

Site Establishment and Enabling Works Management Plan (SEEWMP)

TAP04 Redfern Station Upgrade – New Southern Concourse

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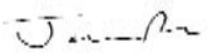
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1 Glossary, acronyms and abbreviations

Terms	Description
Aboriginal object	The same meaning as in the National Parks and Wildlife Act 1974 (NSW).
Acid sulfate soils	Naturally occurring soils, sediments or organic substrates (e.g. peat) that are formed under waterlogged conditions. These soils contain iron sulfide minerals (predominantly as the mineral pyrite) or their oxidation products. In an undisturbed state below the water table, acid sulfate soils are benign. However, if the soils are drained, excavated or exposed to air by a lowering of the water table, the sulfides react with oxygen to form sulfuric acid.
AHIP	Aboriginal Heritage Impact Permit
AHIMS	Aboriginal Heritage Information Management System
Ancillary facility	A temporary facility for construction of the SSI including an office and amenities compound, construction compound, material crushing and screening plant, materials storage compound, maintenance workshop, testing laboratory and material stockpile area.
AS	Australian Standard
ASITE	Record keeping and Document management system
At-property treatment	Acoustic treatments including those described in Section 7.3 of the Noise Mitigation Guideline (TfNSW(RMS), 2015) and other treatments including, but not limited to, noise curtains and retrofitted double glazing.
BC Act	<i>Biodiversity Conservation Act (NSW) 2016</i>
Blue Book	Landcom, 2004, Managing Urban Stormwater: Soils and Construction, Volume – 4th Edition
CALD	Culturally and Linguistically Diverse
CEMF	Construction Environmental Management Framework: The document serves as a Roadmap and encompasses systems and processes for environmental management including performance outcome and mitigation measures. Document facilitates delegation and approval of the CEMF by the nominated Significant State Infrastructure Environmental Representative.
CM	Construction Manager
CNVS	TfNSW's Construction Noise and Vibration Strategy (7TP-ST-157)
Completion of construction	The date upon which construction is completed and all construction-related requirements of the Planning Secretary (if any) have been met. If construction is staged, completion of construction is the date upon which construction is completed and all requirements of the Planning Secretary (if any) have been met, in respect of all stages of construction.
Construction	Includes all work required to construct the SSI as described in the documents listed in Condition A1, including commissioning trials of equipment and temporary use of any part of the SSI, but excluding enabling works (as defined in Table 1) and site establishment works approved under a Site Establishment and Enabling Works Management Plan and low impact works (as defined in Table 1) which are completed prior to approval of the CEMP.
Construction Boundary	The area physically affected by work as described in the documents listed in Condition A1.
C&SM	Community and Stakeholder Manager
CRZ	Critical Root Zone – the distance from the tree trunk that is 5 times the diameter of the tree trunk
CS	Construction Supervisor
DBYD	Dial-Before-You-Dig
DECC	Former NSW Department of Environment and Climate Change
Department	NSW Department of Planning, Industry and Environment
DPIE	New South Wales Department of Planning, Industry and Environment.

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Terms	Description
	<i>Note: Office of Environment and Heritage was abolished on the 01/07/19 and merged into the newly-formed department, i.e. DPIE</i>
E&SM	Environment and Sustainability Manager (Novo Rail)
ECM	Environmental Control Maps: ECMs provide detailed illustrative indicative controls including their positioning for managing potential environmental impacts identified under the project. The ECM is a fluid document and is to be revised to reflect changes at the project site which may be as a result of any significant change in the project scope and/or as a result of Client request(s).
EES	Environment, Energy and Science Group of the Department of Planning, Industry and Environment
EIS	The Environmental Impact Statement submitted to the Planning Secretary seeking approval to carry out the development described in it, as revised if required by the Planning Secretary under the EP&A Act, and including any additional information provided by the Proponent in support of the application for approval of the project.
EMS	Laing O'Rourke's Environmental Management System, supported by key elements from TfNSW's EMS. Henceforth Laing O'Rourke's/TfNSW's EMS will be referred to as Project's EMS.
Enabling works	All works within the rail corridor that are undertaken during the Christmas 2020 rail possession including: (a) piling for concourse piers, abutments and entrances; (b) installation of footings for stairs, lifts and columns; (c) relocation of overhead wiring structures; (d) relocation of platform furniture; (e) relocation of utilities, services and lighting; (g) removal of privacy walls at existing platform buildings.
Environment	Includes all aspects of the surroundings of humans, whether affecting any human as an individual or in his or her social groupings
EPA	NSW Environment Protection Authority
EP&A Act	<i>Environment Protection and Biodiversity Conservation Act (Cwlth) 1999</i>
ERAP	Environmental Risk Action Plan (Issue-specific Plans for mitigating risk under the Project)
ER	Environmental Representative. Nominated Environmental Representative as nominated by the Proponent, i.e. TfNSW and approved by the Planning Secretary (Applicable under the EIS Planning pathway)
ESD	Ecologically Sustainable Development - As defined by clause 7(4) Schedule 2 of the EP&A Regulation. Development that uses, conserves and enhances the resources of the community so that ecological processes on which life depends are maintained, and the total quality of life, now and in the future, can be increased.
ESTR	Environment and Sustainability Team Representative (Novo Rail)
SEEWMP	Site Establishment and Enabling Works Management Plan
Feasible	A work practice or abatement measure is feasible if it is capable of being put into practice or of being engineered and is practical to build given Project constraints such as safety and maintenance requirements.
Hardstands	A hard-surfaced area on which heavy vehicles or airplanes can be parked
Hazard	Hazard is a situation that has the potential to harm a person, the environment or damage property
Heavy Vehicle	Has the same meaning as in the Heavy Vehicle National Law (NSW) 2013.
Heritage item	A place, building, work, relic, archaeological site, tree, movable object or precinct of heritage significance, that is listed under one or more of the following registers: the State Heritage Register under the Heritage Act 1977 (NSW), a state agency heritage and conservation

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Terms	Description
	register under section 170 of the Heritage Act 1977 (NSW), a Local Environmental Plan under the EP&A Act, the World, National or Commonwealth Heritage lists under the Environment Protection and Biodiversity Conservation Act 1999 (Cth), and an “Aboriginal object” or “Aboriginal place” as defined in section 5 of the National Parks and Wildlife Act 1974 (NSW).
Heritage NSW	A branch within the Community Engagement Group of the NSW Department of Premier and Cabinet
Highly noise affected	As defined in the Interim Construction Noise Guideline (DECC, 2009)
Highly noise intensive works	Works which are defined as annoying under the Interim Construction Noise Guideline (DECC, 2009) including: (a) use of power saws, such as used for cutting timber, rail lines, masonry, road pavement or steel work; (b) grinding metal, concrete or masonry; (c) rock drilling; (d) line drilling; (e) vibratory rolling; (f) bitumen milling or profiling; (g) jackhammering, rock hammering or rock breaking; and (h) impact piling.
HIS	Heritage Impact Statement
HV	High Voltage
ICNG	Interim Construction Noise Guideline (DECC, 2009)
ICAM	Incident Cause and Analysis Method
iGMS	iGMS is the portal to the Laing O’Rourke enterprise wide management system.
Impact	Impact is a change to the environment, whether adverse or beneficial, wholly or partially resulting from the organisations aspects.
IMPACT	Laing O’Rourke Incident recording system
Incident	An occurrence or set of circumstances that causes or threatens to cause material harm and which may or may not be or cause a non-compliance.
INX	TfNSW’s incident reporting system
ISCA	Infrastructure Sustainability Council of Australia
ISO	International Organisation for Standardisation
Land	Has the same meaning as the definition of the term in section 1.4 of the EP&A Act.
Landowner	Has the same meaning as “owner” in the <i>Local Government Act 1993</i> and in relation to a building means the owner of the building
Local road	Any road that is not defined as a classified road under the <i>Roads Act 1993</i> .
LOTE	Language Other than English
Low impact works	Includes: a) survey work including carrying out general alignment survey, installing survey controls (including installation of global positioning systems (GPS)), installing repeater stations, carrying out surveys of existing and future utilities and building and road dilapidation surveys; b) investigations including investigative drilling, contamination investigations and excavation; c) operation of construction ancillary facilities if the ER has determined the operational activities will have minimal impact on the environment and community; d) minor clearing and relocation of native vegetation, as identified in the documents listed in CoA A1;

Terms	Description
	<p>e) installation of mitigation measures including erosion and sediment controls, temporary exclusion fencing for sensitive areas and acoustic treatments;</p> <p>f) property acquisition adjustment work including installation of property fencing, and relocation and adjustments of utilities to property including water supply and electricity;</p> <p>g) relocation and connection of utilities where the relocation or connection has a minor impact to the environment as determined by the ER;</p> <p>h) installation of site hoarding;</p> <p>i) archaeological testing under the Code of practice for archaeological investigation of Aboriginal objects in NSW (DECCW, 2010) or archaeological monitoring undertaken in association with [(a)]-[(h)] above to ensure that there is no impact on heritage items;</p> <p>j) other activities determined by the ER to have minimal environmental impact which may include construction of minor access roads, temporary relocation of pedestrian and cycle paths and the provision of property access; and</p> <p>k) maintenance of existing buildings and structures required to facilitate the carrying out of the SSI.</p> <p>However, where heritage items, or threatened species or threatened ecological communities (within the meaning of the Biodiversity Conservation Act 2016 or Environment Protection and Biodiversity Conservation Act 1999) are affected or potentially affected by any low impact work, that work is construction, unless otherwise determined by the Planning Secretary in consultation with Heritage NSW, EES or DPI Fisheries (in the case of impact upon fish, aquatic invertebrates or marine vegetation).</p>
LV	Low Voltage
Material harm	<p>This is harm that:</p> <p>(a) involves actual or potential harm to the health or safety of human beings or to the environment that is not trivial, or</p> <p>(b) results in actual or potential loss or property damage of an amount, or amounts in aggregate, exceeding \$10,000, (such loss includes the reasonable costs and expenses that would be incurred in taking all reasonable and practicable measures to prevent, mitigate or make good harm to the environment).</p>
Minister	NSW Minister for Planning and Public Spaces
NML	Noise Management Level as defined in the <i>Interim Construction Noise Guideline</i> (DECC, 2009)
Non-compliance	An occurrence, set of circumstances or development that is a breach of this approval but is not an incident.
NSW Heritage Council	NSW Heritage exist within the Community Engagement Division of the Department of Premier and Cabinet.
OEH	NSW Office of Environment and Heritage
OHEW	Overhead Earth Wire
OHW	Overhead wiring
OOHW	Out of Hours Works - Defined as works outside standard construction
Operation	<p>The carrying out of the SSI (whether in full or in part) upon the completion of construction.</p> <p>Note: There may be overlap between the carrying out of construction and operation if the phases of the development are staged. Commissioning trials of equipment and temporary use of any part of the SSI are within the definition of construction.</p>
PASS	Potential Acid Sulfate Soils
Planning Secretary	Planning Secretary of the Department (or nominee, whether nominated before or after the date on which this approval was granted)
POEO Act	Protection of the Environment Operations Act 1997 (NSW)

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Terms	Description
Proponent	The person identified as such in Schedule 1 of this approval and any other person carrying out any part of the SSI from time to time.
Publicly available	To be made available on the website required under Condition B10 of this approval.
SPM	Senior Project Manager
PRN	Project Referral Notice, Project ID 15031, dated 17/12/18
RBL	Rating Background Level
Relic	Has the same meaning as the definition of the term in section 4 of the Heritage Act 1977 (NSW).
Relevant roads authority	The same meaning as the roads authority defined in the Roads Act 1993 (NSW).
Response to Submissions	The Proponent's response to issues raised in submissions received in relation to the application for approval for the SSI under the EP&A Act.
SDS	Safety Data Sheet
Sensitive receivers	Includes residences, educational institutions (including preschools, schools, universities, TAFE colleges), health care facilities (including nursing homes, hospitals), religious facilities (including churches), child care centres and passive recreation areas (including outdoor grounds used for teaching). Receivers that may be considered to be sensitive include commercial premises (including film and television studios, research facilities, entertainment spaces, temporary accommodation such as caravan parks and camping grounds, restaurants, office premises, and retail spaces), and industrial premises as identified by the Planning Secretary.
SER	Severe Environmental Risk
Seven day rolling period	Refers to the period of time that includes the previous six days and the current day.
SHR	State Heritage Register
Site establishment works	Works required to establish compound sites and ancillary facilities (not including minor construction ancillary facilities). Types of works/activities are defined in Section 7.
SMP	Sustainability Management Plan, TAP04-PLN-MG-0011, established to manage and satisfy sustainability requirements under the Project
SoHI	Statement of Heritage Impact
SRS	Systems Requirements Specification (includes functional requirements and parameters associated with environmental and sustainability requirements under the Project)
SSER	Shared services equipment room, proposed building for providing HV and LV supplies under the Project (EIS Pathway)
SSI	State Significant Infrastructure (recognised project type under the Project's EIS pathway)
SWMS	Safe Work Method Statement
Sustainability	Promoting transport systems that meet our present social, environmental and economic needs without compromising the quality of life of future generations. An important part of this is minimising the impact of transport on our natural environment now and into the future (TfNSW 2012-2017 based on the Brundtland 1987 definition).
SL	Sustainability Lead (Novo Rail)
TAP	Transport Access Program
TCP	Traffic Control Plan
Teambinder	Electronic correspondence management system for record keeping purposes. System managed by TfNSW and for utilisation by the Novo Rail Alliance.
TfNSW	Transport for NSW
TMP	Traffic Management Plan
Tree	Long lived woody perennial plant greater than (or usually greater than) 3 metres in height with one or relatively few main stems or trunks (AS4373-2007 Pruning of amenity trees).

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Terms	Description
Track possession	Track possession is the term used by railway building/maintenance contractors to indicate that they have taken possession of the track (usually a block of track) for a specified period, so that no trains operate for a specified time. This is necessary to ensure the safety of workers and rail users.
Unexpected heritage find	An object or place that is discovered during the carrying out of the SSI and which may be a heritage item but was not identified in the documents listed in Condition A1 or suspected to be present. An unexpected heritage find does not include human remains.
Unexpected contamination find	Any contamination that is discovered during the carrying out of the SSI but was not identified in the EIS or Response to Submissions report or was not suspected to be present.
Work	Any physical work for the purpose of the SSI including but not limited to construction, low impact work, enabling works, utility works and site establishment but not including operational maintenance works.

2 Project overview

The Project involves the upgrade of Redfern Station through the construction of a new concourse at the southern end of the station platforms, providing both lift and stair access to Platforms 1 to 10. The new concourse would extend between Marian Street and Little Eveleigh Street and include associated interchange upgrades of Little Eveleigh Street, Marian Street, and parts of Cornwallis Street and Rosehill Street.

The Project forms part of the Transport Access Program (TAP). The TAP has the objective of providing a better experience for public transport customers by delivering accessible, modern, secure and integrated transport infrastructure.

All Project components described are subject to further design. Changes may be made during the ongoing design development and community consultation processes.

The key features of the Project are expected to include:

- a six metre wide concourse between Little Eveleigh Street and Marian Street
- new stair and lift access from the concourse to Platforms 1 to 10
- an upgraded station entrance at Marian Street including station services and customer amenities
- a new station entrance at Little Eveleigh Street including station services and customer amenities
- formalisation of a shared zone on Little Eveleigh Street, including:
 - safety improvements to vehicle, cyclist and pedestrian interactions
 - improvements to streetscape such as landscaping, lighting, drainage and pavements
 - relocation of approximately 20 parking spaces (including 18 resident/restricted parking spaces, one accessible parking space and one car share scheme parking space)
 - utility adjustments.
- upgrade of Marian Street/Cornwallis Street/Rosehill Street area
 - extension of existing shared zone including part of Rosehill Street
 - safety improvements to vehicle, cyclist and pedestrian interactions including footpath widening
 - improvements to streetscape such as lighting, drainage, landscaping and pavements as well as utility adjustments
 - changes to street parking arrangements including removal of approximately 16 parking spaces (including relocation of one car share scheme parking space).
- operation of the Project

Other components of the Project include:

- relocation of the shuttle bus zone from Little Eveleigh Street to Lawson Street
- kiss and ride on Lawson Street, and associated footpath upgrade
- kiss and ride on Gibbons Street, and associated footpath upgrade
- footpath widening on Ivy Street
- relocation of a building on Platform 1 to accommodate the concourse

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- repurposing, relocations and alterations to platform building features and other platform features, including privacy walls, doors, screens and roofing, platform seats and electrical equipment
- addition of platform canopies
- platform resurfacing on all platforms and associated drainage alterations
- installation of station operational components and infrastructure including:
 - wayfinding and signage
 - tactile ground surface indicators (TGSI)
 - rubbish bins
 - CCTV
 - passenger information system (e.g. passenger information display, public address and hearing loops)
 - emergency equipment (e.g. for fire and life safety).
- service relocations and upgrades including:
 - relocation of overhead wiring structures
 - installation of a new rail signal between Platforms 1 and 2.

There are three construction ancillary facilities that are being used for the Project (these are described in detail in the approved EIS). These include:

- Ancillary Facility 1: Eveleigh Maintenance Centre
- Ancillary Facility 2: Sydney Trains
- Ancillary Facility 3: Gibbons Street Reserve and Marian Street carpark.

However, for the site establishment works, low impact works and enabling works, and main works the Project would only use the Sydney Trains and the Gibbons Street Reserve and Marian Street carpark ancillary facilities. These ancillary facilities are described in detail in Section 7 of this SEEWMP.

In addition, there are material storage (laydown areas) including:

- CarriageWorks
- Sydney Signal Box No:02
- Local storage area, north of Sydney Signal Box No:02.

These are also detailed in Section 7 of this SEEWMP.

Redfern Station Upgrade is subject to environmental impact assessment under *the Environmental Planning and Assessment Act 1979 (EP&A Act)*. It is classified as Critical State Significant Infrastructure (CSSI). Detailed environmental impact assessments have been carried out and approved by the Minister for Planning.

Additional environmental assessments include the development and approval of a consistency assessment (01). A consistency assessment is required where an additional environmental assessment has been identified and there have been moderate changes to the project scope or

methodology that have not been captured in the EIS or supporting documentation. The consistency assessment has been approved by TfNSW.

The Environmental Impact Statement (EIS) assessed impacts for Redfern Station Upgrade, New Southern Concourse.

The planning approval (Infrastructure approval SSI Redfern Station Upgrade) and associated environmental assessment documents are located at:

<https://www.planningportal.nsw.gov.au/major-projects/project/25836>

Novo Rail is to meet all applicable planning approvals over which it has the ability to control or influence with due consideration to the asset life cycle and stakeholder relationships. The plan has been developed to address the Transport for NSW's specific requirements and the Project EMS.

3 Purpose and scope

This Site Establishment and Enabling Works Management Plan (SEEWMP) and its associated management plans, details the environmental management system adopted, the processes and procedures, the environmental management controls, and the management of the Sydney Trains and the Gibbons Street Reserve and Marian Street carpark ancillary facilities, and for the duration of the low impact works and enabling works for the Redfern Station Upgrade – New Southern Concourse project.

Implementing this SEEWMP assists in demonstrating environmental due diligence under the Project and in meeting relevant legislative, regulatory, contractual and compliance requirements, specifically meeting the requirements and demonstrating compliance with CoA14.

Novo Rail has adopted Laing O’Rourke’s ISO14001: 2015 certified [Environmental Management System \(EMS\)](#), supported by key elements from TfNSW’s EMS. The EMS is currently certified (No. 4749) with SciQual. Henceforth Laing O’Rourke’s/TfNSW’s EMS will be referred to as the Project’s EMS. This SEEWMP has been prepared to ensure that the correct environmental controls, mitigation measures, inspections and audits are upheld throughout this Phase in the Project.

The SEEWMP covers activities associated with site establishment, low impact and enabling works, and operation of the ancillary facilities during construction. It is noted that low impact work (as defined in the CoA) will be managed in the Construction Environmental Management Plan (CEMP) following commencement of construction activities. The scope of the SEEWMP is discussed in Sections 7 and 8.

3.1 SEEWMP Objectives

The key objectives of the SEEWMP is to ensure that the environmental impacts caused by laydown areas, ancillary facilities, low impact and enabling works are minimised within the scope permitted by the planning approval.

To achieve this objective, the following will be undertaken:

- Ensure appropriate controls and procedures are implemented during compound sites, ancillary facilities, low impact works and enabling works to avoid or minimise real and potential impacts to the environment and sensitive receivers along the Project corridor
- Ensure appropriate measures are implemented to address the relevant CoAs outlined in Section 6 and safeguards detailed in the CEMF and the ERAPS
- Ensure appropriate measures are implemented to comply with all relevant legislation and other requirements as described in Section 6 of this Plan
- Provide staff with an increased level of understanding and awareness of sensitive environmental issues within and adjacent to ancillary facilities and ensure effective communication is maintained with statutory authorities
- Fulfil compliance requirements and contractual obligations under the approved Conditions of Approval (CoAs), Construction Environmental Management Framework (CEMF), the Program Alliance Agreement (e.g. Project Referral Letter) and other environmental planning approval

documents. *Note: where there is contradictory or conflicting requirements between the planning approval documents, the higher level document takes precedence. E.g. the CoAs and CEMF takes precedence over the Program Alliance Agreement.*

- Align with the Project EMS
- Ensure the needs and expectations of TfNSW are addressed
- Manage environmental and sustainability risks and opportunities through a set of issue-specific Environmental Risk Action Plans (ERAPS) (Appendix C) and the updated Environmental and Sustainability Risk and Opportunity Register (Appendix B)
- Align with the project's environmental and sustainability commitment (see Section 0)
- Communicate the processes that active and visible leadership and commitment would occur
- Demonstrate the processes and the Project's commitment to conserve and preserve resources and heritage by instilling the principles of Ecological Sustainable Development
- Internalise and apply risk management methodologies, including the pre-cautionary principle, to this Phase of the Project
- Apply intuitive environmental management tools and incentivised mechanisms to assist in decision-making in the protection of the environment
- Internalise hold-point and witness points into Novo rail processes to assist in decision-making and to assure biodiversity, ecological and heritage values are conserved
- Assist and set the framework for establishing workshops and other forums at all levels to facilitate learning, innovation and knowledge-sharing
- Integrate environmental management practices and processes across other disciplines such as safety, quality and engineering.

4 Environmental and sustainability commitment

The Redfern Station Upgrade Sustainability Commitment is the overarching document for the SEEWMP.

The policy will be:

- displayed at prominent locations on the project site
- communicated to site personnel during induction and training
- made accessible to clients and concerned / interested members of the public.

The Contractor will develop a project specific Environment and Sustainability Policy that will reflect a commitment for the delivery of the Project to:

- align with, and support the Transport for NSW (TfNSW) Environment and Sustainability Policy (Appendix A)
- minimise impacts on the environment
- procure, deliver and promote sustainable transport options that promote value for money
- comply with relevant legislations
- build and support a transport system that improves social, environmental and economic needs.

Subcontractors will be required to undertake their works in accordance with this policy.

(Redfern Station Upgrade Response to Submissions Appendix C CEMF, S1.3, pg. 1)

See Appendix A for Novo Rail's Sustainability Commitment.

4.1 Environmental Objectives and Targets

The Project-specific environmental objectives and targets relating specifically to the site establishment works, low impact works and enabling works have been developed with the compliance requirements, contractual obligations, risks and opportunities, taken into consideration.

Environmental objectives and targets have been determined and tailored to previously identified environmental risks. This is captured in the ERAPS (Appendix C) in meeting the performance requirements under the CEMF and those under the CoAs.

5 Contractual requirements and compliance obligations

Mandatory compliance obligations and contractual requirements relevant to the establishment of ancillary facilities, low impact works and enabling works are detailed within this section.

All personnel associated with the project will comply with all relevant requirements including:

- all legislation and regulations as described under Section 2 in the CEMF, and outlined in Section 6.1
- the CoAs relevant to the SEEWMP
- the ERAPs outlined in Appendix C.

The CoAs relevant to this Plan are listed in Table 6-1. A cross reference is also included to indicate where the condition is addressed in this Plan or other Project Management document.

Where there has been a change to relevant legislation during the ancillary establishment works, low impact works and enabling works, a review and necessary update will be carried out

These legislative requirements will be regularly reviewed and updated by the Contractor and appointed Subcontractors.

(Redfern Station Upgrade Response to Submissions Appendix C CEMF, S2.1, pg. 2)

5.1 Relevant legislation and guidelines

Legislation, guidelines and standards of relevance to this Plan are captured in the Environmental Risk Action Plans (ERAPS) (Appendix C) and are linked to the relevant risk items.

5.2 Ministers Condition of Approval

The CoA relevant to this Plan are listed in Table 6-1. A cross reference is also included to indicate where the condition is addressed in this Plan or other Project Management document.

Table 5-1 Minister’s Conditions of Approval (CoAs)

CoA #	Condition Requirement	Document Reference	How Addressed
GENERAL			
A1	The Proponent must carry out the SSI in accordance with the conditions of this approval and generally in accordance with the description of the SSI in: (a) Redfern Station Upgrade – New Southern Concourse Environmental Impact Statement (Transport for NSW, May 2020); (b) Redfern Station Upgrade – New Southern Concourse Response to Submissions (Transport for NSW, September 2020); and (c) Redfern Station Upgrade – New Southern Concourse Construction Environmental Management Framework (Transport for NSW, October 2020).	This SEEWMP	This SEEWMP aligns and addresses the requirements of the documents mentioned in CoA #A1. Relevant requirements are detailed in Table 6-1, Table 6-2 and Table 6-3 together with how the matters are addressed.
A2	The SSI must be carried out generally in accordance with all procedures, commitments, preventative actions, performance criteria and mitigation measures set out in the documents listed in Condition A1 unless otherwise specified in, or required under, this approval.	This SEEWMP Section 8	This SEEWMP provides detail on how the Project will be carried out in accordance with all procedures (throughout this document), commitments (Table 6-2), preventative actions (Section 8 and throughout the ERAPS in Appendix C), performance criteria and mitigation measures (Appendix C throughout the ERAPS).
A4	The Proponent must comply with all written requirements or directions of the Planning Secretary, including in relation to: (a) the environmental performance of the SSI;	This SEEWMP Section 13 Appendix C	Appendix C ERAPS focuses on the identified environmental risks and specific Environmental Objectives and Targets. These Targets are measurable (i.e. linked to a measurement tool) and can be reviewed and monitored (Section 13). This determines the Environmental performance of the SSI.

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CoA #	Condition Requirement	Document Reference	How Addressed
	(e) any audit of the construction or operation of the SSI;	This SEEWMP, Section 13	This SEEWMP covers the applicable audits specifically for the site establishment works, low risk work and enabling works period.
A5	<p>Where a document / plan / program must be submitted to the Planning Secretary or ER and the terms of this approval require it to be prepared or a review to be undertaken in consultation with identified parties, evidence of the consultation undertaken must be submitted with the document / plan/ program. The evidence must include:</p> <p>(a) documentation of the engagement with the party identified in the condition of approval that has occurred before submitting the document for approval;</p> <p>(b) a log of the dates of engagement or attempted engagement with the identified party and a summary of the issues raised by them;</p> <p>(c) documentation of the follow-up with the identified party where engagement has not occurred to confirm that they do not wish to engage or have not attempted to engage after repeated invitations;</p> <p>(d) outline of the issues raised by the identified party and how they have been addressed; and</p> <p>(e) a description of the outstanding issues raised by the identified party and the reasons why they have not been addressed.</p>	Consultation Summary Report (SEEWMP, Appendix J)	The Consultation Summary Report covers consultation with the relevant parties, including consultation of this SEEWMP with the City of Sydney,
SITE ESTABLISHMENT AND ENABLING WORKS			
A14	<p>Before establishment of any construction ancillary facility (excluding minor construction ancillary facilities established under Condition A18) or commencement of enabling works, the Proponent must prepare a Site Establishment and Enabling Works Management Plan which outlines the environmental management practices and procedures to be implemented for the establishment of the construction ancillary facilities and for the duration of enabling works.</p> <p>The Site Establishment and Enabling Works Management Plan must be prepared in consultation with the City of Sydney Council and relevant government authorities.</p> <p>The Plan must be submitted to the ER for approval before the establishment of any major construction ancillary facility(ies) and commencement of enabling works.</p>	<p>This SEEWMP</p> <p>Section 6</p> <p>Section 7</p> <p>Section 8</p> <p>Appendix C (ERAPS)</p> <p>Appendix J (Consultation Summary Report)</p>	<p>This SEEWMP details the ancillary facilities, low impact works, enabling works.</p> <p>Environmental management practices and procedures of this works are captured in the ERAPS (Appendix C).</p> <p>Consultation with the City of Sydney is being undertaken and will be detailed in the Consultation Summary Report (Appendix J).</p>

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CoA #	Condition Requirement	Document Reference	How Addressed
	<p>The approved plan must be made publicly available before the establishment of any construction ancillary facilities or commencement of enabling works.</p> <p>The Site Establishment and Enabling Works Management Plan must detail the management of the construction ancillary facilities and enabling works</p> <p>Nothing in this condition prevents the Proponent from preparing individual Site Establishment and Enabling Works Management Plans for each construction ancillary facility or the enabling works.</p>		
	<p>The Site Establishment and Enabling Works Management Plan must detail the management of the construction ancillary facilities and enabling works, and include:</p> <p>(a) a description of activities to be undertaken during establishment of the construction ancillary facility (including scheduling and duration of work to be undertaken at the site);</p>	Section 6	Section 6 describes the types of activities proposed to be undertaken for ancillary facility establishment, including scheduling and duration of work.
	<p>(b) a description of the activities to be undertaken during enabling works;</p>	Section 7	Section 7 describes the activities proposed to be undertaken when carrying out low impact works and enabling works
	<p>(c) figures illustrating the proposed site layout and work areas;</p>	Section 6 Section 7	Section 6 and 7 include proposed site layout and work areas.
	<p>(d) a program for ongoing analysis of the key environmental risks arising from the activities described in subsections (a) and (b) of this condition, including an initial risk assessment undertaken prior to the commencement of site establishment or enabling works;</p>	Section 8 Section 13 Appendix B (Environment and Sustainability Risk and Opportunity Register) Appendix C (ERAPS)	<p>An initial risk assessment has been undertaken in the form of the Environment and Sustainability Risk and Opportunity Register (Appendix B).</p> <p>A risk review workshop has been undertaken (29th October 2020) to review the risks/opportunities, with particular focus on any additional risks/opportunities for the works proposed during the site establishment, low impact and enabling works. The main risks from the workshop and the Register have been incorporated into the ERAPS (Appendix C).</p>

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CoA #	Condition Requirement	Document Reference	How Addressed
			Section 8 and Section 13 of this SEEWMP outline the risk analysis process
	(e) details of how the activities described in subsections (a) and (b) of this condition will be carried out to: (i) meet the performance outcomes stated in the documents listed in Condition A1, and (ii) manage the risks identified in the risk analysis undertaken in subsection (d) of this condition;	Appendix C (ERAPS)	The performance outcomes outlined in the CEMF, and commitments included in the REMMs have been summarised in Table 6-2 and 6-3, respectively. Including details of how these performance outcomes would be achieved, and how identified risks are managed.
	(f) a program for notifying the community at least five (5) business days prior to the establishment of any construction ancillary facilities or commencement of enabling works, of the activities to be undertaken, including scheduling of activities; and	Communications Strategy/Community Liaison Management Plan	Community notifications are issued regularly, and at a minimum monthly, outlining forthcoming work activities, any impacts and work progress. Consultation with stakeholders will be ongoing during delivery of the Project as outlined in the Community Liaison Management Plan.
	(g) a program for monitoring the performance outcomes, including a program for noise monitoring during site establishment and enabling works, consistent with the requirements of Condition C8.	Section 13.3 Appendix C (ERAPS)	The inspection and monitoring program is outlined in Section 13.3 of the SEEWMP. Monitoring will be undertaken during preconstruction and construction phases of the Project and will be communicated through the site induction, relevant ECMs, Toolbox talks and daily pre-starts.
CONSTRUCTION ANCILLARY FACILITIES			
A16	The use of a major construction facility for enabling works must not commence until the Site Establishment and Enabling Works Management Plan required by Condition A14 has been approved by the ER and made publicly available. Where a major construction ancillary facility is initially used for enabling works and then for construction, the requirements of Condition A15 must be complied with once the enabling works are completed and the facility is used to support construction activities.	This SEEWMP	The SEEWMP covers the establishment of the ancillary facilities that cover key environmental risks and impacts of the site establishment, low impact and enabling works. The CEMP would be designed to cover the key environmental risks and impact from the continual use of the ancillary facilities as well as

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CoA #	Condition Requirement	Document Reference	How Addressed
			risks and impacts from the main construction works.
A19	Boundary screening must be erected around all ancillary facilities that are adjacent to sensitive receivers for the duration of construction of the SSI unless otherwise agreed with the City of Sydney Council, and affected residents, business operators and landowners.	Appendix C (ERAPs), ERAP 12 Visual Amenity	This is a defined mitigation Strategy in the ERAP 12 (Visual Amenity), in order to reduce the impact of ancillary facilities.
A20	Boundary screening required under Condition A19 of this approval must minimise as far as practicable visual, noise and air quality impacts on adjacent sensitive receivers	Appendix C (ERAPs), ERAP 12 Visual Amenity	This is a defined mitigation Strategy in the ERAP 12 (Visual Amenity), in order to reduce the impact of ancillary facilities.
A21	Signage on fencing or hoardings surrounding construction ancillary facilities must include the SSI name and application number.	Appendix C (ERAPs), ERAP 12 Visual Amenity	This requirement is included in mitigation Strategy in the ERAP 12 Visual Amenity.
ENVIRONMENT REPRESENTATIVE			
A29	For the duration of the Work until the commencement of operation, or as agreed with the Planning Secretary, the approved ER must: (d) approve documents identified in Conditions A9, A14, C1, C6, and C8 after verifying all relevant matters set out in this approval pertaining to those documents have been met and make a written statement to the Planning Secretary to this effect; (i) prepare and submit to the Planning Secretary and other relevant regulatory agencies, for information, an Environmental Representative Monthly Report providing the information set out in the Environmental Representative Protocol under the heading "Environmental Representative Monthly Reports." The Environmental Representative Monthly Report must be submitted within seven (7) days following the end of each month for the duration of the ER's engagement for the SSI..	This SEEWMP	The ER is the delegated approval for this SEEWMP. Environmental Representative Endorsement is included in Appendix K.
		This SEEWMP Section 13.3.2	The Novo Rail Environmental and Sustainability Manager is responsible for ensuring environmental and sustainability performance information is included as part of the monthly Project Report for TfNSW. This monthly reporting would be used to inform ER monthly reporting requirements.
AUDITING			
A33	The Proponent must undertake auditing and audit reporting in accordance with the document Independent Audit, Post Approval Requirements (DPIE, 2020).	This SEEWMP Section 13.1 Section 13.2	During the site establishment, low impact works and enabling works Phase, environmental audits and inspections will be undertaken to evaluate compliance and system conformance

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CoA #	Condition Requirement	Document Reference	How Addressed
			to environmental management system and other requirements. Specific audit types and audit frequencies are captured and detailed in Section 13.1 and Section 13.2.
A34	The Proponent must seek the written agreement of the Planning Secretary to the independent auditor(s) no later than one (1) month following commencement of Work and prior to the commencement of an Independent Audit. The auditor(s) must meet the competence and independence requirements set out in Section 3 of Independent Audit, Post Approval Requirements (DPIE, 2020).	This SEEWMP Section 13 Section 13.2	Captured in the table under Section 13.2.
A36	The Planning Secretary may direct the Proponent to undertake Independent Audits in addition to those provided for in Condition A33 when considered necessary to address a particular issue.	Section 13 Section 13.2	Captured as a requirement under Section 13.
INCIDENT NOTIFICATION AND REPORTING			
A37	During Work, the Department must be notified as soon as possible and no later than 24 hours after the Proponent becomes aware of an incident. The initial advice can be via telephone and must identify the SSI (including the application number and the name of the SSI), time, date, location and nature of the incident.	Section 11.2	Section 11 details the incident management procedures and protocols during an incident occurrence, inclusive of notification requirements to TfNSW and the Department as per CoA #A36.
A38	Subsequent written notification must be given and reports submitted to the Planning Secretary in accordance with the requirements set out in Appendix A, unless otherwise approved by the Planning Secretary.	Section 11.2 Appendix E	Section 11 details the incident management procedures and protocols during an incident occurrence, including notification requirements to TfNSW and the Department as per CoA A37. Appendix E contains the reporting requirements as per CoA #A37.
COMPLAINTS MANAGEMENT SYSTEM			
B5	A Complaints Management System must be prepared and implemented before the commencement of any Work and maintained for the duration of construction and for a minimum of 12 months following completion of construction of the SSI.	Community Consultation Strategy Throughout Appendix C (ERAPS)	The Community Strategy and Appendix C of this SEEWMP, refers to the Projects Complaints Management System, Consultation Manager.

