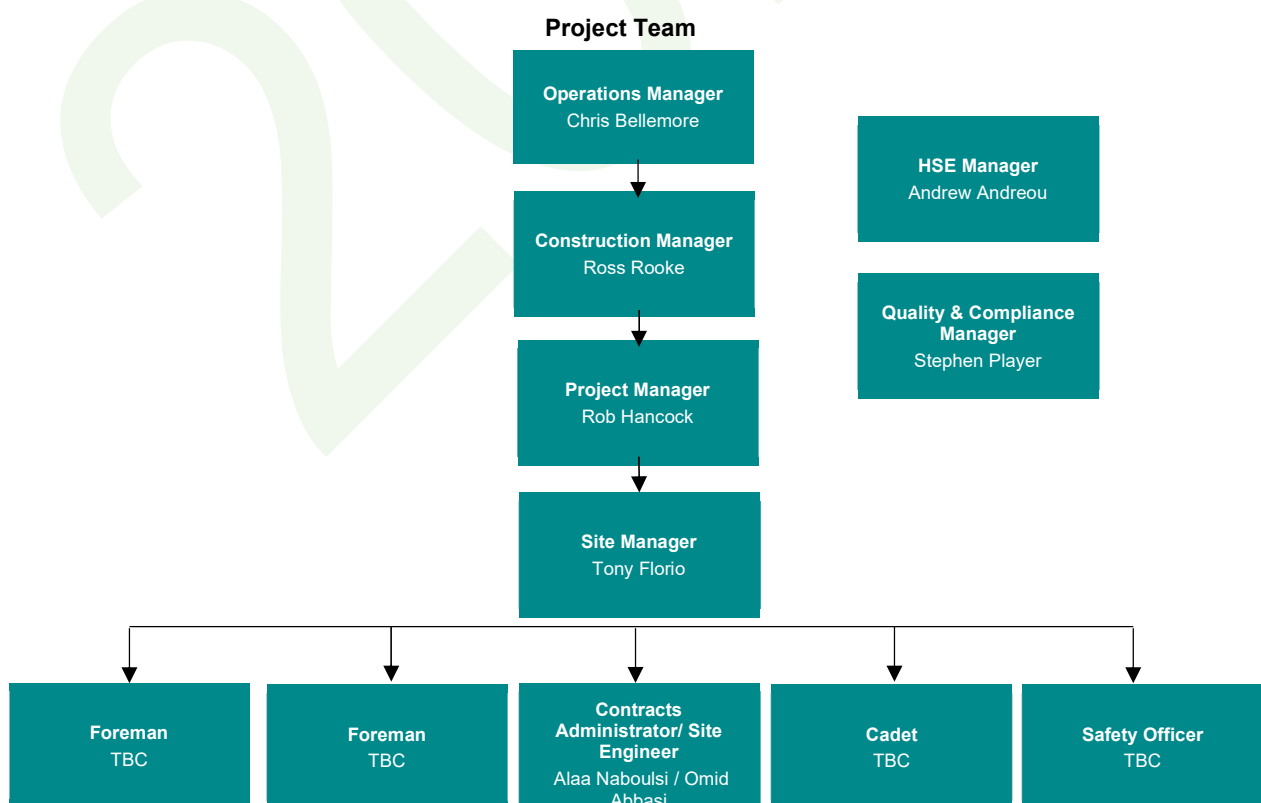
1.3. PURPOSE OF THE PROJECT ENVIRONMENTAL MANAGEMENT PLAN

Taylor Construction Group Pty Ltd has a documented Quality, Health, Safety and Environmental (QSE) Management System. While the management systems are integrated, key documents such as the Project Environmental Management Plan (PEMP), the Project Safety Plan (WHSP) and the Project Management Plan (PMP, overarching plan with Quality provisions) are developed as separate documents to give each area a strong individual focus. The 'hierarchy of system documents' diagram below provides an overview of where the PEMP fits in the management system hierarchy.

This document is a key component of the integrated QSE Management System and sets out the environmental management strategy to be adopted on site by Taylor Construction Group Pty Ltd as the principal contractor for works undertaken on this project. The purpose of this document is to provide guidance on the essential environmental requirements on a project level and reference to other important management system processes and procedures. A Project Environmental Management Plan must be prepared for each project managed by Taylor Construction Group.

The project-specific Environmental Management Plan is to be read in accordance with Taylor Construction Management Manual, Site Management Plan and Site Safety Plan. This plan is intended to satisfy the SSD CEMP requirements.

1.4. PROJECT ORGANISATIONAL STRUCTURE



2. HIERARCHY OF HSE SYSTEM DOCUMENTS



QSE System documents can be found on SharePoint under the Taylor Management System (TMS), within the 'Quality' and 'HSE' folders.

The Management System structure:

- Corporate:
- QSE manual
- Corporate policies
- Corporate (system) procedures
- Forms and templates
- Registers and matrices
- Objectives and targets
- Organisational charts
- Certificates/ accreditations
- Training material

Hammertech a cloud-based software platform will be used to enable teams to manage their processes effectively and maintain uniformly across all projects. This includes the collating and storing of

- Onboarding & Inductions
- Safety Plans / SWMs / Risk assessment
- Permits
- Pre-start & Toolbox talks
- Equipment & maintenance records / schedules
- Personnel training records / competencies / licences
- WHS&E inspections / audits
- Accident and incident
- Attendance (site diaries)

Hammertech can also be used to send out news bulletins and updates to individuals advising of alerts, meetings, industry news and updates to site rules and procedures.

ENVIRONMENTAL POLICY

Taylor Construction Group has an Environmental Policy outlining our commitment to protection of the environment. This policy can be found in Appendix 2 of this document. A copy of the Environmental Policy is to be posted on the walls or notice board at the project site.

3. LEGAL AND OTHER REQUIREMENTS

The processes for identifying and keeping up to date with legal and other requirements are outlined in the **Legal and Other Requirements Procedure SE-P-01**.

An **Environmental Legal and Other Requirements Register E-R-01** has been prepared and is periodically updated to ensure that it reflects current legal requirements. This register identifies the key relevant legislation and guidelines and should be attached to this plan in appendix 7.

3.1. ENVIRONMENTAL FACTORS

Factor	Objectives	Requirements
Noise management*		
Noise/ vibration	Protect the amenity of nearby residents from noise/ vibration impacts resulting from activities associated with the proposed or existing development by ensuring that noise/ vibration levels meet statutory requirements and acceptable standards.	Identification of sources of noise/ vibration and estimates of project-wide noise. Ensure that noise and vibration levels meet acceptable standards and that an adequate level of service, safety and public amenity is maintained. Propose measures to manage and/ or mitigate impacts.
Water management*		
Surface water quality	Maintain or improve the quality of surface water to ensure that existing and potential uses, including ecosystem maintenance, are protected.	Details of site drainage, hydrocarbon use, disposal of plant site waste (including sewage), dewatering, and fate of water used/ pumped. Incorporate measures and/ or operating procedures to ensure that storm water run-off from the site reflects patterns, volumes and quality that exist prior to development, as far as reasonably practicable. Drainage lines are to be naturalised as much as possible and should enhance the ecological values and recreational opportunities. Propose measures to manage and/ or mitigate impacts.
Groundwater quality	Maintain or improve the quality of groundwater to ensure that existing and potential uses, including ecosystem maintenance, are protected.	Describe water requirements for any on-site processing. Incorporate measures and/ or operating procedures that will minimise the demand of the development on potable water supplies. Ensure that no contaminated water, including those containing sediments, leaves the site. Propose measures to manage and/ or mitigate impacts.

Air management		
Air	Ensure that potential air pollutants are contained and that activities do not impact on the natural environment.	Identify sources of air pollution. Propose measures to manage and/ or mitigate impacts.
Particulates/ dust	Ensure that particulate/ dust emissions, both individually and cumulatively, meet appropriate criteria and do not cause an environmental or human health problem.	Identification of sources of particulates/ dust and estimates of project-wide emissions. Propose measures to manage and/ or mitigate impacts.
Odour	Ensure that operations do not generate odour that causes environmental nuisance.	Identification of sources of odour and estimates of project-wide emissions. Propose measures to manage and/ or mitigate impacts.
Waste management		
Solid/ liquid waste	Ensure that wastes are contained and isolated from land, ground and surface water surrounds and treatment or collection does not result in long-term impacts on the natural environment.	Identify sources of solid and liquid waste and estimate the proposed amount generated. Propose measures to manage and/ or mitigate impacts.
Contaminated land and water		
Land	Ensure that existing or proposed activities do not discharge to land.	Identify activities that have the potential to discharge to land. Propose measures to manage and/ or mitigate impacts.
Surface water	Ensure that existing or proposed activities do not discharge to surface waters.	Identify activities that have the potential to discharge to surface waters. Propose measures to manage and/ or mitigate impacts.
Groundwater	Ensure that existing or proposed activities do not discharge to groundwater.	Identify activities that have the potential to discharge to groundwater. Propose measures to manage and/ or mitigate impacts
Hazardous materials management		
Scheduled wastes	Ensure scheduled wastes are specially treated for their destruction.	Identify scheduled wastes and describe treatment of their destruction. Propose measures to manage and/ or mitigate impacts.
Resource storage	Ensure that chemicals and other potentially harmful resources used in the manufacturing process are stored and disposed of correctly.	Describe the use and management of chemicals and other potentially harmful resources. Propose measures to manage and/ or mitigate impacts.
Compressed/ liquid gas	Ensure the suitable storage of compressed/ liquid gas.	Describe the use and management of compressed/ liquid gas. Propose measures to manage and/ or mitigate impacts.

3.2. DEVELOPMENT CONSENT CONDITIONS

Refer to SSD 10399 approved 2 July 2021, noting that this SSD is granted for the entire estate including estate earthworks, estate infrastructure, construction of x7 Warehouses and operation of x7 Warehouses. A SSD Responsibility Matrix has been developed to identify each parties obligations. This is a summary of Taylor items for Building 2 construction.

Consent working hours (consent item B38) are:

Monday to Friday	7:00 am	6:00 pm
Saturdays	8:00 am	1:00 pm
Sundays and public holidays	NO WORK	

Relevant consent conditions are included below:

- B1 – Construction Traffic Management Plan
- B14, B15, B16 – Aboriginal Heritage Unexpected Finds Protocol
- B26 – imported soil per EPA requirements
- B27 – Erosion and sediment control
- B28 – Discharge limits per section 120 of the POEO Act
- B30 – Stormwater Management System (design)
- B40 – Construction Noise Limits, noting that this is dependent upon B41 being prepared by ISPT.
- B42 – Construction Noise & Vibration Management Plan, noting that this is dependent upon B41 being prepared by ISPT, implementation only by Taylor.
- B43, B44 – Vibration
- B45, B46, B47, B48 – Air quality
- B51 – Unexpected Finds Protocol (Contamination)
- B52 – Asbestos guidelines
- B59 – Waste Management Plan
- B60, B61, B62, B63 – Waste management
- B64, B65 – Hazards and risks
- B67 – Community engagement

Refer to Appendix 8 for a copy of the SSD Responsibility Matrix. Refer to Appendix 10 for Estate SSD Compliance Reference Documents

3.3. ENVIRONMENT PROTECTION LICENSE OR OTHER APPROVALS

The following items require approval from the Planning Secretary:

- B1 - Construction Traffic Management Plan forms part of the CEMP
- B34 & B35 – Design Noise Validation (by ISPT)
- B39 – if any changes to approved working times are proposed
- B41 & B42 – Construction Noise & Vibration Management Plan (by ISPT) forms part of the CEMP

References:

- NSW Environmental Management System Guidelines 2015
- Legal and Other Requirements Procedure SE-P-01
- Environmental Legal and Other Requirements Register E-R-01

4. ENVIRONMENTAL RISK IDENTIFICATION AND ASSESSMENT

Standard ISO 14001 requires that environmental aspects relating to the organisation's activities, products and services are identified and those aspects that can have a significant impact on the environment, determined. At Taylor Construction Group, the environmental aspects relating to general construction activities have been identified through a risk assessment workshop attended by key project and site managers and an environmental consultant. The aspects, impacts, risk assessment outcomes and generic controls are documented in the **HSE Risk Register HSE-R-01**. Detailed requirements for risk assessments (environmental and OHS) are described in **Risk Assessment Procedure SE-OP-03**.

4.1. ENVIRONMENTAL RISK ASSESSMENT

The methodology for risk assessments is based on the requirements described AS/NZS 4360 (Risk Assessment) and HB203 (Environmental Risk Assessment).

Taylor Construction procedure requires an initial Project Risk Assessment to be undertaken at the commencement of each project. The Risk Assessment is to be conducted in the form of a workshop and is to include the project/ site manager, HSE manager, key members of the project team and, to the extent required, key subcontractors, and is to be recorded on form **HSE-R-01 HSE Risk Register**.

The HSE Risk Register is to be developed to address both legal and other requirements covered in this plan and is to be referenced to implement systems and work practices that will eliminate or minimize the likelihood of injury, illness or incident occurring.

When developing the Project HSE Risk Register, members of the workshop will take into consideration available information which is relevant to the works and is contained in any published copies of the HSE Acts; WHS regulation; Australian/ National Standards; codes of practice; available internal and external industry bulletins/ alerts and industry reports to identify and document any known or foreseeable hazards associated with that tasks.

The completed Environmental Risk Assessment can be found in Appendix 13 of the project HSE Plan (**WHS-PLAN-02**).

References:

- SE-P-03 Risk Assessment Procedure

5. OBJECTIVES AND TARGETS

Objectives and targets are set at a corporate level. They are monitored and measured to ensure that Taylor Construction Group continually improves our environmental performance. To ensure that we meet our corporate objectives and targets, key performance indicators (KPIs) are set at a project level and reported to management monthly.

Objectives	Targets
Effective site environmental controls.	Achieve alignment with Taylors and Client expectations in relation to best practice control measures. Fulfil environmental obligations.
Increase amount of waste being recycled, reduce waste cost.	Eighty-five per cent (85%) of waste to be recycled.
Environmental performance.	Zero major environmental incidents and no breaches. Zero infringement notices. All environmental spills to be reported to Taylor Construction within 2 hours of occurrence. Environmental inspection completed weekly and documented in SE-F-02 HSE Inspection Checklist (more often if required).
Reduce the amount of environmental impact our operations have on the environment.	Environmental issues identified and controlled prior to causing negative impacts on the project or on the environment.
Effective implementation of the environmental system.	Eighty per cent (80%) or better internal audit results. Full compliance with planning approval requirements.
Community issues carefully handled.	Zero valid complaints. All complaints reported to Taylor's representative.

6. ROLES AND RESPONSIBILITIES

All persons working for and on behalf of Taylor Construction Group have responsibilities in relation to ensuring that environmental issues are appropriately managed. Generic WHS and environmental responsibilities are outlined in the **Roles, Responsibilities and Authorities Procedure QSE-P-06**.

Subcontractors. The subcontractor shall be required to comply with all applicable work health, safety and environmental legislation, including any additional Taylor's requirements, whilst engaged on a Taylor-managed project. The subcontractor shall be responsible to communicate any relevant environmental information to their personnel (workers) who are engaged in carrying out the work or providing material to the job site, including any secondary subcontractors or sole traders engaged by them and approved by Taylor Construction.

Subcontractor's minimal environmental requirements:

- Has the subcontractor identified in the SWMS environmental hazards and controls in relation to the work task (where required), i.e. refuelling plant and equipment on site, nuisance dust controls, nuisance noise, waste management (off-cuts), rubbish, concrete wash-out?
- Have hazardous substances or dangerous goods to be used on site by the subcontractor been identified? **Note:** the subcontractor will need to provide copies of relevant Safety Data Sheets (SDS) for all materials and/ or hazardous substances or dangerous goods to be used on site and note reference to training of employees in the SDS prior to first use and controls listed in the SWMS.

Taylor Construction personnel. For this project, the key roles and specific responsibilities of our managers, supervisors, and site personnel regarding environmental management on site are outlined below. Project-related management and staff are required to sign off that they have read and understood their responsibilities.

6.1. DIRECTORS

Directors are responsible for:

- Defining Taylor Construction workplace WHS&E policies and setting their objectives.
- Acquire and keep up to date knowledge of environmental matters relevant to the organisation.
- Gain an understanding of the nature of the operation of the business or undertaking and general environmental issues associated with those operations.
- Providing leadership that promotes and maintains Taylor's determination to continually improve its performance in workplace health safety and the environment.
- Demonstrating genuine interest in workplace health and safety and the environment; supporting all project teams to encourage incident prevention.
- Ensure that there is available for use and used by those engaged in the business or undertaking, appropriate resources and processes to eliminate or minimise risks to the environment and non-compliance with licences during the conduct of the business or undertaking.
- Ensure that people engaged in the business or undertaking have appropriate processes for receiving and considering information regarding environmental incidents, hazards, and risks, and respond in a timely way to that information.
- Ensure that those engaged in the business or undertaking have in place and implement processes for complying with any duty or obligation of the organisation under the Act, including complying with licence conditions and notices served.

6.2. . CHIEF EXECUTIVE OFFICER

The Chief Executive officers' responsibilities include.

- Inform the board of all events within, or which reasonably should be within, his/her knowledge or awareness, which may or do have a material impact on the organisation's activities or well-being.
- Monitor and interpret the external environment in order to continually position the organisation in its markets to best advantage.
- Maintain awareness of political, governmental, business and industry components of the external environment, on a local, national, and international level.
- Reviewing environmental objectives and targets to ensure compliance with our environmental commitments and achieve continuous improvement in our environmental performance.
- Work proactively with our clients, regulators, and other community stakeholders to enable environmental issues to be addressed at an early stage of development.
- Monitor that the activities which are undertaken by employees and subcontractors are done so in a manner that is consistent with the principles of ecologically sustainable development.
- Oversee the implementation of company procedures and policies that will prevent pollution and reduce adverse environmental impacts of our activities on the natural, built, and cultural environment.
- Set realistic environmental objectives and targets at all relevant levels within the company and continually monitor performance.
- Promote the efficient use of natural resources and reduce waste through the use of the waste hierarchy –avoid, reduce, re-use, recycle and finally dispose.
- Identifying alternative, financially viable and sustainable courses of action to minimise environmental impacts.

6.3. OPERATIONS MANAGER

The operations manager is responsible for

- Defining Taylor Construction WHS&E policies and setting their objectives.
- Ensure project teams compliance with any licence, permit, notice or order from the EPA. For example, failure to have a monitoring program at a licensed site is a breach of your licence.
- Own and understand the key project environmental issues involved.
- Gaining an understanding of the operations of the business and the hazards and risks involved.
- Promote and oversee procurement standards for goods and services that help minimise environmental hazards.
- Ensuring information regarding incidents, hazards and risks is received responded to in a timely way.
- Ensuring the PCBU has, and implements, processes for complying with any legal duty or obligation.
- Being fully briefed of the safety status of all current Taylor Construction projects.
- Support and consult employees and subcontractors on environmental performance.
- Setting targets and allocating priorities for workplace health and safety matters for all Taylor Construction staff.
- Leading by example in all matters concerning workplace health and safety.
- Conduct or participate in periodic environmental compliance inspections and or audits.
- Where required, engaging with the local community to understand their environmental concerns and impacts linked to the organisation's operations.
- Where events or non-compliance occurs, all reasonable and appropriate precautions are reviewed and as necessary, ensure new controls are designed and implemented.
- Examine whether risk management and other environmental compliance / systems requirements have been effectively reported to the general manager.
- Participate in periodic compliance inspections / audits to review the effectiveness of management structures and risk controls for environmental performance are appropriate and remain effective.

6.4. GENERAL MANAGER

The general manager is responsible for:

- Demonstrating genuine interest in workplace health, safety, and environment; supporting all project and site managers to encourage incident prevention and compliance.
- Assessing and allocating appropriate resources and equipment within the company for the effective implementation of the Workplace Health, Safety & Environmental Management System and the management of WHS&E related hazard/risks relevant to the construction projects.
- Being fully briefed of the WHS&E performance and compliance of all current Taylor Construction projects.
- Assisting in the development and implementation of continuous improvement processes for workplace environmental management.

Specific roles:

- Ensure the implementation and overall effectiveness of the Taylor environmental, health and safety programs.
- Provide visible commitment to a safe and healthy work environment by ensuring regular reviews are undertaken. Participate in WHS&E meetings and consultation regarding workplace health safety & environmental matters.
- Consider workplace health safety and environment matters with other senior members of the organisation as part of normal business practice and incorporate WHS&E into meeting agendas.
- Allow appropriate budget allocations for WHS&E management and improvement.
- Encourage and promote safety within the company by participating and openly consulting with employees in respect to their health and safety.
- Follow up with the WHS&E manager and site teams on any compliance breaches or external authority notices issued to projects and or subcontractors.
- Reports on critical incidents which then embed 'lessons learnt' and system improvement will demonstrate the board's commitment to environmental responsibility.
- Participate in periodic compliance inspections / audits to review the effectiveness of management structures and risk controls for environmental performance are appropriate and remain effective.

Name: Tim Christie


Signed:

16/9/2021

Date:

6.5. CONSTRUCTION MANAGER

The construction manager is responsible for:

- Demonstrating genuine interest in workplace health and safety; supporting all the project/ site managers to encourage environmental incident prevention.
- Assessing and allocating appropriate resources and equipment within the company for the effective implementation of the workplace health safety and environment management system and the management of WHS&E related hazard/ risks relevant to the construction projects.
- Confirming that legislative obligations are met, and that Taylor Construction Environmental Policy is effectively implemented throughout all company construction projects under their control.
- Ensuring compliance with Taylor Construction accredited QSE systems is maintained and implemented across all Taylor managed projects under their control.

Specific roles:

- Provide leadership in the development of project teams to ensure the fostering of the business culture and approach to doing business with our clients, consultants, and subcontractors.
- Attend sites on a regular basis to ensure compliance with workplace environmental and programming requirements of both the head contract and the company' systems.
- Provide visible commitment to a safe and healthy work environment by ensuring regular reviews are undertaken, and by participating in safety and health meetings and consultation regarding WHS&E matters.
- Encourage and promote environmental compliance within the company by participating and openly consulting with employees in respect to their health and wellbeing.
- Ensure that Project/ Site Managers have developed and implemented systems, which will ensure subcontractors/ suppliers engaged by the company comply with the health safety management and environmental systems and the relevant HSE legislation.
- Consider workplace health safety and environmental matters with other senior members of the organisation as part of normal business practice and incorporate WHS&E into meeting agendas.
- Support the WHS&E Manager in ensuring project/ site managers have developed and implemented systems which will ensure subcontractors and suppliers engaged by the company comply with the WHS&E management systems and the relevant legislation.
- Respond to non-conformance by any member of the company who fails to discharge their duties as set by the Responsibility Statement and actively participate in dispute resolution where required.
- Allow appropriate budget allocations for WHS&E management and improvement.
- Facilitate a systematic approach of workplace health, safety and environment identification, and assessment and facilitate control and monitoring of related risks that may arise through both normal and adverse operating conditions.

Name: Ross Rooke

Signed: 

Date: 16/9/2021

6.6. PROJECT MANAGERS

The project manager is responsible for:

- Ensure that environmental, health and safety obligations are carried out by everyone working in their operations.
- Communicate to their employees, workers, and visitors that health and safety and concern for the environment are top priorities on Taylor Projects and that everyone shares in the obligation to perform work in a safe, healthful, environmentally protective manner.
- Analyse work procedures to identify hazards; ensure measures are implemented to eliminate or control those hazards.
- Ensure safe operating procedures are in place and are observed.
- Curtail or stop work being carried out under their authority if they reasonably believe that continuation of the work poses an imminent danger to health or safety. Upon directing that work be curtailed or stopped, if the situation cannot be corrected immediately, the Manager must notify the WHS&E Manager
- Ensure that self-assessment inspections are performed regularly, that records are retained and that deficiencies identified in any inspection (self-assessment or HSE inspections) are addressed.
- Consulting with Taylor's construction manager and the HSE manager to ensure enough resources are allocated to the project to comply with legislative and Taylor's WHS&E requirements.
- Ensuring compliance with safety legislation, regulations, licensing conditions and authorities' requirements relevant to all construction work.
- Ensure adequate Taylor's site supervision is maintained throughout all hours of operation and those assigned with supervisory roles are competent and authorised to do so (e.g., PM, SM, or foreman).
- Ensure incidents are investigated and appropriate action taken as required by Taylor's site Safety Plan requirements in consultation with the WHS&E Manager.
- Providing visible commitment to a safe and healthy work environment by ensuring regular reviews are undertaken, and by participating in health and safety meetings and consultation regarding WHS&E matters
- Ensure safety notices issued and/ or visits made to the project by industrial representatives and/ or SafeWork NSW are reported to both managing director and WHS&E Manager.
- Selecting appropriate subcontractors, giving due regard to their ability to comply with legislative and Taylor's WHS&E requirements.
- The Project Manager is required to participate in at least one formal site HSE inspection per month on a project under their control.
- Report back to Taylor's senior managers on project HSE incidents, any external authority visits and/ or Notices issued by external authorities.
- Oversee the development and implementation of a site evacuation and emergency procedures and overseeing at least one spontaneous evacuation drill every six months and assessing the results of that drill.
- Supporting the site manager in the management of employee, subcontractor, and supplier's performance in complying with Taylor's Environmental Plan and the site-specific rules for the project.
- Be familiar with the emergency plan, the emergency assembly area and emergency coordinators for their project and participate in emergency drills.

Name: Rob Hancock

Signed:  Date: 14.09.2021

6.7. HSE MANAGER

The HSE manager is responsible for:

- Oversees development and implementation of Taylor policies and procedures related to environmental health and safety and that provide additional support for environmental.
- Develops and maintains electronic systems and technology solutions related to environmental health and safety.
- Disseminates information and provides guidance regarding compliance with federal, state, and local regulations and Taylor policies and procedures.
- Provides guidance, direction, and oversight to help ensure adherence to federal, state, and local regulations and Taylor policies and procedures instituted to protect the health and safety of employees, workers, visitors, and the environment.
- Overseeing the implementation of Taylor's Health, Safety and Environmental Management System throughout all Taylor Construction activities.
- Ensure that a systematic internal reporting system exists to guarantee that information about environmental hazards and unsafe practices is promptly conveyed to senior management and acted on
- Maintaining good relationship with government regulatory authorities.
- Setting targets and allocating priorities within the framework of the QSE System.
- Safeguarding compliance and maintenance of the company's third-party accreditations.
- Planning and delivering training in environmental management and/ or arranging for the appropriate internal or external trainers/ facilitators to conduct the training.
- Researching, developing, and implementing new procedures and forms, and updating the manual as required.
- Reviewing, analysing, and reporting on safety and environment project performance to Taylor's managing director, sector managers and any party as arranged by the managing director.
- Ensuring compliance with environmental legislation, regulations, licensing conditions and authorities' requirements.
- Ensuring Taylor's workplace health safety and environment performance is reviewed on a regular basis (i.e., arranging for internal and external audits).
- Ensure that periodic audits of the effectiveness of management structures and risk controls for environmental performance are conducted.
- Reviewing internal and external (independent) audit reports and, in consultation with the directors and the project manager, develop appropriate Action Plans if necessary.
- Identifying environmental hazards, assessing risks and in consultation with project teams select risk control measures for site-specific situations.
- When required, acting as the lead investigator in workplace incidents/ accidents, liaise with external authorities in managing them and report back to managing director and/ or sector managers on outcomes of investigations.
- Ensuring WHS&E policies and procedures are implemented on all projects and that a specific site Environmental Plan is prepared and implemented for all projects.

Name: Andrew Andreou

Signed:



Date: 16/09/2021

6.8. PROJECT SAFETY ADVISOR

The project safety advisor is responsible for:

- Providing visible commitment to a safe and healthy work environment by ensuring regular reviews are undertaken, and by participating in safety and health meetings and consultation regarding WHS&E matters.
- Ensure workplace hazards and environmental, health and safety-related policies and procedures are communicated to employees, workers, and visitors.
- Assisting the WHS&E manager and project teams in implementing Taylor's health, safety and environmental procedures, policies, and project systems in line with best practice and the relevant statutory legislation.
- Reporting any serious environmental incident or near miss and unexpected finds immediately to the WHS&E manager.
- Safeguarding compliance and maintenance of the company's third-party accreditations.
- Assisting project teams and subcontractors in meeting their workplace health safety and environmental obligations.
- Ensuring compliance to this project Environmental Plan.
- Monitoring subcontractor's compliance with the site Environmental Plan, and subcontractor compliance to their Safe Work Method Statements by conducting regular task observation/ audits.
- Undertaking regular workplace inspections to identify hazards and unsafe/ unhealthy workplace conditions and practices.
- Be familiar with the emergency plan, the emergency assembly area and emergency coordinators for the project and participate in emergency drills.
- Assisting the site manager/ area foreman in the supervision of subcontractors.
- Ensuring WHS&E items identified by safety inspections and or audits are rectified within specified timelines in consultation with the Site manager, and subcontractors.
- Reporting incidents and/ or identified environmental hazards and appropriate risk control measures to line managers.
- Ensuring all workplace health and safety and environment documents are maintained and filed in accordance with Taylor Construction filing requirements.
- Coordinating or conducting site toolbox talks and ensure subcontractors regularly consult with their employees on matters relating to environmental issues.
- Liaising with the Project/ Site Manager to implement controls on hazards identified.
- Completing Safe Work Method Statement checklists for the site (task observation).
- Collating completed contractor required forms, authority to work permits and checklists.
- Acting site safety representative for the site (unless another person has been elected to perform this role as per the consultation statement S-F-04 WHS Consultation Statement).
- Other HSE and/ or CW's issues or activities that may require their attention.

If no Safety Advisor is allocated to the project, the roles and responsibilities mentioned above are to be allocated to alternative Taylor Construction persons engaged on the project who are competent or have been suitably trained to fulfil these duties.

Name:

Signed:

Date:

6.9. SITE MANAGERS

The site managers are responsible for:

- Providing visible commitment to a safe and healthy work environment by ensuring regular reviews are undertaken, and by participating in safety and health meetings and consultation regarding WHS&E matters.
- Facilitating the process to ensure the project team and the WHS&E manager are consulted and participate in the development of the project specific WHS&E Risk Assessment. This is to be done prior to such activities commencing.
- Ensure that prior to the works commencing a formal assessment of the emergency control equipment requirements has been completed and that these remain effective throughout the duration of the project. (e.g., first aid, nurse call, emergency warning alarms, fire extinguishers, spill kits, lighting, and signage)
- Ensure workplace hazards and environmental, health and safety-related policies and procedures are communicated to employees, workers, and visitors.
- Ensure individuals working in their operations have the proper safety equipment and personal protective equipment to perform their work safely.
- Leading or participating in formal site safety inspections weekly and record results using SE-F-02 HSE Inspection Checklist. Daily informal inspections should be noted in site diary.
- **Unexpected finds** – ensure that all unexpected finds are treated, reported, and managed in accordance with Taylor's unexpected finds procedure.
- **Environmental Controls** – ensure all environmental controls (sediment and erosion, noise, hours of operation, etc) as mentioned by permits or building approvals are adhered to and workers are advised of these requirements during the site induction process.
- **Emergency Response and Training Plan** - Contribute to the development of the ERP, ensure that all employees, workers, and others know about the plan, and communicate the importance of participating in drills and otherwise following procedures set out in the plan.
- **Groundwater Protection Program - Report** any hazardous materials or other pollutants spilled to or discovered in soil or groundwater to EH&S for appropriate emergency or non-emergency clean up.
- **Hazardous Material and Waste Management** - Inform employees and workers that hazardous materials and hazardous waste, except as expressly authorized by regulations, licenses or permits, may not be disposed of via the sewer system, or other unsafe or environmentally damaging routes; and to stress the importance of proper hazardous material/waste management.
- **Training** - Ensure that everyone working in their operations is appropriately trained to identify and mitigate potential hazards. Ensure that work requiring training is performed only by persons who have received the proper training.
- **Hazardous Spill Response** - Upon request, provide assistance in hazardous material spill clean-up, preparing written reports about reportable releases and notifying appropriate persons about reportable spills.
- **Noise Monitoring and Hearing Conservation** - Conduct noise surveys to determine exposure levels.
- **Environmental Procedures / Permits** – ensure activities requiring internal and or external permit or approvals do not commence until permit or approval has been formally granted the user has the responsibility for providing relevant information to obtain permits, meeting permit conditions, and any responsibility. Taylor site management shares in the responsibility to advise those performing the works of Taylors procedure and permit requirements.
- Ensuring WHS&E items identified by safety inspections and or audits are rectified within specified timelines in consultation with the Project Manager, Project Safety Advisor and subcontractors.
- Ensuring that all plant and equipment used on Taylor Construction sites are environmentally safe, correctly maintained and that the operator is appropriately licensed or qualified to operate and or use that equipment.
- Utilizing experience and judgement to shut down and/ or evacuate any part of the site if a major health and safety and environmental risk occurs.
- Reviewing, coordinating, and implementing emergency evacuation procedures and participating in drills at specified intervals (quarterly).

Name: Tony Florio

Signed:



Date: 16/9/21.

6.10. SITE FOREMAN

The site foreman is responsible for:

- Implementing, through consultation with the project manager, the Site environmental plan and procedures in accordance with WHS&E legislation, regulations, codes of practice, Australian Standards and/ or other statutory requirements.
- Ensuring no work is undertaken on site until the relevant SWMS has been reviewed and signed off in accordance with form **SE-F-14 Safe Work Method Statement Review Form**.
- Monitoring subcontractor's compliance with the site Environmental Plan and subcontractor's compliance to their Safe Work Method Statements by conducting regular task observation /audits.
- Ensuring all workers and, if required, visitors, are site-inducted and aware of any environmental compliance obligations.
- Assisting with implementing and undertaking formal and proactive consultation measures between the project team and subcontractors.
- Ensuring items identified by Environmental or system audits findings are rectified and closed out within specified timelines in consultation with the project manager, site manager, site safety advisor and subcontractors.
- Consulting with all persons on Environmental issues, including changes to the workplace layouts and access egress points, and encourage the involvement of all personnel in achieving a safe and healthy site.
- First response in managing site-specific workplace environmental issues in the first instance, and discussing these with the project manager, site manager and/ or site safety advisor as required.
- Assisting the site manager with developing, planning, implementing, and reviewing site-specific emergency and evacuation procedures.
- Identifying any environmental hazards and assessing any risks on site and implementing risk control measures.
- Leading or participating in formal site safety inspections weekly using form SE-F-02 HSE Inspection Checklist. Note: informal inspections should be noted in site diary.
- In consultation with the Project Manager and the Senior Site Manager, and utilizing experience and judgement, shut down and/ or evacuate any part of the site if a major environmental risk or situation occurs.
- When requested by the Site manager participate in any environmental incident and assist with the Investigating, recording, and reporting,
- Be familiar with the Emergency Plan, the emergency assembly area and emergency coordinators for the project and participate in emergency drills.
- Monitoring the use of personal protective equipment (PPE) by site personnel.
- Were requested by the site manager, assist with monitoring of environmental issues (e.g., dust, noise, air quality)
- Assist the site manager with reviewing, coordinating, and implementing emergency evacuation procedures and participating in drills at specified intervals, minimum every six months.
- Ensuring that all plant and equipment used on Taylor Construction sites are environmentally safe to use, appropriately maintained and that the operator is correctly licensed or qualified for operating that equipment.

Name:

Signed:

Date:

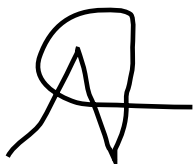
6.11. CONTRACT ADMINISTRATOR/ SITE ENGINEER

The contract administrator and site engineer's responsibilities are:

- Support the project and site management in the management of employee, subcontractor, and suppliers' performance in complying with Taylor Construction WHS&E and the site-specific rules for the project.
- Assist the project/ site manager to ensure the site environmental plans and associated documentation, including standard forms, procedures, and templates, remain current and up to date.
- Where required, assist the project and site manager with site inductions.
- Include in subcontract agreement the requirement for subcontractors to carry out their works in accordance with the company's or subcontractor's approved QSE Plans.
- Forward to subcontractors a copy of HSE subcontractor requirement Contractor's HSE Requirements QSE-F-15.23 (letter template), ensuring this is completed and returned by subcontractor prior to commencing.
- At the tender interview stage, discuss with the subcontractors their obligation for managing HSE requirements by issuing to them relevant sections of the tender interview form and ensuring this is completed by subcontractor prior to commencing on site.
- Request and obtain from the subcontractor prior to their arrival to site copies of their Workers Compensation and Public Liability Certificates of Currency, environmental and or council licences and or required permits ensuring they are current and that copies are available on site.
- Ensure that all completed copies of form Contractor's HSE Requirements QSE-F-15.23 (letter template) are returned and filed in the project files.
- Ensure that the latest copies of Project Plans and WHS&E Risk Assessments are uploaded onto Project Centre, or preferred data control system used, and engaged subcontractors have access to these.
- Ensure all external complaints/ incidents are recorded on SE-F-21 Incident Report Form and filed in the External Complaints Register or Hammertech
- Assist project and site management in the general administration of WHS&E where requested.
- Be familiar with the emergency plan, the emergency assembly area and emergency coordinators for the project and participate in emergency drills.

Name: Alaa Naboulsi

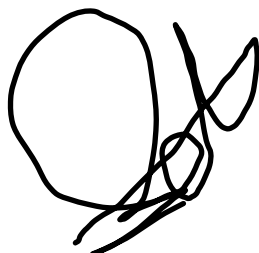
Signed:



Date: 16/09/2021

Name: Omid Abbasi

Signed:



Date: 16/09/2021

6.12. BUILDING CADET

The building cadet health, safety and environmental responsibilities are:

- Provide general assistance to management on an assigned project.
- Provide administrative assistance in managing site safety, quality assurance and environmental management systems.
- Maintain project registers and records up to date.
- Where requested provide assistance with site contract administration and tendering.
- Manage project document control and provide design management assistance.
- Assist the project/ site manager to ensure the site QSE plans and associated documentation, including standard forms, procedures, and templates, remain current and up to date.
- Fulfil responsibilities as outlined in the 'Taylor Cadet Program Guidelines', including undertaking an approved course of study at an Australian University.
- Assist project and site management in the general administration of HSE where requested.
- Monitor the use of personal protective equipment (PPE) by site personnel.
- Complete site diaries as per project administration requirements.

Name:

Signed:

Date:

6.13. FIRST AID OFFICERS

It is the job of the trained first aider to provide initial treatment to injured or ill employees, which is consistent with first aider's level of training and competency. Where the treatment required is beyond a first aider's level of competency, they should recommend that the employee seek immediate medical assistance.

The nominated site first aid officers shall possess the required level of competency (Senior First Aid Certificate or Occupational First Aid Certificate) and they shall be responsible for:

- I. Providing first aid assistance to persons ill or injured on site.
- II. Recording all such assistance provided.
- III. Liaising with the site manager and/ or site foreman to achieve first aid obligations.

First aid officer records:

The nominated first aider shall be relied upon to exercise a common sense-approach in determining what type of injuries require a first aid report to be completed. First aid/ incident reports shall only be completed for injuries or illnesses for which first aid assistance was sorted **immediately** following an event. Employees, including subcontractor is, seeking to report an injury or incident for which first aid assistance was not initially sort **shall not** be provided with a copy of the report unless this has been authorised by the site/ project manager and/ or Taylor Construction HSE manager.

Some typical injuries that may require reporting are:

- All injuries requiring off-site medical treatment.
- Impact injuries.
- Head injuries.
- Musculoskeletal injuries.
- Open wounds (cuts);
- Eye injuries.

The first aid officers shall also be responsible for the regular maintenance and replenishment of the first aid kits and equipment. At all times during normal operations there shall be a minimum of 1 trained first aider on site for every 25 workers

Name: Signed: Date:

Name: Signed: Date:

6.14. PCBU AND WORKERS

PCBU and workers are responsible for:

- Attending Taylor Construction site-specific induction prior to commencing work on site.
- Taking reasonable care for their individual health and safety and that of others on site, including members of the public.
- Familiarising themselves and adhering to Taylor Construction corporate policies.
- Performing only those works in which they possess the required competencies for or have been suitably trained to perform.
- Taking corrective actions to eliminate hazards within the workplace and /or reporting those hazards they cannot correct.
- Reporting all injuries to a first aid officer or supervisor.
- Cooperating with Taylor Construction management in all requirements imposed in the interest of health, safety the environment and wellbeing.
- Never intentionally or recklessly interfering with, misusing, or removing any items and/ or equipment provided in the interest of health and safety.
- Complying with all site safety instructions and abiding by the procedures and work practices identified in the Workplace Health Safety Project Plans and/ or as directed or informed by the Site Manager/ foreman.
- Complying with all relevant workplace health and safety legislation, standards, and codes of practice.
- Reporting promptly to a site manager/ foreman any unsafe conditions, practices or defects discovered in any control measures, including personal protective equipment.
- Maintaining safe work practices when working with, or near, hazardous substances, so that their own health and safety, and the health and safety of those around them, is maintained.
- Using personal protective equipment (PPE) as required. The equipment should be kept clean and maintained in an appropriate manner.
- Practicing a high-standard personal hygiene in and around all amenity areas such as lunch, change and toilet facilities by washing thoroughly and removing all protective clothing before eating, drinking, and smoking.
- Do not perform any activity or act that endangers or impacts on the environment.

7. INDUCTION

Taylor Construction employees, including those workers engaged by or working on behalf of the subcontractors, are required to be site-inducted prior to commencing work on the site. General environmental awareness and specific environmental requirements of this PEMP must be incorporated into the site-specific induction as required.

As a minimum, inductions must include the following environmental information:

- Community issues.
- Hours of operation.
- Noise and vibration.
- Dust management.
- Traffic access.
- Washing requirements for construction plant and equipment.
- Storage and handling of fuels, oils, and other chemicals.
- Waste management: recycling, disposal, litter.
- Soil and water issues: controls, tracking of mud off-site.

Where there are significant environmental issues identified for the project, these must be incorporated into the site-specific induction. These may include but shall not be limited to (where required):

- Environmentally sensitive areas of the site (specify details in this section);
- Contaminated or Acid Sulphate soils.
- Endangered flora and fauna.
- Environmental controls and management.
- Noise emissions.
- Plant emissions.
- Archaeology and heritage management.

References:

- SE-F-11 Site Induction Form and Mandatory Safety Requirements
- SE-F-11a Induction Register

8. TRAINING AND COMPETENCY

All persons undertaking work on the project (employees and subcontractors) must be trained and competent to carry out their work. This includes undertaking tasks in an environmentally sound manner.

Subcontractors shall be responsible to ensure that Taylor Construction Environmental Risk Management, as prescribed in chapter 11.3 of this plan, are adopted and controls, as contained in Taylor's **HSE-R-01 HSE Risk Register**, are implemented when developing their systems of work.

The subcontractor shall be responsible to consult and train workers under their management in agreed environmental system. Evidence of appropriate training shall be made available by the subcontractor to Taylor Construction upon request by a Taylor nominated representative.

The project/ site management, along with relevant members of the project team, must be made aware of the requirements of the Taylor Environmental Management System and shall be required to attend Environmental Awareness and Due Diligence training sessions when organised by the company.

References:

- QSE-P-19 Training, Competency and Awareness Procedure
- WHS-PLAN-02 Project Workplace Health and Safety Plan (PWHSP)

9. COMMUNICATION

The requirements for internal and external communication are outlined in the QSE Management System Manual. The following provides essential information in relation to environmental communication on projects.

9.1. INTERNAL COMMUNICATIONS

Essential information relating to project environmental management will be communicated through toolbox talks and inductions.

Environmental alerts will be periodically prepared and sent to sites for posting on notice boards.

Key changes to environmental legislation will be sent by email to all project managers and site managers.

9.2. EXTERNAL COMMUNICATIONS - COMMUNITY

Community complaints must be reported as environmental incidents and all correspondence relating to the complaint must be retained and filed on site, including information on how the complaint was resolved.

9.3. REGULATOR SITE VISITS AND WRITTEN COMMUNICATIONS

If an authorised officer (Council or DECCW representative) visits your site, the HSE Manager or Construction Manager should be contacted for assistance and advice. While you can request that a higher level of management assists you, you cannot refuse to answer questions. An authorised officer must show their identification on request (ensure you ask for it) and has the right to ask any person on site questions relating to environmental issues. When being enquired, always be polite, discuss only the facts and do not elaborate or provide opinions.

Any Penalty Infringement Notices or official warnings from regulators are to be treated as 'incidents' and reported in the Incident Report Form, investigated and corrective actions assigned and completed to address the root cause of the infringement.

Any communication from a regulator must be notified to the HSE manager. Records of all communications must be retained and appropriately filed.

10. ENVIRONMENTAL RISKS

10.1. STANDARD OPERATING PROCEDURES

Several standard operating procedures have been developed as part of the HSE Management System to provide detailed information on the management of site issues in relation to environmental and safety risks. The following procedures have been developed to date and are available on SharePoint:

- SE-OP-01 Hazardous Substances and Dangerous Goods Procedure
- E-OP-01 Erosion and Sedimentation Controls
- E-OP-02 Waste and Resource Management
- QSE-OP-02 Asbestos Management Procedure
- SE-OP-04 Noise Management (OHS and Environmental)

10.2. SAFE WORK METHOD STATEMENTS (SWMS)

While Safe Work Method Statements are primarily used in WHS to manage high-risk activities, any relevant or foreseen environmental risk must also be considered in the preparation of the SWMS.

Taylor's site managers or their nominees are responsible for ensuring that subcontractors include environmental issues in their task-specific SWMS by using **SE-F-14**. If environmental issues are not appropriately addressed, the subcontractor should be advised of the requirements. It is recommended that subcontractors are assisted with identifying environmental issues, particularly during the early implementation of Taylor's Environmental Management System and PEMP.

References:

- SE-F-03 Taylor Construction Group Safe Work Method Statement
- SE-F-14 Safe Work Method Statement Review Form

10.3. ENVIRONMENTAL RISK MANAGEMENT AND CONTROL

This section provides an overview of environmental issues typically encountered on site based on the generic issues identified in the master Environmental Risk Assessment. When preparing this document, the project manager should add any additional environmental issues that may have been identified through the environmental impact assessment, development consent/ approval, etc.

10.3.1. PROJECT DESIGN – ENVIRONMENTAL CONSIDERATIONS

During the planning phase of the project, consideration should be given to the following:

- How will design minimise energy use and allow for and use the natural environment?
- How will materials, products and systems be selected or designed to minimise adverse impacts and/ or benefit the environment?

These questions should be considered prior to commencement of the project and may require the input from the client.

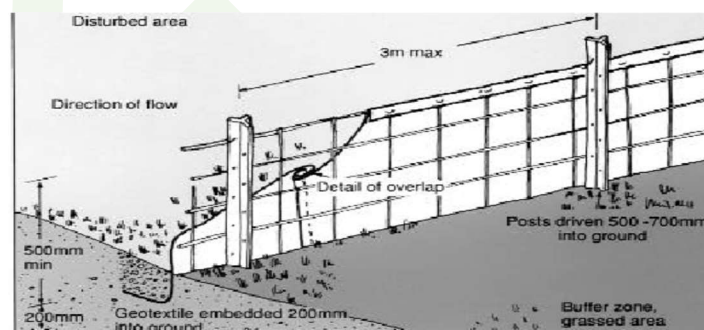
10.3.2. SOIL AND WATER MANAGEMENT/ SEDIMENTATION AND EROSION CONTROL

Taylor Construction Group and subcontractors shall plan and carry out works to avoid erosion and prevent sediment leaving the site to the surrounding land, watercourses, water bodies, wetlands and storm water drainage systems. This includes the installation of erosion and sedimentation controls prior to commencing clearing works. Where possible, works should be staged to reduce the areas cleared at the same time to minimize soil disturbance. Where required, prepare erosion and sediment control plans (ESCP), install the controls in accordance with the plan and maintain them regularly. For more detailed information, refer to the procedure and external guidelines listed below.

The following controls will be implemented within Taylor Construction site boundaries to control erosion, sediment and pollution within the site:

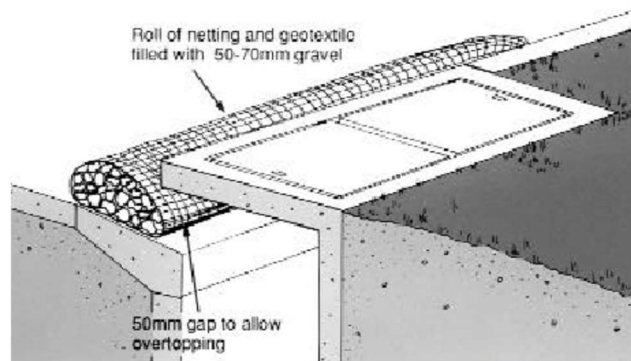
Sediment and erosion control devices. Unnecessary disturbance of the site shall not occur, and all cuts are to be stabilised as soon as possible after the completion of site earthworks. Extra care will be taken to prevent sediment run-off into all neighbouring lots and storm water. Any collected silt will be disposed of in accordance with all other relevant codes and standards.

Silt fences. Silt fences are to be installed to site boundaries as required. Geotextile fabric will be fixed to the temporary construction fencing where 'downhill' boundaries exist. The fabric will be turned down under the existing ground line and secured at regular intervals not exceeding 3m, in accordance with the following diagram:



Vehicle access. Vehicular access will be controlled to prevent sediment being tracked. This will be done by maintaining an all-weather access/ driveway composed of an approved course aggregate surface. Moreover, if the need arises, a shaker grid will be installed to the main access by Taylor during the construction works. Any sediment that is tracked onto the surrounding roads will be cleaned off in a timely manner.

Storm water inlets. All storm water inlets are to be covered with geotextile fabric in a roll or other format to ensure that no sediment enters the storm water system. This will be the responsibility of the site manager to enforce. The rolls will not only be placed directly at the inlets as shown below, but also at regular intervals in the gutters 'upstream' from the inlets, creating multiple barriers.



Stockpiles. If appropriate topsoil is to be stockpiled on site, then the following measures will be put in place:

- Stockpiles shall be stored at least 2 metres away from drainage lines, natural watercourse and established trees;
- Stockpiles will have temporary silt fences around it to create an enclosure and, if necessary, they will be covered with shade cloth or tarpaulin to retain the materials inside it. The location of stockpiles will be determined on site.

Monitoring. To maintain the various erosion and sediment control devices, regular inspections, repairs and cleaning will be carried out on the silt fences to the boundaries, stockpiles, waste enclosures and to the stockpile covers.

References:

- E-OP-01 Erosion and Sedimentation Controls Procedure
- Managing urban stormwater: soils and construction, Volume 1, 4th edition, 2004

10.3.3. VEGETATION MANAGEMENT

Taylor Construction Group and subcontractors shall plan the works to preserve existing trees, plants and other vegetation, that are to remain within or adjacent to the works. Areas of the site that contain vegetation that must be preserved should be fenced-off, marked or otherwise isolated to ensure they are not inadvertently damaged. If there are any endangered species on site, specific management techniques may be required; these should be addressed in an Environmental Impact Assessment.

On completion of the works, all areas disturbed by construction activities shall be restored to the contract specifications. Where required and practical, efforts will be made to mulch and re-use vegetation on site or send it to a green waste recycling facility.

10.3.4. WASTE MANAGEMENT AND RESOURCE RECOVERY

Taylor Construction Group and subcontractors shall adopt the hierarchy of waste (avoid, reduce, reuse, recycle/ reprocess), dispose to maximise resource recovery and minimise disposal wherever possible and practical. The importance of appropriate waste management practices is to be included in the site induction.

Sites are to be provided with suitable bins and skips for appropriate collection and separation of waste and recyclables, and these are to be collected with appropriately qualified and licensed (where required) waste contractors.

Prior to disposal, waste must be classified in accordance with the DECCW Waste Classification Guidelines (latest version 2014) prior to transporting waste off-site. Excerpts from the waste classification guidelines are contained within appendix

B of the **Waste and Resource Management Procedure E-OP-02**. Waste receipts must be kept for legal requirements; details of waste separated and disposed of is to be documented in the **Waste and Recycling Register QSE-R-16**. The information from the register is to be used to complete the waste management section of the KPI Monthly Report Form and forwarded to the HSE manager for tracking of TCG environmental targets.

References:

- E-OP-02 Waste and Resource Management Procedure
- SE-F-23 KPI Monthly Report Form
- QSE-R-16 Waste and Recycling Register

10.3.5. NOISE MANAGEMENT

From an environmental viewpoint, noise can create a nuisance to neighbours and members of the public and is subject to legal requirements. Taylor Construction Group and subcontractors shall make all practical efforts to comply with statutory requirements for noise management and minimize nuisance to neighbours. Protection of the Environment Operations Act 1997 (sections 139 and 140) and the Department of Environment and Climate Change NSW 'Interim Construction Noise Guideline' risk controls for noise must be incorporated in relevant Safe Work Method Statements, including nuisance to neighbours. Where required by development consent conditions, environmental noise monitoring will be undertaken as per the conditions. Further information on noise management from a WHS and environmental viewpoint is contained within the Noise Management Procedure.

References:

- SE-OP-04 Noise Management Procedure

10.3.6. WATER QUALITY MANAGEMENT

Taylor Construction Group and subcontractors shall comply with the requirements of section 120 of the Protection of The Environment Operations Act 1997 (Prohibition of Pollution of Waters). The act prohibits all forms of water pollution unless specifically authorised through and environment protection license (EPL). On most projects undertaken by Taylor Construction, an EPL will not be required.

There are substantial penalties for individuals and the company and controls must be in place to ensure that site activities do not cause water pollution.

Potentially hazardous activities, including washing out of concrete delivery vehicles and washing down of construction plant, are not permitted on site except in specially constructed bays that retain high PH water. Washing out of concrete delivery vehicles off-site is only permitted at locations approved for that purpose by the appropriate authority. Drains will be labelled to reduce likelihood of misuse.

Washing of paint brushes must be undertaken to avoid any paint wash-water entering drains or waterways. Wash-water must be removed from site and appropriately treated and/ or disposed of. The chemicals, acids or residue from any 'wet trades' such as brick cleaning must also be prevented from entering drains and waterways.

All liquids and materials that could cause water pollution must be stored in areas with secondary containment. Also refer to section on hazardous substances, chemicals, oils and other contaminants and the related procedure.

Pumping of storm water. If a sediment basin is required and storm water is required to be pumped out of the site, the pump intake is to be located no more than one metre (1m) below the surface of the collected water to reduce the amount of settled silt being pumped out for further treatment.

Storm water treatment. There are two treatment options for storm water collected on site, flocculation and/ or filtration. For each option, the applicable procedures in their entirety are to be followed.

References:

- SE-OP-01 Hazardous Substances and Dangerous Goods Procedure
- Storing and Handling Liquids - Environmental Protection (DECCW)

10.3.7. AIR QUALITY MANAGEMENT

Taylor Construction Group and subcontractors shall comply with all statutory requirements governing air quality management, i.e. Protection of The Environment Operations (POEO) Act 1997, section 124, and the POEO Clean Air Regulation 2010.

The project/ site manager will ensure that all construction facilities erected at the site are designed and operated to minimise the emission of smoke, dust, cement dust, plant and vehicle exhausts and other substances into the atmosphere.

Taylor Construction Group and subcontractors shall employ construction methods that will keep the air pollution to a minimum and apply measures such as those listed below to ensure that airborne pollutants do not cause pollution and nuisance near the works:

- The spraying of disturbed soil and roads with water whilst under construction as required.
- The removal of mud from the wheels and bodies of plant and vehicles before it enters public roads or other sealed pavements. This could be rumble grids, dry brushing, wheel wash, etc., depending on the nature of the site.
- The removal of mud or dirt spilt by construction equipment onto public roads or other sealed pavements.
- The provision of coverings or stabilization of topsoil stockpiles.
- Covering all loads leaving the site.
- Stabilisation of ground likely to be exposed for significant time periods (e.g., using sterile seed);
- Fitting power tools with dust collection devices where practical.
- Keeping all plant and equipment well maintained and not leaving them idling while not being used.
- Reporting excess air emissions from plant and arranging for a service to fix the problem.

On-site burning of any materials is not permitted on Taylor Construction sites.

Dust Including Crystalline Silica Dust

Dust containing respirable crystalline silica particles is commonly called silica dust. Activities such as cutting, grinding, sanding, drilling, loading or demolishing products that contain silica can generate respirable particles of crystalline silica dust that are small enough to breathe into your lungs. Crystalline silica dust can be harmful when it is inhaled into your lungs over a long period of time at low to moderate levels, or short periods at high levels.

From the **1st of July 2020** in NSW “Dry cutting will be an offence and for those who choose to ignore the law and put their employees a risk, SafeWork inspectors will issue tough new fines for noncompliance,

All Subcontractors working on a Taylors project that are using, drilling, cutting, sanding or grinding products that are known to contain silica will need to have a system in place that will allow their workers to either wet cut or drill, or will be required to use dust extraction systems on portable tools, or adopt other methods that eliminate or minimise the generation of silica dust.

10.3.8. HAZARDOUS SUBSTANCES, CHEMICALS, OILS AND OTHER CONTAMINANTS

Prior to commencing work on site, an assessment of the quantities and locations of hazardous substances, chemicals, etc. likely to be held on site must be undertaken. The location of hazardous substances and other contaminants must be marked on a site map (refer to appendix 5). The site manager will use the assessment when planning the works to minimise the potential for pollution. This includes providing appropriate storage; separation of incompatible materials and bunding; and ensuring that all activities that use or handle these substances are undertaken in an area that will not cause water pollution or land contamination.

Spill kits will be provided wherever substances that could potentially cause pollution are stored and handled. Relevant site personnel will be trained in spill response and will be familiar with the contents and function of the spill kit materials on site. All spills, no matter how small, must be cleaned up immediately and be reported as an environmental incident.

Refuelling or maintenance of plant and equipment, or any other activity which may result in the spillage of a chemical, fuel or lubricant on the site, is not permitted without appropriate temporary controls measures.

The use and storage of any hazardous substances or other chemicals will be made strictly in accordance with the manufacturer's instructions and the relevant materials safety data sheets (MSDS).

References:

- SE-OP-01 Hazardous Substances and Dangerous Goods Procedure
- Storing and Handling Liquids - Environmental Protection (DECCW)

Spill response. Major spillages must be notified immediately, and all efforts made to contain the spill and prevent escape into storm water drains and waterways, provided it is safe to do so. If the spill is beyond the capacity of the site personnel to contain and clean up, specialist services must be employed.

Minor spillages must be cleaned up immediately. If soil or ground is contaminated, the soil is to be removed and placed into a bag or designated waste drum and disposed of appropriately.

If the spill enters drains or waterways, the incident may be required to be reported to the appropriate regulatory authority (local council) as soon as practicable, in accordance with the duty to report under the POEO Act. The decision to report must be discussed with the HSE manager or a director prior to making the report.

Spill response procedures for this project are:

- Provide site map showing location of all hazardous substances, chemicals, fuels, oils, spill kits, storm water drains and natural waterways (appendix 5).
- Spill Response Procedure flow chart (appendix 3).
- Call emergency services (fire, hazmat): call 000.
- Local council phone number: Cumberland City Council – 02 8757 9000.
- MSDS are located at: Taylor Site Office.

10.3.9. PESTICIDE USE AND STORAGE

If pesticides are used at the site, they must be stored appropriately as per 'hazardous substances' section (11.3.8 above) and used in accordance with the manufacturer's requirements and the NSW Pesticides Management Act and Regulations. The Act and Regulations have strict record keeping requirements for the use of more than 20 litres of product.

Taylor Construction Group general policy on the use of pesticides is that they should only be applied by suitably qualified pest control contractors.

10.3.10. CONTAMINATED LAND

Prior to commencing project work, checks should be made on the potential for the site to be contaminated. This should generally be identified by the client and addressed in an Environmental Impact Assessment. If the site is found to be contaminated, the recommendations for management of the contaminated soils from the assessment and other reports should be incorporated into this PEMP below.

Should contamination be suspected once working on the site (e.g. unusual odours, visual indications of soil or water pollution, etc.) work should cease immediately and the Taylor's project/ site manager contacted. Where relevant, the client

should be notified by Taylor's project manager and investigations undertaken into the nature of the contamination. Work should not recommence until the nature and extent of the contamination is established and can be safely managed without environmental risk.

Taylor Construction Group and subcontractors shall comply with relevant statutory requirements of Contaminated Land Management Act and the POEO Act (NSW) in relation to disturbance or treatment of potentially contaminated ground.

The company shall install any control measures needed to divert surface run-off away from contaminated ground and to treat any surface run-off contaminated by exposure to contaminated ground. Contaminated material removed from site must be recorded on the **Waste and Recycling Register QSE-R-16**.

References:

- Waste and Recycling Register QSE-R-16

10.3.11. ACID SULPHATE SOILS (ASS)

Acid sulphate soils are naturally occurring soils generally found in estuarine areas. When exposed to air, they can oxidize and cause run-off of highly acid water. Acid sulphate soils require specialist management techniques.