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CoA #	Condition Requirement	Document Reference	How Addressed
			Consultation Manager would also be used as a measurement tool to determine and track environmental performance throughout the Project.
B7	The telephone number, postal address and email address required under Condition B6 of this approval must be made available on site boundary fencing / hoarding at each construction site and ancillary facility before the commencement of construction. This information must also be provided on the website required under Condition B10 of this approval.	Appendix C (ERAPS), ERAP 12 Visual Amenity #VA6	This requirement has been integrated into the ERAPS (Appendix C) under VA#6, as part of the environmental mitigation strategy.
AIR QUALITY			
D1	In addition to the performance outcomes, commitments and mitigation measures specified in the documents listed in Condition A1, all reasonably practicable measures must be implemented to minimise the emission of dust and other air pollutants during the construction of the SSI.	Appendix C (ERAPS), ERAP 11 Dust and Air Quality	This requirement has been integrated into the ERAPS (Appendix C) under ERAP 11 Dust and Air Quality part of the environmental mitigation strategy.
HERITAGE			
D2	An Archival Recording and Salvage Report must be undertaken of all heritage-listed items that will be affected by Work. The archival recording must be prepared in accordance with How to Prepare Archival Recordings of Heritage Items (NSW Heritage, 1998) and Photographic Recording of Heritage items Using Film or Digital Capture (NSW Heritage, 2006). The recordings must capture the potentially affected heritage listed items impacted by Works, and the immediate surrounds, before, during and after the works.	This SEEWMP Section 8.2 Appendix C (ERAPS), ERAP 02 Heritage (Indigenous and Non-Indigenous) Archival Recordings Reports	Section 8.2 of this SEEWMP addresses the key heritage elements of the SSI Project. The Archival Recordings will be undertaken prior to, during and at completion of works, as outlined in the ERAP02, HA#21. Archival recordings would be prepared in accordance with the guidelines and the documents specified and would capture the potentially affected heritage listed items impacted by the works, and the immediate surrounds, before, during and after the works.

CoA #	Condition Requirement	Document Reference	How Addressed
D3	The Archival Recording and Salvage Report must be submitted to the Planning Secretary, the Heritage Council of NSW, Heritage NSW and City of Sydney Council for information no later than 12 months after the completion of the work referred to in Condition D2.	This SEEWMP Section 8.2 Appendix C (ERAPS), ERAP 02 Heritage (Indigenous and Non- Indigenous) Archival Recordings Reports	Section 8.2 of this SEEWMP addresses the key heritage elements of the SSI Project. The Archival Recordings will be undertaken prior to, during and at completion of works, as outlined in the ERAP02, HA#21. Archival recordings would be submitted to the Planning Secretary the Heritage Council of NSW, Heritage NSW and City of Sydney Council for information no later than 12 months after the completion of the work.
D8	Prior to undertaking any works that have the potential to impact on historical archaeology, the Proponent must engage a suitably qualified archaeologist whose experience complies with the NSW Heritage Council's Criteria for Assessment of Excavation Directors (July, 2011) (referred to as the Excavation Director) to oversee and advise on matters associated with historical archaeology (i.e. non-Aboriginal), and to prepare a Historical Archaeological Research Design and Excavation Methodology.	This SEEWMP Section 8.2 Appendix C (ERAPS), ERAP 02 Heritage (Indigenous and Non- Indigenous) Historical Archaeological Research Design (HARD)	Section 8.2 of this SEEWMP addresses the key heritage elements of the SSI Project. A suitably qualified archaeologist/s has been engaged for the duration of the Project, including the site establishment, low impact and enabling works period. The engaged heritage specialist is the author of the HARD. The HARD will guide all archaeological work that would occur throughout the entire life of the Project. This document covers specific management strategies for archaeological work and covers the unexpected heritage finds.

CoA #	Condition Requirement	Document Reference	How Addressed
D9	The Historical Archaeological Research Design and Excavation Methodology must be developed in consultation with the Heritage Council of NSW. The methodology must be prepared prior to undertaking any Work in areas identified as “low” or “high” archaeological potential” in the documents listed in Condition A1 and must be implemented when working in areas of archaeological potential.	This SEEWMP Section 8.2 Appendix C (ERAPS), ERAP 02 Heritage (Indigenous and Non- Indigenous) Historical Archaeological Research Design (HARD)	Section 8.2 of this SEEWMP addresses the key heritage elements of the SSI Project. The HARD has been prepared and developed in consultation with the relevant agencies as per this CoA. The approved HARD document would be implemented prior to commencement of ground-breaking activities within areas of archaeological potential.
D10	Where excavation works are required in the vicinity of potential archaeological sites, the Excavation Director must be present to advise on archaeological issues and oversee excavation works. The Excavation Director must be given the authority to advise on the duration and extent of oversight required during archaeological excavations	This SEEWMP Section 8.2 Appendix C (ERAPS), ERAP 02 Heritage (Indigenous and Non- Indigenous) Historical Archaeological Research Design (HARD)	Section 8.2 of this SEEWMP addresses the key heritage elements of the SSI Project, including the requirement for the Excavation Director to be present to advice on archaeological issues. This is also captured in the ERAPs. Nominated Excavation Director/s and the need roles/responsibilities of the Excavation Director/s, are detailed in the HARD.
D11	An Unexpected Heritage Finds and Human Remains Procedure must be prepared to manage unexpected heritage finds in accordance with any guidelines and standards prepared by the Heritage Council of NSW or Heritage NSW.	This SEEWMP Unexpected Heritage Finds and Human Remains Procedure Historical Archaeological Research Design (HARD)	The Unexpected Heritage Finds and Human Remains Procedure are aligned with TfNSW guidelines and have been developed by heritage specialists. The Unexpected Heritage Finds Procedure would be approved prior to works commencing and implemented during site establishment, low impact and enabling works. The Procedure has been prepared in accordance with the guidelines and standard prepared by the relevant agencies. The HARD will guide all archaeological work that would occur throughout the entire life of the Project. This document covers specific

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CoA #	Condition Requirement	Document Reference	How Addressed
			management strategies for archaeological work and covers the unexpected heritage finds.
D12	<p>The Unexpected Heritage Finds and Human Remains Procedure must be prepared by a suitably qualified and experienced archaeologist or heritage specialist in consultation with Heritage NSW and the Heritage Council of NSW and submitted to the Planning Secretary for information at least five (5) business days before the commencement of Work.</p> <p>The Procedure must be included in the Heritage Management Sub-Plan required by Condition C6. Where the commencement of Work precedes the commencement of construction, the requirement to include the Procedure in the Heritage Management Sub-Plan only applies from the commencement of construction.</p>	<p>This SEEWMP Section 8.2 Unexpected Heritage Finds and Human Remains Procedure</p>	<p>Section 8.2 of this SEEWMP addresses the key heritage elements of the SSI Project, including the application of the Unexpected Finds Protocols for Unexpected Heritage finds and managing human remains and Aboriginal archaeological deposits.</p> <p>The Procedure has been developed by a suitably qualified heritage specialist and has undergone consultation with the relevant agencies as per the Condition.</p>
D13	<p>The Unexpected Heritage Finds and Human Remains Procedure, as submitted to the Planning Secretary, must be implemented for the duration of Work.</p> <p>Note: Human remains that are found unexpectedly during the carrying out of work may be under the jurisdiction of the NSW State Coroner and must be reported to the NSW Police immediately.</p>	<p>This SEEWMP Unexpected Heritage Finds and Human Remains Procedure Historical Archaeological Research Design (HARD)</p>	<p>The Unexpected Heritage Finds and Human Remains Procedure are aligned with TfNSW guidelines and have been developed by heritage specialists. The Unexpected Heritage Finds Procedure would be approved prior to works commencing and implemented during site establishment, low impact and enabling works.</p> <p>The HARD will guide all archaeological work that would occur throughout the entire life of the Project. This document covers specific management strategies for archaeological work and covers the unexpected heritage finds.</p>
NOISE AND VIBRATION			
D14	<p>Work must only be undertaken during the following standard construction hours:</p> <p>(a) 7:00 am to 6:00 pm Mondays to Fridays, inclusive; (b) 8:00 am to 6:00 pm Saturdays; and (c) at no time on Sundays or public holidays.</p>	<p>Construction Noise and Vibration Management Plan, Section 3.1 and 3.2 Appendix C (ERAPS),</p>	<p>The Construction Noise and Vibration Management Plan assesses noise and vibration impacts with the prescribed standard construction hours in CoA D14. .</p>

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CoA #	Condition Requirement	Document Reference	How Addressed
		ERAP 01 Noise and Vibration	Standard construction hours have been included in the ERAPS (Appendix C) under ERAP 01 Noise and Vibration.
D15	<p>Except as permitted by an EPL or an Out-of-Hours Work Protocol (where an EPL does not apply), highly noise intensive Work that results in an exceedance of the applicable noise management level (NML) at the same receiver must only be undertaken:</p> <p>(a) between the hours of 8:00 am to 6:00 pm Monday to Friday;</p> <p>(b) between the hours of 8:00 am to 1:00 pm Saturday; and</p> <p>(c) if continuously, then not exceeding three (3) hours, with a minimum cessation of work of not less than one (1) hour.</p> <p>For the purposes of this condition, 'continuously' includes any period during which there is less than one (1) hour between ceasing and recommencing any of the work.</p>	<p>Construction Noise and Vibration Management Plan, Section 3 and 8.</p> <p>Out-of-Hours Work Protocol</p> <p>This SEEWMP Appendix C (ERAPS), ERAP 01 Noise and Vibration</p>	<p>The Construction Noise and Vibration Management Plan, Section 3 and 8 demonstrates how highly noise intensive work is managed in accordance with this condition.</p> <p>The Out-of-Hours Work Protocol further details how highly intensive work is managed outside standard construction hours</p> <p>This requirement has been integrated into the ERAPS (Appendix C) under ERAP 01 Noise and Vibration as an environmental mitigation strategy.</p>
D16	<p>D16 Notwithstanding Condition D14, Work may be undertaken outside the hours specified in the following circumstances:</p> <p>(a) for the delivery of materials required by the NSW Police Force or other appropriate authority for safety reasons; or</p> <p>(b) where it is required in an emergency to avoid injury or the loss of life, to avoid damage or loss of property or to prevent environmental harm; or</p> <p>(c) where the relevant road authority has advised the Proponent in writing that a road occupancy licence will not be issued during the hours specified in Condition D14 and the Works are undertaken in accordance with Condition D19; or</p> <p>(d) where the rail authority has advised the Proponent in writing that a Rail Possession is required and approval has been given to complete Work during the rail possession, and the works are undertaken in accordance with Condition D19; or</p> <p>(e) where different construction hours are permitted or required under an EPL in force in respect of the SSI; or</p> <p>(f) where an EPL is not required or in force, Work approved under an Out-of-Hours Work Protocol developed in accordance with Condition D19; or</p> <p>(g) construction that causes:</p>	<p>Construction Noise and Vibration Management Plan, Section 3</p> <p>Out-of-Hours Work Protocol</p> <p>This SEEWMP, Appendix C (ERAPS), ERAP 01 Noise and Vibration</p>	<p>The Construction Noise and Vibration Management Plan, Section 3.2 describes requirements for planning and conducting out-of-hours works. The Out of Hours Works Protocol describes the project requirements for planning, assessing and managing out-of-hours works.</p> <p>This requirement has been integrated into the ERAPS (Appendix C) under ERAP 01 Noise and Vibration as an environmental mitigation strategy (NV02)</p>

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CoA #	Condition Requirement	Document Reference	How Addressed
	<p>(i) LAeq(15 minute) noise levels no more than 5 dB(A) above the rating background level at any residence in accordance with the Interim Construction Noise Guideline (DECC, 2009), and</p> <p>(ii) LAeq(15 minute) noise levels no more than the ‘Noise affected’ noise management levels specified in Table 3 of the Interim Construction Noise Guideline (DECC, 2009) at other sensitive land uses, and</p> <p>(iii) continuous or impulsive vibration values, measured at the most affected residence are no more than the maximum values for human exposure to vibration, specified in Table 2.2 of Assessing Vibration: a technical guideline (DEC, 2006), and</p> <p>(iv) intermittent vibration values measured at the most affected residence are no more than the maximum values for human exposure to vibration, specified in Table 2.4 of Assessing Vibration: a technical guideline (DEC, 2006); or</p> <p>(h) where negotiated agreements with directly affected residents and other sensitive land uses have been reached.</p> <p>Note: Section 5.24(1)(e) of the EP&A Act requires that an EPL be substantially consistent with this approval.</p>		
D17	<p>On becoming aware of the need for emergency work in accordance with Condition D16(b) the Proponent must notify the ER, Planning Secretary and the EPA of the reasons for such work as soon as possible after the works have commenced. The Proponent must use best endeavours to notify all noise and/or vibration affected sensitive receivers of the likely impact and duration of those works as soon as possible after the works have commenced.</p>	<p>Construction Noise and Vibration Management Plan, Section 3</p> <p>Out-of-Hours Work Protocol</p> <p>This SEEWMP Appendix C (ERAPS), ERAP 01 Noise and Vibration</p>	<p>The Construction Noise and Vibration Management Plan, Section 3 addresses the situation for emergency work and the approvals required to proceed with the emergency work.</p> <p>The Out of Hours Works Protocol describes the project requirements for planning, assessing and managing out-of-hours works. This requirement has been integrated into the ERAPS (Appendix C) under ERAP 01 Noise and Vibration as an environmental mitigation strategy (NV03).</p>
D18	<p>In order to undertake Work outside the hours specified in Condition D14 the Proponent must identify appropriate respite periods for the out-of-hours Work in consultation with the affected community on a regular basis. The consultation on respite periods must include (but not be limited to) providing the community with:</p> <p>(a) an indicative schedule of likely out-of-hours Work for a period no less than three (3) months;</p>	<p>Construction Noise and Vibration Management Plan</p> <p>Out-of-Hours Work Protocol, Section 4</p> <p>This SEEWMP</p>	<p>The Construction Noise and Vibration Management Plan provides the assessment for sensitive receivers impacted by the project.</p> <p>Community consultation on respite is describes in the Out-of-Hours Work Protocol, Section 4.</p>

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CoA #	Condition Requirement	Document Reference	How Addressed
	<p>(b) a description of the potential Work, location and duration; (c) the noise characteristics and likely noise levels of the Work; and (d) likely mitigation and management measures to be implemented.</p> <p>The outcomes of the community consultation, the identified respite periods and the scheduling of the likely out-of-hours Work must be submitted to the Planning Secretary for information prior to Work scheduled for the subject period being undertaken.</p> <p>Notes: 1. Respite periods can be any combination of days or hours where out-of-hours Work would not be more than 5 dB(A) above the rating background level at any residence. 2. Condition D18 applies to the Works specified in Conditions D16(c), (d) and (f).</p>	Appendix C (ERAPS), ERAP 01 Noise and Vibration	This requirement has been integrated into the ERAPS (Appendix C) under ERAP 01 Noise and Vibration as an environmental mitigation strategy
D20	<p>Additional mitigation measures such as temporary alternative accommodation, must be offered/ made available to residents affected by out-of-hours Work (including where utility works are being undertaken for the SSI or Work is being undertaken during a rail possession or under a road occupancy licence) where the construction noise levels, between:</p> <p>(a) 10:00 pm and 7:00 am, Monday to Friday; (b) 10:00 pm Saturday to 8:00 am Sunday; and (c) 6:00 pm Sunday and public holidays to 7:00 am the following day unless that day is Saturday then to 8:00 am,</p> <p>are predicted to exceed the NML by 25 dB(A) or are greater than 75 dBA (LAeq(15 min)), whichever is the lesser.</p> <p>The NML must be reduced by 5 dB where the noise contains annoying characteristics and increased by 10 dB if the property has received at-property noise treatment. The noise levels and duration requirements identified in this condition may be changed through an EPL applying to the SSI.</p>	Construction Noise and Vibration Management Plan Out-of-Hours Work Protocol	<p>Construction Noise and Vibration Management Plan provides an assessment for sensitive receivers impacted by the project, and proposed mitigation measures such as alternative accommodation.</p> <p>The Out of Hours Works Protocol describes the project requirements for planning, assessing and managing out-of-hours works, including alternative accommodation.</p>
D21	<p>The Proponent must consult with proponents or applicants of other State significant development and infrastructure projects within 200 metres of the SSI and take reasonable steps to coordinate Work, including utility Work, to minimise cumulative noise and vibration impacts and maximise respite for affected sensitive receivers.</p>	Construction Noise and Vibration Management Plan,	The Construction Noise and Vibration Management Plan lists construction sites that may be active at the time of the Redfern Station Works. Novo Rail will make contact with

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CoA #	Condition Requirement	Document Reference	How Addressed
			<p>construction managers of sites which may be active concurrently with Redfern Station works, in order to manage cumulative impacts if possible.</p> <p>Construction Noise and Vibration Management Plan</p>
D22	<p>Noise and vibration generating Work in the vicinity of potentially-affected community, religious, educational institutions and noise and vibration-sensitive businesses and critical working areas (such as theatres, laboratories and operating theatres) resulting in noise levels above the NMLs or vibration levels above the relevant criteria must not be timetabled within sensitive periods, unless other reasonable arrangements with the affected institutions are made at no cost to the affected institution.</p>	<p>Construction Noise and Vibration Management Plan</p> <p>Out-of-Hours Work Protocol, Section 3.5</p> <p>Communication Strategy</p>	<p>This would be determined through ongoing consultation with the community during construction. Consultation mechanisms will be consistent with those nominated in the Communication Strategy and tailored to the affected community as advised by the Contractor Community Engagement Manager and TfNSW Community Engagement Managers.</p> <p>Construction Noise and Vibration Management Plan</p>
D23	<p>All work undertaken for the delivery of the SSI, including those undertaken by third parties (such as utility relocations), must be coordinated to ensure respite periods are provided. The Proponent must:</p> <p>(a) reschedule any Work to provide respite to impacted noise sensitive receivers so that the respite is achieved in accordance with Condition D18 and D20; or</p> <p>(b) consider the provision of alternative respite or mitigation to impacted noise sensitive receivers; and</p> <p>(c) provide documentary evidence to the ER in support of any decision made by the Proponent in relation to respite or mitigation.</p>	<p>Construction Noise and Vibration Management Plan, Section 8</p> <p>Out-of-Hours Work Protocol</p>	<p>This condition has been addressed in the Construction Noise and Vibration Management Plan, Section 8, and the Out-of-Hours Work Protocol</p>
D24	<p>Mitigation measures must be implemented with the aim of achieving the following construction noise management levels and vibration criteria:</p> <p>(a) construction 'Noise affected' noise management levels established using the Interim Construction Noise Guideline (DECC, 2009);</p> <p>(b) vibration criteria established using the Assessing vibration: a technical guideline (DEC,</p>	<p>Construction Noise and Vibration Management Plan, Section 5</p> <p>This SEEWMP, Appendix C (ERAPS),</p>	<p>The Construction Noise and Vibration Management Plan Section 5 c addresses this condition.</p> <p>The Out-of-Hours Work Protocol – an appendix to the NVMP</p>

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CoA #	Condition Requirement	Document Reference	How Addressed
	<p>2006) (for human exposure); (c) Australian Standard AS 2187.2 - 2006 “Explosives - Storage and Use - Use of Explosives”; (d) BS 7385 Part 2-1993 “Evaluation and measurement for vibration in buildings Part 2” as they are “applicable to Australian conditions”; and (e) the vibration limits set out in the German Standard DIN 4150-3: Structural Vibration-effects of vibration on structures (for structural damage).</p> <p>Any Work identified as exceeding the noise management levels and/or vibration criteria must be managed in accordance with the Noise and Vibration CEMP Sub-plan.</p> <p>Note: The Interim Construction Noise Guideline identifies ‘particularly annoying’ activities that require the addition of 5 dB(A) to the predicted level before comparing to the construction Noise Management Level.</p>	ERAP 01 Noise and Vibration	This requirement has been integrated into the ERAPS (Appendix C) under ERAP 01 Noise and Vibration as an environmental mitigation strategy
D25	<p>Mitigation measures must be applied when the following residential ground-borne noise levels are exceeded:</p> <p>(a) evening (6:00 pm to 10:00 pm) — internal LAeq(15 minute): 40 dB(A); and (b) night (10:00 pm to 7:00 am) — internal LAeq(15 minute): 35 dB(A).</p> <p>The mitigation measures must be outlined in the Noise and Vibration CEMP Sub-plan, including in any Out-of-Hours Work Protocol, required by Condition D19.</p>	<p>Construction Noise and Vibration Management Plan, Section 5 and 7 Out-of-Hours Work Protocol, Section 3.3 This SEEWMP Appendix C (ERAPS), ERAP 01 Noise and Vibration</p>	<p>The Construction Noise and Vibration Management Plan Section 5 assessed the ground borne noise impacts to sensitive receivers. Section 8 describes appropriate mitigation measures.</p> <p>The Out-of-Hours Work Protocol, section 3.3. describes the mitigation measures for ground-borne noise. This requirement has been integrated into the ERAPS (Appendix C) under ERAP 01 Noise and Vibration as an environmental mitigation strategy</p>
D26	<p>Owners and occupiers of properties at risk of exceeding the screening criteria for cosmetic damage must be notified before Work that generates vibration commences in the vicinity of those properties. If the potential exceedance is to occur more than once or extend over a period of 24 hours, owners and occupiers are to be provided a schedule of potential exceedances on a monthly basis for the duration of the potential exceedances, unless otherwise agreed by the owner and occupier. These properties must be identified and considered in the Noise and Vibration CEMP Sub-plan.</p>	<p>Construction Noise and Vibration Management Plan Out-of-Hours Work Protocol This SEEWMP</p>	<p>The Construction Noise and Vibration Management Plan captures these elements and addresses these requirements. This Plan would be established from December 2020.</p> <p>The Out-of-Hours Work Protocol – an appendix to the NVMP</p>

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CoA #	Condition Requirement	Document Reference	How Addressed
		Appendix C (ERAPS), ERAP 01 Noise and Vibration	This requirement has been integrated into the ERAPS (Appendix C) under ERAP 01 Noise and Vibration as an environmental mitigation strategy
D27	The Proponent must conduct vibration testing before and during vibration generating activities that have the potential to impact on heritage items to identify minimum working distances to prevent cosmetic and structural damage. In the event that the vibration testing and monitoring shows that the preferred values for vibration are likely to be exceeded, the Proponent must review the construction methodology and, if necessary, amend the methodology and/or implement additional mitigation measures to prevent damage.	Construction Noise and Vibration Management Plan Out-of-Hours Work Protocol This SEEWMP Appendix C (ERAPS), ERAP 01 Noise and Vibration	The Construction Noise and Vibration Management Plan captures these elements and addresses these requirements. This Plan would be established from December 2020. The Out-of-Hours Work Protocol – an appendix to the NVMP This requirement has been integrated into the ERAPS (Appendix C) under ERAP 01 Noise and Vibration as an environmental mitigation strategy
D28	The Proponent must seek and implement the advice of a heritage specialist on impacts to heritage-listed structures from installing equipment used for vibration, movement and noise monitoring before its installation.	Construction Noise and Vibration Management Plan Out-of-Hours Work Protocol This SEEWMP Appendix C (ERAPS), ERAP 01 Noise and Vibration	The Construction Noise and Vibration Management Plan captures these elements and addresses these requirements. This Plan would be established from December 2020. The Out-of-Hours Work Protocol – an appendix to the NVMP This requirement has been integrated into the ERAPS (Appendix C) under ERAP 01 Noise and Vibration as an environmental mitigation strategy
PLACE, DESIGN AND VISUAL AMENITY			
D32	The SSI must be constructed and operated with the objective of minimising light spillage to surrounding properties. All lighting associated with the construction and operation of the SSI must be consistent with the requirements of AS/NZS 4282:2019 Control of the obtrusive effects of outdoor lighting and relevant Australian Standards in the series AS/NZ 1158 – Lighting for Roads and Public Spaces. All construction and operational lighting must also be consistent with City of Sydney Council's relevant design codes and standards for lighting, including Sydney Lights: Public Domain Design Code, in areas	Appendix C (ERAPS), ERAP 12 Visual Amenity	This requirement has been integrated into the ERAPS (Appendix C) under ERAP 12 Visual Amenity as an environmental mitigation strategy

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CoA #	Condition Requirement	Document Reference	How Addressed
	outside of the rail corridor. Additionally, the Proponent must provide mitigation measures to manage any residual night lighting impacts to protect properties adjoining or adjacent to the SSI, in consultation with affected landowners.		
D42	The Gibbons Street Reserve must be reinstated to its pre-existing condition (as a minimum) prior to operation of the SSI or by such other time as may be approved by the Planning Secretary. Restoration works must be undertaken in consultation with the City of Sydney Council and improve local biodiversity by using local species for plantings.	Appendix C (ERAPS), ERAP 12 Visual Amenity	This requirement has been integrated into the ERAPS (Appendix C) under ERAP 12 Visual Amenity as an environmental mitigation strategy

SOILS

D47	All reasonably practicable erosion and sediment controls must be installed and appropriately maintained to prevent water pollution. Erosion and sediment controls must be implemented in accordance with any relevant guidance in the Managing Urban Stormwater series.	Appendix C (ERAPS), ERAP 04 Water quality, site drainage and erosion and sediment control	This requirement has been integrated into the ERAPS (Appendix C) under ERAP 04 Water quality, site drainage and erosion and sediment control as environmental strategies
D52	D52 An Unexpected Contaminated Land and Asbestos Finds Procedure must be prepared before the commencement of Work and must be followed should unexpected contaminated land or asbestos (or suspected contaminated land or asbestos) be excavated or otherwise discovered during Work. A copy of the procedure must be provided to the Planning Secretary for information prior to the commencement of Work.	Unexpected Contaminated Land and Asbestos Finds Procedure Hazardous Materials Management Plan Appendix C (ERAPS), ERAP 04 Water quality, site drainage and erosion and sediment control ERAP 06 Hazardous and contaminated material	Unexpected Contaminated Land and Asbestos Finds Procedure has been prepared for the project The use of this procedure has been integrated into the ERAPS (Appendix C) under ERAP 04 Water quality, site drainage and erosion and sediment control and ERAP 06 Hazardous and contaminated material as environmental strategies.
D53	D53 The Unexpected Contaminated Land and Asbestos Finds Procedure must be implemented throughout the duration of Work.	Unexpected Contaminated Land and Asbestos Finds Procedure	The Unexpected Contaminated Land and Asbestos Finds Procedure would be implemented as part of the site establishment, low impact and enabling works

TRAFFIC AND ACCESS

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CoA #	Condition Requirement	Document Reference	How Addressed
D56	Heavy vehicles used for hauling spoil and fill are only permitted to use the local roads identified for haulage in the documents listed in Condition A1, unless otherwise approved by the Planning Secretary.	Traffic Management Plan (TMP) Traffic control plans (Appendix N) Appendix C (ERAPS), ERAP 05 Traffic, access and pedestrian	The Traffic Management Plan for the December 2020 works for enabling works identifies permitted heavy vehicle routes for haulage of the spoil and fill as well as other required materials. This requirement has been integrated into the ERAPS (Appendix C) under ERAP 05 Traffic, access and pedestrian as an environmental mitigation strategy
D57	All requests to the Planning Secretary for approval to use local roads must: (a) include a swept path analysis; (b) demonstrate that the use of local roads will not compromise the safety of the public and have no more than minimal amenity impacts; (c) provide details as to the date of completion of the road dilapidation surveys for the subject local roads; and (d) describe the measures that will be implemented to avoid where practicable the use of local roads past schools, aged care facilities and child care facilities during peak times for operation.	Traffic Management Plan for the December 2020 works (TMP)	The Traffic Management Plan for the December 2020 works (TMP) and the main works TMP covers these requirements in detail
D60	During construction, all reasonably practicable measures must be implemented to maintain pedestrian and vehicular access to, and parking in the vicinity of, residences, businesses and other affected properties. Disruptions are to be avoided, and where avoidance is not possible, minimised. Where disruption cannot be minimised, alternative pedestrian and vehicular access must be developed in consultation with affected residents, businesses and other affected property owners and implemented before the disruption. Adequate signage and directions to businesses must be provided before, and for the duration of, any disruption.	Appendix C (ERAPS), ERAP 05 Traffic, access and pedestrian Traffic Management Plan for the December 2020 works (TMP)	This requirement has been integrated into the ERAPS (Appendix C) under ERAP 05 Traffic, access and pedestrian as an environmental mitigation strategy
D62	Safe pedestrian and cyclist access must be maintained around work sites during construction. In circumstances where pedestrian and cyclist access is restricted or removed due to construction activities, an alternate route must be provided and signposted.	Appendix C (ERAPS), ERAP 05 Traffic, access and pedestrian Traffic Management Plan (TMP)	This requirement has been integrated into the ERAPS (Appendix C) under ERAP 05 Traffic, access and pedestrian as an environmental mitigation strategy

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CoA #	Condition Requirement	Document Reference	How Addressed
	Note: The City of Sydney Council is the relevant road authority under the Roads Act 1993 for local roads in the vicinity of the SSI. If a consent(s) under section 138 of the Roads Act 1993 is required for the SSI, Section 5.24(1)(f) of the EP&A Act requires that any such consent be substantially consistent with this approval.		
WASTE			
D64	Waste generated during construction and operation must be dealt with in accordance with the following priorities: (a) waste generation must be avoided and where avoidance is not reasonably practicable, waste generation must be reduced; (b) where avoiding or reducing waste is not possible, waste must be re-used, recycled, or recovered; and (c) where re-using, recycling or recovering waste is not possible, waste must be treated or disposed of.	Appendix C (ERAPS), ERAP 03 Waste Management	This requirement has been integrated into the ERAPS (Appendix C) under ERAP 03 Waste Management as an environmental mitigation strategy
D65	The importation of waste and the storage, treatment, processing, reprocessing or disposal of any waste must be done in accordance with a Resource Recovery Exemption or Order issued under the Protection of the Environment Operations (Waste) Regulation 2014, as the case may be.	Appendix C (ERAPS), ERAP 03 Waste Management	This requirement has been integrated into the ERAPS (Appendix C) under ERAP 03 Waste Management as an environmental mitigation strategy
D66	Waste must only be exported to a site licensed by the EPA for the storage, treatment, processing, reprocessing or disposal of the subject waste, or in accordance with a Resource Recovery Exemption or Order issued under the Protection of the Environment Operations (Waste) Regulation 2014, or to any other place that can lawfully accept such waste.	Appendix C (ERAPS), ERAP 03 Waste Management	This requirement has been integrated into the ERAPS (Appendix C) under ERAP 03 Waste Management as an environmental mitigation strategy. All details will be recorded in the waste tracking register.
D67	All waste generated during construction must be classified in accordance with the EPA's Waste Classification Guidelines, with appropriate records and disposal docketts retained for audit purposes.	Appendix C (ERAPS), ERAP 03 Waste Management	A waste tracking register has been prepared and will be updated throughout the project. This requirement has been integrated into the ERAPS (Appendix C) under ERAP 03 Waste Management as an environmental mitigation strategy.
D68	The Proponent must develop and implement a waste tracking register that details: (a) the quantity of each type of waste generated, its classification and source location (recorded using latitude and longitude coordinates); (b) the destination location(s) for all wastes generated during construction;	This SEEWMP Appendix G	This is addressed through the Environmental and Sustainability Management Register, in which one of the tabs details waste tracking and the details required for this

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CoA #	Condition Requirement	Document Reference	How Addressed
	<p>(c) the quantities of any waste types imported onto the SSI site, including their classification and emplacement location (recorded using latitude and longitude coordinates);</p> <p>(d) the quantities and types of wastes that are subject to a Resource Recovery Order and/or Exemption; and</p> <p>(e) disposal records demonstrating that receiving facilities have lawfully accepted the waste type.</p> <p>The waste tracking register must be made available to the Planning Secretary and EPA on request.</p>		

5.3 Revised Mitigation Measures

The revised mitigation measures relevant to this Plan are listed in Table 5-2. A cross reference is also included to indicate where the condition is addressed in this Plan or other Project management documentation.

Table 5-2 Revised mitigation measures relevant to this SEEWMP

Reference	Management and mitigation measures	SEEWMP Reference	How Addressed
Urban design			
UD1	TfNSW would engage an appropriately qualified arborist(s) to minimise the removal of trees and ensure retained trees are managed in accordance with AS4970-2009. Planting would be undertaken in accordance with TfNSW vegetation offset policy	Appendix C (ERAP 10)	This has been incorporated into mitigation measures that address Biodiversity management in Appendix C (ERAP 10), including B4, B16, B18, B19
UD2	TfNSW would consult with CoS Council in regard to tree offsets, and other landscaping within the Project area.	Appendix C (ERAP 10)	This has been incorporated into mitigation measures that address Biodiversity management in Appendix C (ERAP 10)
Landscape and visual			
LV1	Provide well-presented and maintained construction hoarding and site fencing with shade cloth (or similar material) (where necessary) to minimise visual impacts on key viewpoints	Appendix C (ERAP 12)	This has been incorporated into mitigation measures that address Biodiversity

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Reference	Management and mitigation measures	SEEWMP Reference	How Addressed
	during construction. The construction ancillary facilities would be designed to limit or deter graffiti. Hoardings, site and acoustic fencing would be removed following construction completion.		management in Appendix C (ERAP 12), including VA1, VA11, VA15, VA16
LV2	Provide cut-off or directed lighting within the construction areas, with lighting location and direction considered to ensure glare and light spill is minimised.	Appendix C (ERAP 12)	This has been incorporated into mitigation measures that address Biodiversity management in Appendix C (ERAP 12), including VA3 and VA4
LV3	Construction personnel to keep the construction areas clean and tidy, including refuse placed in appropriate waste bins.	Appendix C (ERAP 03)	This has been incorporated into mitigation measures that address Waste management in Appendix C (ERAP 03), including WA14
LV4	Implement measures to minimise tracking of dirt and mud into public roads and other public spaces	Appendix C (ERAP 04)	This has been incorporated into mitigation measures that address Water quality, site drainage and erosion and sediment control management in Appendix C (ERAP 04), including WQ6
LV5	Limit disturbance of vegetation to the minimum amount necessary to construct the Project, particularly within the streetscapes affected by the Project.	Appendix C (ERAP 10)	This has been incorporated into mitigation measures that address Biodiversity management in Appendix C (ERAP 10), including in B29
Land use and property			
LP1	Temporary use areas, including public open space at the Gibbons Street Reserve, would be restored to their pre-existing condition (as a minimum) as soon as practicable following completion of construction. This would be undertaken in consultation with City of Sydney Council and/or the landowner	Section 7	This is included in Section 7 of this SEEWMP
Social			
SE5	Construction activities undertaken in proximity to businesses would maintain visibility of business frontage, associated signage and access points, where possible. Temporary signage would be provided in the vicinity of a business if construction works obstruct views to the business. Business impacts resulting from changes to amenity or access would be managed in line with mitigation measures identified for other relevant environmental issues.	Appendix C (ERAP 12)	This has been incorporated into mitigation measures that address Visual amenity management in Appendix C (ERAP 12), including VA8

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Reference	Management and mitigation measures	SEEWMP Reference	How Addressed
Traffic, transport and access			
T2	The new offset parking facilities on Little Eveleigh Street would be constructed prior to the removal of parking, to accommodate parking spaces displaced to facilitate construction activities	Appendix C (ERAP 05) Appendix N (Traffic Management Plan)	This has been incorporated into mitigation measures that address Traffic, access and pedestrian management in Appendix C (ERAP 05), including TA13. This has been also been built into the TMP developed specifically for the Christmas 2020 possession works.
T4	Appropriate signage and line marking would be provided to guide pedestrians and cyclists past construction sites and on the surrounding network to allow access to be maintained. Access would include guidance for customers with access requirements for disability, including wheelchair users and people with a visual impairment.	Appendix C (ERAP 05) Appendix N (Traffic Management Plan)	This has been incorporated into mitigation measures that address Traffic, access and pedestrian management in Appendix C (ERAP 05), including TA3. This has been also been built into the TMP developed specifically for the Christmas 2020 possession works.
T5	Community notifications would be issued in advance for any proposed road and pedestrian network changes through appropriate channels and forms of communication	Appendix C (ERAP 05) Appendix N (Traffic Management Plan)	This has been incorporated into mitigation measures that address Traffic, access and pedestrian management in Appendix C (ERAP 05), including TA15. This has been also been built into the TMP developed specifically for the Christmas 2020 possession works.
T6	Access to existing properties and buildings would be maintained, where possible, in consultation with property and business owners. If access needs to be restricted during some periods during construction, this would be communicated to the resident or business owner.	Appendix C (ERAP 05) Appendix N (Traffic Management Plan)	This has been incorporated into mitigation measures that address Traffic, access and pedestrian management in Appendix C (ERAP 05), including TA3. This has been also been built into the TMP developed specifically for the Christmas 2020 possession works.
T7	Construction sites would be managed to minimise construction worker parking on surrounding streets. Workers would be encouraged to use public or active transport and	Appendix C (ERAP 05)	This has been incorporated into mitigation measures that address Traffic, access and

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Reference	Management and mitigation measures	SEEWMP Reference	How Addressed
	ride share with the implementation of a Green Travel Plan initiative. A workers' reward scheme would be implemented for those who adhere to the initiative.	Appendix N (Traffic Management Plan)	pedestrian management in Appendix C (ERAP 05), including TA16. This has been also been built into the TMP developed specifically for the Christmas 2020 possession works.
T8	Construction site traffic would be managed to minimise traffic impacts during the peak periods through scheduling construction vehicle movements outside the peak hours. Where possible, group deliveries would be restricted.	Appendix C (ERAP 05) Appendix N (Traffic Management Plan)	This has been incorporated into mitigation measures that address Traffic, access and pedestrian management in Appendix C (ERAP 05), including TA17. This has been also been built into the TMP developed specifically for the Christmas 2020 possession works.
Noise and vibration			
N2	All employees, contractors and subcontractors would receive an environmental induction. As a minimum the induction must include: <ul style="list-style-type: none"> ■ all relevant Project specific and standard noise and vibration mitigation measures ■ relevant licence and approval conditions ■ permissible hours of work ■ any limitations on noise generating activities with special audible characteristics (noise with characteristics that can cause annoyance and disturbance, containing noticeable factors such as tonality, low frequency noise, impulsive or intermittent noise events) ■ location of nearest sensitive receivers ■ construction employee parking areas ■ designated loading/unloading areas and procedures ■ site opening/closing times (including deliveries) ■ environmental incident procedures and complaint handling procedures. 	Appendix C (ERAP 01)	This has been incorporated into mitigation measures that address Noise and vibration management in Appendix C (ERAP 01), including NV15.

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Reference	Management and mitigation measures	SEEWMP Reference	How Addressed
N3	<p>All nearby residents and sensitive receivers impacted by noise levels from the Project which are expected to exceed the NML would be consulted notified prior to the commencement of the particular activity, with the highest consideration given to those that are predicted to be most affected as a result of the works.</p> <p>The information provided to the receivers will include:</p> <ul style="list-style-type: none"> ■ programmed times and locations of construction work ■ the hours of proposed works ■ construction noise and vibration impact predictions ■ construction noise and vibration mitigation measures being implemented on site. <p>Community consultation notification and management procedures regarding construction noise and vibration would be detailed in a Community Liaison Management Plan for the construction of the Project and would include a 24 hour hotline and complaints management process.</p>	Appendix C (ERAP 01)	This has been incorporated into mitigation measures that address Noise and vibration management in Appendix C (ERAP 01), including NV25.
N5	For heritage items where the vibration screening criteria are predicted to be exceeded, the more detailed assessment would include condition assessment and specifically consider the heritage values of the structure in consultation with a heritage specialist to ensure sensitive heritage fabric is adequately monitored and managed.	Appendix C (ERAP 01)	This has been incorporated into mitigation measures that address Noise and vibration management in Appendix C (ERAP 01), including NV22
N7	Work generating noise with special audible characteristics (such as jack hammers, rock breakers, piling rigs and diamond saws) and/or vibration levels would be scheduled during less sensitive time periods for receivers (for example, before 10:00 pm or as determined during community consultation) where feasible and reasonable, and also in accordance with the requirements of the CNVS and CEMF	Appendix C (ERAP 01)	This has been incorporated into mitigation measures that address Noise and vibration management in Appendix C (ERAP 01), including NV26
N8	Vehicle movements would be routed away from sensitive receivers and scheduled during less sensitive times where feasible and reasonable. The speed of vehicles would be limited, and the use of engine compression brakes avoided.	Appendix C (ERAP 01)	This has been incorporated into mitigation measures that address Noise and vibration management in Appendix C (ERAP 01), including NV27

Non-Aboriginal Heritage

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Reference	Management and mitigation measures	SEEWMP Reference	How Addressed
NAH2	A heritage architect would be engaged to provide ongoing heritage and conservation advice throughout detailed design and construction and any subsequent relevant design modifications	Appendix C (ERAP 02)	This has been incorporated into mitigation measures that address Heritage (ERAP 02), including HA6
NAH3	A specialist tradesperson, well versed in working with heritage fabric, would be engaged during the construction stage of the Project.	Appendix C (ERAP 02)	This has been incorporated into mitigation measures that address Heritage (ERAP 02), including HA6, HA24 and HA27
NAH4	A historical record of areas modified would be prepared for future reference. Archival recording should be completed prior to the commencement of construction and at completion of construction. The following elements would be included: <ul style="list-style-type: none"> ■ identified significant views ■ Platform 1 Office Building and surrounding area ■ Platform 4/5, 6/7 and 8/9 buildings ■ retaining walls on Platform 1 and 10 ■ examples of various platform facings ■ 125-127 Little Eveleigh Street ■ Little Eveleigh Street streetscape. 	Appendix C (ERAP 02)	This has been incorporated into mitigation measures that address Heritage (ERAP 02), including HA24
NAH7	The heritage elements on Platform 4/5, 6/7 and 8/9 buildings would be conserved and protected by: <ul style="list-style-type: none"> ■ using traditional repair and conservation methods for detailing proposed works ■ ensuring the demolition of the extension to the Platform 8/9 building would not damage the surrounding fabric ■ retaining original features of the building and their conservation and restoration if feasible 	Appendix C (ERAP 02) Historical Archaeological Research Design (HARD)	This has been incorporated into mitigation measures that address Heritage (ERAP 02), including HA28 This has also been incorporated into management measures under the HARD document.

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Reference	Management and mitigation measures	SEEWMP Reference	How Addressed
	<ul style="list-style-type: none"> incorporating new sympathetic fabric in accordance with the guidelines of the Burra Charter. 		
NAH13	<p>Inspection of the following areas would be undertaken to identify movable heritage items:</p> <ul style="list-style-type: none"> Platform 1 Office Building Platforms 4-9 buildings 125-127 Little Eveleigh Street. <p>If movable heritage items are found:</p> <ul style="list-style-type: none"> items would be tagged and recorded storage of moveable heritage would be coordinated with the Eveleigh Railway Workshop Collection 	Appendix C (ERAP 02)	This has been incorporated into mitigation measures that address Heritage (ERAP 02), including HA4 and HA5.
NAH14	<p>The potential archaeology on site would be protected and managed by undertaking the following:</p> <ul style="list-style-type: none"> archaeological test excavation and salvage on the northern side of Marian Street, proposed car park off Little Eveleigh Street and area of relocation of the Platform 1 Office Building, prior to the commencement of bulk excavation works. A Historical Archaeological Research Design (HARD) would be prepared in accordance with the relevant Heritage, DPC guidelines archaeological monitoring for excavation works in the area of the proposed new car park on Little Eveleigh Street. The methodology for undertaking this archaeological monitoring would be included in the HARD archaeological monitoring for any excavation works along Marian Street, Rosehill Street and Cornwallis Street to record remains of earlier road surfaces. Once recorded, these road surfaces can be removed. The archaeological monitoring methodology would be included in the HARD implementing stop-work procedures if unexpected finds be uncovered in accordance with TfNSW's Unexpected Heritage Finds Guidelines. 	Appendix C (ERAP 02) HARD	This has been incorporated into mitigation measures that address Heritage (ERAP 02), including HA22.

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Reference	Management and mitigation measures	SEEWMP Reference	How Addressed
Biodiversity			
B2	Should the detailed design determine the need to remove or trim additional trees not identified in this EIS, the construction contractor would be required to complete the TfNSW Tree Removal Application Form and submit it to TfNSW for approval.	Appendix C (ERAP 10)	Additional trees required for removing/trimming not originally identified in the EIS are captured in Consistency Assessment (01), subject to approval. Any additional trees require trimming or removal will be captured in a TfNSW Tree Removal Application Form and submit it to TfNSW for approval.
B3	Disturbance of vegetation would be limited to the minimum necessary to construct the Project. Trees nominated to be removed would be clearly demarcated onsite prior to construction, to avoid unnecessary vegetation removal.	Appendix C (ERAP 10)	This has been incorporated into mitigation measures that address Biodiversity (ERAP 10), including B10 and B29
B4	A qualified and experienced fauna spotter/ecologist would be engaged to inspect trees prior to and during removal and trimming to relocate any fauna that may be present in each tree. This process should be documented (including photos) for record keeping	Appendix C (ERAP 10)	This has been incorporated into mitigation measures that address Biodiversity (ERAP 10), including B2
B5	Where space restrictions allow, Tree Protection Zones (TPZs) would be established around trees to be retained, using an appropriate physical demarcation. Tree protection would be undertaken in line with AS 4970- 2009 Protection of Trees on Development Sites. Where TPZs are not feasible, alternative measures would be implemented including branch and trunk protection. An arborist may be consulted if necessary	Appendix C (ERAP 10)	This has been incorporated into mitigation measures that address Biodiversity (ERAP 10), including B10, B11, B12, B13, B14, B15 and B16
B6	All workers involved in tree removal/trimming would be provided with a specific induction relevant to this task prior to commencing work	Appendix C (ERAP 10)	This has been incorporated into mitigation measures that address Biodiversity (ERAP 10), including B6
B7	Equipment would be stored, stockpiled and refuelled within the identified construction ancillary facilities.	Appendix C (ERAP 10)	This has been incorporated into mitigation measures that address Biodiversity (ERAP 10), including B11
B8	Vegetation offsets and/or landscaping would be undertaken in accordance with the Vegetation Offset Guide (TfNSW, 2019b) and in consultation with CoS Council.	Appendix C (ERAP 10)	This has been incorporated into mitigation measures that address Biodiversity (ERAP 10), including B5 and B30
B9	Plant equipment would be turned off when not in use to avoid noise and air impacts to nearby fauna.	Appendix C (ERAP 10)	This has been incorporated into mitigation measures that address Biodiversity (ERAP 10), including B22

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Reference	Management and mitigation measures	SEEWMP Reference	How Addressed
B11	Works must be stopped if any previously undiscovered threatened flora or fauna species or communities are discovered during works. An assessment of the impact and any required approvals must be obtained before proceeding.	Appendix C (ERAP 10)	This has been incorporated into mitigation measures that address Biodiversity (ERAP 10), including B8
B12	WIRES would be consulted if any injured fauna are encountered, or any fauna is otherwise found within the construction areas and is impeding work.	Appendix C (ERAP 10)	This has been incorporated into mitigation measures that address Biodiversity (ERAP 10), including B25 and B26
B13	Inspections would be undertaken at least every three months for weed infestations and to assess the need for control measures. Any weeds identified would be managed in accordance with the relevant guidelines.	Appendix C (ERAP 10)	This has been incorporated into mitigation measures that address Biodiversity (ERAP 10), including B31
Soils, geology, groundwater and contamination			
SC6	In the event that indicators of contamination or acid sulfate soils are encountered during construction (such as odours, visually contaminated materials etc.), work in the immediate area would cease, and the finds would be managed in accordance with the unexpected contamination finds procedure.	Appendix M (Unexpected Contaminated Land and Asbestos Finds Procedure)	This process has been captured in the Unexpected Contaminated Land and Asbestos Finds Procedure/Protocol which forms Appendix M of this SEEWMP
Air Quality			
AQ3	Work activities would be reviewed if the air quality management measures are ineffective in minimising dust or other emissions	Appendix C (ERAP 11)	This has been incorporated into mitigation measures that address dust and air quality management (ERAP 11), including DA16
AQ5	<p>Measures to manage exhaust emissions would include the following:</p> <ul style="list-style-type: none"> ■ plant, machinery and vehicles would be turned off while not in use, where safe to do so ■ equipment (including all internal combustion engines) would be properly maintained and would run efficiently to ensure exhaust emissions are minimised, where practicable ■ construction plant, machinery or vehicles producing excessive visual exhaust would be turned off, tagged 'out of order' and not used ■ all emission controls used on vehicle and equipment would comply with standards listed in Schedule 4 of the Protection of the Environment Operations (Clean Air) Regulation 2010 	Appendix C (ERAP 11)	This has been incorporated into mitigation measures that address dust and air quality management (ERAP 11), including DA10 – DA14.

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Reference	Management and mitigation measures	SEEWMP Reference	How Addressed
	<ul style="list-style-type: none"> emissions from plant would be considered as part of pre-acceptance checks. 		
AQ6	Construction site layout and placement of plant would consider air quality impacts to nearby receivers	Appendix C (ERAP 11)	This has been incorporated into mitigation measures that address dust and air quality management (ERAP 11), including DA15
AQ7	In the event that odour emissions are generated, work would cease until the source and nature of the odour can be determined and an appropriate course of action carried out. This may include further assessment to determine potential impacts on the nearest sensitive receptors	Appendix C (ERAP 11)	This has been incorporated into mitigation measures that address dust and air quality management (ERAP 11), including DA16
Hazards and risk			
HRS6	'Dial before you dig' searches would be carried prior to excavation work taking place.	Appendix C (ERAP 06)	This has been incorporated into mitigation measures that address hazards and risks management (ERAP 06), including HC13
Waste			
WM2	Stockpiled wastes would be: <ul style="list-style-type: none"> appropriately segregated to avoid mixing and contamination appropriately labelled appropriately stored to minimise risk of erosion less than three metres in height with an appropriate height to length batter ratio (e.g. 1:3) located as far away as practical from sensitive receivers, ecological areas and watercourses. 	Appendix C (ERAP 03)	This has been incorporated into mitigation measures that address Waste management (ERAP 03), including W15
WM4	All waste would be assessed, classified, managed and disposed of (where they cannot be re-used) in accordance with the Waste Classification Guidelines (NSW EPA, 2014a).	Appendix C (ERAP 03)	This has been incorporated into mitigation measures that address Waste management (ERAP 03), including W17
WM5	Waste segregation bins would be located at various locations within the Project area, if space permits, to facilitate segregation and prevent cross contamination.	Appendix C (ERAP 03)	This has been incorporated into mitigation measures that address Waste management (ERAP 03), including W2

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5.4 Environmental Performance Outcomes

Relevant Environmental Performance Outcomes (EPOS) outlined in the Redfern Station Upgrade – New Southern Concourse Response to Submissions (Transport for NSW, September 2020) and Redfern Station Upgrade – New Southern Concourse Construction Environmental Management Framework (Transport for NSW, October 2020) are listed in Table 6-3. This includes reference to required outcomes, the timing of when the commitment applies relevant documents or sections of the environmental assessment influencing the outcome and implementation.

Other relevant CEMF requirements are captured in throughout the Plan underneath the relevant sections and reference back to the applicable CEMF section.

Table 5-3 Environmental Performance Outcomes (EPOs) relevant to this SEEWMP

Environmental Performance Outcome	SEEWMP Reference	How Addressed
Construction Traffic Management		
Safe and efficient access routes are provided for pedestrians, cyclists and road users, including buses.	Appendix C (ERAP 05)	This has been incorporated into mitigation measures that address traffic, access and pedestrian management in Appendix C (ERAP 05), including TA03, TA09-11.
Maintain access for all customers to Redfern Station, while the station is operational.		This has been incorporated into mitigation measures that address traffic, access and pedestrian management in Appendix C (ERAP 05), including TA18.
Access to residences and commercial properties is maintained		This has been incorporated into mitigation measures that address traffic, access and pedestrian management in Appendix C (ERAP 05), including TA09.
Access for emergency vehicles, waste management services and deliveries is maintained		This has been incorporated into mitigation measures that address traffic, access and pedestrian management in Appendix C (ERAP 05), including TA19.

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Environmental Performance Outcome	SEEWMP Reference	How Addressed
The local community, relevant authorities and other proponents undertaking concurrent work close to the Project are consulted to minimise disruptions to road, active transport and public transport users		This has been incorporated into mitigation measures that address traffic, access and pedestrian management in Appendix C (ERAP 05), including TA09, 10, 12 and 15.
The local community and relevant authorities are consulted regarding upcoming Project construction activities to minimise disruptions to road, active transport and public transport users the Project provides		This has been incorporated into mitigation measures that address traffic, access and pedestrian management in Appendix C (ERAP 05), including TA09, 10, 12 and 15.
Heritage Management		
Heritage items are sensitively protected and managed during the construction of the Project	Appendix C (ERAP 02)	This has been incorporated into mitigation measures that address heritage management in Appendix C (ERAP 02), including HA01-HA03.
Movable heritage items are identified, conserved and protected during construction		This has been incorporated into mitigation measures that address heritage management in Appendix C (ERAP 02), including HA4
Heritage fabric is conserved through the reuse of salvageable heritage fabric where possible		This has been incorporated into mitigation measures that address heritage management in Appendix C (ERAP 02), including HA32
A historical record of areas modified by the Project is		This has been incorporated into mitigation measures that address heritage management in Appendix C (ERAP 02), including HA24

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Environmental Performance Outcome	SEEWMP Reference	How Addressed
maintained for future reference through archival recording		
Heritage interpretation is undertaken that communicates the heritage value of the site to visitors		This has been incorporated into mitigation measures that address heritage management in Appendix C (ERAP 02) and the Heritage Interpretation Strategy/Plan
Potential archaeology within the Project area is protected or appropriately managed		This has been incorporated into mitigation measures that address heritage management in Appendix C (ERAP 02), including HA2, HA3, HA5, HA17, HA22 and the HARD.
Heritage inventories are updated to reflect the Project design to ensure that records of heritage items are maintained		This has been incorporated into mitigation measures that address heritage management in Appendix C (ERAP 02) and the HARD
No impacts to Aboriginal sites, objects and places identified in the assessment during construction		This has been incorporated into mitigation measures that address heritage management in Appendix C (ERAP 02), including HA17 and the Aboriginal Cultural Heritage Management Plan.
Visual Amenity Management		
Minimal impacts to existing structures during construction	Appendix C (ERAP 12)	This has been incorporated into Appendix C (ERAP 12) and is captured as one of the Project targets in the ERAP
Construction sites and compounds are planned and managed to minimise adverse visual effects		This has been incorporated throughout all of the the mitigation measures in Appendix C (ERAP 12) and as part of the objectives and targets of this ERAP
The obtrusive effects of lighting are minimised during construction		This has been incorporated into mitigation measures that address visual amenity management in Appendix C (ERAP 12), including VA3 and VA4

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Environmental Performance Outcome	SEEWMP Reference	How Addressed
Additional tree removal and trimming of vegetation is avoided where possible to minimise changes in landscape character		This has been incorporated into mitigation measures that address visual amenity management in Appendix C (ERAP 12), including VA2, VA13 and VA14
Soil and Water Management		
Risks to human health and ecological receivers are minimised through effective management of soil and contaminated materials	Appendix C (ERAP 04) Appendix C (ERAP 07) Appendix C (ERAP 08)	This has been incorporated into mitigation measures that address soil and water management in Appendix C (ERAP 04), including WQ4, WQ5 and WQ20
Stormwater drainage within the Project area is maintained during construction so as not to cause localised flooding or drainage issues as a result of Project works		This has been incorporated into mitigation measures that address soil and water management in Appendix C (ERAP 04, 07, 08), including WQ14, TW4 and CW2
Adverse impacts to stormwater quality during construction are avoided.		This has been incorporated into mitigation measures that address soil and water management in Appendix C (ERAP 04, 07, 08), including WQ14, TW4 and CW2
Water recourse management		
Minimise demand for, and use of, potable water	Appendix C (ERAP 04)	This has been achieved by the mitigation measures that address water resource management in Appendix C (ERAP 04), as well as Sustainability initiatives captured in the SMP.
Maximise opportunities for water re-use from captured stormwater, wastewater and groundwater		This has minimal application on the Project
Air quality Management		

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Environmental Performance Outcome	SEEWMP Reference	How Addressed
During construction, dust is managed to minimise the release beyond the site boundaries so that dust complaints are avoided	Appendix C (ERAP 11) Appendix C (ERAP 04)	Through the ERAP specific objectives and targets for ERAP 11.
During construction, tracking or spilling of soil/spoil from the Project onto offsite areas is minimised, and clean up offsite road surfaces at the end of each day is undertaken so that they are free of visible, loose soil/spoil material (which may be washed away in runoff or otherwise cause complaints)		This has been incorporated into mitigation measures that address dust and air quality management in Appendix C (ERAP 11), including DA2, DA 4, DA5 and DA6
Dust impacts from soil waste stockpiles are prevented by removing these stockpiles as soon as practicable by an appropriately licenced contractor.		This has been incorporated into mitigation measures that address dust and air quality management in Appendix C (ERAP 04), including WQ12
Flora and Fauna Management		
Flora and fauna habitat is retained/impacts avoided, or enhanced where possible	Appendix C (ERAP 10)	This has been incorporated into all of the mitigation measures (where possible) that address Biodiversity management in Appendix C (ERAP 10)
Impacts to threatened ecological communities or endangered species are offset in accordance with the requirements of the TfNSW		Impacts to threatened ecological communities or endangered species are minimal (see EIS, Appendix F – BDAR Waiver). However, offsets have been considered as part of the detailer design and landscaping.

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Environmental Performance Outcome	SEEWMP Reference	How Addressed
<i>Vegetation Offset Guide</i> (TfNSW, 2019b)		
Weeds and plant pathogens are managed in accordance with TfNSW's <i>Weed Management and Disposal Guideline</i> (TfNSW, 2019f) and the <i>Biosecurity Act 2015</i> .		This has been incorporated into mitigation measures that address Biodiversity management in Appendix C (ERAP 10), including B23 and B31.
Waste Management		
Waste from construction and operation of the Project is classified in accordance with the <i>Waste Classification Guidelines</i> (NSW EPA, 2014a)	Appendix C (ERAP 03)	This has been incorporated into mitigation measures that address waste management in Appendix C (ERAP 03), including W4 and W17 and the ERAP specific objectives and targets
Waste types once classified are reviewed against appropriate guidelines to manage waste appropriately		This has been incorporated into mitigation measures that address waste management in Appendix C (ERAP 03), including W4 and W17 and the ERAP specific objectives and targets
Contaminated and asbestos contaminated wastes are safely disposed of in accordance with their relevant waste classification.		This has been incorporated into mitigation measures that address waste management in Appendix C (ERAP 03), including W6, W7, W8 and W9
Minimise waste throughout the project life-cycle		This has been incorporated into mitigation measures that address waste management in Appendix C (ERAP 03), including W12 and W13 and the ERAP specific objectives and targets
Waste management strategies will be implemented in accordance with the <i>Waste Avoidance and Resource Recovery Act 2001</i>		This has been incorporated the ERAP 03 specific objectives and targets.

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Environmental Performance Outcome	SEEWMP Reference	How Addressed
management hierarchy as follows: - Avoidance of unnecessary resource consumption - Resource recovery (including reuse, reprocessing, recycling and energy recovery) - Disposal.		

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6 Construction compounds / ancillary facilities

The project will require a range of construction-related ancillary facilities including:

- Minor ancillary facilities – including lunch sheds, office sheds, and portable toilet facilities
- Main site compounds –including site offices, sheds, workshops and storage
- Plant workshops – for the storage and maintenance of plant equipment
- Stockpile sites – for the stockpile and storage of excavated material, mulch and spoil
- Material storage (laydown areas) – for the storage of materials delivered to site for construction.
- Fabrication.

There are three (3) ancillary facilities (these are described in detail in the approved EIS). These include:

- Ancillary Facility 1: Eveleigh Maintenance Centre
- Ancillary Facility 2: Sydney Trains
- Ancillary Facility 3: Gibbons Street Reserve and Marian Street carpark.

However, for the low impact works, enabling works and the main works, we would only use the Sydney Trains and the Gibbons Street Reserve and Marian Street carpark ancillary facilities. It is important to note that the Ancillary facility 3 Gibbons Street Reserve and Marian Street carpark, Gibbons Street Reserve footprint would be a reduced footprint from the original footprint that was incorporated into the approved EIS (see Figure 6.5).

In addition, there are material storage (laydown areas) including:

- CarriageWorks
- Sydney Signal Box No:02
- Macdonaldtown sidings.

The footprint and use of these areas are subject to change based on the scope of works during each possession. Typically these areas would be used for the plant hi-rail access, temporary storage of materials and the temporary storage of spoil produced during the possession.

A Consistency Assessment (01) would be approved by TfNSW which details the environmental assessment undertaken for the additional minor ancillary facilities of CarriageWorks, Sydney Signal Box and the Macdonaldtown Sidings, and the associated impacts of these facilities. Activities would not commence until Consistency Assessment (01) has been approved.

Duration for the establishment for each ancillary facility would be varied, this is summarised in Table 6-1. Generally establishment of the compounds and ancillary facilities would be undertaken during standard construction hours, as outlined in CoA D14. Should any activities to be undertaken outside of standard construction hours, further assessment would be undertaken and submission to TfNSW, the Acoustic Advisor and ER for approval, in line with the project OOHW Protocol.

Table 6-1 Ancillary facility establishment timeframes

Ancillary facility	Timing	Approximate duration for establishment
Ancillary Facility 2: Sydney Trains	From December 2020	2 – 4 weeks
Ancillary Facility 3: Gibbons Street Reserve and Marian Street carpark	From December 2020	2 – 4 weeks
CarriageWorks.	During possessions	A day pre and post possession
Sydney Signal Box No:02	During possessions	A day pre and post possession
Local storage area, north of Sydney Signal Box No:02	During possessions	A day pre and post possession

All site compounds and ancillary facilities would be returned to their pre-existing conditions at completion of the project, or once it is no longer in use. In accordance with CoA D42, Gibbons Street Reserve and Marian Street carpark must be reinstated to its pre-existing condition (as a minimum) prior to operation of the SSI or by such other time as may be approved by the Planning Secretary. Restoration works must be undertaken in consultation with the City of Sydney Council and improve local biodiversity by using local species for plantings.



Figure 6-1 Ancillary facility and office compound location and layout

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6.1 Ancillary Facility 2: Sydney Trains Car Park

This area is currently owned by Sydney Trains and is partly used as a construction laydown area and temporary waste storage facility. This laydown area is accessed either through Carriageworks and Little Eveleigh Street and provides parking facilities and rail corridor access.

The *TfNSW Response to Submissions (RTS)* report (September 2020) also allowed for Sydney Trains car park to be utilised as a site office compound for the Project. The location provides better access, more space and a more suitable site office location.

6.1.1 Activities required for establishment

There are a variety of activities/works required for the establishment of the Sydney Trains car park (Ancillary Facility 2). These include:

- Remove redundant materials
- Delivery of materials and equipment required for site establishment
- Layout blocks for site cabins
- Delivery of site cabins on top of blocks (approximately 50mm above ground level)
- Internal fit-out of site cabins inclusive of kitchens, weatherproofing, etc
- Connect utilities including low voltage power, water, sewage and communications (details in section 7.1)
- Establish access pathways and decking, where required
- Establish compound delineation, jersey curbs and anti-gawk screening
- Preparation of the dry/wet storage areas located east of the ancillary facility
- Establish designated areas for storage of various materials and plant/equipment
- Install environmental mitigation measures (such as erosion sediment controls, noise blankets)

Ancillary Facility 2 would be operational and the building would be occupied for the duration of the Project (i.e. from site establishment until completion of the main works), from approximately January 2021 until July 2022. The delivery of large material delivery may occupy other areas of the carpark for short durations. This is close coordination with other parties. The ancillary facility will also be utilised for staff parking for the Project and Sydney Trains staff.

At the end of the occupancy, site demobilisation activities would include removing furniture, disconnecting services, removal of blocks, and rehabilitation of site.

The layout of Ancillary Facility 2 is displayed in Figure 6-2.



Figure 6-2 Sydney Trains compound set-up

6.1.2 Office compounds

The office compounds are located towards the western side of the Little Eveleigh Street ancillary facility. The office compound is composed of desks/office spaces, outdoor decking with awning, toilet and kitchen facilities, and a training room.

Minimal excavation proposed to be undertaken in area, if excavation is required then heritage specialist would be required to undertake an assessment.

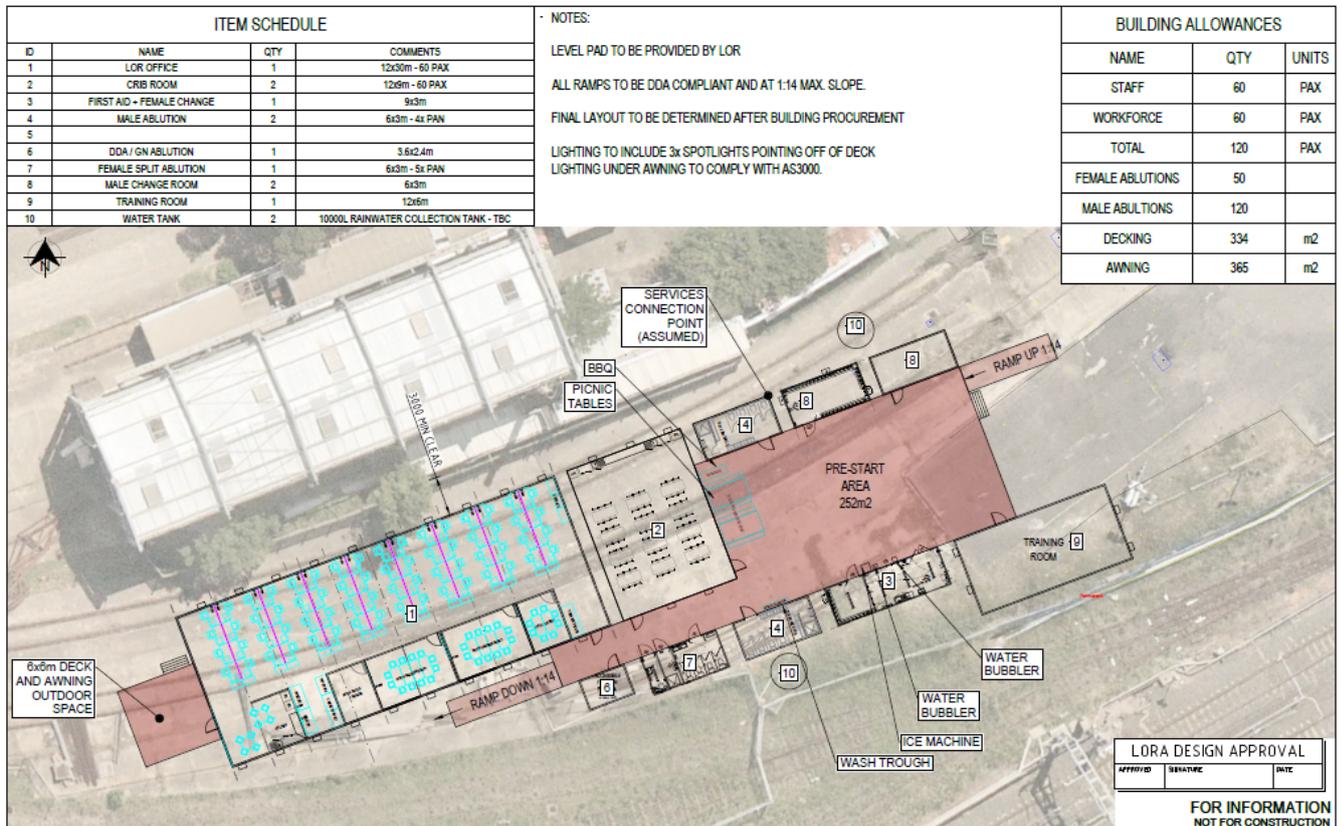


Figure 6-3 Office compounds for the Little Eveleigh Street ancillary facility

6.2 Ancillary 3: Gibbons Street Reserve and Marian Street carpark

Part of the Gibbons Street Reserve and Marian Street carpark planned to be used as a laydown area for construction equipment and infrastructure, a temporary storage facility and designated area for fabrication activities. The facility would be accessed using Rosehill Street at different stages throughout the Project (this would require removal of parking for short durations). The extent and quantity of vegetation removal is captured in Appendix J.

Following completion of works at Redfern Station, the Gibbons Street Reserve would be returned to passive recreational use for the community in consultation with City of Sydney Council.

The Project would also utilise a storage area underneath the existing workshop area on Marian Street for site facilities and the storage of construction equipment and materials.

The extent that the Gibbons Street Reserve would be utilised has been reduced from the original EIS footprint. Therefore, it is likely a smaller portion of the Gibbons Street Reserve would need to be reinstated as per CoA before operation. Minor restoration works would be undertaken in consultation with the City of Sydney Council and improve local biodiversity by using local species for plantings.