The client should be aware of any potential for encountering acid sulphate soils and, if there is a potential, it should be addressed in the Environmental Impact Assessment undertaken for the project.

10.3.12. COMMUNITY COMPLAINTS

Community complaints should be treated as 'incidents': they must be reported to the HSE manager, be thoroughly investigated and reported on SharePoint. Reference to these are also to be documented and included in site diary entries. The Project or Site Manager should try to resolve the issue with the community member in a conciliatory manner and in accordance with the approved Community Communication Strategy under condition A26 of the SSD. Refer to *Appendix 10c* for further details.

References:

- SE-F-21 Incident Report Form
- SE-F-22 Incident Investigation Form (report on SharePoint – forms are back-up only)
- SE-F-23 KPI Monthly Report (as above)

10.3.13. ARCHAEOLOGY AND HERITAGE MANAGEMENT

If any unexpected heritage item is discovered during maintenance and construction works, the following must be taken into consideration:

Indigenous heritage. All aboriginal objects, regardless of significance, are protected under law. Should any deposit, artefact or material evidence (including skeletal remains) of Aboriginal origin be found, Taylor Construction Group and subcontractors **shall cease all construction works that might disturb or damage** the deposit, artefact or material. The project manager will notify the client immediately, who will then consult the relevant government department (i.e., DECCW - National Parks, Wildlife Services or Heritage NSW as per condition B14 of the SSD – refer to *Appendix 10a* for details). Examples of Aboriginal objects include stone tool artefacts, shell middens, axe grinding groves, pigment or engraved rock art, burials, and scarred trees.

Historic heritage. Historic (non-Aboriginal) heritage items may include archaeological 'relics and other historical items such as works, structures, buildings or moving objects. Should any item which is suspected to be of historical heritage value be encountered, Taylor Construction Group and subcontractors **shall cease all construction works that might disturb or damage the item**. The project manager will notify the client immediately, who will arrange for an officer from the relevant government heritage department to be consulted. A 'relic' is 'any deposit, artefact, object or material evidence that relates to the settlement of the area, not being Aboriginal settlement; and is of State or local heritage significance'. It can include bottles, remnants of clothing, pottery, building materials and general refuse.

References:

- Heritage Act 1977
- National Park and Wildlife Act 1974
- Unexpected Heritage Items Procedure – Roads and Maritime Services, 2015

11. INCIDENT AND EMERGENCY MANAGEMENT

11.1. EMERGENCY RESPONSE

The Emergency Response Plan for this site has been developed based on a template provided in the **SE-P-07 Project Emergency Control Management Plan**. Additional information for the management and control of emergency situations can be found in the Project Safety Plan (**WHS-PLAN-02**) but a Spill Response Procedure Flow Chart is contained in appendix 3 of this plan. For additional information on response to a spill, refer to section 11.3.8 'Spill response'.

Emergency response posters and flow charts are to be posted in the site and induction office, WHS notice boards, in crib rooms and other areas of the site as required.

References:

- SE-P-07 Project Emergency Control Management Plan
- QSE-F-10.1 Pre-Start Site QSE Checklist
- SE-F-31 Emergency Evacuation Rehearsal Register
- SE-F-05 Site Layout Evacuation Plan
- SE-F-06 On-Site Emergency Control Plan

11.2. INCIDENT REPORTING AND INVESTIGATION REPORTING

Site environmental incidents must be reported to the project/ site manager as soon as practically possible. In addition, any major environmental incidents must also be reported to the HSE manager in accordance with the **Incident Reporting and Investigation Procedure QSE-OP-05**. The priority is to ensure that the situation is controlled as soon as possible and to avoid further pollution or other adverse environmental consequences. Reporting of the incident should not delay any immediate responses to the incident.

Incident Reports must be completed and forwarded to the HSE manager within 24 hours and must be kept for a minimum of five (5) years.

Environmental incidents that cause, or threaten to cause, material environmental harm must be reported to the Appropriate Regulatory Authority (ARA, the local council in which the project is located) as soon as practicable following the incident. This would include any spillage or leak of substances that cause water or land pollution. Material environmental harm generally means that the harm is not trivial and/ or costs more than \$10,000 to clean up. The phone number of the ARA should be included in the Emergency Response Plan.

If the site manager believes that the incident may be reportable to the Appropriate Regulatory Authority (ARA), contact the WHS manager for further advice prior to making an Investigation Report.

All environmental incidents that cause, or could potentially result, in an environmental harm are to be investigated, and corrective actions implemented following the investigation. Depending on the seriousness of the incident, key site personnel, the HSE manager, witnesses, etc. should be consulted on the investigation and in determining appropriate corrective or preventive actions.

References:

- QSE-OP-05 Incident Reporting and Investigation Procedure
- SE-F-21 Incident Report Form (report on SharePoint – forms are back-up only)
- SE-F-22 Incident Investigation Form (as above)

12. ENVIRONMENTAL MONITORING AND INSPECTIONS

12.1. SITE ENVIRONMENTAL INSPECTIONS

Site environmental inspections are to be undertaken weekly using **SE-F-02 HSE Inspection Checklist** to ensure that environmental hazards are recognised and can be promptly rectified. Additional environmental issues may be added to the site HSE inspection form as required.

12.2. PHYSICAL MONITORING

For many projects undertaken by Taylor Construction, physical environmental monitoring is not typically required (e.g. dust, water quality, noise levels, air quality, etc.). Should the Environmental Impact Assessment specify that environmental monitoring is required, the project manager will arrange for appropriately qualified consultants to undertake that monitoring. All equipment used to measure environmental parameters will be calibrated in accordance with manufacturer's instructions.

12.3. MONITORING OF PROJECT ENVIRONMENTAL TARGETS

Objectives and targets for the project are specified under 'Objectives and Targets' section of the PEMP. Data relating to these targets will be documented daily using site diaries, reviewed by project/ site managers on a monthly basis and forwarded to the HSE manager for reporting to senior management.

The KPI Monthly Report captures information on lag and lead indicators. The current indicators are:

Lag indicators:

- Number of environmental incidents.
- Number of penalty infringement notices (pins) or clean-up notices.
- Number of community complaints.

Lead indicators:

- Number of toolbox talks (combined with WHS and environmental issues);
- Number of environmental inspections undertaken.
- Waste and recycling volumes (initially to set benchmark, then track improvement)

Add any additional KPIs that may be set from Environmental Impact Assessments, conditions of consent and client requirements, etc.

13. NON-CONFORMITY, CORRECTIVE AND PREVENTIVE ACTIONS

Taylor Construction has a non-conformance and corrective action process in place to address all non-conformities across the business, regardless of the source. The process is defined in the **Reporting Non-Conformance, Corrective and Preventive Actions Procedure QSE-OP-29**. Typically, environmental non-conformances would result from audits, inspections and from observations by the site manager of poor environmental practices, including incorrect waste disposal/ recycling (liquid waste, poor storage of hazardous substances, oils, chemicals and damage to existing environmental controls such as sediment fencing, etc.). Non-conformances may be issued for serious breaches or repeated minor breaches.

References:

-
- QSE-OP-29 Reporting Non-Conformance, Corrective and Preventive Actions Procedure
 - Notices (electronic) raising of non-conformances (internal)
 - Notices (printable) for raising NCRS on subcontractors.

14. PURCHASING/ PROCUREMENT

Purchasing and procurement includes the purchase of goods and the supply of services of contractors. When purchasing goods, the following environmental considerations should be considered:

- Is there a less toxic, less harmful alternative (e.g. chemicals, paints, solvents, etc.)?
- How much do we need? Will anything be wasted? Precise ordering will minimise wastage of resources and money.
- Can the product be purchased locally to reduce transport impacts?
- Are there any opportunities to use 'green' products in construction to improve the efficiency of the building in terms of energy and water usage (design issue – may need client input)?
- S-F-18.1 Pre-Hire Purchasing Assessment Form

When engaging contractors, the following should be taken into consideration:

- Has the environmental capability been assessed and signed-off through contract administration?
- Has the contractor attended a pre-award interview and assessed Taylor Construction Group environmental requirements?
- Has **Subcontractor Tender Interview and Assessment Form QSE-F-15.6** been completed?

References:

- QSE-OP-15 Subcontracting, Purchasing and Hiring Procedure
- QSE-F-15.6 Subcontractor Tender Interview and Assessment Form

15. CONTRACTOR MANAGEMENT

Taylor Construction Group, as the principal contractor, will ensure that contractors performing work on site are aware of the environmental requirements and enforce compliance to requirements.

Prior to commencing on site, contractors are to be inducted to the site as part of the HSE requirements. Inductions will include an environmental component to ensure all contractors are aware of the environmental risks on the project.

Contractors are required to submit Safe Work Method Statements (SWMS) prior to commencement of work as part of the WHS requirements. SWMS must also address the environmental risks for the tasks and will be reviewed and checked-off on **SE-F-14 Safe Work Method Statement Review Form** by the site manager to ensure that all environmental risks are appropriately identified, and controls documented.

Environmental inspections will be undertaken at least once monthly. This will include an inspection of the contractor's work area and checking that all environmental controls are in place. Serious breaches or repeated minor breaches will result in the issue of a Non-Conformance Report, and the issue must be resolved within designated time frames.

16. ENVIRONMENTAL AUDIT

Audits of the Environmental Management System will be conducted regularly to ensure the system is appropriately in place and implemented. As part of the audit program, audits will also be undertaken on project sites for compliance to the requirements of the Project Environmental Management Plans. Audits should be undertaken by suitably experienced auditors.

Projects that have duration of more than six months will have at least one audit against the PEMP and, after the 6 months, will be audited at least once per year. This will generally be undertaken as an integrated audit in conjunction with the Project

Safety Plan and Project Management Plan (Quality). Projects with high-risk activities or that performed poorly at the initial audit may be audited at a higher frequency. The HSE manager is responsible for coordinating project audits.

17. REVIEW OF THIS PLAN

This Environmental Management Plan must be reviewed by the project manager in consultation with the project team and HSE manager whenever any major change occurs on the site that may have an impact on the environment, or at least twice (every 6 months) during construction.

2021

APPENDIX 1: GLOBAL MARK ACCREDITATION



Certificate of Approval

This certificate confirms that the company below complies with the following standard:

Company Name	Taylor Construction Group		
Company Other Name			
Client ID	101009	Scheme	Environmental Management Systems Scheme
Certification Standard	AS/NZS ISO 14001-2016: Environmental management systems - Requirements with guidance for use		
Scope of Certification	Design, construction, project management and property development services		
Type of Certification	Management System		

The control set source for controls applied in the Statement of Applicability (referenced above) does not imply these controls are certified by Global-Mark.

CERTIFICATE DATES:

Original / Initial	19/11/2009	Last Certificate update	13/05/2021
Certification / Re Certification	4/05/2021	Expiry	7/05/2024
Last Certification Decision	13/05/2021		

APPROVED COMPANY/SITE ADDRESS(ES):

Level 13, 157 Walker Street North Sydney NSW 2060 Australia

The use of the Accreditation Mark indicates accreditation by the Joint Accreditation System of Australia and New Zealand in respect to those activities covered by JAS-ANZ accreditation. Refer to www.jas-anz.org/register for verification.

This certification remains valid until the above mentioned expiry date and subject to the organisation's continued compliance with the certification standard, and Global-Mark's Terms and Conditions.

This Certificate of Approval remains the property of Global-Mark Pty Ltd, Company Number: ACN 108 087 654



Certification Manager

Gene Hoban

Unique Certificate Code: E15D2CE263BF3E6CCA2586CF0001C4EF

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APPENDIX 2: ENVIRONMENTAL POLICY



In managing our business, we make a commitment to:

- Work pro-actively with our clients, regulators, and other community stakeholders to enable environmental issues to be addressed at an early stage of development.
 - Take local community views into consideration and ensure that we inform, listen to and respond to reasonable concerns relating to our projects.
 - Undertake our activities in a manner that is consistent with the principles of ecologically sustainable development.
 - Prevent pollution and reduce adverse environmental impacts of our activities on the natural, built and cultural environment.
 - Promote the efficient use of natural resources and reduce waste through the use of the waste hierarchy – avoid, reduce, re-use, recycle and finally dispose.
 - Set realistic environmental objectives and targets at all relevant levels within the company and continually monitor performance.
 - Promote environmental awareness among all employees and subcontractors to achieve our environmental objectives.
 - Continually improve our environmental performance through periodic review and evaluation of our policy and management systems to ensure they remain suitable, adequate and effective.
- Encourage a sense of personal responsibility for environmental issues amongst employees and subcontractors through effective communication, training and positive organisational culture.

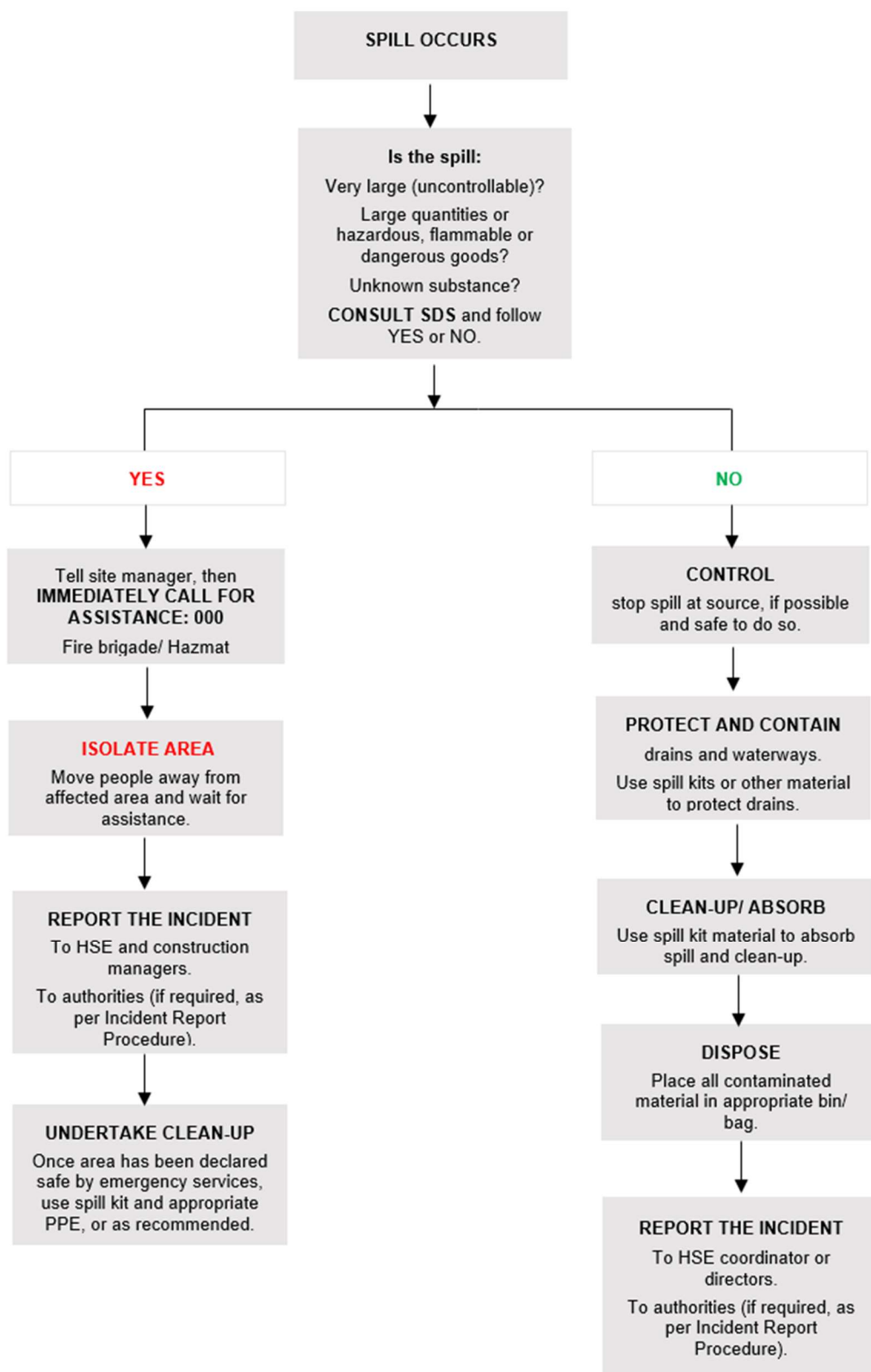
This policy will be reviewed in December 2021.

A handwritten signature in blue ink, appearing to read 'George Bardas'.

George Bardas
Chief Executive Officer



APPENDIX 3: TAYLOR CONSTRUCTION SPILL RESPONSE PROCEDURE FLOW CHART

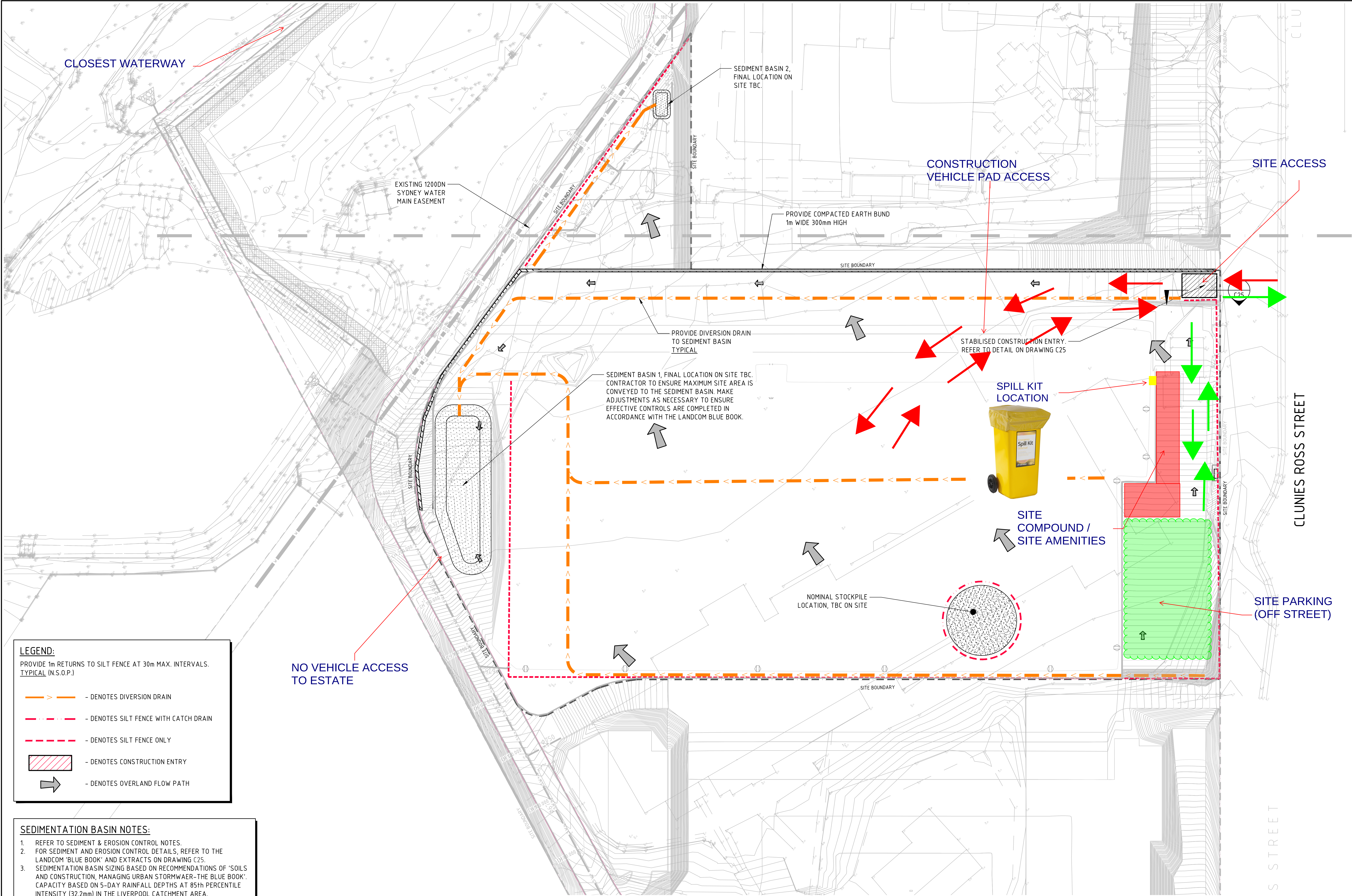


APPENDIX 4: SITE ENVIRONMENTAL EMERGENCY RESPONSE PLANS

Potential emergency	What to do?	Relevant authorities and persons
Injury caused by: - Fire - Explosion - Machinery accidents - Minor injuries	- For serious injuries, call an ambulance. You should also have the contact details of the nearest doctor, medical centre and hospital. - Immediately inform the site first aid officer; - Follow the procedures as detailed in the Site Safety Plan. - For major injuries, contact the site manager or project manager.	Emergency services Nearest doctor Medical centre Site manager Project manager
Fire Fire at the diesel tank Fire at any of the machineries Fire caused by vandalism	- Evacuate all personnel to a safe area immediately. - Call the fire brigade (emergency services); - If the fire is likely to damage neighbouring property, inform the adjacent residents. - Follow the procedures as detailed in the Site Safety Plan; - For major fire emergencies, contact the site manager or project manager. - Inform terminal security. Note: fire extinguishers are located throughout the site as detailed in the Emergency Evacuation Map.	Emergency services Site manager Project manager Adjacent residents
Spills management and contaminated soils Major spills: - Spill or release of diesel fuel or oil; - Spill or release of other hazardous chemicals or material	For major spills (defined as a spill that is likely to have direct environmental consequences): - Immediately call the Fire Brigade and notify the project manager. - Identify the source of the spill; - Refer to the Material Safety Data Sheet (MSDS) and evaluate the hazards of the material.	Emergency services (fire brigade) HSE manager SM and PM EPA
Minor site spills Acid sulphate soils	- If the material is dangerous, evacuate the site immediately and notify all neighbours. - If it is safe to do so, halt the source of the spill immediately. - Contain the spill and control its flow. - Block storm water drains downstream of the spill. - EPA and local council must be notified about any spills that are likely to threaten the environment. - Minor spills (defined as spills which can be contained and rectified correctly without the need of external services), shall be contained and rectified with the site spill kit and disposed of correctly. Superintendent to be notified via incident report. - Reported to the site manager. - Where acid sulphate soils are discovered, the spoil shall not be removed from site; subsequent notification and testing will follow.	Emergency services (fire brigade) HSE manager SM and PM EPA
Heavy rainstorm and flood beyond the capacity of the sediment and erosion controls on-site or failure of the sedimentation control measures.	- Contain/ minimise the flow. - Contact council immediately. - Investigate reasons for failure and prepare an incident report. - Contact the project manager.	Council Site manager Project manager
Discovery of items of conservation value (e.g. flora and fauna, heritage).	Fence-off the area as 'no go' zone and contact the site manager or project manager immediately for further action.	Site manager Project manager
Discovery of contaminated material on site (e.g. underground fuel storage tanks).	Fence-off the area as 'no go' zone and contact the site manager or project manager immediately for further action.	Site manager Project manager

APPENDIX 5: SITE MAP – ENVIRONMENTAL REQUIREMENTS





- 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, SEEDED 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 DAY'S EARTHWORKS. THE HEIGHT OF THE BUND SHALL BE A MINIMUM OF 200mm.
 10. ALL CUT AND FILL SLOPES ARE TO BE SEEDED 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 SITE MANAGER TO PREVENT WIND AND WATER EROSION.
 13. ANY AREA THAT IS NOT APPROVED BY THE CONTRACT ADMINISTRATOR 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 SITE MANAGER. 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 SITE MANAGER FOR THE REMOVAL OF SOIL MATERIALS FROM 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.

- SEDIMENT CONTROL BASIN NOTES:**
1. TYPE D BASIN IS REQUIRED.
 2. VOLUME OF THE BASINS SHALL BE AS NOMINATED ON DRAWING. NOMINAL POND LOCATIONS AND NOMINAL DIMENSIONS.
 3. SEDIMENT BUILD UP TO NOT EXCEED 33% TOTAL CAPACITY OF BASIN.
 4. DEWATERING OF BASIN TO BE PERFORMED TO THE BOTTOM OF THE SEDIMENT SETTLING ZONE FOLLOWING ACHIEVEMENT OF WOOD'S MANAGEMENT OF DOSAGE AND DISCHARGE TO BE ACHIEVED WITHIN 5 DAYS OF THE INITIAL RAINFALL EVENT.
 5. FOLLOWING DEWATERING PER NOTE 4, WATER LEVEL TO BE MAINTAINED AT 20% CAPACITY AFTER A FOUR DAY SETTLING PERIOD FOLLOWING A STORM EVENT.
 6. WATER TO BE DOSED WITH GYPSUM TO ACCELERATE SETTLEMENT OF SUSPENDED SOLIDS AS REQUIRED.
 7. GYPSUM DOSAGE RATE TO BE APPLIED AT APPROX. 32kg PER 100 CUBIC METRE OF COLLECTED RUNOFF.
 8. THE USE OF ALUM (OR ANY OTHER ALTERNATIVE) AS A FLOCCULANT IS NOT RECOMMENDED. ALUM OR ANY OTHER FLOCCULANT IS TO BE USED ONLY FOLLOWING CONSULTATION WITH AND ACCEPTANCE FROM COUNCIL ESC OFFICERS.
 9. DISCHARGE FROM POND IS PERMISSIBLE WHEN THE WATER PH IS 6.5-8.5 AND IS CLARIFIED TO AT OR BELOW A TSS OF 50mg/L. CLARIFICATION WOULD GENERALLY BE ACHIEVED IN 36-72 HOURS WITH THE USE OF GYPSUM. CORRELATION TESTS MUST BE UNDERTAKEN ON SITE TO ENSURE THIS IS ACHIEVED.
 10. DEWATERING SHALL BE DONE IN SUCH A MANNER AS TO REMOVE THE CLEAN WATER (BEING WATER WITHIN THE ADOPTED CRITERIA) WITHOUT REMOVING OR DISTURBING THE SEDIMENT THAT HAS SETTLED. THE PUMP INTAKE PIPE IS NOT TO REST ON THE SETTLED SEDIMENT LAYER.
 11. IF WATER EXCEEDS TSS OF 50mg/L DURING DEWATERING, PUMPING IS TO CEASE. RECORDS ARE TO BE KEPT (ON-SITE AT ALL TIMES) OF ALL MEASUREMENT PRIOR TO, DURING AND AFTER DISCHARGE. RECORDS TO BE MADE AVAILABLE TO COUNCIL OFFICERS UPON REQUEST.
 12. PROVIDE SECURITY FENCE TO BASIN FOR SAFETY.

- LEGEND:**
- PROVIDE 1m RETURNS TO SILT FENCE AT 30m MAX. INTERVALS. TYPICAL (N.S.O.P.)
- DENOTES DIVERSION DRAIN
 - DENOTES SILT FENCE WITH CATCH DRAIN
 - DENOTES SILT FENCE ONLY
 - DENOTES CONSTRUCTION ENTRY
 - DENOTES OVERLAND FLOW PATH

- SEDIMENTATION BASIN NOTES:**
1. REFER TO SEDIMENT & EROSION CONTROL NOTES.
 2. FOR SEDIMENT AND EROSION CONTROL DETAILS, REFER TO THE LANDCOM 'BLUE BOOK' AND EXTRACTS ON DRAWING C25.
 3. SEDIMENTATION BASIN SIZING BASED ON RECOMMENDATIONS OF 'SOILS AND CONSTRUCTION, MANAGING URBAN STORMWATER-THE BLUE BOOK'. CAPACITY BASED ON 5-DAY RAINFALL DEPTHS AT 85th PERCENTILE INTENSITY (32.2mm) IN THE LIVERPOOL CATCHMENT AREA.
- BASIN 1:**
- DISTURBED AREA = 4.10 Ha
REQUIRED BASIN VOLUME = 990m³
BASE DIMENSIONS (L X W) = 15m x 30m
TOP DIMENSIONS (L X W) = 24m x 39m
MAX SIDE SLOPE = 1V:3H
DEPTH = 1.5m
PROVIDED BASIN VOLUME = 1,017m³
- BASIN 2:**
- DISTURBED AREA = 0.25 Ha
REQUIRED BASIN VOLUME = 60m³
BASE DIMENSIONS (L X W) = 7m x 14m
TOP DIMENSIONS (L X W) = 10m x 17m
MAX SIDE SLOPE = 1V:3H
DEPTH = 0.5m
PROVIDED BASIN VOLUME = 66m³
- NOTES:**
1. ASSUME TYPE D SOIL (CLAY/SILTY CLAY)
 2. ASSUME GROUP D SOIL (HIGH PLASTICITY AND SHRINK/SWELL PROPERTIES)

EROSION & SEDIMENT CONTROL PLAN - STAGE 2
SCALE 1:500

TAYLOR - SITE ENVIRONMENTAL MAP

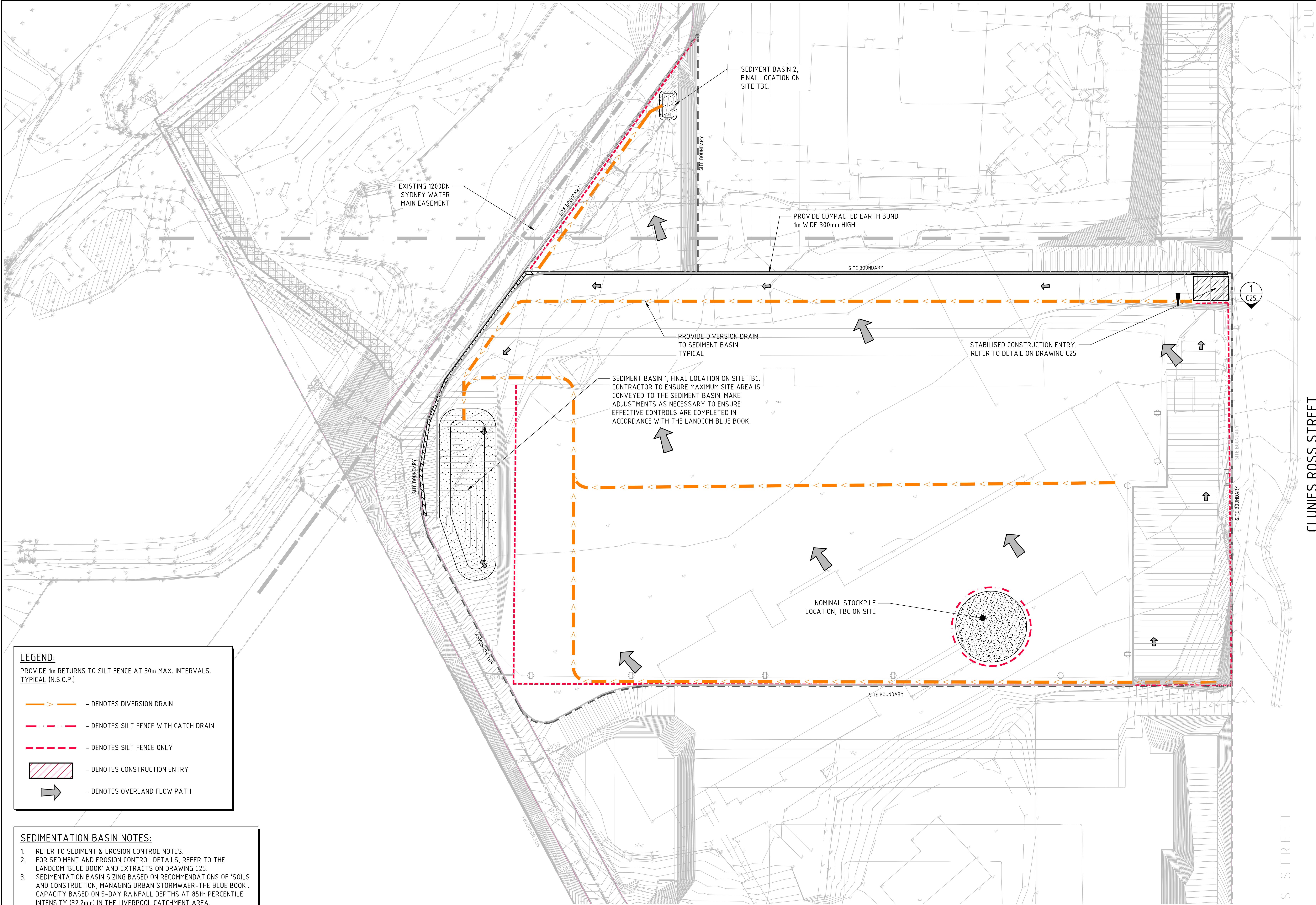
FOR CONSTRUCTION CERTIFICATE

5m 0 10 20 30 40 50m
SCALE 1:500 AT A0 SIZE SHEET

ISSUED FOR CONSTRUCTION CERTIFICATE			10.09.21			B			ARCHITECT			CLIENT			PROJECT			Costin Roe Consulting Pty Ltd.			DRAWING TITLE		
PRELIMINARY ISSUE ONLY			28.05.21			A			Nicholas + Alexander Architects			Aliro			PROJECT PEMULWUY			Consulting Engineers			EROSION & SEDIMENT CONTROL PLAN- STAGE 2		
AMENDMENTS			DATE	ISSUE	AMENDMENTS	DATE	ISSUE	AMENDMENTS	DATE	ISSUE	AMENDMENTS	DATE	ISSUE	AMENDMENTS	DESIGNED	CHECKED	SCALE	DATE	SCALE	DATE	SCALE	DATE	SCALE
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APPENDIX 6: SEDIMENT CONTROL PLAN

2021



LEGEND:
PROVIDE 1m RETURNS TO SILT FENCE AT 30m MAX. INTERVALS.
TYPICAL (N.S.O.P.)

- DENOTES DIVERSION DRAIN
- DENOTES SILT FENCE WITH CATCH DRAIN
- DENOTES SILT FENCE ONLY
- DENOTES CONSTRUCTION ENTRY
- DENOTES OVERLAND FLOW PATH

SEDIMENTATION BASIN NOTES:

- REFER TO SEDIMENT & EROSION CONTROL NOTES.
- FOR SEDIMENT AND EROSION CONTROL DETAILS, REFER TO THE LANDCOM 'BLUE BOOK' AND EXTRACTS ON DRAWING C25.
- SEDIMENTATION BASIN SIZING BASED ON RECOMMENDATIONS OF 'SOILS AND CONSTRUCTION, MANAGING URBAN STORMWATER-THE BLUE BOOK'. CAPACITY BASED ON 5-DAY RAINFALL DEPTHS AT 85th PERCENTILE INTENSITY (32.2mm) IN THE LIVERPOOL CATCHMENT AREA.

BASIN 1:
DISTURBED AREA = 4.10 Ha
REQUIRED BASIN VOLUME = 990m³
BASE DIMENSIONS (L X W) = 15m x 30m
TOP DIMENSIONS (L X W) = 24m x 39m
MAX SIDE SLOPE = 1V:3H
DEPTH = 1.5m
PROVIDED BASIN VOLUME = 1,017m³

BASIN 2:
DISTURBED AREA = 0.25 Ha
REQUIRED BASIN VOLUME = 60m³
BASE DIMENSIONS (L X W) = 7m x 14m
TOP DIMENSIONS (L X W) = 10m x 17m
MAX SIDE SLOPE = 1V:3H
DEPTH = 0.5m
PROVIDED BASIN VOLUME = 66m³

NOTES:

- ASSUME TYPE D SOIL (CLAY/SILTY CLAY)
- ASSUME GROUP D SOIL (HIGH PLASTICITY AND SHRINK/SWELL PROPERTIES)

EROSION CONTROL NOTES:

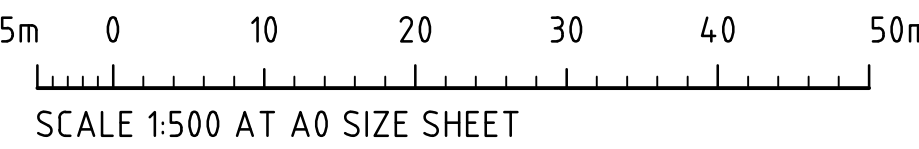
ALL CONTROL WORK INCLUDING DIVERSION BANKS AND CATCH DRAINS, V-DRAINS AND SILT FENCES SHALL BE COMPLETED DIRECTLY FOLLOWING THE COMPLETION OF THE EARTHWORKS.

- SILT FENCES AND SILT FENCE RETURNS SHALL BE ERECTED CONVEX TO THE CONTOUR TO POND WATER.
- 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.
- ALL TEMPORARY EARTH BERM, DIVERSION AND SILT DAM EMBANKMENTS ARE TO BE MACHINE COMPACTED, SEEDED AND MULCHED FOR TEMPORARY VEGETATION COVER AS SOON AS THEY HAVE BEEN FORMED.
- CLEAR WATER IS TO BE DIVERTED AWAY FROM DISTURBED GROUND AND INTO THE DRAINAGE SYSTEM.
- THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING AND PROVIDING ON GOING ADJUSTMENT TO EROSION CONTROL MEASURES AS REQUIRED DURING CONSTRUCTION.
- 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.
- ALL FINAL EROSION PREVENTION MEASURES INCLUDING THE ESTABLISHMENT OF GRASSING ARE TO BE MAINTAINED UNTIL THE END OF THE DEFECTS LIABILITY PERIOD.
- ALL EARTHWORKS AREAS SHALL BE ROLLED ON A REGULAR BASIS TO SEAL THE EARTHWORKS.
- ALL FILL AREAS ARE TO BE LEFT WITH A BUND AT THE TOP OF THE SLOPE AT THE END OF EACH DAY'S EARTHWORKS. THE HEIGHT OF THE BUND SHALL BE A MINIMUM OF 200mm.
- ALL CUT AND FILL SLOPES ARE TO BE SEEDED AND HYDROMULCHED WITHIN 10 DAYS OF COMPLETION OF FORMATION.
- 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.
- ALL TOPSOIL STOCKPILES ARE TO BE SUITABLY COVERED TO THE SATISFACTION OF THE SITE MANAGER TO PREVENT WIND AND WATER EROSION.
- ANY AREA THAT IS NOT APPROVED BY THE CONTRACT ADMINISTRATOR 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.
- ALL STOCKPILE SITES SHALL BE SITUATED IN AREAS APPROVED FOR SUCH USE BY THE SITE MANAGER. 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.
- ACCESS AND EXIT AREAS SHALL INCLUDE SHAKE-DOWN OR OTHER METHODS APPROVED BY THE SITE MANAGER FOR THE REMOVAL OF SOIL MATERIALS FROM MOTOR VEHICLES.
- 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.
- 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.

SEDIMENT CONTROL BASIN NOTES:

- TYPE D BASIN IS REQUIRED.
- VOLUME OF THE BASINS SHALL BE AS NOMINATED ON DRAWING. NOMINAL POND LOCATIONS AND NOMINAL DIMENSIONS.
- SEDIMENT BUILD UP TO NOT EXCEED 33% TOTAL CAPACITY OF BASIN.
- DEWATERING OF BASIN TO BE PERFORMED TO THE BOTTOM OF THE SEDIMENT SETTLING ZONE FOLLOWING ACHIEVEMENT OF WOOD'S MANAGEMENT OF DOSAGE AND DISCHARGE TO BE ACHIEVED WITHIN 5 DAYS OF THE INITIAL RAINFALL EVENT.
- FOLLOWING DEWATERING PER NOTE 4, WATER LEVEL TO BE MAINTAINED AT 20% CAPACITY AFTER A FOUR DAY SETTLING PERIOD FOLLOWING A STORM EVENT.
- WATER TO BE DOSED WITH GYPSUM TO ACCELERATE SETTLEMENT OF SUSPENDED SOLIDS AS REQUIRED.
- GYPSUM DOSAGE RATE TO BE APPLIED AT APPROX. 32kg PER 100 CUBIC METRE OF COLLECTED RUNOFF.
- THE USE OF ALUM (OR ANY OTHER ALTERNATIVE) AS A FLOCCULANT IS NOT RECOMMENDED. ALUM OR ANY OTHER FLOCCULANT IS TO BE USED ONLY FOLLOWING CONSULTATION WITH AND ACCEPTANCE FROM COUNCIL ESC OFFICERS.
- DISCHARGE FROM POND IS PERMISSIBLE WHEN THE WATER PH IS 6.5-8.5 AND IS CLARIFIED TO AT OR BELOW A TSS OF 50mg/L. CLARIFICATION WOULD GENERALLY BE ACHIEVED IN 36-72 HOURS WITH THE USE OF GYPSUM. CORRELATION TESTS MUST BE UNDERTAKEN ON SITE TO ENSURE THIS IS ACHIEVED.
- DEWATERING SHALL BE DONE IN SUCH A MANNER AS TO REMOVE THE CLEAN WATER (BEING WATER WITHIN THE ADOPTED CRITERIA) WITHOUT REMOVING OR DISTURBING THE SEDIMENT THAT HAS SETTLED. THE PUMP INTAKE PIPE IS NOT TO REST ON THE SETTLED SEDIMENT LAYER.
- IF WATER EXCEEDS TSS OF 50mg/L DURING DEWATERING, PUMPING IS TO CEASE. RECORDS ARE TO BE KEPT (ON-SITE AT ALL TIMES) OF ALL MEASUREMENT PRIOR TO, DURING AND AFTER DISCHARGE. RECORDS TO BE MADE AVAILABLE TO COUNCIL OFFICERS UPON REQUEST.
- PROVIDE SECURITY FENCE TO BASIN FOR SAFETY.

EROSION & SEDIMENT CONTROL PLAN - STAGE 2
SCALE 1:500



FOR CONSTRUCTION CERTIFICATE

ISSUED FOR CONSTRUCTION CERTIFICATE	10.09.21	B
PRELIMINARY ISSUE ONLY	28.05.21	A
AMENDMENTS	DATE	ISSUE

AMENDMENTS	DATE	ISSUE
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CLIENT
Aliro **ISPT SUPER PROPERTY**

TAYLOR

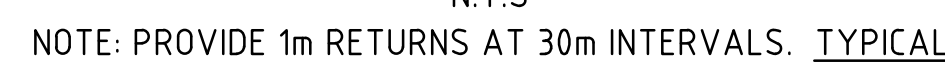
BUNZL

PROJECT
PROJECT PEMULWUY
LOTS 107, 63 & 10 CLUNIES ROSS STREET,
GREYSTANES, NSW 2148

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Costin Roe Consulting
PRECISION | COMMUNICATION | ACCOUNTABILITY

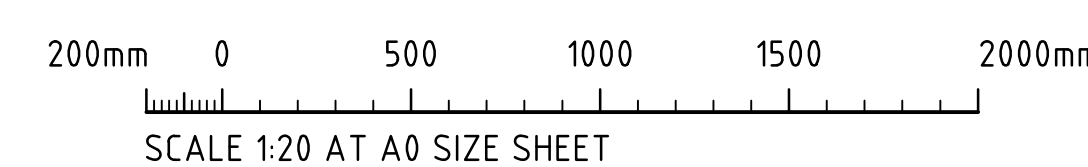
DRAWING TITLE
EROSION & SEDIMENT CONTROL PLAN- STAGE 2
DRAWING NO: C013251.13-C20
ISSUE: B



1. PLACE ALL STOCKPILES IN LOCATIONS MORE THAN 5m FROM EXISTING VEGETATION, ROADS & HAZARD AREAS.
2. CONSTRUCT ON THE CONTOUR AS LOW, FLAT ELONGATED MOUNDS. SIDE SLOPE TO BE 1 V: 2 H MAX.
3. WHERE THERE IS SUFFICIENT AREA, TOPSOIL STOCKPILES SHALL BE LESS THAN 2m IN HEIGHT.
4. WHERE STOCKPILES ARE TO BE IN PLACE FOR MORE THAN 10 DAYS, STABILISE USING WOOD CHIP MULCH - 16 TONNE/ha.
5. CONSTRUCT SILT FENCE WITH CATCH DRAIN ON UPSLOPE SIDE TO DIVERT WATER AROUND STOCKPILES & SILT FENCE ONLY 1 TO 2m DOWNSLOPE AS SHOWN.



CATCHMENT (Ha)	FLOW (m³/s)	WIDTH (mm)	FLOW DEPTH (mm)	ROCK SIZE (mm)	BUND HEIGHT ABOVE SPILLWAY (mm)
0.20	0.14	1000	200	-	600
0.5	0.2	2000	200	-	600
1	0.3	2000	200	-	700
2	0.6	4000	200	-	700
5	1.4	5000	300	200	800



FOR CONSTRUCTION CERTIFICATE

ISSUED FOR CONSTRUCTION CERTIFICATE 10.09.21 B PRELIMINARY ISSUE ONLY 28.05.21 A AMENDMENTS DATE ISSUE AMENDMENTS DATE ISSUE			ARCHITECT  Nicholas + Alexander Architects 15 Mount Street, North Sydney, NSW 1585 Tel: (02) 9550 1233 Fax: (02) 9550 1234 Email: n+a@n+a.com.au A/C/L: 14241982		CLIENT  		 		PROJECT PROJECT PEMULWUY LOTS 107, 63 & 10 CLINES ROSS STREET, GREYSTANES, NSW 2148 		Costin Roe Consulting Pty Ltd. Consulting Engineers Level 1, 8 Windmill Street Walsh Bay, Sydney NSW 2000 Tel: (02) 950-7699 Fax: (02) 950-3728 Email: mail@costinroe.com.au		Costin Roe Consulting PRECISION COMMUNICATION ACCOUNTABILITY		DRAWING TITLE EROSION & SEDIMENT CONTROL DETAILS DRAWING NO. C013251.13-C25 ISSUE B	
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APPENDIX 7: ENVIRONMENTAL LEGAL AND OTHER REQUIREMENTS REGISTER

ENVIRONMENTAL -LEGAL -REGISTER -01

2021

TAYLOR

Project : Project Pemulwuy (BUNZL)

Date: 02.08.21

ENVIRONMENTAL -LEGAL -REGISTER -01

Environmental Legal Register

Legislation	Key Requirements	Relevance to Taylor Construction Group	Mechanism for Evaluating Compliance	Link to legislation and relevant web sites
<i>Protection of the Environment Operations Act 1997 (POEO Act)</i>	The POEO Act is the key piece of environment protection legislation, and is administered by the Department of Environment and Climate Change (DECC) – formerly EPA. The objective of the Act is to protect restore and enhance the quality of the environment in NSW with a need to maintain ecologically sustainable development.	Environmental Protection Licences may be required for large projects by TPG. (Refer to Schedule 1) Therefore, in most cases, the local council is the Appropriate Regulatory Authority	Environmental inspections Compliance checks / audits against Environmental Management Plan	www.austlii.edu.au/au/legis/nsw/consol_act/poteoa1997455/ http://www.environment.nsw.gov.au/licensing/ http://www.environment.nsw.gov.au/water/polltreatment.htm http://www.environment.nsw.gov.au/air/
	Schedule 1 of the POEO Act lists activities that are subject to environmental licensing. Where an environmental Protection Licence is required, the DECC is the Appropriate Regulatory Authority (ARA). In most other cases, the local council is the ARA.	Environmental protection offences and penalties, and a duty to notify of environmental harm, apply to all personnel working on the project. Managers, supervisors, workers and contractors need to comply with all requirements of the Act, with particular emphasis on duty to notify, and prevention of pollution (see key sections in adjacent column to the left)		
	The POEO Act imposes severe penalties for causing environmental harm, polluting water, not operating equipment in an efficient manner and inappropriate handling and disposal of waste. Penalties also exist for failure to notify pollution incidents.	The company and individuals can be prosecuted in criminal proceedings under this Act.	Environmental inspections Plant pre-start inspections and plant maintenance Compliance checks / audits against Environmental Management Plan	
	The following is a summary of key sections of the Act that must be complied with: ▪ S 120 – Prohibition of Water pollution ▪ S 124 - 125 Air pollution - failing to maintain and operate plant, or carry out maintenance work on plant, in a proper and efficient manner.		Environmental inspections Plant pre-start inspections and plant maintenance Compliance checks / audits against Project Environmental Management Plan	

Project :		Project Pemulwuy (BUNZL)		TAYLOR		Date: 02.08.21	
ENVIRONMENTAL -LEGAL -REGISTER -01							
Environmental Legal Register							
Legislation	Key Requirements	Relevance to Taylor Construction Group	Mechanism for Evaluating Compliance	Link to legislation and relevant web sites			
	- S 128 Standard of air impurities not to be exceeded (air pollution) - S 139 – Noise Pollution – operation of plant S 142 A-E – Land Pollution (offence if cause or permit land to be polluted) S 143 – Land Pollution (unlawful transport of waste) S 144 – Land Pollution – permitting land to be used as unlawful waste facility	Waste must be transported by an appropriately licenced transporter to a facility that is licenced to accept waste		http://www.environment.nsw.gov.au/noise/			
	S 148 – Duty to Notify S 152 Offences for failure to notify of pollution incident Penalties Most Serious Offences Causing Harm to the Environment and Involving Wilfulness or Negligence Maximum penalty: Corporations \$5,000,000 (wilful) or \$2,000,000 (negligence); Individuals \$1,000,000 or 7 years' imprisonment, or both, (wilful) or \$500,000 or 4 years' imprisonment, or both (negligence) Tier 2 (strict liability) Corporations: \$1,000,000 and up to \$120,000 for each day the offence continues. Individuals: Up to \$250,000 and up to \$60,000 each day the offence continues.	Licensed disposal authority to provide receipts for all waste received , receipt is to include date, time and amount of waste disposed , ALL receipts MUST be provided to Taylors site management on their return to site or when requested Damage to corporate reputation / image Possible exclusion from tendering for future environmental sensitive projects Financial Cost to company and project stake holders	Environmental incident reports (indicating if notification was required). Reviewed at Management Review. Environmental inspections Plant pre-start inspections and plant maintenance Compliance checks / audits against Environmental Management Plan Monitor compliance with DA concent				

TAYLOR				
Project : Project Pemulwuy (BUNZL)		Date: 02.08.21		
ENVIRONMENTAL -LEGAL -REGISTER -01				
Environmental Legal Register				
Legislation	Key Requirements	Relevance to Taylor Construction Group	Mechanism for Evaluating Compliance	Link to legislation and relevant web sites
	Tier 3 (penalty notice – on the spot fine) \$1500 for corporation \$750 for individuals Failure to Notify a Pollution Incident Maximum penalty: corporations \$1,000,000; individuals \$250,000			
POEO (General) Regulation 2009	The Regulation (among other things): • sets out fees for environment protection notices and noise control notices; • sets out matters to be included by the EPA in its statement of reasons for the grant or refusal of a licence application; • makes it an offence to provide false or misleading information in relation to a licence application; • requires licensees to retain records used to calculate licence fees; • prescribes certain matters when placed into water to be water pollution, and the methodology for testing matter in waters; • exempts certain water pollution from the water pollution offence under the <i>POEO Act 1997</i>; • allows the EPA to prohibit or regulate certain activities that threaten the safety of drinking water that is part of a public water supply; declares certain bodies to be the ARA in relation to certain activities for the purposes of the <i>POEO Act 1997</i>:	Projects may require environmental protection licences. (Refer to Schedule 1 of the POEO Act)	Planning - requirement for Licence set out in PEMP (if required) Audits against PEMP	https://www.google.com.au/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&cad=rja&uact=8&ved=0ahUKEwiQq5ew4rzYAhWHE7wKHxjTDUUQFgg_nMAA&url=http%3A%2F%2Fwww.austlii.edu.au%2Fau%2Flegis%2Fnsu%2Fconsol_reg%2Fpoteor2009601%2F&usq=AOvVaw1RKZIXEv0dxW_GfFhkVRVb3

TAYLOR

Project : Project Pemulwuy (BUNZL)

Date: 02.08.21

ENVIRONMENTAL -LEGAL -REGISTER -01

Environmental Legal Register

Legislation	Key Requirements	Relevance to Taylor Construction Group	Mechanism for Evaluating Compliance	Link to legislation and relevant web sites
POEO (Clean Air) Regulation 2010	This Regulation replaces the <i>Clean Air (Domestic Solid Fuel Heaters) Regulation 1997, Clean Air (Motor Vehicles and Motor Vehicle Fuels) Regulation 1997, Clean Air (Plant and Equipment) Regulation 1997</i> and the <i>Protection of the Environment Operations (Control of Burning) Regulation 2000</i> POEO (Clean Air) Regulation 2002 In relation to motor vehicles, the regulation deals with the emission of air impurities, including excessive smoke from motor vehicles. In relation to Plant and Equipment, the regulation sets maximum limits on emissions from activities and plant for a number of substances, including chlorine, dioxins furans, smoke, solid particles and sulphur. In relation to the control of burning, the regulation controls burning in the open or in incinerators in local government areas, prohibits the burning of certain articles (including tyres, paint and solvent containers, and certain treated timbers), and imposes a general duty on persons to prevent or minimise air pollution when burning in the open or in an incinerator	Keep vehicles maintained to minimise air pollution and avoid a "smoky vehicle" fine. Maintain plant and equipment to minimise air pollution General Policy at Taylor Construction Group is no burning off at site.	Environmental Inspection checklist Pre-start checks on plant	http://www.austlii.edu.au/au/legis/nsw/consol_reg/poteoar2002601/ http://www.legislation.nsw.gov.au/fra/view/inforce/subordleg+428+2010+whole+0+N?tocnav=y
POEO (Noise Control) Regulation 2008	This Regulation repeals and remakes, with minor amendments, the provisions of the Protection of the Environment Operations (Noise Control) Regulation 2000: - the sounding of sirens and similar devices and the use of sound systems on vessels, - the emission of noise from the engines or exhausts of motor vehicles and vessels, - the maintenance of noise control equipment on motor vehicles and vessels, - the issue of defective vehicle notices and defective vessel notices,	Noise emissions from machinery and activities.	Environmental Inspection checklist Pre-start checks on plant	www.austlii.edu.au/au/legis/nsw/consol_reg/poteocr2008693/ http://www.environment.nsw.gov.au/noise/

TAYLOR				
Project : Project Pemulwuy (BUNZL)		Date: 02.08.21		
ENVIRONMENTAL -LEGAL -REGISTER -01				
Environmental Legal Register				
Legislation	Key Requirements	Relevance to Taylor Construction Group	Mechanism for Evaluating Compliance	Link to legislation and relevant web sites
	- the times during which it is not permissible to use certain articles if they emit noise that can be heard in any residential premises, - the inspection and testing procedures for the purpose of determining noise emission levels of certain motor vehicles, motor vehicle accessories, vessels, articles or equipment			
POEO (Penalty Notices) Regulation 2004	This Regulation: - sets out the offences under the <i>Protection of the Environment Operations Act 1997</i> and related Acts and regulations for which penalty notices may be issued, and the amount of such fines; - specifies the organisations authorised to issue penalty notices for particular offences; and - authorises the service of a penalty notice relating to an offence, applying to an owner of a motor vehicle or vessel, on the owner without naming the address of the owner and by leaving the penalty notice on that vehicle or vessel.	Environmental protection offences and penalties, and a duty to notify of environmental harm, apply to all personnel working on projects.		www.austlii.edu.au/au/legis/nsw/consol_reg/poteonr2004710/
POEO (Waste) Regulation 2005	Schedule 1 of the regulation sets out the types of waste to which waste tracking requirements apply.	Certain chemicals used or generated may be subject to tracking requirements in this regulation. If waste tracking requirements apply, waste dockets and other records must be kept	Periodic (monthly) review of project waste dockets and records to ensure compliance with tracking requirements.	http://www.austlii.edu.au/au/legis/nsw/consol_reg/poteor2005609/
Protection of the Environment Operations Amendment (Scheduled Activities and Waste) Regulation 2008 (Note – part of 2005 Regulation)	This framework uses a mix of legislative, policy, educative and economic tools to encourage waste avoidance and the further recovery of resources. This new framework includes:	Altered definitions of waste categories and disposal requirements (since April 2008). If using recovered resources (eg recycled asphalt, etc), ensure material meets threshold contaminant requirements (obtain from supplier prior to use)		www.austlii.edu.au/au/legis/nsw/consol_reg/poteor2005609/
	Fewer and simpler licensing categories for waste;			http://www.environment.nsw.gov.au/waste/classification.htm

TAYLOR				
Project : Project Pemulwuy (BUNZL)		Date: 02.08.21		
ENVIRONMENTAL -LEGAL -REGISTER -01				
Environmental Legal Register				
Legislation	Key Requirements	Relevance to Taylor Construction Group	Mechanism for Evaluating Compliance	Link to legislation and relevant web sites
	- A streamlined waste classification system; - New resource recovery licensing categories and resource recovery exemptions; and - Clearer requirements for managing asbestos and clinical waste. The waste regulatory framework is administered under the principal legislation of the Protection of the Environment Operations Act 1997 and the Waste Avoidance and Resource Recovery Act 2001.	includes 2011 amendment		http://www.environment.nsw.gov.au/waste/RRecoveryExemptions.htm http://www.legislation.nsw.gov.au/sessionalview/sessional/subordleg/2011-151.pdf
Protection of the Environment Operations (Underground Petroleum Storage Systems Regulation 2008)	Regulation requires that underground petroleum storage tanks must not be commissioned unless it has been properly designed, installed and equipped, and integrity test performed. A storage system must not be used unless groundwater monitoring wells are installed on the storage site and these are not to be installed unless properly designed. The storage system must not be used unless an environment protection plan is in place and must be used in accordance with that plan. (for detail, of plan requirements refer to clause 19) Note - this requirement will apply to old tanks from June 2009. Groundwater monitoring requirements on old storage tanks will come be required from June 2011 (Clause 21) Loss detection procedures must be in place and acted upon if any loss is detected (clause 22) Records must be kept for at least 7 years	The regulation generally will only apply to TPG if it owns or operates sites with Underground Petroleum Storage Systems (UPSSs). When working on sites with UPSTs, ensure location is known, and that client can provide details on locations of groundwater monitoring wells, and other required information	If UPSSs are owned or operated by TCG, extensive monitoring would be required in accordance with an Environmental Protection Plan specifically relating to the tank. Periodic evaluations would be conducted against the Plan.	www.austlii.edu.au/au/legis/nsw/consol_reg/poteopssr2008983/ http://www.environment.nsw.gov.au/cim/upss.htm

Project :		Project Pemulwuy (BUNZL)		TAYLOR	Date: 02.08.21
ENVIRONMENTAL -LEGAL -REGISTER -01					
Environmental Legal Register					
Legislation	Key Requirements	Relevance to Taylor Construction Group	Mechanism for Evaluating Compliance	Link to legislation and relevant web sites	
Contaminated Land Management Act 1997 Contaminated Land Management Amendment Act 2008	The main objective of this Act is to establish a process for investigating and remediating land areas where contamination presents a significant risk of harm to human health or some other aspect of the environment. The amendment Act strengthens EPA/DECC powers in relation to contaminated land. Under this act DECC has the power to: • Declare an investigation site and order and investigation • Declare a remediation site and order remediation to take place • Agree to a voluntary proposal to investigate or remediate a site	Environmental Hygienist may be engaged to provide advice , reports and monitor activities when undertaking work on contaminated sites is required .	If contaminated land is likely to be encountered, measures for testing, handling and disposing of contaminated spoil are in the Project Environmental Management Plan . Testing is undertaken to ensure compliance.	http://www.austlii.edu.au/au/legis/nsw/consol_act/clma1997238/ http://www.austlii.edu.au/au/legis/nsw/consol_act/clmaa2008318/sch1.html http://www.environment.nsw.gov.au/cim/	
Contaminated Land Management Regulation 2008	This Regulation prescribes a number of matters for the purposes of the <i>Contaminated Land Management Act 1997</i> , including: • the content of site auditors' annual returns; • the form to be used when reporting contamination; and • the amount which the EPA may recover for its costs incurred in relation to investigation and remediation orders.	Minimal relevance.	N/A	http://www.austlii.edu.au/au/legis/nsw/consol_reg/clmr2008329/	
Environmentally Hazardous Chemicals Act 1985	The purpose of this Act is to control chemicals that are environmentally hazardous. DECC may make chemical control orders (CCOs) with respect to assessed chemicals or declared chemical wastes. The CCOs may regulate the manufacture, processing, conveying, buying, selling or disposal of chemical or declared waste. A CCO may prohibit activities in relation to declared chemical wastes, except under the authority of a licence issued by DECC.	Certain chemicals used or generated may be subject to handling and disposal requirements in this Act. Chemicals subject to this Act include Dioxin wastes, Asbestos wastes, PCBs, and organochlorine pesticide wastes. It is unlikely that Taylor Construction Group activities would generate hazardous wastes covered by a CCO	Measures for identification, handling, disposal of hazardous wastes are in the Project Environmental Management Plan .	http://www.austlii.edu.au/au/legis/nsw/consol_act/ehca1985373/	
Environmentally	This Regulation:	No relevance.			