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6.2.1 Activities required for establishment

There are a variety of activities/works required for the establishment of the Gibbons Street Reserve and Marian Street carpark ancillary facility. These include:

- Carpark to be vacated
- Vegetation removal for the footprint of the works, including stump grinding
- Clear and grub a portion of the Marian Street car park
- Install access driveway using hardstands such as drainage gravel road-base (DGB)
- Install hardstand for heavy vehicle and plant use such as concrete pumps, cranes, trucks, etc
- Installation of timber hoarding with the baseplate connections and in-ground footings
- Delivery of plant and materials

The Gibbons Street Reserve and Marian Street carpark ancillary facility would be established for the duration of the Project (i.e. from site establishment until completion of the main works).

The layout of the ancillary facility is displayed in Figure 6-4 and Figure 6-5.

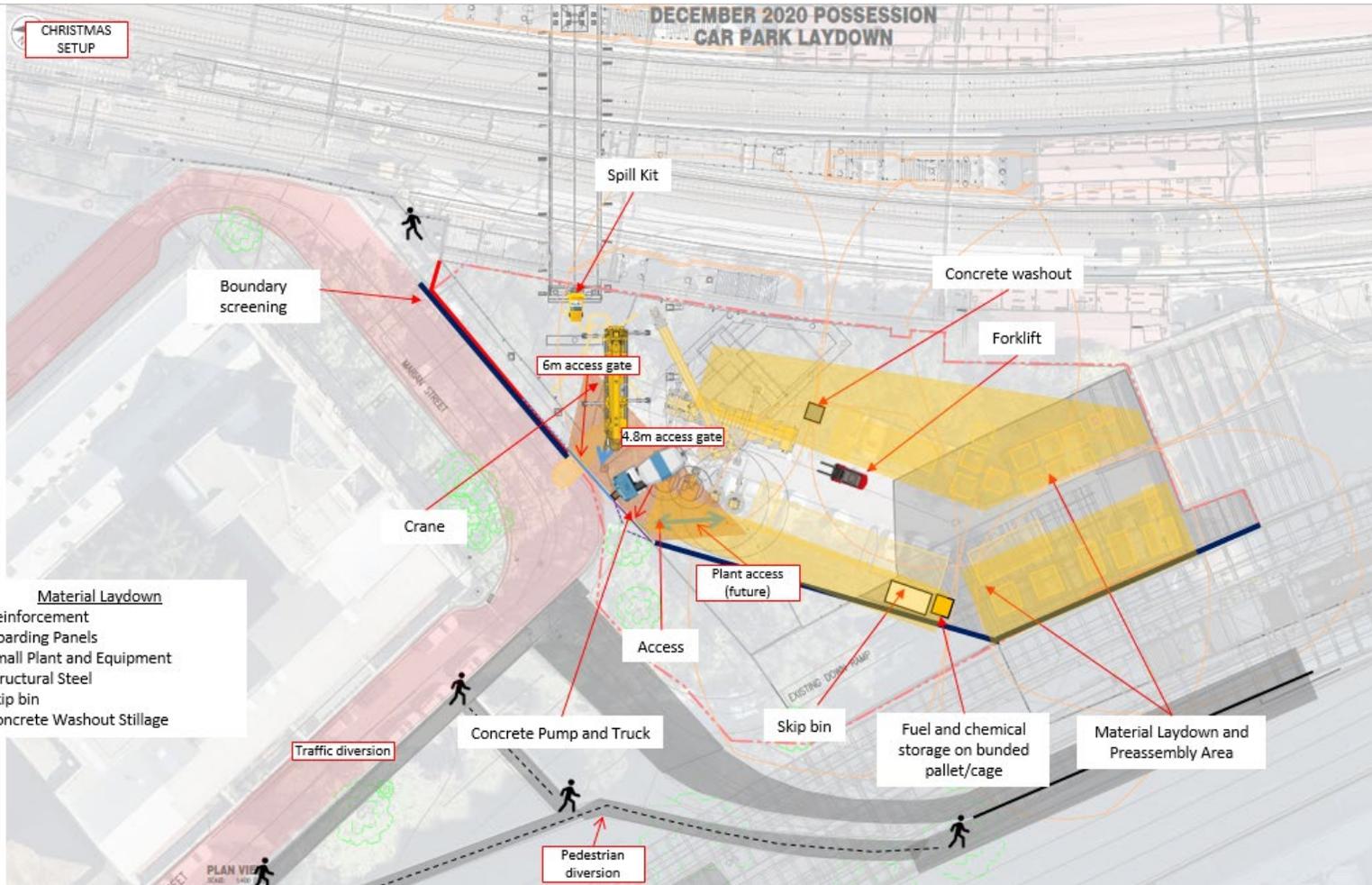


Figure 6-4 Gibbons Street Reserve and Marian Street carpark ancillary site layout – Marian Street car park

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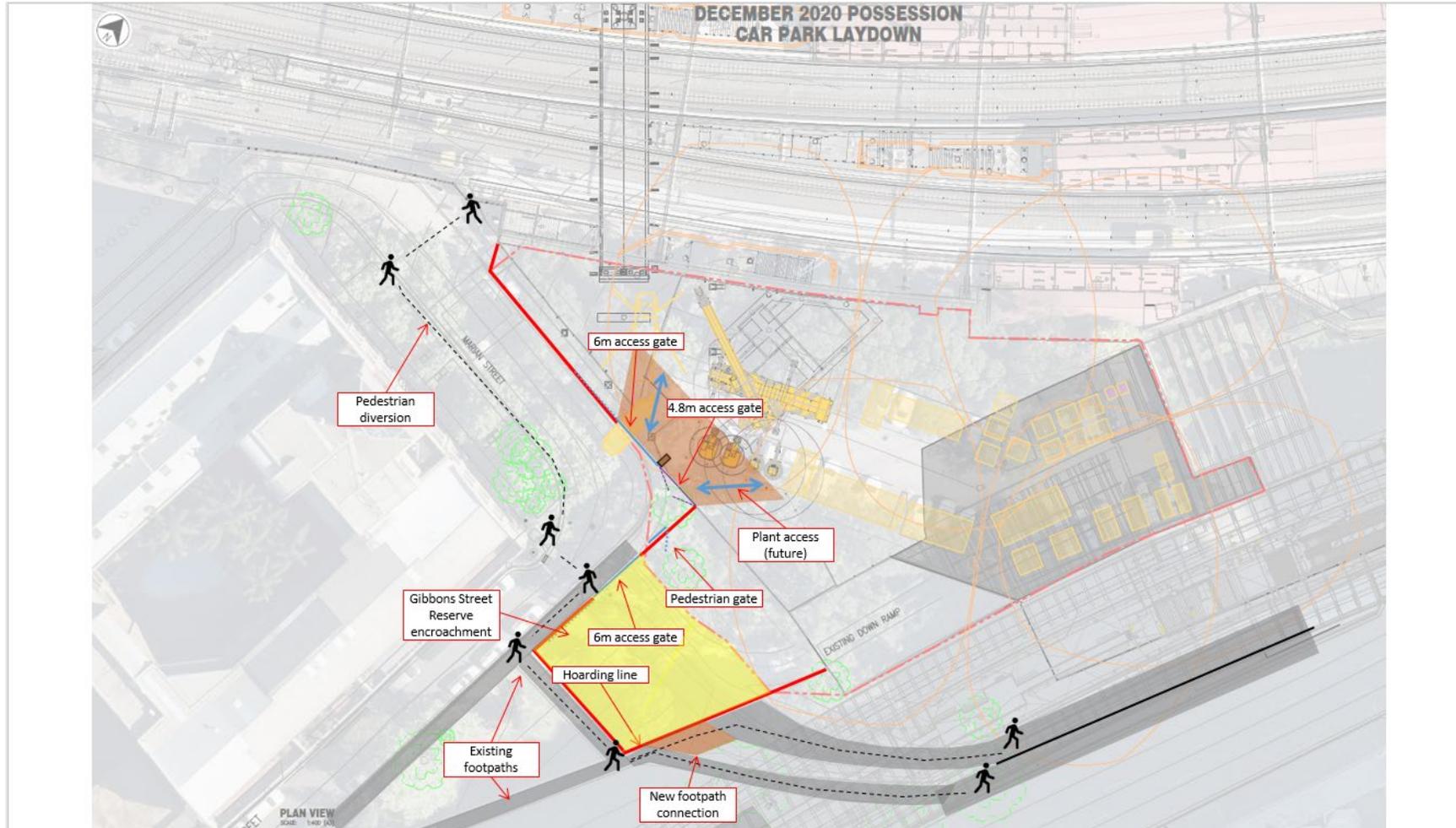


Figure 6-5 Gibbons Street Reserve and Marian Street carpark site compound – Gibbons Street Reserve

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6.2.2 Office compounds

The Project would utilise the Sydney Trains existing office compound facilities located south of the Marian Street car park. This is located on the mezzanine level (also referred to as the 'Intermediate Concourse') of the ESR at Redfern Railway Station (Figure 6-6). The space is accessible via an existing doorway at the mezzanine level from within the station and a steep driveway entrance from Marian Street. The office compound also contains minor plant and equipment storage, skip bin as required and parking location for work vehicles to transport materials to and from site.

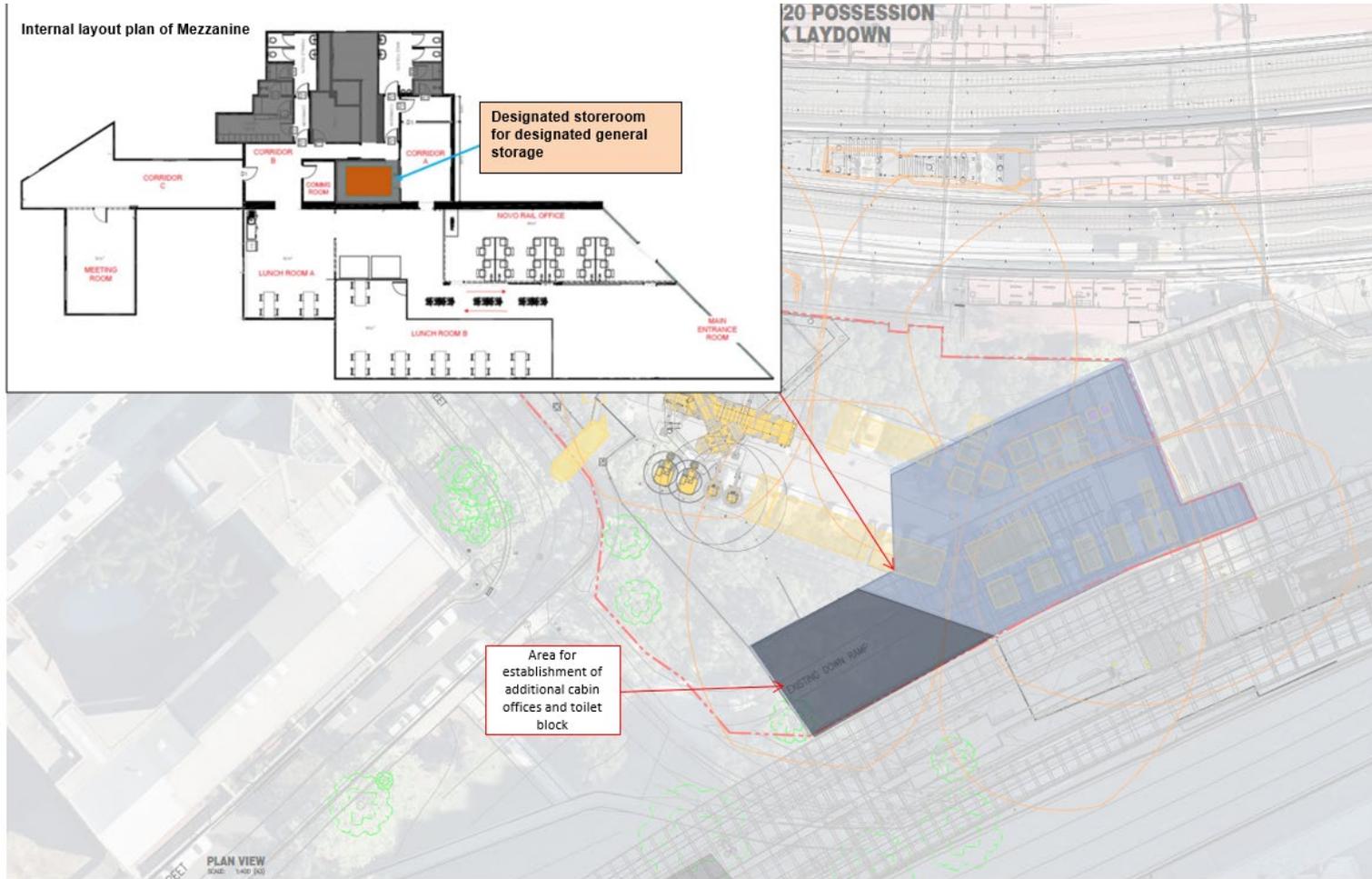


Figure 6-6 Mezzanine office compound site layout

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The compound facility would also require temporary set-up two (2) cabin offices (six metres by three metres) and a toilet block. The toilet block would have independent effluent management system and no sewer connection to the Mezzanine. This set-up will be in place until March 2021.

6.3 Material storage (laydown areas)

In addition, there are material storage (laydown areas) including:

- CarriageWorks
- Sydney Signal Box No:02
- Macdonaldtown sidings.

These areas would primarily be utilised for the hi-rail access for the duration of the works. Other uses would be:

- For general, short-term dry storage materials such as spoil, jersey kerbs and timber boards and similar. This is in an effort to minimise material items being transported back and forth, particularly for possession works
- In certain instances there also will be a need to set-up wet-bins for temporary containment of wastewater as part of possession works.

The controls mentioned in the ERAPs would be implemented as required depending on the scope of the works for the possession e.g. if wet bins would be used for possession works.

These additional ancillary facilities have been assessed/approved under a Consistency Assessment (01).

7 Low impact and enabling works

The project will require site establishment works, low impact works and enabling works before the main construction works commence.

This work has been assessed under the approved EIS and RtS with any modifications to the site establishment and enabling works would be assessed under Consistency Assessment (01). A Consistency Assessment (01) would be approved by TfNSW which details the environmental assessment undertaken for:

- Provision of doors at the Country-end of the building structures at platforms 4/5, 6/7 and 8/9
- Vegetation removal and pruning of additional locations along the Project boundary footprint
- Local utility supplies to site office Ancillary Facility No:02, Sydney Trains Carpark
- Dry/wet storage area – Ancillary Facility No:02, Sydney Trains Carpark
- The high voltage scope
- Platform services relocation.

Activities would not commence until Consistency Assessment (01) has been approved.

7.1 Low impact works

Low impact work is defined as the following in the Ministers CoA include:

- survey work including carrying out general alignment survey, installing survey controls (including installation of global positioning systems (GPS)), installing repeater stations, carrying out surveys of existing and future utilities and building and road dilapidation surveys;
- investigations including investigative drilling, contamination investigations and excavation;
- operation of construction ancillary facilities if the ER has determined the operational activities will have minimal impact on the environment and community;
- minor clearing and relocation of native vegetation, as identified in the documents listed in Condition A1;
- installation of mitigation measures including erosion and sediment controls, temporary exclusion fencing for sensitive areas and acoustic treatments;
- property acquisition adjustment work including installation of property fencing, and relocation and adjustments of utilities to property including water supply and electricity;
- relocation and connection of utilities where the relocation or connection has a minor impact to the environment as determined by the ER;
- installation of site hoarding;
- archaeological testing under the Code of practice for archaeological investigation of Aboriginal objects in NSW (DECCW, 2010) or archaeological monitoring undertaken in association with [(a)]-[(h)] above to ensure that there is no impact on heritage items;

- other activities determined by the ER to have minimal environmental impact which may include construction of minor access roads, temporary relocation of pedestrian and cycle paths and the provision of property access; and
- maintenance of existing buildings and structures required to facilitate the carrying out of the SSI.

Low impact work expected to be incorporated during the December 2020 period include:

- establishing combined service routes to new temporary office structures within the Sydney Trains ancillary facility:
 - Connection of utilities including low voltage power, water, sewage and communications (see Figures 7-1 and 7-2)
- removal or trimming of vegetation within and around the Gibbons Street Reserve and Marian Street carpark ancillary facility to allow for crane access and sufficient area for the permanent Project footprint
- building and road dilapidation surveys
- investigations such as high voltage investigation works on Platform 10:
 - Initial saw cutting
 - Asphalt removal
 - Non-destructive digging for the desired route.
- the installation of hoarding structures on Platforms 6/7, 8/9 and 10.

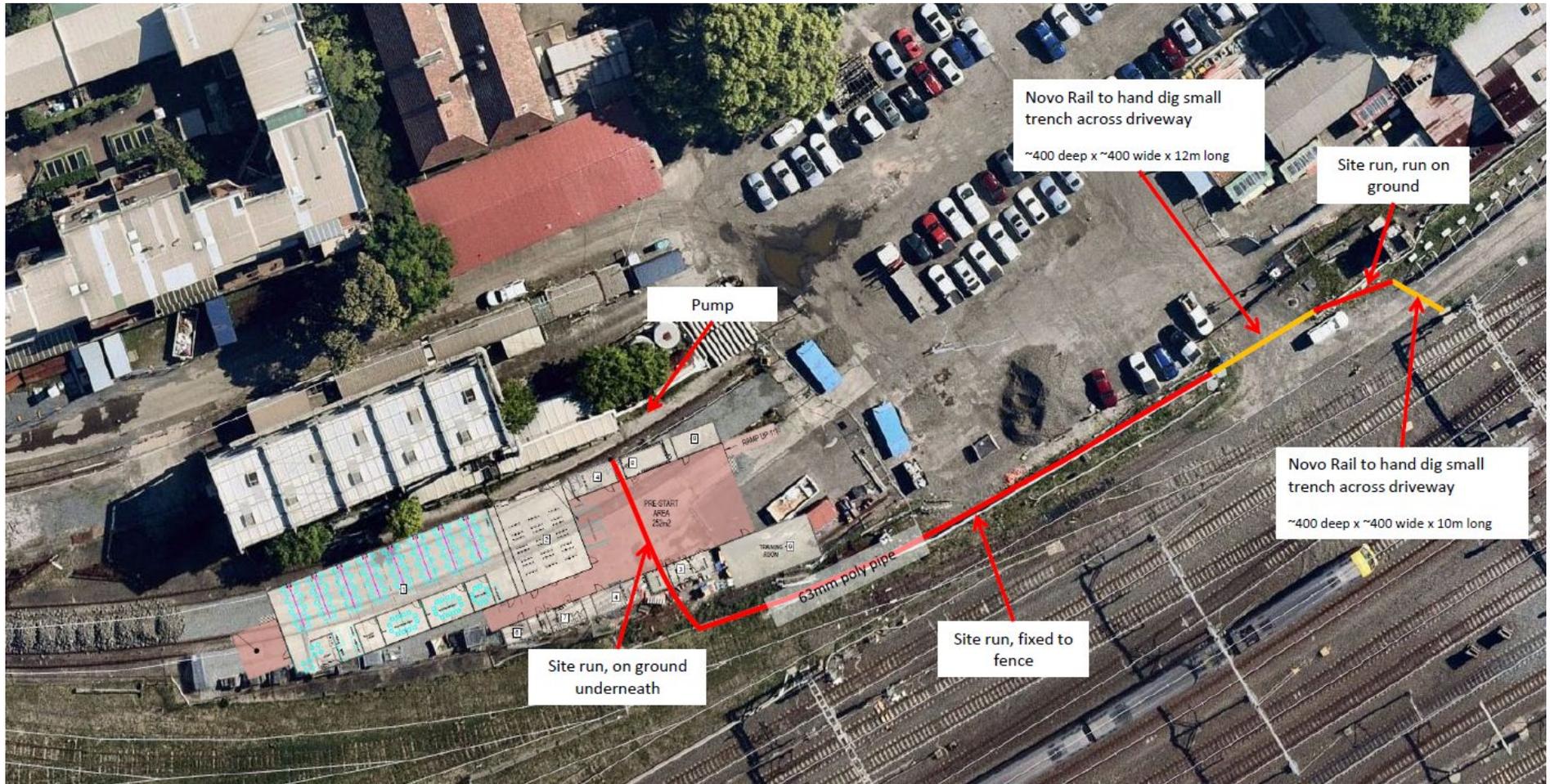


Figure 7-1 – Ancillary facility 2: Sydney Trains proposed sewage line route

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Figure 7-2 - Ancillary facility 2: Sydney Trains proposed combined service routes

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7.2 Enabling works

Enabling works is defined as the following in the Ministers CoA:

All works within the rail corridor that are undertaken during the December 2020 long rail possession including, but not limited to:

- Foundation piling for concourse piers, abutments and entrances
- Relocation of OHW structures
- Relocation of platform furniture
- Relocation of utilities, services and lighting
- Removal of privacy walls at platform buildings.

The enabling works proposed to be undertaken during the December 2020 long rail possession include:

- The relocation of platform furniture, lights and bins on Platform 6/7, 8/9 and 10:
 - Set up delineation of work area
 - Unscrew connections of furniture from platform
 - Disconnect lighting poles using hand or power tools
 - Transport furniture, lights and bins to storage location.
- The demolition of privacy walls and wall slabs on Platform 4/5, 6/7 and 8/9:
 - Set up delineation of work area
 - Using hand tools, remove brickwork
 - Installation of plywood to existing door frame
 - Demobilise from area
- Overhead wiring footing and bracing structures including excavation, reinforcement and pours on Platform 6/7, 8/9 and 10
 - Setup delineation of work area
 - Mobilise plant and equipment
 - Use excavator to auger holes with vibration monitoring device set-up for recording purposes
 - Install reinforcement
 - Install concrete
 - Spoil to be removed and transported to laydown using excavator and a dump truck.
- Piling including pile cap excavation, shoring, and reinforcement installs and pours. This will include main bridge support piling, stair piling, lift shaft piling and skybridge piling on Platforms 6/7, 8/9 and 10.
 - Setup delineation of work area
 - Mobilise hi-rail plant and equipment onto using hi-rail pads for launching onto the tracks

- Use piling to auger holes to depth with vibration monitoring device set-up for recording purposes
- Install reinforcement
- Install concrete
- Spoil to be removed and transported to laydown using excavator and a dump truck
- Relocation and installation of the high voltage lines (11kV) between the existing routes along Platform 10 to connect to the new Shared Services Equipment room and Sydney Signal Box
 - Setup delineation of work area
 - Mobilise plant and equipment
 - Installation of GST on onto wall and existing posts using brackets
 - GST Installation under the Platform 10 coping
 - Bends installation and core-holing of wall out wards of Platform 10
 - Wall mounted GST on countryside of Platform 10
 - GST/CSR/GST transition on countryside for 512
 - Vortok fence installation between GST/CSR transition to the end of countryside GST route
 - GST on new and existing posts for the countryside 512 route (Contingency scope)
 - Installation of GST posts with concrete footings
 - Demobilise from area
- Relocation of low voltage and communication services on Platforms 6/7, 8/9 and 10.
 - Setup delineation of work area
 - Install new cables to new route
 - Disconnect existing cables
 - Connect and commission new cables
 - Remove old cables from existing route
 - Demobilise from area.

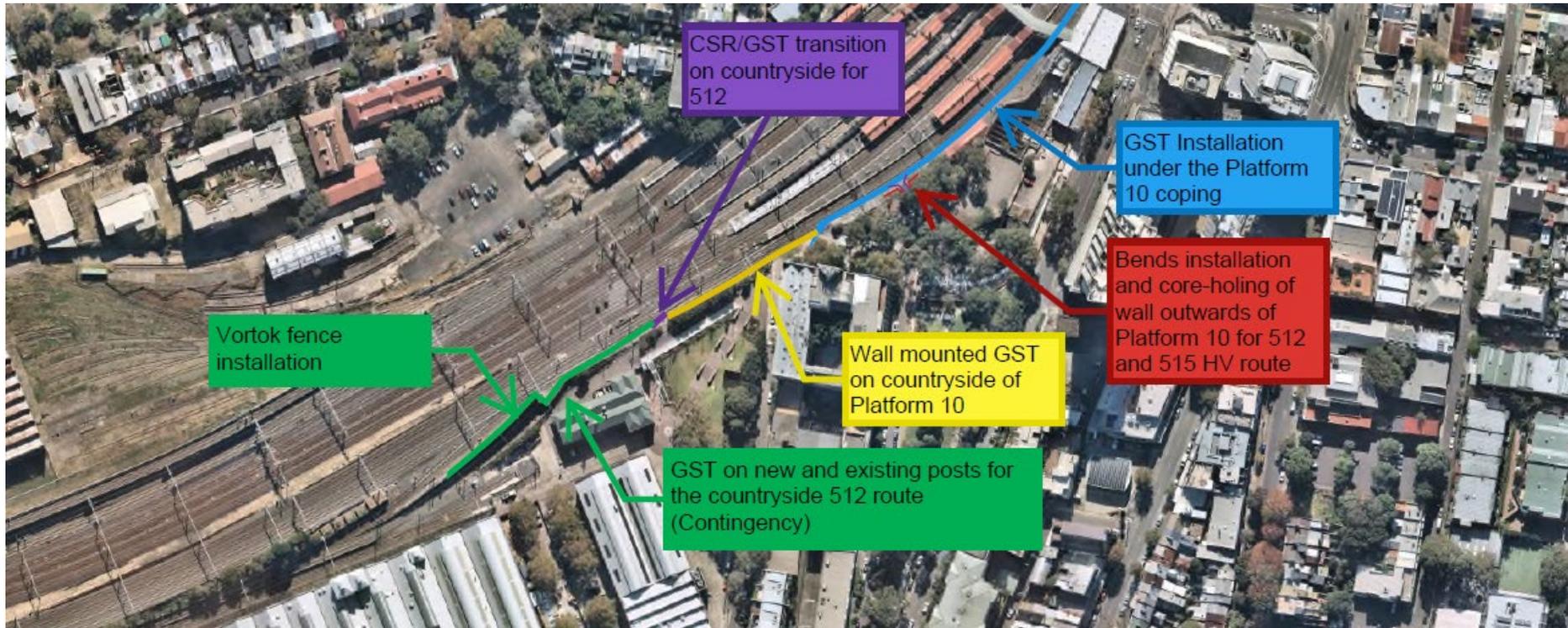


Figure 7-5 High voltage route (11kV) along Platform 10 and country-end of Platform 10

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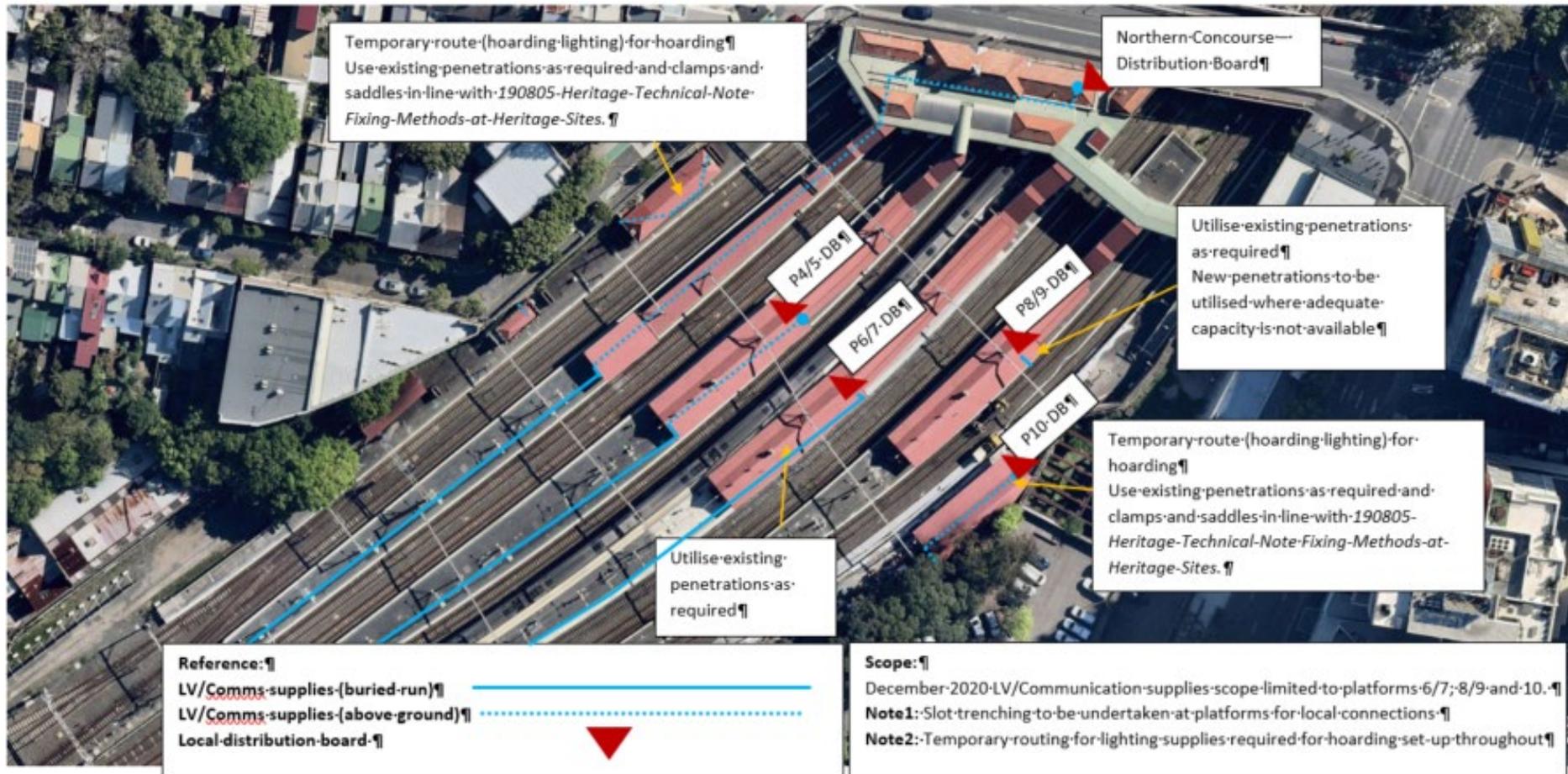


Figure 7-6 Low voltage routes along Platforms 6/7, 8/9 and 10 for the December 2020 works

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8 Environmental Management

8.1 Environment risks and impacts

Project wide environmental risks and opportunities are required to be assessed through the site establishment works, low impact works and enabling works. Project risk and opportunities are also to be reviewed and updated throughout this Phase as changes/updates occur.

A methodology has been established to address the management and implementation of environmental risks and opportunities.

This process addresses the following:

- identification of applicable activities to be undertaken during construction until asset-handover
- identification of project-specific environmental hazards and opportunities associated with the identified activities
- ascertain the extent of risk and beneficial opportunities where applicable
- determine suitable mitigation measures proportionate to the extent of the risks and opportunities identified in order to avoid and minimise risk and realise beneficial opportunities where applicable
- allocation of defined responsibility for managing the risks and opportunities.

(Redfern Station Upgrade Response to Submissions Appendix C CEMF, S3.4, pg. 6)

Note: Sustainability specific risks and opportunities are captured in the Sustainability Management Plan (TAP04-PLN-MG-0011).

A ‘Traffic-Light’ based system is used for the Project's Environmental and Sustainability Risk and Opportunities Register and the ERAPS to readily identify the local risk profile at hand. This ‘Traffic-Light’ system is summarised in Table 7-1.

Table 7-1 ‘Traffic-Light’ risks and opportunity classification system

Category	Description	Probability of occurrence without suitable controls
Green	Environmental impacts associated with the action are generally constrained to the project site and in accordance with the environmental assessment documentation	Low probability
Amber	Environmental impacts associated with the actions have the potential to result in offsite impacts, where the environment recovers over the medium term	Moderate probability
Red	Environmental impacts that have significant offsite impacts. The environment recovers over the long term, there is impacts to the local community. Impacts result in the destruction of protected species, sensitive habits or other impacts not envisaged as part of the	High probability

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Category	Description	Probability of occurrence without suitable controls
	environmental assessment process. The environment is not able to recover without substantial intervention.	

ERAPs have been developed for all relevant environmental issues applicable to the site establishment works, low impact works and enabling works including those that have a high risk rating (Appendix C).

The ERAP addresses the strategic mitigation and control measures to minimise the impact of the risk rating and significant impacts. Activities, aspects and potential impacts with a high residual risk (i.e. those with a high risk after all reasonable mitigations and controls have been implemented), must be re-assessed or have Novo Rail Environmental and Sustainability Manager approval before proceeding.

8.1.1 Severe Environmental Risks (SERs)

The Severe Environmental Risks (SERs) are the critical or high environmental impacts that could eventuate, resulting in permanent or long-term damage to the environment that is not easily rectified. The focus of these risks is on high consequence environmental harm risks rather than those that have regulatory consequences. The SERs Control Standards provides clear guidance on managing these risks. The SERs are publically available and can be accessed through the following link: https://nextgearsms.com/environmental_category/severe-environmental-risks-sers/.

The SERs include biodiversity, heritage (Aboriginal and European), water quality and wastewater storage, erosion and sedimentation, temporary waterway crossing, piling and rail maintenance.

The SERs would be applied during the site establishment works, low impact works and enabling works dependent on the work activities being carried out over the duration of the Project.

8.1.2 Environmental Control Maps (ECMs)

Environmental Control Maps (ECMs) are to be implemented during the site establishment works, low impact works and enabling works phase to address specific environmental control measures as part of the planning and delivery under the project.

The maps are specific to the work site/area and shows the location of the protection measures, monitoring requirements and environmentally sensitive areas (e.g. known heritage items, threatened species, trees to be removed/retained inclusive of TPZs, sensitive receivers, key drainage and watercourse locations, etc). The maps identify the locations of physical protection measures as well as when and where environmental monitoring is to occur and how environmental control measures are communicated to personnel. The Project ECMs for this Phase are part of and supports the ERAPS (Appendix C).

The ECMs are to be communicated prior to the works (e.g. project inductions, workshops and toolbox talks) and made readily accessible to project personnel. The ECM is to be approved by TfNSW prior to work. Future revisions of the ECM may be required to reflect any change in

conditions or activities on site, and subsequently provided to TfNSW to be approved prior to those changes occurring.

Environmental Control Maps (ECMs) will provide detailed illustrative maps that outline controls for managing potential environmental impacts and opportunities within the Project area. The ECMs will be prepared in accordance with TfNSW Guide to Environmental Control Map DMS-SD-015 and will contain the following as a minimum:

- Reflect current and proposed representation of work areas
- Indicate which environmental procedures or environmental approvals are applicable
- Illustrate work areas showing significant structures, work areas and boundaries
- Illustrate environmental control measures and environmentally sensitive receivers
- Are endorsed by the Contractor's Environmental Manager or delegate
- Will be included in relevant training programs to ensure the requirements are understood.

ECMs are to be revised to reflect changes within the Project area as needed. This may be required where changes to the physical site introduce new potential environmental impacts requiring additional and/or refined controls. Revised ECM's are to be adequately communicated to project personnel through suitable means such as project-induction, pre-work briefings, plant start-up checks and toolbox talks and training and awareness sessions.

(Redfern Station Upgrade Response to Submissions Appendix C CEMF, S3.6, pg. 6 & 7)

8.2 Key environmental risks

Key environmental risks when undertaking site establishment works, low impact works and enabling works that could result in impacts to the environment include:

- Vegetation clearing and topsoil stripping
- Construction noise impacts
- Traffic impacts
- Heavy vehicle and light vehicle movements, including deliveries
- Soil disturbance, erosion risk, sediment control
- Operation of ancillary facilities including fuel and chemical storage, refuelling and chemical handling
- Noxious weed treatment including herbicide spraying
- Generation of waste
- Site clean-up and rehabilitation works.

Refer also to the Environment and Sustainability Risk and Opportunity Register (Appendix B) and the ERAPS (Appendix C) of this SEEWMP.

Likely and/or potential impacts associated with site establishment works, low impact works and enabling works typically include:

- Noise and vibration impacts to nearby sensitive receivers and damage to heritage fabric/items from vibration producing equipment
- Additional traffic volumes to local roads and increased heavy vehicle traffic
- Changes to pedestrian access and pedestrian routes
- Damage/disturbance to heritage fabric or items
- Unexpected finds of hazardous substances
- Water and soil contamination from spills and runoff (sediment and erosion)
- Air quality impacts from dust and vehicle emissions
- Weed infestation
- Damage to the existing site during establishment/use/decommissioning
- Unauthorised access
- Poor housekeeping
- Stockpiling of materials, erosion risk, sediments.

Relevant risks and the potential for related impacts have been considered in an initial risk assessment in the Environment and Sustainability Risk and Opportunities Register (Appendix B) and the ERAPs (Appendix C).

8.2.1 Environmental impacts

Environmental impacts for the Project have been identified in the EIS and the RtS. In addition, Novo Rail have prepared a risk register for the project (Appendix B), to be reviewed and updated monthly.

The tables below outline the environmental impacts anticipated for site establishment and enabling works activities, and how each impact will be mitigated (ERAPs, Appendix C).

Table 8-1 Sydney Trains Car Park (Ancillary Facility 2) site establishment impacts

Activity	Impact	Mitigation Measures (ERAP references)
Remove redundant materials and vegetation	<p>Traffic</p> <ul style="list-style-type: none"> • Additional traffic volumes to local roads and increased heavy vehicle traffic. See haulage route in mini TMP (Appendix L) • Traffic movements between the 16th and the 25th are limited, mainly to vegetation removal plant and site ancillary set-up • Traffic impacts and controls as per the TMP and the ERAPs <p>Biodiversity</p>	<p>ERAP 05 – including TA1, TA2, TA5, TA6, TA7, TA16</p> <p>ERAP 10 – including B1, B2, B3, B4, B6, B8, B10, B11, B12, B14, B16, B17, B18, B19, B20, B21, B25, B29</p>

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Activity	Impact	Mitigation Measures (ERAP references)
	<ul style="list-style-type: none"> Removal and trimming of vegetation (approximately 56 trees) to ensure clear access to the ancillary facility. 	
Install cabins on blocks	<p>Heritage</p> <ul style="list-style-type: none"> Works located within heritage curtilage. Potential to impact ground surface and/or heritage structures including railway tracks. 	ERAP 02 – including HA1, HA2, HA3, HA6, HA7, HA8, HA16, HA22, HA23, HA24, HA26, HA30, HA33
Delivery of site cabins	<p>Traffic</p> <ul style="list-style-type: none"> Additional traffic volumes to local roads and increased heavy vehicle traffic. Potential partial closure of Little Eveleigh Street for any oversize deliveries. This is subject to an accompanying TCP/VMP prepared by an authorised person and permits obtained Potential safety risks due to pedestrian, cyclist or vehicle interaction with construction traffic. <p>Noise</p> <ul style="list-style-type: none"> Potential noise impacts to nearby receivers including residences along Little Eveleigh Street. 	<p>ERAP 05 – including TA1, TA2, TA3, TA5, TA6, TA7, TA8, TA9, TA10, TA16</p> <p>ERAP 01 – including NV1, NV2, NV4, NV5, NV6, NV8, NV9, NV10</p>
Internal fit out of site cabins	<p>Noise</p> <ul style="list-style-type: none"> Potential noise impacts to nearby receivers including residences along Little Eveleigh Street. 	ERAP 01 – including NV1, NV2, NV4, NV5, NV6, NV8, NV9, NV10, NV11, NV12
Utility connection	<p>Heritage</p> <ul style="list-style-type: none"> Potential impacts on areas of archaeological potential. Through excavation 	ERAP 02 – including HA1, HA2, HA3, HA4, HA5, HA6, HA7, HA8, HA16, HA17, HA22, HA23, HA24, HA25, HA26, HA27, HA30
Establish compound delineation, fencing and screening, access paths, jersey curbs. Preparation of the dry/wet storage area Establish designated materials storage areas	<p>Noise</p> <ul style="list-style-type: none"> Potential noise impacts to nearby receivers including residences along Little Eveleigh Street 	ERAP 01 – including NV1, NV2, NV4, NV5, NV6, NV7, NV8, NV9, NV10, NV11, NV12
Operation of the ancillary facility for the duration of construction	<p>Noise</p> <ul style="list-style-type: none"> Potential noise impacts to nearby receivers including residences along Little Eveleigh Street <p>Visual</p> <ul style="list-style-type: none"> Potential temporary visual impacts to surrounding receivers 	<p>ERAP 01 – including NV1, NV2, NV4, NV5, NV6, NV7, NV8, NV9, NV10, NV11, NV12, NV13, NV14, NV15, NV16, NV17, NV20, NV21</p> <p>ERAP 12 – including VA1, VA2, VA3, VA4, VA5, VA12, VA16, VA17</p>
Site demobilisation	<p>Noise</p>	ERAP 01 – including NV1, NV2, NV4, NV5, NV6, NV7, NV8, NV9, NV10, NV11, NV12, NV13,

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Activity	Impact	Mitigation Measures (ERAP references)
	<ul style="list-style-type: none"> Potential noise impacts to nearby receivers including residences along Little Eveleigh Street 	NV14, NV15, NV16, NV17, NV20, NV21

Table 8-2 Marian Street Car Park (Ancillary Facility 3) site establishment impacts

Activity	Impact	Mitigation Measures (ERAP references)
Vegetation removal and trimming	Biodiversity <ul style="list-style-type: none"> Removal and trimming of vegetation (approximately 45 trees) to ensure clear access to the ancillary facility. 	ERAP 10 – including B1, B2, B3, B4, B6, B8, B10, B11, B12, B14, B16, B17, B18, B19, B20, B21, B25, B29
Installation of driveway access and hard stand areas	Traffic <ul style="list-style-type: none"> Potential safety risks due to pedestrian, cyclist or vehicle interaction with construction traffic Noise <ul style="list-style-type: none"> Potential noise impacts to nearby receivers including residences along Marian Street 	ERAP 05 – including TA1, TA2, TA3, TA6, TA8, TA9, TA10, TA14, TA17 ERAP 01 – including NV1, NV2, NV4, NV5, NV6, NV7, NV8, NV9, NV10, NV11, NV12, NV13, NV14, NV15, NV16, NV17, NV20, NV21
Installation of hoarding	Visual <ul style="list-style-type: none"> Potential temporary visual impacts to surrounding receivers 	ERAP 12 – including VA1, VA2, VA3, VA12, VA16.
Installation of pedestrian diversions	Traffic <ul style="list-style-type: none"> Potential safety risks due to pedestrian, cyclist or vehicle interaction with construction traffic 	ERAP 05 – including TA1, TA3, TA6, TA8, TA9, TA10, TA14, TA17
Installation of site cabins	Noise <ul style="list-style-type: none"> Potential noise impacts to nearby receivers including residences along Marian Street 	ERAP 01 – including NV1, NV2, NV4, NV5, NV6, NV7, NV8, NV9, NV10, NV11
Installation of crane pad	Biodiversity <ul style="list-style-type: none"> Removal and trimming of vegetation (approximately 70 trees) to allow for crane pad set-up within the Marian Street ancillary facility Heritage <ul style="list-style-type: none"> Potential impacts on areas of high archaeological potential. 	ERAP 10 – including B1, B2, B3, B4, B6, B8, B10, B11, B12, B14, B16, B17, B18, B19, B20, B21, B25, B29 ERAP 02 – HA1, HA2, HA4, HA5, HA11, HA17, HA22
Delivery of plant and material	Traffic <ul style="list-style-type: none"> Additional traffic volumes to local roads and increased heavy vehicle traffic. Partial closure of Marian Street for oversize deliveries as per the Mini TMP for the December 2020 works Potential safety risks due to pedestrian, cyclist or vehicle interaction with construction traffic. 	ERAP 05 – including TA1, TA2, TA3, TA5, TA6, TA7, TA8, TA9, TA10, TA16

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Activity	Impact	Mitigation Measures (ERAP references)
	<ul style="list-style-type: none"> Temporary access restrictions to residents along Marian Street during oversized deliveries. 	
Operation of the ancillary facility for the duration of construction	<p>Noise</p> <ul style="list-style-type: none"> Potential noise impacts to nearby receivers including residences along Marian Street. <p>Land use</p> <ul style="list-style-type: none"> Temporary loss of passive recreational space. 	ERAP 01 – including NV1, NV2, NV4, NV5, NV6, NV7, NV8, NV9, NV10, NV11, NV12, NV13, NV14, NV15, NV16, NV17, NV20, NV21
Site demobilisation	<p>Traffic</p> <ul style="list-style-type: none"> Additional traffic volumes to local roads and increased heavy vehicle traffic. Potential safety risks due to pedestrian, cyclist or vehicle interaction with construction traffic 	ERAP 05 – including TA1, TA2, TA3, TA5, TA6, TA7, TA8, TA9, TA10, TA16

Table 8-3 Enabling works impacts

Activity	Impact	Mitigation Measures (ERAP references)
Relocation of platform furniture, lights and bins	<p>Heritage</p> <ul style="list-style-type: none"> Potential impacts to heritage fabric on the platforms 	ERAP 02 – including HA1, HA2, HA3, HA4, HA5, HA6, HA7, HA8, HA16, HA18, HA19, HA20, HA21, HA22, HA23, HA24, HA25, HA26, HA27, HA28, HA31, HA32
Demolition of privacy walls on platform buildings	<p>Heritage</p> <ul style="list-style-type: none"> Potential impacts to heritage fabric on the platforms <p>Noise</p> <ul style="list-style-type: none"> Potential noise impacts to nearby receivers including residences along Little Eveleigh Street and Marian Streets 	ERAP 02 – including HA1, HA2, HA3, HA4, HA5, HA6, HA7, HA8, HA16, HA18, HA19, HA20, HA21, HA22, HA23, HA24, HA25, HA26, HA27, HA28, HA31, HA32
OHW footing and bracing	<p>Heritage</p> <ul style="list-style-type: none"> Potential impacts to heritage fabric <p>Noise</p> <ul style="list-style-type: none"> Potential noise impacts to nearby receivers including residences along Marian Street 	<p>ERAP 02 – including HA1, HA2, HA3, HA4, HA5, HA6, HA7, HA8, HA16, HA18, HA19, HA20, HA21, HA22, HA23, HA24, HA25, HA26, HA27, HA28, HA31, HA32</p> <p>ERAP 01 – including NV1, NV2, NV4, NV5, NV6, NV7, NV8, NV9, NV10, NV11, NV12, NV13, NV14, NV15, NV16, NV17, NV20, NV21</p>
Piling Relocation and installation of high voltage (11kV) along Platform 10	<p>Heritage</p> <ul style="list-style-type: none"> Potential impacts to heritage fabric on platform 	ERAP 02 – including HA1, HA2, HA3, HA4, HA5, HA6, HA7, HA8, HA16, HA18, HA19, HA20, HA21, HA22, HA23, HA24,

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Activity	Impact	Mitigation Measures (ERAP references)
	<ul style="list-style-type: none"> Potential impacts on areas of archaeological potential. <p>Noise</p> <ul style="list-style-type: none"> Potential noise impacts to nearby sensitive receivers including Little Eveleigh Street, Marian Street and Gibbons Street 	<p>HA25, HA26, HA27, HA28, HA31, HA32</p> <p>ERAP 01 – including NV1, NV2, NV4, NV5, NV6, NV7, NV8, NV9, NV10, NV11, NV12, NV13, NV14, NV15, NV16, NV17, NV20, NV21</p>
Relocation of low voltage and communication services on platforms	<p>Heritage</p> <ul style="list-style-type: none"> Potential impacts to heritage fabric 	<p>ERAP 02 – including HA1, HA2, HA3, HA4, HA5, HA6, HA7, HA8, HA16, HA18, HA19, HA20, HA21, HA22, HA23, HA24, HA25, HA26, HA27, HA28, HA31, HA32</p>

8.3 Heritage Management

8.3.1 Background

The Redfern Railway Station Group is listed on both the State Heritage Register (#01234) and RailCorp Section 170 Heritage and Conservation Register (#4801095). The Redfern Railway Station Group is a State significant heritage item associated with the growth and development of Redfern as a place, as well as being an important element and transportation hub associated with the NSW Railways.

The Eveleigh Railway Workshops are one of the finest historic railway engineering workshops in the world, containing intact late 19th century and early 20th century forge installations and a collection of cranes and power systems. They are listed on the State heritage Register (#01140) and the RailCorp Section 170 Heritage and Conservation Register (#4801102). The Eveleigh Chief Mechanical Engineers Office and moveable relics is listed on the SHR (#01139) and RailCorp Section 170 Heritage and Conservation Register (#4801126).

8.3.2 Potential impacts

The Historical Archaeological Research Design Report (HARD) (TAP04-PLN-EN-0008) recognises a number of key construction activities required for site establishment and enabling works. These activities may present potential impacts to heritage assets within the Project area including:

- Geotechnical investigations have the potential to disturb buried heritage relics or building remnants during core sampling at test locations;
- Establishment of ancillary facilities will require minor trenching or excavation to install fencing or services located within areas of archaeological potential;
- Tree removal or vegetation clearing in areas of undisturbed ground have potential to impact items of heritage value present below surface or degrade heritage aesthetics of the area;
- Piling works required to build footings to support new structures have potential to impact archeologically sensitive areas if performed in areas of heritage significance; and

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- Minor excavations are necessary to install temporary site compounds or to decommission inground services in areas of listed value.

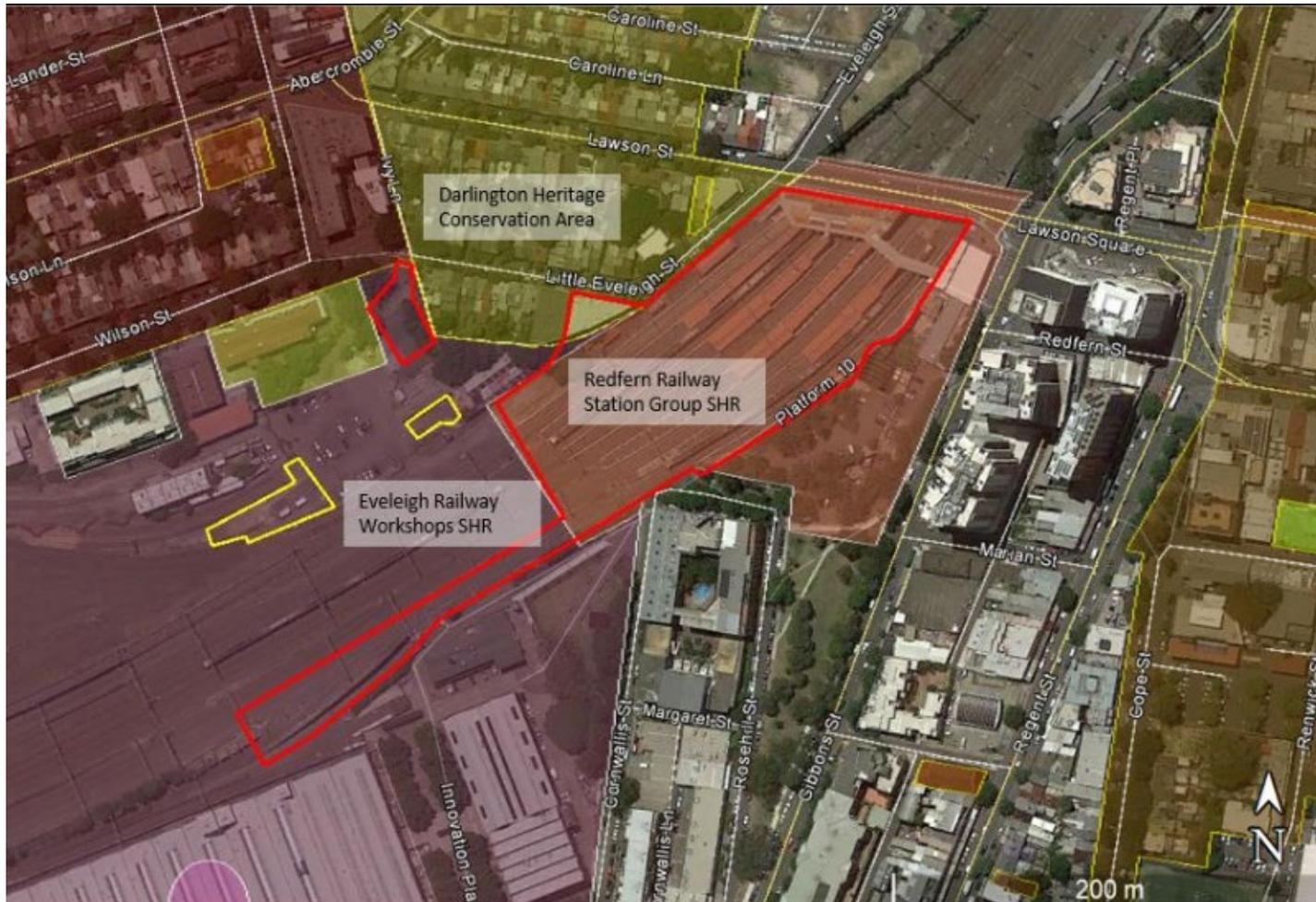


Figure 8-1 'Redfern Railway Station Group' SHR: 01234 on the S170 Register (4801095) and Eveleigh Railway Workshops (SHR 01104; S.170 listing: 4801102) overview map

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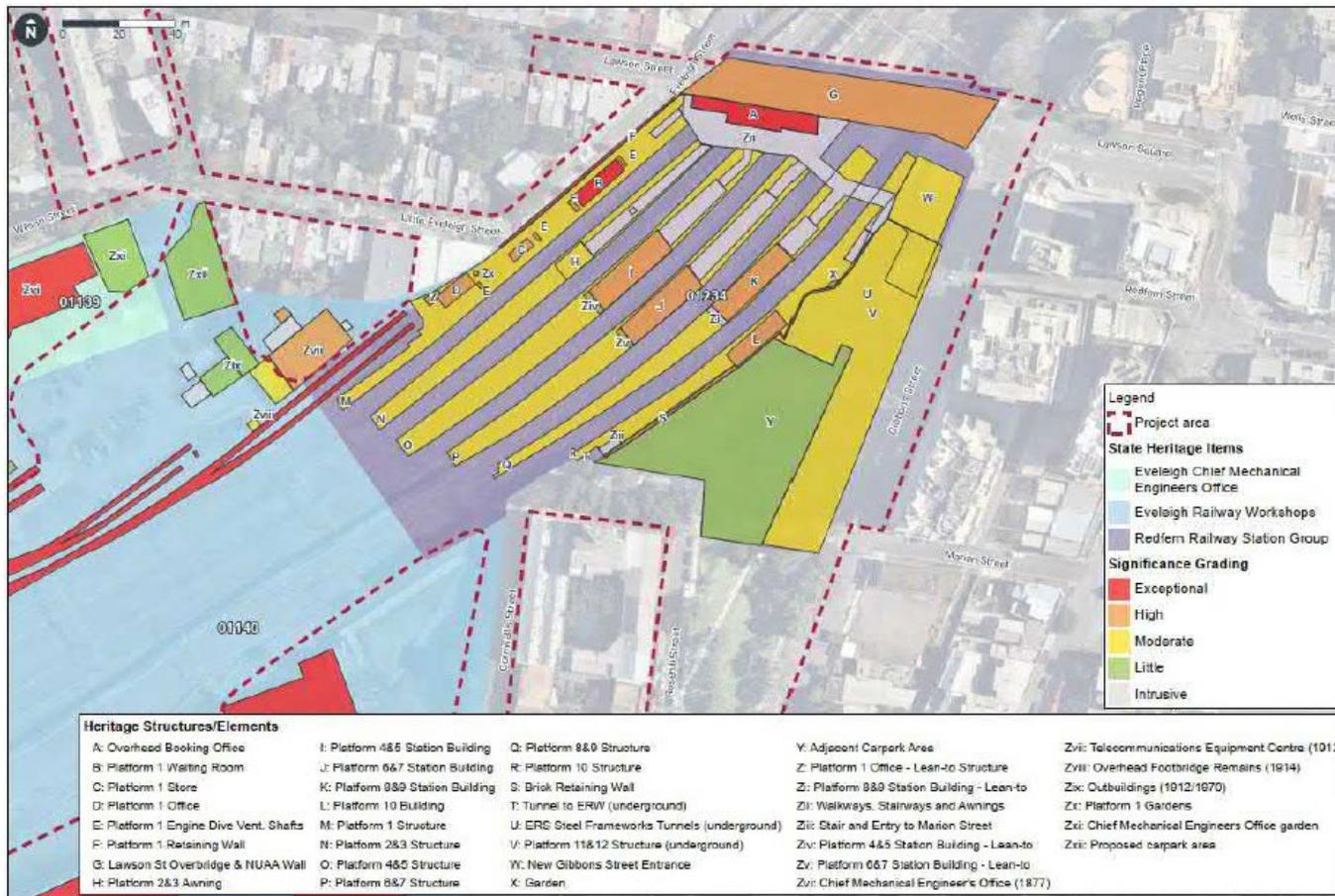


Figure 8-2 Heritage Structures/elements (Technical Report 5, Non Aboriginal Heritage, EIS, Redfern Station Upgrade, New Southern Concourse [May 2020])

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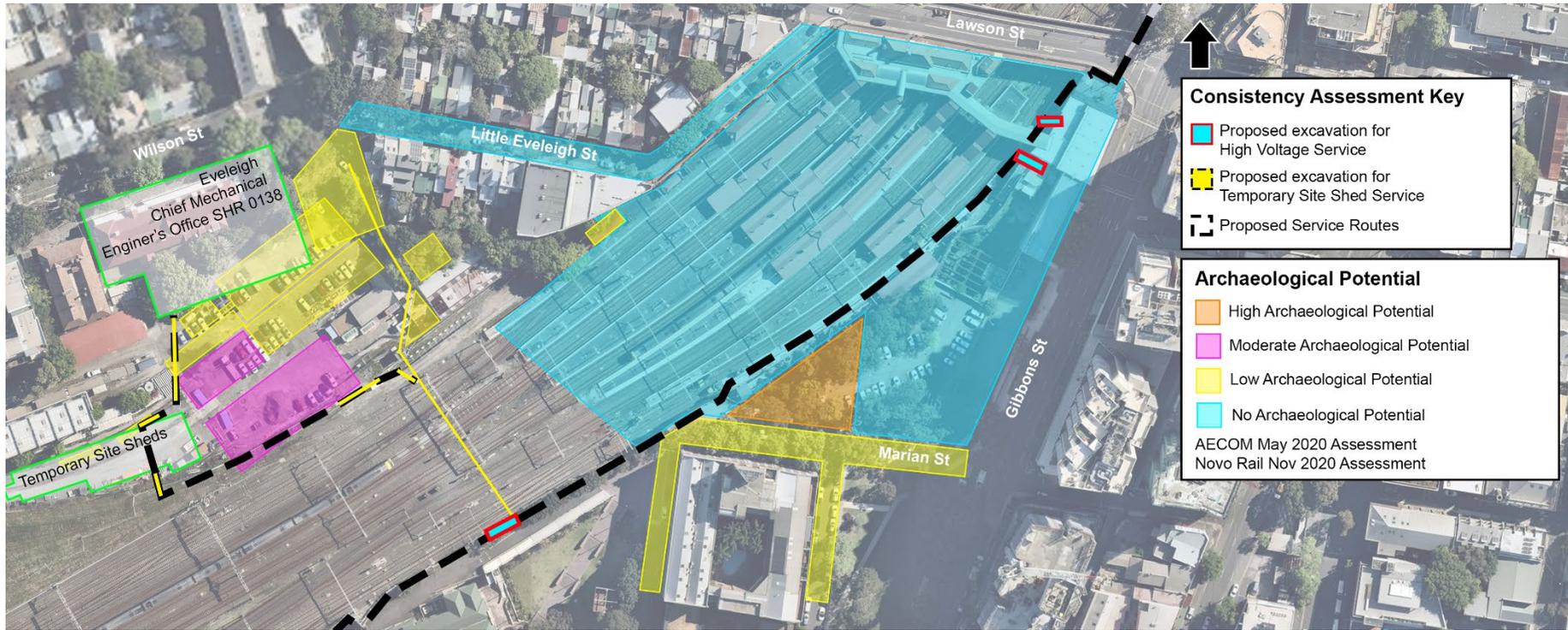


Figure 8-3 Areas of historical archaeological potential at Redfern Station

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8.3.3 Heritage management

Heritage is identified as a high or significant risk for the Project and as such has required the preparation of supporting documents to assist in its management. For the site establishment, low impact and enabling works, uncovering archaeological relics/items has been flagged as a high risk due to the scope of works for this Phase i.e. excavation and vegetation removal. The HARD has been developed by a qualified and experience Heritage specialist detail the main risks/potential impacts of the site establishment, low impact and enabling works on heritage, as well as provide tailored mitigation measures and environmental controls to address these items.

A summary of these mitigation measures for Non-Aboriginal and Aboriginal Heritage are provided in the ERAPs (Appendix C) and in the Environmental and Sustainability Risk and Opportunities Register (Appendix B).

Mitigation measures that are discussed and recommended in the HARD include:

- Briefings of relevant personal will take place at the outset of any works that could affect archaeological resource or encounter unexpected relics and will include:
 - Sites history and significance
 - Archaeological relics expected
 - How relics will be managed (unexpected finds procedure)
- Non-destructive digging techniques will be adhered to in areas of known or suspected archaeological or heritage significance will lower the risk of damaging archaeological deposits.
- An Excavator Director has been engaged for the Project and would be oversee on matters associated with historical archaeology, in accordance with the HARD. Prior to any ground-breaking activities, the HARD would be approved and implemented in D8 and D10.
- Any works that have would be undertaken in identified potential archaeological areas (as per the HARD), the appointed Excavator Director would be present to advice on archaeological issues and oversee excavation works. The Excavation Director has been given the authority to advise on the duration and extent of oversight required during archaeological excavations
- Excavation works planned for areas with potential to encounter archaeological relics will be monitored by the Excavation Director and qualified archaeologist. Excavation of non-significant fills can be partly or wholly monitored, at the discretion of the archaeologist.

Unexpected finds

An ‘unexpected heritage find’ can be defined as any unanticipated archaeological discovery that has not been identified during a previous assessment or is not covered by an existing permit under relevant legislation such as the NPW Act or Heritage Act.

In providing for rigour and satisfying the Project’s CoAs, the Unexpected Heritage Finds & Human Remains Procedure and the Historical Archaeological Research Design (HARD) has been prepared by suitably qualified Heritage specialists. These documents undertake a comprehensive risk assessment and provides tailored controls/mitigation measures and recommendations for the duration of the Project. The Unexpected Heritage Finds & Human Remains Procedure will be implemented as required during site establishment, low impact, and enabling works.

8.4 Noise and vibration

8.4.1 Background

As part of the Redfern Station Upgrade – New Southern Concourse Environmental Impact Statement (Transport for NSW, May 2020), a Technical Report on Noise and Vibration was prepared to assess the risks of noise and vibration impacts to nearby sensitive receivers.

The Technical report concluded:

- The predicted construction noise levels exceed the construction NMLs during all construction stages with varying levels of exceedances. Notwithstanding the implementation of feasible and reasonable noise mitigation measures, noise exceedances are generally unavoidable given the proposed works and proximity to receivers.
- The greatest overall impacts during most work packages would be experienced by residents along 160-166 Little Eveleigh Street as predicted exceedances would occur during several stages of work due to the proximity of work
- Minimum working distances to nearby structures have been recommended for nominated plant.
- If the minimum working distances are maintained, then no adverse impact from vibration intensive works are likely in terms of human response or cosmetic damage.
- Should works be required within the minimum working distances, the recommended additional mitigation measures would be implemented
- It is noted that some heritage-listed items which may be affected.

8.4.2 Noise and vibration management

Noise and vibration risks have been identified as a significant or severe risk for the project, and documented through the risk and opportunities process. In addressing the severity and level of risk posed by the works and to comply with CoA C6 and D19, an OOHV Protocol and a Construction Noise and Vibration Management Plan has been prepared by a suitably qualified acoustic specialist. These documents undertake a comprehensive risk assessment and provides tailored controls/mitigation measures and recommendations for the duration of the Project.

Details on practical mitigation measures for Noise and vibration are also provided in the ERAPs (Appendix C) and in the Environmental and Sustainability Risk and Opportunities Register (Appendix B).

8.5 Environmental control measures

Specific measures and requirements to meet the objectives of this SEEWMP and to address impacts resulting from site establishment works, low impact works and enabling works are addressed in Appendix C (ERAPS), the Environmental and Sustainability Risk and Opportunities Register (Appendix B), the sub-Plans and the ECM.

9 Organisational structure, resources and responsibilities

The safeguard of the environment under the Project encourages the individual commitment and drive from all personnel of varying levels. Roles and responsibilities in implementing these environmental controls are summarised in **Error! Reference source not found.**

The Project Manager is ultimately responsible for ensuring that the specific roles and responsibilities as well as lines of report for the project are clearly defined and communicated to all relevant personnel. A dedicated Environmental and Sustainability Team exists within the structure and reports to the Project's Construction Manager and its Project Manager. The Team comprises of an Environmental and Sustainability Manager, an Environmental Adviser and a Sustainability Adviser.

Subcontractors, subcontractor employees and subcontractor systems, will need to comply with the subcontractor agreement, Novo rail systems and requirements, approved EIS, approved CoAs as well as this SEEWMP. Subcontractors are required to adopt the same responsibilities including the requirement to report environmental incidents and issues to the Environmental team.

Key environmental responsibilities and authorities are summarised in **Error! Reference source not found.**

TfNSW will engage an independent Environmental Representative (ER) to provide oversight of environmental and planning performance and assist with achieving compliance with the Project Approval, management plans, and relevant legislation and policy. The role and responsibilities of the ER will be consistent with DPIE’s Environmental Representative Protocol (DPIE, 2018) and will undertake the following, along with any additional roles as required under the Project Approval:

- Review, provide comment on, endorse and/or approve (where required) any relevant environmental documentation to verify it is prepared in accordance with relevant environmental legislation, planning approval conditions, relevant standards and this CEMF
- Monitor, recommend improvements and report to TfNSW, Novo Rail and DPIE on the implementation and performance outcomes of the above-mentioned documentation and other relevant documentation
- Make written statements to DPIE regarding the approval and implementation of the abovementioned documentation, or other relevant documentation required by DPIE
- Provide independent guidance and advice to TfNSW, Novo Rail and DPIE in relation to environmental risks and compliance issues and the interpretation of planning approval conditions
- Consider and recommend to TfNSW, Novo Rail and DPIE any improvements that may be made to work practices to avoid or minimise adverse impact to the environment and to the community
- Provide advice on environmental incidents, non-compliances and the Contractor’s corrective and preventative actions
- Undertake regular site inspections including additional inspections for critical or high-risk construction activities, unexpected environmental impacts, incidents or emergencies,
- Ensure that environmental monitoring and auditing is undertaken in accordance with all relevant project requirements
- Be the principal point of advice for the DPIE in relation to all questions and complaints concerning the environmental performance of the project
- Provide monthly reporting to TfNSW and DPIE on the ER’s activities and environmental performance and compliance of the Project.

(Redfern Station Upgrade Response to Submissions Appendix C CEMF, S3.13, pg. 12 & 13)

Table 9-1 Roles and responsibilities

Who	Item	Environmental controls
Project personnel undertaking work activities	Daily/shift preparation activities	Pre-work briefings, plant start-up checks and tool-box talks addressing environmental controls
Line Supervisors		Periodic daily site inspections and
Supervisors/Site Engineers/ ESTR /Management Representatives	Inspections	Internal weekly environmental and sustainability inspections
Supervisors/Site Engineers/ESTR/Management Representatives/TfNSW Representative		TfNSW monthly environmental inspections
Supervisors/Site Engineers	Maintenance of local environmental controls	Signage and up-keep of no-go zones through barricades, bunting, etc; re-stocking of spill response equipment and maintenance of skip/bin covers and hessian screening of fencing for the containment of dust within the project work-zones and the maintenance of drain-covers and siltation fencing
Site Engineers/ESTR/ER	Monitoring	Tracking of waste movement, wastewater discharge; environmental noise and vibration; local air quality; heritage preservation/conservation; ensure that environmental records and files are collected and maintained
Line Supervisors/Site Engineers/ ESTR/Management Representatives	Risk management	Contributions and input in actively identifying environmental hazards and assessing the extent of risks and the identification of suitable control measures; liaise with project personnel on environmental issues, including the written notification of non-conformances (incidents, emergencies or deviations from this Plan);
ESTR/Management Representatives/ER	Monitoring	Tracking of legislative and regulatory compliance including Planning Approval requirements under the Project; ensure compliance with all relevant statutes, regulations, rules, procedures, standards and policies; report on the performance of the system and improvement opportunities;
ESTR/Management Representatives including Commercial		Tracking of compliance with contractual obligations under the Project

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Who	Item	Environmental controls
Project personnel undertaking and/or influencing work activities/ESTR	Hazard Reporting/Incident Notification	Pro-active hazard and incident/complaint reporting to Line Supervisors and Environmental Representatives for actioning; ensure that non-conformances and environmental incidents are recorded and written reports provided to the TfNSW Representative and Environmental & Sustainability Manager within timeframes commensurate with the extent and nature of the non-conformance and/or environmental incidents. Refer to Environmental Incident Classification and Reporting - 9TPPR-105
Line Supervisors/Site Engineers/ESTR/Management Representatives/ER	Resourcing	Ensuring adequate resourcing (labour, pollution control equipment-bunding, acoustic noise enclosures, stormwater protection materials; information technology such as electronic devices and applications; knowledge-base and expertise) is budgeted and in place for managing environmental risks; ensure that environmental controls, materials and equipment are maintained
Project personnel undertaking and/or influencing work activities/ER	Training/learning	Delivery and participation in environmental workshops an training, e.g. spill-response drills for site environmental incidents; ensure that all personnel on site receive appropriate environmental induction and training and are aware of their environmental responsibilities under relevant legislation and the contract
Project personnel undertaking work activities; Line Supervisors/Site Engineers/ESTR/Management Representatives		Implementation of lessons learned including collective insights
Management Representatives	Change management	Introduction of new/altered processes of significance; change in scope impacting on the controls under the project; significant internal restructuring; legislative and regulatory change impacting upon the project
Procurement and ESTR	Audits	Vendor audits of the supply chain (moderate-high risk activities)
Quality and ESTR		Internal audits for assessing performance against environmental compliance obligations (legislative and regulatory, contractual, system)
Independent Auditor; TfNSW		External audits (as above)
Alliance Leadership Team	Management review/Performance	Management review (six-monthly intervals at a minimum) of environmental performance

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Who	Item	Environmental controls
ER	Key responsibilities	<p>Provide oversight of environmental and planning performance and assist with achieving compliance with the Project Approval, management plans, and relevant legislation and policy.</p> <p>Refer to Sections 3.10, 3.13 of the CEMF and CoA A29 for further details.</p>

10 Training and competency

10.1 Training requirements

Requirements for training, awareness and competency for environmental risks and opportunities for the site establishment works, low impact works and enabling works are outlined in this Plan. This Section would be reviewed and updated, where necessary, to ensure relevance to Project.

Environmental requirements will be communicated to employees during site induction and on-going training via tool box meetings, pre-start briefings, notifications and the like.