Project :		Project Pemulwuy (BUNZL)		TAYLOR	Date: 02.08.21
ENVIRONMENTAL -LEGAL -REGISTER -01					
Environmental Legal Register					
Legislation	Key Requirements	Relevance to Taylor Construction Group	Mechanism for Evaluating Compliance	Link to legislation and relevant web sites	
Hazardous Chemicals Regulation 2008	- sets various fees in relation to assessments of technology and prescribed activities by the EPA and in relation to licences to carry on prescribed activities; - specifies the matters to be included in applications for assessment of prescribed activities, in EPA notices about assessments of chemicals, and in EPA notices about applications for licences and transfers of licences; - prescribes the information to be included in registers under the Act.				
Pesticides Act 1999	This Act promotes the protection of human health, environment, property and trade in relation to the use of pesticides. It is an offence under the Act to: - Use a pesticide that harms or damages a person or property, a non-target animal or plant; - Use a pesticide that harms a threatened species or protected animal; - Possess or use an unregistered pesticide without a permit, or contrary to the approved label; - Fail to comply with the label or permit while using a pesticide; - Keep a registered pesticide in a container without a label; - Possess or use a restricted pesticide without authorisation. DECC may make pesticide control orders which prohibit use or possession of restricted pesticides	Generally pest control would be undertaken by specialist contractors. If pesticides are applied by TPG personnel, stringent storage, handling and record keeping requirements apply. Refer to the full Act and Regulations	If pesticides are used, the requirements would be documented in the Project Environmental Management Plan for the project. Regular audits would be undertaken against the Plan, and pesticide records would be reviewed once monthly by the project manager.	www.austlii.edu.au/au/legis/nsw/consol_act/pa1999120/ http://www.environment.nsw.gov.au/pesticides/	

Project :		Project Pemulwuy (BUNZL)		TAYLOR		Date: 02.08.21	
ENVIRONMENTAL -LEGAL -REGISTER -01							
Environmental Legal Register							
Legislation	Key Requirements	Relevance to Taylor Construction Group	Mechanism for Evaluating Compliance	Link to legislation and relevant web sites			
Pesticides Regulation 1995	This regulation requires that any person or organisation applying a chemical in a public place must apply this chemical as described in their Notification Plan for Pesticide Use in Public Places. The regulation makes it compulsory for all people who use pesticides for commercial or occupational purposes to make a record of their pesticide use.	As above	As above	www.austlii.edu.au/au/legis/nsw/consol_reg/pr1995211/			
Environmental Planning and Assessment Act 1979 (EP&A Act)	The main objective of the EP&A Act is to ensure that proper management and development of land is undertaken incorporating the ecologically sustainable development principles. To achieve this the EP&A Act: - Ensures that development consent is obtained prior to construction; - Ensures compliance with planning consents and conditions associated with the consent; - Ensures environmental assessment is undertaken prior to development consent; - Has provision for penalties to be issued should development conditions be breached. Also has Planning instruments such as Local Environmental Plans (LEPs)	Development Approval / Consent required prior to construction as per EP&A Act and as detailed in LEPs. Need to comply with Conditions of Consent once granted	Compliance audits / checks against development consent conditions (likely to be done by client)	www.austlii.edu.au/au/legis/nsw/consol_act/epaaa1979389/			
Fisheries Management Act 1994	The primary aim of this Act is to conserve, develop and share fisheries resources of NSW to benefit present and future generations. To do this the Act: - Provides Fishery Management Strategies for commercial and recreational purposes; - Protects marine flora and fauna (eg. Mangroves); - Describes dredging and reclamation approval process; - Prevents the sale or possession of noxious fish and marine vegetation;	The Act applies to works that involve dredging or working in water bodies including estuaries, lakes, intertidal zones etc.:	If dredging or other activities in fisheries are undertaken, the requirements would be documented in the Project Environmental Management Plan for the project. Regular audits would be undertaken against the Plan.	www.austlii.edu.au/au/legis/nsw/consol_act/fma1994193/			

Project : Project Pemulwuy (BUNZL) TAYLOR Date: 02.08.21				
ENVIRONMENTAL -LEGAL -REGISTER -01				
Environmental Legal Register				
Legislation	Key Requirements	Relevance to Taylor Construction Group	Mechanism for Evaluating Compliance	Link to legislation and relevant web sites
	Has provision for penalties to be issued for breaches of the requirements of this Act.			
Marine Pollution Act 1987 Marine Pollution Regulation 2006	This Act and the <i>Marine Pollution Amendment Regulation 2006</i> oblige marine operations to: - Prevent pollution of marine environment by spillages from ships and transfer operations; - Report/record oil or noxious liquid discharges from ships. Schedule 4 of the regulation provides Standards for treated sewage from vessels (faecal coliform, suspended solids and BOD)	Relevant only when dredging or working in a marine environment.	If dredging or work in the marine environment is anticipated, the measures for monitoring compliance will be documented in the Project Environmental Management Plan .	http://www.austlii.edu.au/au/legis/nsw/consol_act/mpa1987200/
Waste Avoidance and Resource Recovery Act 2001	This Act promotes waste avoidance and resource recovery by: - Encouraging efficient use of resources in accord with ecologically sustainable principles; - Promoting the "Avoid, reuse, recycle, dispose" hierarchy; - Ensuring industry has a responsibility for reducing and dealing with waste; - Providing penalties for breaches of this Act.	Waste is generated during construction. The principles of the Act are applied to all aspects of construction to reduce impacts from waste. A Waste Management Plan may be required to be prepared as part of conditions of consent.	Regular environmental inspections using standard checklist Audit against Waste Management Plan (if applicable) or against Project Environmental Management Plan	www.austlii.edu.au/au/legis/nsw/consol_act/waarra2001364/ http://www.environment.nsw.gov.au/waste/
Threatened Species Conservation Act 1995	This Act outlines the protection of threatened species, communities and critical habitat. An independent Scientific Committee determines which species, populations and ecological communities should to be listed as endangered, vulnerable or extinct, and also determines key threatening processes. Any animal, plant or habitat that is listed as endangered, vulnerable or threatened must not be harmed or damaged, unless planning approvals or licences from DECC have been granted.	Construction activities may be undertaken in areas where threatened species, communities and critical habitat exist. The presence of these should be identified by the Environmental Impact Assessment process prior to construction – usually identified by the client	If threatened species have been identified in the Environmental Impact Assessment (usually by client), the requirements would be documented in the Project Environmental Management Plan for the project. Regular audits would be undertaken against the Plan.	www.austlii.edu.au/au/legis/nsw/consol_act/tsca1995323/ http://www.environment.nsw.gov.au/threatenedspecies/
Native Vegetation Act 2003	This Act regulates the clearing of native vegetation on all land in NSW except for National Parks, State	Approval is generally required for clearing native vegetation, although		www.austlii.edu.au/au/legis/nsw/consol_act/nva2003194/

Project :		Project Pemulwuy (BUNZL)		TAYLOR	Date: 02.08.21
ENVIRONMENTAL -LEGAL -REGISTER -01					
Environmental Legal Register					
Legislation	Key Requirements	Relevance to Taylor Construction Group some exceptions apply.	Mechanism for Evaluating Compliance	Link to legislation and relevant web sites	
	Forests and reserves and urban areas. Native vegetation is any species of vegetation that existed in			http://www.environment.nsw.gov.au/vegetation/	
Noxious Weeds Act 1993	This Act requires occupiers of land to control noxious weeds required under control categories specified in relation to the weeds concerned. There are five classes of noxious weeds: Class 1 – State Prohibited Weeds: must not be introduced/become established in NSW; Class 2 – Regionally Prohibited Weeds: must not be introduced or become established in parts of NSW; Class 3 – Regionally Controlled Weeds: area that these weeds occupy must be reduced; Class 4 – Locally Controlled Weeds: impact on economy, community, environment must be minimised; Class 5 – Restricted Plants: must not be introduced or allowed to spread from current areas. Notices ordering the eradication of a classified weed may be served.	Classified weeds that are present on project sites or establish themselves during construction must be eradicated.	If noxious weeds are present, regular inspections should be carried out as part of the environmental inspection process	www.austlii.edu.au/au/legis/nsw/consol_act/nwa1993182/ http://www.environment.nsw.gov.au/pestsweeds/	
National Parks and Wildlife Act 1974	Under this Act, NPWS is responsible for the care, control and management of all national parks, historic sites, nature reserves, reserves, Aboriginal areas and state game reserves. The Act governs various activities including: • Protection of flora and fauna; • Protection of Aboriginal heritage; • Licences and approvals to modify or destroy flora, fauna or Aboriginal heritage; • Penalties for breaches of the Act.	Relates to any Aboriginal heritage or relics, and protection of flora and fauna.	If works are undertaken in areas with potential Aboriginal Heritage, These should be identified in the Environmental Impact Assessment and related documents, and incorporated into the PEMP. Regular inspections and audits would be undertaken to ensure compliance.	www.austlii.edu.au/au/legis/nsw/consol_act/npawa1974247/ http://www.environment.nsw.gov.au/licences/	
	An Aboriginal Heritage Impact Permit (AHIP) is required for any activity likely to have an impact on Aboriginal objects or places.			http://www.environment.nsw.gov.au/nswcultureheritage/dec_consultation_080103_ReviewInterimRequirementsForAHIP.htm	

Project :		Project Pemulwuy (BUNZL)		TAYLOR		Date: 02.08.21	
ENVIRONMENTAL -LEGAL -REGISTER -01							
Environmental Legal Register							
Legislation	Key Requirements	Relevance to Taylor Construction Group	Mechanism for Evaluating Compliance	Link to legislation and relevant web sites			
National Parks and Wildlife Regulation 2002	This regulation governs various activities under the <i>National Parks and Wildlife Act 1974</i> , including: - the regulation of the use of national parks and other areas administered by the NPWS (Part 2) - the preservation of public health in Kosciuszko National Park (Part 3) - licences and certificates (Part 4) - the protection of fauna (Part 5) The regulation replaces the former NPW (Land Management) Regulation 1995, the NPW (Administration) Regulation 1995 and the NPW (Fauna Protection) Regulation 2001.	Relates to any Aboriginal heritage or relics, and protection of flora and fauna.	If works are undertaken in areas with potential Aboriginal Heritage, These should be identified in the Environmental Impact Assessment and related documents, and incorporated into the PEMP. Regular inspections and audits would be undertaken to ensure compliance.	www.austlii.edu.au/au/legis/nsw/consol_reg/npawr2002338/			
Heritage Act 1977	The Heritage Act protects NSW's natural and cultural heritage including archaeological remains. If a site or place is of great significance, the Heritage Council can list it on the State Heritage Register. Items listed on the State Heritage Register are subject to the provisions of the <i>Heritage Act 1977</i> , which protects items of State heritage significance. Items 50 years or older are also considered heritage items and need to be managed as such. The Act prohibits the demolition, damage or development of or around any heritage item without approval from the Heritage Office.	Requirements will be triggered if there are natural or culturally significant sites or places. These should be identified through the Environmental Impact Assessment (EIA) process (eg – EIA, REF)	If works are undertaken in areas with potential European Heritage, these should be identified in the Environmental Impact Assessment and related documents, and incorporated into the PEMP. Regular inspections and audits would be undertaken to ensure compliance.	http://www.austlii.edu.au/au/legis/nsw/consol_act/ha197786/			
Heritage Regulations 2005	The Heritage Regulation 2005: restates the minimum standards for the maintenance and repair of items on the State Heritage Register set in the previous regulation; and	Minimal relevance.					

TAYLOR				
Project : Project Pemulwuy (BUNZL)		Date: 02.08.21		
ENVIRONMENTAL -LEGAL -REGISTER -01				
Environmental Legal Register				
Legislation	Key Requirements	Relevance to Taylor Construction Group	Mechanism for Evaluating Compliance	Link to legislation and relevant web sites
	provides for equitable and adequate funding for heritage protection through cost recovery for statutory processing..			
Water Act 1912	An Act consolidating water rights, water and drainage and artesian wells. Provisions include: - To obtain a licence to sink or alter an artesian bore; - Not to waste water taken from dams, lakes, artesian wells and bores; - Not to unlawfully interfere with sub-surface water or obstruct its flow.	Minimal relevance.	N/A	
Water Management Act 2000 and Water Management (General) Regulation 2004	The Water Management Act 2000 is the main piece of water legislation in NSW and governs: - Extraction of water from waterways and bores - The construction of water storage and supply structures - Development or building within the proximity of waterways - A licensing system established under the Water Management Act 2000 allows for regulated usage of water resources The WMA Act consolidates the Water Act 1912 and the Rivers and Foreshores Improvement Act 1948.	Approvals may be required to undertake water supply works, drainage works or floodplain works	If water is extracted from waterways, this would be addressed in the EIA and PEMP. Audits of the PEMP would be undertaken to determine compliance	http://www.austlii.edu.au/au/legis/nsw/consol_act/wma2000166/
Rivers & Foreshore Improvement Act 1948	This Act has been repealed and is replaced by the Water Management Act 2000	Nil - repealed	N/A	
Commonweath Legal Requirements				
Environment Protection and Biodiversity Conservation Act 1999 (Commonwealth Act) (EPBC Act)	This Act aims to protect the environment, particularly matters of National Environmental Significance. Approval is required for actions that are likely to have a significant impact on: a matter of national environmental significance;	Approvals may be required when working in areas that may have matters with national significance. Examples may include: * Work on Commonwealth land that may have a significant impact on the	Specific requirements for complianceshould be addressed in Environmental Impact assessments and Project Environmental Management Plans. Audits and inspections would be undertaken against the stated	http://www.austlii.edu.au/au/legis/cth/consol_act/epabca1999588/

TAYLOR				
Project : Project Pemulwuy (BUNZL)		Date: 02.08.21		
ENVIRONMENTAL -LEGAL -REGISTER -01				
Environmental Legal Register				
Legislation	Key Requirements	Relevance to Taylor Construction Group	Mechanism for Evaluating Compliance	Link to legislation and relevant web sites
	- environment of Commonwealth land (even if taken outside Commonwealth land); - environment anywhere in the world if the action is undertaken by the Commonwealth. Permits are required under the EPBC Act for: - certain activities in Commonwealth reserves; - activities that affect listed species or communities in Commonwealth areas; cetaceans in Commonwealth waters and outside Australian waters; - the import and export of wildlife. The Act contains compliance and enforcement mechanisms such as court injunctions, required environmental audits, strict civil and criminal penalties, remediation of environmental damage, liability of executive officers, and publicising contraventions.	have a significant impact on the environment Working in areas that are listed as: *World Heritage property * National Heritage places * Listed wetlands (Ramsar) * Threatened species or communities * Migratory species * Nuclear actions * Marine Environments	requirements.	
Other Requirements				
NSW Environmental Management System Guidelines Edition 2, 2007	The guidelines are published by the NSW Government to provide a framework for managing environmental issues on construction sites	Taylor Construction Group is seeking to gain accreditation to the NSW EMS Guidelines. The Integrated HSE management system and the Project Environmental Management Plan templates have been designed and prepared to meet these requirements		

** Note: This Legal Register provides guidance on the applicability of certain Environmental Acts and Regulations at Taylor Construction Group and should not be seen as legal advice. Should legal advice be required, appropriate legal firms should be engaged.*

APPENDIX 8: SSD MATRIX

2021

SSD 10399

Approved 2 July 2021																
ID	Condition	MGC Comments	Action By	ISPT Comments												
NOTES – Administration and Terms of the Consent																
A1.	OBLIGATION TO MINIMISE HARM TO THE ENVIRONMENT In addition to meeting the specific performance measures and criteria in this consent, all reasonable and feasible measures must be implemented to prevent, and if prevention is not reasonable and feasible, minimise, any material harm to the environment that may result from the construction and operation of the development, and any rehabilitation required under this consent.	Note	Taylor	To the extent of the design and construction of warehouse 2												
A2.	Terms of Consent The development may only be carried out: a) (a) in compliance with the conditions of this consent; b) (b) in accordance with all written directions of the Planning Secretary; c) (c) in accordance with the EIS and RTS; d) (d) in accordance with the Development Layout Plans in Appendix 1; and e) (e) in accordance with the Applicant’s management and mitigation measures in Appendix 2	Note	Taylor	To the extent of the design and construction of warehouse 2												
A3.	Terms of Consent Consistent with the requirements in this consent, the Planning Secretary may make written directions to the Applicant in relation to: (a) the content of any strategy, study, system, plan, program, review, audit, notification, report or correspondence submitted under or otherwise made in relation to this consent, including those that are required to be, and have been, approved by the Planning Secretary; and (b) the implementation of any actions or measures contained in any such document referred to in condition A3(a).	Note	ISPT													
A4.	Terms of Consent The conditions of this consent and directions of the Planning Secretary prevail to the extent of any inconsistency, ambiguity or conflict between them and a document listed in condition A2(c) or A2(e) in the event of an inconsistency, ambiguity or conflict between any of the documents listed in condition A2(c) or A2(e) the most recent document prevails to the extent of the inconsistency, ambiguity or conflict.	Note	Taylor	To the extent of the design and construction of warehouse 2												
A5.	LIMITS OF CONSENT This consent lapses five years after the date from which it operates, unless the development has physically commenced on the land to which the consent applies before that date.	Note	ISPT													
A6.	LIMITS OF CONSENT The maximum gross floor area for the land uses on site shall not exceed the limits in Table 1 <table><tr><th>Land Use</th><th>Maximum GFA (m²)</th></tr><tr><td>Total Warehousing</td><td>87,000</td></tr><tr><td>Total Office</td><td>8,000</td></tr><tr><td>Café</td><td>150</td></tr><tr><td>Total</td><td>95,150</td></tr></table>	Land Use	Maximum GFA (m²)	Total Warehousing	87,000	Total Office	8,000	Café	150	Total	95,150	Note	ISPT			
Land Use	Maximum GFA (m²)															
Total Warehousing	87,000															
Total Office	8,000															
Café	150															
Total	95,150															
A7.	LIMITS OF CONSENT The Applicant must ensure the development is consistent with the development controls in Table 2 . <table><tr><th>Development Aspect</th><th>Control</th></tr><tr><td>Minimum building setbacks from: • Clunies Ross Street • Prospect Hill Heritage Curtilage • Northern site boundary • Western site boundary</td><td>24 m for warehouses 20 m for offices, except for the office in warehouse 5 which is 17.7 m 13 m 5 m 5 m</td></tr><tr><td>Minimum landscape setbacks from: • Clunies Ross Street • Prospect Hill Heritage Curtilage • Foundation Place</td><td>5 m, except for warehouse 3 which is 4.85 m 4 m (measured from boundary line) 4.85 m</td></tr><tr><td>Height from finished floor level: • Warehouse 1 • Warehouse 2, 3, 4, 5, 6 and 7</td><td>25 m 13.7 m</td></tr><tr><td>Site coverage</td><td>50.5 percent</td></tr><tr><td>Car parking</td><td>1 space per 300 m² of warehouse GFA; 1 space per 40 m² of office GFA; 1 space per 10 m² of dining area (café); 2 spaces for disability parking for every 100 car parking spaces.</td></tr></table>	Development Aspect	Control	Minimum building setbacks from: • Clunies Ross Street • Prospect Hill Heritage Curtilage • Northern site boundary • Western site boundary	24 m for warehouses 20 m for offices, except for the office in warehouse 5 which is 17.7 m 13 m 5 m 5 m	Minimum landscape setbacks from: • Clunies Ross Street • Prospect Hill Heritage Curtilage • Foundation Place	5 m, except for warehouse 3 which is 4.85 m 4 m (measured from boundary line) 4.85 m	Height from finished floor level: • Warehouse 1 • Warehouse 2, 3, 4, 5, 6 and 7	25 m 13.7 m	Site coverage	50.5 percent	Car parking	1 space per 300 m² of warehouse GFA; 1 space per 40 m² of office GFA; 1 space per 10 m² of dining area (café); 2 spaces for disability parking for every 100 car parking spaces.	Note	Taylor	To the extent of the design and construction of warehouse 2
Development Aspect	Control															
Minimum building setbacks from: • Clunies Ross Street • Prospect Hill Heritage Curtilage • Northern site boundary • Western site boundary	24 m for warehouses 20 m for offices, except for the office in warehouse 5 which is 17.7 m 13 m 5 m 5 m															
Minimum landscape setbacks from: • Clunies Ross Street • Prospect Hill Heritage Curtilage • Foundation Place	5 m, except for warehouse 3 which is 4.85 m 4 m (measured from boundary line) 4.85 m															
Height from finished floor level: • Warehouse 1 • Warehouse 2, 3, 4, 5, 6 and 7	25 m 13.7 m															
Site coverage	50.5 percent															
Car parking	1 space per 300 m² of warehouse GFA; 1 space per 40 m² of office GFA; 1 space per 10 m² of dining area (café); 2 spaces for disability parking for every 100 car parking spaces.															
A8.	LIMITS OF CONSENT Warehouse buildings 2,3,4,5,6 and 7 shall not exceed a ridgeline height of 13.7m, excluding roof mounted mechanical plant and solar panels	Note	Taylor	To the extent of the design and construction of warehouse 2												
A12.	Surrender of Existing Consents or Approvals Within 12 months of the date of commencement of development to which this consent applies, or within another timeframe agreed by the Planning Secretary, the Applicant must surrender the following development consents for the site in accordance with the EP&A Regulation: (a) DA 348/10/2000 issued by the Minister for Urban Affairs and Planning; (b) Development consent 92/54 issued by Blacktown City Council; (c) Building permit 92-2871 issued by Blacktown City Council; (d) Development consent 226/07/00 issued by the Minister for Urban Affairs and Planning; and (e) Development consent 2006/42 issued by Holroyd City Council.	Note	ISPT													
A13.	Surrender of Existing Consents or Approvals Upon the commencement of development to which this consent applies, and before the surrender of existing development consents or project approvals required under condition A13 , the conditions of this consent prevail to the extent of any inconsistency with the conditions of those consents or approvals. <i>Note: This requirement does not extend to the surrender of construction and occupation certificates for existing and proposed building works under Part 6 of the EP&A Act. The surrender should not be understood as implying that works legally constructed under a valid consent or approval can no longer be legally maintained or used.</i>	Note	ISPT													
A14.	Evidence of Consultation Where conditions of this consent require consultation with an identified party, the Applicant must: (a) consult with the relevant party prior to submitting the subject document to the Planning Secretary for approval; and (b) provide details of the consultation undertaken including: (i) the outcome of that consultation, matters resolved and unresolved; and (ii) details of any disagreement remaining between the party consulted and the Applicant and how the Applicant has addressed the matters not resolved.	Note	ISPT													
A15.	Staging, Combining and Updating Strategies, Plans or Programs With the approval of the Planning Secretary, the Applicant may: (a) prepare and submit any strategy, plan or program required by this consent on a staged basis (if a clear description is provided as to the specific stage and scope of the development to which the strategy, plan or program applies, the relationship of the stage to any future stages and the trigger for updating the strategy, plan or program); (b) combine any strategy, plan or program required by this consent (if a clear relationship is demonstrated between the strategies, plans or programs that are proposed to be combined); and (c) update any strategy, plan or program required by this consent (to ensure the strategies, plans and programs required under this consent are updated on a regular basis and incorporate additional measures or amendments to improve the environmental performance of the development).	Note	ISPT													
A16.	Staging, Combining and Updating Strategies, Plans or Programs If the Planning Secretary agrees, a strategy, plan or program may be staged or updated without consultation being undertaken with all parties required to be consulted in the relevant condition in this consent.	Note	ISPT													
A17.	Staging, Combining and Updating Strategies, Plans or Programs If approved by the planning secretary, updated strategies, plans or programs supersede the previous versions of them and must be implemented in accordance with the condition that requires the strategy, plan or program.	Note	ISPT													
A19.	PROTECTION OF PUBLIC INFRASTRUCTURE Unless the Applicant and the applicable authority agree otherwise, the Applicant must: (a) repair, or pay the full costs associated with repairing, any public infrastructure that is damaged by carrying out the development; and (b) relocate, or pay the full costs associated with relocating, any public infrastructure that needs to be relocated as a result of the development.	Note	Taylor	To the extent of the design and construction of warehouse 2												
A37.	APPLICABILITY OF GUIDELINES References in the conditions of this consent to any guideline, protocol, Australian Standard or policy are to such guidelines, protocols, Standards or policies in the form they are in as at the date of this consent.	Note	Taylor	To the extent of the design and construction of warehouse 2												
A38.	APPLICABILITY OF GUIDELINES However, consistent with the conditions of this consent and without altering any limits or criteria in this consent, the Planning Secretary may, when issuing directions under this consent in respect of ongoing monitoring and management obligations, require compliance with an updated or revised version of such a guideline, protocol, Standard or policy, or a replacement of them.	Note	ISPT													
AN1.	ADVISORY NOTES All licences, permits, approvals and consents as required by law must be obtained and maintained as required for the development. No condition of this consent removes any obligation to obtain, renew or comply with such licences, permits, approvals and consents.	Note	Taylor	To the extent of the design and construction of warehouse 2												
B36.	NOISE Noise Verification Within 12 months of operation of the development, the Applicant must submit a noise verification monitoring report, to the satisfaction of the Planning Secretary. The monitoring report must: (a) be undertaken by a suitably qualified and experienced noise expert whose appointment has been endorsed by the Planning Secretary; (b) monitor noise from the development, including cumulative operation of all warehouses on the site, to confirm the development meets the noise criteria established in accordance with condition B34B34(b); and (c) detail all reasonable and feasible management actions and noise mitigation measures to be implemented if the results of monitoring show any exceedance of the noise criteria established in accordance with condition B34B34(b);	Note	ISPT	Taylor to ensure design meets required criteria, and verify warehouse 2 noise emissions prior to practical completion.												
B37.	NOISE Noise Verification The Applicant must: (d) submit the noise verification monitoring report to the Planning Secretary within one month of completing the noise monitoring; and (e) implement the additional management actions and noise mitigation measures within three months of completing the noise monitoring, or as otherwise agreed with the Planning Secretary.	Note	ISPT													
	Environmental Management Management Plan Requirements Management plans required under this consent must be prepared in accordance with relevant guidelines, and include: (a) details of: (i) the relevant statutory requirements (including any relevant approval, licence or lease conditions); (ii) any relevant limits or performance measures and criteria; and (iii) the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the development or any management measures;															

C1.	(b) a description of the measures to be implemented to comply with the relevant statutory requirements, limits, or performance measures and criteria; (c) a program to monitor and report on the: (i) impacts and environmental performance of the development; and (ii) effectiveness of the management measures set out pursuant to paragraph (c) above; (d) a contingency plan to manage any unpredicted impacts and their consequences and to ensure that ongoing impacts reduce to levels below relevant impact assessment criteria as quickly as possible; (e) a program to investigate and implement ways to improve the environmental performance of the development over time; (f) a protocol for managing and reporting any: (i) incident and any non-compliance (specifically including any exceedance of the impact assessment criteria and performance criteria); (ii) complaint; (iii) failure to comply with statutory requirements; and (g) a protocol for periodic review of the plan. <i>Note: the Planning Secretary may waive some of these requirements if they are unnecessary or unwarranted for particular management plans</i>	Note	Taylor	Provide CEMP in accordance with Conditions C2 and C3 for warehouse 2 design and construction
C14.	REPORTING AND AUDITING Compliance Reporting Within three months after the first year of commencement of operation, and in the same month each subsequent year (or such other timing as agreed by the Planning Secretary), the Applicant must submit a Compliance Report to the Department reviewing the environmental performance of the development to the satisfaction of the Planning Secretary. Compliance Reports must be prepared in accordance with the Compliance Reporting Post Approval Requirements (Department 2020) and must also: (a) identify any trends in the monitoring data over the life of the development; (b) identify any discrepancies between the predicted and actual impacts of the development, and analyse the potential cause of any significant discrepancies; and (c) describe what measures will be implemented over the next year to improve the environmental performance of the development	Note	ISPT	
C15.	REPORTING AND AUDITING Compliance Reporting The Applicant must make each Compliance Report publicly available no later than 60 days after submitting it to the Planning Secretary and notify the Planning Secretary in writing at least 7 days before this is done.	Note	ISPT	
C16.	REPORTING AND AUDITING Monitoring and Environmental Audits Any condition of this consent that requires the carrying out of monitoring or an environmental audit, whether directly or by way of a plan, strategy or program, is taken to be a condition requiring monitoring or an environmental audit under Division 9.4 of Part 9 of the EP&A Act. This includes conditions in respect of incident notification, reporting and response, non-compliance notification, compliance reporting and independent auditing. <i>Note: For the purposes of this condition, as set out in the EP&A Act, "monitoring" is monitoring of the development to provide data on compliance with the consent or on the environmental impact of the development, and an "environmental audit" is a periodic or particular documented evaluation of the development to provide information on compliance with the consent or the environmental management or impact of the development.</i>	Note	Taylor	To the extent of the design and construction of warehouse 2
PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION WORKS (NOTE THIS EXCLUDES EARTHWORKS)				
A10.	Notification of Commencement The date of commencement of each of the following phases of the development must be notified to the Department in writing, at least one month before that date: (d) construction; (e) operation; and (f) cessation of operations.	Note: The SSDA defines Construction as: The carrying out of works, excluding earthworks, for the purpose of the development, including erection of buildings and other infrastructure permitted by this consent. The SSDA defines Earthworks as: Bulk earthworks, site levelling, import and compaction of fill material, excavation for installation of drainage and services, to prepare the site for construction The SSDA defines Remediation as: Excavation and off-site disposal of contaminated soils and waste materials and covering of inert materials with hardstand as described in the Remedial Action Plan titled Elevation @ Greystanes Remedial Action Plan, prepared by JBS&G and dated 30 September 2020	Taylor	Notify DPIE of commencement dtae
A11.	Notification of Commencement If the construction or operation of the development is to be staged, the Department must be notified in writing at least one month before the commencement of each stage, of the date of commencement and the development to be carried out in that stage.	Note	ISPT	
A18.	Protection of Public Infrastructure Before the commencement of construction, the Applicant must: (g) consult with the relevant owner and provider of services that are likely to be affected by the development to make suitable arrangements for access to, diversion, protection and support of the affected infrastructure; (h) prepare a dilapidation report identifying the condition of all public infrastructure in the vicinity of the site (including roads, gutters and footpaths); and (i) submit a copy of the dilapidation report to the Planning Secretary and the relevant Council.	Provide a copy of the dilapidation reports prepared In accordance with this condition and evidence of submission to the secretary	Taylor (h) & (i)	Provide dilapidation condition report pertaining to their site area and associated entry driveway and street frontage
A26.	Community Communication Strategy Prior to the commencement of construction, the Applicant must prepare a Community Communication Strategy for the development to the satisfaction of the Planning Secretary. The Community Communication Strategy is to provide mechanisms to facilitate communication between the Applicant, CCC and BCC and the community (including adjoining affected landowners and businesses, and others directly impacted by the development), during the construction and operation of the development. The Community Communication Strategy must: (a) assign a central contact person to keep the nearby sensitive receivers regularly informed throughout the development; (b) detail the mechanisms for regularly consulting with the local community throughout the development, such as holding regular meetings to inform the community of the progress of the development and report on environmental monitoring results; (c) detail a procedure for consulting with nearby sensitive receivers to schedule high noise generating works, vibration intensive activities or manage traffic disruptions; (d) include contact details for key community groups, relevant regulatory authorities, Registered Aboriginal Parties and other interested stakeholders; and (e) include a complaints procedure for recording, responding to and managing complaints, including: (i) email, toll-free telephone number and postal addresses for receiving complaints; (ii) advertising the contact details for complaints before and during operation, via the local newspaper and through on-site signage; (iii) a complaints register to record the date, time and nature of the complaint, details of the complainant and any actions taken to address the complaint; and (iv) procedures for the resolution of any disputes that may arise during the course of the development.	Provide a copy of the Strategy prepared in accordance with this condition and evidence of the Secretary's satisfaction.	ISPT	Taylor to include in their CEMP
A27.	Community Communication Strategy The Applicant must (a) not commence construction until the Community Communication Strategy has been approved by the Planning Secretary. (b) implement for the Community Communication Strategy for the duration of the development and for 12 months following the completion of operation.	Provide a copy of the Strategy prepared in accordance with this condition and evidence of the Secretary's satisfaction.	ISPT	
B41.	NOISE Construction Nose and Vibration Management Plan The Applicant must prepare a Construction Noise and Vibration 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 whose appointment has been endorsed by the Planning Secretary; (b) be approved by the Planning Secretary prior to the commencement of construction of the development; (c) describe procedures for achieving the noise management levels in EPA's <i>Interim Construction Noise Guideline</i> (DECC, 2009) (as may be updated or replaced from time to time); (d) describe the measures to be implemented to manage high noise generating works such as jackhammering, concrete sawing and piling, including the use of temporary acoustic screens or barriers and monitoring during high noise generating works; (e) include strategies that have been developed with the community for managing high noise generating works, such as work scheduling and respite periods; (f) describe the community consultation undertaken to develop the strategies in condition B4 1(d) and (g) include a complaints management system that would be implemented for the duration of construction.	Provide a copy of the plan prepared in accordance with this condition and evidence of Secretary's endorsement.	ISPT	Adhere to noise & vibration plan applicable to the works
B42.	NOISE Construction Nose and Vibration Management Plan The Applicant must: (h) not commence construction of the development until the Construction Noise and Vibration Management Plan required by condition B41 is approved by the Planning Secretary; and (i) implement the most recent version of the Construction Noise and Vibration Management Plan approved by the Planning Secretary for the duration of construction.	Provide a copy of the plan prepared in accordance with this condition and evidence of Secretary's endorsement.	Taylor	
B51.	REMEDIATION Unexpected Finds Prior to the commencement of earthworks, the Applicant must prepare an unexpected finds procedure to ensure that potentially contaminated material is appropriately managed. The procedure must form part of the CEMP in accordance with condition C2 and must ensure any material identified as contaminated must be disposed off-site, with the disposal location and results of testing submitted to the Planning Secretary, prior to its removal from the site.	Provide a copy of the plan prepared in accordance with this condition and evidence of Secretary's endorsement.	Taylor	Unexpected finds protocol on project CEMP
C2.	CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN The Applicant must prepare a Construction Environmental Management Plan (CEMP) in accordance with the requirements of condition C1 and to the satisfaction of the Planning Secretary.	Provide a copy of the plan prepared in accordance with this condition and evidence of Secretary's endorsement.	Taylor	Taylor to preapre a CEMP specific to their works
C3.	CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN As part of the CEMP required under Condition C2 of this consent, the Applicant must include the following: (a) Construction Traffic Management Plan (see Condition B1); (b) Unexpected Finds Protocol - Heritage (see Condition B14); (c) Erosion and Sediment Control Plan (see Condition B27); (d) Landscape Management Plan (see Condition B19); (e) Construction Noise and Vibration Management Plan (see Condition B41); (f) Dust management measures (see Condition B46); (g) Unexpected Finds Protocol – Contamination (see Condition B51); and (h) Community Consultation and Complaints Handling.	Provide a copy of the plan prepared in accordance with this condition and evidence of Secretary's endorsement.	Taylor	Taylor to preapre a CEMP specific to their works. ISPT will provide (b), (d) & (h) for inclusion in Taylor's plan
C4.	CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN The Applicant must: (j) not commence construction of the development until the CEMP is approved by the Planning Secretary; and (k) carry out the construction of the development in accordance with the CEMP approved by the Planning Secretary and as revised and approved by the Planning Secretary from time to time.	Provide a copy of the plan prepared in accordance with this condition and evidence of Secretary's endorsement.	Taylor	
	ACCESS TO INFORMATION At least 48 hours before the commencement of construction until the completion of all works under this consent, including remediation, the Applicant must: (l) make the following information and documents (as they are obtained or approved) publicly available on its website: (i) the documents referred to in condition A2 of this consent;			

C17.	(ii) all current statutory approvals for the development; (iii) all approved strategies, plans and programs required under the conditions of this consent; (iv) regular reporting on the environmental performance of the development in accordance with the reporting requirements in any plans or programs approved under the conditions of this consent; (v) a comprehensive summary of the monitoring results of the development, reported in accordance with the specifications in any conditions of this consent, or any approved plans and programs; (vi) a summary of the current stage and progress of the development; (vii) contact details to enquire about the development or to make a complaint; (viii) a complaints register, updated monthly; (ix) the Compliance Report of the development; (x) audit reports prepared as part of any Independent Audit of the development and the Applicant's response to the recommendations in any audit report; (xi) any other matter required by the Planning Secretary; and (m) keep such information up to date, to the satisfaction of the Planning Secretary.	Submit evidence to MGC of implementation	ISPT	
Appendix 2	URBAN DESIGN AND VISUAL - implementation of the Landscape Strategy (Habit8) dated 10 November 2020 - the proposed landscape strategy along Clunies Ross St will also apply to the rear boundary perimeters of the site - detailed landscaping designs will be developed during the design and construction of each warehouse building and will be consistent with the landscape concept plan submitted with the EIS - submit detailed landscape plans with construction certificates as part of the detailed design - Landscaped areas will be maintained to ensure visual screening is provided, with the replacement of any trees which fail to establish - All signage for the proposed development will be designed and installed consistent with the requirements of SEPP 64 - An access premises report would be prepared during detailed design - prepare a demolition and hazardous materials management plan prior to commencing demolition, in consultation with Council - consult with Fire and Rescue NSW during detailed design of the fire and life safety systems	Provide a copy of the demolition and hazardous materials management plan prepared in accordance with this condition. (point 8).	ISPT/Taylor	Taylor to prepare access report as part of detailed design
Appendix 2	SOILS AND WATER - to assist in maintaining embankment stability, permanent batter slopes in clay will be no steeper than 3 horizontal to 1 vertical while temporary batters will be no steeper than 2 horizontal to 1 vertical - an erosion and sediment control plan will be prepared prior to commencing construction - detailed design of stormwater drainage to be undertaken in consultation with the relevant Council and in accordance with the Civil Engineering report (Costin Roe) dated 9 December 2020 - detailed designs of the earthworks, infrastructure and Warehouses 1 and 7 in proximity of the Sydney Water pipeline will be undertaken in consultation with Sydney Water	Prior to commencing any construction, an Erosions and Sediment Control Plan is to be prepared in accordance with this condition.	Taylor	ISPT will resolve any issues with Sydney Water approvals noted in dot point 4
Appendix 2	AIR QUALITY - developing stakeholder consultation plans and procedures to respond to air quality complaints - site management, site inspections and monitoring procedures - preparing and maintaining the site to minimise exposed surfaces and stockpiles, and the potential for tracking soil/mud onto hard surfaces - dust suppression including covering or stabilizing stockpiled materials and wetting exposed surfaces - demolition management including internal soft strip, water suppression sprays - revegetating disturbed surfaces as soon as practicable	Prior to the commencement of works on site, compliance with this condition is to be achieved.	Taylor	CEMP to address dust control and fumes from plant/equipment for their works
Appendix 2	WASTE - implementation of a waste management plan for the development - maximise resource recovery by reuse and recycling - minimise the generation of waste to landfill - minimise waste material avoidance and reuse on the site - establish record keeping, monitoring and reporting procedures - comply with the requirements of the relevant statutory authorities - adopt an ongoing improvement approach to improve on best practice waste management principles - waste storage areas will be adequately sized to comfortably accommodate the required number of bins associated with the development - waste storage areas will be designed with sufficient space for convenient access and maneuvering and additional specialised waste areas - waste storage areas will be designed with drainage connection to sewer to prevent potential contamination in stormwater	Prior to the commence of works, provide a copy of the Waste management plan prepared in accordance with this condition.	Taylor	WMP as part of Greenstar
PRIOR TO THE COMMENCEMENT OF CONSTRUCTION UNDER CONSTRUCTION CERTIFICATES FOR WAREHOUSE CONSTRUCTION				
A32.	UTILITY AND SERVICES Before the construction of any utility works associated with the development, the Applicant must obtain relevant approvals from service providers.	Note	Taylor	Obtain approvals to connect (excluding S73, NBN, gas)
A37.	ENDEAVOUR ENERGY The Applicant must obtain relevant approvals from Endeavour Energy, prior to construction of any utility works to service the development.	Note	Taylor	HV for warehouse 2 will be instructed under the provisional sum allowance
B1.	Traffic and Access Construction Traffic Management Plan Prior to the commencement of earthworks, 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 CCC and BCC; 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, the location of any construction works zones and any traffic control plans, if required; e) 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 including pedestrians; iii. minimise road traffic noise; and iv. ensure truck drivers use specified routes; f) include a program to monitor the effectiveness of these measures; and g) if necessary, detail procedures for notifying residents and the community, of any potential disruptions to routes.	Provide a copy of the Plan prepared under this condition together with the Secretary's endorsement.	Taylor	Prepare TMP specific to Taylor's works
B2.	Traffic and Access Construction Traffic Management Plan The Applicant must: (s) not commence earthworks until the Construction Traffic Management Plan required by condition B1 is approved by the Planning Secretary; and (t) implement the most recent version of the Construction Traffic Management Plan approved by the Planning Secretary for the duration of earthworks and construction.	Provide a copy of the Plan prepared under this condition together with the Secretary's endorsement.	Taylor	
B3.	Traffic and Access Roadworks and Access Prior to the commencement of construction, the Applicant must: (w) design all driveway accesses to the site in accordance with the requirements of CCC for works in the Cumberland LGA and BCC for works in the Blacktown LGA and any approval issued under section 138 of the <i>Roads Act 1993</i> ; (x) design the modifications to the existing stormwater pit located in the driveway from Foundation Place to warehouse 6 to the satisfaction of CCC; (y) design the footpaths for the development in accordance with the requirements of CCC.	Provide evidence of design completion and accompanying design certificate from the Civil engineer.	ISPT	
B13.	Aboriginal and Historic Heritage Site Induction Prior to the commencement of earthworks, the Applicant must prepare and implement Aboriginal cultural heritage induction training for all staff and contractors. The training must outline the obligations of staff and contractors under the <i>National Parks and Wildlife Act, 1974</i> and the conditions of this consent. The Applicant must ensure any new staff or contractors receive the induction training prior to commencing works on the site.	Note	Taylor	Taylor to incorporate a slide in their site induction
B27.	SOILS, WATER QUALITY AND HYDROLOGY Erosion and Sediment Control Prior to the commencement of any earthworks or construction the applicant must install and maintain suitable erosion and sediment control measures on-site, in accordance with the relevant requirements of the managing urban stormwater: soils and construction - volume 1: blue book (landcom, 2004) guideline and the erosion and sediment control plan included in the cemp required by condition c2.	Provide a copy of the plan prepared in accordance with this condition and evidence of Secretary's endorsement.	Taylor	Project specific ESC plan
Appendix 2	TRAFFIC AND TRANSPORT - a green travel plan has been included as part of the development to provide guidance and targets for sustainable transport options - separate access is provided for light and heavy vehicles to provide for safer access and to avoid conflicts - the Applicant will consult with Council during detailed design to ensure driveway access conforms with the relevant requirements - sustainable travel is encouraged in the form of car sharing, public transport and active transport which will also act to mitigate potential congestion - a construction traffic management plan will be prepared and submitted to Council separate to this DA, in response to any future conditions of consent - proposed signage and line-marking would be referred to the Civil Engineer and an accompanying Traffic Management Plan (TMP) will be prepared for the Council traffic committees to review and approve - street lighting will be reviewed during detailed design in consultation with Council	Prior to the commence of any works, Compliance with points 5 and 6 are to be achieved,	Taylor	
Appendix 2	NOISE AND VIBRATION - all plant and equipment are to be maintained such that they are in good working order - a register of complaints is to be recorded in the event of complaints being received, including location, time of complaint, nature of complaint and actions resulting from the complaint - if required a noise level measurement of the offending plant item generating complaints is to be conducted and noise mitigations undertaken to reduce noise levels to within the Noise Management levels in the event magnitude of noise levels is found to be above suitable levels - the use of percussive and concrete sawing should be undertaken behind a closed façade when possible - the use of high noise generating equipment including hydraulic hammers, rock cutters or the like should not be undertaken prior to 8am Monday to Friday or 8:30am Saturdays - the loading of trucks should be conducted such that there is not a requirement to stack truck on the roadways adjacent to residential receivers - a construction and vibration management plan to be prepared to include mitigation measures to be implemented to minimise construction and manage all construction impacts - all future operational plant and equipment are to be selected and acoustically treated to ensure the noise levels at all surrounding receivers comply with noise emission criteria detailed within the NVIA - noise modelling will be updated based on detailed designs of the warehouses, with noise monitoring to verify and ensure compliance with the NVIA noise trigger levels - implement the recommendations in section 4.1.1 and 4.1.2 of the acoustic peer review (Acoustic Dynamics) dated 2 December 2020	Prior to the commence of works, point 7 is to be satisfied.	Taylor	
PRIOR TO CONSTRUCTION CERTIFICATE				
A8.	LIMITS OF CONSENT Warehouse buildings 2,3,4,5,6 and 7 shall not exceed a ridgeline height of 13.7m, excluding roof mounted mechanical plant and solar panels	Prior to the issue of each Construction Certificate, verification that compliance with this condition, respective to the entire development consent is to be provided.	Taylor	To the extent of the design and construction of warehouse 2

A21.	Structural Adequacy All new buildings and structures, and any alterations or additions to existing buildings and structures, that are part of the development, must be constructed in accordance with the relevant requirements of the BCA. A9. <i>Note:</i> - Under Part 6 of the EP&A Act, the Applicant is required to obtain construction and occupation certificates for the proposed building works. - Part 8 of the EP&A Regulation sets out the requirements for the certification of the development.	Provides Design documentation from the Structural Engineer (NER) with accompanying design statement verifying design compliance with this condition.	Taylor	
A29.	EXTERNAL WALLS AND CLADDING The external walls of all buildings including additions to existing buildings must comply with the relevant requirements of the BCA.	Provide to McKenzie Group a schedule of all materials used in the external wall of the building together with associated test reports to demonstrate BCA compliance.	Taylor	
A30.	EXTERNAL WALLS AND CLADDING Prior to the issue of: A12. (a) any Construction Certificate relating to the construction of external walls (including the installation of finishes and claddings such as synthetic or aluminium composite panels); and A13. (b) an Occupation Certificate, the Applicant must provide the Certifier with documented evidence that the products and systems proposed for use or used in the construction of external walls (including finishes and claddings such as synthetic or aluminium composite panels) comply with the requirements of the BCA.	Provide to McKenzie Group a schedule of all materials used in the external wall of the building together with associated test reports to demonstrate BCA compliance.	Taylor	
A31.	EXTERNAL WALLS AND CLADDING The Applicant must provide a copy of the documentation given to the Certifier to the Planning Secretary within seven days after the Certifier accepts it.	Note	Taylor	
A34.	UTILITIES AND SERVICES Before the issue of a Subdivision or Construction Certificate for any stage of the development, the Applicant (whether or not a constitutional corporation) is to provide evidence, satisfactory to the Certifier, that arrangements have been made for: (a) the installation of fibre-ready facilities to all individual lots and/or premises in a real estate development project to enable fibre to be readily connected to any premises that is being or may be constructed on those lots; and (b) the provision of fixed-line telecommunications infrastructure in the fibre-ready facilities to all individual lots and/or premises in a real estate development project demonstrated through an agreement with a carrier.	Provide a evidence of arrangement being made for Utilities and services.	ISPT	
A36.	SYDNEY WATER The Applicant must comply with the requirements of Sydney Water for any works adjacent to or over Sydney Water's trunk watermain easement on the site. The Applicant must engage a Water Servicing Coordinator to ensure that Sydney Water's requirements are incorporated into the detailed design of the development. The Applicant must obtain relevant approvals from Sydney Water, prior to construction of any works adjacent to or over the trunk watermain easement on the site.	Provide evidence of Sydney Water's approval. Provide a copy of the Notice of Requirements prior to the issue of a Construction Certificate.	ISPT	
B4.	Traffic and Access Roadworks and Access The Applicant must: (a) submit a separate application to CCC and pay the appropriate fees and charges for driveway crossings and footpaths, prior to the issue of a Construction Certificate for the relevant stage of works; (b) not commence construction of the driveways and footpaths detailed in condition B3, until the designs are approved by the relevant roads authority; and (c) construct the driveways and footpaths in accordance with the designs approved under condition B3, at no cost to the relevant roads authority.	Prior to the issue of a Construction Certificate, provide evidence of the payment of fees in accordance with this condition.	Taylor	To the extent of the design and construction of warehouse 2
B5.	Traffic and Access Parking The Applicant must provide sufficient parking facilities on-site in accordance with condition A7, including for heavy vehicles and for site personnel, to ensure that traffic associated with the development does not utilise public and residential streets or public parking facilities.	Prior to the issue of a Construction Certificate, provide design documentation and accompanying certification from the civil engineer/traffic engineer to the affect that design compliance has been achieved.	Taylor	Construction parking to be addressed in TMP
B6.	Traffic and Access Operating Conditions The Applicant must ensure: (a) internal roads, driveways and parking (including grades, turn paths, sight distance requirements, aisle widths, aisle lengths and parking bay dimensions) associated with the development are constructed and maintained in accordance with the latest version of <i>AS 2890.1:2004 Parking facilities Off-street car parking</i> (Standards Australia, 2004), <i>AS 2890.2:2002 Parking facilities Off-street commercial vehicle facilities</i> (Standards Australia, 2002) and <i>AS 2890.6:2009 and AS1428.1: 2009 Off Street Parking for People with Disabilities</i> (Standards Australia, 2009); (b) the swept path of the longest vehicle entering and exiting the site, as well as manoeuvrability through the site, is in accordance with the relevant AUSTROADS guidelines; (c) the development does not result in any vehicles queuing on the public road network; (d) all vehicles enter and leave the site in a forward direction; (e) heavy vehicles and bins associated with the development are not parked on local roads or footpaths in the vicinity of the site; (f) all vehicles are wholly contained on site before being required to stop; (g) all loading and unloading of materials is carried out on-site; (h) all trucks entering or leaving the site with loads have their loads covered and do not track dirt onto the public road network; and (i) the proposed turning areas in the car park are kept clear of any obstacles, including parked cars, at all times.	Prior to the issue of a Construction Certificate, provide design documentation and accompanying certification from the civil engineer/traffic engineer to the affect that design compliance has been achieved.	Taylor	Warehouse 2 and associated entry/exit driveway (excluding estate road)
B9.	Aboriginal and Historic Heritage Prospect Hill Heritage Item The Applicant must ensure no physical works are undertaken within the Prospect Hill Heritage Curtilage. <i>Note: This condition does not apply to retaining wall support at the boundary of the Prospect Hill Heritage Curtilage within the site.</i>	Construction Certificate documentation is to identify the Prospect Hill Heritage Curtilage and confirm that design compliance with this condition.	ISPT	
B17.	Visual Amenity Built Form The Applicant shall ensure the finished facades and roofs of the warehouses and office buildings use neutral, recessive colours (incorporating two-tones if necessary), non-reflective materials and are designed to present an attractive façade to residential areas and to minimise glare. The designs must be developed in consultation with CCC and be approved by the Planning Secretary prior to commencement of construction of each warehouse and office building.	Provide a copy of the design prepared in accordance with the requirement of this condition and Evidence of the Secretary's approval.	Taylor	
B18.	Visual Amenity Built Form The Applicant shall ensure all retaining walls located on the boundary of the site are located fully within the site, are of masonry construction and have a maximum single height of 1.2 m.	Provide design documentation from the structural engineer and architect demonstrating design compliance with this condition. Accompany certification from the Structural engineer and architect confirming design compliance.	ISPT	
B19.	Visual Amenity Landscaping Prior to the commencement of construction, the Applicant must prepare a Landscape Management Plan for the development, to the satisfaction of the Planning Secretary. The plan must form part of the CEMP in accordance with condition C2. The plan must: (l) detail the species to be planted on-site, incorporating full mixed-strata Cumberland Plain – Moist Shale Woodland species as a vegetated screen to the Prospect Hill heritage curtilage and Clunies Ross Street; (m) describe the monitoring and maintenance measures, including a minimum 1 year maintenance establishment period, to manage landscaping works including the replacement of any plants and trees that have failed to establish; and (n) be consistent with the Applicant's management and mitigation measures in Appendix 2.	Provide a copy of the design prepared in accordance with the requirement of this condition and Evidence of the Secretary's approval. The architect is to be provide certification to the affect that the Construction Certificate documentation is consistent with the approved documentation under this condition.	ISPT	
B20.	Visual Amenity Landscaping The Applicant must: (o) not commence construction until the Landscape Management Plan is approved by the Planning Secretary; (p) must implement the most recent version of the Landscape Management Plan approved by the Planning Secretary; and (q) maintain the landscaping and vegetation on the site in accordance with the approved Landscape Management Plan required by condition B19 for the life of the development.	Provide a copy of the design prepared in accordance with the requirement of this condition and Evidence of the Secretary's approval. The architect is to be provide certification to the affect that the Construction Certificate documentation is consistent with the approved documentation under this condition.	Taylor	First 12 months maintenance for landscape works completed as part of Warehouse 2
B21.	Visual Amenity Lighting The Applicant must ensure the lighting associated with the development: (r) complies with the latest version of AS 4282-1997 - <i>Control of the obtrusive effects of outdoor lighting</i> (Standards Australia, 1997); and (s) is mounted, screened and directed in such a manner that it does not create a nuisance to surrounding properties or the public road network.	Provide design documentation and accompanying certification from the Electrical engineer verifying compliance with the requirements of this condition.	Taylor	To the extent of the design and construction of warehouse 2
B22.	Visual Amenity Signage, Fencing and Graffiti All signage and fencing must be erected in accordance with the development plans included in the RTS. <i>Note: This condition does not apply to temporary construction and safety related signage and fencing.</i>	Provide design documentation and accompanying certification from the architect verifying compliance with the requirements of this condition.	Taylor	To the extent of the design and construction of warehouse 2
B24.	Visual Amenity Signage, Fencing and Graffiti All fencing adjoining public roads must be powder-coated palisade fencing or finished with an anti-graffiti coating.	Provide design documentation and accompanying certification from the architect verifying compliance with the requirements of this condition.	Taylor	To the extent of the design and construction of warehouse 2
B25.	Visual Amenity Signage, Fencing and Graffiti The Applicant must remove all graffiti from the development within 48 hours of detection.	Provide design documentation and accompanying certification from the architect verifying compliance with the requirements of this condition.	Taylor	To the extent of the design and construction of warehouse 2 during construction
B30.	SOILS, WATER QUALITY AND HYDROLOGY Stormwater Management System Prior to the commencement of construction, the Applicant must demonstrate to the satisfaction of the Planning Secretary, that the stormwater management system for the development is: (a) designed by a suitably qualified and experienced person(s), in accordance with the concept design in the RTS and in consultation with CCC and BCC; (b) prepared in accordance with applicable Australian Standards; (c) prepared in accordance with the design requirements and water quality objectives of: (i) the Holroyd Development Control Plan 2013 - Part Q Pemulwuy Industrial Controls and CCC's On- Site Stormwater Detention Policy and Upper Paramatta River Catchment Trust's On-site Stormwater Detention Handbook for the part of development that drains to the Cumberland LGA; (ii) the Blacktown Development Control Plan 2015 – Part J Water Sensitive Urban Design and Integrated Water Cycle Management and WSUD developer handbook, to the satisfaction of BCC, for the part of development that drains to the Blacktown LGA; (d) designed in accordance with Australian Rainfall and Runoff (Engineers Australia, 2016) and Managing Urban Stormwater: Council Handbook (EPA, 1997) guidelines; (e) designed to include rainwater harvesting to reduce the non-potable water demand of the development by a minimum of 80%; and	Provide a copy of the design prepared in accordance with the requirement of this condition and Evidence of the Secretary's approval. The Civil Engineer is to be provide certification to the affect that the Construction Certificate documentation is consistent with the approved documentation under this condition.	Taylor	To the extent of the design and construction of warehouse 2, excluding trunk stormwater that is being designed and constructed under the Infrastructure Works