Workforce personnel are to receive induction and training and/or awareness in the following:

- Applicable Environmental and Sustainability Policies and Commitments
- Site environmental objectives and targets
- Understanding individual authorities and responsibilities
- Site environmental rules and hold points
- Potential consequences of departure from rules
- Emergency procedure and response (e.g. Spill clean-up)
- Basic understanding of their legal obligations
- Sustainability in regards to specific training and learning requirements.

(Redfern Station Upgrade Response to Submissions Appendix C CEMF, S3.11, pg. 11)

All Novo Rail project personnel will be provided with training in the requirements and implementation of this SEEWMP. All training and tool box meetings will be recorded.

Toolbox talks will be held on a regular basis and as required in line with the risk profile in order to provide a project or site wide update, including any key or recurring environmental issues. An indicative list of training topics is outlined in Table 10-1 with details of training topics covered in the Environmental and Sustainability Management Register (Appendix G). Training is required for all personnel and is communicated in the Project induction and regular toolbox talks.

Note: Sustainability training requirements are covered in the Sustainability Management Plan

Table 10-1 Toolbox talks

Training	Description
Emergency spill response	This topic addresses the use and location of spill kits, spill control, emergency response procedures, presentation and assessment, spill response drills, and identification of hydraulic hose fatigue.

Training	Description
Erosion and sediment control	This topic addresses the communication of standard erosion and sediment controls from the 'Landcom Blue Book', the implementation of these controls onsite and communication of the Erosion and Sediment Control Plans (ESCPs). This includes stormwater drain protection measures such as geofabric covering, sandbags and visual monitoring.
Heritage awareness	This topic addresses the procedures and processes around stopping of works as well as reporting protocols for the discovery of previously unknown heritage and archaeological items.
Contamination awareness	This topic addresses the communication of contamination status of the site and the stop works protocols for unidentified potential contamination (i.e. hydrocarbons, asbestos, etc)
Air quality	This topic addresses environmental controls to minimise potential dust impacts at the project site e.g. dust suppression, covering stockpiles and/or excavated areas, application of shade cloth and similar
Noise and vibration	This topic addresses potential noise sources generated at the project site and control measures for implementation purposes e.g. working within OOHW permits and application of acoustic attenuation controls such as noise barriers and shrouds for plant/equipment.
Biodiversity	This topic addresses the wildlife status of the Project and surrounds, protocols of when to stop work and reporting procedures for injured wildlife, and measures to stop feral animals coming to site. Observance of tree protection for trees required to be retained under the project.

As a minimum training will include site induction, regular toolbox talks and topic specific environmental and sustainability training and awareness as follows:

- The project site induction will be provided to all site personnel and will include, as a minimum:
 - Purpose, objectives and key issues
 - Applicable policies and procedures for managing the environment and sustainability aspects and associated key performance indicators
 - Due diligence, duty of care and responsibilities
 - Relevant conditions of any environmental licence and/or the relevant conditions of approval
 - Site specific issues and controls including those described in the environmental and sustainability documentation
 - Reporting procedure for environmental hazards and incidents
 - Communication protocols
 - Toolbox talks will be held on a regular basis in order to provide a project or site wide update, including any key or recurring environmental issues
 - Topic specific environmental training should be based upon, but is not limited to, issue specific sub-plans required under Section 6

(Redfern Station Upgrade Response to Submissions Appendix C CEMF, S3.11, pg. 11)

10.1.1 Visitors

Visitors to site will be accompanied at all times while onsite by a fully inducted person, and that visitors obey all site rules. Hosts are responsible for the actions of and conduct of their visitors and will need to ensure that visitors undertake a visitor induction.

Visitor inductions typically cover:

- Key health and issues including emergency response procedures
- Key environmental issues such as identified and mapped environmentally sensitive areas
- Exclusion zones
- Minimum PPE requirements for site
- Hazard reporting
- Site access/egress
- Site amenities.

Visitors will be required to participate in and sign onto the daily pre-start discussions.

10.1.2 Subcontractors

Novo Rail will check subcontractors for compliance to their own safety systems as well as alignment with the principles in this SEEWMP before subcontractor engagement. This will form part of pre-qualification evaluation and the continual assessment throughout their engagement.

Subcontractors are required to be fully inducted onto the project as well as show an understanding of the environmental risks, procedures and mitigation measures. A record of all subcontractors inducted onto site and the Project will be maintained for the life of the Project.

Subcontractors are ultimately responsible for the selection, screening, training and verifying competency of their own staff, as well as maintaining and providing (when requested) all records of inductions and training of staff.

10.2 Competency requirements

All project staff are required to have their licences (e.g. Drivers licence) and relevant tickets (e.g. general construction induction card, RIW card, etc).

Copies of certificates of competency for the operation of plant will need to be provided and retained by Novo Rail, as well as verification of competency to operate plant for its intended use. Tickets and licences would need to be kept on the person and be available for inspection throughout the Project.

All records of inductions, licences, tickets, certificates and permits, are recorded in the project's training and competency matrix as well as copies retained in Novo Rail's records management system.

Contractors' competency in the use of the SEEWMP would be determined via the induction (i.e. key sections of the SEEWMP and induction requirements included with a question based quiz at the end). Induction records would be kept and maintained as evidence of competency.

Toolbox talks would also capture key requirements of contractor competency as this includes workshops, live scenarios and discussions with the team. Evidence of competency would be captured via the Toolbox talk sign-on sheet.

11 Emergency preparedness and response

During emergency events and incidents, the client and relevant agencies will also be informed as per the emergency response and incident management procedures detailed in this Section. Emergency Services contact numbers available at the main project site office and active work zones as required. The emergency response process is to be periodically tested via an environmental emergency drill at intervals not exceeding 12 months and/or as specified under the Project's CoAs.

Potential emergency scenarios with preparation and response measures are captured as part of the ERAPs. Environmental emergencies will be handled as displayed in Figure 11-1.



Figure 11-1 Emergency response

11.1 Site Shutdown Planning

Site shutdown periods must be planned and coordinated to ensure the risk of environmental impact is minimised. Shutdown periods are considered to be any period in which construction activities are not planned to take place on the site for more than 3 consecutive days, excluding possession related work. This includes public holiday and RDO periods.

Planning activities must ensure that inspections, resources and contingency measures are agreed and implemented for the shutdown period. This includes mitigation measures such as on-call project personnel for environmental incidents, on-going weather monitoring, additional erosion and sediment control measures in place including surplus materials and inspections prior, during and post unfavourable weather conditions.

11.2 Incident management

An incident is defined as an occurrence or set of circumstances that causes or threatens to cause material harm and which may or may not be or cause a non-compliance (Definitions, CoAs).

Incident management will follow the Novo rail Emergency Preparedness Management Plan for the Project.

An environmental emergency or incident may include:

- A pollution to land or water from a spillage or leak of a substance
- Unauthorised harm or damage to native flora and fauna
- Failure of erosion and sediment control devices leading to pollution of waterways
- Unexpected finds of hazardous materials or heritage
- Damage to heritage items or protected flora or fauna species
- Any contractual or compliance breaches.

If an incident does occur, all project personnel are required to cease works immediately and follow the processes in line with the TfNSW Environmental Incident Classification and Reporting PR-105 procedure, and notification and reporting requirements outlined in Section 11.2.1

11.2.1 Incident notification and reporting

The management, investigation, reporting and notification process for environmental incidents, is to be undertaken in accordance with the TfNSW Environmental Incident Classification and Reporting - PR-105 and in line with the CoA.

All environmental incidents and non-compliances must be immediately reported to the Project Environmental Manager who will verbally notify the TfNSW Environment and Planning Manager and ER. The verbal notification must occur immediately on becoming aware of the incident or non-compliance.

The Department would be notified as soon as possible and no later than 24 hours after the Novo rail and TfNSW becomes aware of an incident. The initial advice can be via telephone and must identify the SSI (including the application number and the name of the SSI), time, date, location and nature of the incident. Subsequent written notification must occur within a 24-hour period and also include identify the SSI (including the application number and the name of the SSI), time, date, location and nature of the incident. This would be given to the Department and reports submitted to the Planning Secretary in accordance with Appendix H.

All Potential and Actual incidents, including complaints must be reported so that they can be investigated and prevented from recurring. Where complaints are received involving the media or where the Project and company image is likely to be affected, they shall be documented on the HSE Internal Incident Notification form and logged into Consultation Manager. Complaints will be handled by the Community and Stakeholder Engagement

Where an environmental non-conformance or incident is identified, corrective and preventive actions shall be developed and may include:

- Review and improve existing environmental controls and job safety analyses/ work method statements
- Site rehabilitation
- Increased site inspections and monitoring
- Modify construction or installation methods
- Increase environmental awareness including re-training and tool-box meetings.

The NSW EPA must be notified immediately of all pollution incidents that cause or threaten “material harm” to the environment. “Material harm” to the environment is if the effect (or potential effect) from an incident on the health or safety of humans or ecosystems is not trivial and or results in actual or potential loss or property damage of an amount, or amounts in aggregate, exceeding \$10,000. The notification would need to include information on:

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

Incidents requiring notification to the EPA must also be immediately notified to the Laing O’Rourke Environmental Lead and the Head of Legal. The ESTR in conjunction with TfNSW is to undertake any required notification to the NSW EPA as per the TfNSW Environmental Incident Classification and Reporting Procedure - PR-105 document.

In instances where TfNSW is not available within a reasonably expected time to provide the necessary notification to the NSW EPA, Novo Rail will undertake the notification. Records of contact with and details of the information provided to external authorities must be maintained in the project records.

The following table details the order for emergency contacts in the instance of pollution incidents that constitute Material Harm (Table 11-1). The order of contact in the following table for emergency contacts will change depending on if there is an immediate threat to human health or property, in which case 000 would need to be contacted first before all the

Table 11-1 Emergency contacts (TfNSW Environmental Incident Classification and Reporting Procedure - PR-105) with additional DPIE contacts

Authority	Contact number
DPIE	[to be updated]
Fire and Rescue NSW	000 / 1300 729 579
EPA environment line	131 555
Ministry of Health	1300 066 055
SafeWork NSW	131 050
Local Council	4428 4100

Environmental incidents relating to the Environmental Protection and Biodiversity Conservation Act must be notified to the Secretary of the Department within 7 days of the event.

Incident Reporting & Investigation from the project sites is to be recorded in IMPACT, LORA's Online Incident Investigation Reporting Tool. IMPACT can be accessed from the LORA Intranet Home Page or remotely connected via the Internet where connection is possible and direct access to the LORA Intranet is not available. Incidents are to be logged in Impact within 48 hours of occurrence. For Class 1 and Class 2 incidents, an investigation must also be logged in Impact.

12 Communication and community engagement

Internal and external communication would be achieved via a number of mediums/methods for communication. These are summarised in Table 12-1.

Community liaison and complaints handling will be undertaken in accordance with TfNSW's Construction Complaints Management System and will include:

- The Contractor will manage complaints in a responsive manner so that stakeholders' concerns are managed effectively and promptly
- A verbal response will be provided to the complainant as soon as possible and within a maximum of two hours from the time of the complaint (unless the complainant requests otherwise). A detailed written response will then be provided, if required, to the complainant within 7 days.

(Redfern Station Upgrade Response to Submissions Appendix C CEMF, S4.2, pg. 16)

The Communications Strategy/Community Liaison Management Plan has been approved prior to the commencement of any consultation between government agencies and other stakeholders. The Strategy describes the management and communication processes employed to satisfy, as far as practicable, the concerns perceptions and expectations of the stakeholders associated with the Project.

A program has been developed for notifying the community at least five (5) business days prior to establishment of any construction ancillary facilities or the commencement of any enabling works, of the activities to be undertaken, including the scheduling of activities. This is detailed in the Communications Strategy/Community Liaison Management Plan.

Generally, community notifications would be issued regularly and at a minimum monthly (as per the Communications Strategy/Community Liaison Management Plan). Notifications would outline forthcoming work activities, any impacts and work progress. Consultation with stakeholders will be ongoing during delivery of the Project as outlined in the Communications Strategy/Community Liaison Management Plan.

A complaints management system has also been established and would be maintained for the duration of the Project to facilitate community enquiries and manage complaints. The preferred management system selected for the duration of the Project is Consultation Manager. This system would be maintained for the duration of construction and for a minimum of 12 months following completion of construction of the SSI.

Table 12-1 External and internal communication methods

Internal communication	External communication
<p>Internal communication is communication internally within the organisation between employees, subcontractors and visitors.</p> <p>Methods include:</p> <ul style="list-style-type: none"> ■ Digital Contract Reviews ■ Management Reports ■ Site inspection Reports ■ Audit reports ■ Incident reports ■ Noticeboards ■ Site meetings ■ Employee induction, training and tool box sessions ■ Briefings, notifications and alerts. 	<p>External communication includes communications with the media, general public and Council. Direct communication with external parties regarding the project is not permitted.</p> <p>Methods include:</p> <ul style="list-style-type: none"> ■ Site meetings with the TfNSW ■ All incidents notified to TfNSW ■ Project reports to client at progress meetings and in the Project Report ■ Meetings and correspondence with interested parties (e.g. Local council and NSW EPA) as necessary ■ Discussions with adjoining land owners / neighbours and the community who may be affected by the project.

13 Monitoring, measurement, analysis and evaluation

Environmental audits and inspections will be undertaken to evaluate compliance and system conformance to environmental management system and other requirements.

Internal environmental audits will be undertaken and will include:

- Compliance with any approval, permit or licence conditions
- Compliance with the CEMF, CEMP, SMP, sub-plans and procedures
- Community enquiry and complaint response
- Environmental training records
- Environmental monitoring and inspection results.

(Redfern Station Upgrade Response to Submissions Appendix C CEMF, S3.15, pg. 13 & 14)

Environmental inspections provide an important function under the project in identifying and addressing environmental hazards and mitigating potential incidents and also in acknowledging good site practices being implemented at site.

The Environment and Sustainability Risk and Opportunities Register is reviewed monthly and as required. Inspection schedule is captured in the Environmental and Sustainability Register and delivery of Toolbox talks based on risk-profile and nature of works.

Environmental inspections will include:

- Surveillance of environmental mitigation measures by the Contractor
- Weekly inspections by the Contractor's Environmental Manager (or delegate) to verify the adequacy of all environmental mitigation measures. This will be documented in a formal inspection record
- Weekly inspections by the ER to identify the adequacy of environmental mitigation measures. This will be documented in a formal inspection record
- Periodic site inspections by the TfNSW representative.

(Redfern Station Upgrade Response to Submissions Appendix C CEMF, S3.15, pg. 13 & 14)

Novo Rail project staff are to readily address identified deficiencies at site within agreed upon timeframes between Novo Rail and TfNSW Representatives. Issues identified during the inspection requiring further action beyond normal practice or maintenance are to also be logged into Impact via the Assurance Application or retained in Field View as defined in the project procedures.

Non-conformance to Operational Control procedures or to the Environmental Management System that cannot be rectified immediately shall be recorded and addressed by raising a Non-conformance Report or logged into the Assurance application in IMPACT.

Corrective actions will be developed to rectify non-compliances and preventative actions in order to prevent a re-occurrence of the non-compliance. A register of non-compliances, corrective actions and preventative actions will be maintained. TfNSW or the ER may raise non-compliances against environmental requirements.

(Redfern Station Upgrade Response to Submissions Appendix C CEMF, S3.16, pg. 14)

The following environmental issues/non-conformances are to be included within IMPACT as corrective actions:

- Internal inspection outcomes that cannot be rectified immediately – actions nominated on the Inspection Report and Management H & S and Environmental Checklist (where applicable)
- Incidents and associated corrective actions
- Internal audit observations/non-compliance
- Client audits
- Notices or action from regulatory authorities
- non-compliance under applicable environmental planning approvals.

A Compliance Monitoring and Reporting Program will detail the schedule of compliance reporting to be undertaken in accordance with the Compliance Reporting; Post Approval Requirements (DPIE, 2020) and Project Approval requirements. The compliance reports will include evidence and any outcome of any environmental monitoring and environmental surveillance activity including internal and external audits (refer to Section 3.14). Compliance reporting will be reviewed and endorsed by the ER and provided to DPIE.

(Redfern Station Upgrade Response to Submissions Appendix C CEMF, S3.16, pg. 14)

13.1 Internal audits and inspections

Internal audits and inspections for the Enabling Works Phase would be carried out in accordance with the schedule summarised in Table 13-1.

Table 13-1 Internal audit and inspection schedule

Monitoring type	Description	Frequency	Participants	Responsible for reporting
Audit	Undertaken by ESTR for assessing performance against environmental compliance obligations (legislative and regulatory, contractual, system, etc) and	As per Conditions of Approval	ESTR	ESTR

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Monitoring type	Description	Frequency	Participants	Responsible for reporting
	the compliance with this SEEWMP			
	Laing O'Rourke Environmental Management System audit	As per Laing O'Rourke's schedule	ESTR Laing O'Rourke Environment team representative	ESTR
Inspections	An environmental inspection undertaken by the Site Leader and an ESTR to assess implemented environmental controls and their adequacy.	Weekly – requirement of the TSR Environmental Requirements Man-4 Inspection and Auditing credit	Site Leader ESTR	ESTR

13.2 External audits and inspections

External audits and inspections for the site establishment, enabling works and continue into the construction phase. The audits and inspections would be carried out in accordance with the schedule summarised in Table 13-2.

Table 13-2 External audit and inspection schedule

Monitoring type	Description	Frequency	Participants	Responsible for reporting
Audit	Third-party certification and TfNSW compliance and system audits	Where advised	Third-party certifier TfNSW representative ESTR	TfNSW
	Third-party audit as a result of a written requirement or direction of the Planning Secretary, including in relation to an audit of the construction of the operation of the SSI,	Where advised	Third-party certifier TfNSW ESTR	TfNSW
Inspections	An regular environmental inspection undertaken by the Novo rail alliance team, TfNSW representatives and ER to assess implemented environmental controls and their adequacy.	Weekly (during construction)	TfNSW representative ESTR ER	Two separate reports prepared by: TfNSW ER
	ER inspections during possessions, during high risk activities, following incidents and in relation to complaints received.	Where advised	TfNSW representative ESTR ER	ER
	Acoustic advisor inspections during high risk noise activities. Inspections to generally align with TfNSW and ER regular inspections.	As required	AA ESTR	AA

An Independent Environmental Audit Program will be prepared in accordance with Independent Audit: Post Approval Requirements (DPIE, 2020) and any Project Approval requirements
(Redfern Station Upgrade Response to Submissions Appendix C CEMF, S3.15, pg. 13 & 14)

13.3 Environmental performance monitoring and inspections

13.3.1 Environmental performance monitoring

As part of Novo rails commitment to ensuring continual compliance with the Project EMS, an environmental system self-check schedule has been developed (Table 14-3). Monitoring and Inspection and monitoring requirements relevant to ancillary facilities and enabling works are identified in Table 14-4.

Table 13-3 Environmental System Self-Check

System requirement	Criteria	Frequency
Severe Environmental Risk Program	Program implemented and actions complete	Monthly
Site inspection implementation	Site inspections have been completed where active works are being undertaken	
Event management	Environmental incidents and complaints have been reviewed, investigations completed and actions closed out.	
Environmental Monitoring Program	Environmental monitoring has been completed and reviewed for compliance. Non-compliances have been actioned and closed out.	
Waste management	Project waste management register is up to date including spoil management, logging of trackable wastes and recording of receiving facilities for recycling, reprocessing and disposal	

Table 13-4 Inspection and Monitoring Program

Item	Scope	Frequency	Timing	Reporting	Participants	Responsible for reporting
Regular inspections	<p>Inspection of the environmental controls and implementation of the mitigation measures outlined in ERAPS (Appendix C) including but not limited to:</p> <ul style="list-style-type: none"> ■ Hoardings and boundary fences ■ Waste storage, collection and disposal practices ■ Erosion and sediment controls ■ Measures to prevent tracking of material onto the surrounding road network ■ Temporary lighting orientated to minimise glare and light spill ■ Vegetation protection measures ■ Limit the potential for dust generation (visual) ■ Chemical and fuel storage ■ Traffic Control Plan measures (including safe motorist, pedestrian and cyclist access) ■ Reinstatement of community spaces, infrastructure and services occurring as possible after completion of works. 	Weekly	Site establishment, during operation of ancillary facilities, and duration of enabling works.	Weekly Environmental and Sustainability Inspection Report	ESTR Site engineer Site supervisor	ESTR

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Item	Scope	Frequency	Timing	Reporting	Participants	Responsible for reporting
Noise and Vibration	Noise and vibration monitoring of ancillary facilities and during enabling works will occur at the nearest sensitive receiver as defined in the CNVMP (included in the Noise and Vibration Monitoring Program) The noise and vibration monitoring data will be used to assess the adequacy of mitigation measures.	Monthly once commencing the month the site is established. As required by the noise modelling for enabling works activities As required in response to community complaints	Prior to works During site establishment During operation of ancillary facilities Duration of enabling works.	Monthly environmental report.	ESTR	ESTR
Waste	Waste tracking.	During generation of waste.	Site establishment, during operation of ancillary facilities, and duration of enabling works.	Waste tracking register.	ESTR Site supervisor	ESTR
Weather forecasts	Monitoring of weather forecasts to determine when adverse weather conditions are predicted. Specific notifications will be made if: <ul style="list-style-type: none"> ■ Winds >25 km/hr and/or ■ Temperature >30°C are forecast ■ High rainfall events. 	Daily checks of weather forecast.	Site establishment, during operation of ancillary facilities, and duration of enabling works.	Email alerts Pre-starts	Site supervisor	Site supervisor
Monthly reporting	Environmental and sustainability performance information. This monthly report would support the ER's Monthly Report to the Planning Secretary and other relevant agencies and would contain the information set out in the Environmental	Monthly	Monthly	Monthly Project Report	ESTR	ESTR

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Item	Scope	Frequency	Timing	Reporting	Participants	Responsible for reporting
	Representative Protocol under the heading “Environmental Representative Monthly Reports.” The ER Monthly Report would be submitted within seven (7) days following the end of each month for the duration of the ER’s engagement for the SSI.					
Traffic and road safety	Road Safety Audits	At the 80 – 100% design stage (during the pre-construction period) Pre-opening inspection Operational audits as required by SCO, Traffic Management Centre or City of Sydney Council (during post-construction period)	Pre-construction As required	Road Safety Audit	Traffic and transport specialist	Traffic and transport specialist
	Road Condition Reporting	Once during the pre-construction period Once post-construction	December 2020 Mid 2022	Road Condition Report	Traffic and transport specialist	Traffic and transport specialist

13.3.2 Continuous Improvement

Continuous improvement of this Plan will be achieved by the ongoing evaluation of environmental management performance against environmental policies, objectives and targets for the purpose of identifying opportunities for improvement.

The continuous improvement process will be designed to:

- Identify areas of opportunity for improvement of environmental management and performance
- Determine the cause or causes of non-conformances and deficiencies
- Develop and implement a plan of corrective and preventative action to address any non-conformances and deficiencies
- Verify the effectiveness of the corrective and preventative actions
- Document any changes in procedures resulting from process improvement
- Make comparisons with objectives and targets.

13.3.3 SEEWMP Review

The review of this Plan ensures the continual suitability, effectiveness and continual adequacy of the Site Establishment and Enabling Works Management Plan for the duration of the Pre-commencement Early Works Phase and during ancillary facility establishment.

Risk assessment to be evaluated on a monthly basis.

The SEEWMP is internally approved for use on the project by the RSU-TAP04, Novo Rail Senior Project Manager. Evidence of initial review and approval is by signatures on the cover sheet.

Revisions shall be reviewed and approved by the Senior Project Manager and issued to the ER for approval prior to issue. Updates to this Plan and associated documentation are numbered consecutively and issued to holders of controlled copies.

Revisions may result from:

- Poor environmental performance outcomes
- Significant community complaints
- Incidents
- Audit (either internal or by external parties)
- Client complaints or non-conformance reports
- Changes to the Company's standard system and change in project scope

A copy of the updated plan and changes will be distributed to all relevant stakeholders in accordance with the approved document control procedure.

14 Document Control

Documents are developed and maintained in line with TfNSW specific requirements and AS/NZS ISO 9001 Quality Management Systems and the overarching Document Management and Control Plan.

The Master controlled copies of this SEEWMP and supporting documents, will be held within the Project's document management system, A-site, where copies of these documents are accessible to project personnel at all times. This document would be made publically available on the Project website once approval has been received.

Environmental management documentation under the Project would also be recorded through correspondence means via TeamBinder.

All controlled documents once printed are considered "uncontrolled" and are indicated within the documentation. The control of records includes identification, storage, protection, retention periods and disposition with records being kept for a minimum of five (5) years or as otherwise specified in contracts and/or environmental planning approval documentation.

APPENDIX A: Environment and Sustainability Commitment

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Redfern Station Upgrade – New Southern Concourse Sustainability Commitments

The Novo Rail Program Alliance team on the Redfern Station Upgrade Project (the Project) wish to “Build and Support a Transport System that improves our present social, environmental and economic needs while maintaining the quality of life of future generations.”

The Project is committed to meeting or exceeding the TfNSW Transport Access Program (TAP3) requirements for Sustainability Performance. This includes meeting applicable requirements under the Project’s planning approval and achieving or exceeding an Excellent rating, under the Infrastructure Sustainability Council of Australia.

This commitment shall be achieved through:

Leadership

- ▲ Visible leadership from the senior team involved in the delivery of the project.
- Provision of suitable resources in project personnel, equipment and technology to ensure successful sustainability outcomes.

System & Process

- Compliance with the requirements of the Program Alliance Agreement, relevant legislation, codes and standards, as applicable to the Alliance and more specifically the Project.
- Implementation of robust risk management to proactively manage sustainability opportunities and environmental risks to the Project including the Project’s key environmental risks of heritage, pollutants and biodiversity.
- ▲ Implementation of local project systems to manage local sustainability opportunities and issues in accordance with the Project’s Environmental Management System to AS/NZS ISO 14001.
- Risk-based optimisation of sustainability performance, customer outcomes and value for money across all stages of the project’s life cycle.

Sustainability performance and reporting

- Reporting and monitoring of sustainability and environmental performance including periodic audits.
- Proactive reporting of environmental hazards, near misses and incidents.
- Delivery on clear targets for successful social outcomes through effective workforce planning to allow under-represented groups to overcome barriers to employment.
- Contribution to New South Wales carbon emission targets through reduction of construction and operational energy and material use.

Stakeholder engagement, knowledge sharing and transparency

- Fostering a knowledge sharing culture through collaboration and engagement of relevant stakeholders.
- Engagement with our stakeholders by communicating this Commitment to all those working within the Project or affected by the project.

Internalisation of project supply chain

- Provision of sustainability training to the Novo Rail project workforce and delivery of sustainability awareness briefings to the supply chain in realising sustainability knowledge transfer beyond Novo Rail.

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-
- On-going collaboration within the supply chain to realise sustainability performance outcomes.

Innovative and learning culture

- Training our project team, including suppliers, in sound environmental, sustainability and Social Procurement practice
- Fostering a working environment that encourages and promotes innovation throughout the Project.
- Implementing a process for achieving Continual Improvement including the use of Lessons Learned.
- Identifying good practice and sharing this within the Alliance NOPs and TfNSW.

Novo Rail will regularly review this Commitment Statement to ensure its suitability, adequacy and relevance.



James Renwick
Alliance General Manager, June 2020

APPENDIX B: Environment and Sustainability Risk and Opportunity Register

Environment and Sustainability Risk & Opportunity Register

Project	Redfern Station Upgrade New Southern Concourse	ENVIRONMENT AND SUSTAINABILITY RISK & OPPORTUNITY REGISTER
Project Number	RSU-TAPO4	
Client	Novo Rail - Transport	

Risk Id	Status	Risk / Opportunity	Category	Risk	Cause, Trigger or Issue (How/why it can happen)	Potential Consequences (How it will affect the Project / Region / Hub)	Inherent Control / Mitigation			Risk Treatment / Mitigation	Residual Control / Mitigation			Risk Owner	Action Date
							I	P	Rating		I	P	Rating		
1	Open	Risk	Environmental	Erosion and sedimentation as a result of ground disturbance from construction activities. Minor excavation footprint <5m2	Mud-tracking on local roadways; earthworks (Shared-zones and concourse landings, piling works) Unfavourable weather conditions Inadequate erosion and sediment controls	Localised stormwater pollution, increased turbidity in local water ways resulting in potential impact on aquatic life. Non compliance with conditions under environmental planning approvals Potential for infringements and complaints. Reputational impact	Moderate	Probable	Amber	Implementation of erosion & sediment control measures; temporary drain controls for local drains; regular dry street-sweeping; street sweeper application; spill-response equipment readily accessible Site Establishment and Enabling Works Management Plan TAP04-PLN-EN-0003-SEEWMP	Moderate	Occasional	Amber	Environment and Sustainability Manager	On-going management of risk
2	Open	Risk	Environmental	Erosion and sedimentation as a result of ground disturbance from construction activities. Moderate excavation footprint >5-10m2	Mud-tracking on local roadways; earthworks (Shared-zones and concourse landings, piling works) Unfavourable weather conditions Inadequate erosion and sediment controls	Localised stormwater pollution, increased turbidity in local water ways resulting in potential impact on aquatic life. Non compliance with conditions under environmental planning approvals Potential for infringements and complaints. Reputational impact	Material	Occasional	Amber	Project site induction; pre-work briefings; tool-box talks and ECM documentation communicated; Implementation of erosion & sediment control measures; temporary drain controls for local drains; regular dry street-sweeping; street sweeper application; spill-response equipment readily accessible Site Establishment and Enabling Works Management Plan TAP04-PLN-EN-0003-SEEWMP Periodic site inspections	Material	Remote	Amber	Environment and Sustainability Manager	On-going management of risk
3	Open	Risk	Environmental	Reduced localised air quality attributed by excavation works	Inadequate containment measures in place e.g. shade cloth for dust-prone zones; stockpiles not covered/excessive heights Unfavourable weather conditions Unnecessary idling of plant/equipment (Shared-zones and concourse landings, piling works)	Reduced air quality resulting in potential complaints from the local community and travelling public	Low	Occasional	Green	Containment of spoil and regular removal of materials off-site; dust suppression as required ;limit vehicle/plant idling to minimise exhaust emissions Provision of shade-cloth material affixed to construction fencing/hoarding Site Establishment and Enabling Works Management Plan TAP04-PLN-EN-0003-SEEWMP Community Liaison Management Plan, TAP04-PLN-CC-0001 Real-time air quality monitoring Periodic site inspections	Low	Remote	Green	Environment and Sustainability Manager	On-going management of risk
4	Open	Risk	Environmental	Unlawful transport of wastes materials (movement of waste within NSW)	Waste transport activities contrary to legislative and regulatory requirements Cl. 48 (1) (a), PART 2 (Activities not premise-based) - Schedule 1, Protection of the Environment Operations Act 1997 Protection of the Environment Operations (Waste) Regulation 2014 EPA Licensed Waste Contractor is required for the transport of Restricted Solid Waste and/or Hazardous Waste for quantity amounts in excess of 200kg/litres for Category 1 trackable waste Waste loads are to be tracked for any one load for quantities >200kg of Category 1 trackable waste (trackable wastes within NSW)	Non compliance with environmental legislative and regulatory requirements Breach of applicable environmental planning approvals and TSRS Reputational impact	Severe	Occasional	Red	Waste classification reports communicated to waste transporter EPA Licensed Waste Contractor (Transport) Retention of controlled trackable waste records is a legal requirement Retention of all waste receipts/records for a minimum of 4 years Waste details recorded on the Project Waste Management Register Site Establishment and Enabling Works Management Plan TAP04-PLN-EN-0003-SEEWMP	Severe	Remote	Amber	Environment and Sustainability Manager	On-going management of risk
5	Open	Risk	Environmental	Unlawful transport of wastes materials (inter-state movement of waste)	Waste transport activities contrary to legislative and regulatory requirements Cl. 48 (1) (b), PART 2 (Activities not premise-based) - Schedule 1, Protection of the Environment Operations Act 1997 Protection of the Environment Operations (Waste) Regulation 2014 EPA Licensed Waste Contractor is required for the transport of Restricted Solid Waste and/or Hazardous Waste for quantity amounts in excess of 200kg/litres for Category 2 trackable waste Waste loads are to be tracked for any one load for quantities >200kg of Category 2 trackable waste (trackable wastes inter-state movement of waste)	Non compliance with environmental legislative and regulatory requirements Breach of applicable environmental planning approvals and TSRS Reputational impact	Severe	Occasional	Red	Waste classification reports communicated to waste transporter EPA Licensed Waste Contractor (Transport) Retention of controlled trackable waste records is a legal requirement Retention of all waste receipts/records for a minimum of 4 years Site Establishment and Enabling Works Management Plan TAP04-PLN-EN-0003-SEEWMP Waste details recorded on the Project Waste Management Register	Severe	Remote	Amber	Environment and Sustainability Manager	On-going management of risk