	(f) inclusive of a maintenance and monitoring schedule to ensure the on-going efficiency of the stormwater management system.			
B32.	SOILS, WATER QUALITY AND HYDROLOGY Flood Management All floor levels must be no lower than the 1% Annual Exceedance Probability flood plus 500 mm of freeboard.	The Civil Engineer is to be provide certification to the affect that the Construction Certificate documentation is consistent with the approved documentation under this condition.	Taylor	To the extent of the design and construction of warehouse 2
B33.	SOILS, WATER QUALITY AND HYDROLOGY Flood Management Any structures below the 1% Annual Exceedance Probability plus 500 mm of freeboard must be constructed from flood compatible building components.	The Civil Engineer is to be provide certification to the affect that the Construction Certificate documentation is consistent with the approved documentation under this condition.	Taylor	To the extent of the design and construction of warehouse 2
B34	NOISE Design Noise Validation Prior to the commencement of construction of any warehouse, the Applicant must prepare a noise validation report(s), to the satisfaction of the Planning Secretary. The report(s) must: (t) be prepared by a suitably qualified and experienced noise expert whose appointment has been endorsed by the Planning Secretary; (u) establish noise criteria for the nearest sensitive receivers in accordance with the EPA's Noise Policy for Industry 2017; (v) detail the design specifications for mechanical plant and equipment, ducting and fans, and any acoustic treatments to ensure compliance with the noise limits established in accordance with condition B34(b); and (w) recommend, prioritise and implement measures to improve noise controls on site, including but not limited to, programming mechanical plant to reduce night-time noise, implementing a driver code of conduct to reduce vehicle noise and ensuring roller doors are closed when there is no un/loading.	The Acoustic Engineer is to be provide certification to the affect that the Construction Certificate documentation is consistent with the approved documentation under this condition. Provide evidence of the Secretary's endorsement.	ISPT	To the extent of the design and construction of warehouse 2
B35.	NOISE Design Noise Validation The Applicant must: (x) not commence construction of any warehouse until the noise validation report required by condition B34 is approved by the Planning Secretary; and (y) implement the noise control recommendations of the noise validation report approved by the Planning Secretary, in a timeframe agreed with the Planning Secretary.	The Acoustic Engineer is to be provide certification to the affect that the Construction Certificate documentation is consistent with the approved documentation under this condition. Provide evidence of the Secretary's endorsement.	Taylor	To the extent of the design and construction of warehouse 2
B53.	Bushfire Protection The Applicant must ensure: (c) the development complies with the relevant provisions of <i>Planning for Bushfire Protection 2019</i> ; (d) asset protection zones are provided in accordance with the recommendations of the Bushfire Protection Assessment: Industrial Development – 44 Clunies Ross Street, Prospect prepared by Eco Logical dated June 2020; (e) the relevant construction standards in <i>Australian Standard 3959: Construction of buildings in bushfire-prone areas, 2018</i> and <i>NASH Standard: Steel framed construction in bushfire areas, 2014</i> are complied with; (f) landscaping on site is maintained and managed in accordance with <i>Planning for Bushfire Protection 2019</i> .	Prior to the issue of each Construction Certification, design documentation and accompanying certification from the Bushfire consultant is to be provided confirming that the design documentation submitted with the CC Application meet the provisions of this condition.	Taylor	Design to applicable Bushfire standards
C8.	Revision of Strategies, Plans and Programs Within three months of: (a) the submission of a Compliance Report under condition C14; (b) the submission of an incident report under condition C10; (c) the approval of any modification of the conditions of this consent; or (d) the issue of a direction of the Planning Secretary under condition A2(b) which requires a review, the strategies, plans and programs required under this consent must be reviewed.	Prior to the issue of the relevant Construction Certificate, Evidence of submission of the revised documents is to be provided to McKenzie Group together with evidence that the reports /plans / documents are to eh satisfaction of the Secretary. Any revised reports prepared under this condition are to be submitted to McKenzie Group for record.	ISPT	
C9.	Revision of Strategies, Plans and Programs If necessary, to either improve the environmental performance of the development, cater for a modification or comply with a direction, the strategies, plans and programs required under this consent must be revised, to the satisfaction of the Planning Secretary. Where revisions are required, the revised document must be submitted to the Planning Secretary for approval within six weeks of the review. <i>Note: This is to ensure strategies, plans and programs are updated on a regular basis and to incorporate any recommended measures to improve the environmental performance of the development.</i>	Prior to the issue of the relevant Construction Certificate, Evidence of submission of the revised documents is to be provided to McKenzie Group together with evidence o that the reports /plans / documents are to eh satisfaction of the Secretary. Any revised reports prepared under this condition are to be submitted to McKenzie Group for record.	ISPT	
Appendix 2	URBAN DESIGN AND VISUAL - the proposal consists of varied built form to follow the sloping topography and reduce the perceived bulk of the warehouses - warehouses have been articulated to reduce the overall visual impact of the development on adjoining residential sites - the development has been designed to maintain view corridors from Prospect Hill by siting the height of the proposed warehouses below existing office building - the frontage to Clunies Ross Street will be landscaped to screen the development from adjoining residential properties the proposed warehouses will be setback a minimum of 3 metres from the property boundary, or 20 metres from the property boundary adjoining Clunies Ross Street to mitigate visual impacts and perceived bulk	Prior to the issue of a construction Certificate for each building, certification from the Architect and Landscape architect is to be provided to demonstrate compliance with this condition.	ISPT	
Appendix 2	URBAN DESIGN AND VISUAL the proposed material palette assists in articulating the built form and minimizing the perceived scale of the development	Prior to the issue of a construction Certificate for each building, certification from the Architect and Landscape architect is to be provided to demonstrate compliance with this condition.	ISPT	
Appendix 2	URBAN DESIGN AND VISUAL - implementation of the Landscape Strategy (Habit8) dated 10 November 2020 - the proposed landscape strategy along Clunies Ross St will also apply to the rear boundary perimeters of the site - detailed landscaping designs will be developed during the design and construction of each warehouse building and will be consistent with the landscape concept plan submitted with the EIS - submit detailed landscape plans with construction certificates as part of the detailed design - Landscaped areas will be maintained to ensure visual screening is provided, with the replacement of any trees which fail to establish - All signage for the proposed development will be designed and installed consistent with the requirements of SEPP 64 - An access premises report would be prepared during detailed design - prepare a demolition and hazardous materials management plan prior to commencing demolition, in consultation with Council - consult with Fire and Rescue NSW during detailed design of the fire and life safety systems	Prior to the issue of a construction Certificate for each building, certification from the Architect and Landscape architect is to be provided to demonstrate compliance with this condition.	Taylor	To the extent of the design and construction of warehouse 2
Appendix 2	HERTIAGE - the proposed materials and colour scheme have been selected to respond appropriately to the site's heritage and reflect the sites history as an area of Aboriginal importance and as a quarry - the proposed design will incorporate deep recesses and dark shaded colors to acknowledge the carved rocks found in the quarry - the proposed diagonal chevrons pattern and industrial materials colour palette acknowledge those used in indigenous art	Prior to the issue of a construction Certificate for each building, certification from the Architect is to be provided to demonstrate compliance with this condition.	Taylor	To the extent of the design and construction of warehouse 2
Appendix 2	HERITAGE - colour schemes will involve neutral colours and bold design elements will be minimised to ensure that the warehouses blend into the existing environment and surrounding landscape - existing established trees will be retained where possible and additional screening vegetation will be planted to mitigate visual impacts when viewed from the nearby heritage item. - detailed design of the warehouse, particularly warehouse 1 and warehouse 6 will seek to minimise the potential visual obstruction between Prospect Hill and Prospect Reservoir, St Bartholomew's Church and the Blue Mountains - a photographic archival recording (PAR) of Prospect Hill (SHR #01622) and its significant view lines will be undertaken prior to construction. A copy of the PAR will be lodged with Cumberland Council and Heritage NSW – DPC - install heavy duty 2.1 m high fencing along Prospect Hill curtilage boundary	Prior to the issue of a construction Certificate for each building, certification from the Architect and Landscape architect is to be provided to demonstrate compliance with this condition.	ISPT	
Appendix 2	TRAFFIC AND TRANSPORT - a green travel plan has been included as part of the development to provide guidance and targets for sustainable transport options - separate access is provided for light and heavy vehicles to provide for safer access and to avoid conflicts - the Applicant will consult with Council during detailed design to ensure driveway access conforms with the relevant requirements - sustainable travel is encouraged in the form of car sharing, public transport and active transport which will also act to mitigate potential congestion - a construction traffic management plan will be prepared and submitted to Council separate to this DA, in response to any future conditions of consent - proposed signage and line-marking would be referred to the Civil Engineer and an accompanying Traffic Management Plan (TMP) will be prepared for the Council traffic committees to review and approve - street lighting will be reviewed during detailed design in consultation with Council	Prior to the issued of a Construction Certificate evidence of compliance with points 1, 2 and 7 is to be provided.	Taylor	To the extent of the design and construction of warehouse 2
Appendix 2	NOISE AND VIBRATION - all plant and equipment are to be maintained such that they are in good working order - a register of complaints is to be recorded in the event of complaints being received, including location, time of complaint, nature of complaint and actions resulting from the complaint - if required a noise level measurement of the offending plant item generating complaints is to be conducted and noise mitigations undertaken to reduce noise levels to within the Noise Management levels in the event magnitude of noise levels is found to be above suitable levels - the use of percussive and concrete sawing should be undertaken behind a closed façade when possible - the use of high noise generating equipment including hydraulic hammers, rock cutters or the like should not be undertaken prior to 8am Monday to Friday or 8:30am Saturdays - the loading of trucks should be conducted such that there is not a requirement to stack truck on the roadways adjacent to residential receivers - a construction and vibration management plan to be prepared to include mitigation measures to be implemented to minimise construction and manage all construction impacts - all future operational plant and equipment are to be selected and acoustically treated to ensure the noise levels at all surrounding receivers comply with noise emission criteria detailed within the NVIA - noise modelling will be updated based on detailed designs of the warehouses, with noise monitoring to verify and ensure compliance with the NVIA noise trigger levels - implement the recommendations in section 4.1.1 and 4.1.2 of the acoustic peer review (Acoustic Dynamics) dated 2 December 2020	Prior to the issue of a Construction Certificate, certification from the Acoustic Engineer verifying design compliance with this condition is to be provided.	Taylor	To the extent of the design and construction of warehouse 2
Appendix 2	BUSHFIRE AND INCIDENT MANAGEMENT - asset protection zones to be established around the site and managed in perpetuity - landscaping to be established and managed in accordance with <i>Planning for Bush Fire Protection</i> (RFS 2019) - design and construction measures in accordance with AS 3959 or the National Association of Steel-framed Housing standard as modified by Section 7.5 of RFS 2019 - detailed design to ensure access and services (water, gas, electricity) meet the requirements of RFS 2019 - emergency and evacuation planning	Prior to the issue of the each Construction Certificate, provide design certification to the affect that compliance with this condition has been met in the design documentation.	Taylor	To the extent of the design and construction of warehouse 2
Appendix 2	GREENHOUSE GAS AND ENERGY EFFICIENCY - improved building form and thermal envelopment building fabric including increased insulation with high specification glazing will provide for energy efficiency - energy efficient HVAC systems - LED lighting with illumination power densities equal to or less than the maximum set out in the <i>National Construction Code</i> (2019 NCC) - lighting controls such as sensors and timers for external lighting and lighting in infrequently used areas have been incorporated into the design	Prior to the issue of the each Construction Certificate for the warehouses, provide design certification to the affect that compliance with this condition has been met in the design documentation.	Taylor	To the extent of the design and construction of warehouse 2

	- hot water to be provided through either high efficiency heat pump systems or solar boosted systems - all windows, doors, exhaust fans and pipe penetrations will be constructed to minimise air leakage as required by the provisions of the 2019 NCC														
Appendix 2	ECOLOGICAL SUSTAINABLE DEVELOPMENT - oversize rainwater tanks and employ drought resistant landscaping to reduce the overall water load required for irrigation to mitigate impacts reduced average rainfall - downpipes to be capable of withstanding high volumes of water flowing over roofs, with eaves gutters designed for 1 in 20 year storm event to mitigate extreme rainfall events. Surface drainage and box gutters designed for 1 in 100 year storm events - air conditions designed to handle higher specified conditions than required in Western Sydney to accommodate for potential increased average annual temperature - space for adding insulation on the facades of the warehouse will be incorporated into the design to help reduce the thermal heat gain for workers - skylights will be insulated and/or well ventilated to reduce the amount of heat transfer into the buildings to accommodate for increased average annual temperature - policies for workers going home on extreme heat days will be considered to being implemented to mitigate extreme temperature events - maximised landscaped areas and the use of green walls have been employed in the development to mitigate the impacts of urban heat island effect - solar panels to be high quality with tempered glass to cope with potential hail in extreme storm events - batteries or alternative back up power generation to run essentials in the event of a prolonged power outage	Prior to the issue of the each Construction Certificate for the warehouses, provide design certification to the affect that compliance with this condition has been met in the design documentation.	Taylor	To the extent of the design and construction of warehouse 2											
Appendix 2	POWER SUPPLY consult with Energy Australia during detailed design of the development to ensure its requirements are addressed	Prior to the issue of each Construction Certificate, please provide evidence of consultation with Energy Australia	Taylor	To the extent of the design and construction of warehouse 2											
Appendix 2	SOILS AND WATER - additional storage is proposed to be introduced to the on-site system to enable discharge of the portion of the site within the Blacktown LGA to discharge directly to the Basin to avoid overflow - Dams Safety NSW and Council will be consulted during detailed design of the amended storage to ensure the ongoing safety and stability of the storage and storage structures is maintained - complete the design of the regional basin embankment and construct the embankment prior to any reduction in the water storage capacity of the wetland adjacent to Warehouse 7 - all buildings are sited 0.5m above the 1 in 100 year ARI design flood level of the regional detention basin - rainwater harvesting will be provided as part of the development to encourage reuse and recycling - requirements of both Council DCPs have been meet regarding works in and around flooding areas - stormwater detention measures (via regional basin) have been included to manage pre and post development runoff - overland flow paths to manage runoff in large storm events have been made including achieving at least 0.5m freeboard to building levels from the flow paths - design the kerb inlet pit at the site access from Foundation Place in accordance with Council’s recommendations and in consultation with Council	Design Certification from the Civil Engineer is to be provided certifying design compliance with this condition prior to the issue of each Construction Certificate.	ISPT												
Appendix 2	SOILS AND WATER - to assist in maintaining embankment stability, permanent batter slopes in clay will be no steeper than 3 horizontal to 1 vertical while temporary batters will be no steeper than 2 horizontal to 1 vertical - an erosion and sediment control plan will be prepared prior to commencing construction - detailed design of stormwater drainage to be undertaken in consultation with the relevant Council and in accordance with the Civil Engineering report (Costin Roe) dated 9 December 2020 - detailed designs of the earthworks, infrastructure and Warehouses 1 and 7 in proximity of the Sydney Water pipeline will be undertaken in consultation with Sydney Water	Design Certification from the Civil Engineer is to be provided certifying design compliance with this condition prior to the issue of each Construction Certificate. The Civil Engineer is to certify that the works, as constructed meet compliance with the requirement of this condition.	ISPT												
During Construction															
B14.	Aboriginal and Historic Heritage Unexpected Finds Protocol If any item or object of Aboriginal heritage significance is identified on site: (a) all work in the immediate vicinity of the suspected Aboriginal item or object must cease immediately; (b) a 10 m wide buffer area around the suspected item or object must be cordoned off; and (c) Heritage NSW must be contacted immediately.	Note	Taylor	To the extent of the design and construction of warehouse 2											
B15.	Aboriginal and Historic Heritage Unexpected Finds Protocol Work in the immediate vicinity of the Aboriginal item or object may only recommence in accordance with the provisions of Part 6 of the <i>National Parks and Wildlife Act 1974</i> .	Note	Taylor	To the extent of the design and construction of warehouse 2											
B16.	Aboriginal and Historic Heritage Unexpected Finds Protocol If any archaeological relics are uncovered during the course of the work, then all works must cease immediately in that area. Unexpected finds must be evaluated and recorded in accordance with the requirements of Heritage NSW.	Note	Taylor	To the extent of the design and construction of warehouse 2											
B26.	SOILS, WATER QUALITY AND HYDROLOGY Imported Soil The applicant must: (a) ensure that only VENM, ENM, or other material approved in writing by EPA is brought onto the site; (b) keep accurate records of the volume and type of fill to be used; and (c) make these records available to the planning secretary upon request.	Note	Taylor	To the extent of the design and construction of warehouse 2											
B28.	SOILS, WATER QUALITY AND HYDROLOGY Discharge limits The development must comply with section 120 of the POEO Act, which prohibits the pollution of waters, except as expressly provided for in an EPL.	Note	Taylor	To the extent of the design and construction of warehouse 2											
B29.	SOILS, WATER QUALITY AND HYDROLOGY Waterfront Land The Applicant must carry out all works on or adjacent to waterfront land in accordance with the Natural Resources Access Regulator’s Guidelines for Controlled Activities on Waterfront Land, 2018.	Note	Taylor	To the extent of the design and construction of warehouse 2											
B38.	NOISE Hours of Work The Applicant must comply with the hours detailed in Table 3 , unless otherwise agreed in writing by the Planning Secretary. <i>Table 3 Hours of Work</i> <table><tr><th>Activity</th><th>Day</th><th>Time</th></tr><tr><td rowspan="2">Earthworks and construction</td><td>Monday – Friday</td><td>7 am to 6 pm</td></tr><tr><td>Saturday</td><td>8 am to 1 pm</td></tr><tr><td>Operation</td><td>Monday – Sunday</td><td>24 hours</td></tr></table>	Activity	Day	Time	Earthworks and construction	Monday – Friday	7 am to 6 pm	Saturday	8 am to 1 pm	Operation	Monday – Sunday	24 hours	Note	Taylor	To the extent of the design and construction of warehouse 2
Activity	Day	Time													
Earthworks and construction	Monday – Friday	7 am to 6 pm													
	Saturday	8 am to 1 pm													
Operation	Monday – Sunday	24 hours													
B39.	NOISE Hours of Work Works outside of the hours identified in condition B38 may be undertaken in the following circumstances: (a) works that are inaudible at the nearest sensitive receivers; (b) works agreed to in writing by the Planning Secretary; (c) for the delivery of materials required outside these hours by the NSW Police Force or other authorities for safety reasons; or (d) where it is required in an emergency to avoid the loss of lives, property or to prevent environmental harm.	Note	Taylor	To the extent of the design and construction of warehouse 2											
B40.	NOISE Construction Noise Limits The development must be constructed to achieve the construction noise management levels detailed in <i>the Interim Construction Noise Guideline</i> (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 approved Construction Noise and Vibration Management Plan required by condition B41.	Note	Taylor	To the extent of the design and construction of warehouse 2											
B43.	VIBRATION Vibration Criteria Vibration caused by construction at any residence or structure outside the site must be limited to: (a) for structural damage, the latest version of <i>DIN 4150-3 (1992-02) Structural vibration - Effects of vibration on structures</i> (German Institute for Standardisation, 1999); and (b) for human exposure, the acceptable vibration values set out in the <i>Environmental Noise Management Assessing Vibration: a technical guideline</i> (DEC, 2006) (as may be updated or replaced from time to time).	Note	Taylor	To the extent of the design and construction of warehouse 2											
B44.	VIBRATION Vibration Criteria The limits in conditions B43 apply unless otherwise outlined in a Construction Noise and Vibration Management Plan, approved as part of the CEMP required by condition C2 of this consent.	Note	Taylor	To the extent of the design and construction of warehouse 2											
B45.	AIR QUALITY Dust Mitigation The Applicant must take all reasonable steps to minimise dust generated during all works authorised by this consent.	Note	Taylor	To the extent of the design and construction of warehouse 2											
B46.	AIR QUALITY Dust Mitigation During earthworks and construction, the Applicant must ensure that: (a) exposed surfaces and stockpiles are suppressed by regular watering; (b) all trucks entering or leaving the site with loads have their loads covered; (c) trucks associated with the development do not track dirt onto the public road network; (d) public roads used by these trucks are kept clean; and (e) land stabilisation works are carried out progressively on site to minimise exposed surfaces.	Note	Taylor	To the extent of the design and construction of warehouse 2											
B47.	AIR QUALITY Air Quality Discharges The Applicant must install and operate equipment in line with best practice to ensure that the development complies with all relevant air quality criteria.	Note	Taylor	To the extent of the design and construction of warehouse 2											
B48.	AIR QUALITY Odour Management The Applicant must ensure the development does not cause or permit the emission of any offensive odour (as defined in the POEO Act).	Note	Taylor	To the extent of the design and construction of warehouse 2											
B49.	REMEDIATION Remedial Works The Applicant must remediate the site in accordance with the Remedial Action Plan prepared by JBS&G and dated 30 September 2020 and relevant guidelines produced or approved under the <i>Contaminated Land Management Act 1997</i> . Remediation works must be undertaken by a suitably qualified and experienced consultant(s).	Note	ISPT												
B52.	REMEDIATION Asbestos The Applicant must ensure that any asbestos encountered during remediation, demolition and construction works is monitored, handled, transported and disposed of by appropriately qualified and licensed contractors in accordance with the requirements of SafeWork NSW and relevant guidelines, including: (a) <i>Work Health and Safety Regulation 2017</i> ; (b) SafeWork NSW Code of Practice – How to Manage and Control Asbestos in the Workplace September 2016;	Note	Taylor	For unexpected finds. To the extent of the design and construction of warehouse 2											

	(c) SafeWork NSW Code of Practice – How to Safely Remove Asbestos September 2016; and (d) Protection of the Environment Operations (Waste) Regulation 2014.																									
B59.	WASTE MANAGEMENT Waste Management Plan The Applicant must implement the Waste Management Plan (WMP) in the EIS for the duration of construction and operation of the development.	Note	Taylor	To the extent of the design and construction of warehouse 2																						
B60.	WASTE MANAGEMENT Waste Storage Waste must be secured and maintained within designated waste storage areas at all times and must not leave the site onto neighbouring public or private properties.	Note	Taylor	To the extent of the design and construction of warehouse 2																						
B61.	WASTE MANAGEMENT Statutory Requirements All waste materials removed from the site must only be directed to a waste management facility or premises lawfully permitted to accept the materials.	Note	Taylor	To the extent of the design and construction of warehouse 2																						
B62.	WASTE MANAGEMENT Statutory Requirements The Applicant must assess and classify all liquid and non-liquid wastes to be taken off site in accordance with the latest version of EPA's <i>Waste Classification Guidelines Part 1: Classifying Waste</i> (EPA, 2014) and dispose of all wastes to a facility that may lawfully accept the waste.	Note	Taylor	To the extent of the design and construction of warehouse 2																						
B63.	WASTE MANAGEMENT Statutory Requirements Waste generated outside the site must not be received at the site for storage, treatment, processing, reprocessing, or disposal.	Note	Taylor	To the extent of the design and construction of warehouse 2																						
B64.	Hazards and Risk The Applicant must store all chemicals, fuels and oils used on-site in accordance with: (a) the requirements of all relevant Australian Standards; and (b) the NSW EPA's <i>Storing and Handling of Liquids: Environmental Protection – Participants Manual</i> if the chemicals are liquids.	Note	Taylor	To the extent of the design and construction of warehouse 2																						
B65.	Hazards and Risk In the event of an inconsistency between the requirements B64(a) and (f), the most stringent requirement must prevail to the extent of the inconsistency.	Note	Taylor	To the extent of the design and construction of warehouse 2																						
B66.	Hazards and Risk Dangerous Goods The Applicant must ensure the quantities of dangerous goods stored at the site and transported to and from the development are below the threshold quantities listed in the Department of Planning's Hazardous and Offensive Development Application Guidelines – Applying SEPP 33 at all times.	Note	Taylor	To the extent of design in accordance with the PPR, and as required for construction works																						
B67.	Community Engagement The Applicant must consult with the community regularly throughout the development, including consultation with the nearby residential receivers in Pemulwuy, relevant regulatory authorities, Registered Aboriginal Parties and other interested stakeholders. Community engagement shall be undertaken in accordance with the Community Communication Strategy approved in accordance with Condition A26.	Note	ISPT	Taylor to comply with the Communications Strategy in place, perform letterbox drop prior to commencement, and notify ISPT of any interactions with community or other stakeholders																						
C10.	REPORTING AND AUDITING Incident Notification, Reporting and Response The Planning Secretary must be notified in writing via the Major Projects website immediately after the Applicant becomes aware of an incident. The notification must identify the development (including the development application number and the name of the development if it has one) and set out the location and nature of the incident. Subsequent notification requirements must be given, and reports submitted in accordance with the requirements set out in Appendix 3.	Note	ISPT	Taylor to report to ISPT																						
C11.	REPORTING AND AUDITING Non-Compliance Notification The Planning Secretary must be notified in writing to the Major Projects website within seven days after the Applicant becomes aware of any non-compliance.	Note	ISPT	Taylor to report to ISPT																						
C12.	REPORTING AND AUDITING Non-Compliance Notification A non-compliance notification must identify the development and the application number for it, set out the condition of consent that the development is non-compliant with, the way in which it does not comply and the reasons for the non-compliance (if known) and what actions have been, or will be, undertaken to address the non-compliance.	Note	ISPT	Taylor to report to ISPT																						
C13.	REPORTING AND AUDITING Non-Compliance Notification A non-compliance which has been notified as an incident does not need to also be notified as a non-compliance.	Note	Note																							
Appendix 3 1	WRITTEN INCIDENT NOTIFICATION REQUIREMENTS A written incident notification addressing the requirements set out below must be submitted to the Planning Secretary via the Major Projects website within seven days after the Applicant becomes aware of an incident. Notification is required to be given under this condition even if the Applicant fails to give the notification required under condition 10 or, having given such notification, subsequently forms the view that an incident has not occurred.	Note	ISPT																							
Appendix 3 2	WRITTEN INCIDENT NOTIFICATION REQUIREMENTS Written notification of an incident must: a. identify the development and application number; b. provide details of the incident (date, time, location, a brief description of what occurred and why it is classified as an incident); c. identify how the incident was detected; d. identify when the applicant became aware of the incident; e. identify any actual or potential non-compliance with conditions of consent; f. describe what immediate steps were taken in relation to the incident; g. identify further action(s) that will be taken in relation to the incident; and h. identify a project contact for further communication regarding the incident.	Note	ISPT	Taylor to report to ISPT																						
Appendix 3 3	INCIDENT REPORT REQUIREMENTS Within 30 days of the date on which the incident occurred or as otherwise agreed to by the Planning Secretary, the Applicant must provide the Planning Secretary and any relevant public authorities (as determined by the Planning Secretary) with a detailed report on the incident addressing all requirements below, and such further reports as may be requested.	Note	ISPT	Taylor to report to ISPT																						
Appendix 3 4	INCIDENT REPORT REQUIREMENTS The Incident Report must include: a. a summary of the incident; b. outcomes of an incident investigation, including identification of the cause of the incident; c. details of the corrective and preventative actions that have been, or will be, implemented to address the incident and prevent recurrence; and d. details of any communication with other stakeholders regarding the incident.	Note	ISPT	Taylor to report to ISPT																						
PRIOR TO OCCUPATION CERTIFICATE																										
A6.	LIMITS OF CONSENT The maximum gross floor area for the land uses on site shall not exceed the limits in Table 1 <table><tr><th>Land Use</th><th>Maximum GFA (m²)</th></tr><tr><td>Total Warehousing</td><td>87,000</td></tr><tr><td>Total Office</td><td>8,000</td></tr><tr><td>Café</td><td>150</td></tr><tr><td>Total</td><td>95,150</td></tr></table>	Land Use	Maximum GFA (m²)	Total Warehousing	87,000	Total Office	8,000	Café	150	Total	95,150	Prior to the issue of each Occupation Certificate, verification that compliance with this condition, respective to the entire development consent is to be provided.	Taylor	Provide GLA survey for warehouse 2												
Land Use	Maximum GFA (m²)																									
Total Warehousing	87,000																									
Total Office	8,000																									
Café	150																									
Total	95,150																									
A7.	LIMITS OF CONSENT The Applicant must ensure the development is consistent with the development controls in Table 2. <table><tr><th>Development Aspect</th><th>Control</th></tr><tr><td>Minimum building setbacks from: - Clunies Ross Street </td><td>24 m for warehouses 20 m for offices, except for the office in warehouse 5 which is 17.7 m</td></tr><tr><td> - Prospect Hill Heritage Curtilage </td><td>13 m</td></tr><tr><td> - Northern site boundary </td><td>5 m</td></tr><tr><td> - Western site boundary </td><td>5 m</td></tr><tr><td>Minimum landscape setbacks from: - Clunies Ross Street </td><td>5 m, except for warehouse 3 which is 4.85 m</td></tr><tr><td> - Prospect Hill Heritage Curtilage </td><td>4 m (measured from boundary line)</td></tr><tr><td> - Foundation Place </td><td>4.85 m</td></tr><tr><td>Height from finished floor level: - Warehouse 1 - Warehouse 2, 3, 4, 5, 6 and 7 </td><td>25 m 13.7 m</td></tr><tr><td>Site coverage</td><td>50.5 percent</td></tr><tr><td>Car parking</td><td>1 space per 300 m² of warehouse GFA; 1 space per 40 m² of office GFA; 1 space per 10 m² of dining area (café); 2 spaces for disability parking for every 100 car parking spaces</td></tr></table>	Development Aspect	Control	Minimum building setbacks from: Clunies Ross Street	24 m for warehouses 20 m for offices, except for the office in warehouse 5 which is 17.7 m	Prospect Hill Heritage Curtilage	13 m	Northern site boundary	5 m	Western site boundary	5 m	Minimum landscape setbacks from: Clunies Ross Street	5 m, except for warehouse 3 which is 4.85 m	Prospect Hill Heritage Curtilage	4 m (measured from boundary line)	Foundation Place	4.85 m	Height from finished floor level: - Warehouse 1 - Warehouse 2, 3, 4, 5, 6 and 7	25 m 13.7 m	Site coverage	50.5 percent	Car parking	1 space per 300 m² of warehouse GFA; 1 space per 40 m² of office GFA; 1 space per 10 m² of dining area (café); 2 spaces for disability parking for every 100 car parking spaces	Prior to the issue of each Occupation Certificate, verification that compliance with this condition, respective to the entire development consent is to be provided.	Taylor	Provide as-built survey for warehouse 2
Development Aspect	Control																									
Minimum building setbacks from: Clunies Ross Street	24 m for warehouses 20 m for offices, except for the office in warehouse 5 which is 17.7 m																									
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Site coverage	50.5 percent																									
Car parking	1 space per 300 m² of warehouse GFA; 1 space per 40 m² of office GFA; 1 space per 10 m² of dining area (café); 2 spaces for disability parking for every 100 car parking spaces																									
A8.	LIMITS OF CONSENT Warehouse buildings 2,3,4,5,6 and 7 shall not exceed a ridgeline height of 13.7m, excluding roof mounted mechanical plant and solar panels	Prior to the issue of each Occupation Certificate, verification that compliance with this condition, respective to the entire development consent is to be provided.	Taylor	Provide as-built survey for warehouse 2																						
A10.	Notification of Commencement The date of commencement of each of the following phases of the development must be notified to the Department in writing, at least one month before that date: (g) construction; (h) operation; and (i) cessation of operations.	Note.	Taylor	Notification to ISPT for Practical Completion																						
A11.	Notification of Commencement If the construction or operation of the development is to be staged, the Department must be notified in writing at least one month before the commencement of each stage, of the date of commencement and the development to be carried out in that stage.	Note	ISPT																							
A21	Structural Adequacy All new buildings and structures, and any alterations or additions to existing buildings and structures, that are part of the development, must be constructed in accordance with the relevant requirements of the BCA.	Provides Design documentation from the Structural Engineer (NER) with accompanying design statement verifying design compliance with this condition.	Taylor																							

A29.	<i>Note:</i> - Under Part 6 of the EP&A Act, the Applicant is required to obtain construction and occupation certificates for the proposed building works. - Part 8 of the EP&A Regulation sets out the requirements for the certification of the development.		Taylor	
A28.	EASEMENTS Within 12 months after the date of this consent, an easement under section 88A and/or restriction or public positive covenant under section 88E of the <i>Conveyancing Act 1919</i> naming the relevant Council as the prescribed authority, which can only be revoked, varied or modified with the consent of the relevant Council, and which provides for stormwater quality improvement devices must be registered on title of Lot 10 DP 1022044, Lot 216 DP 1030744, Lot 601 DP 1047403, Lot 4 DP 1192514, Lot 63 DP 752051 and Lot 107 DP 1028208.	Prior to the issue of the Occupation Certificate, provide evidence of the registration of easement as required under this condition.	ISPT	
A30.	EXTERNAL WALLS AND CLADDING Prior to the issue of: (a) any Construction Certificate relating to the construction of external walls (including the installation of finishes and claddings such as synthetic or aluminium composite panels); and (b) an Occupation Certificate, the Applicant must provide the Certifier with documented evidence that the products and systems proposed for use or used in the construction of external walls (including finishes and claddings such as synthetic or aluminium composite panels) comply with the requirements of the BCA.	Prior to the issue of the Occupation Certificate provide a schedule of all materials used in the external wall of the building, associated test reports and installation certification confirming installation has been completed in accordance with the test reports and BCA compliance is demonstrated.	Taylor	
A31.	EXTERNAL WALLS AND CLADDING The Applicant must provide a copy of the documentation given to the Certifier to the Planning Secretary within seven days after the Certifier accepts it.	Note	Taylor	
A33.	UTILITIES AND SERVES Before the commencement of operation of the development, the Applicant must obtain a Compliance Certificate for water and sewerage infrastructure servicing of the site under section 73 of the <i>Sydney Water Act 1994</i> (NSW).	Provide a copy of the Section 73 Certificate prior to the issue of an Occupation Certificate	ISPT	Taylor to certify their design and installations to satisfy S73 requirements
A35.	UTILITIES AND SERVICES Before the issue of the final Occupation Certificate the Applicant must demonstrate that the carrier has confirmed in writing they are satisfied that the fibre ready facilities are fit for purpose.	Provide written satisfaction from the carrier.	ISPT	
A38.	Works as Executed Plans Before the issue of the final Occupation Certificate, works-as-executed drawings signed by a registered surveyor demonstrating that the stormwater drainage and finished ground levels have been constructed as approved, must be submitted to the Principal Certifier.	Provide a copy of the WAE endorsed by the Registered Surveyor confirming compliance with this condition.	Taylor	To the extent of the design and construction of warehouse 2
B4.	Traffic and Access Roadworks and Access The Applicant must: (a) submit a separate application to CCC and pay the appropriate fees and charges for driveway crossings and footpaths, prior to the issue of a Construction Certificate for the relevant stage of works; (b) not commence construction of the driveways and footpaths detailed in condition B3, until the designs are approved by the relevant roads authority; and (c) construct the driveways and footpaths in accordance with the designs approved under condition B3, at no cost to the relevant roads authority.	Prior to the issue of an Occupation Certificate, provide certification from the roads authority that the works have been completed in accordance with this condition.	Taylor	To the extent of the design and construction of warehouse 2
B5.	Traffic and Access Parking The Applicant must provide sufficient parking facilities on-site in accordance with condition A7, including for heavy vehicles and for site personnel, to ensure that traffic associated with the development does not utilise public and residential streets or public parking facilities.	Prior to the issue of an Occupation Certificate, provide certification from the traffic engineer that the works have been completed in accordance with this condition.	Taylor	To the extent of the design and construction of warehouse 2
B6.	Traffic and Access Operating Conditions The Applicant must ensure: (a) internal roads, driveways and parking (including grades, turn paths, sight distance requirements, aisle widths, aisle lengths and parking bay dimensions) associated with the development are constructed and maintained in accordance with the latest version of <i>AS 2890.1:2004 Parking facilities Off-street car parking</i> (Standards Australia, 2004), <i>AS 2890.2:2002 Parking facilities Off-street commercial vehicle facilities</i> (Standards Australia, 2002) and <i>AS 2890.6:2009 and AS1428.1: 2009 Off Street Parking for People with Disabilities</i> (Standards Australia, 2009); (b) the swept path of the longest vehicle entering and exiting the site, as well as manoeuvrability through the site, is in accordance with the relevant AUSTROADS guidelines; (c) the development does not result in any vehicles queuing on the public road network; (d) all vehicles enter and leave the site in a forward direction; (e) heavy vehicles and bins associated with the development are not parked on local roads or footpaths in the vicinity of the site; (f) all vehicles are wholly contained on site before being required to stop; (g) all loading and unloading of materials is carried out on-site; (h) all trucks entering or leaving the site with loads have their loads covered and do not track dirt onto the public road network; and (i) the proposed turning areas in the car park are kept clear of any obstacles, including parked cars, at all times.	Prior to the issue of an Occupation Certificate, provide certification from the traffic engineer that the works have been completed in accordance with this condition.	Taylor	To the extent of the design and construction of warehouse 2
B7.	Traffic and Access Operational Traffic Management Plan Prior to the commencement of operation, the Applicant must prepare an Operational Traffic Management Plan for the development to the satisfaction of the Planning Secretary. The plan must form part of the OEMP required by condition C5 and must: (a) be prepared by a suitably qualified and experienced person(s), in consultation with CCC and BCC; (b) detail the numbers and frequency of vehicle movements, including light and heavy vehicles, size of heavy vehicles, routes and peak movements; (c) detail the measures to be implemented to ensure road safety and network efficiency throughout operation; (d) detail measures to minimise noise from development related traffic, including procedures for receiving and addressing complaints from the community about development related traffic and noise; (e) include a Driver Code of Conduct and induction training that includes procedures for: (i) ensuring drivers implement safe driving practices and adhere to designated routes including prioritising the use of arterial roads and avoiding residential streets; (ii) minimising road traffic noise, particularly during night-time operations; (iii) minimising impacts on the Foundation Place and Prospect Highway intersection, particularly during peak periods; (iv) ensuring drivers adhere to site-specific speed limits. (f) include a program to monitor the effectiveness of these measures; (g) recommend and implement additional traffic management measures where necessary, that have been developed in consultation with CCC and to the satisfaction of the Planning Secretary, to maintain road safety and network efficiency throughout operation; and (h) include a Work Place Travel Plan detailing measures to promote public transport usage and describing pedestrian and bicycle linkages and end of trip facilities available on site.	Prior to the issue of an Occupation Certificate, please provide a copy of the OTMP prepared in accordance with this condition, together with evidence of the Secretary's satisfaction of the plan.	ISPT	
B8.	Traffic and Access Operational Traffic Management Plan The Applicant must: (a) not commence operation until the Operational Traffic Management Plan required by condition B7 is approved by the Planning Secretary; and (b) implement the most recent version of the Operational Traffic Management Plan approved by the Planning Secretary for the duration of operation.	Prior to the issue of an Occupation Certificate, please provide a copy of the OTMP prepared in accordance with this condition, together with evidence of the Secretary's satisfaction of the plan.	ISPT	
B9.	Aboriginal and Historic Heritage Prospect Hill Heritage Item The Applicant must ensure no physical works are undertaken within the Prospect Hill Heritage Curtilage. <i>Note: This condition does not apply to retaining wall support at the boundary of the Prospect Hill Heritage Curtilage within the site.</i>	Prior to the issue of an Occupation Certificate a survey is to be provided to demonstrate compliance and the Registered Surveyors certificate is to make reference to compliance with this condition.	Taylor	Provide as-built survey for warehouse 2
B17.	Visual Amenity Built Form The Applicant shall ensure the finished facades and roofs of the warehouses and office buildings use neutral, recessive colours (incorporating two-tones if necessary), non-reflective materials and are designed to present an attractive façade to residential areas and to minimise glare. The designs must be developed in consultation with CCC and be approved by the Planning Secretary prior to commencement of construction of each warehouse and office building.	The architect is to be provide certification to the affect that the Construction Certificate documentation is consistent with the approved documentation under this condition.	Taylor	
B18.	Visual Amenity Built Form The Applicant shall ensure all retaining walls located on the boundary of the site are located fully within the site, are of masonry construction and have a maximum single height of 1.2 m.	Prior to the issue of an Occupation Certificate a survey is to be provided to demonstrate compliance and the Registered Surveyors certificate is to make reference to compliance with this condition.	ISPT	Condition to be amended
B19.	Visual Amenity Landscaping Prior to the commencement of construction, the Applicant must prepare a Landscape Management Plan for the development, to the satisfaction of the Planning Secretary. The plan must form part of the CEMP in accordance with condition C2. The plan must: (a) detail the species to be planted on-site, incorporating full mixed-strata Cumberland Plain – Moist Shale Woodland species as a vegetated screen to the Prospect Hill heritage curtilage and Clunies Ross Street; (b) describe the monitoring and maintenance measures, including a minimum 1 year maintenance establishment period, to manage landscaping works including the replacement of any plants and trees that have failed to establish; and (c) be consistent with the Applicant's management and mitigation measures in Appendix 2.	Prior to the issue of an Occupation Certificate the Landscape architect is to verify that the works have been completed in accordance with this condition.	Taylor	ISPT to provide landscape management plan, Taylor to obtain certification for installation
B20.	Visual Amenity Landscaping The Applicant must: (a) not commence construction until the Landscape Management Plan is approved by the Planning Secretary; (b) must implement the most recent version of the Landscape Management Plan approved by the Planning Secretary; and (c) maintain the landscaping and vegetation on the site in accordance with the approved Landscape Management Plan required by condition B19 for the life of the development.	Prior to the issue of an Occupation Certificate the Landscape architect is to verify that the works have been completed in accordance with this condition.	Taylor	ISPT to provide landscape management plan, Taylor to obtain certification for installation
B21.	Visual Amenity Lighting The Applicant must ensure the lighting associated with the development: (a) complies with the latest version of AS 4282-1997 - <i>Control of the obtrusive effects of outdoor lighting</i> (Standards Australia, 1997); and (b) is mounted, screened and directed in such a manner that it does not create a nuisance to surrounding properties or the public road network.	Prior to the issue of an Occupation Certificate, installation certification in accordance with this condition is to be provided by the Electrical Engineer.	Taylor	
B22.	Visual Amenity Signage, Fencing and Graffiti All signage and fencing must be erected in accordance with the development plans included in the RTS. <i>Note: This condition does not apply to temporary construction and safety related signage and fencing.</i>	Prior to the issue of an Occupation Certificate, installation certification in accordance with this condition is to be provided by the architect	Taylor	
B23.	Visual Amenity Signage, Fencing and Graffiti Permanent fencing between the site and the Prospect Hill heritage item must be 2.1 m high black rod top and bottom palisade fence (tubular steel).	Prior to the issue of an Occupation Certificate, installation certification in accordance with this condition is to be provided by the architect	ISPT	

B24.	Visual Amenity Signage, Fencing and Graffiti All fencing adjoining public roads must be powder-coated palisade fencing or finished with an anti-graffiti coating.	Prior to the issue of an Occupation Certificate, installation certification in accordance with this condition is to be provided by the architect	Taylor	
B25.	Visual Amenity Signage, Fencing and Graffiti The Applicant must remove all graffiti from the development within 48 hours of detection.	Prior to the issue of an Occupation Certificate, installation certification in accordance with this condition is to be provided by the architect	Taylor	
B30.	SOILS, WATER QUALITY AND HYDROLOGY Stormwater Management System Prior to the commencement of construction, the Applicant must demonstrate to the satisfaction of the Planning Secretary, that the stormwater management system for the development is: (a) designed by a suitably qualified and experienced person(s), in accordance with the concept design in the RTS and in consultation with CCC and BCC; (b) prepared in accordance with applicable Australian Standards; (c) prepared in accordance with the design requirements and water quality objectives of: (i) the Holroyd Development Control Plan 2013 - Part Q Pemulwuy Industrial Controls and CCC's On- Site Stormwater Detention Policy and Upper Paramatta River Catchment Trust's On-site Stormwater Detention Handbook for the part of development that drains to the Cumberland LGA; (ii) the Blacktown Development Control Plan 2015 – Part J Water Sensitive Urban Design and Integrated Water Cycle Management and WSUD developer handbook, to the satisfaction of BCC, for the part of development that drains to the Blacktown LGA; (c) designed in accordance with Australian Rainfall and Runoff (Engineers Australia, 2016) and Managing Urban Stormwater: Council Handbook (EPA, 1997) guidelines; (f) designed to include rainwater harvesting to reduce the non-potable water demand of the development by a minimum of 80%; and (g) inclusive of a maintenance and monitoring schedule to ensure the on-going efficiency of the stormwater management system.	Prior to the issue of an Occupation Certificate Civil Engineer is to verify that the works have been completed in accordance with this condition.	Taylor	To the extent of the design and construction of warehouse 2
B32.	SOILS, WATER QUALITY AND HYDROLOGY Flood Management All floor levels must be no lower than the 1% Annual Exceedance Probability flood plus 500 mm of freeboard.	Prior to the issue of an Occupation Certificate Civil Engineer is to verify that the works have been completed in accordance with this condition.	Taylor	To the extent of the design and construction of warehouse 2
B33.	SOILS, WATER QUALITY AND HYDROLOGY Flood Management Any structures below the 1% Annual Exceedance Probability plus 500 mm of freeboard must be constructed from flood compatible building components.	Prior to the issue of an Occupation Certificate Civil Engineer is to verify that the works have been completed in accordance with this condition.	Taylor	To the extent of the design and construction of warehouse 2
B34	NOISE Design Noise Validation Prior to the commencement of construction of any warehouse, the Applicant must prepare a noise validation report(s), to the satisfaction of the Planning Secretary. The report(s) must: (a) be prepared by a suitably qualified and experienced noise expert whose appointment has been endorsed by the Planning Secretary; (b) establish noise criteria for the nearest sensitive receivers in accordance with the EPA's Noise Policy for Industry 2017; (c) detail the design specifications for mechanical plant and equipment, ducting and fans, and any acoustic treatments to ensure compliance with the noise limits established in accordance with condition B34(b); and (d) recommend, prioritise and implement measures to improve noise controls on site, including but not limited to, programming mechanical plant to reduce night-time noise, implementing a driver code of conduct to reduce vehicle noise and ensuring roller doors are closed when there is no unloading.	Prior to the issue of an Occupation Certificate Acoustic Engineer is to verify that the works have been completed in accordance with this condition.	Taylor	To the extent of the design and construction of warehouse 2
B35.	NOISE Design Noise Validation The Applicant must: (a) not commence construction of any warehouse until the noise validation report required by condition B34 is approved by the Planning Secretary; and (b) implement the noise control recommendations of the noise validation report approved by the Planning Secretary, in a timeframe agreed with the Planning Secretary.	Prior to the issue of an Occupation Certificate Acoustic Engineer is to verify that the works have been completed in accordance with this condition.	Taylor	To the extent of the design and construction of warehouse 2
B50.	REMEDIATION Validation Report Within one month of the completion of the remediation works, the Applicant must submit a validation report/letter to the satisfaction of the Planning Secretary, which has been prepared, or reviewed and approved, by a consultant certified under either the Environment Institute of Australia and New Zealand's Certified Environmental Practitioner (Site Contamination) Scheme (CEnvP(SC)) or the Soil Science Australia Certified Professional Soil Scientist Contaminated Site Assessment and Management (CPSS CSAM) scheme.	Prior to the issue of each Occupation Certificate, provide to McKenzie Group evidence of compliance with this condition.	ISPT	
B53.	Bushfire Protection The Applicant must ensure: (a) the development complies with the relevant provisions of <i>Planning for Bushfire Protection 2019</i> ; (b) asset protection zones are provided in accordance with the recommendations of the Bushfire Protection Assessment: Industrial Development – 44 Clunies Ross Street, Prospect prepared by Eco Logical dated June 2020; (c) the relevant construction standards in <i>Australian Standard 3959: Construction of buildings in bushfire-prone areas, 2018</i> and <i>NASH Standard: Steel framed construction in bushfire areas, 2014</i> are complied with; (d) landscaping on site is maintained and managed in accordance with <i>Planning for Bushfire Protection 2019</i> .	Prior to the issue of an Occupation Certificate, the Bushfire consultant is to provide installation certification verifying that the works have been completed in accordance with this condition.	Taylor	To the extent of the design and construction of warehouse 2
B54.	Bushfire Protection Prior to the commencement of operation, the Applicant must prepare a Bushfire Emergency and Evacuation Management Plan for the development, consistent with the recommendations of the Bushfire Protection Assessment: Industrial Development – 44 Clunies Ross Street, Prospect prepared by Eco Logical dated June 2020.	Prior to the issue of an Occupation Certificate provide evidence that this plan has been completed in accordance with this condition.	Taylor	To the extent of the design and construction of warehouse 2
C5.	Operational Environmental Management Plan The Applicant must prepare an Operational Environmental Management Plan (OEMP) in accordance with the requirements of condition C1 and to the satisfaction of the Planning Secretary.	Provide a copy of the plan together with evidence of the Secretary's approval.	ISPT	
C6.	Operational Environmental Management Plan As part of the OEMP required under Condition C5 of this consent, the Applicant must include the following: (oo) describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the development; (pp) describe the procedures that would be implemented to: (i) keep the local community and relevant agencies informed about the operation and environmental performance of the development; (ii) receive, handle, respond to, and record complaints; (iii) resolve any disputes that may arise; (iv) respond to any non-compliance; (v) respond to emergencies; and (qq) include the Operational Traffic Management Plan (see Condition B7) (rr) procedures to report annually to bcc on all maintenance undertaken on the water quality devices, non-potable water usage and % non-potable water reuse for part of the site within the Blacktown LGA.	Provide a copy of the plan together with evidence of the Secretary's approval.	ISPT	
C7.	Operational Environmental Management Plan The Applicant must: (ss) not commence operation until the OEMP is approved by the Planning Secretary; and (tt) operate the development in accordance with the OEMP approved by the Planning Secretary (and as revised and approved by the Planning Secretary from time to time).	Provide a copy of the plan together with evidence of the Secretary's approval.	ISPT	
Appendix 2	URBAN DESIGN AND VISUAL - the proposal consists of varied built form to follow the sloping topography and reduce the perceived bulk of the warehouses - warehouses have been articulated to reduce the overall visual impact of the development on adjoining residential sites - the development has been designed to maintain view corridors from Prospect Hill by siting the height of the proposed warehouses below existing office building - the frontage to Clunies Ross Street will be landscaped to screen the development from adjoining residential properties the proposed warehouses will be setback a minimum of 3 metres from the property boundary, or 20 metres from the property boundary adjoining Clunies Ross Street to mitigate visual impacts and perceived bulk	Prior to the issue of the Occupation Certificate for each building, installation certification from the Architect and Landscape Architect is to be provided certifying that the works have been constructed in accordance with this condition	Taylor	To the extent of the design and construction of warehouse 2
Appendix 2	URBAN DESIGN AND VISUAL the proposed material palette assists in articulating the built form and minimizing the perceived scale of the development	Prior to the issue of the Occupation Certificate for each building, installation certification from the Architect and Landscape Architect is to be provided certifying that the works have been constructed in accordance with this condition	Taylor	To the extent of the design and construction of warehouse 2
Appendix 2	URBAN DESIGN AND VISUAL - implementation of the Landscape Strategy (Habit8) dated 10 November 2020 - the proposed landscape strategy along Clunies Ross St will also apply to the rear boundary perimeters of the site - detailed landscaping designs will be developed during the design and construction of each warehouse building and will be consistent with the landscape concept plan submitted with the EIS - submit detailed landscape plans with construction certificates as part of the detailed design - Landscaped areas will be maintained to ensure visual screening is provided, with the replacement of any trees which fail to establish - All signage for the proposed development will be designed and installed consistent with the requirements of SEPP 64 - An access premises report would be prepared during detailed design - prepare a demolition and hazardous materials management plan prior to commencing demolition, in consultation with Council - consult with Fire and Rescue NSW during detailed design of the fire and life safety systems	Prior to the issue of the Occupation Certificate for each building, installation certification from the Architect and Landscape Architect is to be provided certifying that the works have been constructed in accordance with this condition	Taylor	To the extent of the design and construction of warehouse 2
Appendix 2	HERITAGE - the proposed materials and colour scheme have been selected to respond appropriately to the site's heritage and reflect the sites history as an area of Aboriginal importance and as a quarry - the proposed design will incorporate deep recesses and dark shaded colors to acknowledge the carved rocks found in the quarry - the proposed diagonal chevrons pattern and industrial materials colour palette acknowledge those used in indigenous art	Prior to the issue of the Occupation Certificate for each building, installation certification from the Architect is to be provided certifying that the works have been constructed in accordance with this condition	Taylor	To the extent of the design and construction of warehouse 2
Appendix 2	HERITAGE - colour schemes will involve neutral colours and bold design elements will be minimised to ensure that the warehouses blend into the existing environment and surrounding landscape - existing established trees will be retained where possible and additional screening vegetation will be planted to mitigate visual impacts when viewed from the nearby heritage item. - detailed design of the warehouse, particularly warehouse 1 and warehouse 6 will seek to minimise the potential visual obstruction between Prospect Hill and Prospect Reservoir, St Bartholomew's Church and the Blue Mountains - a photographic archival recording (PAR) of Prospect Hill (SHR #01622) and its significant view lines will be undertaken prior to construction. A copy of the PAR will be lodged with Cumberland Council and Heritage NSW – DPC - install heavy duty 2.1 m high fencing along Prospect Hill curtilage boundary	Architect is to be provided certifying that the works have been constructed in accordance with this condition	Taylor	To the extent of the design and construction of warehouse 2

Appendix 2	TRAFFIC AND TRANSPORT - a green travel plan has been included as part of the development to provide guidance and targets for sustainable transport options - separate access is provided for light and heavy vehicles to provide for safer access and to avoid conflicts - the Applicant will consult with Council during detailed design to ensure driveway access conforms with the relevant requirements - sustainable travel is encouraged in the form of car sharing, public transport and active transport which will also act to mitigate potential congestion - a construction traffic management plan will be prepared and submitted to Council separate to this DA, in response to any future conditions of consent - proposed signage and line-marking would be referred to the Civil Engineer and an accompanying Traffic Management Plan (TMP) will be prepared for the Council traffic committees to review and approve - street lighting will be reviewed during detailed design in consultation with Council	Prior to the issue of an OC, compliance with points 1 and 4 are to be demonstrated.	Taylor	To the extent of the design and construction of warehouse 2
Appendix 2	SOILS AND WATER - additional storage is proposed to be introduced to the on-site system to enable discharge of the portion of the site within the Blacktown LGA to discharge directly to the Basin to avoid overflow - Dams Safety NSW and Council will be consulted during detailed design of the amended storage to ensure the ongoing safety and stability of the storage and storage structures is maintained - complete the design of the regional basin embankment and construct the embankment prior to any reduction in the water storage capacity of the wetland adjacent to Warehouse 7 - all buildings are sited 0.5m above the 1 in 100 year ARI design flood level of the regional detention basin - rainwater harvesting will be provided as part of the development to encourage reuse and recycling - requirements of both Council DCPs have been met regarding works in and around flooding areas - stormwater detention measures (via regional basin) have been included to manage pre and post development runoff - overland flow paths to manage runoff in large storm events have been made including achieving at least 0.5m freeboard to building levels from the flow paths - design the kerb inlet pit at the site access from Foundation Place in accordance with Council's recommendations and in consultation with Council	The Civil Engineer is to certify that the works, as constructed meet compliance with the requirement of this condition.	Taylor	To the extent of the design and construction of warehouse 2
Appendix 2	SOILS AND WATER - to assist in maintaining embankment stability, permanent batter slopes in clay will be no steeper than 3 horizontal to 1 vertical while temporary batters will be no steeper than 2 horizontal to 1 vertical - an erosion and sediment control plan will be prepared prior to commencing construction - detailed design of stormwater drainage to be undertaken in consultation with the relevant Council and in accordance with the Civil Engineering report (Costin Roe) dated 9 December 2020 - detailed designs of the earthworks, infrastructure and Warehouses 1 and 7 in proximity of the Sydney Water pipeline will be undertaken in consultation with Sydney Water	The Civil Engineer is to certify that the works, as constructed meet compliance with the requirement of this condition.	Taylor	To the extent of the design and construction of warehouse 2
Appendix 2	NOISE AND VIBRATION - all plant and equipment are to be maintained such that they are in good working order - a register of complaints is to be recorded in the event of complaints being received, including location, time of complaint, nature of complaint and actions resulting from the complaint - if required a noise level measurement of the offending plant item generating complaints is to be conducted and noise mitigations undertaken to reduce noise levels to within the Noise Management levels in the event magnitude of noise levels is found to be above suitable levels - the use of percussive and concrete sawing should be undertaken behind a closed façade when possible - the use of high noise generating equipment including hydraulic hammers, rock cutters or the like should not be undertaken prior to 8am Monday to Friday or 8:30am Saturdays - the loading of trucks should be conducted such that there is not a requirement to stack truck on the roadways adjacent to residential receivers - a construction and vibration management plan to be prepared to include mitigation measures to be implemented to minimise construction and manage all construction impacts - all future operational plant and equipment are to be selected and acoustically treated to ensure the noise levels at all surrounding receivers comply with noise emission criteria detailed within the NVIA - noise modelling will be updated based on detailed designs of the warehouses, with noise monitoring to verify and ensure compliance with the NVIA noise trigger levels - implement the recommendations in section 4.1.1 and 4.1.2 of the acoustic peer review (Acoustic Dynamics) dated 2 December 2020	Prior to the issue of an Occupation Certificate, certification from the Acoustic Engineer verifying design compliance with this condition is to be provided.	Taylor	To the extent of the design and construction of warehouse 2
Appendix 2	CONTAMINATION implement the remedial action plan (RAP) prepared by JBS&G (dated 30 September 2020) prior to and during earthworks associated with the development	Prior to the issue of an Occupation Certificate, provide confirmation from JBS&G that works have been completed in accordance with the RAP/	ISPT	
Appendix 2	BUSHFIRE AND INCIDENT MANAGEMENT - asset protection zones to be established around the site and managed in perpetuity - landscaping to be established and managed in accordance with <i>Planning for Bush Fire Protection</i> (RFS 2019) - design and construction measures in accordance with AS 3959 or the National Association of Steel-framed Housing standard as modified by Section 7.5 of RFS 2019 - detailed design to ensure access and services (water, gas, electricity) meet the requirements of RFS 2019 - emergency and evacuation planning	Prior to the issue of the Occupation Certificate the Bushfire consultant is to verify the works have been completed in accordance with the requirements of this condition.	Taylor	To the extent of the design and construction of warehouse 2
Appendix 2	GREENHOUSE GAS AND ENERGY EFFICIENCY - improved building form and thermal envelopment building fabric including increased insulation with high specification glazing will provide for energy efficiency - energy efficient HVAC systems - LED lighting with illumination power densities equal to or less than the maximum set out in the <i>National Construction Code</i> (2019 NCC) - lighting controls such as sensors and timers for external lighting and lighting in infrequently used areas have been incorporated into the design - hot water to be provided through either high efficiency heat pump systems or solar boosted systems - all windows, doors, exhaust fans and pipe penetrations will be constructed to minimise air leakage as required by the provisions of the 2019 NCC	Prior to the issue of the Occupation Certificate the ESD consultant is to verify the works have been completed in accordance with the requirements of this condition.	Taylor	To the extent of the design and construction of warehouse 2
Appendix 2	ECOLOGICAL SUSTAINABLE DEVELOPMENT - oversize rainwater tanks and employ drought resistant landscaping to reduce the overall water load required for irrigation to mitigate impacts reduced average rainfall - downpipes to be capable of withstanding high volumes of water flowing over roofs, with eaves gutters designed for 1 in 20 year storm event to mitigate extreme rainfall events. Surface drainage and box gutters designed for 1 in 100 year storm events - air conditions designed to handle higher specified conditions than required in Western Sydney to accommodate for potential increased average annual temperature - space for adding insulation on the facades of the warehouse will be incorporated into the design to help reduce the thermal heat gain for workers - skylights will be insulated and/or well ventilated to reduce the amount of heat transfer into the buildings to accommodate for increased average annual temperature - policies for workers going home on extreme heat days will be considered to being implemented to mitigate extreme temperature events - maximised landscaped areas and the use of green walls have been employed in the development to mitigate the impacts of urban heat island effect - solar panels to be high quality with tempered glass to cope with potential hail in extreme storm events - batteries or alternative back up power generation to run essentials in the event of a prolonged power outage	Prior to the issue of the Occupation Certificate the ESD consultant is to verify the works have been completed in accordance with the requirements of this condition.	Taylor	To the extent of the design and construction of warehouse 2
On-going				
A25.	Operation of Plant and Equipment All plant and equipment used on site, or to monitor the performance of the development, must be: (a) maintained in a proper and efficient condition; and (b) operated in a proper and efficient manner.	Note	Taylor	To the extent of the design and construction of warehouse 2 for the duration of the defects liability period

APPENDIX 9: TRAFFIC MANAGEMENT PLAN

2021

Construction Traffic Management Plan

Bunzl



Prepared by: Aleksandra Moisejenkova
0498 282 282
Commercial TC Pty Ltd

Prepared For: Taylor



DOCUMENT VERSION: 1.0

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1.0 Project Details

1.1 Proposed Works

The Bunzl Project involves the construction of a new industrial warehouse, redevelopment on internal road Sydney system, parking and landscaping. The project is anticipated to run for approximately 6 Months.

1.2 Site Location

The site is located at 44 Clunies Ross Street, Prospect. The site is located within both Cumberland Council and Blacktown City Council local government areas and is referred to Lot 10 DP 1022044 and Lot 107 DP 1028208.



1.3 Purpose

The purpose of this Construction Traffic Management Plan (CTMP) is to show how Taylor proposes to manage safety, regarding traffic, pedestrians, and cyclists, during the construction of a new Warehouse to meet the requirements of Council and Roads and Maritime Services.

This project is a SSD project and the TMP has been completed in accordance with condition B1 of SSD 10399.

1.4 Objectives

The key objectives of this CTMP are:

- Carry out construction activity in accordance with approved hours of works.
- To satisfy the key legal requirements related to Traffic, Transport and Access to site.
- So that information can be applied to the planning and implementation of traffic control plans.
- To maximise the value and outcomes of traffic monitoring activities.
- To ensure no injuries or property damage to persons or their property on or surrounding the project.
- To actively monitor traffic impacts related to the demolition works on surrounding area.
- Safe movement of vehicular and pedestrian traffic adjacent to site.
- Protection of workers on the site and from passing traffic.
- Provision for access to the property for delivery of materials and movement of work vehicles located within the limits of the project.
- Design, construction, maintenance and removal of any necessary temporary roadways and detours.
- Installation of temporary signs, road markings, lighting and safety barriers.
- To minimise delays to traffic and consider the needs of all road users; and
- To ensure compliance with relevant specifications and the RMS's – 'Traffic Control at Work Sites' Handbook Version 5.

1.5 Disclaimer

Signage, hoarding and traffic controls would be provided in accordance with Australian Standards and the RMS' Manual for Traffic Control at Work Sites. Signage details, the control of pedestrians within and around the site, and the control of construction vehicles to and from the site would be the responsibility of the site contractor.

Signage must be erected with the standard distances as specified in the RMS Traffic Control at Work Sites Manual. Due diligence should be exercised when erecting traffic signs within the vicinity of the site. Traffic controllers must position signs that are clearly visible to oncoming drivers providing adequate sight distance.

The CTMP and the TCP designed are considered appropriate to provide for traffic and pedestrian activities. It may be updated when more is known regarding the construction methodology.

The CTMP should be regularly monitored and reviewed to ensure it is effective and to take into account any changes at the workplace. All personnel should be familiar with the CTMP in conjunction with the conditions imposed by the conditions of consent and receive sufficient information, instruction, training and supervision.

2.0 Staged Works

2.1 Works Activities

The Project is the construction of new warehouse with the following activities to be performed during the project.

- ✓ Steel Placement
- ✓ Concrete placement
- ✓ Unload and install precast
- ✓ Warehouse fitout
- ✓ Office Fitout
- ✓ Landscaping
- ✓ Construction and maintenance of any existing or new internal roads.

2.2 Site Work Hours

Construction works or subdivision works that are carried out in accordance with an approved consent that involve the use of heavy vehicles, heavy machinery and other equipment likely to cause offence to adjoining properties shall be restricted to the following hours in accordance with the NSW Environment Protection Authority Noise Control.

Mondays to Fridays	7:00am – 6:00pm
Saturdays	8:00am – 1:00pm

No work is permitted on Sundays and Public Holidays.

Other construction works carried out inside a building / tenancy and do not involve the use of equipment that emits noise are not restricted to the construction hours stated above.

2.3 Works / Loading Zones

No Works / Loading Zone shall be required for the demolition as all vehicles associated with the works will be loaded/unloaded within the site.

2.4 Arrival and Departure of Vehicles

Works are subjected to the submission application and approval from Cumberland Council as Clunnies Ross Street fall under the Cumberland LGA. Adequate advanced warning signage will be placed on approach to the site. This shall inform other drivers and pedestrians of upcoming works on their route. Authorised Traffic Control shall be on-site ensuring controlled entry and exit in and out of site that does not affect traffic flow or endanger pedestrians, by giving way to pedestrians, cyclists, and vehicles before trucks enter and exit site. Ingress and egress shall be via forward movement only with assistance of Traffic Control when needed.

2.4.1 Arrival to Site

All vehicles needing to access site are to proceed site access gate along Clunies Ross Street, Prospect. Trucks are to arrive to site via routes supplied to them in this CTMP. The full routes can be found in sections:

- **2.4.1.A Truck Arrival Route**

1. All Vehicles arriving to proceed to the Site access Gates as shown in Appendix A – Site Layout. They are to travel in a southern direction along Clunies Ross Street, then turning right into the premises.
2. There will be no queuing or marshalling permitted around the site, including on any public roads and surrounding street around the site. Transport companies must liaise with TAYLOR's Management to ensure no queueing along local roads.



2.4.1.A Truck Arrival Route

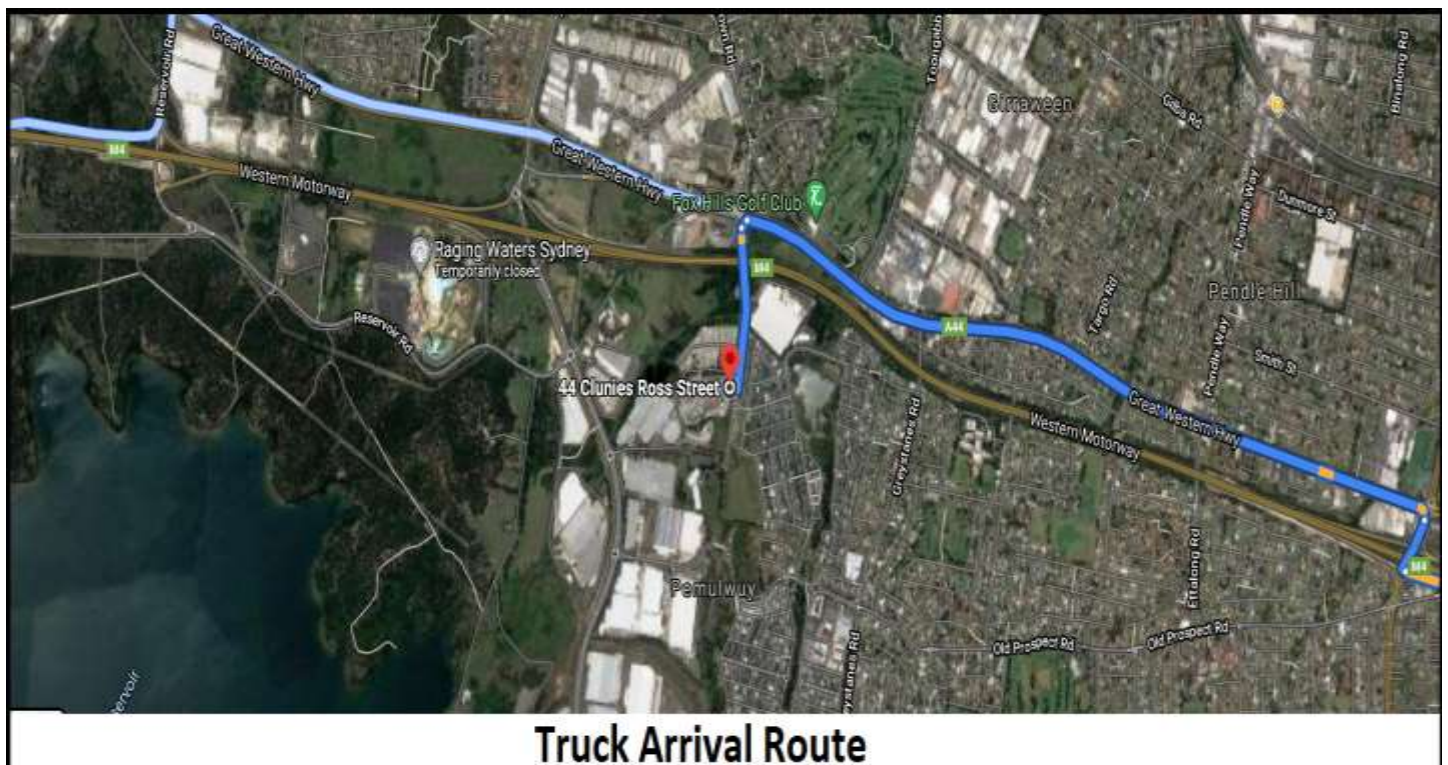
Truck route for all vehicles to site via Western Motorway

For vehicles travelling west along the M4 Motorway

- Take the Cumberland Hwy/A28 exit towards Smithfield/Liverpool/Wentworthville and travel **650m**.
- Use the right 2 lanes to turn right onto Cumberland Hwy/Jersey Rd/A28 and travel **230m**.
- Turn left onto Great Western Hwy/A44 and travel **3.6km**.
- Use the left 2 lanes to turn left towards Clunies Ross St and travel **44m**.
- Slight left to stay on Clunies Ross St and travel **600m**.
- Site Access Gates will be on the right.

For vehicles travelling east along the M4 Motorway

- Take the exit onto Reservoir Rd towards Blacktown/Parklea and travel 1.1km.
- Merge onto Reservoir Rd and travel 450m.
- Turn right onto Great Western Hwy/A44 and travel 3.0km.
- Turn right onto Clunies Ross St and travel 650m.
- Site Access Gates will be on the right.



2.4.2 Departure from Site

All truck departures from the site access gates to exit site in a forward direction. Traffic controllers are NOT to stop traffic on public streets to allow trucks to enter or leave the site/work zone. Departing trucks will be loaded to their prescribed weight limits. Trucks are to leave site via the routes supplied to them in this CTMP. The full routes can be found in sections:

- 2.4.2.A Truck Departure Route

1. Vehicles will leave site in a forward direction with the assistance of Authorized Traffic Controllers. Under no circumstances will vehicles be permitted to leave site in reverse.
2. Taylor site team shall be on hand to ensure that trucks are washed down on site prior to exiting, keeping dust tracking onto the road to a minimum.
3. All vehicles to turn left onto Clunies Ross Street from site access gate and proceed via truck route provided.



2.4.2.A Truck Departure Route

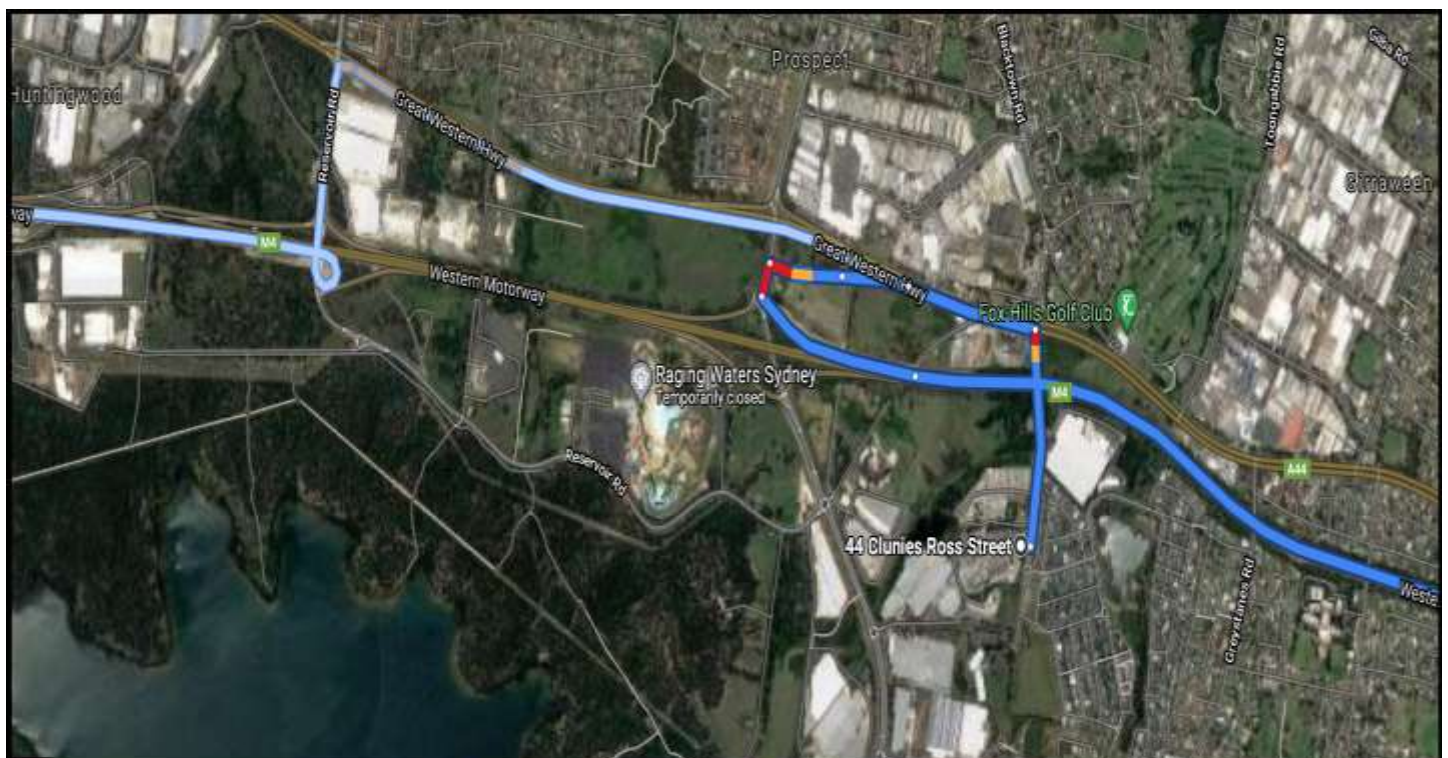
Truck route for all vehicles leaving site via Western Motorway

For vehicles needing to travel East along the M4 Motorway

- Leave site access gate and turn left to head north on Clunies Ross St and travel **600m**.
- Turn left onto Great Western Hwy/A44 and travel **550m**.
- Use the left 2 lanes to take the exit towards Prospect Hwy/ M4/Penrith/Sydney and travel **280m**.
- Continue onto Ponds Rd and travel **300m**.
- Turn left onto Prospect Hwy and travel **98m**.
- At the roundabout, take the 1st exit onto the M4 ramp and travel to desired destination.

For vehicles needing to travel west along the M4 Motorway

- Leave site access gate and turn left to head north on Clunies Ross St and travel 600m.
- Turn left onto Great Western Hwy/A44 and travel 2.9km.
- Turn left onto Reservoir Rd and travel 650m.
- Slight left to merge onto M4 to travel to desired location



Truck Departure Route

All truck movements shall be carried out taking into consideration the surrounding building and roads. Adequate measures to reduce severity/seriousness of incidents shall be put in place to improve conditions.

- All exiting trucks shall be:
- Loaded to their prescribed weight limits.
- All trucks will be covered by tarpaulin or like prior to leaving the site as required.
- All vehicles leaving the site must be free of mud or any other debris. Drivers of vehicles that exit the site must check their vehicles are clean prior to exiting. It is the responsibility of each driver to confirm their vehicles are clean prior to exiting site.

Taylor shall ensure that:

- No vehicle shall make deliveries outside Council's approved DA site hours
- All delivery vehicles will arrive at pre-arranged times to site.
- No queuing or marshalling of trucks shall occur for this site. Any vehicles that arrive to site that are unable to be accommodated as outlined in this CTMP shall be sent back to their origin.
- All vehicles arriving to the construction site shall strictly adhere to the speed limit.
- This CTMP and all relevant plans shall be given to all transport companies associated with the site and expected to pass relevant information to its personnel and truck drivers arriving to site.

The vehicle to be used during the project along with days and truck movements is shown in diagram below.

Activity	Estimate Duration	Vehicle Movements Per Day			
		SVR	MRV	HRV	AV
1.Steel	15-20 days	0	0	0	3
2.Pre-cast	5 days	0	4	0	3
3.Concrete	20 days	0	20-30	0	0

Construction vehicles likely to be generated by the proposed construction activities include:

- All trucks will be unloaded from within the site via site access gates.

At this stage the use truck and dog, oversized / over mass vehicles is not foreseen. Nevertheless, if it is required at a later stage, approval for each occasion would be sought from the relevant approval authority.

2.5 Construction Vehicles and Plant

All loading and unloading of materials shall be done within site. Trucks are not to queue on the walkway or on public roads; traffic controllers shall manage the ingress and egress. All drivers of trucks and construction vehicles shall be issued this CTMP and shall be made aware of the truck and vehicle routes.

All plant and heavy machinery will be placed or parked within the site. No plant or machinery shall be placed on the street. No vehicles to be left on local roads unless approval has been obtained for a one-off occasion from Council.

2.6 Fencing, Barriers, and Hoardings

The site shall be contained with construction fencing (as shown in Appendix A – Site Layout).

FNC-1 chainmesh fencing and FNC-2 Palicade fencing to be used for this project, locations are shown in Appendix A – Site Layout.

The following details are to be displayed in a maximum of 2 signs to be erected on the site:

- The name of the Principal Certifying Authority, their address and telephone number
- The name of the person in charge of the work site and telephone number at which that person may be contacted during work hours
- That unauthorised entry to the work site is prohibited
- The designated waste storage area must be covered when the site is unattended
- All sediment and erosion control measures shall be fully maintained until completion of the construction phase.

Signage but no more than 2 signs stating the above details are to be erected:

- At the commencement of, and for the full length of the, construction works onsite
- In a prominent position on the work site and in a manner that can be easily read by pedestrian traffic
- All construction signage is to be removed when the Occupation Certificate has been issued for the development.

2.7 Removal and Storage of Rubbish or Spoil

All industrial rubbish bins will be stored on site and in a position for easy access for removal by trucks. All removal trucks will have the load covered by tarpaulin or other means to secure load. All excavations and backfilling shall be executed safely and in accordance with the relevant Australian Standards.

All waste materials stored onsite are to be contained within a designated area such as a waste bay or bin to ensure that no waste materials are allowed to enter the stormwater system or neighbouring properties. The designated waste storage areas shall provide at least two waste bays / bins so as to allow for the separation of wastes and are to be fully enclosed when the site is unattended.

All excavated material and other wastes generated as a result of the development are to be reused, recycled or disposed of in accordance with the approved waste management plan.

Waste materials not specified in the approved waste management plan are to be disposed of at a lawful waste management facility. Where the disposal location or waste materials have not been identified in the waste management plan, details shall be provided to the Certifying Authority as part of the waste management documentation accompanying the Construction Certificate application. All receipts and supporting documentation must be retained in order to verify lawful disposal of materials and are to be made available to Council on request.

Vehicle wash bays are to be installed and connected to the sewer in accordance with Sydney Water's requirements. The Section 73 Certificate issued by Sydney Water for the discharge of vehicle wash bay wastewater from the premises shall be submitted to the Principal Certifying Authority before the wash bay can be installed.

Dust suppression techniques are to be employed during construction to reduce any potential nuisances to surrounding properties. Mud and soil from vehicular movements to and from the site must not be deposited on the road.

No fill material shall be imported to the site until such time as a Validation Certificate (with a copy of any report forming the basis for the validation) for the fill material has been submitted to, considered and approved by Council. The Validation Certificate shall:

- State the legal property description of the fill material source site
- Be prepared by an appropriately qualified person with consideration of all relevant guidelines (e.g. EPA, ANZECC, NH&MRC), standards, planning instruments and legislation
- Clearly indicate the legal property description of the fill material source site
- Provide details of the volume of fill material to be used in the filling operations
- Provide a classification of the fill material to be imported to the site in accordance with the Environment Protection Authority's "Environmental Guidelines: Assessment, Classification & Management of Non Liquid Wastes" 1997
- Based on the fill classification, determine whether the fill material is suitable for its intended purpose and land use and whether the fill material will or will not pose an unacceptable risk to human health or the environment.

2.8 Driver Code of Conduct

This drivers Code of Conduct for Heavy Vehicles is to ensure that drivers adhere to the designated transport routes, and outline procedures to ensure that drivers implement safe driving practices, particularly when entering/exiting truck routes.

All Employees and contractors are made aware that responsible driving and adhering to the code is a condition of employment at the project, 44 Clunies Ross St, Prospect. All drivers are trained in the Code of Conduct and audits of the compliance with the Code are conducted. All drivers reported or found to be acting in a manner contrary to the Code will be subject to disciplinary action.

General Requirements

Heavy vehicles drivers hauling from site must:

- Have undertaken a site induction carried out by a qualified person under the direction of Taylor.
- Hold a valid driver's licence for the class of vehicle being operated.
- Operate the vehicle in a safe manner with and external to the site.
- Comply with the direction of authorised site personnel when within the site.

Heavy Vehicle Speed

Drivers are to observe the posted speed limits on all public roads all drivers are advised to proceed not and from site, with speed adjusted appropriately to suit the road environment and prevailing weather conditions to comply with the Australian Road Rules. Vehicles driving into Gates on Clunies Ross Street, site speed is no more than 10km/h while being escorted around site.

Heavy Vehicle Control

To minimise the impact of noise from truck transport, the following controls apply to truck operators at the project.

- Compression brakes not to be used in the vicinity of the Site
- Tailgates must be locked and secured to avoid noise and spillage
- Always observe the posted speed on site and the local road network
- No tail gaiting is permitted – a 3 second gap is to be observed always
- Equipment to be used must be fit for purpose
- Drivers to obey the loading, dispatch and product transportation times

Load Coverings

Loose material on the road surface has the potential to cause road crashes and vehicles damage. All loaded vehicles entering or leaving the site are effectively covered for the duration of the trip. The load cover must be removed upon arrive at the site. All care is to be taken to ensure that all loose debris from the vehicle body and wheels is removed prior to leaving the site and again after unloading. Drivers must ensure that following the tipping that the tailgate is locked before leaving the site. Taylor management is to monitor loose material on the side of haulage route from the site and take appropriate action regularly.

Cleanliness

All loaded vehicles are to be inspected prior to leaving the site for cleanliness. Any materials that could fall on the road should be removed prior to leaving the site by driving over a rumble plate. In case of wet weather, tyres to be hosed before leaving site.

Vehicle Arrival and Departures

Taylor Management to plan trucks arrival and departure to avoid peak periods. To alleviate public concern and increase road safety, heavy vehicles leaving the site should be separated and it is important for all drivers to be aware of the requirement to avoid convoys leaving the site.

Monitoring Driver Code of Conduct

Taylor management to set up an Audit Process to monitor drivers code of conduct. This process should include but not limited to:

- Complaints register from management, site staff and general public to be maintained.
- Regular inspection of vehicles conditions when arriving and leaving site.
- Management to ensure trucks must drive over rumble plate to exit site to ensure loose debris is removed from tyres.
- All drivers arriving to site must be inducted into this CTMP and be aware of Procedures to follow.
- All drivers are to sign in at site by confirming they are aware of the Drivers Code of Conduct and must follow it to avoid disciplinary action.

3.0 IMPACTS AND MANAGEMENT

3.1 Road/Lane Closures

For roadworks to be performed along Clunies Ross Street, application shall be lodged and approved by Cumberland Council and for roadworks needed to be performed on Fountain Place, applications shall be lodged and approved by Blacktown City Council (being the Roads Authorities for any works required on each public road) and for any additional works that are undertaken on the public roadway or footpath.

These works may include but are not limited to the following:

- Utility or Service upgrades
- Vehicular crossings (including kerb reinstatement of redundant vehicular crossings)
- Concrete footpaths and or cycleways
- Road opening for utilities and stormwater (including stormwater connection to Council owned drainage)
- Road occupancy or road closures
- The placement of hoardings, structures, containers, waster skips, signs etc. in the road reserve
- Temporary construction access

All works shall be carried out in accordance with the Roads Act approval, the development consent, including the stamped approved plans, and Blacktown City Council's and Cumberland Council's specifications, guidelines and best engineering practice.

At this stage, no roadworks shall be undertaken on state roads or within 100m of traffic signals for this project. If the need occurs to undertake such works, an application for a Road Occupancy Licence will be made to NSW Transport Management Centre. ("Roadworks" in this section does not include "Loading / Work Zone").

3.2 Pedestrians and Cyclists

Pedestrian movements adjacent to the site along Clunies Ross Street shall be maintained. Traffic controllers shall be utilised when required when pedestrian access is temporarily affected.

Only authorised personnel will be permitted within the building site unless accompanied by site management, if not inducted to the site. Whilst within the confines of the building site, all personnel will attire in correct PPE to ensure that they are visible to moving traffic.

3.3 Public Transport

The works shall not impact the local public transport network. While Clunies Ross Street is part of the STA buses route (Bus 800), the proposed activities shall not impact any existing public transport infrastructure.

No other public transport is affected by these works.

3.4 Parking

While a limited amount of onsite car parking will be available for construction personnel, workers will be encouraged to use public transport when travelling to and from the site.

The number of construction personnel on site per day will vary depending upon the stage of development. However, it is estimated that in the order of a maximum 150 construction personnel could be on site at any one time during peak activity.

It is recommended that an onsite tool drop off and storage facility is included in the construction site management such that construction personnel can drop tools to the site by vehicle and then store them on site for the duration of works, thus enabling them to travel on public transport without needing to transport heavy tools each day.

3.5 Emergency Vehicles

The construction activities of the proposed project shall not adversely impact on the accessibility or operation of emergency services for access to the site or surrounding properties as all existing roads and individual property accesses would remain open and accessible during the construction activities associated with the site works.

If the case, any emergency vehicle required for site will be given priority and when practicable, assisted by Authorised Traffic Control.

3.6 Access to Properties and Noise

The works shall not affect access to properties. Regarding noise impacts, Taylor will strive to keep all noise associated with the works is kept to a minimum. Likewise, no noise will be made outside the approved hours for site.

Prior to the commencement of the site preparation works, it is recommended that Taylor inform the local community regarding the traffic control and management arrangements that will be implemented and the timing / duration of works. It is envisaged that the requirements for community consultation will be set out in the conditions of consent.

Community information should include contact details for the site manager and / or an appropriate contact person.

Dust suppression techniques are to be employed during construction to reduce any potential nuisances to surrounding properties. Mud and soil from vehicular movements to and from the site must not be deposited on the road.

4.0 TRAFFIC CONTROL PLAN (TCP)

A TCP is defined in the RMS's TCWS Manual as a diagram showing signs and devices arranged to warn traffic and guide it around, past or, if necessary, through a work site or temporary hazard. The proposed TCPs are located in Appendix B.

4.1 Objectives

The provision of a safe environment for road users and works staff is a key objective, and the TCP has been developed with the aim to:

- Warn drivers of changes to the usual road conditions;
- Inform drivers about changed conditions;
- Guide drivers through the work site, and
- Ensure the safety for workers, motorists, pedestrians and cyclists

4.2 Context

The TCP's prepared were based on the principles and measures outlined in this CTMP, which details the road safety and traffic principles, strategies and measures that will be applied to enable Taylor to fulfil the obligations and the requirements of relevant authorities.

The TCP's were designed to address the following issues where applicable:

- Use of traffic control devices;
- Speed limit requirements;
- Provision for pedestrian traffic and their safety;
- Provision for cyclists and their safety;
- Provision for vehicle and plant movements
- Parking restrictions and parking facilities
- Provision for trade vehicles and plant movements
- Informing all site personnel of any high-risk areas; and
- Providing adequate signage within the Construction Site for access and egress of vehicles.

4.3 Traffic Control

Only certified traffic controllers will undertake this activity. The location of traffic controllers has been identified in the TCP. Traffic controllers are not to stop traffic on public streets to allow for construction vehicles to enter or leave site. Traffic controllers must wait for a suitable gap in traffic and pedestrian movement before assisting construction vehicles entering or leaving site. Vehicles already on the road and pedestrians on footpath have right-of-way.

4.4 TCP Monitoring and Reporting

Specific measures for TCP reporting will be taken. These will include, but not be limited to the following:

- The traffic control plan shall be numbered, and a register maintained as a part of the CTMP;
- All traffic control devices and traffic control arrangements will be inspected daily to ensure the adequacy of such devices and arrangements as per the TCWS Manual;
- Traffic Management records and plans shall be maintained;
- Taylor may be required to provide records in the following event instances:
 - That a breach imposed by the NSW Police Service, on a motorist who does not comply with a regulatory sign is challenged in courts; or
 - In the event of an accident is alleged to have occurred when temporary traffic control is in place.

4.5 Standards / Accreditation

The TCP was prepared by Aleksandra Moisejenkova, Prepare a Work Zone Traffic Management Plan, licence number: 51855538.

4.6 Traffic Control Signs and Devices

Traffic control devices are a crucial tool for influencing safety for road users, in particular where temporary traffic controls are implemented at work sites. During construction of this project, Taylor will assess the warrant for traffic control devices in accordance with the relevant guidelines to make sure that all the traffic control devices are installed and maintained correctly.

Providing road users with timely, clear and consistent messaging is essential. Taylor will ensure all signs and devices installed during the construction of this project are:

- Assessed for use in accordance with the appropriate warrants;
- Manufactured in accordance with the requirements of the Australian Standards;
- Installed in accordance with the relevant guides and standards;
- Not contradictory to existing signs or markings;
- When unwarranted, covered or removed and
- Regularly maintained and repaired / replaced when damaged.

All signposting installed throughout the project will comply with the requirements outlined in the RMS's – TCWS Manual, AUSTRROADS Guide to Traffic Engineering Practice, Part 8 – Traffic Control Devices and the relevant parts of Australian Standard 1742.3.

During the course of works it may be necessary to review the Traffic Management Plan and or Traffic Control Plans. All required changes shall be reported and discussed with the Author of CTMP and TCPs. Revisions will be noted below once approved.

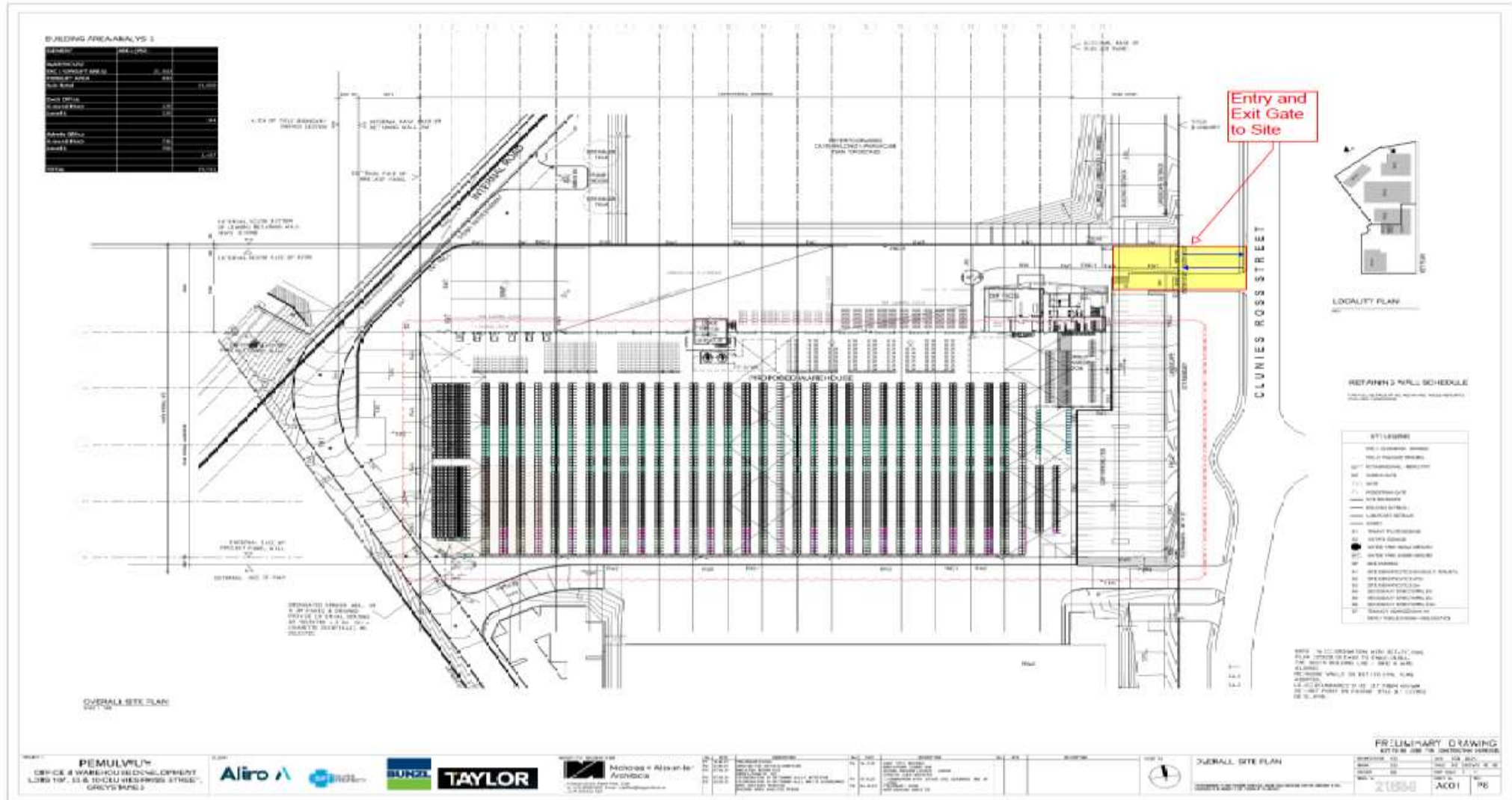
Traffic control signage must conform to AS1743 and AS 1742.2 class "B". Signage mounts and positioning is to be carried out in accordance to Sections 3.2.3, 3.2.4, 3.2.5, 3.2.6 and 3.2.7 of the RTA Traffic Control At Worksites Manual Version 5, 2018 (T.C.A.W.S, RTA)

Signage is to be maintained during course of project as per section 3.5.3 of T.C.A.W.S, RTA.

Any activities not covered in the scope of the CTMP, TCPs shall require a separate on-site Risk Assessment, choice of, or development of an appropriate Traffic Control Plan that is to be submitted to the appropriate authorities for approval before use.

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Appendix A – Site Layout





Appendix B – Traffic Control Plan (TCP)

 Drawn By : Aleksandra Moisejenkova Licence Num: 0051855538	DATE: 06/09/2021	TRAFFIC CONTROL PLAN		This traffic control plan is drawn to AS1742.3 and the R.T.A. workable manual for traffic control at work sites. It is to be implemented as such. This traffic plan is a GUIDE ONLY and can be altered on site but must be signed by an R.T.A. accredited person. Approach speeds = up to 40km/hr any right class 1 signs to be used all personnel to wear H. Vis Clothing vehicles to park within the work site R.T.A. certified traffic controllers to be employed.								
	LOCATION Taylor - 44 Clunies Ross Street, Prospect	NAME: Aleksandra Moisejenkova Licence No: 0051855538	CUSTOMER BUNZL Warehouse - Vehicle Movement Plan									
This plan is designed to show how Taylor manage trucks in and out of site at 44 Clunies Ross Street, Prospect. All trucks will enter by turning right into site from Clunies Ross Street. All trucks will be loaded/unloaded within site. Truck will then turn around in the area provided and leave site by turning left onto Clunies Ross Street. Authorised traffic controller to be on site on heavy volume days to ensure pedestrian, cyclist and other road users safety at all times												
		Legend  Construction site  Site Access Gates  Truck Route										
AMENDED BY CERT # TIME DATE												
Date: 12/09/2021 Author: Aleksandra Moisejenkova Project: Bunzl - 44 Clunies Ross Street, Prospect Comments: Drawn: Aleksandra Moisejenkova PWTMP: 0051855538 Macquarie Street, Sydney - Stop Slow - 304 Rth												
DRAWING NOT TO SCALE IF THIS TCP IS IMPLEMENTED BY A TRAFFIC CONTROL COMPANY OTHER THAN COMMERCIAL TC, COMMERCIAL TC BEARS NO LIABILITY FOR THE SET UP AND ACCURACY OF THIS TCP. RMS Accredited Traffic Controllers will adhere to this TCP according to TCW Manual V8 and relevant SWMS. Signs and Devices are to be placed in accordance with this TCP. Modification may be made by persons holding a RMS 'Design and Audit' Qualification only. All signs and devices used must comply with Australian Standards AS1742.3 This document is copyright property of Commercial TC PTY LTD. This drawing shall only be used for the purpose for which it is intended.		TABLE 4.2 VALUE OF DIMENSION D <table border="1"> <thead> <tr> <th>Speed of traffic km/h</th> <th>Dimension D m</th> </tr> </thead> <tbody> <tr> <td>45 or less</td> <td>0 to 5</td> </tr> <tr> <td>46 to 55</td> <td>15</td> </tr> <tr> <td>56 to 65</td> <td>45</td> </tr> </tbody> </table>			Speed of traffic km/h	Dimension D m	45 or less	0 to 5	46 to 55	15	56 to 65	45
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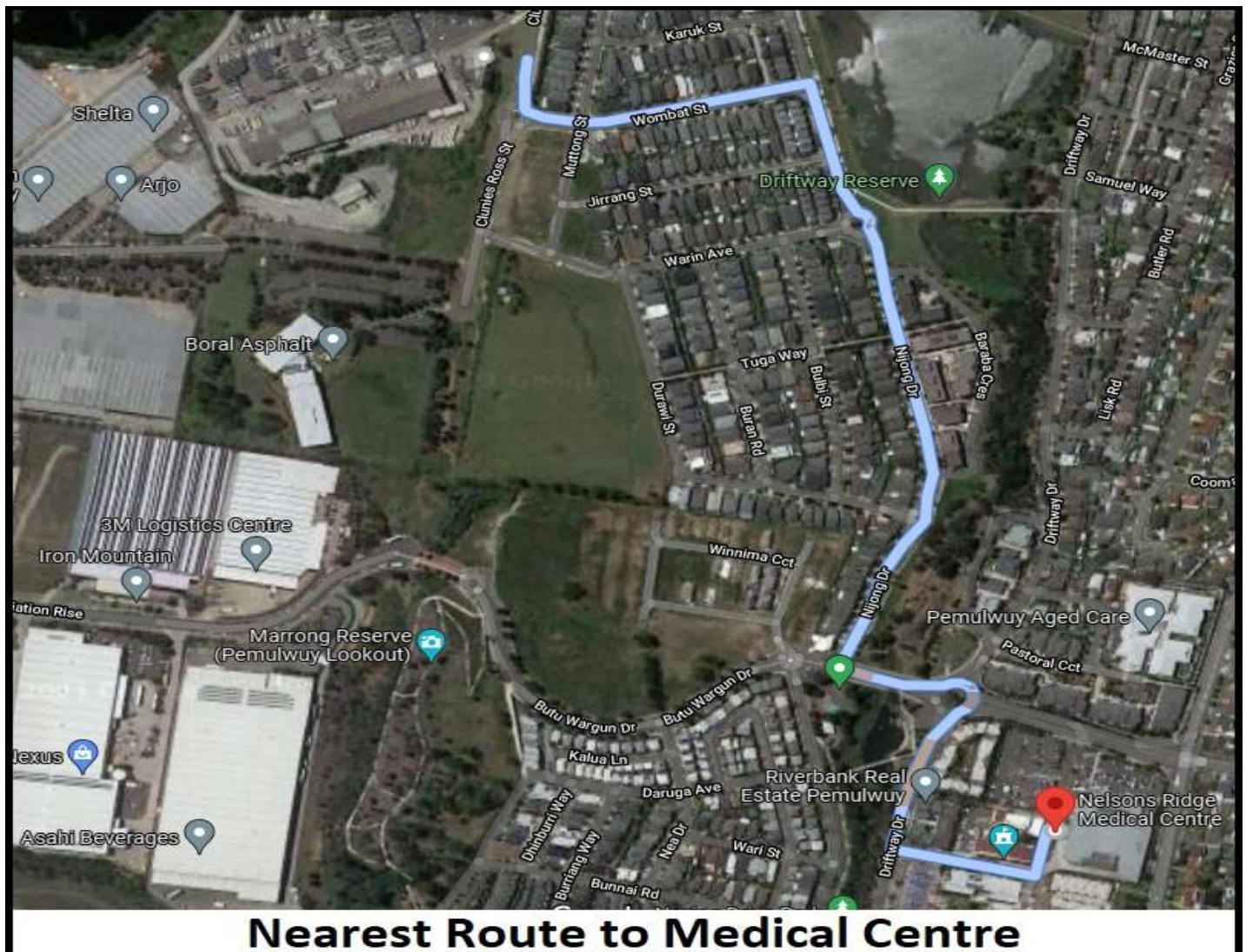
Appendix C - Nearest Route to Medical Centre

Nelsons Ridge Medical Centre, Suite 1, Butu-Wargun Drive, Pemulwuy Marketplace, Pemulwuy NSW 2145.

Main Telephone: (02) 96310090
Mondays to Fridays: 8am - 3pm
Weekends: 9am – 2pm

Directions:

- Leave site through site access gates and head south on Clunies Ross St and travel **55m**.
- At the roundabout, take the 1st exit onto Wombat St and travel **270m**.
- Turn right onto Nijong Dr, go through 2 roundabouts and travel **700m**.
- Turn left onto Butu Wargun Dr and travel **99m**.
- At the roundabout, take the 3rd exit onto Driftway Dr St and travel **55m**.
- Turn left onto Newport St and travel **130m**.
- Turn left onto White Ln and travel **54m**.
- **Nelsons Ridge Medical Centre will be on your right**
- Suite 1, Butu-Wargun Drive, Pemulwuy Marketplace, Pemulwuy NSW 2145



Appendix D - Nearest Route to Hospital

Blacktown Hospital, 18 Blacktown Rd, Blacktown NSW 2148.

Main Telephone: (02) 98818000

- 24 hours seven (7) days a week

Directions:

- Leave site through site access gates and head north on Clunies Ross St and travel **600m**.
- Continue onto Blacktown Rd and travel **270m**.
- At the roundabout, take the 1st exit and stay on Blacktown Rd, go through 1 roundabout and travel **700m**.
- At the roundabout, take the 1st exit and stay on Blacktown Rd and travel **800m**.
- Use the right 2 lanes to turn right onto Blacktown Rd/Prospect Hwy and travel **2.0km**.
- Turn left onto Blacktown Hospital Loop Rd and travel **350m**.
- Turn right and travel 51m.
- **Blacktown Hospital will be on your left**
- 18 Blacktown Rd, Blacktown NSW 2148



APPENDIX 10: CEMP ESTATE REFERENCED DOCUMENTS

10a: Heritage Unexpected Finds Protocol, prepared by Artefact (18 June 2021)

10b: Contamination Unexpected Finds Protocol, extract from Redial Action Plan prepared by JBS&G (30 September 2020)

10c: Community Communication Strategy, prepared by Urbis

10d: Construction Noise & Vibration Plan, prepared by SLR Consulting (24 September 2021)

10e: Landscape Management plan, prepared by Habit8 (17 September 2021)



Unexpected Finds Protocol - Archaeological items

Project: Prospect Logistics Estate, Prospect and Pemulwuy, Blacktown / Cumberland LGA	Date: 18 June 2021
	Author: Michael Lever (Heritage Consultant)

Project Background

This document refers to proposed development by Aliro Management Pty Ltd of the Prospect Logistics Estate at Clunies Ross Street, Prospect, Lot 10 DP 1022044, Lot 107 DP 1028208, Lot 63 DP752051, Lot 216 DP1030744, and Lot 601 DP 1047403 in the Blacktown and Cumberland Local Government Areas (LGAs). The proposed development has been deemed a State Significant Development (SSD) – Application number SSD 10399. The Planning Secretary's Environmental Assessment Requirements (SEARs) were issued on 16 December 2019.

This document provides an Unexpected Finds Protocol (UFP), as required by the draft Conditions of Consent for the proposal as provided to Artefact Heritage by the proponent.

Table 1: Unexpected Finds Protocol

Condition #	Condition	Action
B14	If any item or object of Aboriginal heritage significance is identified on site:	
	a) all work in the immediate vicinity of the suspected Aboriginal item or object must cease immediately	
	b) a 10 m wide buffer area around the suspected item or object must be cordoned off; and	Refer to UFP
	c) Heritage NSW must be contacted immediately	
B.15	Work in the immediate vicinity of the Aboriginal item or object may only recommence in accordance with the provisions of Part 6 of the National Parks and Wildlife Act 1974 (NSW)	Refer to the Office of Environment and Heritage 2011 Guide to Investigating, assessing and reporting on Aboriginal cultural heritage in NSW: Part 6 National Parks and Wildlife Act 1974

Condition #	Condition	Action
B.16	If any archaeological relics are during the course of works then all works must cease immediately in that area. Unexpected finds must be evaluated and recorded in accordance the requirements of Heritage NSW	The significance of unexpected finds will be assessed against the seven heritage criteria as outlined in the NSW Heritage Manual, including historical, associative, aesthetic or technical, social, research potential, rarity, and representativeness criterion. The aim of assessing significance is to identify if an unexpected find is of local or state significance. The assessment will guide recommendations for further management, approvals, and mitigations measures that may be required prior to commencement

This UFP should be implemented if any potentially significant Aboriginal object or Non-Aboriginal archaeological remains are identified during proposed groundworks.

Examples of types of unexpected archaeological finds include:

- Potential Aboriginal flaked items
- Concentrations of artefacts – this may take the form of a number of artefacts concentrated in a single location, typically associated with a dark silty soil deposit. Artefacts may include complete or broken glass bottles and ceramic items, animal bone and other domestic items.
- Structural remains i.e. brick or stone footings, areas of buried paving.

NSW Heritage Legislation and Protection

Three Acts afford protection to cultural heritage and archaeology in NSW:

- National Parks and Wildlife Act 1974 (NPW Act)
- Heritage Act 1977 (Heritage Act)
- Environmental Planning and Assessment Act 1979 (EP&A Act).

Aboriginal sites are protected by all three acts. It is an offence to knowingly or unknowingly damage or disturb an Aboriginal site without the appropriate approval. Fines and prison sentences may apply.

Historical archaeological sites in NSW are protected by the Heritage Act. Sections 139-145 of the Heritage Act 1977 prevent the excavation or disturbance of land known or likely to contain Historic Archaeological Relics, unless in accordance with an excavation permit or with the conditions of approval for a State Significant Development. If an archaeological site or object is damaged or disturbed prosecution may result.

Unexpected Finds Protocols

Staff involved with ground disturbing works must be made aware of the potential for archaeological remains to be present. Clear lines of communication must be established for the reporting of any such finds and for procedures to be rapidly implemented. Unexpected Finds Procedures must be made clear to all staff. Images to assist with the identification of potential finds are provided at the end of this document.

Human Remains

In the event that skeletal remains are encountered which may be human remains, the following steps must be followed:

- NSW Police must be informed immediately.
- A qualified heritage consultant must be engaged to assist in assessment of the find.
- The remains must not be moved at all.
- The remains may not be left unattended prior to the arrival of NSW Police.
- All ground disturbing work within 20m of the remains must cease.
- The remains must be screened from view and must be enclosed in fencing or bollards.
- No access to the enclosed area of the remains is to be permitted other than to those staff who are required for essential management or as directed by NSW Police.
- If it emerges that the remains are ancestral Aboriginal remains, then the Local Aboriginal Lands Council must be notified.

Aboriginal archaeological material

In the event that suspected Aboriginal archaeological material is identified, the following steps must be followed:

- All ground disturbing work within 10m of the remains must cease.
- The find must not be moved.
- The find must be appropriately protected from potential damage.
- A qualified heritage consultant must be engaged to assist in assessment of the find to:
 - Assist in assessment of the find.
 - Provide management recommendations, which may include the need for further assessment and archaeological testing.

Historical archaeological material

This is likely to take the form of historical footings or infrastructure and associated historical relics. In the event that such items are identified the following steps must be followed:

- All ground disturbing work within 20m of the remains must cease.
- The finds must not be moved.
- The find must be appropriately protected from potential damage.

- A qualified heritage consultant must be engaged to:
 - Assist in assessment of the find.
 - Provide management recommendations, which may include the need for further assessment and archaeological testing.

Artefact Heritage contact

Artefact Heritage, 02 9518 8411, admin@artefact.net.au

Figure 1: Aboriginal stone tools



Figure 2: Historical artefacts



Figure 3: Historical footings



Figure 4: Historical footings



8. Contingency Plan

A review of the proposed contamination-related aspects of the works associated with development of the site has been undertaken and has identified a number of potential risks, outlined in the following sections that required the development of contingencies to ensure that the objectives of this RAP are met.

The Contingency Plan is required to be part of the REMP, as described in **Section 9.1**, below, and part of the Work Health and Safety Plan (WHSP), as described in **Section 9.2**.

8.1 Unexpected Finds

The possibility exists for hazards that have not been identified to date to be present within fill materials or underlying pavements/building on the site. The nature of hazards which may be present, and which may be discovered at the site are generally detectable through visual or olfactory means, for example:

- The presence of significant aggregates of friable asbestos materials (visible) as opposed to minor occurrences of fibre bundles in soil; and/or
- Excessive quantities of construction/demolition waste that represents an aesthetics issue beyond that reported to date (visible); and/or
- Hydrocarbon/chemical impacted materials beyond that reported to date (visible/odorous); and/or
- Drums, waste pits (visible); and/or
- Oily Ash and/or oily slag contaminated soils/fill materials (visible/odorous); and/or
- Tarry like impacted soil/fill material (visible/odorous); and/or
- Potential chlorinated hydrocarbon impact (sweet odour soils).

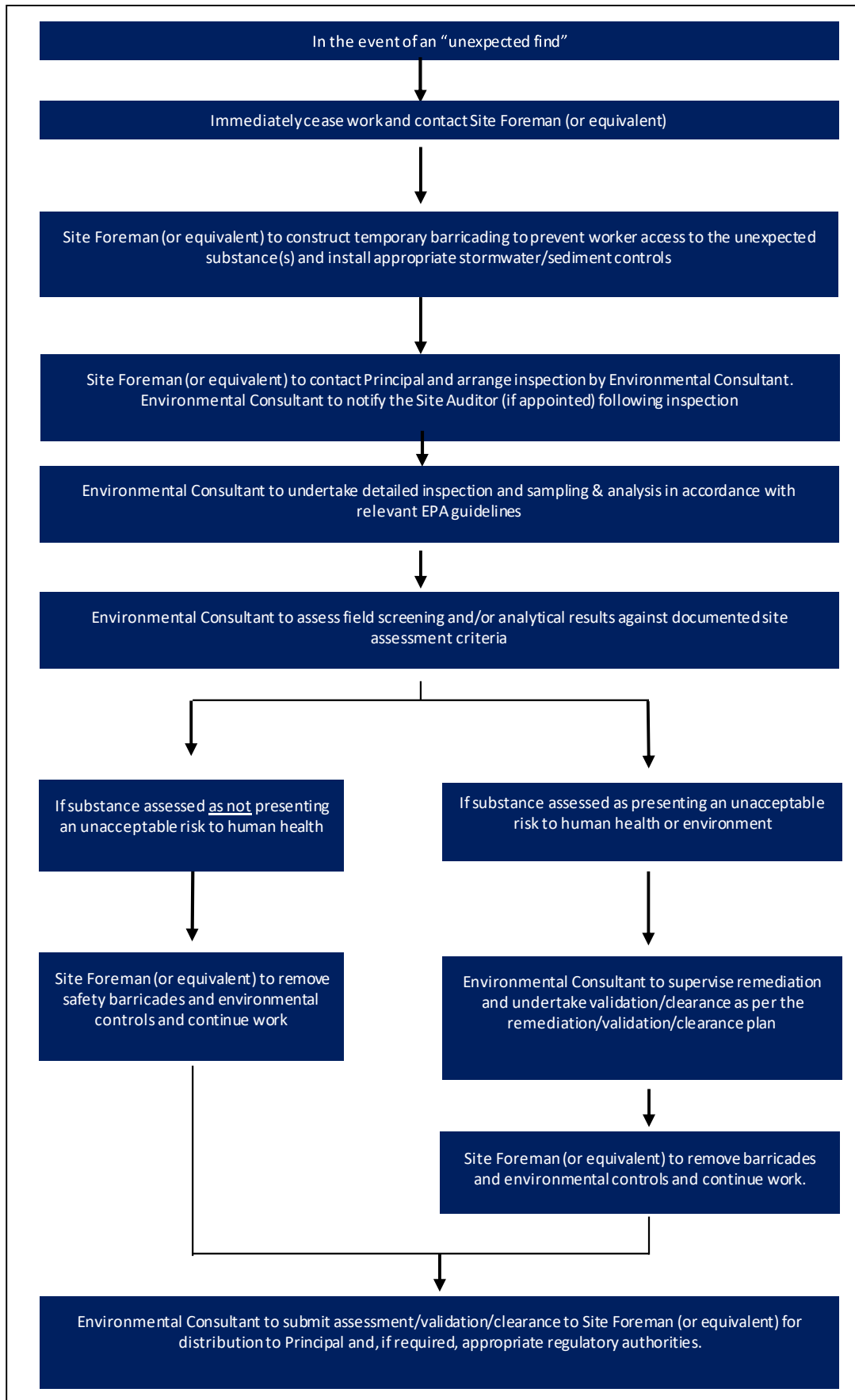
As a precautionary measure to ensure the protection of the workforce and surrounding community, should any of the abovementioned substances (or any other unexpected potentially hazardous substance) be identified, the procedure summarised in **FlowChart 8.1** is to be followed.

An enlarged version of the Unexpected Finds Protocol, suitable for use on the site, should be posted in the Site Office and referred to during the site-specific induction by the Principal Contractor.

The sampling strategy for each “unexpected find” shall be designed by the environmental consultant. The strategy will, however, be aimed at determining the nature of the substance – that is, is it hazardous and, if so, is it at concentrations which pose an unacceptable risk to human health or the environment.

The sampling frequency of the identified substance/materials shall meet the minimum requirements outlined in EPA (1995) in addition to those outlined in **Section 7**.

Flowchart 8.1 – Unexpected Finds Protocol



8.1.1 Identification of Additional Underground Storage Tanks

There is the potential that additional USTs may be encountered during demolition of the pavements or subsequent earthworks. In the event of such an occurrence, the Unexpected Finds Protocol (**Flow Chart 8.1**) will be implemented and remediation and validation actions defined with consideration to the requirements for known USTs as documented in **Sections 6** and **7**.

8.1.2 Identification of Oily or Tarry Materials

In the event that oily/tarry materials are encountered, the provisions outlined in the Unexpected Finds Protocol will be implemented, comprising inspection, testing and appropriate action as advised by the Environmental Consultant (**Section 8.1**).

Any suspected oily/tarry materials must be segregated from other excavated materials and placed in a designated area with appropriate odour and sediment controls until such time as appropriate assessment is completed and a methodology is confirmed for their appropriate management. In the event that the oily/tarry materials do not meet the site validation criteria, then they shall be stored in a secure area for later treatment or classified and removed from the site for treatment and/or disposal at an appropriately licensed facility.

8.1.3 Identification of Petroleum Hydrocarbon Impact

In the event that petroleum hydrocarbon impacted materials are encountered in areas where none are anticipated, the provisions outlined in the Unexpected Finds Protocol will be implemented, comprising inspection, testing and appropriate action as advised by the Environmental Consultant (**Section 8.1**).

Any suspected petroleum hydrocarbon impacted materials must be segregated from other excavated materials and placed in a designated area with appropriate odour and sediment controls until such time as appropriate assessment is completed and a methodology is confirmed for their appropriate management. In the event that the materials do not meet the site validation criteria, then they shall be stored in a secure area for later treatment or classified and removed from the site for treatment and/or disposal at an appropriately licensed facility.

8.1.4 Material Storage Breach

In the event that any materials storage containment controls are breached and stockpiled materials classified as asbestos contaminated soil or otherwise have escaped (or have the potential to escape), then the management controls shall be rectified and investigations undertaken to review the adequacy of the controls and any improvements implemented. The REMP (**Section 9**) shall include a documented process for identifying and responding to such incidents.

8.1.5 Emissions Complaints

Due to the nature of the activities and type of contaminants identified within the site, there is a potential for complaints to be received from members of the public and/or occupants of surrounding properties relating to environmental emissions including:

- Odour emissions arising from handling of malodorous soil;
- Noise and vibration arising from excavation, piling and other works;
- Dust emissions arising from excavation, material handling and placement; and
- Visibly impacted water quality in surface water discharge from the site.

Monitoring of all environmental emissions shall be undertaken during the works as detailed in the REMP (discussed in **Section 9**) and appropriate actions taken to further control emissions following receipt of a complaint. The REMP shall contain provision for contingency actions where excessive

emissions occur, however it is anticipated that one or more of the following actions will be considered:

- Increased application of odour screening/masking chemicals on odorous materials;
- Disturbance of soils during meteorologically favourable periods only; and/or
- Covering of impacted soils.

The URBIS logo consists of the word "URBIS" in a bold, white, sans-serif font. To the right of the text is a white square frame that is partially open on the right side. A white line extends from the top of this frame, runs horizontally across the top of the page, and then turns vertically down the left side of the frame.

URBIS

COMMUNITY COMMUNICATION STRATEGY

Elevation at Greystanes

Prepared for
ISPT
July 2021

URBIS STAFF RESPONSIBLE FOR THIS REPORT WERE:

Associate Director	Stephanie Potter
Senior Consultant	Erin Riley
Project Code	P0016828
Report Number	Final [revised 9/08/2021]

Urbis acknowledges the important contribution that Aboriginal and Torres Strait Islander people make in creating a strong and vibrant Australian society.

We acknowledge, in each of our offices, the Traditional Owners on whose land we stand.

All information supplied to Urbis in order to conduct this research has been treated in the strictest confidence. It shall only be used in this context and shall not be made available to third parties without client authorisation. Confidential information has been stored securely and data provided by respondents, as well as their identity, has been treated in the strictest confidence and all assurance given to respondents have been and shall be fulfilled.

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1. INTRODUCTION

This Community Communication Strategy (the strategy) has been prepared in line with the requirements of Development Consent Condition A26 for Elevation at Greystanes (SSD-10399). This strategy has been prepared by Urbis Pty Ltd, a communications consultant engaged by ISPT, the landowner.

This strategy will be implemented and maintained throughout construction of the project by Aliro on behalf of ISPT. This strategy life cycle covers a period no later than two weeks before the commencement of earthworks and for a period of 6 months following construction. This strategy will be updated by ISPT for operation of the development.

ISPT developed this document as the framework to guide all community communication recommendations provided in the Operational Traffic Management Plan, Construction Noise and Vibration Management Plan and Construction Environmental Management Plan and the Operational Environmental Management Plan.

1.1. CROSS-REFERENCE OF CONSENT REQUIREMENTS

Table 1 identifies the reference/s within this strategy as they relate to the requirements under Development Consent Condition A26 – Community Communication Strategy.

Table 1 Consent conditions and report references

Consent condition Reference	Consent condition	Report reference
A26.	The Applicant must prepare a Community Communication Strategy for the development to the satisfaction of the Planning Secretary.	This document
A26.	The Community Communication Strategy is to provide mechanisms to facilitate communication between the Applicant, CCC and BCC and the community (including adjoining affected landowners and businesses), during the earthworks, construction and operation of the development. The Community Communication Strategy must:	This document
A26. (a)	Assign a central contact person to keep the nearby sensitive receivers regularly informed throughout the development	Section 5.2
A26. (b)	Detail the mechanisms for regularly consulting with the local community throughout the development, such as holding regular meetings to inform the community of the progress of the development and report on environmental monitoring results	Section 5.1
A26. (c)	Detail a procedure for consulting with nearby sensitive receivers to schedule high noise generating works, vibration intensive activities or manage traffic disruptions;	Section 5.3

Consent condition Reference	Consent condition	Report reference
A26. (d)	Include contact details for key community groups, relevant regulatory authorities, Registered Aboriginal Parties and other interested stakeholders; and	Section 4
A26. (e)	Include a complaints procedure for recording, responding to and managing complaints, including: (i) email, toll-free telephone number and postal addresses for receiving complaints; (ii) advertising the contact details for complaints before and during operation, via the local newspaper and through on-site signage; (iii) a complaints register to record the date, time and nature of the complaint, details of the complainant and any actions taken to address the complaint; and (iv) procedures for the resolution of any disputes that may arise during the course of the development.	Section 5.4

2. PROJECT OVERVIEW

Elevation at Greystanes (the project) involves the redevelopment of the industrial and logistics estate at 44 Clunies Ross Street, Prospect, NSW (the site). This project will create a high-quality logistics and industrial estate, including seven warehouses with ancillary offices, car parking, landscaping and associated facilities.

2.1. THE SITE

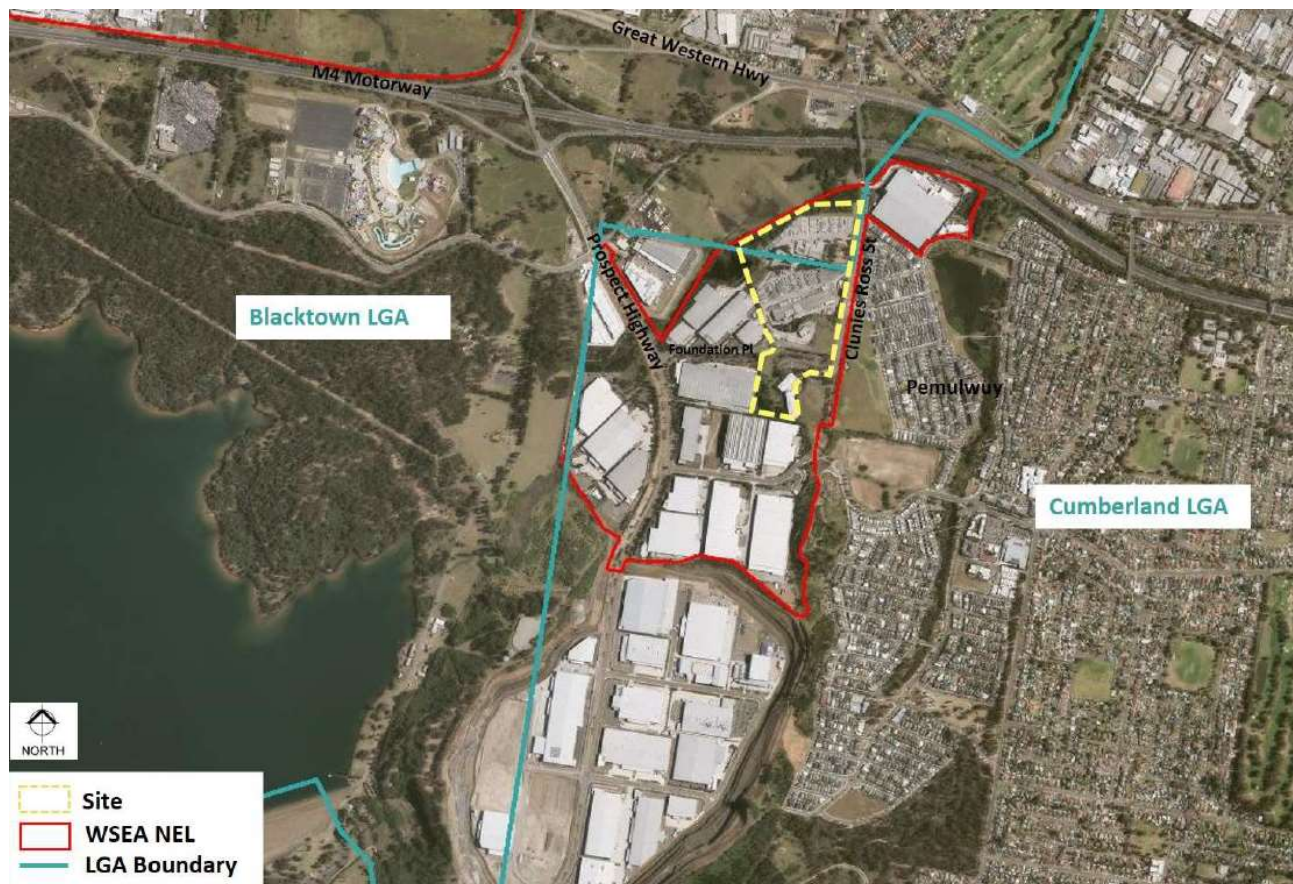
The site is located at 44 Clunies Ross Street, Prospect, NSW (as indicatively shown in Figure 1).

The site is approximately 7 km west of the Parramatta CBD and approximately 26 km west of the Sydney CBD. The site encompasses three adjoining industrial properties located in the Blacktown and Cumberland Local Government Areas.

The site is located within Precinct 10 - Greystanes Northern Employment Lands under the Western Sydney Employment Area (WSEA), State Environment Planning Policy (SEPP). Elevation at Greystanes has the potential to play an important role as a major local employment hub in both NSW Government and the Cumberland Council planning strategies, including the Cumberland Council Employment and Innovation Lands Strategy.

The precinct is shown in red and the project construction site is shown in yellow.

Figure 1 Aerial photograph of the site



Source: Keylan Consulting PTY LTD

2.2. THE SURROUNDING COMMUNITY

The site is generally surrounded by industrial facilities, with residential properties located behind a noise wall on the opposite side of Clunies Ross Street.

Immediately surrounding the site are:

- **North:** undeveloped stormwater retarding basin, including Girraween Creek, then the M4 Motorway.
- **East:** Clunies Ross Street, with residential properties located behind a noise wall on the eastern side of the street.
- **South west:** industrial facilities: 3M Logistics Centre and Iron Mountain.
- **South east:** Prospect Hill Heritage Area
- **West:** industrial estate with tenants including Arjo and Allied Moving Services.

2.3. THE PROJECT

Elevation at Greystanes (the project) comprises the construction of seven industrial warehouses, associated offices, hardstand (a paved area for parking heavy vehicles), car parking areas and a small local cafe on a terraced landform. The key features of the proposal are:

- Seven warehouses, ranging in size between 5,349-21,782m² and 13.7-25 metres in height
- Ancillary offices to support the operation of the warehouses between 376-1,400m²
- Associated parking provisions
- 146m² café
- Internal estate road

3. PEOPLE TO BE CONSULTED DURING THE DEVELOPMENT

Elevation at Greystanes is immediately surrounded by industrial facilities, with residential properties located behind a noise wall on the eastern side of Clunies Ross Street. It will be important to make sure near neighbours are well informed about construction activity and impacts.

The sensitive receivers, relevant regulatory authorities and other interested stakeholders who will be informed and consulted are outlined in Table 2. The table also outlines communication mechanisms and potential stakeholder concerns. Section 5 describes the mechanisms in detail. This table will be reviewed and updated as needed by Aliro on behalf of ISPT.