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Risk Id	Status	Risk / Opportunity	Category	Risk	Cause, Trigger or Issue (How/why it can happen)	Potential Consequences (How it will affect the Project / Region / Hub)	Inherent Control / Mitigation			Risk Treatment / Mitigation	Residual Control / Mitigation			Risk Owner	Action Date
							I	P	Rating		I	P	Rating		
6	Open	Risk	Environmental	Unlawful disposal of wastes materials Inert/GSW material types (Non-Trackable wastes)	Waste receiving facility not licensed to accept and dispose of waste materials	Non compliance with environmental legislative and regulatory requirements Breach of applicable environmental planning approvals and TSRS Reputational impact	Material	Occasional	Amber	Waste classification reports communicated to waste receiving facility EPA Licensed Waste Facility Retention of all waste receipts/records for a minimum of 4 years Waste details recorded on the Project Waste Management Register Site Establishment and Enabling Works Management Plan TAP04-PLN-EN-0003-SEEWMP	Material	Remote	Amber	Environment and Sustainability Manager	On-going management of risk
7	Open	Risk	Environmental	Unlawful disposal of wastes materials Non Inert/GSW material types (Trackable wastes)	Waste receiving facility not licensed to accept and dispose of waste materials	Non compliance with environmental legislative and regulatory requirements Breach of applicable environmental planning approvals and TSRS Reputational impact	Severe	Occasional	Red	Waste classification reports communicated to waste receiving facility EPA Licensed Waste Facility Retention of all waste receipts/records for a minimum of 4 years Waste details recorded on the Project Waste Management Register Site Establishment and Enabling Works Management Plan TAP04-PLN-EN-0003-SEEWMP	Severe	Remote	Amber	Environment and Sustainability Manager	On-going management of risk
8	Open	Risk	Environmental	Unlawful transport of wastes materials (Special waste - asbestos)	Waste transport activities contrary to legislative and regulatory requirements Utilisation of Waste Locate for the transport of >100kg of asbestos soils (non-friable) or 10m2 of asbestos sheeting (non-friable).	Non compliance with environmental legislative and regulatory requirements Breach of applicable environmental planning approvals and TSRS Reputational impact	Severe	Remote	Amber	Waste classification reports communicated to waste transporter EPA Licensed Waste Contractor (Transport) Retention of controlled trackable waste records is a legal requirement Asbestos material movement recorded on WasteLocate by Waste Transporter Retention of all waste receipts/records for a minimum of 4 years Waste details recorded on the Project Waste Management Register Site Establishment and Enabling Works Management Plan TAP04-PLN-EN-0003-SEEWMP	Severe	Improbable	Amber	Environment and Sustainability Manager	On-going management of risk
9	Open	Risk	Environmental	Loss of fuel/slurry discharge to local stormwater system Minor discharge (<5 litres quantity)	Faulty/poorly maintained plant/equipment resulting in loss fuel/discharge of liquids to local stormwater system/drainage lines	Localised stormwater pollution resulting in potential impact on aquatic life over the short-term	Low	Occasional	Green	Implementation of temporary drain controls for local drains; spill-response equipment readily accessible Hydraulic Incident Notification; INX Reporting Establishment of exclusion zone(s) Procurement RFQ process (environmental controls) Supplier inspection/audit program Pre-plant check of vehicles/plant/equipment Periodic service maintenance of vehicles/plant/equipment Site Establishment and Enabling Works Management Plan TAP04-PLN-EN-0003-SEEWMP Environmental Control Map(s)	Low	Remote	Green	Environment and Sustainability Manager	On-going management of risk
10	Open	Risk	Environmental	Loss of fuel/slurry discharge to local stormwater system Moderate discharge (>5-20 litres quantity)	Faulty/poorly maintained plant/equipment resulting in loss fuel/discharge of liquids to local stormwater system/drainage lines	Localised stormwater pollution resulting in potential impact on aquatic life over the short-term	Moderate	Occasional	Amber	Implementation of temporary drain controls for local drains; spill-response equipment readily accessible Hydraulic Incident Notification Environmental Incident and Complaint Report/INX Reporting Establishment of exclusion zone(s) Procurement RFQ process (environmental controls) Supplier inspection/audit program Pre-plant check of vehicles/plant/equipment Periodic service maintenance of vehicles/plant/equipment Site Establishment and Enabling Works Management Plan TAP04-PLN-EN-0003-SEEWMP Environmental Control Map(s)	Moderate	Remote	Green	Environment and Sustainability Manager	On-going management of risk
11	Open	Risk	Environmental	Loss of fuel/slurry discharge to local stormwater system High discharge (20-100 litres quantity)	Faulty/poorly maintained plant/equipment resulting in loss fuel/discharge of liquids to local stormwater system/drainage lines Vehicular collision	Localised stormwater pollution resulting in potential impact on aquatic life over the short to medium-term	Material	Remote	Amber	Implementation of temporary drain controls for local drains; spill-response equipment readily accessible Environmental Incident and Complaint Report/INX Reporting Immediate notification to external parties Establishment of exclusion zone(s) Procurement RFQ process (environmental controls) Supplier inspection/audit program Pre-plant check of vehicles/plant/equipment Periodic service maintenance of vehicles/plant/equipment Site Establishment and Enabling Works Management Plan TAP04-PLN-EN-0003-SEEWMP Environmental Control Map(s)	Material	Remote	Amber	Environment and Sustainability Manager	On-going management of risk

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							I	P	Rating		I	P	Rating		
12	Open	Risk	Environmental	Loss of fuel/slurry discharge to local stormwater system Significant discharge (>100 litres quantity)	Faulty/poorly maintained plant/equipment resulting in loss fuel/discharge of liquids to local stormwater system/drainage lines Vehicular collision	Localised stormwater pollution resulting in potential impact on aquatic life and requiring 12 months or more to return to pre-existing conditions	Severe	Remote	Amber	Implementation of temporary drain controls for local drains; spill-response equipment readily accessible Environmental Incident and Complaint Report/INX Reporting Immediate notification to external parties Establishment of exclusion zone(s) Procurement RFQ process (environmental controls) Supplier inspection/audit program Pre-plant check of vehicles/plant/equipment Periodic service maintenance of vehicles/plant/equipment Site Establishment and Enabling Works Management Plan TAP04-PLN-EN-0003-SEEWMP Environmental Control Map(s)	Severe	Improbable	Amber	Environment and Sustainability Manager	On-going management of risk
13	Open	Risk	Environmental	Local ground surface contaminated with pollutants (Inert/GSW waste load) <u>(occurrence outside project footprint)</u>	Lack of adequate containment for load resulting in loss of materials during transport Vehicular collision	Non compliance with environmental legislative and regulatory requirements Breach of applicable environmental planning approvals and TSRS Reputational impact	Low	Occasional	Green	Subcontract agreement - (provision of suitable vehicle containment systems) Inspection of load containment conducted prior to departing from project site Site Establishment and Enabling Works Management Plan TAP04-PLN-EN-0003-SEEWMP Environmental Control Map(s)	Low	Remote	Green	Environment and Sustainability Manager	On-going management of risk
14	Open	Risk	Environmental	Local ground surface contaminated with pollutants (Non inert & GSW waste load) <u>(occurrence outside project footprint)</u>	Lack of adequate containment for load resulting in loss of materials during transport Vehicular collision	Non compliance with environmental legislative and regulatory requirements Breach of applicable environmental planning approvals and TSRS Reputational impact	Material	Remote	Amber	Subcontract agreement - (provision of suitable vehicle containment systems) Inspection of load containment conducted prior to departing from project site Site Establishment and Enabling Works Management Plan TAP04-PLN-EN-0003-SEEWMP Environmental Control Map(s)	Material	Improbable	Green	Environment and Sustainability Manager	On-going management of risk
15	Open	Risk	Environmental	Damage/break to Council stormwater system (shared-zones work-zone)	Lack of reliable survey data or misinterpretation Poor lighting when undertaking excavation works	Potentially resulting in an increase in local groundwater/localised flooding Project delays Community complaints Reputational impact Delay of works Financial costs (alternative accommodation)	Moderate	Occasional	Amber	Pre-work briefings prior to works DSS Immediate notification to Client for communication to City Council Survey datum readily accessible Site Establishment and Enabling Works Management Plan TAP04-PLN-EN-0003-SEEWMP Community Liaison Management Plan, TAP04-PLN-CC-0001	Moderate	Remote	Green	Environment and Sustainability Manager	On-going management of risk
16	Open	Risk	Environmental	Damage/break to local sewer supply	Lack of reliable survey data or misinterpretation Poor lighting when undertaking excavation works	Potentially resulting in odour emissions and potential complaints from nearby residents and workers Community complaints Reputational impact Delay of works Financial costs (alternative accommodation)	Material	Occasional	Amber	Pre-work briefings prior to works DSS Immediate notification to Client for communication to City Council and Sydney Water Survey datum readily accessible Community Liaison Management Plan, TAP04-PLN-CC-0001 Site Establishment and Enabling Works Management Plan TAP04-PLN-EN-0003-SEEWMP	Material	Remote	Amber	Environment and Sustainability Manager	On-going management of risk
17	Open	Risk	Environmental	Materials not re-used or recycled and disposed of at landfill facility	Waste contractor/facility not set-up to re-use or recycle materials Cross-contamination of re-usable or recyclable materials	Excess waste materials to landfill Was-2 Diversion from landfill Reputational impact Increased landfill disposal costs (not able to be re-used/recycled at waste receiving facility)	Low	Remote	Green	Subcontract agreement (recycling of materials) Environmental and Sustainability monitoring (local site inspections) Site Establishment and Enabling Works Management Plan TAP04-PLN-EN-0003-SEEWMP Sustainability Management Plan, TAP04-PLN-MG-0011	Low	Improbable	Green	Environment and Sustainability Manager	On-going management of risk
18	Open	Risk	Environmental	Clean spoil, VENM/ENM transported to a landfill and not reused on site as backfill	Spatial constraints for backfilling excavated materials	Excess waste materials to landfill Was-2 Diversion from landfill Reputational impact	Moderate	Probable	Amber	Subcontract agreement (recycling of materials) Environmental and Sustainability monitoring (local site inspections) Backfilling of material where appropriate Procurement of supplier for the recycling of clean fill Re-use/recycling of materials for beneficial purposes through suitable reprocessing facility Site Establishment and Enabling Works Management Plan TAP04-PLN-EN-0003-SEEWMP Sustainability Management Plan, TAP04-PLN-MG-0011	Moderate	Remote	Green	Environment and Sustainability Manager	On-going management of risk
19	Open	Risk	Environmental	Clean spoil, VENM/ENM transported to landfill and not recycled at a facility beneficially for a range of purposes including organic garden mix, general garden mix, top soil, native garden mix and turn underlay mix.	Waste contractor not implementing agreement	Excess waste materials to landfill Was-2 Diversion from landfill Reputational impact	Material	Occasional	Amber	Subcontract agreement (recycling of materials) Site Establishment and Enabling Works Management Plan TAP04-PLN-EN-0003-SEEWMP Sustainability Management Plan, TAP04-PLN-MG-001	Material	Remote	Amber	Environment and Sustainability Manager	On-going management of risk

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							I	P	Rating		I	P	Rating		
20	Open	Risk	Environmental	Light pollution from temporary lighting impacting on local receivers	Flood lights (for security needs/emergency works generating light pollution and potential complaints from nearby receivers (Redfern Station footprint and immediate adjoining areas),	Disturbance to residents or neighbouring businesses Potential for complaints Reputational impact	Moderate	Occasional	Amber	Flood-lights/lighting towers to be directed only to the required work area and to be positioned away where practical from residential receivers Site Supervision Local community notifications Site Establishment and Enabling Works Management Plan TAP04-PLN-EN-0003-SEEWMP Community Liaison Management Plan, TAP04-PLN-CC-0001	Moderate	Remote	Green	Environment and Sustainability Manager	On-going management of risk
21	Open	Risk	Environmental	Exposed excavated zones/trenches potentially resulting in trapped fauna Noteworthy local fauna species: Grey-headed flying fox - Pteropus poliocephalus (Vulnerable species) Microbats - Microchiropteran bats (Threatened species)	Inadequate coverage of excavation zones and lack of inspections prior to backfilling	Fauna Injury/ death	Moderate	Remote	Green	Coverage of exposed excavated zones/trenches with ply or similar at end of day works/shut-down periods Inspection of excavated areas prior to backfilling Establishment of temporary steps/fauna escape route Notification to WIRES for any injured fauna and arrangement of alternative suitable habitat area Site Establishment and Enabling Works Management Plan TAP04-PLN-EN-0003-SEEWMP	Moderate	Improbable	Green	Environment and Sustainability Manager	On-going management of risk
22	Open	Risk	Environmental	Vegetation offsetting within project footprint	Spatial constraints for vegetation offsetting within project footprint	Non-alignment with PEN	Moderate	Remote	Green	Agreement under Alliance for suitable offsetting locations Offsetting locations included as part of design development and with relevant stakeholders Site Establishment and Enabling Works Management Plan TAP04-PLN-EN-0003-SEEWMP	Moderate	Improbable	Green	Environment and Sustainability Manager	On-going management of risk
23	Open	Risk	Environmental	Unexpected Archaeological Finds (Removal without approval)	Item not identified in available investigations/reports, i.e. SoHI	Non compliance with environmental legislative and regulatory requirements Breach of applicable environmental planning approvals and TSRS Reputational impact Project delays	Material	Occasional	Amber	Observe 'HOLD-POINT, cease immediately to prevent further disturbance. Do not interfere with potential relics, cordon off area and notify supervisor for further actioning, including immediate notification to TfNSW Aboriginal Cultural Heritage Management Plan, TAP04-PLN-EN-0007 Site Establishment and Enabling Works Management Plan TAP04-PLN-EN-0003-SEEWMP Unexpected Heritage Finds & Human Remains Procedure, TAP04-PLN-EN-0014 Historical Archaeological Research Design (HARD) Report, TAP04-PLN-EN-0008	Material	Remote	Amber	Environment and Sustainability Manager	On-going management of risk
24	Open	Risk	Environmental	Unexpected Archaeological Finds (Human Remains) (Removal without approval)	Item not identified in available investigations/reports, i.e. SoHI	Non compliance with environmental legislative and regulatory requirements Breach of applicable environmental planning approvals and TSRS Reputational impact Project delays	Severe	Remote	Amber	Environmental Control Map Delivery of briefings prior to works Aboriginal Cultural Heritage Management Plan, TAP04-PLN-EN-0007 Site Establishment and Enabling Works Management Plan TAP04-PLN-EN-0003-SEEWMP Unexpected Heritage Finds & Human Remains Procedure, TAP04-PLN-EN-0014 Historical Archaeological Research Design (HARD) Report, TAP04-PLN-EN-0008 Observe 'HOLD-POINT, cease immediately to prevent further disturbance. Do not interfere with potential relics, cordon off area and notify supervisor for further actioning, including immediate notification to TfNSW Implementation of Unexpected Heritage Finds Guideline -DMS-SD-115 Heritage NSW, Metropolitan Local Aboriginal Land Council and a suitably qualified archaeologist should be notified Note: Human remains that are found unexpectedly during the carrying out of works may be under the jurisdiction of the NSW State Coroner and must be reported to the NSW Police immediately.	Material	Improbable	Green	Environment and Sustainability Manager	On-going management of risk
25	Open	Risk	Environmental	Suspected Contaminated Land (i.e. during excavation/construction work activities)	Item not identified in available investigations/reports Guidelines on the Duty to Report Contamination under the Contaminated Land Management Act 1997 NEPM (Assessment of Site Contamination) – updated 2013	Project delays Additional financial costs in managing process	Severe	Remote	Amber	Observe 'HOLD-POINT, cease immediately to prevent further disturbance. Cordon off area and notify supervisor for further actioning, including immediate notification to TfNSW Implementation of reporting measures for suspected contaminated land Notification to TfNSW Representative(s) Conduct of further investigations by specialist consultants Unexpected Contaminated Land and Asbestos Finds Procedure TAP-PLN-EN-0015 Site Establishment and Enabling Works Management Plan TAP04-PLN-EN-0003-SEEWMP	Severe	Improbable	Amber	Environment and Sustainability Manager	On-going management of risk

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							I	P	Rating		I	P	Rating		
26	Open	Risk	Environmental	Unexpected HAZMAT Finds (asbestos) (i.e. during excavation/construction work activities)	Item not identified in available investigations/reports	Project delays Additional financial costs in managing process	Moderate	Probable	Amber	Observe 'HOLD-POINT', cease immediately to prevent further disturbance. Do not interfere with HAZMAT finds, cordon off area and notify supervisor for further actioning, including immediate notification to TfNSW Implementation of unexpected finds protocol Occupational hygienist supervision Third-party lab analysis for waste classification purposes Unexpected Contaminated Land and Asbestos Finds Procedure TAP-PLN-EN-0015 Site Establishment and Enabling Works Management Plan TAP04-PLN-EN-0003-SEEWMP	Moderate	Occasional	Amber	Environment and Sustainability Manager	On-going management of risk
27	Open	Risk	Environmental	Local visual aesthetics	Poor housekeeping potentially impacting upon local visual aesthetics, air quality, odours and stormwater	Community complaints Reputational impact	Moderate	Occasional	Amber	Temporary landscape and structural screening treatments including screening fences, and vegetation Letterbox drop notifications Schedule vehicle movements in a timely manner to reduce visual disturbance and traffic disruption Site Establishment and Enabling Works Management Plan TAP04-PLN-EN-0003-SEEWMP Environmental Control Map(s)	Moderate	Remote	Green	Environment and Sustainability Manager	On-going management of risk
28	Open	Risk	Environmental	Contaminated spoil received at site	Non-reputable supplier Inadequate quality check/screening of supplier	Activity or works delays Financial costs associated with local clean-up of contaminants at work-zone and disposal of unwanted materials	Material	Remote	Amber	Review/check of waste material inventory/records or similar prior to delivery Subcontractor/supply chain agreement Environmental and Sustainability Inspections Site Establishment and Enabling Works Management Plan TAP04-PLN-EN-0003-SEEWMP Soil, contamination and water sub-plan, TAP04-PLN-EN-0013 Unexpected Contaminated Land and Asbestos Finds Procedure TAP-PLN-EN-0015	Material	Improbable	Green	Environment and Sustainability Manager	On-going management of risk
29	Open	Risk	Environmental	Erosion and sedimentation as a result of ground disturbance from construction activities. Moderate excavation footprint >10m2	Mud-tracking on local roadways; earthworks (Shared-zones and concourse landings, piling works) Unfavourable weather conditions Inadequate erosion and sediment controls	Localised stormwater pollution, increased turbidity in local water ways resulting in potential impact on aquatic life. Non compliance with conditions under environmental planning approvals Potential for infringements and complaints. Reputational impact	Severe	Remote	Amber	Implementation of erosion & sediment control measures; temporary drain controls for local drains; regular dry street-sweeping; street sweeper application; spill-response equipment readily accessible Community Liaison Management Plan, TAP04-PLN-CC-0001 Site Establishment and Enabling Works Management Plan TAP04-PLN-EN-0003-SEEWMP Soil, contamination and water sub-plan, TAP04-PLN-EN-0013	Severe	Improbable	Amber	Environment and Sustainability Manager	On-going management of risk
30	Open	Risk	Reputational	Community concern	Community concern of proposed activities potentially resulting in localised noise and vibration impacts and other temporary visual impacts	Community complaints Reputational impact Delay of works Financial costs	Material	Probable	Red	Consultation with relevant stakeholders Letterbox drop notifications Noise & Vibration Management Plan, TAP04-PLN-EN-0005 OOHW Protocol TAP04-PLN-EN-0016 Community Liaison Management Plan, TAP04-PLN-CC-0001 Site Establishment and Enabling Works Management Plan TAP04-PLN-EN-0003-SEEWMP	Material	Occasional	Amber	TBC	On-going management of risk
31	Open	Risk	Environmental	Light pollution from temporary lighting impacting on local receivers	Flood lights for emergency works generating light pollution and potential complaints from nearby receivers (Ancillary areas-possession periods only, non-continuous) Macdonaldtown Sidings; Sydney Signal Box No:2, Ancillary Facility 2 (Sydney Trains Car Park); Ancillary Facility 3 (Marian Street Car Park)	Disturbance to residents or neighbouring businesses Potential for complaints Reputational impact	Moderate	Remote	Green	Flood-lights/lighting towers to be directed only to the required work area and to be positioned away where practical from residential receivers Site Supervision Local community notifications Site Establishment and Enabling Works Management Plan TAP04-PLN-EN-0003-SEEWMP	Moderate	Improbable	Green	Environment and Sustainability Manager	On-going management of risk
32	Open	Risk	Environmental	Noise from general construction activities resulting in impact to sensitive receivers (Outside of standard hours) and Ancillary facilities/laydown areas	Community notifications not undertaken; OOHWA not in place; works deviate to OOHWA and community notifications; cumulative noise impact from contractors not working under Redfern project scope (Ancillary areas-possession periods only, non-continuous) Macdonaldtown Sidings; Sydney Signal Box No:2, Ancillary Facility 2 (Sydney Trains Car Park); Ancillary Facility 3 (Marian Street Car Park)	Disturbance to residents or neighbouring businesses Potential for complaints Reputational impact	Moderate	Occasional	Amber	Acoustic attenuation (temporary noise barriers); staging and timing of vehicles incoming/outgoing; OOHWA; local notifications; coordination with contractors working on other projects in proximity and timing with Novo Rail works; SCLG: Non-tonal reversing beepers (or an equivalent mechanism) Limit idling of vehicle where practicable Noise & Vibration Management Plan, TAP04-PLN-EN-0005 OOHW Protocol TAP04-PLN-EN-0016 Community Liaison Management Plan, TAP04-PLN-CC-0001 Site Establishment and Enabling Works Management Plan TAP04-PLN-EN-0003-SEEWMP	Moderate	Remote	Green	Environment and Sustainability Manager	On-going management of risk
33	Open	Risk	Reputational	Inadvertent disconnection/damage to local station services	Lack of reliable survey data or misinterpretation Poor lighting when undertaking works	Disruption to local station services Reputational impact Delay of works Financial costs	Severe	Occasional	Red	Pre-work briefings prior to works DSS Immediate notification to Client for communication to City Council and utility authorities Survey datum readily accessible Community Liaison Management Plan, TAP04-PLN-CC-0001 Site Establishment and Enabling Works Management Plan TAP04-PLN-EN-0003-SEEWMP	Severe	Remote	Amber	Project Manager	On-going management of risk

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							I	P	Rating		I	P	Rating		
34	Open	Risk	Environmental	Removal of branches/trees without approval Marian Street Concourse footprint and in proximity	Incorrect vegetation removal/retention mark-up on drawings/reports Miscommunication of vegetation requiring removal/retention Vegetation not identified nor assessed under current planning approvals including CoAs	Non compliance with environmental legislative and regulatory requirements Breach of applicable environmental planning approvals and TSRS Reputational impact	Moderate	Occasional	Amber	CoAs under Final Determination Report Consistency Assessment including heritage assessment for vegetation located within Redfern Railway Station Group SHR 01234 and SHR Eveleigh Railway Workshops and SHR Eveleigh Chief Mechanical Engineers Office 01139 Consultation with City Council (landholder consent) Environmental Control Map Monitoring Assurance Program (MAP) Site Establishment and Enabling Works Management Plan TAP04-PLN-EN-0003-SEEWMP Ecological Management Plan, TAP04-PLN-EN-0011 Historical Archaeological Research Design (HARD) Report, TAP04-PLN-EN-0008 (Removal of subsurface components of tree, e.g. tree root structure) Preparation and submission of Removal or Trimming of Vegetation Application – DMS-FT-078 where not previously assessed under existing planning approvals Mark-up of vegetation permitted for removal against Arborist/Ecologist Report(s) prior to physical removal Qualified Arborist with a background and experience in ecology conduct a visual pre-check habitat inspection prior to de-vegetation, during and post activities to ensure no evidence of fauna, nesting, hatchlings, etc. Provision of pre and post clearance assessments and reports Novo Rail Environmental Representative to conduct a visual check in conjunction with Arborist.	Moderate	Remote	Green	Environment and Sustainability Manager	On-going management of risk
35	Open	Risk	Environmental	Removal of branches/trees (Eucalyptus Scorparia) without approval - Endangered species (NSW Biodiversity Act 2016) and Vulnerable species (Environment Protection and Biodiversity Conservation Act 1999) Marian Street Concourse footprint and in proximity	Incorrect vegetation removal/retention mark-up on drawings/reports Miscommunication of vegetation requiring removal/retention Vegetation not identified nor assessed under current planning approvals including CoAs	Non compliance with environmental legislative and regulatory requirements Breach of applicable environmental planning approvals and TSRS Reputational impact	Severe	Occasional	Red	CoAs under Final Determination Report BDAR Waiver Consistency Assessment including heritage assessment for vegetation located within Redfern Railway Station Group SHR 01234 and SHR Eveleigh Railway Workshops and SHR Eveleigh Chief Mechanical Engineers Office 01139 Consultation with City Council (landholder consent) Environmental Control Map Monitoring Assurance Program (MAP) Site Establishment and Enabling Works Management Plan TAP04-PLN-EN-0003-SEEWMP Ecological Management Plan, TAP04-PLN-EN-0011 Historical Archaeological Research Design (HARD) Report, TAP04-PLN-EN-0008 (Removal of subsurface components of tree, e.g. tree root structure) Preparation and submission of Removal or Trimming of Vegetation Application – DMS-FT-078 where not previously assessed under existing planning approvals Mark-up of vegetation permitted for removal against Arborist/Ecologist Report(s) prior to physical removal Qualified Arborist with a background and experience in ecology conduct a visual pre-check habitat inspection prior to de-vegetation, during and post activities to ensure no evidence of fauna, nesting, hatchlings, etc. Provision of pre and post clearance assessments and reports Novo Rail Environmental Representative to conduct a visual check in conjunction with Arborist.	Severe	Remote	Amber	Environment and Sustainability Manager	On-going management of risk
36	Open	Risk	Environmental	Unlawful removal/damage of heritage (fixed and moveable) within State heritage curtilage areas	Inaccuracies within Reports and/or drawings Lack of site supervision during works Inadequate communication of heritage requirements	Non compliance with environmental legislative and regulatory requirements Breach of applicable environmental planning approvals' TSRS Reputational impact Project delays	Material	Probable	Red	CoAs under Final Determination Report Consistency Assessment including heritage assessments Environmental Control Map Monitoring Assurance Program (MAP) Site induction to include permitted heritage items to be removed/destroyed Tool-box talks/Pre-work briefings addressing the need for reporting of any accidental damage to non-approved heritage fabric Physical usage of markers/stickers to delineate heritage fabric to remain as-is Establishment of exclusion zones/no-go zones Limited use of tools to mitigate potential damage to adjoining heritage fabric (brick-work) Heritage Archival Recording & Salvage Report Details of change to be updated on the S.170 Register Construction Heritage Management Plan, (Project-specific), TAP04-PLN-EN-0012 Historical Archaeological Research Design (HARD) Report, TAP04-PLN-EN-0008 (ground-breaking-activities) Site Establishment and Enabling Works Management Plan TAP04-PLN-EN-0003-SEEWMP	Material	Remote	Amber	Environment and Sustainability Manager	On-going management of risk

Project	Redfern Station Upgrade New Southern Concourse
Project Number	RSU-TAP04
Client	Novo Rail - Transport

ENVIRONMENT AND SUSTAINABILITY RISK & OPPORTUNITY REGISTER

Risk Id	Status	Risk / Opportunity	Category	Risk	Cause, Trigger or Issue (How/why it can happen)	Potential Consequences (How it will affect the Project / Region / Hub)	Inherent Control / Mitigation			Risk Treatment / Mitigation	Residual Control / Mitigation			Risk Owner	Action Date
							I	P	Rating		I	P	Rating		
37	Open	Risk	Environmental	Removal/damage of heritage (fixed and moveable) outside State heritage curtilage areas	Inadequate communication Not following project-specific documentation including required mitigation measures	Non compliance with environmental legislative and regulatory requirements Breach of applicable environmental planning approvals* TSRs Reputational impact Project delays	Moderate	Occasional	Amber	CoAs under Final Determination Report Consistency Assessment including heritage assessments Environmental Control Map Monitoring Assurance Program (MAP) Site induction to include permitted heritage items to be removed/destroyed Tool-box talks/Pre-work briefings addressing the need for reporting of any accidental damage to non-approved heritage fabric Physical usage of markers/stickers to delineate heritage fabric to remain as-is Establishment of exclusion zones/no-go zones Limited use of tools to mitigate potential damage to adjoining heritage fabric (brick-work) Heritage Archival Recording & Salvage Report Details of change to be updated on the S.170 Register Historical Archaeological Research Design (HARD) Report, TAP04-PLN-EN-0008 (ground-breaking-activities) Site Establishment and Enabling Works Management Plan TAP04-PLN-EN-0003-SEEWMP	Material	Occasional	Green	Environment and Sustainability Manager	On-going management of risk

APPENDIX C: Environmental Risk Action Plans (ERAPS)

Significant environmental issues will be managed according to the Environmental Risk Action Plans (ERAPS) below. Control measures documented in the Environmental Risk Action Plans shall be guided by the requirements of the Environmental Primary Standards and environmental mitigation measures.

Table E-1 ERAP Register

ERAP Ref	Title	Residual risk level (<i>Note: risk levels may vary slightly, dependent on specific activities</i>)
ERAP01	Noise and Vibration	Moderate-High
ERAP02	Heritage (Indigenous and Non-Indigenous)	Moderate-High
ERAP03	Waste Management	Moderate
ERAP04	Water Quality, Site Drainage and Erosion and Sediment Control	Moderate
ERAP05	Traffic, access and pedestrian Management	Moderate
ERAP06	Hazardous / Contaminated Material	Moderate
ERAP07	Trade Waste	Low
ERAP08	Concrete Wash	Low
ERAP09	Bulk Liquids, Storage and Movement	Low
ERAP10	Biodiversity	Low
ERAP011	Dust and Air Quality	Low
ERAP011	Visual Amenity	Low

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ERAP 01: Noise and Vibration

The set targets/s with measurable KPIS and supporting measurement tool, assist in achieving the overarching objective. These are summarised in the Table below.

Objective	Target	Measurement Tool	Key Performance Indicators (KPIs)
To comply with contractual requirements and ensure that noise and vibration from construction activities does not cause environmental nuisance	No valid noise / vibration complaints resulting from construction works for the Enabling Works Phase	Consultation Manager (CM) – no complaints lodged in the database for the duration Phase	Zero (0) complaints lodged in the database for the duration of the Phase
	No noise and vibration impacts on external receptors	Consultation Manager (CM) – no complaints lodged in the database for the duration Phase	Zero (0) complaints lodged in the database for the duration of the Phase
	Undertake work activities through feasible and reasonable means in addressing project specific noise management levels	Noise logger to retrieve noise data. Noise data/information is captured in the Noise data report form, records retained on Asite and also a copy sent to TfNSW Weekly inspections to be recorded on the Environmental and Sustainability Inspection Report	Noise levels need to be maintained around set targets as per the CoA

Note: Consultation requirements: Noise & Vibration Management Plan, TAP04-PLN-EN-0005 with City Council; CoA C6 (b).

The Environmental Controls, responsible person, timeframe for implementation, consultation required and any applicable reference documents, are summarised in the table below.

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Ref. #	Environmental controls / mitigation measures	Responsible person	Timeframe for implementation	Reference documents
NV1	<p>Audible construction works unless otherwise approved by the Client shall be restricted to:</p> <p>7:00 am to 6:00 pm Monday – Friday 8:00 am to 6:00 pm Saturdays At no time on Sundays or public holidays. No work outside of these hours without approval.</p>	<p>Site Manager Environmental and Sustainability Manager Environmental Adviser</p>	<p>During planning of works and to be implemented during works</p>	<p><i>Environmental Planning and Assessment Act 1979</i></p> <p><i>Protection of the Environment Operations Act 1997</i></p> <p><i>ISEPP (2007)</i></p>
NV2	<p>Where work outside the hours nominated above hours is required, approval shall be gained prior to the commencement of works. The Out of Hours Work Protocol (Figure 14-1) is to be followed.</p> <p><i>Note: Works which can be undertaken outside of standard construction hours without any further approval include:</i></p> <ul style="list-style-type: none"> - for the delivery of materials required by the NSW Police Force or other appropriate authority for safety reasons; or - where it is required in an emergency to avoid injury or the loss of life, to avoid damage or loss of property or to prevent environmental harm; or - where the relevant road authority has advised the Proponent in writing that a road occupancy licence will not be issued during the Standard hours - where the rail authority has advised the Proponent in writing that a Rail Possession is required and approval has been given to complete Work during the rail possession; or - where an EPL is not required or in force, Work approved under an Out-of-Hours Work Protocol developed in accordance with Condition D16; or - construction that causes: <ul style="list-style-type: none"> - LAeq(15 minute) noise levels no more than 5 dB(A) above the rating background level at any residence in accordance with the Interim Construction Noise Guideline (DECC, 2009), and 	<p>Site Manager / Project Leader Environmental and Sustainability Manager Environmental Adviser Communications Manager</p>	<p>During planning of works and to be implemented during works</p>	<p>CEMF Section 5.5 and Section 6.2</p> <p>Noise & Vibration Management Plan, TAP04-PLN-EN-0005</p> <p>Australian Standard, AS2436:2010 – Guide to noise and vibration control on construction, demolition and maintenance sites</p> <p>Australian Standard, AS1055:1997 – Acoustics – Description and measurement of environmental noise</p> <p>British Standard, BS5228-1:2009 Code of practice for noise and vibration control on construction and open sites</p> <p>British Standard, BS7385-2:1993 Evaluation and</p>

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Ref. #	Environmental controls / mitigation measures	Responsible person	Timeframe for implementation	Reference documents
	<ul style="list-style-type: none"> - LAeq(15 minute) noise levels no more than the 'Noise affected' noise management levels specified in Table 3 of the Interim Construction Noise Guideline (DECC, 2009) at other sensitive land uses, and - continuous or impulsive vibration values, measured at the most affected residence are no more than the maximum values for human exposure to vibration, specified in Table 2.2 of Assessing Vibration: a technical guideline (DEC, 2006), and - intermittent vibration values measured at the most affected residence are no more than the maximum values for human exposure to vibration, specified in Table 2.4 of Assessing Vibration: a technical guideline (DEC, 2006); or - where negotiated agreements with directly affected residents and other sensitive land uses have been reached. 			<p>measurement for vibration in buildings</p> <p>German Institute for Standardisation, DIN4150-3:1999-02 Structural vibration – Effects of vibration on structures</p> <p>TfNSW Noise and Vibration Strategy 2019</p> <p>Interim Construction Noise Guidelines 2008</p>
NV3	On becoming aware of the need for emergency work TfNSW would notify the ER, Planning Secretary of the reasons for such work. TfNSW would notify all noise and/or vibration affected sensitive receivers of the likely impact and duration of those works	TfNSW Environmental and Sustainability Manager Community and Stakeholder Engagement Manager	During works	
NV4	Where construction vibration is found to be causing a disturbance, the construction methods shall be reviewed to reduce the impact where possible	Environmental and Sustainability Manager Environmental Adviser	During works	
NV5	Compounds and sheds will be located so as to have no negative impact on the noise amenity of nearby sensitive receptors	Site Manager	Prior to works	
NV6	Delivery operations or other noise generating activities at compound and storage areas will take place during the designated construction hours nominated above, unless specifically required by Police or RMS requirements	Site Manager Construction Supervisor	During planning of works and to be implemented during works	
NV7	Where practical, substitution of excessively noisy processes with alternative processes e.g. swapping diesel for electric plant/equipment	Construction Supervisor	Prior to works	

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Ref. #	Environmental controls / mitigation measures	Responsible person	Timeframe for implementation	Reference documents
NV8	Avoiding where practical the use of noisy plant simultaneously close together or adjacent to sensitive receptors	Construction Supervisor All personnel conducting works	During planning of works and to be implemented during works	
NV9	All plant will be maintained in accordance with the manufacturer's requirements	Construction Supervisor	Prior to works	
NV10	Undertaking loading and unloading activities away from sensitive areas and during designated construction hours	Construction Supervisor All personnel conducting works	During works	
NV11	Plant and equipment will have effective pollution control and sound attenuation devices fitted. High efficiency mufflers must be fitted to all plant and equipment to minimise the generation of noise.	Construction Supervisor Environmental and Sustainability Manager Environmental Advisor	Prior to works	
NV12	Select the most appropriate plant and equipment to minimise noise generation and include where necessary screening and enclosures	All personnel conducting works	During planning of works and to be implemented during works	
NV13	On-site generators and auxiliary power sources used during construction should be positioned away from existing buildings to buffer noise/ vibration	Construction Supervisor Environmental and Sustainability Manager Environmental Adviser	During works	
NV14	Regular checks are to be undertaken to ensure all equipment and vehicles are in good working order and are operated correctly. Checks include engine covers, defective silencing equipment, rattling components and leakages in compressed airlines	Construction Supervisor All personnel conducting works	Prior to starting work and during works	
NV15	Awareness training and information will be provided to project personnel in relation to the noise and vibration requirements on the project and the need to minimise vibration when in close proximity to operational areas	Environmental and Sustainability Manager Environmental Adviser	Prior to works	
NV16	Plant, equipment and processes shall be selected so as to limit construction related vibration	All personnel conducting works	During planning of works and to be implemented during works	

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Ref. #	Environmental controls / mitigation measures	Responsible person	Timeframe for implementation	Reference documents
NV17	Restrict or modify working hours to minimise impact if required. Include periods of respite where possible when vibration generating activities are being undertaken	Construction Supervisor Environmental and Sustainability Manager Environmental Adviser Communications Manager	During planning of works and to be implemented during works	
NV18	Daily inspection (pre-start) checks and regular servicing of equipment to ensure that equipment is in good working order	Construction Supervisor	Prior to starting work for the shift	
NV19	Weekly inspection checks to detect 'noisy' equipment. (typically this would be fault related)	Construction Supervisor Environmental and Sustainability Manager Environmental Adviser	Daily or weekly before starting works for the next shift	
NV20	Hoarding and enclosures will be implemented where required to minimise airborne noise impacts	Construction Supervisor Environmental and Sustainability Manager Environmental Adviser	Prior to works	
NV21	Mitigation measures would be applied when the following residential ground-borne noise levels are exceeded: (a) evening (6:00 pm to 10:00 pm) — internal LAeq(15 minute): 40 dB(A); and (b) night (10:00 pm to 7:00 am) — internal LAeq(15 minute): 35 dB(A).	Construction Supervisor Environmental and Sustainability Manager	During works	
NV22	Vibration testing would occur before and during vibration generating activities that have the potential to impact on heritage items to identify minimum working distances to prevent cosmetic and structural damage. In the event that the vibration testing and monitoring shows that the preferred values for vibration are likely to be exceeded, construction methodology would be reviewed and, if necessary, amend the methodology and/or implement additional mitigation measures to prevent damage.	Construction Supervisor Environmental and Sustainability Manager	Before and during works	

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Ref. #	Environmental controls / mitigation measures	Responsible person	Timeframe for implementation	Reference documents
NV23	Before works commencement, a heritage specialist would be sought for advice on the impacts to heritage-listed structures from installing equipment used for vibration, movement and noise monitoring before its installation.	Construction Supervisor Environmental and Sustainability Manager	Prior to works	
NV24	At no time can noise generated by construction exceed the National Standard for exposure to noise in the occupational environment of an eight-hour (8hr) equivalent continuous A-weighted sound pressure level of LAeq,8h of 85 dB(A) for any employee working at a location near the SS1.	Construction Supervisor Environmental and Sustainability Manager	During works	
NV25	All nearby residents and sensitive receivers impacted by noise levels from the Project which are expected to exceed the NML would be consulted notified prior to the commencement of the particular activity, with the highest consideration given to those that are predicted to be most affected as a result of the works. The information provided to the receivers will include: - programmed times and locations of construction work - the hours of proposed works - construction noise and vibration impact predictions - construction noise and vibration mitigation measures being implemented on site.	Community and Stakeholder Engagement Manager	During planning of works and to be implemented during works	
NV26	Work generating noise with special audible characteristics (such as jack hammers, rock breakers, piling rigs and diamond saws) and/or vibration levels would be scheduled during less sensitive time periods for receivers for example, before 10:00 pm or as determined during community consultation) where feasible and reasonable	Site Supervisor	During planning of works and to be implemented during works	
NV27	Vehicle movements would be routed away from sensitive receivers and scheduled during less sensitive times where feasible and reasonable. The speed of vehicles would be limited, and the use of engine compression brakes avoided.	All personnel	During works	
N28	OOHWA Protocol to be followed in addressing noise generating activities associated with piling works	Construction Supervisor	Before and during works	

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Ref. #	Environmental controls / mitigation measures	Responsible person	Timeframe for implementation	Reference documents
		Environmental and Sustainability Manager		
N29	Mulching would not be undertaken during any out-of-hours periods due to high noise levels produced	Construction Supervisor	During works	

Emergency scenarios as well as preparation and response measures are detailed in the table below.