Table 2 Stakeholders, activities, and concerns

People to be consulted (Stakeholders)	Communication activities (see Section 5)	Concerns
Individual households and businesses within a 500m radius (See Appendix B) of the construction zone including: Residents located on: - Clunies Ross St - Muttong St - Wombat St - Burraga Way	Enquires and feedback response Issues resolution and mediation of disputes Incident management Construction updates as required. Construction signage.	During Environmental Impact Statement (EIS) consultation, local residents and businesses identified the following concerns: Traffic management Parking impacts and obstruction of neighbourhood driveways View impacts and privacy Impacts of construction activities including noise, dust and vibrations

People to be consulted (Stakeholders)	Communication activities (see Section 5)	Concerns
- Jirrang St - Warin Ave - Durawi St - Buran Rd - Nijong Dr - Baraba Cres - Winnima Cct Businesses - Mortarless Masonry - Boral Asphalt - Arjo - Hitachi Construction Machinery - Shelta - Prospect Refrigerated Transport - Americold - Prospect		
Regulatory agencies and utilities: - Blacktown City Council - Cumberland City Council - New South Wales Environment Protection Authority - Endeavour Energy - Heritage NSW – Aboriginal cultural heritage (ACH) - Heritage NSW - Transport for NSW - Sydney Water - Fire + Rescue NSW	Contact is covered by relevant approvals.	Traffic management Visual impacts Construction activities Environmental impacts

People to be consulted (Stakeholders)	Communication activities (see Section 5)	Concerns
- The Prospect Heritage Trust - Registered Aboriginal Parties - Jemena		
Department of Planning, Industry and Environment	Contact is covered by relevant approvals.	Regulatory oversight of Development Consent for SSD-10399.

4. STAKEHOLDER CONTACTS

Table 3 Stakeholder contacts

Stakeholder	Contact details
Department of Planning, Industry and Environment	Deana Burns Senior Environmental Assessment Officer T +612 9274 6453 E deana.burn@planning.nsw.gov.au
Department of Planning, Industry and Environment – Biodiversity and Conservation Division	Bronwyn Smith Senior Conservation Planning Officer T +612 9873 8604 E Bronwyn.smith@environment.nsw.gov.au
Blacktown City Council	Sara Smith Senior Town Planner T (02) 9839 6262
Cumberland City Council	William Attard Senior Development Planner T (02) 8757 9924
New South Wales Environment Protection Authority	Claire McQueeney Operations Officer T (02) 8837 6393 E Claire.mcqueeney@epa.nsw.gov.au.
Endeavour Energy	Cornelis Duba Development Application Specialist Network Environment & Assessment E cornelis.duba@endevourenergy.com.au
Heritage NSW – Aboriginal cultural heritage (ACH)	Sam Gibbins Heritage NSW T (02) 9895 6586 E Samantha.gibbins@environment.nsw.gov.au
Heritage NSW	Tim Olliver Senior Heritage Assessment Officer T (02) 4927 3203 E timothy.oliver@environment.nsw.gov.au
Transport for NSW	Vic Naidu A/Senior Land Use Planner Land Use Planning and Development E development.sydney@rms.nsw.gov.au
Sydney Water	Growth Planning Team T 13 20 92 E urbangrowth@sydneywater.com.au

Stakeholder	Contact details
Fire + Rescue NSW	Brendan Hurley Team Leader Infrastructure Liaison Brendan.m.hurley@fire.nsw.gov.au 0438 601 582
The Prospect Heritage Trust	Jill Finch President T 02 9621 8225
Registered Aboriginal Parties	▪ A1 Indigenous Services – Carolyn Hickey ▪ Amanda Hickey Cultural Services (AHCS) – Amanda Hickey ▪ Aragung Aboriginal Cultural Heritage Site Assessments – James Eastwood ▪ Barking Owl Aboriginal Corporation – Jody Kulakowski – T +61 426 242 015 – E barkingowlcorp@gmail.com ▪ Barraby Cultural Services – Lee Field ▪ Butucarbin Aboriginal Corporation – Jennifer Joan Beale – T (02) 9832 7167 – E koori@ozemail.com.au ▪ Didge Ngunawal Clan – Lilly Lea Carrol – T +61 426 823 944 – E lillycarroll@y7mail.com ▪ Ginninderra Aboriginal Corporation – Krystle Lea Carroll – T +61 451 016 224 – E ginninderra.corp@gmail.com ▪ Goodradigbee Cultural & Heritage Aboriginal Corporation – Caine Carroll – T +61 452 100 716 – E info@gcahac.com.au

Stakeholder	Contact details
	▪ Kamilaroi Yankuntjatjara Working Group – Philip Khan – T +61 434 545 982 – E philipkhan.acn@live.com.au ▪ Prospect Logistics Estate ACHAR ▪ Marigram ▪ Muragadi (Muragadi Heritage Indigenous Corporation)? – Jesse John Johnson – T +61 418 970 389 – E muragadi@yahoo.com.au ▪ Murra Bidgee Mullangari Aboriginal Corporation – Darleen Joyce Johnson – T +61 490 051 102 – E murrabidgeemullangari@yahoo.com.au ▪ Murramarang ▪ Widescope Indigenous Group – Steven Hickey ▪ Yulay Cultural Services – Arika Jalomaki Where contact details are not available, Cumberland City Council's Aboriginal Liaison office can be contacted: P: 02 8757 9000 E: council@cumberland.nsw.gov.au W: https://www.cumberland.nsw.gov.au/aboriginal-and-torres-strait-islander
Neighbouring businesses	▪ Mortarless Masonry – T 02 4092 2086 – E email@mortarless.com.au ▪ Boral Asphalt – T (02) 9033 5000 ▪ Arjo – T 1800 072 040 – E enquiries.au@arjo.com ▪ Hitachi Construction Machinery – T (02) 8863 4800

Stakeholder	Contact details
	▪ Shelta – T (02) 8863 0400 – E admin@shelta.com.au ▪ Prospect Refrigerated Transport – T (02) 9631 4320 – E enquiries@prospectrt.com.au ▪ Americold – Prospect – T (02) 9840 5200

5. PROCEDURES AND MECHANISMS

5.1. INFORMATION PROVISION

Information about the Project will be provided to residents in line with the requirements of Development Consent Condition A26 (b) through the communication activities outlined in Table 4 Communication activities for information provision.

Table 4 Communication activities for information provision.

Activity	Description	Stakeholder	Timing
Enquires and feedback response	The community will use a project contact point (See Section 5.2) to provide feedback or make enquiries and complaints. This contact point will also be the central contact person for nearby sensitive receivers. The process for responding is outlined in Sections 5.2, 5.3 and 5.4.	Individual households and businesses within a 500m radius of the project	Ongoing
Advertisement in local newspapers	At the start of construction and at key development milestones, ISPT will place an ad in the local newspaper outlining construction timeline, impacts and mitigations, and the project contact point.	Individual households and businesses within a 500m radius of the construction zones	Prior to work commencing.
Signage	Signage at the front of the site will include details for providing feedback or making enquires and complaints.	Individual households and businesses within a 500m radius of the project	Ongoing

Activity	Description	Stakeholder	Timing
Notifications	At the start of construction and at key development milestones, ISPT will send a letter to neighbours outlining construction timeline, impacts and mitigations, and the project contact point. See Appendix A.	Individual households and businesses within a 500m radius of the project	No less than 14 days before start of construction
Sensitive receiver consultation procedure	For high noise generating works, vibration intensive activities or potential traffic disruptions, sensitive receivers will be informed ahead of time. See Section 5.3 for more detail.	Individual households and businesses within a 500m radius of the project	No less than 7 days before works planned, or when reasonably practical
Community meetings	Depending on the level of stakeholder interest and feedback in the first three months of construction, ISPT will consider the establishment of regular community meetings to inform the community of the progress of the development and report on environmental monitoring results.	Individual households and businesses within a 500m radius of the project	As required

5.2. ENQUIRIES AND FEEDBACK RESPONSE

As outlined in Table 5, project contact points will be established and maintained for design and construction of the Project.

Table 5 Project contact points

Channel	Details
Point of contact	ISPT c/o Aliro (Development Manager) Colin MacDonald
Mailing address	Level 38 Gateway Tower 1 Macquarie Place Sydney NSW 2000
Phone number	1800 244 863
Email	engagement@urbis.com.au
Website	elevationestate.com

All feedback and enquires will be answered in accordance with the timeframes below:

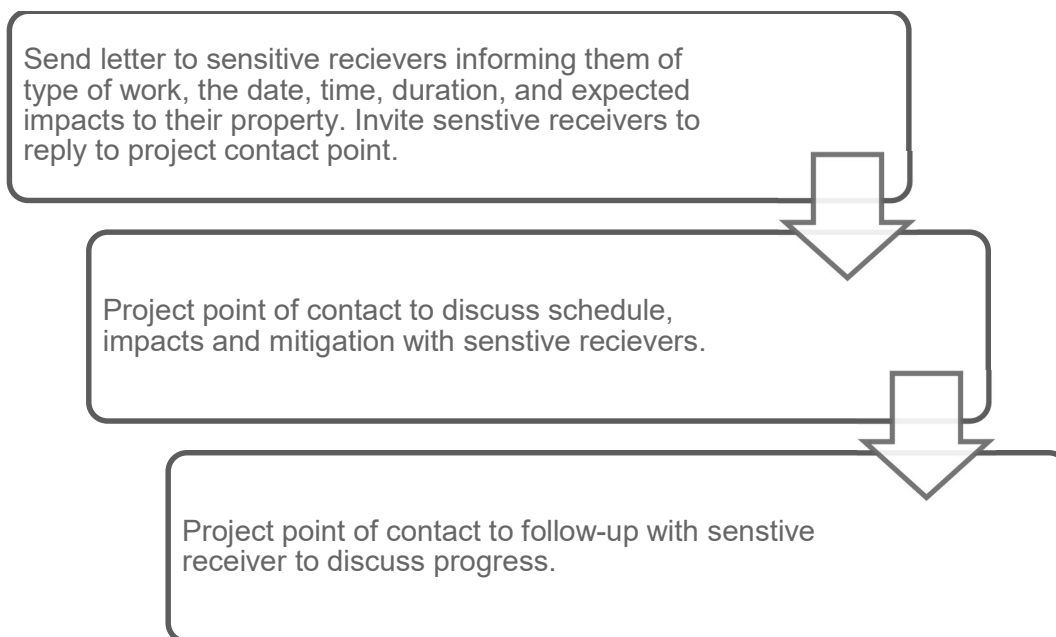
Table 6 Response times

Channel	Response time
Email	Two business days
On-site inquiry	Five business days
Project phone line	Thirty minutes (during business hours)
Website contact	Three business days

5.3. SENSITIVE RECEIVER CONSULTATION PROCEDURE

ISPT will consult with nearby sensitive receivers to schedule high noise generating works, vibration intensive activities and management of any potential traffic disruptions. This includes ensuring the community is informed of disruptive works in advance. This mechanism is outlined in Figure 2 Sensitive receivers consultation procedure

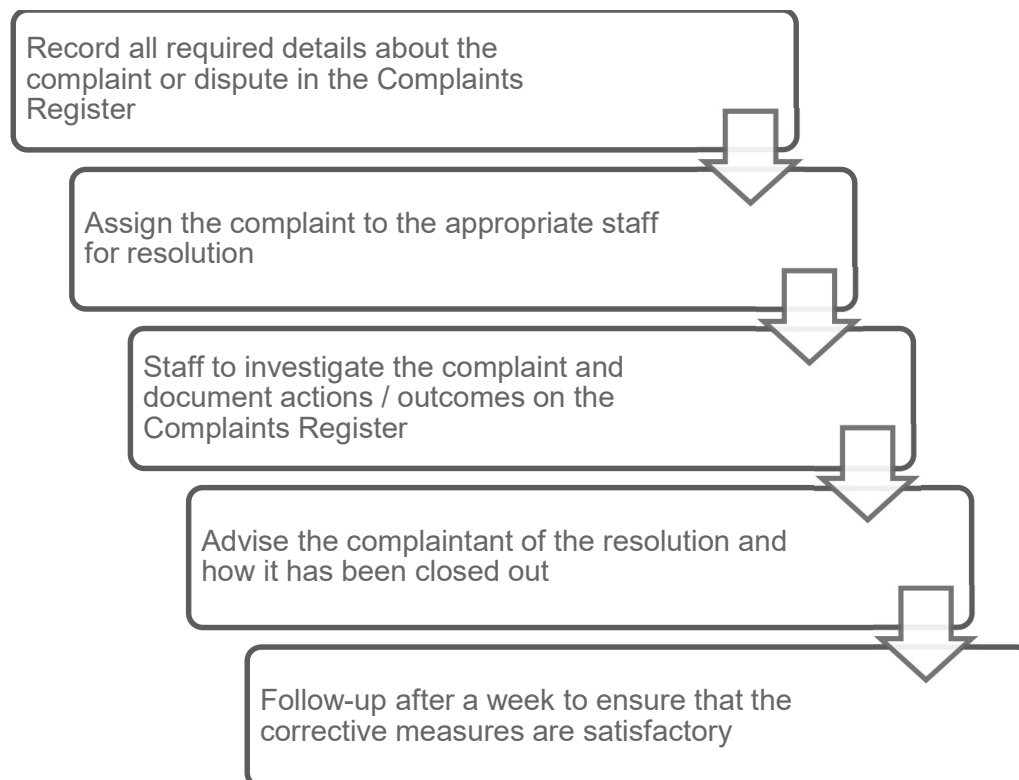
Figure 2 Sensitive receivers consultation procedure



5.4. COMPLAINTS AND DISPUTES RESOLUTION PROCEDURE

The mechanism in Figure 3 Complaints and disputes resolution procedure outlines the procedure for complaints and disputes raised through the project contact point. The required details to be recorded in the complaints register include the date, time and nature of the complaint, details of the complainant and any actions taken to address the complaint.

Figure 3 Complaints and disputes resolution procedure



DISCLAIMER

This report is dated 1 July 2021 and incorporates information and events up to that date only and excludes any information arising, or event occurring, after that date which may affect the validity of Urbis Pty Ltd (**Urbis**) opinion in this report. Urbis prepared this report on the instructions, and for the benefit only, of ISPT Pty Ltd (**Instructing Party**) for the purpose of Community Communication Strategy for Elevation at Greystanes (**Purpose**) and not for any other purpose or use. To the extent permitted by applicable law, Urbis expressly disclaims all liability, whether direct or indirect, to the Instructing Party which relies or purports to rely on this report for any purpose other than the Purpose, and to any other person which relies or purports to rely on this report for any purpose whatsoever (including the Purpose).

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All surveys, forecasts, projections and recommendations contained in or associated with this report are made in good faith and on the basis of information supplied to Urbis at the date of this report, and upon which Urbis relied. Achievement of the projections and budgets set out in this report will depend, among other things, on the actions of others over which Urbis has no control.

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This report has been prepared with due care and diligence by Urbis and the statements and opinions given by Urbis in this report are given in good faith and in the reasonable belief that they are correct and not misleading, subject to the limitations above.

APPENDIX A

NOTIFICATION LETTER

EXAMPLE NOTIFICATION LETTER

Dear Resident

[Description of work as title]

ISPT and Aliro are seeking to create a high-quality warehousing, distribution and logistics hub at 44 Clunies Ross Street Prospect.

As part of this project, construction phase [X] will start in week commencing [insert date] 2021. This will include:

- [Brief description of work and tools used].

You may notice some additional noise and dust, but we will be implementing dust mitigation and sediment and erosion control measures to minimise these impacts where possible. Construction staff will park on the site where possible to avoid traffic impacts along Clunies Ross Street. We expect this phase of construction to be finished by [insert date], weather permitting.

We thank you in advance for your patience and cooperation during these work. Should you have any questions or feedback about this work, please contact [name and role] on [contact number]

Regards,

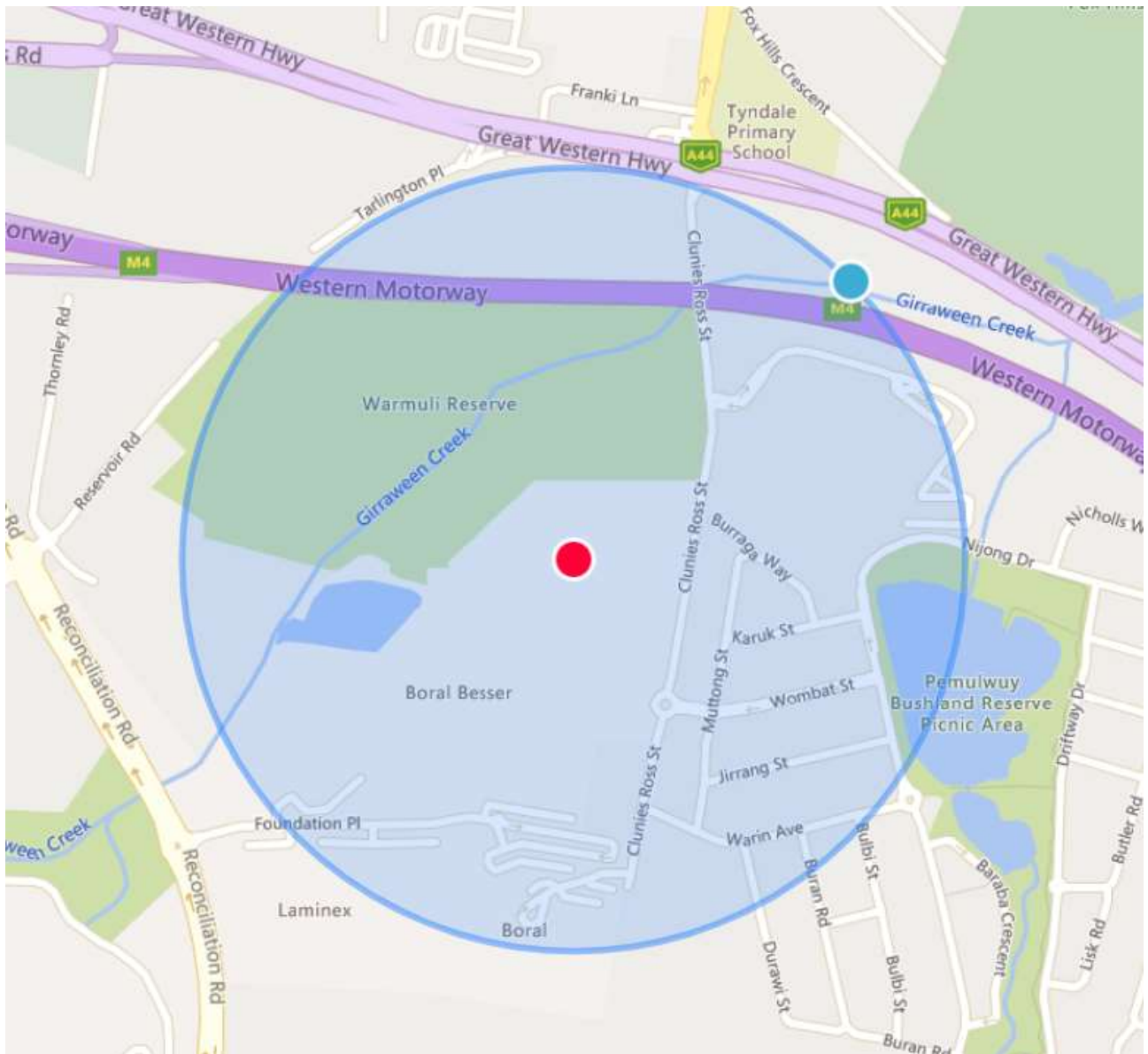
Colin MacDonald

Aliro

Development Manager

APPENDIX B

NOTIFICATION AREA





ELEVATION @ GREYSTANES

Construction Noise and Vibration Management Plan SSD 10399

Prepared for:

Aliro Group
Level 38
Gateway
1 Macquarie Place
Sydney NSW 2000

SLR Ref: 610.30560-R01
Version No: -v1.0
September 2021



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BASIS OF REPORT

This report has been prepared by SLR Consulting Australia Pty Ltd (SLR) with all reasonable skill, care and diligence, and taking account of the timescale and resources allocated to it by agreement with Aliro Group (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.

DOCUMENT CONTROL

Reference	Date	Prepared	Checked	Authorised
610.30560-R01-v1.0	23 September 2021	Steven Luzuriaga	Antony Williams	Antony Williams

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APPENDICES

- Appendix A Acoustic Terminology
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1 Introduction

SLR Consulting Australia Pty Ltd (SLR) has been engaged by Aliro Group (Aliro) to prepare a Construction Noise and Vibration Management Plan (CNVMP) for construction works associated with the development of Elevation @ Greystanes (the development/project) at 44 Clunies Ross Street, Lot 107 Clunies Ross Street, Prospect NSW and 615A Great Western Highway Pemulwuy, NSW.

This CNVMP addresses the potential noise and vibration impacts associated with the construction of the development and details the mitigation and management procedures for dealing with potential impacts. Construction noise and vibration impacts were previously assessed as part of the *SSD 10399 – Prospect Logistics Estate – Noise Impact Assessment* prepared by White Noise Acoustics in August 2020 (the NIA).

SLR is suitably qualified to produce this CNVMP and is a member of the Australian Acoustical Society (AAS). SLR is also a member firm of the Association of Australasian Acoustical Consultants (AAAC). Specific acoustic terminology is used in this report. An explanation of common acoustic terms is provided in **Appendix A**.

2 Development Overview

The development comprises the construction, fit out and operation of seven warehouses, offices, a cafe, and associated infrastructure with a combined gross floor area of 95,150 m².

Key components of the project include:

- Site preparation works including the demolition of existing structures, removal of hardstand and ancillary infrastructure and vegetation clearing
- Remediation, bulk earthworks and supporting structures
- Land stabilisation and rehabilitation
- Construction of seven warehouse buildings, ancillary offices and a café
- Provision of car parking spaces
- Landscaping works.

The buildings are expected to be used as warehouse and distribution centres. Vehicle access to the site will be provided via Foundation Place to the west and Clunies Ross Street to the east.

The location of the development and surrounding receivers are shown in **Figure 1**. The layout is shown in **Figure 2**.

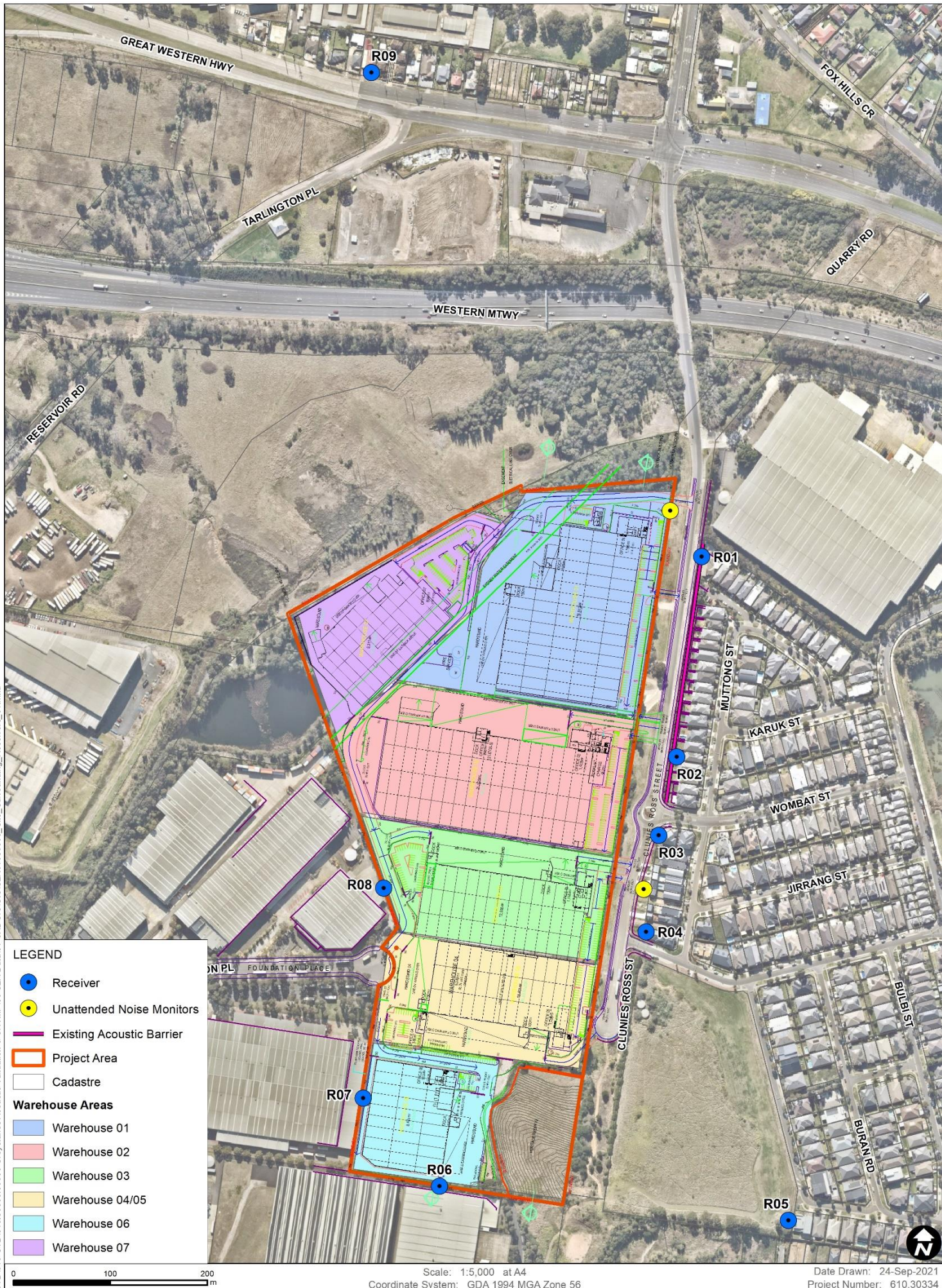


Table 1 Surrounding Sensitive Receivers

ID	Address	Receiver Type	Distance (m) from Site Boundary	Direction
R01	33 Burraga Way, Pemulwuy NSW	Residential	35	East
R02	27 Muttong St, Pemulwuy NSW	Residential	40	East
R03	34 Wombat St, Pemulwuy NSW	Residential	35	East
R04	59 Muttong St, Pemulwuy NSW	Residential	35	East
R05	10 Durawi St, Pemulwuy NSW	Residential	175	East
R06	3M logistics - 5 Reconciliation Rise, Pemulwuy NSW	Commercial	10	South
R07	Laminex Prospect - 2 Foundation Pl, Prospect NSW	Commercial	10	South
R08	Shelta Umbrellas - 4/1 Foundation Pl, Pemulwuy NSW	Commercial	10	West
R09	32 Great Western Hwy, Prospect NSW	Residential	300	North

3 Development Consent

This CNVMP has been prepared to accompany the Construction Environmental Management Plan (CEMP) for the development.

Development Consent for the project was approved by the Minister for Planning and Public Spaces in SSD 10399, dated 2 July 2021. The conditions relevant to this CNVMP are reproduced in **Table 2**.

Table 2 Development Consent Conditions

Development Consent	Where Addressed								
Noise									
Hours of Work B38. The Applicant must comply with the hours detailed in Table 3, unless otherwise agreed in writing by the Planning Secretary. Table 3 <i>Hours of Work</i> <table><tr><th>Activity</th><th>Day</th><th>Time</th></tr><tr><td rowspan="2">Earthworks and Construction</td><td>Monday – Friday</td><td>7 am to 6 pm</td></tr><tr><td>Saturday</td><td>8 am to 1 pm</td></tr></table>	Activity	Day	Time	Earthworks and Construction	Monday – Friday	7 am to 6 pm	Saturday	8 am to 1 pm	Section 6.2
Activity	Day	Time							
Earthworks and Construction	Monday – Friday	7 am to 6 pm							
	Saturday	8 am to 1 pm							
B39. Works outside of the hours identified in condition B38 may be undertaken in the following circumstances: a) works that are inaudible at the nearest sensitive receivers; b) works agreed to in writing by the Planning Secretary; c) for the delivery of materials required outside these hours by the NSW Police Force or other authorities for safety reasons; or d) where it is required in an emergency to avoid the loss of lives, property or to prevent environmental harm.	Section 6.2								
Construction Noise Limits B40. The development must be constructed to achieve the construction noise management levels detailed in the <i>Interim Construction Noise Guideline</i> (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 approved Construction Noise and Vibration Management Plan required by condition B41.	Section 6, 0								

Development Consent	Where Addressed
Construction Noise and Vibration Management Plan	
B41. Prior to the commencement of earthworks, the Applicant must prepare a Construction Noise and Vibration 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 whose appointment has been endorsed by the Planning Secretary; b) describe procedures for achieving the noise management levels in EPA's <i>Interim Construction Noise Guideline</i> (DECC, 2009) (as may be updated or replaced from time to time); c) describe the measures to be implemented to manage high noise generating works such as jackhammering, concrete sawing and piling, including the use of temporary acoustic screens or barriers and monitoring during high noise generating works; d) include strategies that have been developed with the community for managing high noise generating works, such as work scheduling and respite periods; e) describe the community consultation undertaken to develop the strategies in condition B41(d); and f) include a complaints management system that would be implemented for the duration of construction.	This CNVMP Section 1 Section 7 Section 7 Section 7 Section 7.1 Section 7.4
B42. The Applicant must: a) not commence earthworks for the development until the Construction Noise and Vibration Management Plan required by condition B41 is approved by the Planning Secretary; and b) implement the most recent version of the Construction Noise and Vibration Management Plan approved by the Planning Secretary for the duration of earthworks and construction.	This CNVMP Section 7.8
VIBRATION	
Vibration Criteria B43. Vibration caused by earthworks and construction at any residence or structure outside the site must be limited to: a) for structural damage, the latest version of <i>DIN 4150-3 (1992-02) Structural vibration - Effects of vibration on structures</i> (German Institute for Standardisation, 1999); and b) for human exposure, the acceptable vibration values set out in the <i>Environmental Noise Management Assessing Vibration: a technical guideline</i> (DEC, 2006) (as may be updated or replaced from time to time).	Section 5.4

Development Consent	Where Addressed
Environmental Management	
Management Plan Requirements C1. Management plans required under this consent must be prepared in accordance with relevant guidelines, and include: a) details of: (i) the relevant statutory requirements (including any relevant approval, licence or lease conditions); (ii) any relevant limits or performance measures and criteria; and (iii) the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the development or any management measures; b) a description of the measures to be implemented to comply with the relevant statutory requirements, limits, or performance measures and criteria; c) a program to monitor and report on the: (i) impacts and environmental performance of the development; and (ii) effectiveness of the management measures set out pursuant to paragraph (b) above; d) a contingency plan to manage any unpredicted impacts and their consequences and to ensure that ongoing impacts reduce to levels below relevant impact assessment criteria as quickly as possible; e) a program to investigate and implement ways to improve the environmental performance of the development over time; f) a protocol for managing and reporting any: (i) incident and any non-compliance (specifically including any exceedance of the impact assessment criteria and performance criteria); (ii) complaint; (iii) failure to comply with statutory requirements; and g) a protocol for periodic review of the plan. <i>Note: the Planning Secretary may waive some of these requirements if they are unnecessary or unwarranted for particular management plans</i>	This CNVMP Section 5 Section 5 Section 7 Section 7 Section 7.3 Section 7.3 Section 7.5 Section 7.8 Section 7.5 Section 7.4 Section 7.5 Section 7.8
Appendices	
Appendix 2 – Noise and Vibration • all plant and equipment are to be maintained such that they are in good working order • a register of complaints is to be recorded in the event of complaints being received, including location, time of complaint, nature of complaint and actions resulting from the complaint • if required a noise level measurement of the offending plant item generating complaints is to be conducted and noise mitigations undertaken to reduce noise levels to within the Noise Management levels in the event magnitude of noise levels is found to be above suitable levels • the use of percussive and concrete sawing should be undertaken behind a closed façade when possible • the use of high noise generating equipment including hydraulic hammers, rock cutters or the like should not be undertaken prior to 8am Monday to Friday or 8:30am Saturdays	Section 7 Section 7.4 Section 7.4 Section 7.4 Section 7.4 Section 7.4

Development Consent	Where Addressed
- the loading of trucks should be conducted such that there is not a requirement to stack truck on the roadways adjacent to residential receivers - a construction and vibration management plan to be prepared to include mitigation measures to be implemented to minimise construction and manage all construction impacts	Section 7.4 This CNVMP

4 Existing Noise Environment

Unattended noise monitoring was completed at the site between January and February 2020 as part of the NIA. The measured noise levels have been used to determine the existing noise environment and to set the criteria used to assess the potential impacts from the project.

The monitoring equipment was positioned to measure existing noise levels that are representative of receivers potentially most affected by the project.

The noise monitoring equipment continuously measured existing noise levels in 15-minute periods during the daytime, evening and night-time.

The noise monitoring locations are shown in **Figure 1** and the results are summarised in **Table 3**. Further information regarding the monitoring, including methodology and detailed data, is provided in the NIA.

Table 3 Summary of Ambient and Background Noise Levels

ID	Address	Measured Noise Levels (dBA)					
		Background Noise (RBL)			Average Noise (LAeq)		
		Day	Evening	Night	Day	Evening	Night
North	Clunies Ross Street, Prospect NSW	52	50	44	58	54	52
South	Clunies Ross Street, Prospect NSW	48	46	40	52	51	44

Note 1: The assessment periods are the daytime which is 7 am to 6 pm Monday to Saturday and 8 am to 6 pm on Sundays and public holidays, the evening which is 6 pm to 10 pm, and the night-time which is 10 pm to 7 am on Monday to Saturday and 10 pm to 8 am on Sunday and public holidays. See the NSW EPA *Noise Policy for Industry*.

5 Assessment Criteria

5.1 Construction Noise and Vibration Guidelines

The standards and guidelines relevant to the development are listed in **Table 4**. These guidelines aim to protect the community and environment from excessive noise and vibration impacts during construction of projects.

Table 4 Construction Noise and Vibration Standards and Guidelines

Guideline/Policy Name	Where Guideline Used
<i>Interim Construction Noise Guideline</i> (ICNG) (DECC, 2009)	Assessment of airborne noise impacts on sensitive receivers
<i>Construction Noise and Vibration Guideline</i> (CNVG) (Roads and Maritime Services, 2016)	Assessment and management protocols for noise and vibration impacts
<i>Road Noise Policy</i> (RNP) (DECCW, 2011)	Assessment of construction traffic impacts
<i>BS 7385 Part 2-1993 Evaluation and measurement for vibration in buildings Part 2</i> , BSI, 1993	Assessment of vibration impacts (structural damage) to non-heritage sensitive structures
<i>DIN 4150:Part 3-2016 Structural vibration – Effects of vibration on structures</i> , Deutsches Institute fur Normung, 1999	Screening assessment of vibration impacts (structural damage) to heritage sensitive structures, where the structure is found to be unsound
<i>Assessing Vibration: a technical guideline</i> (DEC, 2006)	Assessment of vibration impacts on sensitive receivers

5.2 Interim Construction Noise Guideline

The NSW *Interim Construction Noise Guideline* (ICNG) is used to assess and manage impacts from construction noise on residences and other sensitive land uses in NSW.

The ICNG contains procedures for determining project specific Noise Management Levels (NMLs) for sensitive receivers based on the existing background noise in the area. The 'worst-case' noise levels from construction of a project are predicted and then compared to the NMLs in a 15-minute assessment period to determine the likely impact of the project.

The NMLs are not mandatory limits, however, where construction noise levels are predicted or measured to be above the NMLs, feasible and reasonable work practices to minimise noise emissions are to be investigated.

Residential Receivers

The ICNG approach for determining NMLs at residential receivers is shown in **Table 5**.

Table 5 ICNG NMLs for Residential Receivers

Time of Day	NML LAeq(15minute)	How to Apply
Standard Construction Hours Monday to Friday 7:00 am to 6:00 pm Saturday 8:00 am to 1:00 pm No work on Sundays or public holidays	Noise affected RBL ¹ + 10 dB	- The noise affected level represents the point above which there may be some community reaction to noise - Where the predicted or measured LAeq(15minute) is greater than the noise affected level, the proponent should apply all feasible and reasonable work practices to meet the noise affected level - The proponent should also inform all potentially impacted residents of the nature of works to be carried out, the expected noise levels and duration, as well as contact details.
	Highly Noise Affected 75 dBA	- The Highly Noise Affected (HNA) level represents the point above which there may be strong community reaction to noise - Where noise is above this level, the relevant authority (consent, determining or regulatory) may require respite periods by restructuring the hours that the very noisy activities can occur, taking into account: - Times identified by the community when they are less sensitive to noise (such as before and after school for works near schools or mid-morning or mid-afternoon for works near residences) - If the community is prepared to accept a longer period of construction in exchange for restrictions on construction times.
Outside Standard Construction Hours	Noise affected RBL + 5 dB	- A strong justification would typically be required for works outside the recommended standard hours - The proponent should apply all feasible and reasonable work practices to meet the noise affected level - Where all feasible and reasonable practises have been applied and noise is more than 5 dB above the noise affected level, the proponent should negotiate with the community.

Note 1: The RBL is the Rating Background Level and the ICNG refers to the calculation procedures in the NSW *Industrial Noise Policy* (INP). The INP has been superseded by the NSW EPA *Noise Policy for Industry* (NPfi).

‘Other Sensitive’ Land Uses and Commercial Receivers

The ICNG NMLs for ‘other sensitive’ non-residential land uses are shown in **Table 6**.

Table 6 NMLs for 'Other Sensitive' Receivers

Land Use	Noise Management Level LAeq(15minute) (dBA) (Applied when the property is in use)	
	Internal	External
ICNG 'Other Sensitive' Receivers		
Classrooms at schools and other educational institutions	45	55 ¹
Hospital wards and operating theatres	45	65 ²
Places of worship	45	55 ¹
Active recreation areas (characterised by sporting activities and activities which generate noise)	-	65
Passive recreation areas (characterised by contemplative activities that generate little noise)	-	60
Commercial	-	70
Industrial	-	75
Non-ICNG 'Other Sensitive' Receivers		
n/a	-	-

Note 1: It is assumed that these receivers have windows partially open for ventilation which results in internal noise levels being around 10 dB lower than the external noise level.

Note 2: It is assumed that these receivers have fixed windows which conservatively results in internal noise levels being around 20 dB lower than the external noise level.

Sleep Disturbance

A method for assessing sleep disturbance is contained in the NPfI. Although the NPfI sleep disturbance criteria relates to industrial noise, it is also considered relevant for reviewing potential impacts from construction noise as a screening criteria to identify the need for further assessment. The NPfI notes that a detailed maximum noise level assessment should be undertaken where a project results in night-time noise levels which exceed 52 dBA LA_{Fmax} or the prevailing background level plus 15 dB, whichever is the greater.

Works will be undertaken during standard daytime construction hours, in accordance with Condition B38. Should works be required during out of hours periods, and be approved under Condition B39, the sleep disturbance screening level of night-time RBL plus 15 dB will be applied.

NML Summary

The NMLs for the project have been determined in accordance with the requirements of the ICNG and are shown in **Table 7**.

Table 7 Construction NMLs

ID	Receiver Type	Representative Logger Location	Noise Management Level (LAeq(15minute) – dBA)				Sleep Disturbance Screening Level (RBL+15 dB) (LAmax dBA)
			Standard Construction Hours (RBL+10dB)	Out of Hours ¹ (RBL+5dB)			
			Daytime	Daytime ²	Evening	Night-time	Night-time
R01	Residential	North	62	57	55	49	59
R02							
R03	Residential	South	58	53	51	45	55
R04							
R05							
R06	Commercial	-	70	70 (when in use)			-
R07							
R08							
R09	Residential	North	62	57	55	49	59

Note 1: Works will be undertaken during standard daytime construction hours, in accordance with Condition B38. Where out of hours works are required, and are approved under Condition B39, the out of hours NMLs would apply.

Note 2: Daytime out of hours is 7 am to 8 am and 1 pm to 6 pm on Saturday, and 8 am to 6 pm on Sunday and public holidays.

5.3 Construction Road Traffic Noise Guidelines

The potential impacts from construction traffic on public roads are assessed under the NSW EPA *Road Noise Policy* (RNP) and Roads and Maritime (now Transport for NSW) *Construction Noise and Vibration Guideline* (CNVG).

An initial screening test is first applied to evaluate if existing road traffic noise levels are expected to increase by more than 2.0 dB as a result of construction traffic. Where this is considered likely, further assessment is required using the RNP base criteria shown in **Table 8**.

Table 8 RNP Criteria for Assessing Construction Vehicles on Public Roads

Road Category	Type of Project/Land Use	Assessment Criteria (dBA)	
		Daytime (7 am – 10 pm)	Night-time (10 pm – 7 am)
Freeway/ arterial/ sub-arterial roads	Existing residences affected by additional traffic on existing freeways/arterial/sub-arterial roads generated by land use developments	LAeq(15hour) 60 (external)	LAeq(9hour) 55 (external)
Local roads	Existing residences affected by additional traffic on existing local roads generated by land use developments	LAeq(1hour) 55 (external)	LAeq(1hour) 50 (external)

The NIA predicted construction traffic to result in a minimal increase (ie less than 2 dB) in the overall traffic noise levels along the construction haulage routes. As such, construction traffic noise impacts have not been assessed further.

5.4 Vibration Guidelines

The effects of vibration from construction work can be divided into three categories:

- Those in which the occupants of buildings are disturbed (**human comfort**). People can sometimes perceive vibration impacts when vibration generating construction work is located close to occupied buildings. Vibration from construction work tends to be intermittent in nature and the EPA's *Assessing Vibration: a technical guideline* (2006) provides criteria for intermittent vibration based on the Vibration Dose Value (VDV), as shown in **Table 9**.
- Those where building contents may be affected (**building contents**). People perceive vibration at levels well below those likely to cause damage to building contents. For most receivers, the human comfort vibration criteria are the most stringent and it is generally not necessary to set separate criteria for vibration effects on typical building contents. Exceptions to this can occur when vibration sensitive equipment, such as electron microscopes or medical imaging equipment, are in buildings near to construction work. No such equipment has been identified in the study area.
- Those where the integrity of the building may be compromised (**structural/cosmetic damage**). If vibration from construction work is sufficiently high, it can cause cosmetic damage to elements of affected buildings. Industry standard cosmetic damage vibration limits are specified in British Standard BS 7385 and German Standard DIN 4150. The limits are shown in **Table 10** and **Table 11**.

Table 9 Human Comfort Vibration – Vibration Dose Values for Intermittent Vibration

Building Type	Assessment Period	Vibration Dose Value ¹ (m/s ^{1.75})	
		Preferred	Maximum
Critical Working Areas (eg operating theatres or laboratories)	Day or night-time	0.10	0.20
Residential	Daytime	0.20	0.40
	Night-time	0.13	0.26
Offices, schools, educational institutions and places of worship	Day or night-time	0.40	0.80
Workshops	Day or night-time	0.80	1.60

Note 1: The VDV accumulates vibration energy over the daytime and night-time assessment periods, and is dependent on the level of vibration as well as the duration.

Table 10 Cosmetic Damage – BS 7385 Transient Vibration Values for Minimal Risk of Damage

Group	Type of Building	Peak Component Particle Velocity in Frequency Range of Predominant Pulse	
		4 Hz to 15 Hz	15 Hz and Above
1	Reinforced or framed structures. Industrial and heavy commercial buildings	50 mm/s at 4 Hz and above	
2	Unreinforced or light framed structures. Residential or light commercial type buildings	15 mm/s at 4 Hz increasing to 20 mm/s at 15 Hz	20 mm/s at 15 Hz increasing to 50 mm/s at 40 Hz and above

Note 1: Where the dynamic loading caused by continuous vibration may give rise to dynamic magnification due to resonance, especially at the lower frequencies where lower guide values apply, then the guide values may need to be reduced by up to 50%.

Table 11 Cosmetic Damage – DIN 4150 Guideline Values for Short-term Vibration on Structures

Group	Type of Structure	Guideline Values Vibration Velocity (mm/s)				
		Foundation, All Directions at a Frequency of			Topmost Floor, Horizontal	Floor Slabs, Vertical
		1 to 10 Hz	10 to 50 Hz	50 to 100 Hz	All frequencies	All frequencies
1	Buildings used for commercial purposes, industrial buildings and buildings of similar design	20	20 to 40	40 to 50	40	20
2	Residential buildings and buildings of similar design and/or occupancy	5	5 to 15	15 to 20	15	20
3	Structures that, because of their particular sensitivity to vibration, cannot be classified as Group 1 or 2 and are of great intrinsic value (eg heritage listed buildings)	3	3 to 8	8 to 10	8	20 ¹

Note 1: It may be necessary to lower the relevant guideline value markedly to prevent minor damage.

5.4.1 Heritage Buildings or Structures

Heritage listed buildings and structures should be considered on a case-by-case basis but as noted in BS 7385 should not be assumed to be more sensitive to vibration, unless structurally unsound. Where a heritage building is deemed to be sensitive, the more stringent DIN 4150 Group 3 guideline values in **Table 11** can be applied.

No heritage buildings have been identified in the vicinity of the development.

5.4.2 Minimum Working Distances for Vibration Intensive Works

Minimum working distances for typical vibration intensive construction equipment are provided in the RMS (now Transport for NSW) CNVG and are shown in **Table 12**. The minimum working distances are for both cosmetic damage (from BS 7385 and DIN 4150) and human comfort (from the NSW EPA *Assessing Vibration: a technical guideline*). They are calculated from empirical data which suggests that where work is further from receivers than the quoted minimum distances then impacts are not considered likely.

Table 12 Recommended Minimum Working Distances from Vibration Intensive Equipment

Plant Item	Rating/Description	Minimum Distance		
		Cosmetic Damage		Human Response (NSW EPA Guideline)
		Residential and Light Commercial (BS 7385)	Heritage Items (DIN 4150, Group 3)	
Vibratory Roller	<50 kN (1–2 tonne)	5 m	11 m	15 m to 20 m
	<100 kN (2–4 tonne)	6 m	13 m	20 m
	<200 kN (4–6 tonne)	12 m	25 m	40 m
	<300 kN (7–13 tonne)	15 m	31 m	100 m
	>300 kN (13–18 tonne)	20 m	40 m	100 m
	>300 kN (>18 tonne)	25 m	50 m	100 m
Small Hydraulic Hammer	300 kg (5 to 12 t excavator)	2 m	5 m	7 m
Medium Hydraulic Hammer	900 kg (12 to 18 t excavator)	7 m	15 m	23 m
Large Hydraulic Hammer	1,600 kg (18 to 34 t excavator)	22 m	44 m	73 m
Vibratory Pile Driver	Sheet piles	2 m to 20 m	5 m to 40 m	20 m
Piling Rig – Bored	≤ 800 mm	2 m (nominal)	5 m	4 m
Jackhammer	Hand held	1 m (nominal)	3 m	2 m

The minimum working distances are indicative and will vary depending on the particular item of equipment and local geotechnical conditions. The distances apply to cosmetic damage of typical buildings under typical geotechnical conditions.

6 Construction Noise and Vibration Impacts

6.1 Construction Airborne Noise Assessment Methodology

A noise model of the study area has been used to predict noise levels from the proposed construction work to all surrounding receivers. The model uses ISO 9613 algorithms in SoundPLAN V8.2 software.

Local terrain, receiver buildings and structures were digitised in the noise model to develop a three-dimensional representation of the construction sites and surrounding areas.

6.1.1 Construction Activities

The construction activities required to build the development are shown in **Table 13**. Sound power levels for individual items of equipment and the overall activity are shown in the table.

The assessment uses 'realistic worst-case' scenarios to determine the impacts from the noisiest 15-minute period that are likely to occur for each work scenario, as required by the ICNG.

Table 13 Sound Power Levels for Construction Equipment

ID	Construction Activity	Equipment	Operating minutes in 15-min period ²	No of items in same location	Sound Power Level Lw (dBA)	
					Item	Activity
W.001	Site Establishment	Excavator - Rockbreaker	5	1	121	123
		Excavator 30T	10	3	109	
		Excavator 15T	10	1	97	
		Articulated Dump Truck (40t)	10	6	107	
		Grader	15	2	108	
		20T Roller	15	2	98	
		Truck (water cart)	10	1	107	
		Compactor	10	3	108	
		Scraper	10	3	116	
W.002	Hardstand, Stormwater and Pavements (including piling)	Piling - Bored	15	1	111	120
		Excavator 15T	15	1	97	
		Concrete Mixer Truck	10	1	103	
		Mobile Crane - Franna	15	1	98	
		Articulated Dump Truck (40t)	15	6	107	
		Excavator 30T	15	1	109	
		Excavator - Rockbreaker	5	1	121	
		Front End Loader	7.5	1	104	
		Truck (water cart)	10	1	107	
		20T Roller	15	1	98	
		Roller - Vibratory (12 tonne)	15	1	109	
		Grader	15	1	108	

ID	Construction Activity	Equipment	Operating minutes in 15-min period ²	No of items in same location	Sound Power Level Lw (dBA)	
					Item	Activity
W.003	Warehouse construction and fitout	Mobile Crane (100 tonne)	15	1	100	113
		Mobile Crane - Franna	15	1	98	
		Elevated Working Platform	15	10	97	
		Hand Tools	15	10	94	
		Truck (water cart)	10	1	107	
		Concrete Pump	10	1	106	
		Concrete Mixer Truck	10	2	103	
		Scissor Lift	15	4	92	

Note 1: The ICNG requires 'annoying' activities (such as jackhammering, rock breaking and power saw operations) to have a 5 dB 'penalty' applied to the source sound power level.

Note 2: This refers to the amount of time in minutes that individual items of equipment would likely be in use for during the worst-case 15-minute assessment period.

6.2 Hours of Construction

Condition B38 requires construction activities to only be undertaken during the following hours:

- 7:00 am to 6:00 pm, Mondays to Fridays
- 8:00 am to 1:00 pm on Saturdays
- at no time on Sundays or Public Holidays.

Notwithstanding, Condition B39 allows out of hours work to be undertaken in the following circumstances:

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

6.3 Construction Noise Predictions

The following overview is based on the predicted impacts at the most affected receivers and is representative of the worst-case noise levels that are likely to occur during construction.

The assessment shows the predicted impacts based on the exceedance of the management levels, as per the categories in **Table 14**.

Table 14 Exceedance Bands and Impact Colouring

Exceedance of Management Level	Subjective Classification	Impact Colouring
No exceedance	Negligible	
1 to 10 dB	Low impact	
11 dB to 20 dB	Moderate impact	
>20 dB	High impact	

A summary of the predicted noise levels (without mitigation) for the various work activities is shown in **Table 15**. For most construction activities, it is expected that the construction noise levels would frequently be lower than predicted, as the noise levels presented in this report are based on each scenario occurring at the site boundary which is the closest point to each receiver.

The assessment is generally considered conservative as the calculations assume several items of construction equipment are in use at the same time within individual scenarios. In reality, there would frequently be periods when construction noise levels are much lower than the worst-case levels predicted as well as times when no equipment is in use and no noise impacts occur.

Table 15 Predicted Worst-Case Construction Airborne Noise Levels

NCA	Receiver Type	NML	Predicted Noise Level - LAeq(15 minutes) (dBA)																	
			Warehouse 01			Warehouse 02			Warehouse 03			Warehouse 04/05			Warehouse 06			Warehouse 07		
			W.001	W.002	W.003	W.001	W.002	W.003	W.001	W.002	W.003	W.001	W.002	W.003	W.001	W.002	W.003	W.001	W.002	W.003
R01	Residential	62	78	75	68	67	64	57	62	59	52	59	56	49	57	54	47	68	65	58
R02	Residential	62	74	71	64	76	73	66	69	66	59	63	60	53	60	57	50	64	61	54
R03	Residential	58	72	69	62	77	74	67	79	76	69	70	67	60	65	62	55	64	61	54
R04	Residential	58	66	63	56	71	68	61	82	79	72	77	74	67	68	65	58	62	59	52
R05	Residential	58	52	49	42	53	50	43	54	51	44	49	46	39	47	44	37	51	48	41
R06	Commercial	70	52	49	42	58	55	48	61	58	51	64	61	54	94	91	84	53	50	43
R07	Commercial	70	58	55	48	63	60	53	68	65	58	71	68	61	89	86	79	57	54	47
R08	Commercial	70	65	62	55	76	73	66	83	80	73	72	69	62	66	63	56	64	61	54
R09	Residential	62	58	55	48	56	53	46	55	52	45	52	49	42	52	49	42	58	55	48

Note: The predictions do not include any effect for screening that previously constructed warehouses would provide. Noise levels would, therefore, be lower than presented where intervening warehouses have been completed and provide screening to sensitive receivers.

The above assessment of the predicted worst-case noise levels shows:

- Construction noise levels are predicted to comply with the NMLs during many stages of the work, particularly during less noisy activities, such as during *W.003 – Warehouse construction and fitout*, or where works are in parts of the site distant from the nearest receivers.
- The highest impacts are expected to occur when noise intensive equipment such as rockbreakers or concrete saws are being used as part of *W.001 – Site Establishment* during the early phases of the work. These items of equipment would, however, only be required occasionally and would be unlikely to be in use for long periods of time.
- The highest noise levels at residential receivers are predicted to be around 70 to 80 dBA at the nearest receivers when noise intensive equipment, such as a rockbreaker, is being used nearby. Residential receivers adjacent the site, across Clunies Ross Street, are predicted to be most affected during construction of Warehouse 03. Noise levels during construction of the other warehouses are predicted to be lower due to increased separation distance.
- Noise levels at the nearest residential receivers are predicted to be Highly Noise Affected (ie greater than or equal to 75 dBA) during certain noisy activities. This would likely only occur infrequently when high noise generating activities are being completed adjacent to these receivers.
- Commercial receivers are close to Warehouse 06 and noise levels of around 90 dBA may occur when noise intensive equipment is being used adjacent to these receivers. Noise levels at these receivers when work is in other parts of the site are predicted to be much lower, and mostly below the management levels.
- Works would only occur during Standard Daytime Construction Hours. There is no expectation for evening or night-time work to be required.

All appropriate feasible and reasonable construction noise mitigation measures will be applied to works where exceedances of the NMLs are predicted. Construction noise mitigation measures are discussed in **Section 7**.

6.4 Construction Vibration

Vibration intensive items of equipment that would be required during the construction include rock breakers and vibratory rollers. These items of equipment are required during *W.001 – Site Establishment* and *W.002 – Hardstand, Stormwater and Pavements*.

Offset distances for the vibration intensive equipment have been determined from the CNVG minimum working distances for cosmetic damage and human response (see **Table 12**). Buildings within the minimum working distances are shown in **Figure 3** to **Figure 8**.

Figure 3 Construction Vibration Assessment – Warehouse 01



Figure 4 Construction Vibration Assessment – Warehouse 02

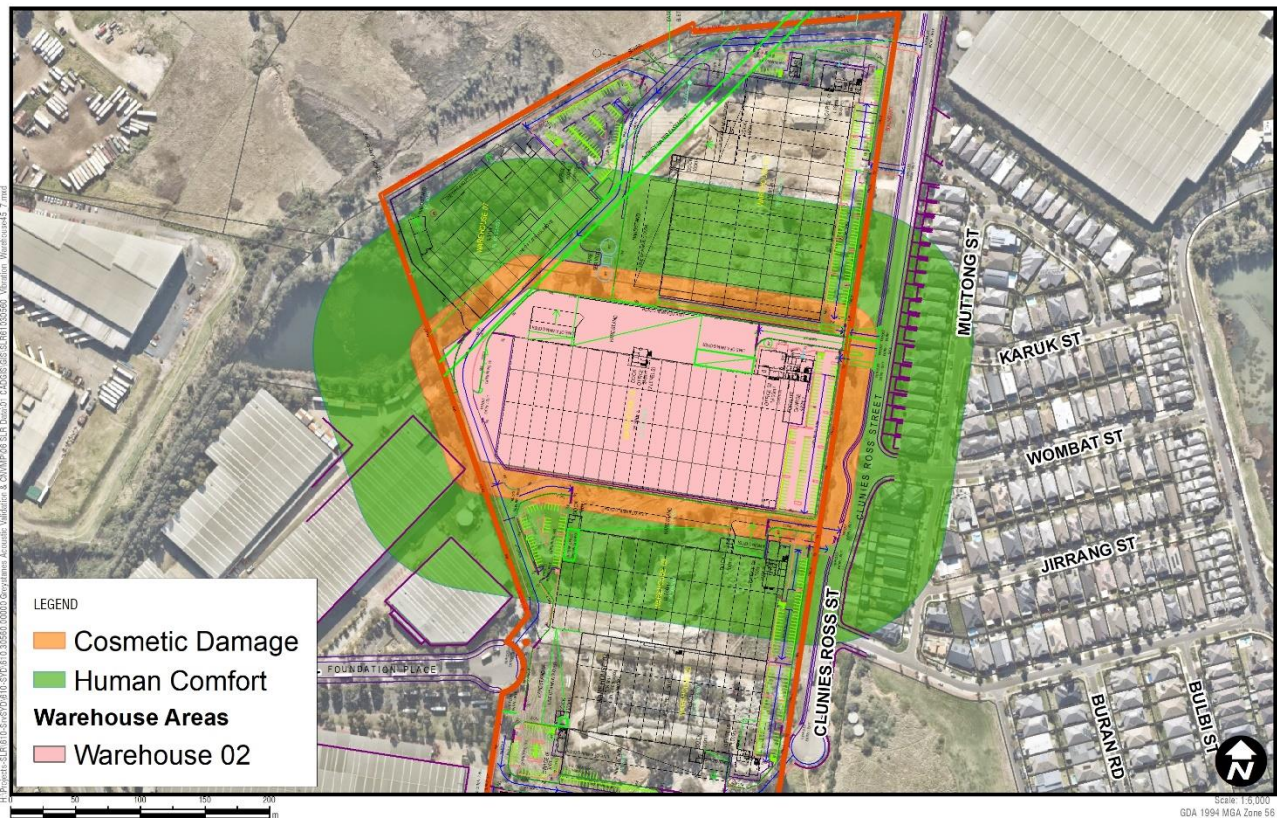


Figure 5 Construction Vibration Assessment – Warehouse 03

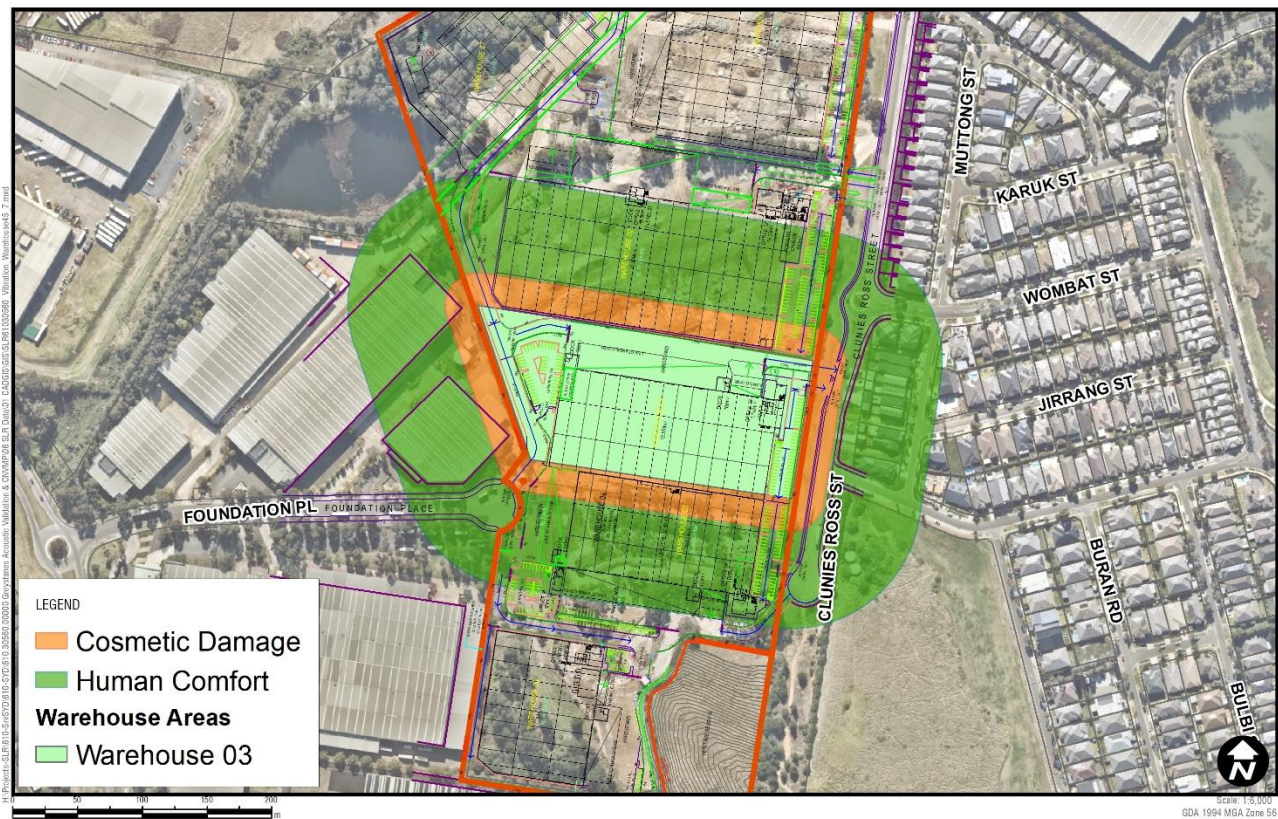


Figure 6 Construction Vibration Assessment – Warehouse 04/05



Figure 7 Construction Vibration Assessment – Warehouse 06

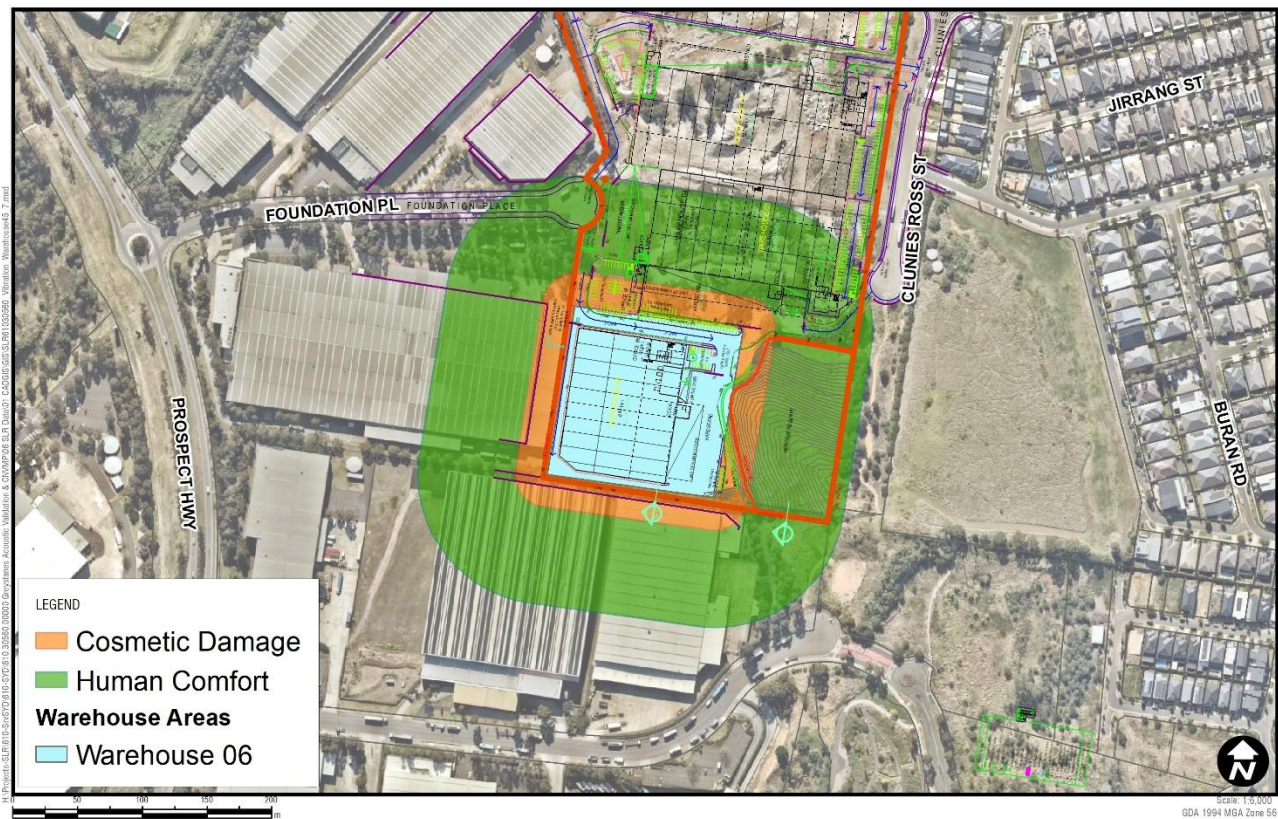
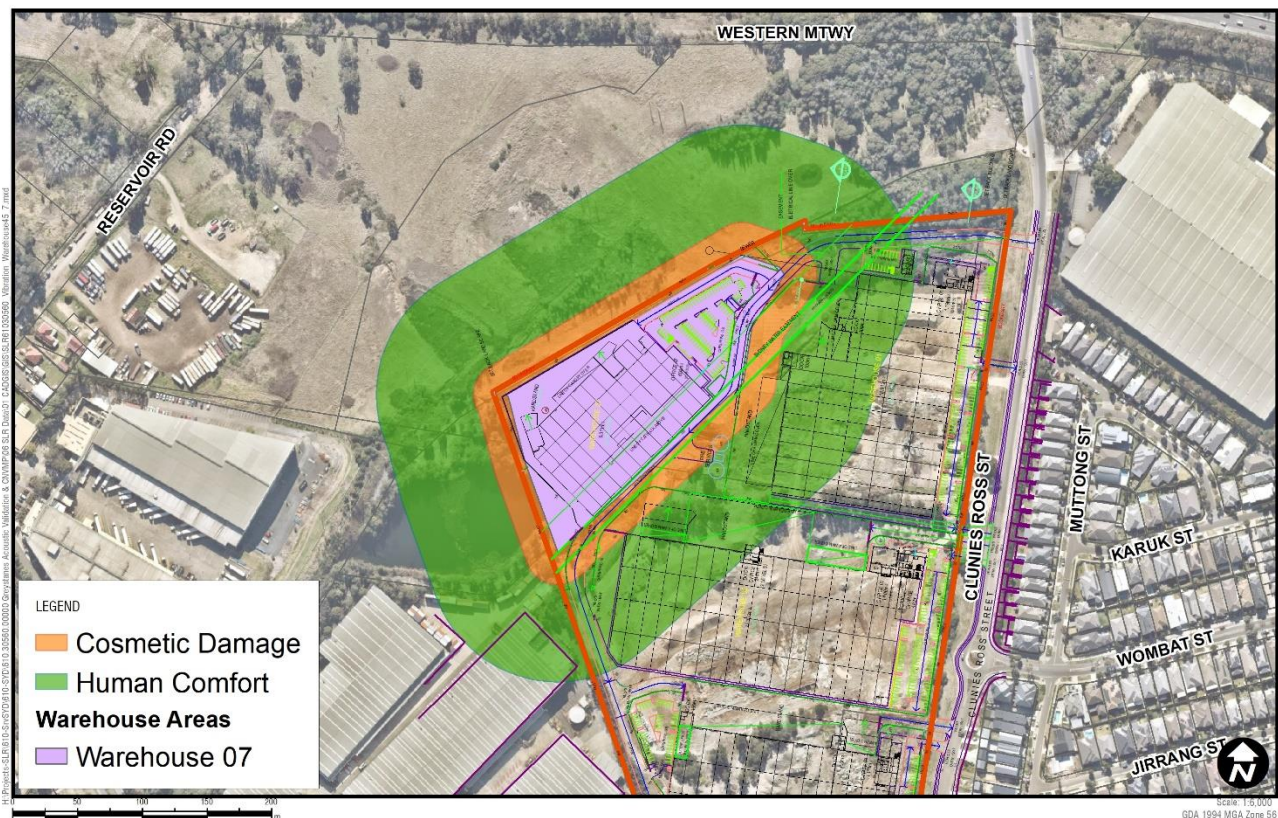


Figure 8 Construction Vibration Assessment – Warehouse 07



Cosmetic Damage Assessment

The above figure shows that certain commercial buildings near to the work are likely to be within the minimum working distance for cosmetic damage when vibration intensive works are being completed adjacent to these buildings. Residential buildings are sufficiently distant from the site to be outside the minimum working distance and cosmetic damage impacts are not considered likely. Construction vibration mitigation measures are discussed in **Section 7**.

Human Comfort Vibration Assessment

Certain receivers are also within the human comfort minimum working distances and occupants of affected buildings may be able to perceive vibration impacts at times when vibration intensive equipment is in use. Where impacts are perceptible, they would likely only be apparent for relatively short durations when vibration intensive equipment is nearby.

7 Mitigation and Management Measures

The ICNG acknowledges that due to the nature of construction works it is inevitable that there will be impacts where construction is near to sensitive receivers. The worst-case noise impacts during construction of the project are predicted to be moderate to high, however, this would likely only occur on an infrequent basis when noise intensive works are being completed near to receivers.

All appropriate feasible and reasonable mitigation measures will be applied to the work to minimise the potential impacts, as far as practicable.

7.1 Consultation Undertaken to Date

A community consultation session was held on 22 September 2021 (minutes are provided in **Appendix B**). The session included:

- An overview of the project
- Details of previous consultation and feedback received
- Details of how the project are responding to feedback, including measures to control noise and vibration impacts
- Question time where community members could raise any concerns.

7.2 Standard Mitigation and Management Measures

The mitigation and management measures that would be applied to the project are detailed in **Table 16**.

Table 16 Environmental Management Controls for Construction Noise and Vibration

Measure	Person Responsible	Timing / Frequency	Reference / Notes
Project Planning			
Use quieter and less vibration emitting construction methods, where feasible and reasonable.	Project Manager	Ongoing	Best practice
Works will be completed during standard daytime construction hours outlined in Section 6.2 .			
Truck routes to site should be limited to major roads.			
Scheduling			
The use of high noise generating equipment including hydraulic hammers, rock cutters or the like hydraulic hammers, rock cutters or the like would not be undertaken prior to 8 am Monday to Friday or 8:30 am Saturdays	Project Manager/ Communications and Community Liaison Representative	Ongoing	Best practice
Respite periods would be used where high noise and vibration generating activities are near receivers. As a guide, work would be carried out in blocks that do not exceed three hours, with a minimum respite period of one hour between each block.			
Consult with the affected community to determine the need for respite periods.			

Measure	Person Responsible	Timing / Frequency	Reference / Notes
Site Layout			
Compounds and worksites will be designed to promote one-way traffic and minimise the need for vehicle reversing.	Project Manager	Ongoing	Best practice
Where practicable, work compounds, parking areas, and equipment and material stockpiles will be positioned away from noise-sensitive locations and take advantage of existing screening from local topography.			
Equipment that is noisy will be started away from sensitive receivers			
Training			
Training will be provided to all personnel on noise and vibration requirements for the project. Inductions and toolbox talks to be used to inform personnel of the location and sensitivity of surrounding receivers.	Project Manager	Ongoing	Best practice
Plant and Equipment Source Mitigation			
Where practicable, tonal reversing alarms (beepers) will be replaced with non-tonal alarms (squawkers) on all equipment in use (subject to occupational health and safety requirements).	Project Manager	Ongoing	Best practice
Noisy equipment will be sited behind structures that act as barriers, or at the greatest distance from the noise-sensitive area. Equipment will be oriented so that noise emissions are directed away from any sensitive areas.			
Noise generating equipment will be regularly checked and effectively maintained, including checking of hatches/enclosures regularly to ensure that seals are in good condition and doors close properly against seals.			
Noise monitoring spot checks of equipment will be completed to ensure individual items are operating as expected			
Dropping materials from a height will be avoided.			
Loading and unloading will be carried out away from noise sensitive areas, where practicable.			
Trucks will not queue outside residential properties. Truck drivers will avoid compression braking as far as practicable.			
Truck movements will be kept to a minimum, ie trucks will be fully loaded on each trip.			
Screening			
Where possible, purpose-built screening or enclosures will be built around long-term fixed plant that has the potential to impact nearby receivers	Project Manager	Ongoing	Best practice

Measure	Person Responsible	Timing / Frequency	Reference / Notes
The layout of the site will take advantage of existing screening from local topography, where possible. Site huts, maintenance sheds and/or containers will be positioned between noisy equipment and the affected receivers.			
Community Consultation			
Notifications will be provided to the affected community where high impacts are anticipated or where out of hours works are required. Notification will be a minimum of 24 hours.	Communications and Community Liaison Representative	Ongoing	Best practice
Where complaints are received, work practices will be reviewed and feasible and reasonable practices applied to minimise any further impacts. See Section 7.4 .			
Monitoring			
Noise and/or vibration monitoring will be conducted (as appropriate) in response to any complaints received to verify that levels are not substantially above the predicted levels.	Environmental Coordinator	Ongoing	Best practice
See Section 7.3 for details of monitoring requirements.			
Vibration			
If vibration generating works are required within the minimum cosmetic damage working distances and considered likely to exceed the criteria: - Different construction methods with lower source vibration levels will be investigated and implemented, where feasible - Attended vibration measurements will be undertaken at the start of the works to determine actual vibration levels at the item. Works will cease if the monitoring indicates vibration levels are likely to, or do, exceed the relevant criteria.	Environmental Coordinator	Ongoing	Best practice
Where works are required within the cosmetic damage minimum working distances, building condition surveys will be completed before and after the works to ensure no cosmetic damage has occurred.			

7.3 Monitoring

Noise and/or vibration monitoring would be completed in response to any formal complaints. All monitoring will be completed by suitably qualified acoustic specialists. The location and extent of attended monitoring will be determined in consultation with project staff and would be dependent on the activities taking place.

The monitoring will take place during the expected noisiest construction periods and be representative / indicative of the impacts at the potentially affected sensitive receivers.

All items of acoustic instrumentation utilised will be designed to comply with IEC 61672.1-2004 *Electroacoustics – Sound level meters* (AS IEC 61672) and carry current calibration certificates.

A monitoring report will be prepared after each monitoring survey. Monitoring reports will be provided to the relevant regulatory authorities after review, unless otherwise agreed by the relevant regulatory authorities. Monitoring reports would include the following details, at a minimum:

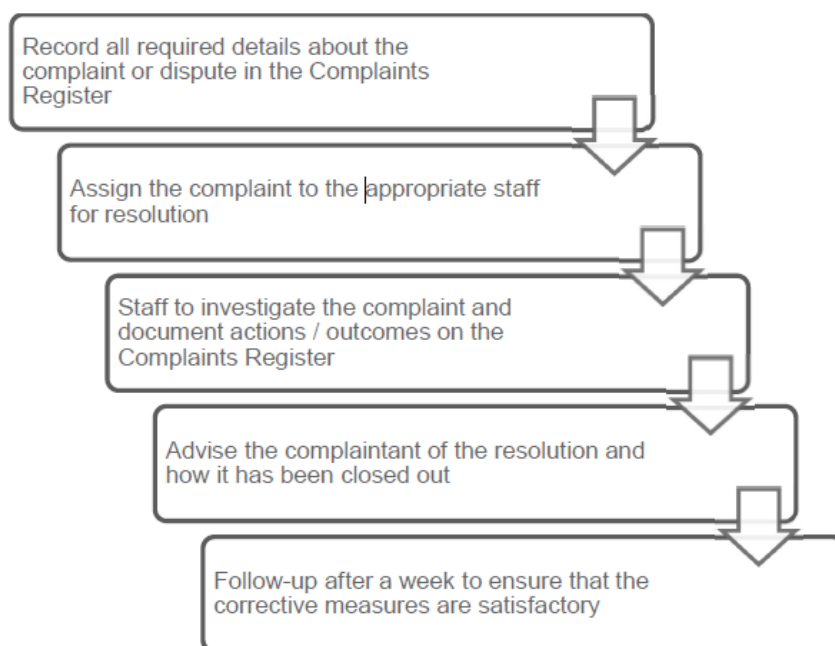
- Noise monitoring locations
- Date, time and length of noise monitoring/measurements
- Weather conditions during the measurements
- Name and position of personnel undertaking measurements
- Construction activities being undertaken during measurements
- Locations of construction equipment and distance from monitoring location
- Measured L_{Aeq} and L_{Amax} noise levels during construction works (for each activity) along with a comparison to the predicted noise levels
- Measured L_{A90} background noise level in absence of the construction works
- Operator observations noting any extraneous noise sources or other points of relevance.

7.4 Complaints Handling and Response Procedure

A Community communication Strategy has been prepared for the project which details the complaints handling process. Complaints are able to be made via a phone (1800 244 8630) and email (engagement@urbis.com.au). Contact details will be included on site signage and on the project website (elevationestate.com.au).

The mechanism in **Figure 3** outlines the procedure for complaints and disputes raised through the project contact point. The required details to be recorded in the complaints register include the date, time and nature of the complaint, details of the complainant and any actions taken to address the complaint.

Figure 9 Complaints and Disputes Resolution Procedure



7.5 Contingency Management Plan

The following Contingency Plan will be applied where a non-compliance (ie exceedance of the criteria and/or predicted levels, or failure to comply with appropriate statutory requirements) is identified:

- The Contractor will report any non-compliance to the relevant regulatory authorities within five working days.
- The Contractor will identify an appropriate course of action with respect to the identified impact(s), in consultation with appropriate specialists and the relevant regulatory authorities, as necessary.
- The Contractor will notify affected landholders and tenants at the location of the exceedance within five working days and provide them with details of actions taken, including noise or vibration monitoring results (if applicable), until it can be shown that the site is complying with the requirements.
- The Contractor will, on request, submit the proposed course of action to the relevant regulatory authorities for approval.
- The Contractor will implement the approved course of action.

7.6 Internal Audits

Periodic internal audits will be conducted to ensure that the development consent conditions and environmental management controls outlined in this CNVMP are being implemented. Audit reports will be used to inform of any corrective actions.

7.7 Roles and Responsibilities

Overall roles and responsibilities relating to the project are outlined in the overarching CEMP. The key responsibilities specifically for noise and vibration management are as follows:

Contractor's Project Manager

- Ensuring appropriate resources are available to implement the measures in this CNVMP
- Assessing data from inspections and providing project-wide advice to ensure consistent approach and outcomes are achieved
- Providing necessary training for project personnel to adequately cover noise and vibration management
- Reviewing and updating this CNVMP, where necessary
- Commissioning suitably qualified consultants to complete noise and vibration monitoring. Ensuring environmental coordinators appropriately undertake attended noise and vibration measurements required by this CNVMP
- Assessing and (as required) mitigating risks of high noise and vibration levels before commencing works and ensuring that the appropriate controls are implemented
- Ceasing works in the event of excessive noise and vibration generation
- Recording complaints and appropriately responding in accordance with the procedures outlined in **Section 7.4**

Environmental Coordinator

- Coordinating noise and/or vibration monitoring program, where required
- Review control measures in accordance with this CNVMP
- Identifying and reporting any high or non-compliant noise and vibration emissions.

All Workers on Site

- Observing any noise and vibration emission control instructions and procedures that apply to their work
- Taking action to prevent or minimise noise and vibration emission incidents
- Identifying and reporting any high or non-compliant noise and vibration emissions.

7.8 Review and Improvement of the CNVMP

This CNVMP will be reviewed, and if necessary, updated in the following circumstances:

- Significant changes to the equipment, machinery and plant operated within the site
- Where it is identified via monitoring that the performance of the project is not meeting the objectives of the CNVM
- At the request of the relevant regulatory authority or other relevant government agency.

All employees and contractors will be informed of any revisions to the CNVMP by Site Management during toolbox talks. The most recent version of the CNVMP as approved by the Planning Secretary, will be implemented for the duration of construction works.

APPENDIX A

Acoustic Terminology

1. 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.

2. '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.

3. Sound Power Level

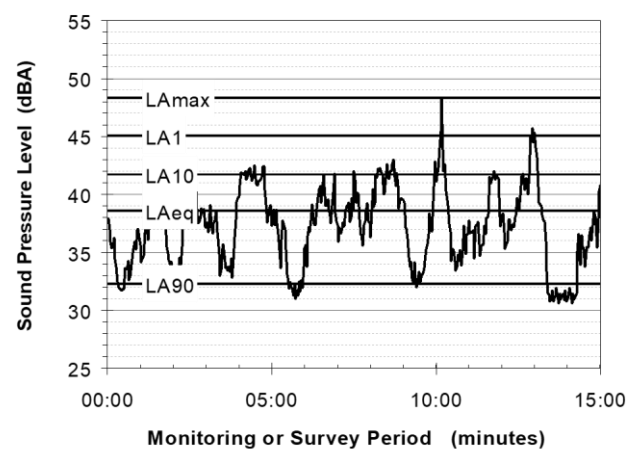
The Sound Power of a source is the rate at which it emits acoustic energy. As with Sound Pressure Levels, Sound Power Levels are expressed in decibel units (dB or dBA), but may be identified by the symbols SWL or LW, or by the reference unit 10^{-12} W.

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.

4. 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.

5. Frequency Analysis

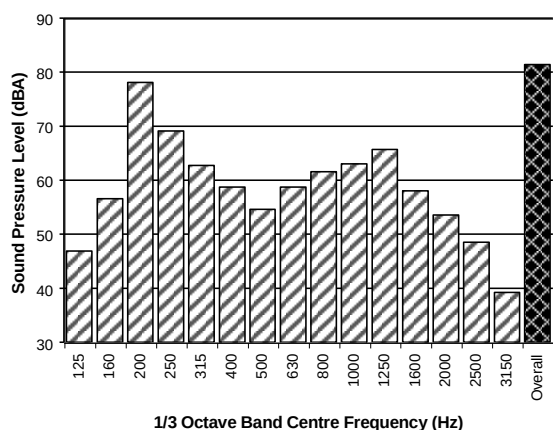
Frequency analysis is the process used to examine the tones (or frequency components) which make up the overall noise or vibration signal.

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.



6. 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.

7. 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.

8. Human Perception of Vibration

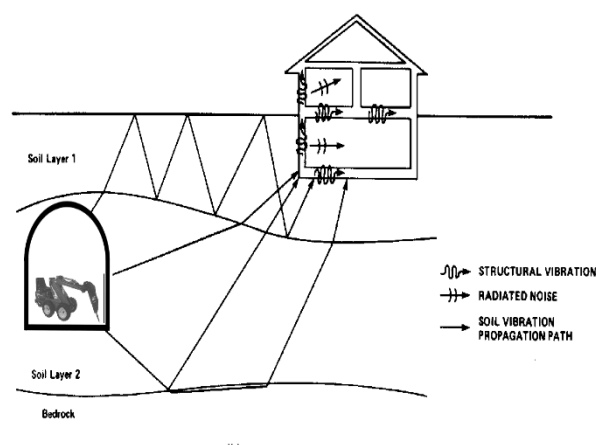
People are able to 'feel' vibration at levels lower than those required to cause even superficial damage to the most susceptible classes of building (even though they may not be disturbed by the motion). An individual's perception of motion or response to vibration depends very strongly on previous experience 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.

9. 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

Community Consultation Minutes



COMMUNITY SESSION MINUTES

Date:	Wednesday 22 September 2020, 6:00pm-7:30pm
Platform:	Zoom – https://us02web.zoom.us/j/83448302043
Subject:	Community Session on Impacts, Elevation at Greystanes
Presenters:	• Urbis (facilitator) – Stephanie Potter • Urbis – Penny Cannan • Aliro Group – Colin MacDonald, Andy Lloyd, Andrew Simpson, Sam Bowie • ISPT - Athlene Kyle • SLR – Antony Williams & Dominik Duschlbauer
Attendees:	• Ashwini Chand • Naveen Shally Puri

Time	Item	Lead
6:00pm	Open session and house keeping	Stephanie Potter, Urbis
6:05pm	Project overview • ISPT and Aliro Group are long term stakeholders • Site context: State-significant employment area • Proposed and allowed uses • Project changes after community feedback: ◦ Height reduced ◦ Views from Prospect Hill considered What we heard • What we heard from members of the community • How we are responding	Colin MacDonald, Aliro Group
6:15pm	Dust control measures Key control measures are: • Watercarts • Sprinklers • Sweeping • Hydromulching	Stephanie Potter, Urbis

6:25pm	Construction noise mitigation • Heavy construction vehicle noise • General construction works • High impact works	Stephanie Potter, Urbis
6:35pm	Warehouse operation noise reduction • Design approach and detailing • Typical warehouse operations • Validation on completion	Stephanie Potter, Urbis
6:45pm	Traffic noise mitigation • Site access and egress	Stephanie Potter, Urbis
6:55pm	Planning pathway and next steps	Stephanie Potter, Urbis
7:05pm	Facilitated question time	Stephanie Potter, Urbis

Questions raised by community members:

- How will the project cover damage to private property from ground movement?
- How will the health risk from dust during construction be managed? Will the project clean our backyards and homes?
- How will you manage traffic on Clunies Ross Road with the high volumes of employees using it to access staff parking?
- How will you ensure construction noise impacts are managed given the proximity of your site to our homes? How will you ensure the operational mitigations you have proposed will actually mitigate noise once you have finished construction and left the site?
- How will you effectively respond to residents' complaints and mitigate risks on all matters after construction?
- Who will address our concerns after construction?

Ashwini Chand
and Naveen Shally
Puri

Project response:

Ground movement:

The development works involve demolition of the existing structures on the site which is now complete. Earthmoving works are currently underway and will be followed by construction works for the new warehouses. We understand some noise was the cause for concern during the demolition works. Sensitive noise and vibration monitors have been located on the site boundary from commencement of the demolition works, which have measured the noise and vibration levels of all works to date. The results have been below the threshold limits for both noise and vibration. The ongoing works proposed for the development are not anticipated to generate noise or vibrations that would result in any physical impact to nearby properties.

Dust circulation:

ISPT and Aliro are committed to implementing dust control measures during construction to minimise the generation of dust. While some dust may be generated during earthmoving and construction works, over the long term the air quality is likely to improve compared with current operation of the Austral site. An air quality impact assessment was undertaken on the proposed development. To keep construction dust down, the site has increased the number of full-time water carts, and a number of sprinklers across the site. The majority of these are focused along Clunies Ross Street. Regular sweeping of hard surfaces to collect any material from vehicle movements is ongoing, and once the earthworks are complete the exposed surfaces are anticipated to be sealed with a suitable dust mitigating product such as an environmentally friendly polymer sealer.

Traffic:

As part of the State Significant Development Application (SSDA) process, a Traffic Impact Assessment (TIA) was completed. The TIA noted Clunies Ross Street access is anticipated as a secondary access to the proposed development, with most of the traffic expected to travel to and from the estate via Foundation Place. The Traffic Impact Assessment also reviewed the performance of the Clunies Ross Street / Wombat Street roundabout. According to the simulation this roundabout will operate with minimum delays and queues for 10 years' time. Please also note, the proposed development and its associated traffic are in line with permissible land-use on this site.

The TIA also assessed the impacts of traffic generated during the construction and operation of the development. It showed that the increased traffic would not substantially degrade the performance of the surrounding road network. All heavy vehicles travelling between the site and the regional road network would use Foundation Place and Clunies Ross Street. The TIA notes that most heavy vehicles will access the estate via Foundation Place as it provides better access to the Prospect Highway and M4 Motorway.

To help make positive traffic changes in the future, ISPT and Aliro will prepare a Green Travel Plan to encourage reduced reliance on private vehicle use (including carpooling, public transport and cycling to work).

Noise:

We understand your concerns around operational noise from the proposed development.

A Noise Impact Assessment was completed as part of the SSDA process. It demonstrated that the construction and operation of the development would comply with NSW Government noise policy requirements. This will be validated on completion to ensure the measures implemented during the design and construct are effective and meet the requirements of the SSDA.

Noise impacts in the Pemulwuy estate from traffic associated with the development will be reduced given the primary site

access is expected to be via Foundation Place rather than Clunies Ross Street.

Please note that the existing Austral site previously operated on a 24-hour basis.

Ongoing communications and future risk mitigation:

Should you have any further concerns during construction, you can contact the Urbis Engagement team on: engagement@urbis.com.au or call 1800 244 863.

ISPT and Aliro are committed to ongoing community engagement and plan to keep the community informed as the development evolves.

Addressing concerns after construction:

ISPT invests on behalf of many of Australia's top superannuation funds. As such, they expect to be a long-term owner of the site. Should any operational issues arise after construction finishes, ISPT are happy to listen and respond appropriately.

7:30pm

Close

Stephanie Potter,
Urbis

NOTE: A full recording of this session is available on request.

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ELEVATIONS AT GREYSTANES

LOTS 107, 63 & 10 CLUNIES ROSS ST, GREYSTANES NSW

LANDSCAPE MANAGEMENT PLAN

17.09.2021

ISSUE C

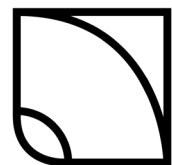
FOR:



SSD 10399

ISSUE	DESCRIPTION	SIGNED	DATE
A	Draft Issued for Review	DV	10.09.21
B	Draft Issued for Review	DV	14.09.21
C	Draft Issued for Review	DV	17.09.21

PREPARED BY:



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1.0 INTRODUCTION

This Landscape Management Plan has been prepared by Habit8 on behalf of ISPT. It accompanies the supporting documents prepared and submitted under State Significant Development SSD10399 Condition of Consent B19 for the redevelopment of Lots 107, 63 and 10 Clunies Ross St, Pemulwuy.

Due to its landscape setting, the site has a unique position between industrial warehouses, residential subdivision and the Prospect Hill recreation and heritage area. The ongoing management of the site landscape is therefore fundamental in reinforcing the canopy cover and screening of the development to surrounding land uses.

This Landscape Management Plan has been developed to manage the revegetation and landscaping works on-site. The Plan:

- details the species to be planted on-site
- describes the monitoring and maintenance measures to manage revegetation and landscaping works; and
- is consistent with and implements management and mitigation measures from Appendix 2 of SSD 10399.

1.1 The Site

The site is located on multiple parcels of land at Clunies Ross Street, over two suburbs, Prospect in the Blacktown Local Government Area (LGA) and Pemulwuy in the Cumberland LGA. The site is approximately 7 km west of the Parramatta CBD and approximately 26 km west of the Sydney CBD

The site is bounded by existing warehouse and distribution facilities and light industrial development to the west, south and northeast, with the residential development of Pemulwuy to the east. An acoustic wall separates the western boundary of the residential area from Clunies Ross Street and the site. To the north of the site is vacant land which is subject to a Gateway Determination (PP_2018_BLACK_008_00 issued 22 November 2018) to rezone the land under the Blacktown LEP 2015, to establish industrial land in the western portion and maintain the current operation of the eastern portion as a stormwater detention basin. The site in context to the surrounding locality is shown in Figure 1.



Figure 1: Regional Context

The site slopes moderately from the south near Prospect Hill to the north towards Girraween Creek, with an approximate 45 metre fall over 600 metres (5% slope on average). Parts of the site have been levelled with retaining walls to provide level surfaces for the existing uses. Historical land use included agricultural land uses and material storage and processing associated with nearby quarrying and manufacturing operations. More recently, the Boral site has been redeveloped to facilitate commercial office spaces for commercial/industrial land use.

The northern portion of the site (Lot 10 in DP 1022044) previously operated as the Austral masonry and building products facility. The southern portion of the site (Lot 107 in DP 1028208) comprised the former corporate headquarters of Boral Brickworks which included a large multi- storey office building and carparking areas which have been terraced into the existing landscape. These improvements on the site from the former use have now been demolished.

The site includes an easement for a water supply pipeline managed by Sydney Water, remnant vegetation along the northern boundary, between buildings and hardstand areas and flood retention basin in the north west corner of the site. The site is subject to Positive Covenants under section 88B of the Conveyancing Act 1919 which requires the landowner to establish and maintain the flood detention basin at the north west of the site.

The site is accessed via Clunies Ross Street or from the Prospect Highway via Foundation Place. The Prospect Highway, M4 Motorway and Great Western Highway are State roads and Clunies Ross Street and Foundation Place are within the control of Blacktown City Council or Cumberland Council.



Figure 2: Lot Boundary

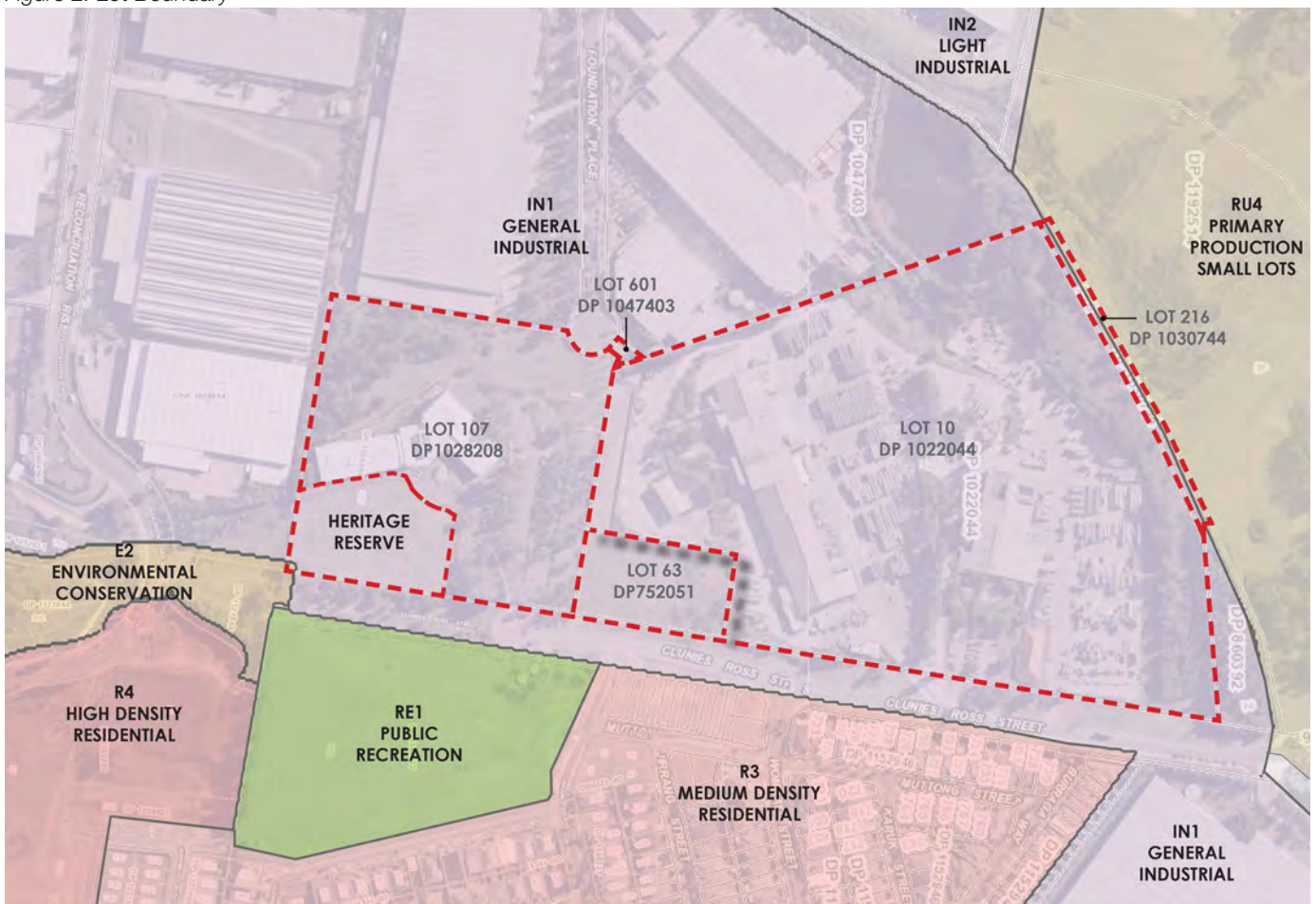


Figure 3: Site Zoning

GENERAL

--- PROPERTY BOUNDARY

DESIGN NOTES

1. FEATURE SITE ENTRY STATEMENT
2. BOUNDARY SCREEN PLANTING
3. CARPARK WITH SHED TREES
4. STREET SETBACK PLANTING
5. INTERNAL DRIVEWAY WITH STREET TREES
6. EXISTING TURF VERGE SETBACK RETAINED

SOFTSCAPE

- MASS PLANTING BEDS
Refer Notes & Details
- EXISTING LANDSCAPE (TURF)
Retained
- LARGE CANOPY TREES
AS SPECIFIED
Refer to Schedule & Details
- SMALL CANOPY TREES
AS SPECIFIED
Refer to Schedule & Details

HARDSCAPE

- RETAINING WALL
Refer to Detail
To Architect's Specification
- PAVED SURFACE
As specified
- CONCRETE SURFACE
As specified
- CASIN WALL
To Engineer's Details
- FENCE 01
- FENCE 02
- CONCRETE EDGE

DESIGN PRECEDENT IMAGES



Figure 4: Landscape Masterplan

LOT	FEATURES
South	Boral Office building (vacant) Large office building, landscaping and car parking. Laminex Warehouse
North	Girraween Creek corridor M4 Motorway corridor
East	Clunies Ross Street. Acoustic wall, residential housing, residential lots landscaping.
West	Industrial Warehouses and Offices Shelta

2.0 MONITORING AND MAINTENANCE MEASURES

2.1 Landscape Management Principles

The following landscape management principles have been identified as being consistent with the Landscape Plans;

- Minimise environmental impacts that may result from landscape management activities and utilise environmentally sustainable practices
- Preserve, enhance and improve the landscape character of the industrial estate
- For new and replacement plantings, the use of endemic plant species where appropriate
- Provide a safe environment, minimising potential risks to people, buildings and property
- Apply best practise landscape maintenance in landscape areas
- Target noxious weeds and feral animals through the use of integrated pest management approaches
- Maintain high quality outdoor spaces and streetscapes
- Maintain high quality passive recreation areas
- Appropriate funding, planning and management of landscape maintenance to provide a measurable improvement of the landscape appearance, safety and amenity.

Below is a summary of general maintenance and ongoing management requirements for revegetation and landscaping works.

2.2 Tree Protection

Avoid whipper-snipping grass at the base of trees as this can cause ring-barking and tree death. Clip around the base by hand where trees are planted into grass. Where trees are planted in paved areas, adjacent to the trunk, use:

- Ground covers
- Gravel
- Permeable paving surrounds
- Tree grates.

2.3 Fertilizing, Composting and Mulching

All trees whether native or exotic will perform better when the soil conditions are healthy. Building healthy soils is the key to achieving the long-term maintenance goals of landscape areas. Soil health is primarily achieved with regular applications of organic soil conditioners such as animal manures, decomposed green waste or proprietary blends of compost.

Fertilizing and composting are not critical maintenance activities except where there are obvious deficiencies but should be assessed on an annual basis by observation and leaf analysis.

Maintain an adequate level of mulch in planter beds in order to maximize water conservation and suppress weeds.

MAINTENANCE ACTION REQUIRED	FREQUENCY
Where obvious deficiencies are evident 60 grams/plant (trees) controlled release fertiliser such as Nutricote;	Only to be applied if the plant is noticeably under stress and the plant will benefit from the application of the fertiliser. Inspect annually; however apply in late spring if required.
3 x 20 grams slow release fertiliser tablet per plant N;P;K ratio – 18:3:10	Only to be applied if the plant is noticeably under stress and the plant will benefit from the application of the fertiliser. Inspect annually; however, apply in late spring if required.
Where soils are dry, hydrophobic and as a regular maintenance procedure, top up all garden beds with 30-50mm depth of soil conditioner as composted animal manure.	Bi-annually, applied at any time of the year
Maintain mulch to a depth of 75mm by periodic applications. Use the same mulch as originally specified in the Landscape Plan	As required, generally once per year

2.4 Pruning

All pruning shall be carried out by a qualified arborist AQF Level 3 and to be in accordance with AS 4373-2007 Pruning of Amenity Trees. Pruning will be an ongoing process, which will require the periodic removal of unsightly, dead wood, hazardous branches and view obstructing branches.

Prune trees to maintain driver sight lines, remove dead wood from over hanging paths and carparks to maintain vegetation health and to remove branches that are likely to pose a risk to public safety.

Suitable timing for pruning should be determined by the arborist so as to maintain vegetation health, however all trees should be inspected regularly and especially after high winds to determine if any action is required.

Suggested Inspection times:

Start of Spring (September)

Start of Autumn: (March)

Proposed avenue style tree planting along the internal roads and driveways will require under pruning to accommodate site lines. This should be achieved over a period of time to lift the crown and provide a clear trunk to a maximum height of 3 metres with a desirable height of 2m.

Dead limbs containing hollows should not be removed unless there is a risk to public safety; limbs with hollows that are pruned from trees should be left in a suitable location on the ground to provide habitat.

Removed timber and native vegetation, unless diseased, should be considered for re-use on-site either as habitat logs in bushland areas where appropriate, or mulched in garden beds.

2.5 Soil Management for Trees

Wherever trees are to be planted it is important to understand whether the existing in situ topsoil can be used as backfill, whether new topsoil, soil mix, soil conditioner or amendments needs to be imported, or if a mix of the above is best.

In general, the greater the soil/subsoil depth (the effective root depth) - the larger the tree that can be supported with minimal maintenance. The ideal soil profile for trees will have at least 3 horizons where the "A" horizon is the topsoil, the "B" horizon is Subsoil and the "C" horizon is the Subgrade. The minimum recommended topsoil depth for trees is 250mm with a minimum subsoil depth of 200mm. This will provide the tree with the minimum moisture/nutrient reserve and anchorage capacity.

In addition to a physical inspection of the soil to be used to assess field texture and structure and drainage capability, soils should also be analysed by a soil laboratory for the following properties at a minimum:

- pH
- Salinity (electrical conductivity)
- Cation exchange properties and exchangeable cations
- Major and minor nutrients
- Organic matter (%).

Where tree specimens in container sizes 25 litres or larger are to be planted, the subsoil should also be tested for:

- pH
- Salinity (electrical conductivity)
- Cation exchange properties and exchangeable cations
- Aggregate stability.

The most common amendments used to bring soils up to a standard suitable for plant growth are:

- Lime or dolomite to make acid pH soils more alkaline.
- Lime or Gypsum to enhance exchangeable calcium and eliminate sodicity
- Gypsum to make clay soils more friable
- Composts and/or manures to improve organic matter and nutrients levels
- Single or complete fertilisers often with trace elements to correct a particular deficiency or multiple deficiencies.

It is important that the backfill soil is returned in the layers in which it was excavated so that topsoil with organic content is placed back near the top 300mm of the backfill. Where the existing site topsoil backfill is unsuitable or insufficient it can be made up with:

Sandy loam or site won topsoil mixed with;	70-100% by volume	Eg. 8 parts washed sand/2 parts sandy loam/1 part compost.
Composted soil conditioner conforming with AS 4454	0-30% by volume	Amendments as reported by the soil test results.

Where the tree pit is deeper than 300mm (usually for trees in containers over 45 litres) and the existing site subsoil is unsuitable or insufficient a topsoil medium low in organic matter is required so that the organic matter does not “sour” at depths where there is less oxygen, It can be made up with a sandy, well-drained medium which contains low organic matter An example of the components may be:

Sandy loam	60-80% by volume
On-site clay loam or clay topsoil or subsoil Composted soil conditioner conforming with AS 4454	20-30% by volume

2.6 Tree Replacement

To ensure that the density, species and design intent of established tree plantings is maintained, any trees that die should be replaced immediately with the largest specimen that can be reasonably procured and practically handled into position. All trees supplied are to conform to the recommendations of AS 2303 and be true-to-species and type, and free of disease, fungus, infection and/or any other impediment to their future growth and that they have been fully acclimatized for the conditions of the site. Trees are to be supplied from an accredited plant supplier that will need approval from the project superintendent.
(Please refer to Appendix A for the Landscape documentation and plant schedules.)

Supply trees with the following properties:

- Free from injury.
- With calliper at any given point on the stem greater than the calliper at any higher point on the stem.
- Health: Foliage size, texture and colour at time of delivery consistent with that of healthy specimens for the nominated species.
- Vigour: Extension growth consistent with that exhibited in vigorous specimens of the species nominated.
- Damage: Free from damage and from restricted habitat due to growth in nursery rows.
- Stress: Free from stress resulting from inadequate watering, excessive shade or excessive sunlight experienced at any time during their development.
- Site environment: Grown and hardened off to suit anticipated site conditions at the time of delivery.
- Tree stock in containers less than 45 L: Self-supporting at dispatch.
- Indication of north: Trees in containers greater than 100 L or of Size Index greater than 140: Label the northerly aspect during growth in the nursery and maintain during transit.
- Root development: Grown in their final containers for the following periods:
- Plants < 25 L size: More than 6 weeks.
- Plants > 25 L size: More than 12 weeks.
- Pests and disease: Free from attack by pests or disease.
- Native species with a history of attack by native pests: Restrict plant supply to those with evidence of previous attack to less than 15% of the foliage and ensure absence of actively feeding insects.

REPLACEMENT PLANTING	FREQUENCY
Replace failed or damaged plantings.	As required
Water replacement plantings for a minimum of 12 weeks after planting	As required to ensure survival

2.7 Tree Surrounds and Stakes

Stakes and ties are used to support plants and avoid trampling. Developing plants exposed to high winds may require staking. Replace tree stakes when damaged and/or remove them when no longer required and the plant is self-supporting. All stakes to be installed as per the landscape construction details in the landscape set – Appendix A.

2.8 Planting Areas

In general mass planted beds are either planted with native species or exotic or combination of both. The key difference in the management of native plants are their requirements for low- phosphorous fertilisers and a lower fertiliser rate than exotic species generally.

Natives also have lower water requirements in comparison to exotics and are adapted to the harsher Australian conditions. Endemic native plants will tolerate site soils without amendment better than exotics, and if no fertilisers are added there may be a lesser invasion by exotic weeds. Therefore, for the long-term landscape management, endemic plant species should always be considered first for any new gardens.

The edges of the beds will be defined by garden edging as specified in the landscape documentation in Appendix A. Beds shall be weed free and mulched annually to suppress weed growth and maintain moisture content within the soil. Where irrigation is not present, gardens beds should be watered during dry spells to remove undue plant stress and the potential for die-back.

Pruning will be carried out on shrubs that require it, according to species, to remove the dead and damaged branches and to retain natural shape. Pruning will encourage good flowering to improve health and vigor.

Where die-back is present, new plants are to be planted as soon as possible, using species originally specified in the landscape documentation (Appendix A) or where there are no plants specified then replaced with endemic species where appropriate.

2.9 Pruning of Planted Areas

Ground covers and shrubs should be maintained as a maximum height of 0.5m along path edges. Remove dead or dying plants from mass planted areas as required. This may become necessary as plantings mature, after damage or adverse environmental conditions.

PRUNING MASS PLANTED AREAS	FREQUENCY
For low shrub species as per appropriate type; Tip prune to encourage density to 50- 100mm.	As required after flowering
For low shrub species as per appropriate type; Prune evenly to a height of 500mm above ground along path edges. Prune away from paths where required.	Every 4 years after flowering

2.10 Replacement Planting

Plants that have died or failed shall be replaced with the same species and variety as the closest commercially available size. This is to ensure that the density and species of the established plant material within mass planted areas is maintained.

REPLACEMENT PLANTING IN MASS PLANTED AREAS	FREQUENCY
Replace failed or damaged plantings.	As required
Water replacement plantings for a minimum of 12 weeks after planting	As required to ensure survival

2.11 Planting Conditions

Do not plant in unsuitable weather conditions such as extreme heat, cold, wind or rain. In other than sandy soils, suspend excavation when the soil is wet, or during frost periods.

Thoroughly water the plants before planting, immediately after planting, and as required to maintain growth rates free of stress.

Remove the plant from the container with minimum disturbance to the root ball. Make sure that the root ball is moist and place it in its final position, in the centre of the hole and plumb, and with the top soil level of the plant root ball level with the finished surface of the surrounding soil.

In planting beds and individual plantings, place fertiliser pellets around the plants at the time of planting. Application rate as per manufacturers details.

Backfill with topsoil mixture. Tamp lightly and water to eliminate air pockets. Make sure that topsoil is not placed over the top of the root ball, so the plant stem remains the same height above ground as it was in the container.

2.12 Mulching

Place mulch to the required depth of 75mm, clear of plant stems, and rake to an even surface flush with the surrounding finished levels. Spread and roll mulch so that after settling, or after rolling, it is smooth and evenly graded between design surface levels sloped towards the base of plant stems in plantation beds, and not closer to the stem than 50 mm in the case of gravel mulches.

- In mass planted areas: Place after the preparation of the planting bed but before planting and other work.
- In smaller areas (e.g. planter boxes): Place after the preparation of the planting bed, planting and other work.
- Extent: Provide mulch to 750 mm diameter, to surrounds of plants planted in riplines and grass areas.
Depths: Spread organic mulch to a depth of 75 mm, and gravel mulch to a depth of 50 mm.

2.13 Weed Management

It is important that weeds are not allowed to establish nor spread to other areas. Weeds are highly invasive species and have the potential to invade newly disturbed sites. A noxious weed is a plant declared to be noxious under the NSW Noxious Weeds Act 1993. Noxious weeds can be agricultural weeds, environmental weeds or have a direct impact on human health. Under the Biosecurity Act 2015, noxious weeds must be controlled. On private land, the responsibility lies with the owner/occupier of that land.

Environmental weeds are non-local plants that can invade and change natural areas and threaten the survival of native plants and animals. After land clearing, environmental weeds are considered to be the next greatest threat to our indigenous biological diversity.

Environmental weeds have the potential to readily invade garden beds and potentially impact on adjacent areas of bushland. In addition to the environmental hazards posed by weeds, weeds occurring in mass planted areas growing from the base of trees and pavements can be unsightly and presents an untidy appearance.

Weed monitoring and hand weeding will be required to be undertaken on a regular basis. The management and control will depend on the species of weeds present and the appropriate measures for mitigating any impacts caused by its management on native species. Generally, weed control measures will include:

- Observation of landscape areas to check for weeds and hand weeding of any weeds identified
- Development and implementation of an eradication plan applicable to the circumstances, which may include manual removal and spot spraying
- Regular contact with neighbouring property owners to attempt to eradicate weeds species from the surrounding area
- Regular mulching to help suppress weeds.

MAINTENANCE ACTION REQUIRED	FREQUENCY
Prevent reproduction of weeds by destroying seedlings and established weeds before they set seed or other propagules form. Remove by hand where infestations are low. Ensure that the entire weed including all roots are removed. Dispose of the weeds off site.	As required
Remove by Herbicide any weeds that cannot be controlled by hand removal. Herbicide application must occur before weed has set seed. Non-targeted species and areas must be reinstated if damaged by herbicide application. Herbicide to be used in accordance with regulation rates and manufacturers recommendations and Safety Data Sheets. After spraying, lop and dead weeds flush with the ground surface and dispose of the cuttings. Use of bio- degradable herbicide is mandatory.	Do not spray in windy conditions or if rain is forecasted within the next 24 hours.

2.14 Lawn Areas

Lawn/grassed areas have high demands for maintenance and require significant resources particularly in irrigation, fertilising and mowing. The level of maintenance required for particular lawn areas should be considered within the context of their intensity of use.

Maintenance and access for mowing of grass on grade is a potential occupational health and safety risk. Embankments steeper than 3:1 should be considered for planting. Restrict the provision of high quality, well maintained lawn to sports fields and premium passive use areas. Aim to reduce the amount of resources dedicated to maintaining lawn and grass areas. Clippings should remain where they fall under most circumstances and should not be raked up and removed. In low use areas, irrigation, fertilisation and maintenance should be reduced.

Mowing and trimming measures may include:

- Litter: Remove litter and fallen branches before mowing.
- Height: Consistent with the growth habit of the grass variety and maintained at 25 mm to 40 mm throughout the year.
- Program: Weekly during the mowing season, November to March, and at bi-weekly intervals during April to October. Do not mow under wet conditions.
- Raking: Once every month before mowing, during the mowing season, with a flexible rake. On alternate mowings, adopt a north-south and east-west pattern.
- Edges: At the same time as mowing, trim lawn edges to plant beds, pathways, base of trees and other obstacles. Ensure trees and shrubs are not damaged.
- Clippings distribution: To be used as compost where possible.

Where compaction of turf areas cannot be managed through prevention, and the quality of turf is declining, special machines that remove cores of soil, make slits or grooves or spike holes must be used. Perform when turf is in active growth in summer but not when temperatures are extreme or there are very drying winds.

Topdressing is applying a thin layer of growing media to the turf. Components are usually sand but it must always be more free-draining than the media under the turf and should always have the same consistency over consecutive applications. Topdressing properly applied will fill hollows and provide a smooth finish. The addition of free-draining sand will also improve drainage and infiltration and therefore improve turf health. Topdressing material for remediation of depressions or irregularities: Apply coarse or medium soil to AS 4419 suitable for application to turf or grass seeded areas.

3.0 PROTECTIVE MEASURES

3.1 Protection of Existing Vegetation

Existing vegetation and newly planted areas need protection during construction and establishment. During construction and establishment periods, temporary fencing should be placed at the extent of area to be protected, preferably beyond the drip-line of trees to be protected.

The fencing methods should include flagging tape, stakes and temporary fencing, clearly identifying the area to be protected and restricting pedestrian and vehicular access to the protected zone.

Following completion of the construction period (including establishment), all temporary works should be removed when they are no longer required.

3.2 Tree Protection

Tree protection on all development sites within the City of Cumberland must comply with Australian Standard 4970 – 2009 Protection of trees on development sites.

The relevant Australian Standards are:

- AS 4970 Protection of trees on development sites.
- AS 4687 Temporary fencing and hoardings.

Compliance with Tree protection requirements of Blacktown City Council is mandatory.

This section is only relevant to sites with existing trees are to be retained.

3.3 Erosion, Contamination and Sedimentation Control

During construction, all precautions necessary should be undertaken to prevent erosion, contamination, and sedimentation of the site, surrounding areas and drainage systems, including but not limited to the following:

- Construction of temporary drains and catch drains
- Diversion and dispersal of concentrated flows to points where the water can pass through the site without detrimental impacts
- Construction and maintenance of silt traps to prevent discharge of scoured material to downstream areas
- Stabilisation of exposed soil surfaces (e.g. through sterile grass seeding, erosion control meshing, or mulching using vegetative material removed from the study area)
- Use of erosion and sediment control measures to collect sediment and to reduce flow velocities
- Construction of temporary fencing
- Regular monitoring and maintenance of all erosion and sediment control structures throughout the construction and operational phases of the development to ensure their effective function.

3.4 Tree Removal and Disposal of Vegetation on Site

All significant trees removed as a result of construction works are to be replaced by the same species and planted in a suitable location corresponding with the relevant vegetation community.

For any significant trees removed for construction works, consideration should be given to retaining the woody parts whole or in sections, and placed on the ground to provide habitat for native fauna.

All other native vegetation that is identified for removal should be chipped for use as mulch. All weed material is to be separated and removed from the cleared material prior to chipping. Mulch should be stockpiled at approved locations around the site and be used in locations from where it was derived to ensure any seed stock located within the mulch will be located in appropriate site conditions.

Any vegetation, topsoil or other materials not identified for re-use shall be either disposal of off-site or in an area where the material will not wash into existing vegetation or onto roads or surrounding creeks.

4.0 MONITORING AND REPORTING

Regular inspections of all landscape areas should be undertaken by the Assets Team to ensure that maintenance is carried out according to the plan. The inspections should not be less frequent than three (3) monthly (or immediately after high rainfall/wind/heat events) with the objective that all areas are visited at least once within that period and an inspection checklist prepared and filled out during each inspection and a Three Monthly Maintenance Audit Form Submitted. (Refer to Appendix B). The inspection should include the ongoing protection of all existing vegetation and new revegetation works during its establishment period.

Maintenance staff should receive the audit form and carry out any remediation work required.

5.0 BUSHFIRE PROTECTION

5.1 Asset Protection Zones

In creating and maintaining a garden that is part of an APZ, the following should be considered:

- Sparse planting in the APZ is acceptable provided that they are well spread out and do not form a continuous path to the warehouse facilities. It should also not retain dead material or deposit quantities of ground fuel in a short or dangerous period. It must also be located far enough from the building so that plants will not ignite the building by direct flame contact or radiant heat emission.
- Plant or clear vegetation into clumps rather than in continuous rows in areas of risk. To prevent ground fire from spreading into trees, pruning of low branches two metres from ground is advised.
- Plant selection should preferably include local endemic species. Remove flammable species especially those with rough, flaky or stringy barks. Remove all noxious and environmental weeds as well.
- Ensure that planting is not positioned directly adjoining built structure. Where this does occur, gardens should contain low-flammability plants and non-flammable ground cover such as pebbles and crushed tile.
- Remove or locate away from the structure items like woodpiles, wooden sheds, combustible material, storage areas, large quantities of garden mulch, stacked flammable building materials etc. These items should have no direct contact with bush fire hazard vegetation.
- Take advantage of existing or proposed protective features as part of the property's APZ. These features are as follows: turf areas, fire trails, gravel paths, rows of trees, dams, creeks, swimming pools, tennis courts, vegetable gardens.
- Rows of trees can serve as wind break that will trap embers and flying debris that could otherwise reach the structure. These trees should be planted the same distance away from the structure as their maximum height.

5.2 Plants for Bush Fire Prone Gardens

In designing the landscape garden, it is essential to consider the type of plant species and their flammability aside from their arrangement and placement in the garden. In general, all plants will eventually burn, however there are plants that are less flammable than others.

Trees with loose, fibrous or stringy barks are flammable. These can easily ignite and encourage the ground fire to spread up to the crown of trees, thus should be avoided. When choosing less flammable plants, be sure not to introduce noxious or environmental weed species into the garden as it will cause greater long-term environmental damage.

Features of a less flammable plant:

- high moisture content
- high levels of salt
- low volatile oil content of leaves
- smooth barks without "ribbons" hanging from branches or trunks; and
- dense crown and elevated branches.

5.3 Inner Protection Areas

The area closest to the building that acts as a defensible space is called the IPA. Vegetation within this area should be kept to a minimum level and litter fuels should be discontinuous and kept below 1cm in height. The IPA consists of a mown lawn and well-maintained gardens.

Tree requirements within IPA:

- Tree canopy cover should be less than 15% at maturity and should not touch or overhang the building.
- Should be pruned to a height of 2m above the ground
- Tree canopies should be 2m to 5m apart
- Smooth barked and evergreen trees are preferred.

Shrubs requirements within IPA:

- Should have large gaps in the vegetation to slow down the threat of fire towards the building.
- Should not be located under trees and not form more than 10% of ground cover
- Should be away from exposed windows and doors at least twice the maturity height of the vegetation.

Grass requirements within IPA:

- Should be kept mown and not be more than 100mm in height.
- Should be clean of leaves and vegetation debris.

5.4 Outer Protection Areas

Located between the IPA and unmanaged vegetation is the OPA and only applicable in forest vegetation. Understories are managed in this area, with some separation in the canopies. It aims to decrease the intensity of an approaching fire on the IPA.

Tree requirements within OPA:

- Tree canopy cover should be less than 30% at maturity
- Tree canopies should be 2m to 5m apart.

Shrubs requirements within OPA:

- Should have large gaps in the vegetation to slow down the threat of fire towards the IPA.
- Should not form more than 20% of ground cover.

Grass requirements within OPA:

- Should be kept mown and not be more than 100mm in height.
- Should be clean of leaves and vegetation debris.

An APZ should be maintained at all times to ensure ongoing protection from the impact of bush fires. Maintenance of the IPA and OPA as described above should be undertaken regularly, particularly in advance of the bush fire season.

ELEVATION LOGISTICS ESTATE
LOTS 107, 63 & 10 CLUNIES ROSS STREET, GREYSTANES NSW

Landscaping - Consulting	Landscaping - Plant Schedule	Landscaping - General Layout Plan 01	Landscaping - General Layout Plan 02	Landscaping - General Layout Plan 03	Landscaping - General Layout Plan 04	Landscaping - General Layout Plan 05	Landscaping - General Layout Plan 06	Landscaping - General Layout Plan 07	Landscaping - General Layout Plan 08	Landscaping - General Layout Plan 09	Landscaping - General Layout Plan 10	Landscaping - General Layout Plan 11	Landscaping - General Layout Plan 12	Landscaping - Section 01	Landscaping - Section 02	Landscaping - Section 03	Landscaping - Section 04	Landscaping - Details 01	Landscaping - Details 02	Landscaping - Specification / Maintenance
-2001	-2002	-1001	-1002	-1003	-1004	-1005	-1006	-1007	-1008	-1009	-1010	-1011	-1012	-2001	-2002	-2003	-2004	-2001	-2002	-2003

	SITE BOUNDARY
	PLANTING BED Refer North & Details and Engineer's Details
	TURF Refer to Details
	PROPOSED TREES Refer to Details
	RETAINING WALL Refer to Engineer's Details
	EXISTING RETAINING WALL To be removed
	FENCE 01 To Architect's Detail
	FENCE 02 To Architect's Detail
	CONCRETE EDGING Refer to Detail
	PAVED / TILED SURFACE To Architect's Details
	CONCRETE SURFACE To Architect's Details
	GABION WALL To Engineer's Details

D These drawings must be used in conjunction with the drawing package from the consultant team including all engineering drawings.

0 SERVICES

0.0 All existing services at the full location of all existing services before excavation works are started. Services shown are indicative only. Refer to Engineer's Documentation.

0 FALLS

0.0 Do not scale from these drawings - use figured dimensions

0 PRESENTMENT, PAINTING & SURFACES TO BE GRADED EVENLY. FINISHING IS UNACCEPTABLE.

0 SURFACE LEVELS

0.0 All surface levels to be verified on site prior to Civil Contractor works. All adjacent surfaces are to be level and finished to match unless stated or documented otherwise. Allow for a min 375 mm station for painting soil mix and much.

0 PLANT PROCUREMENT

0.0 Landscape Architect has chosen the tree species + supplier. For a pre-grow contact: Carrmore Home 0402 74 887

0 TREE + PLANTING SET OUT

0.0 Irrigation Architect to approve project set out prior to construction.

0 IRRIGATION

0.0 Design + Construct by contractor. Confirm extent prior to construction.

0.0 All planting to AS 3300 - 2015 - Tree Stock + Nutspec (2003) guide to specifying trees

0.0 All set to comply with AS4419

ISSUE	DATE	PURPOSE
A	23.08.21	Tender issue
B	10.09.21	Tender issue

NEVER scale off drawings. Use figured dimensions only. Drawings indicate scope of works and general setup. These are not shop drawings.

CLIENT



PROJECT
ELEVATION LOGISTICS ESTATE
LOTS 407, 83 & 10 CLUNES ROSS STREET, GREYSTAINES NSW

DRAWING TITLE
LANDSCAPE - COVERSHEET

SCALE	
NTS	
DRAWN	CHECKED
KM / DG	DV
PROJECT NO.	DRAWING NO.
H8-21030	L-0001
	REVISION
	B

LANDSCAPE ARCHITECT



HABIT8
Landscape Architecture & Urbanism
32/24 Scott St.
Byron Bay, NSW 2481
Level 57, MLC Centre
19-29 Martin Place,
Sydney, NSW 2000

www.habib8.com.au
 Tel: 0425 206 047

NOT FOR CONSTRUCTION
TENDER PURPOSES ONLY

MASTER PLANT SCHEDULE

CODE	BOTANICAL NAME	POT SIZE	DENSITY	QUANTITY
TREES				
* CUP	Cupaniopsis anacardioides	100L	As Shown	61
* WFL	Waterhousea floribunda	200L	As Shown	31
* EE	Elaeocarpus eumundi	200L	As Shown	35
* ER	Elaeocarpus reticulatus	200L	As Shown	21
* EMM	Eucalyptus moluccana	200L	As Shown	78
* TL	Tristanopsis lusciosa	200L	As Shown	12
* BA	Brachychiton acerifolius	200L	As Shown	65
* CM	Corymbia maculata	200L	As Shown	10
* FR	Ficus rubiginosa	200L	As Shown	27
* MEX	Magnolia "Emouth"	200L	As Shown	4
* MEX	Magnolia "Codylyn Glass"	200L	As Shown	31
* FR	Ficus rubiginosa	200L	As Shown	31
SHRUBS				
DEX	Doryanthes excelsa	200mm	2/m ²	1942
CLJ	Callistemon "Little John"	150mm	3/m ²	2732
SSF	Syzygium "Resilience"	300mm	2/m ²	7794
CC	Callistemon citrinus	300mm	2/m ²	2914
GGG	Grevillea "Honey Gem"	300mm	3/m ²	722
GRG	Grevillea "Robyn Gordon"	300mm	3/m ²	912
PM	Pennisetum "Nafray"	200mm	2/m ²	1211
WF	Westringia frutescens	200mm	2/m ²	130
GROUNDCOVERS & GRASSES				
LC	Lomandra latrans	150mm	4/m ²	2701
LT	Lomandra longifolia "Tanika"	150mm	4/m ²	3317
MP	Myoporum parvifolium	150mm	4/m ²	1400
HV	Hardenbergia violacea	150mm	4/m ²	1334
PN	Pennisetum "Nafray"	150mm	4/m ²	316
DR	Dianella revoluta	150mm	4/m ²	4441
DR	Dianella revoluta	150mm	4/m ²	2578

* TREES HAVE BEEN PROCURED UNDER A PRE-GROW CONTRACT.

CONTACT DAVID ON 043208047

WAREHOUSE 2 PLANT SCHEDULE (L-1004 to L-1011B)

CODE	BOTANICAL NAME	POT SIZE	DENSITY	QUANTITY
TREES				
* CUP	Cupaniopsis anacardioides	100L	As Shown	5
* WFL	Waterhousea floribunda	200L	As Shown	11
* EE	Elaeocarpus eumundi	200L	As Shown	5
* ER	Elaeocarpus reticulatus	200L	As Shown	1
* BA	Brachychiton acerifolius	200L	As Shown	3
* CM	Corymbia maculata	200L	As Shown	1
* MEX	Magnolia "Emouth"	200L	As Shown	1
* MEX	Magnolia "Codylyn Glass"	200L	As Shown	1
SHRUBS				
DEX	Doryanthes excelsa	200mm	2/m ²	40
CLJ	Callistemon "Little John"	150mm	3/m ²	11
SSF	Syzygium "Resilience"	300mm	2/m ²	11
CC	Callistemon citrinus	300mm	2/m ²	88
GGG	Grevillea "Honey Gem"	300mm	3/m ²	46
GRG	Grevillea "Robyn Gordon"	300mm	3/m ²	46
PM	Pennisetum "Nafray"	200mm	2/m ²	50
WF	Westringia frutescens	200mm	2/m ²	50
GROUNDCOVERS & GRASSES				
LC	Lomandra latrans	150mm	4/m ²	92
CLJ	Callistemon "Little John"	150mm	4/m ²	92
PN	Pennisetum "Nafray"	150mm	4/m ²	220
DR	Dianella revoluta	150mm	4/m ²	361

* TREES HAVE BEEN PROCURED UNDER A PRE-GROW CONTRACT.

CONTACT DAVID ON 043208047

CLUNIES ROSS ST. FRONTAGE PLANT SCHEDULE (L-1003 to L-1006)

CODE	BOTANICAL NAME	POT SIZE	DENSITY	QUANTITY
TREES				
* AC	Angophora costata	200L	As Shown	23
* MEX	Magnolia "Codylyn Glass"	200L	As Shown	21
* WFL	Waterhousea floribunda	200L	As Shown	21
* EE	Elaeocarpus eumundi	200L	As Shown	31
* ER	Elaeocarpus reticulatus	200L	As Shown	26
* EMM	Eucalyptus moluccana	200L	As Shown	52
* TL	Tristanopsis lusciosa	200L	As Shown	10
* BA	Brachychiton acerifolius	200L	As Shown	27
* CM	Corymbia maculata	200L	As Shown	4
* FR	Ficus rubiginosa	200L	As Shown	31
* MEX	Magnolia "Emouth"	200L	As Shown	31
* MEX	Magnolia "Codylyn Glass"	200L	As Shown	31
SHRUBS				
DEX	Doryanthes excelsa	200mm	2/m ²	766
CLJ	Callistemon "Little John"	150mm	3/m ²	1338
SSF	Syzygium "Resilience"	300mm	2/m ²	1338
CC	Callistemon citrinus	300mm	2/m ²	1338
GRG	Grevillea "Honey Gem"	300mm	3/m ²	1338
GRG	Grevillea "Robyn Gordon"	300mm	3/m ²	1338
PM	Pennisetum "Nafray"	200mm	2/m ²	1338
GROUNDCOVERS & GRASSES				
LC	Lomandra latrans	150mm	4/m ²	902
LT	Lomandra longifolia "Tanika"	150mm	4/m ²	902
MP	Myoporum parvifolium	150mm	4/m ²	902
HV	Hardenbergia violacea	150mm	4/m ²	902
PN	Pennisetum "Nafray"	150mm	4/m ²	902
DR	Dianella revoluta	150mm	4/m ²	902

* TREES HAVE BEEN PROCURED UNDER A PRE-GROW CONTRACT.

CONTACT DAVID ON 043208047

WAREHOUSE 3 PLANT SCHEDULE (L-1003 to L-1004, L-1009 to L-1010)

CODE	BOTANICAL NAME	POT SIZE	DENSITY	QUANTITY
TREES				
* CUP	Cupaniopsis anacardioides	100L	As Shown	2
* WFL	Waterhousea floribunda	200L	As Shown	3
* EE	Elaeocarpus eumundi	200L	As Shown	4
* TL	Tristanopsis lusciosa	200L	As Shown	5
* BA	Brachychiton acerifolius	200L	As Shown	4
* CM	Corymbia maculata	200L	As Shown	6
* MEX	Magnolia "Emouth"	200L	As Shown	2
* MEX	Magnolia "Codylyn Glass"	200L	As Shown	3
SHRUBS				
DEX	Doryanthes excelsa	200mm	2/m ²	242
CLJ	Callistemon "Little John"	150mm	3/m ²	242
SSF	Syzygium "Resilience"	300mm	2/m ²	259
CC	Callistemon citrinus	300mm	2/m ²	259
GRG	Grevillea "Honey Gem"	300mm	3/m ²	500
GRG	Grevillea "Robyn Gordon"	300mm	3/m ²	500
GROUNDCOVERS & GRASSES				
LC	Lomandra latrans	150mm	4/m ²	895
LT	Lomandra longifolia "Tanika"	150mm	4/m ²	948
CGL	Carpetobrotus glaucescens	150mm	4/m ²	720
PN	Pennisetum "Nafray"	150mm	4/m ²	720
DR	Dianella revoluta	150mm	4/m ²	82

* TREES HAVE BEEN PROCURED UNDER A PRE-GROW CONTRACT.

CONTACT DAVID ON 043208047

ESTATE ROAD WORKS PLANT SCHEDULE (L-1006 to L-1008, L-1010 to L-1012)

CODE	BOTANICAL NAME	POT SIZE	DENSITY	QUANTITY
TREES				
* CUP	Cupaniopsis anacardioides	100L	As Shown	3
* WFL	Waterhousea floribunda	200L	As Shown	33
* AC	Angophora costata	200L	As Shown	7
* EE	Elaeocarpus eumundi	200L	As Shown	12
* EMM	Eucalyptus moluccana	200L	As Shown	46
* TL	Tristanopsis lusciosa	200L	As Shown	39
* BA	Brachychiton acerifolius	200L	As Shown	4
* CM	Corymbia maculata	200L	As Shown	10
* MEX	Magnolia "Emouth"	200L	As Shown	7
SHRUBS				
DEX	Doryanthes excelsa	200mm	2/m ²	1008
CLJ	Callistemon "Little John"	150mm	3/m ²	1565
SSF	Syzygium "Resilience"	300mm	2/m ²	1702
CC	Callistemon citrinus	300mm	2/m ²	1498
GGG	Grevillea "Honey Gem"	300mm	3/m ²	25
GRG	Grevillea "Robyn Gordon"	300mm	3/m ²	1536
GROUNDCOVERS & GRASSES				
LC	Lomandra latrans	150mm	4/m ²	110
LT	Lomandra longifolia "Tanika"	150mm	4/m ²	1201
HV	Hardenbergia violacea	150mm	4/m ²	774
CGL	Carpetobrotus glaucescens	150mm	4/m ²	569
PN	Pennisetum "Nafray"	150mm	4/m ²	3283
DR	Dianella revoluta	150mm	4/m ²	1344

* TREES HAVE BEEN PROCURED UNDER A PRE-GROW CONTRACT.

CONTACT DAVID ON 043208047

WAREHOUSE 4 & 5 PLANT SCHEDULE (L-1003)

CODE	BOTANICAL NAME	POT SIZE	DENSITY	QUANTITY
TREES				
* CUP	Cupaniopsis anacardioides	100L	As Shown	8
* WFL	Waterhousea floribunda	200L	As Shown	3
SHRUBS				
CLJ	Callistemon "Little John"	150mm	3/m ²	15
SSF	Syzygium "Resilience"	300mm	2/m ²	36
PM	Pennisetum "Nafray"	200mm	2/m ²	36
GROUNDCOVERS & GRASSES				
LC	Lomandra latrans	150mm	4/m ²	72
LT	Lomandra longifolia "Tanika"	150mm	4/m ²	45
DR	Dianella revoluta	150mm	4/m ²	20

* TREES HAVE BEEN PROCURED UNDER A PRE-GROW CONTRACT.

CONTACT DAVID ON 043208047

WAREHOUSE 7 PLANT SCHEDULE (L-1007 to L-1008, L-1011A, L-1012)

CODE	BOTANICAL NAME	POT SIZE	DENSITY	QUANTITY
TREES				
* CUP	Cupaniopsis anacardioides	100L	As Shown	18
* WFL	Waterhousea floribunda	200L	As Shown	11
* AC	Angophora costata	200L	As Shown	2
* EE	Elaeocarpus eumundi	200L	As Shown	2
* EMM	Eucalyptus moluccana	200L	As Shown	2
* TL	Tristanopsis lusciosa	200L	As Shown	2
* BA	Brachychiton acerifolius	200L	As Shown	2
* CM	Corymbia maculata	200L	As Shown	2
* MEX	Magnolia "Emouth"	200L	As Shown	8
SHRUBS				
DEX	Doryanthes excelsa	200mm	2/m ²	170
CLJ	Callistemon "Little John"	150mm	3/m ²	84
SSF	Syzygium "Resilience"	300mm	2/m ²	580
CC	Callistemon citrinus	300mm	2/m ²	580
GRG	Grevillea "Honey Gem"	300mm	3/m ²	580
GRG	Grevillea "Robyn Gordon"	300mm	3/m ²	580
GROUNDCOVERS & GRASSES				
LC	Lomandra latrans	150mm	4/m ²	488
LT	Lomandra longifolia "Tanika"	150mm	4/m ²	338
HV	Hardenbergia violacea	150mm	4/m ²	200
PN	Pennisetum "Nafray"	150mm	4/m ²	556
DR	Dianella revoluta	150mm	4/m ²	456

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CONTACT DAVID ON 043208047

WAREHOUSE 1 PLANT SCHEDULE (L-1005 to L-1007)

CODE	BOTANICAL NAME	POT SIZE	DENSITY	QUANTITY
TREES				
* CUP	Cupaniopsis anacardioides	100L	As Shown	7
* WFL	Waterhousea floribunda	200L	As Shown	11
* EE	Elaeocarpus eumundi	200L	As Shown	60
* EMM	Eucalyptus moluccana	200L	As Shown	7
* TL	Tristanopsis lusciosa	200L	As Shown	6
* BA	Brachychiton acerifolius	200L	As Shown	4
* CM	Corymbia maculata	200L	As Shown	1
* MEX	Magnolia "Emouth"	200L	As Shown	8
SHRUBS				
DEX	Doryanthes excelsa	200mm	2/m ²	120
CLJ	Callistemon "Little John"	150mm	3/m ²	178
SSF	Syzygium "Resilience"	300mm	2/m ²	8
CC	Callistemon citrinus	300mm	2/m ²	300
GGG	Grevillea "Honey Gem"	300mm	3/m ²	60
GRG	Grevillea "Robyn Gordon"	300mm	3/m ²	150
GROUNDCOVERS & GRASSES				
LC	Lomandra latrans	150mm	4/m ²	337
LT	Lomandra longifolia "Tanika"	150mm	4/m ²	237
CGL	Carpetobrotus glaucescens	150mm	4/m ²	237
DR	Dianella revoluta	150mm	4/m ²	298

* TREES HAVE BEEN PROCURED UNDER A PRE-GROW CONTRACT.

CONTACT DAVID ON 043208047

WAREHOUSE 6 PLANT SCHEDULE (L-1001 to L-1002, L-1010)

CODE	BOTANICAL NAME	POT SIZE	DENSITY	QUANTITY
TREES				
* CUP	Cupaniopsis anacardioides	100L	As Shown	18
* WFL	Waterhousea floribunda	200L	As Shown	21
* AC	Angophora costata	200L	As Shown	3
* EE	Elaeocarpus eumundi	200L	As Shown	39
* EMM	Eucalyptus moluccana	200L	As Shown	9
* TL	Tristanopsis lusciosa	200L	As Shown	15
* BA	Brachychiton acerifolius	200L	As Shown	2
* CM	Corymbia maculata	200L	As Shown	4
* MEX	Magnolia "Emouth"	200L	As Shown	3
SHRUBS				
DEX	Doryanthes excelsa	200mm	2/m ²	182
CLJ	Callistemon "Little John"	150mm	3/m ²	711
SSF	Syzygium "Resilience"	300mm	2/m ²	467
CC	Callistemon citrinus	300mm	2/m ²	90
GGG	Grevillea "Honey Gem"	300mm	3/m ²	637
GRG	Grevillea "Robyn Gordon"	300mm	3/m ²	30
WF	Westringia frutescens	200mm	2/m ²	80
GROUNDCOVERS & GRASSES				
LC	Lomandra latrans	150mm	4/m ²	142
LT	Lomandra longifolia "Tanika"	150mm	4/m ²	1148
HV	Hardenbergia violacea	150mm	4/m ²	60
CGL	Carpetobrotus glaucescens	150mm	4/m ²	768

* TREES HAVE BEEN PROCURED UNDER A PRE-GROW CONTRACT.

CONTACT DAVID ON 043208047

NOTES:

ISSUE	DATE	PURPOSE
A	23.08.21	Tender Issue
B	10.09.21	Tender Issue



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ELEVATION LOGISTICS ESTATE
LOTS 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ISSUE	DATE	PURPOSE
A	23.08.21	Tender Issue
B	10.09.21	Tender Issue



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NEVER scale off drawings, use figured dimensions only.

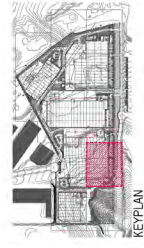
Drawings indicate scope of work and general section. These are not to be used for construction.

CLIENT



PROJECT
ELEVATION LOGISTICS ESTATE
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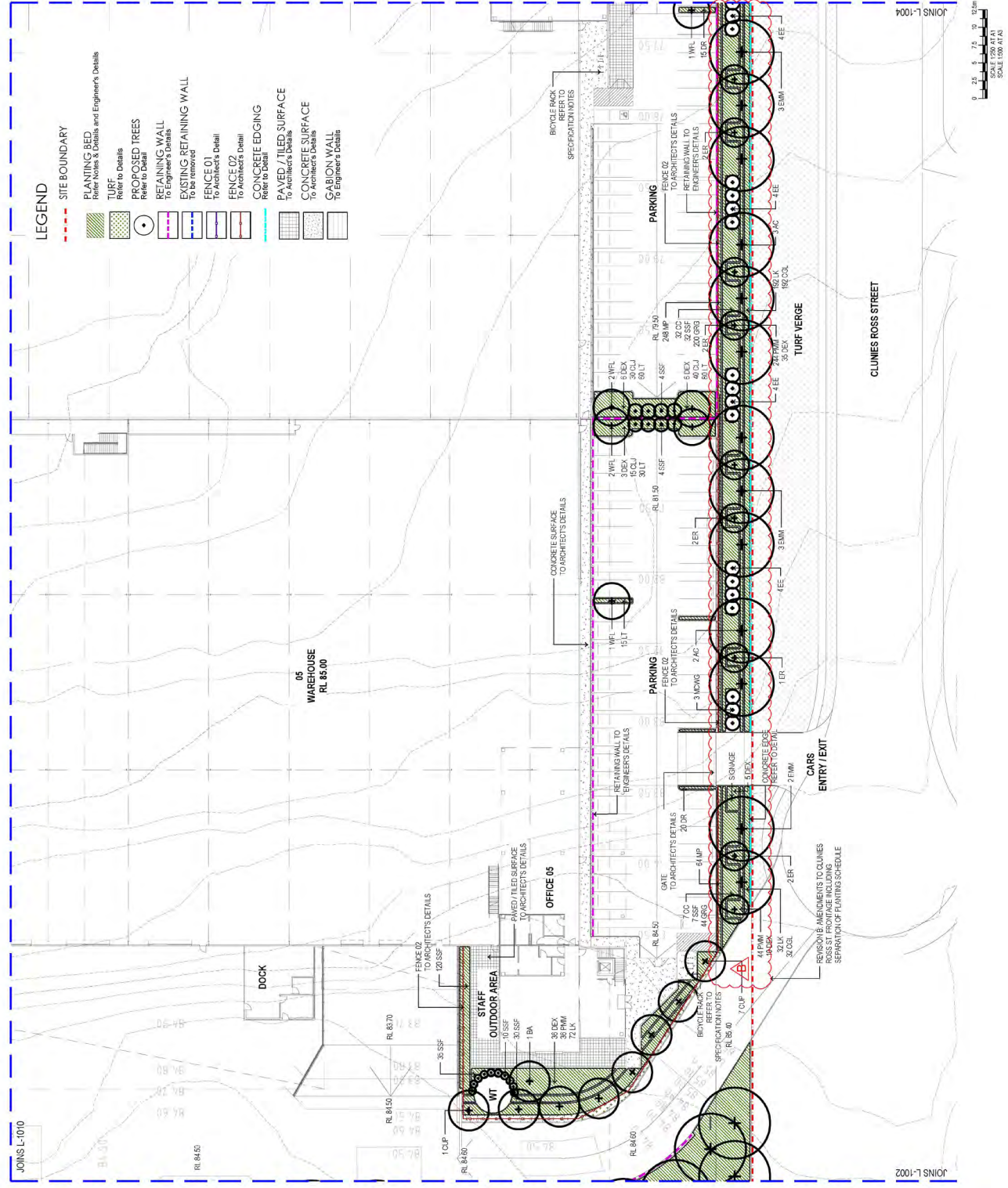
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ISSUE	DATE	PURPOSE
A	23.08.21	Tender Issue
B	10.08.21	Tender Issue



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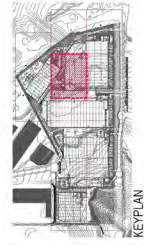
NEVER scale off drawings, use figured dimensions only. Drawings indicate scope of works and general set out. These are not to be used for construction.

CLIENT



PROJECT
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ISSUE	DATE	PURPOSE
A	23.08.21	Tender Issue
B	10.09.21	Tender Issue



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PROJECT
ELEVATION LOGISTICS ESTATE
LOTS 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000

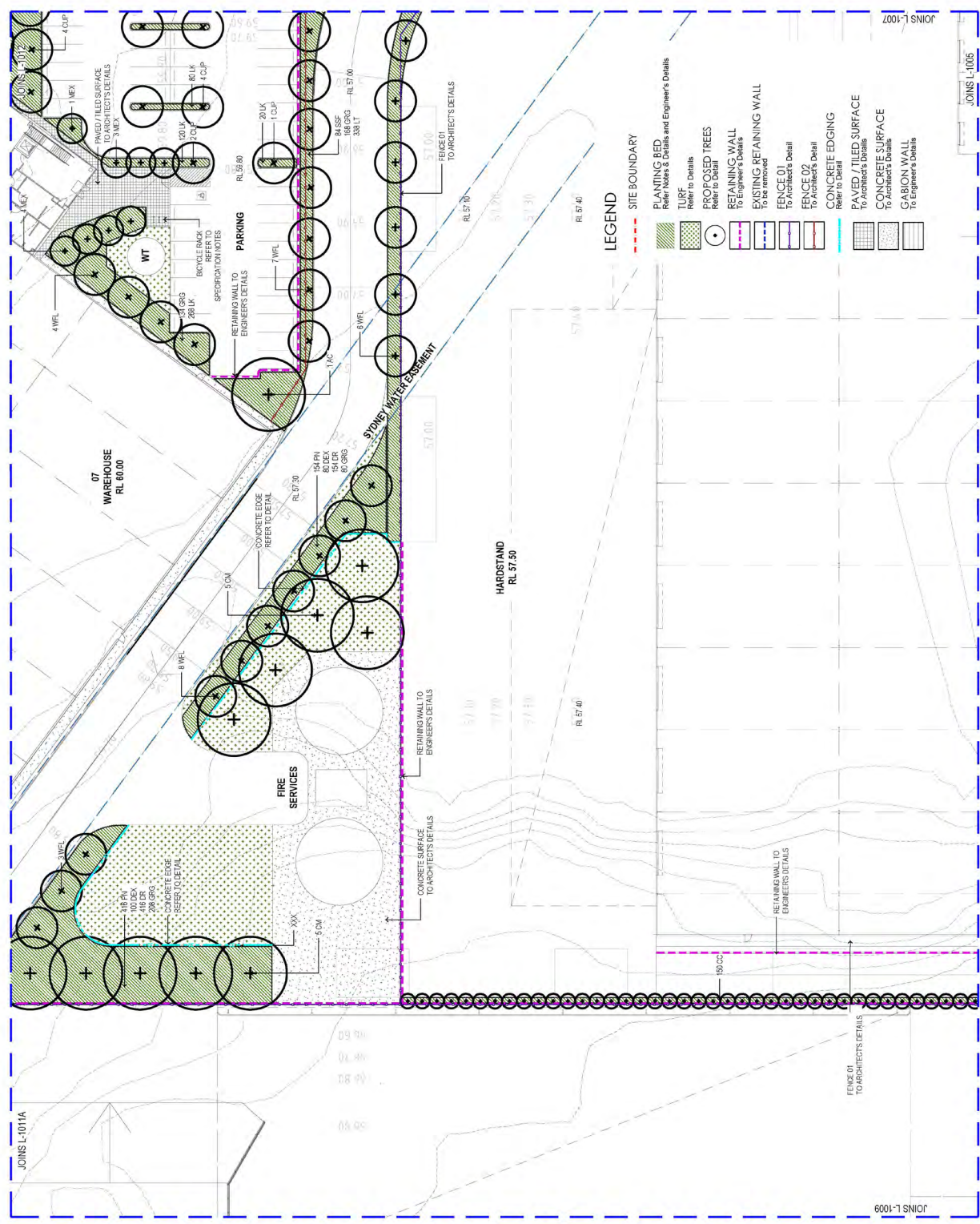
DRAWING TITLE
LANDSCAPE
GENERAL LAYOUT PLAN 08

SCALE
1:200 @ A1 / 1:500 @ A3

DRAWN
CHECKED
DIV

PROJECT NO.
DRAWING NO.
REVISION
H8-21030 L-1008 B

LANDSCAPE ARCHITECT:



ISSUE	DATE	PURPOSE
A	23.08.21	Tender Issue
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PROJECT
ELEVATION LOGISTICS ESTATE
LOTS 87, 88 & 89 CLONES ROAD STREET, GREYSTANES NSW

DRAWING TITLE
LANDSCAPE
GENERAL LAYOUT PLAN 10

SCALE
1:250 @ A1 / 1:500 @ A3

DRAWN
KM / DG

CHECKED
DV

PROJECT NO.
H8-21030

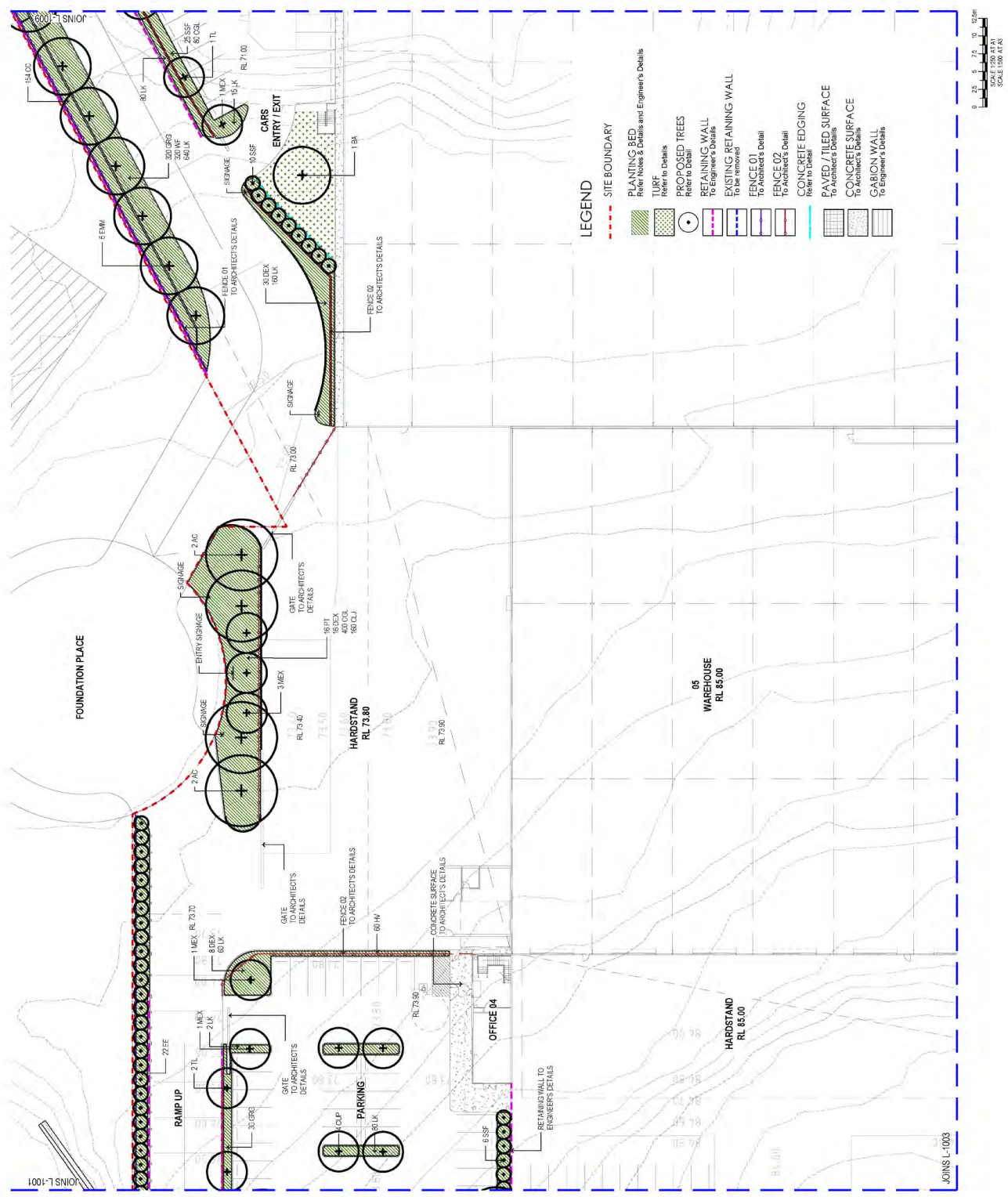
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L-1010

REVISION
B

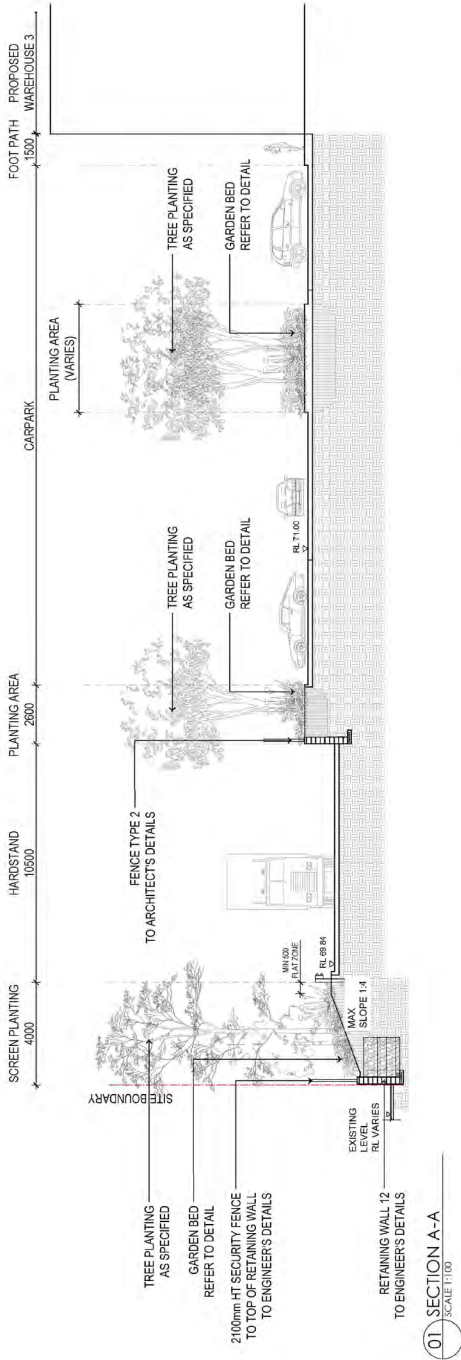
LANDSCAPE ARCHITECT:



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10/20 Macquarie Street
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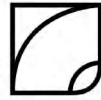
CLIENT



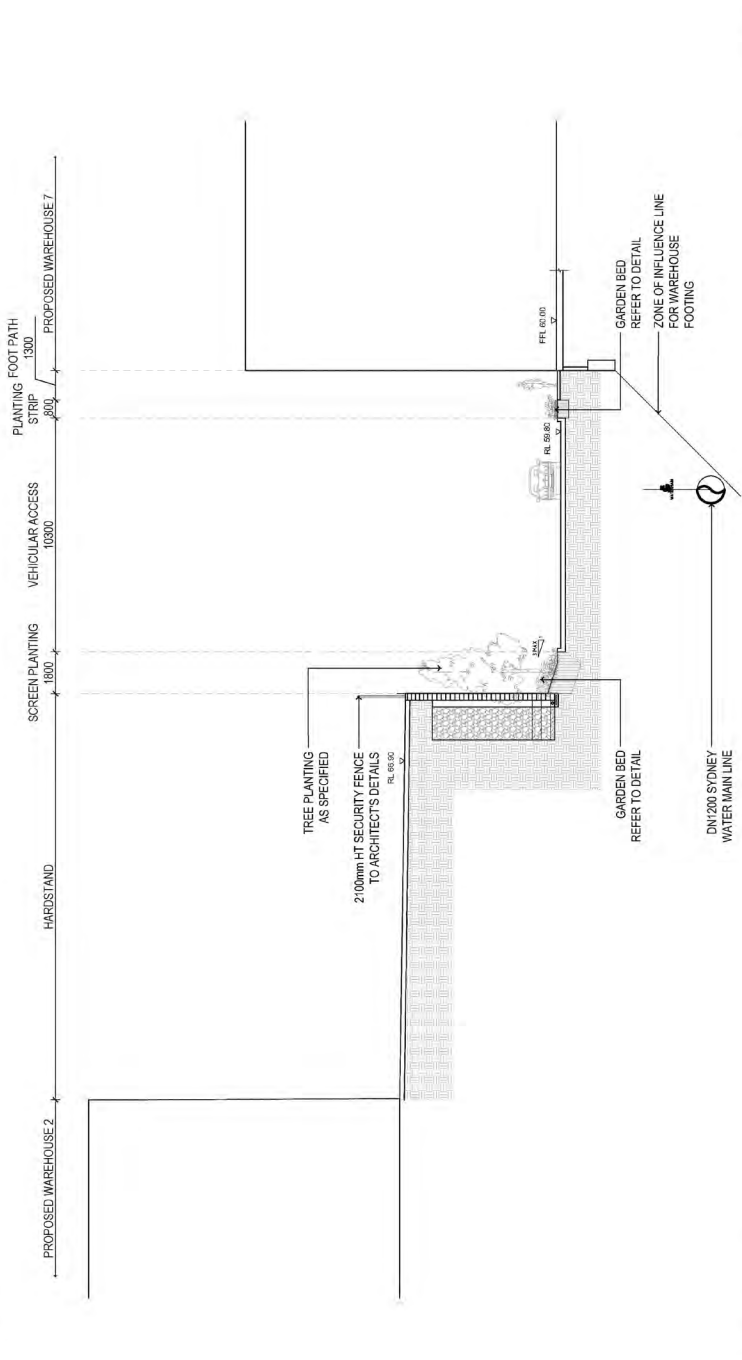
PROJECT
ELEVATION LOGISTICS ESTATE
LOTS 80, 81 & 82 CLYDE ROAD STREET, GREYSTANES NSW

DRAWING TITLE
LANDSCAPE SECTIONS 01

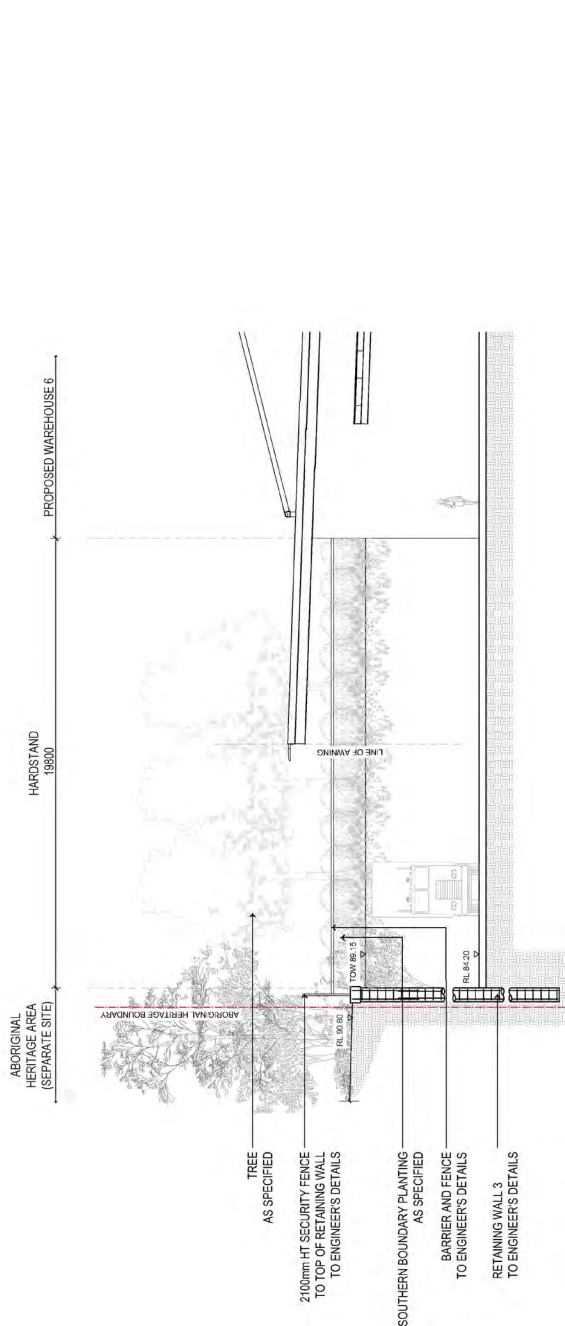
SCALE 1:100 @ A1 / 1:200 @ A3	CHECKED DV
DRAWN KM / DG	PROJECT NO H8-21030
REVISION B	DRAWING NO L-2001
LANDSCAPE ARCHITECT:	



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PROJECT
ELEVATION LOGISTICS ESTATE
LOTS 107, 61A, 10 CLINES ROAD STREET, GREYSTANES NSW

DRAWING TITLE
LANDSCAPE SECTIONS 03

SCALE
1:100 @ A1 / 1:200 @ A3

DRAWN
KM / DG

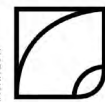
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PROJECT NO
H8-21030

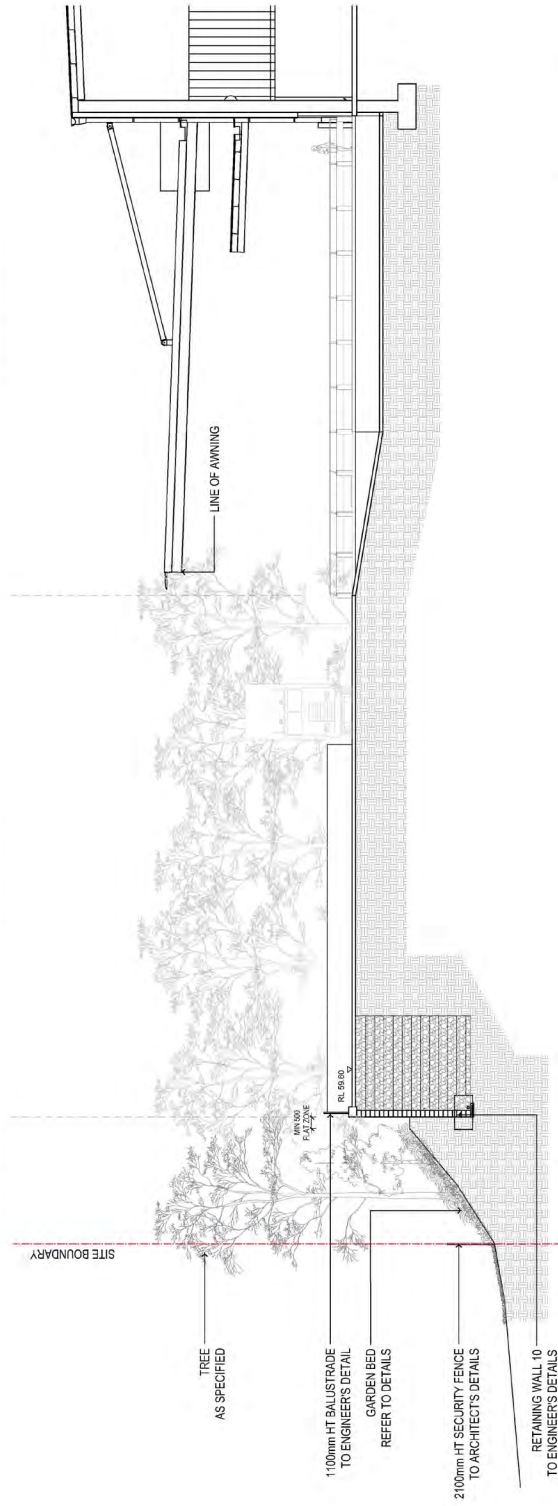
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REVISION
B

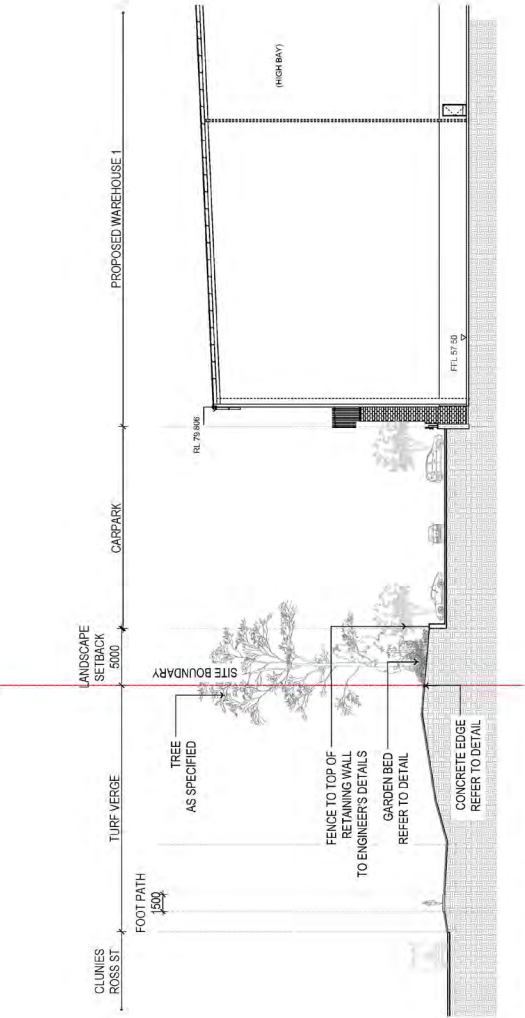
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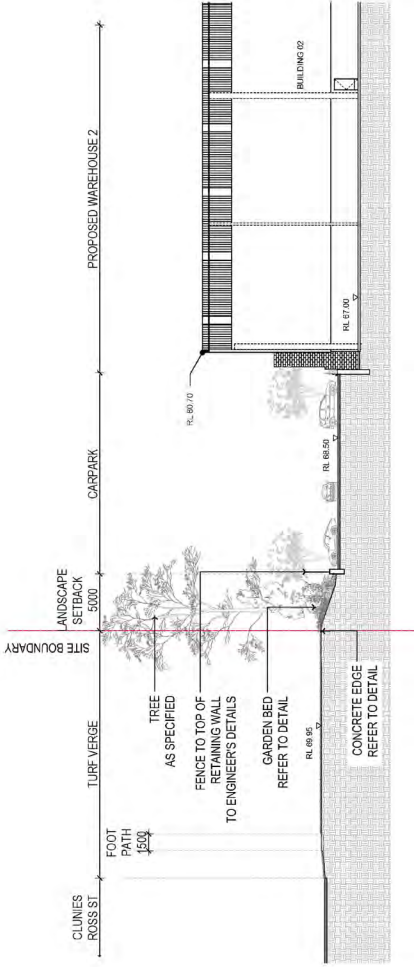
HABIT8
Landscape Architecture & Urbanism
100/101 MLC Centre
152/154 Market Street
Sydney NSW 2000
www.habit8.com.au
VIC: LNC457236 LNC47



ISSUE	DATE	PURPOSE
A	23.08.21	Tender Issue
B	10.09.21	Tender Issue



01 SECTION G-G
SCALE 1:200



02 SECTION H-H
SCALE 1:200



KEYPLAN

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PROJECT
ELEVATION LOGISTICS ESTATE
LOTS 107, 61A CLUNIES ROSS STREET, GREYSTANES NSW

DRAWING TITLE
LANDSCAPE SECTIONS G/H

SCALE
1:200 @ A1 / 1:400 @ A3

DRAWN
KM / DG

CHECKED
DV

PROJECT NO
H8-21030

DRAWING NO
L-2004

REVISION
B

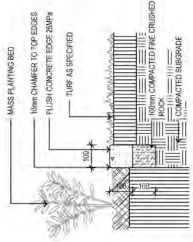
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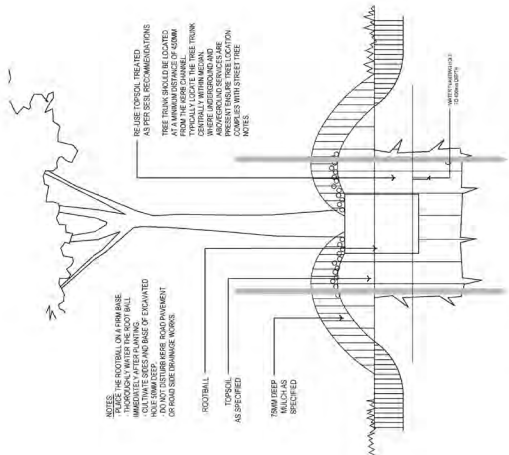
HABIT8
Landscape Architecture & Urbanism
10/11-13/15 MLC Centre
15/20/21/22/23/24/25/26/27/28/29/30/31/32/33/34/35/36/37/38/39/40/41/42/43/44/45/46/47/48/49/50/51/52/53/54/55/56/57/58/59/60/61/62/63/64/65/66/67/68/69/70/71/72/73/74/75/76/77/78/79/80/81/82/83/84/85/86/87/88/89/90/91/92/93/94/95/96/97/98/99/100
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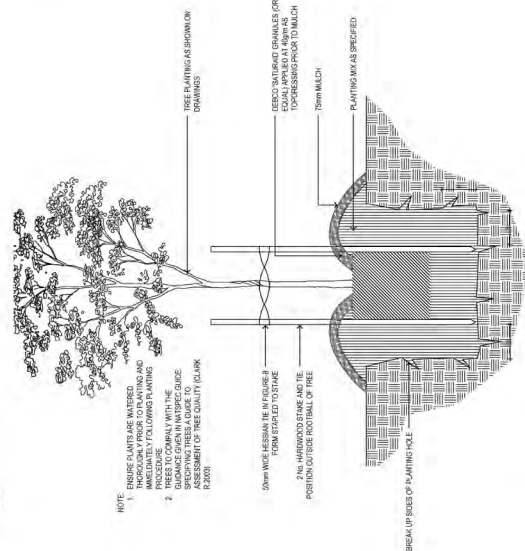
ISSUE	DATE	PURPOSE
A	23.08.21	Tender Issue
B	10.09.21	Tender Issue



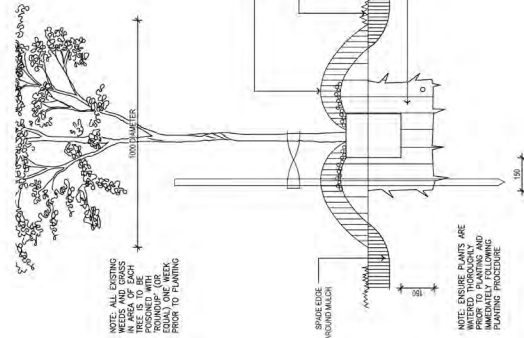
01 MASS PLANTING BED
SCALE 1:10



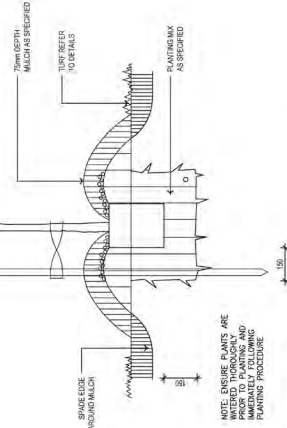
02 TREE PLANTING (75 L)
SCALE 1:20



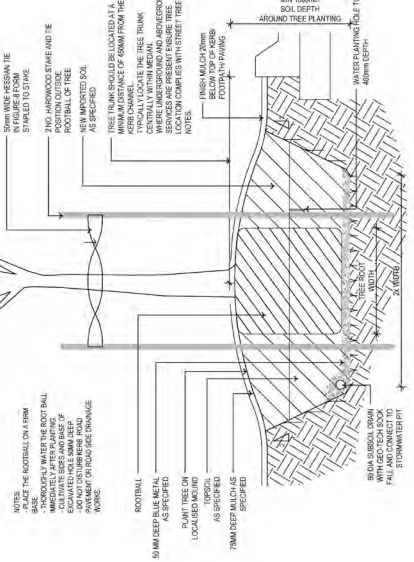
03 TYPICAL TURF DETAIL
SCALE 1:10



04 TREE PLANTING (100L+)
SCALE 1:15



05 TREE PLANTING IN GRASS
SCALE 1:10



06 CONCRETE EDGING DETAIL
SCALE 1:10

07 TREE PLANTING 200L
SCALE 1:15

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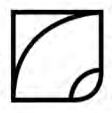
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PROJECT
ELEVATION LOGISTICS ESTATE
LOTS 107 & 108 VICTORIA ROAD SHEET 08 OF 10 JANES NSW

DRAWING TITLE
LANDSCAPE DETAILS 01

SCALE	AS SHOWN
DRAWN	CHECKED
KM/DG	DV
PROJECT NO	DRAWING NO
H8-21030	L-3001
REVISION	B
LANDSCAPE ARCHITECT:	



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PROJECT
ELEVATION LOGISTICS ESTATE
LOTS 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 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2250, 2251, 2252, 2253, 2254, 2255, 2256,

SPECIFICATION NOTES (TYPICAL)

SERVICES

Before landscape work is commenced the Landscape Contractor is to establish the position of all service lines and ensure tree planting is carried out at least 3 metres away from these services. Service lids, vents and hydrants shall be left exposed and not covered by any landscape finishes (turfing, paving, garden beds etc.) Finish adjoining surfaces flush with pit lids.

TURF UNDERLAY

Turf Underlay Mix - Supplier SoilCo, or equal
Top soil to be laid at 300mm depth for garden beds and 150mm for turf areas.

GARDEN MIX:

Premium Garden Mix - Supplier SoilCo, or equal (300mm depth)

MULCH (BASE OF STREET TREES)

APPLICATION: Place mulch to the required depth, (refer to drawings) clear of plant stems, and rake to an even surface finishing 25mm below adjoining levels. Ensure mulch is watered in and tamped down during installation.

MULCH TYPE:

Type 1 (Mass planting): Hort Bark by ANL
Pine bark: From mature trees, graded in size from 15mm to 30mm, free from wood slivers. Dark brown in colour and texture.

COMPOST

Shall be "GO Compost" as available from Solico or approved equal.

ROOT BARRIER (IF REQUIRED)

600mm deep root barrier installed to manufacturer's specification. To extend along path and back of kerb for 3m with side of trunk.

PLANT MATERIAL

All plants supplied are to conform with those species listed in the Plant Schedule on the drawings. Generally plants shall be vigorous, well established, hardened off, of good form consistent with species or variety, not soft or forced, free from disease or insect pests with large healthy root systems and no evidence of having been restricted or damaged. Trees shall have a leading shoot. Immediately reject dried out, damaged or unhealthy plant material before planting. All stock is to be container grown for a minimum of six (6) months prior to delivery to site.

FERTILISER

TURF: Shall be Shirleys No. 17 or approved equal thoroughly mixed into the topsoil prior to placing turf.
TREES IN GRASS AND SUPER ADVANCED TREES: Pellets shall be in the form intended to uniformly release plant food elements for a period of approximately nine months equal to Shirleys Kokei pellets, analysis 6.3:1.8:2.9. Kokei pellets shall be placed at the time of planting to the base of the plant, 50mm minimum from the root ball at a rate of two pellets per 300mm of top growth to a maximum of 8 pellets per tree.

STAKING AND TYING

Stakes shall be straight hardwood, free from knots and twists, pointed at one end and sized according to size of plants to be staked.

- a. 5-15 litre size plant 1x(1200x25x25mm)
- b. 35-75 litre size plant 2x(1500x38x38mm)
- c. 100-greater than 200litre 3x(1800x50x50mm)

Trees shall be 50mm wide hessian webbing or approved equivalent nailed or stapled to stake. Drive stakes a minimum one third of their length, avoiding damage to the root system, on the windward side of the plant.

TURF

Obtain turf from a specialist grower of cultivated turf. Turf shall be of even thickness, free from weeds and other foreign matter, lay in stretcher pattern with joints staggered and close butted, perpendicular to gradient of FSL. Water immediately after laying. Landscape contractor to determine & implement stabilisation strategies for turf located on batters greater than 1:4 and in swales/overland flow channels.

TURF TYPE: Greenlees Park Couch (Confirm suitability with Blacktown City Council and Cumberland Council).

LANDSCAPE MAINTENANCE PROGRAM (TYPICAL)

Maintenance shall mean the care and maintenance of the landscape works by accepted horticultural practice as rectifying any defects that become apparent in the landscape works under normal use. This shall include, but shall not be limited to, watering, mowing, fertilising, re-seeding, returfing, weeding, pest and disease control, staking and tying, replanting, cultivation, pruning, aerating, renovating, top dressing, maintaining the site in a neat and tidy condition as follows:

GENERAL

The landscape contractor shall maintain the landscape works for the term of the maintenance (or Plant establishment) period to the satisfaction of the council. The landscape contractor shall attend to the site on a weekly basis. The maintenance period shall commence at practical completion and continue for a period of fifty two (52) weeks.

WATERING

Grass, trees and garden areas shall be watered regularly so as to ensure continuous healthy growth.

RUBBISH REMOVAL

During the term of the maintenance period the landscape contractor shall remove rubbish that may occur and occur throughout the maintenance period. This work shall be carried out regularly so that at weekly intervals the area may be observed in a completely clean and tidy condition.

REPLACEMENTS

The landscape contractor shall replace all plants that are missing, unhealthy or dead at the Landscape Contractor's cost. Replacements shall be of the same size, quality and species as the plant that has failed unless otherwise directed by the Landscape Architect. Replacements shall be made on a continuing basis not exceeding two (2) weeks after the plant has died or is seen to be missing.

STAKES AND TIES

The landscape contractor shall replace or adjust plant stakes, and tree guards as necessary or as directed by the Landscape Architect. Remove stakes and ties at the end of the maintenance period if so directed.

PRUNING

General: Prune to reflect the natural growth flowering and regrowth habit of the individual species. Shrubs: Prune after flowering - Spring and Summer and on a spot basis as required.
Hedge trimming: Schedule trimming at times which will maintain the character and design of hedges. Allow up to three times per season.
Tip pruning: To encourage development of new shoots during the active growing season. Do not remove buds before the flowering season in those plants that have terminal flowers.
Radical pruning: To maintain a hedge or formal shape or when a particular problem, growth habit, damage, or disease requires branch removal.
Trees: Prune to eliminate diseased or damaged growth, avoid inter-branch contact and thin out crowns in a natural manner, maintain sight lines to signs and lights, or maintain visibility for personal security. Tree branch removal to AS 4373. Give notice and engage a suitably qualified 'arborist'.

MULCHED SURFACES

All mulched surfaces shall be maintained in a clean and tidy condition and be reinstated if necessary to ensure that a depth of 75mm is maintained. Ensure mulch is kept clear of plant stems at all times. Remove all mulching materials off lawn or paved areas and maintain a clean and tidy appearance when viewed on a weekly basis.

PEST AND DISEASE CONTROL

The landscape contractor shall spray against insect and fungus infestation with all spraying to be carried out in accordance with the manufacturer's directions. Report all instances of pests and diseases (immediately that they are detected) to the Landscape Architect.

GRASS AND TURF AREAS

The landscape contractor shall maintain all grass and turf areas by watering, weeding, re-seeding, rolling, mowing, trimming or other operations as necessary. Seed and turf species shall be the same as the original specified mixture. Grass and turf areas shall be sprayed with approved selective herbicide against broad leaved weeds as required by the Landscape Architect and in accordance with the manufacturer's directions. Grass and turf areas shall be fertilised once a year in autumn with "Dynamic Lifter" for lawns at a rate of 20kg per 100m2. Fertiliser shall be watered in immediately after application. Irregularities in the grass and turf shall be watered in immediately after application.

Grass and turf areas shall be kept mown to maintain a healthy and vigorous sward. Mowing height: 30-50mm.

WEED ERADICATION

Eradicate weeds by environmentally acceptable methods using a non-residual glyphosate herbicide (eg. Roundup) in any of its registered formulations, at the recommended maximum rate. Regularly remove by hand, weed growth that may occur or recur throughout grassed, planted and mulched areas. Remove weed growth from an area 750mm diameter around the base of trees in grassed areas. Continue eradication throughout the course of the works and during the maintenance period.

SOIL SUBSIDENCE

Any soil subsidence or erosion which may occur after the soil filling and preparation operations shall be made good by the landscape contractor at no cost to the client.

MAINTENANCE PERIOD

The maintenance will be implemented for 6 months (26 weeks)

IRRIGATION NOTES

IRRIGATION OVERVIEW - Confirm with irrigation contractor at tender stage

EXTENT

All mass planting landscape areas and trees are to have full coverage by a fully automatic irrigation system. The design, materials and installation are to be in accordance with Sydney Water Codes and all relevant Australian Standards.

1. An automatic irrigation system is to be installed to all turf and garden bed areas.
2. The irrigation system shall be designed and installed by a licensed contractor to relevant Australian Standards and Sydney Water guidelines.
3. The irrigation system shall be connected into the rainwater tank system and pump

DIPLINE

Provide 13mm dripline to all garden bed areas with appropriate 13mm joiners. Dripline to be Toro drip or similar with 400mm centre drippers. Install line at 500mm spacings with the first line to be 150mm in from edge.
Install dripline after planting and prior to mulching to allow for an adequate mulch cover. Anchor at 1.5m maximum intervals with U-shaped stakes. Dripline pattern to suit planting.

CONTROL VALVES

24v solenoid actuated hydraulic valve with flow control. Control valves to be Toro ezflow series solenoids 25mm or approved equal. Provide a gate valve of the same size immediately upstream of each valve. House both valves in a high impact plastic valve box with a high impact plastic cover at finished ground level. Support the box with bricks on each side.
Controller to be Toro greenkeeper or approved equal with a rain switch.
Install a master valve/pressure regulating valve equal to Toro p220 with exreg pressure regulation valve. Filter to be installed equal to Toro y filter 75mm screen filter.

CONTROL WIRES

Connect the control valves and soil moisture sensor to the controller with double insulated underground cables laid alongside piping where possible. Lay interwired for their full length without joints except at the valves and branches off common wires. Provide waterproof connectors.

Provide a backflow prevention device to Sydney water standards AS 3500.

ISSUE	DATE	PURPOSE
A	23.08.21	Tender Issue
B	10.09.21	Tender Issue

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NEVER scale off drawings, use figured dimensions only.
Drawings indicate scope of works and general select. These are not to be used for pricing.

CLIENT



PROJECT
ELEVATION LOGISTICS ESTATE
LOTS 167 & 168 INCLUDES ROSS STREET, GREYSTANES NSW

DRAWING TITLE
LANDSCAPE SPECIFICATION
MAINTENANCE NOTES

SCALE
N/S

DRAWN
KM/DG

CHECKED
DV

PROJECT NO
H8-21030

DRAWING NO
L-3003

REVISION
B

LANDSCAPE ARCHITECT:



HABIT8
Landscape Architecture & Urbanism

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Sydney Reg. No. 2481
Sydney, NSW 2000
www.habit8.com.au
M. 0452 538 147

APPENDIX B: MAINTENANCE AUDIT FORM

This form is to be completed by the Asset Manager responsible for landscape assets. Two copies of this completed form are required. One is to be issued to maintenance staff for action. The second is to be filed for records. Extra pages can be attached to the electronic record if needed

Date Of Inspection: _____

Inspected By: _____

LOCATION	LANDSCAPE TYPE / AREA	ISSUE	REMEDATION WORKS REQUIRED	COST ESTIMATE	DATE TO BE COMPLETED	VARIATION / DEFECT?

Signed: _____

Date: _____

Taylor Construction Group Pty Ltd

ABN 25 067 428 344

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TAYLOR