Emergency scenario:

Responsibility: Project Manager and ESTR

Preparation measures	Response measures
<ul style="list-style-type: none"> ■ Selection of appropriate plant when working near structures; minimise size and impact ■ Observe safe working distances during planning phase ■ Implement vibration monitoring prior and during vibration generating works to ensure compliance with standards. 	<ul style="list-style-type: none"> ■ Activities causing vibration would cease under direction of the ESTR in conjunction with the Project Manager. Any occupants of buildings may be evacuated with due consideration to safety, and the area secured to prevent unauthorised access ■ A structural assessment to be undertaken; and if any damage is associated with construction, rectification work would be agreed.

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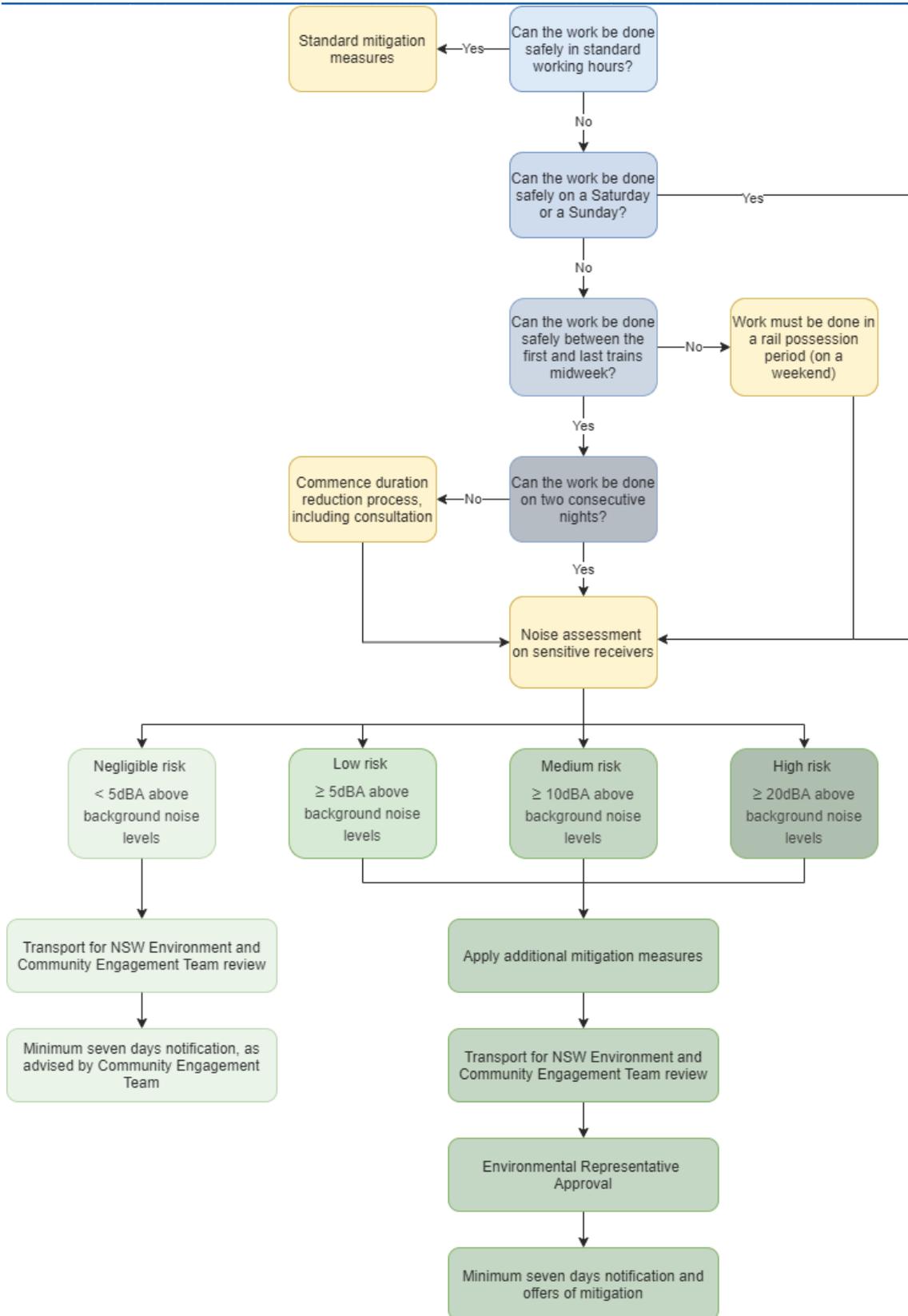


Figure 14-1 Out of Hours Work Protocol

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ERAP 02: Heritage (Indigenous and non-Indigenous)

The set targets/s with measurable KPIS and supporting measurement tool, assist in achieving the overarching objective. These are summarised in the Table below.

Objective	Target	Measurement Tool	Key Performance Indicators (KPIs)
To comply with contractual and legislative requirements and ensure that existing and undiscovered heritage and archaeological items are protected from construction activities	No disturbance or damage to existing known heritage sites or items	Visual monitoring weekly of any existing items Completion of the Environmental and Sustainability Inspection Report INX InSystem – logged as an incident if damage occurs	Zero (0) instances of disturbance or damage to existing known heritage sites or items
	Unknown or undocumented heritage sites are not knowingly destroyed, defaced or damaged	INX InSystem – logged as an incident if damage occurs	Zero (0) incidents occurring to unknown or unexpected finds of heritage
	Identify and protect any new artefacts, heritage sites or relics before any harm can take place and for consideration of incorporation into site features	New artefacts are communicated and reported to the TfNSW heritage representative – records of communications are kept Photographs of heritage items and evidence of delineation are retained	100% of all new artefacts or heritage sites are protected

Note: Consultation requirements: Heritage Management Plans with Heritage Council of NSW, Heritage NSW and City of Sydney Council (CoA C6(e) Plans: Aboriginal Cultural Heritage Management Plan, TAP04-PLN-EN-0007; Heritage Construction Management Plan, TAP04-PLN-EN-0012; Historical Archaeological Research Design (HARD) Report, TAP04-PLN-EN-0008.

The Environmental Controls, responsible person, timeframe for implementation, consultation required and any applicable reference documents, are summarised in the table below.

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Ref. #	Environmental controls / mitigation measures	Responsible person	Timeframe for implementation	Reference documents
HA1	Awareness training will be provided to relevant Project personnel, including relevant sub-contractors on the location of known Indigenous and non-Indigenous heritage items, areas of archaeological sensitivity and artefacts (including photographs where available) along with key requirements from this plan through the project induction. Toolboxes and targeted training would also be employed where appropriate, to sites where there is a high risk of direct impacts to heritage.	All personnel The Environmental & Sustainability Manager	During planning of works and to be implemented during works	<i>Environmental Planning and Assessment Act 1979</i> <i>Protection of the Environment Operations Act 1997</i> <i>National Parks and Wildlife Act 1974</i>
HA2	Location of currently identified archaeological and heritage items within the immediate vicinity of the work zones are to be nominated on the Environmental Control Map/s (ECMs)	The Environmental & Sustainability Manager	During planning of works and to be implemented during works	<i>Heritage Act 1977</i> <i>ISEPP (2007)</i>
HA3	Exclusion fencing or No Go Zones will be established around the perimeter of any identified heritage or archaeological items. Distances would consider safe work distances and likely indirect/direct impacts to the item.	The Environmental & Sustainability Manager Site Supervisor	During planning of works and to be implemented during works	Heritage Management Plan CEMF Section 6.3
HA4	Should any new items be discovered that are suspected of being of heritage significance, whether Indigenous or non-Indigenous, work in the specific area would cease and the Novo Rail Environmental and Sustainability Manger is to be notified immediately for actioning in accordance with the Unexpected Heritage Finds & Human Remains Procedure, TAP04-PLN-EN-0014	The Environmental & Sustainability Manager All personnel	During works	Historical Archaeological Research Design (HARD) Report Heritage Archival Recording & Salvage Report
HA5	Should suspected heritage or archaeological items including human remains be found during the works, the following procedure will apply: - Work is to cease in the area immediately and a representative from the Novo rail Environmental team is to be notified - The matter is to be referred to the client - The object is to be left in place - GPS coordinates of the item are to be noted - Photographic records of the item and its location are to be made	All personnel	During works	Conservation Management Plan Heritage Interpretation Strategy/Plan

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Ref. #	Environmental controls / mitigation measures	Responsible person	Timeframe for implementation	Reference documents
HA6	A suitably qualified and experienced Heritage Architect has been engaged to provide guidance on the management of potential construction heritage impacts.	Environmental and Sustainability Manager Heritage Architect	Prior to works	
HA7	Identified impacts to the identified heritage items in Section 8.2.2 would be minimised where feasible through both detailed design and construction	Environmental and Sustainability Manager Heritage Architect Design Manager	During planning of works and to be implemented during works	
HA8	Novo Rail operations will not harm, modify or otherwise impact any heritage items outside the work zone boundary. Project boundaries would be clearly delineated where relevant	Site Supervisor Environmental and Sustainability Manager	During planning of works and to be implemented during works	
HA9	Vibration monitoring shall be conducted prior and during vibration generating works to ensure compliance with environmental planning approval requirements and applicable standards.	Environmental and Sustainability Manager	During works	
HA10	Where vibration goals are likely to be exceeded, works shall be amended to assist in complying with the vibration goals. The placement of vibration monitors would consider the heritage fabric of the item. In the event of appreciable vibration levels arising, measures would be put in place to reduce vibration to within acceptable levels. Such measures may include reducing plant size, changing operational settings (such as turning off the vibratory function of the machine), and using alternative plant, and/or utilising alternate construction methodology and mitigation measures.	Environmental and Sustainability Manager	During works	
HA11	Where non-Aboriginal heritage items have been identified as having the potential to be impacted by construction vibration or ground settlement the following would be implemented: - A ground settlement assessment would be undertaken during detailed design to confirm predicted impacts on heritage structures. Process to be managed through a Technical memo provided by the geotechnical Team. - Completion of existing condition surveys prior to the commencement of construction for heritage items within the Project	Site Supervisor Environmental and Sustainability Adviser	During planning of works and to be implemented during works Post-Main Works construction Phase	

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Ref. #	Environmental controls / mitigation measures	Responsible person	Timeframe for implementation	Reference documents
	corridor or that have been identified during detailed design to be within recommended safe working distances to surface works. - A post-construction condition survey would also be undertaken of these items to identify if impacts have occurred.			
HA12	Prior to conducting acoustic treatment at any heritage items, the Project shall obtain the advice of a suitably qualified and experienced built heritage expert. The recommended management measures would then be implemented by the Project to ensure any such work is carried out in a manner sympathetic to the heritage values of the item.	Environmental and Sustainability Adviser	During planning of works and to be implemented during works	
HA13	Where feasible and reasonable, the Project will be designed and constructed to avoid identified Indigenous items.	All personnel	During planning of works and to be implemented during works	
HA14	Any listed AHIMS areas shall be clearly delineated prior to construction works if there is a risk of direct impacts as a result of works.	Environmental Adviser Environmental and Sustainability Manager Site Supervisor	During planning of works and to be implemented during works	
HA15	Vibration monitoring would be conducted for vibration intensive works within proximity of recognised heritage areas/fabric The need for vibration monitoring would be informed by a preliminary screening of activities at this location to identify activities which have the potential for vibration at these areas of sensitivity, e.g piling at activities at platforms and surrounds such as the SSER	Environmental Adviser Environmental and Sustainability Manager	During works	
HA16	Avoid any damage to heritage fabric within the State Heritage curtilage boundaries	Environmental Adviser Environmental and Sustainability Manager	Prior to works	
HA17	In the event however that any human remains and Aboriginal archaeological deposits are exposed, a HOLD-POINT is to be observed with cease of works, notification to the Line Supervisor, PM and Environmental and Sustainability Manager and demarcation of the area.	Supervisor Project Manager Environmental and Sustainability Manager	Immediately upon uncovering an unexpected find	

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Ref. #	Environmental controls / mitigation measures	Responsible person	Timeframe for implementation	Reference documents
HA18	Controls preventing damage to heritage by applying bunting and distancing work activities where safe to do from engine dive vents and other platform structures at this work-zone need to be communicated	Project Manager Environmental and Sustainability Manager	Prior to works	
HA19	Use of minor plant where practicable for undertaking works at platform locations in an effort to minimise potential impact to heritage fabric	All personnel	During works	
HA20	Heavy equipment to be set up from the rail side of platforms where practicable to minimise concentrated loads	All personnel	During planning of works and to be implemented during works	
HA21	Obtain detailed structural engineering advice regarding maximum weights on the platform, depth of trenches and any requirements for temporary propping to ensure no damage to heritage fabric	Environmental and Sustainability Manager	Prior to works	
HA22	Unexpected archaeological finds must be managed in accordance with the Transport for NSW Unexpected Archaeological Finds procedure, or equivalent. <i>Note: Exercise the Project Archaeologist Communication Protocol for any unexpected finds</i>	All personnel	Immediately upon uncovering an unexpected find	
HA23	Carefully mark out positions for work activities to minimise impacts on original brickwork and similar. Sufficient clearances to be observed when undertaking works in proximity to heritage structures	All personnel	Prior to works	
HA24	Archival recording must be undertaken to document the process for the heritage fabric that may require to be disturbed.	Heritage specialist Environmental and Sustainability Manager	During works	
HA25	Structural engineering advice is to be sought (where required) in making repair works to ensure the integrity of heritage fabric elements	Environmental and Sustainability Manager	During works	
HA26	Take care of adjoining structures to avoid incidental damage. Ensure site is left tidy and that the works are complete and safe for public use	All personnel	During works	
HA27	A specialist tradesperson, well versed in working with heritage fabric, would be engaged during the construction stage of the Project.	Heritage Specialist	During planning of works and to be implemented during works	

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Ref. #	Environmental controls / mitigation measures	Responsible person	Timeframe for implementation	Reference documents
HA28	<p>The heritage elements on Platform 4/5, 6/7 and 8/9 buildings would be conserved and protected by:</p> <ul style="list-style-type: none"> - using traditional repair and conservation methods for detailing proposed works - ensuring the demolition of the extension to the Platform 8/9 building would not damage the surrounding fabric - retaining original features of the building and their conservation and restoration if feasible - incorporating new sympathetic fabric in accordance with the guidelines of the Burra Charter. 	All personnel	During planning of works and to be implemented during works	
HA29	<p>The warehouse character of 125-127 Little Eveleigh Street would be retained by:</p> <ul style="list-style-type: none"> - retaining external building elements: masonry walls, parapet line of the roof, fenestration, patina (including painted signs) of the brickwork (including remnant painted signs) - internal building elements: original timber columns, original exposed timber framing to floors and ceilings (subject to detailed structural review) - designing new entry canopies to be a slim profile, sympathetic to the colours and material of the existing building - modifying the external openings, where appropriate, to make reference to the existing fenestration pattern of the building - undertaking conservation works and repair works to the exterior of the building - designing the new Colorbond roof to be sympathetic to the existing colour palette of the building - avoiding anti-graffiti paint to the exterior of the brickwork. 	All personnel	During planning of works and to be implemented during works	
HA30	<p>The existing SHR curtilage of the Eveleigh Chief Mechanical Engineer's Office would be protected by:</p> <ul style="list-style-type: none"> - retaining and protecting the existing trees 	All personnel	During planning of works and to be implemented during works	

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Ref. #	Environmental controls / mitigation measures	Responsible person	Timeframe for implementation	Reference documents
	- protecting and retaining the existing garden within the heritage boundary of the building.			
HA31	<p>An Archival Recording must be undertaken of all heritage-listed items, contributory items and conservation area streetscapes that will be affected by Work.</p> <p>The recordings must capture the potentially affected heritage listed items impacted by Works, and the immediate surrounds, before, during and after the works.</p> <p>Archival recording must include but not limited to: (a) identified significant views; (b) Platform 1 Office Building and surrounding area; (c) Platform 4/5, 6/7 and 8/9 buildings; (d) retaining walls on Platform 1 and 10; (e) examples of various platform facings; (f) 125-127 Little Eveleigh Street; and (g) Little Eveleigh Street streetscape.</p>	Environmental and Sustainability Manager	Prior to work, during and after the works.	
HA32	Heritage fabric is conserved through the reuse of salvageable heritage fabric where possible. This is achieved through collaborative workshops and team innovations	All personnel	Prior to and during the works	
HA33	Temporary site office cabins would be installed on blocks with sufficient clearance from tracks so as to not impact heritage tracks	Environmental and Sustainability Manager Site Supervisor	Prior to the works	
HA34	Tree removal in the area of high archaeology potential will be undertaken in line with the HARD methodology	Heritage specialist Environmental and Sustainability Manager Site Supervisor	Prior to and during works	
HA35	Excavation works planned for areas with potential to encounter archaeological relics will be monitored by the excavation director and qualified archaeologist. Excavation of non-significant fills can be partly or wholly monitored, at the discretion of the archaeologist.	Heritage specialist Environmental and Sustainability Manager Site Supervisor	Prior to and during works	

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Ref. #	Environmental controls / mitigation measures	Responsible person	Timeframe for implementation	Reference documents
HA37	Prior to undertaking any works that have the potential to impact on historical archaeology, a suitably qualified archaeologist whose experience complies with the NSW Heritage Council's Criteria for Assessment of Excavation Directors (July, 2011) (referred to as the Excavation Director) will be engaged to oversee and advise on matters associated with historical archaeology (i.e. non-Aboriginal), and to prepare a Historical Archaeological Research Design and Excavation Methodology	Heritage specialist/Excavation Director Environmental and Sustainability Manager Site Supervisor	Prior to works	
HA38	Where excavation works are required in the vicinity of potential archaeological sites, the Excavation Director will be present to advise on archaeological issues and oversee excavation works. The Excavation Director will be given the authority to advise on the duration and extent of oversight required during archaeological excavations	Heritage specialist/Excavation Director Environmental and Sustainability Manager Site Supervisor	During works	

Emergency scenarios as well as preparation and response measures are detailed in the table below.

Emergency scenario:

Responsibility: ESTR

Preparation measures	Response measures
<ul style="list-style-type: none"> ■ Ensure site investigations detail any heritage items on or in proximity to the site ■ Include awareness material within the project induction ■ Develop a 'stop works' protocol for any heritage find on site. 	<ul style="list-style-type: none"> ■ Cease works and stabilise the area, under the direction of the Project Manager in conjunction with the Environmental & Sustainability Manager. The Environmental & Sustainability Manager is to report the remnants to the client and regulatory authorities. ■ Request an archaeologist to assess the significance and archaeological potential of the uncovered feature.

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ERAP 03: Waste Management

The set targets/s with measurable KPIS and supporting measurement tool, assist in achieving the overarching objective. These are summarised in the Table below.

Objective	Target	Measurement Tool	Key Performance Indicators (KPIs)
To comply with contractual and legislative requirements and ensure that waste from construction activities does not have the potential to escape from the site and cause an environmental nuisance / harm.	No at-risk observations where waste has been identified as having the potential to move off-site	Weekly inspections to be recorded on the Environmental and Sustainability Inspection Report	Zero (0) at-risk observations of waste having the potential to move off-site
	All transport of waste will be tracked and delivered to a facility that is legally able to accept that type of waste	Waste Management Tracker under the Environmental and Sustainability Management Register Monthly Reporting	100% of all waste is tracked and delivered to facilities that are legally able to accept that waste Zero (0) occurrences of non-compliance breaches
	The NSW EPA Waste Classification Guidelines waste management hierarchy is to be adopted, where practicable	Waste Classification Reports	Transport and dispose of in line with Reports
	Target to reuse or recycle construction waste <i>Note: Refer to SMP for specified targets</i>	<i>Refer to SMP for specified targets</i>	<i>Refer to SMP for specified targets</i>

The Environmental Controls, responsible person, timeframe for implementation, consultation required and any applicable reference documents, are summarised in the table below.

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Ref. #	Environmental controls / mitigation measures	Responsible person	Timeframe for implementation	Reference documents
W1	Establish an area on site for regulated materials to be handled (where required) and temporarily stored in a secure manner	Construction Supervisors	Prior to works	<i>Environmental Planning and Assessment Act 1979</i>
W2	Regulated waste area to be clearly signed and isolated/ barricaded	Construction Supervisor Project Engineers	During planning of works and to be implemented during works	<i>Protection of the Environment Operations Act 1997</i>
W3	Awareness training, inductions and information will be provided to project personnel in relation to waste management including temporary storage of regulated waste, waste classification, transport and disposal of regulated wastes (where required)	Environmental and Sustainability Manager Environmental Adviser	Prior to works	<i>Contaminated Land Management Act 1997</i>
W4	Waste classification of suspected Regulated Waste is to be undertaken by competent persons	Environmental and Sustainability Manager	During works	<i>Waste Avoidance and Resource Recovery Act 2001</i>
W5	Third-party lab analysis to be undertaken as required for waste classification purposes to determine required transport means and a suitable waste facility to lawfully accept and dispose/treat the material	Environmental and Sustainability Manager Third-party laboratory personnel	During works	<i>ISEPP (2007)</i> CEMF Section 6.9
W6	EPA Licensed Waste Contractor is required for the transport of Restricted Solid Waste and/or Hazardous Waste for quantity amounts in excess of 200kg/litres	Environmental and Sustainability Manager EPA Licensed Waste Contractor	During works	The New South Wales Environmental Protection Agency Waste Classification Guidelines
W7	Registration as a transporter of Asbestos Waste and utilisation of Waste Locate for the transport of >100kg of asbestos soils (non-friable) or 10m ² of asbestos sheeting (non-friable) and any quantity of friable waste	Environmental and Sustainability Manager	During works	
W8	No more than 5 tonnes of liquid waste or special waste (other than waste tyres) Restricted Solid Waste and/or Hazardous Waste generated off-site can be stored at the project site	Environmental and Sustainability Manager	During works	
W9	Regulated waste tracking documents, i.e. Consignment Authorisation Notices (CANs) are to be provided prior to waste leaving the project site	Contractor/waste transporter	During works	

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Ref. #	Environmental controls / mitigation measures	Responsible person	Timeframe for implementation	Reference documents
W10	Maintain and update a Waste Management Register	Environmental and Sustainability Manager Sustainability Lead/Adviser	During works	
W11	All waste materials removed from the sites will be directed to an appropriately licensed waste management facility	Environmental and Sustainability Manager Sustainability Lead/Adviser	During works	
W12	The use of raw materials (noise hoarding, site fencing, etc.) will be reused or shared, between sites and between construction contractors where feasible and reasonable	Sustainability Lead/Adviser Site crew	During works	
W13	Recyclable wastes, including paper at site offices, will be stored separately from other wastes.	Environmental and Sustainability Manager Sustainability Lead/Adviser	During works	
W14	Construction personnel to keep the construction areas clean and tidy, including refuse placed in appropriate waste bins.	All personnel	During works	
W15	Stockpiled wastes located at ancillary facilities would be: - appropriately segregated to avoid mixing and contamination - appropriately labelled - appropriately stored to minimise risk of erosion - less than three metres in height with an appropriate height to length batter ratio (e.g. 1:3) - located as far away as practical from sensitive receivers, ecological areas and watercourses.	Site Supervisor All personnel	During planning of works and to be implemented during works	
W16	Stockpile heights at ancillary facilities will be minimised where possible to be not visible above the fence line (line of sight), or if not possible, covered.	Site Supervisor All personnel	During planning of works and to be implemented during works	
W17	All waste would be assessed, classified, managed and disposed of (where they cannot be re-used) in accordance with the Waste Classification Guidelines (NSW EPA, 2014a).	Site Supervisor All personnel	During planning of works and to be implemented during works	

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ERAP 04: Water quality, site drainage and erosion and sediment control

The set targets/s with measurable KPIS and supporting measurement tool, assist in achieving the overarching objective. These are summarised in the Table below.

Objective	Target	Measurement Tool	Key Performance Indicators (KPIs)
To comply with contractual and legislative requirements and ensure that water discharged off-site from construction and erosion and sediment control (ESC) activities does not cause environmental nuisance / harm.	No sediment impacts to the surrounding environment and waterways as a result of the works	Visual monitoring by site supervision, with photographs to support visual inspection Weekly Environment and Sustainability Inspection Report	Zero (0) sediment impacts to the surrounding environment and waterways
	No off-site water quality impacts as a result of erosion and sedimentation and/or inadequate onsite controls	Visual monitoring by site supervision, with photographs to support visual inspection Weekly Environment and Sustainability Inspection Report. The ESTR will undertake “at least weekly” inspections of on-site ESC devices, plus prior to expected rainfall and after rainfall Maintenance activities for ESCPs shall be documented – items that cannot be immediately repaired are to be documented on the project CAR Register. All water quality data including quantity, quality and dates of water release will be maintained the project records.	Zero (0) off-site water quality impacts

Note: Consultation requirements: Soil, contamination and water Sub-Plan with City Council (CoA C6(d)).

The Environmental Controls, responsible person, timeframe for implementation, consultation required and any applicable reference documents, are summarised in the table below.

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Ref. #	Environmental controls / mitigation measures	Responsible person	Timeframe for implementation	Reference documents
WQ1	Primary Erosion and sediment controls to be included under the Project's Environmental Control Map	Environmental and Sustainability Manager Environmental Adviser	During planning of works and to be implemented during works	<i>Environmental Planning and Assessment Act 1979</i> <i>Protection of the Environment Operations Act 1997</i>
WQ2	All water to be discharged in accordance with legislation and only after approval	Environmental and Sustainability Manager Environmental Adviser	During works	<i>Contaminated Land Management Act 1997</i>
WQ3	Discharge quality must be the same or of higher water quality standard than that of the receiving waters. Methods and guidelines are provided in the ECM	Environmental and Sustainability Manager Environmental Adviser	During works	<i>Fisheries Management Act 1994</i> <i>Sydney Water Act 1994</i>
WQ4	Implement measures to minimise tracking of dirt and mud into public roads and other public spaces. Measures may include applying aggregate at site egress points (where required).	Site Supervisor	Prior to and during works	<i>ISEPP (2007)</i> CEMF Section 6.5
WQ5	Top soil/mulch stockpiles to be not greater than 2.0m in height, sufficiently bunded with jersey barriers. All stockpiles will be located clear of watercourses and drainage works. Controls such as barriers, coverings, minimised storage timeframes and generally good housekeeping should be implemented to help mitigate potential impacts from vermin and invasive species. Materials that can produce heat through degradation (such as organic wastes and other putrescible wastes) should not be stored for long periods and needs to be well aerated to reduce any risk of overheating and spontaneous combustion	Site Supervisor Environmental and Sustainability Manager Environmental Adviser	During works	Australian and New Zealand Environment Conservation Council (ANZECC) guidelines Managing Urban Stormwater: Soils & Construction Volume 1 (Landcom, 2004) (known as the "Blue Book")
WQ6	Wastewater management facilities shall only be provided through connection to existing sewer or proprietary storage and pump out systems are permitted	Site Supervisor Environmental and Sustainability Manager	During planning of works and to be implemented during works	

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Ref. #	Environmental controls / mitigation measures	Responsible person	Timeframe for implementation	Reference documents
WQ7	Wastewater storage and pump out systems shall be procured, installed and operated in accordance with PS 11- including the provision of automatic cut off valves for inflows and high level alarms	Site Supervisor Environmental and Sustainability Manager	During planning of works and to be implemented during works	
WQ8	All disturbed surfaces will be revegetated within 1 month of final land forming and in compliance with the landscaping plans	Environmental and Sustainability Manager	If any surfaces become disturbed during this Phase	
WQ9	Erosion and Sediment Control devices are to be maintained when their capacity has been reduced by 25%	Site Supervisor	During works	
WQ10	Erosion and Sediment Control devices to be applied for temporary stockpiles located in proximity of the site boundary or where they could impact adjacent property	Site Supervisor	During works	
WQ11	Toolbox talks will be conducted for employees and subcontractors on the requirements of the Erosion and Sediment Control Plan	Environmental and Sustainability Manager Environmental Adviser	During planning of works and to be implemented during works	
WQ12	Use sand bag check dams to protect stormwater drains as required	All personnel	During works	
WQ13	All ESC works will be removed immediately prior to final completion and all surfaces will be returned to pre-existing condition	Site Supervisor	After Phase completion – if applicable	
WQ14	Water restriction conditions under Sydney Water to be observed. Display of Novo Rail exemption at applicable work-zones	All personnel	During planning of works and to be implemented during works	
WQ15	Clean water will be diverted around disturbed site areas and stockpiles	Site Supervisor	During works	
WQ16	Control measures will be installed downstream of works, stockpiles and other disturbed areas	Site Supervisor	During works	
WQ17	Hook lift bins or suitable equivalent are used to retain pile spoil and monitored frequently to assess capacity and identify potential over filling. Contamination of the piling pad is to be prevented at all times.	Site Supervisor ESTR	During works	
WQ18	Polymer products used in piling works are prevented from entering waterways and disposed of correctly to prevent impacts on surrounding environment	Site Supervisor ESTR	During works	

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Ref. #	Environmental controls / mitigation measures	Responsible person	Timeframe for implementation	Reference documents
WQ19	Hydraulic hoses are reviewed/inspected for wear and damage prior to the commencement of works. Damaged hoses are replaced. Sheathing is provided for exposed hydraulic and fuel lines.	Site Supervisor ESTR	During works	
WQ20	Spill Kits are located close to the piling works and maintained to ensure they are fully stocked	Site Supervisor ESTR	During works	
WQ22	Pre and post rainfall inspections by the ESTR would occur to ensure controls are adequate prior to rain events, review effectiveness of controls and make necessary environmental control repairs.	ESTR	During works	

Emergency scenarios as well as preparation and response measures are detailed in the table below.

Emergency scenario:

Responsibility: Site Supervisor and the ESTR

Preparation measures	Response measures
<ul style="list-style-type: none"> ■ Monitor meteorological conditions – develop contingency strategy for rainfall > 100mm in 24hours or potential for > 1in 5 ARI ■ All chemicals, fuels and other hazardous substances to be in secured containers and stored within a sealable shipping container ■ Review site drainage flow paths ■ Redirect site drainage to prevent flooding of residential/business premises ■ Ensure site drainage does not concentrate surface flow ■ Review and address the potential for excess water entering the site 	<ul style="list-style-type: none"> ■ Remove plant and equipment from low lying areas ■ Secure plant that cannot be removed ■ Recover materials washed from site including sediment and other waste ■ Check effectiveness of erosion and sedimentation devices and other flood controls, maintain where required and safe to do so.

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Emergency scenario:

- Review and maintain erosion and sedimentation controls.

Emergency scenario:

Responsibility: Site Supervisor and the ESTR

Preparation measures	Response measures
<ul style="list-style-type: none"> Plan controls to be suitable for expected conditions Ensure sufficient materials, labour and plant are available for additional controls. 	<ul style="list-style-type: none"> A review of the site to be undertaken by an Project Environmental Representative and Site Supervisor Controls to be repaired or replaced within 24 hours of detection or immediately if inclement weather current.

ERAP 05: Traffic, access and pedestrian

The set targets/s with measurable KPIS and supporting measurement tool, assist in achieving the overarching objective. These are summarised in the Table below.

Objective	Target	Measurement Tool	Key Performance Indicators (KPIs)
To comply with contractual requirements and ensure that noise and additional traffic from construction activities does not cause an environmental nuisance	No valid complaints resulting from congestion from construction traffic outside the approved Traffic Management Plan	Consultation Manager (CM) – no complaints lodged in the database for the duration Phase The Environmental Incident and Complaint Report is to be used to document complaints	Zero (0) complaints lodged in the database for the duration of the Phase
	No breaches to traffic management standards and requirements	INX InSystem – logged as a non-compliance related incident	Zero (0) breaches to traffic management standards and requirements
	No visible queueing in streets surrounding the site	Visual inspection/observation – photographs taken as supporting evidence of breach/non-breach INX InSystem – logged as a non-compliance related incident	Zero (0) logged incidents in relation to queue lengths in surrounding streets
	No use of roads for construction traffic outside of the haulage routes defined in the approved planning approvals	Compliance auditing documents/records	Zero (0) non-compliances logged

Note: Consultation requirements: Traffic Management Plan, TAP04-PLN-SA-0005 with City Council (CoA C6(a)).

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The Environmental Controls, responsible person, timeframe for implementation, consultation required and any applicable reference documents, are summarised in the table below.

Ref. #	Environmental controls / mitigation measures	Responsible person	Timeframe for implementation	Reference documents
TA1	An approved Traffic Control Plan is required for any activity on/or immediately adjacent to public roads.	Site Manager Lead Engineer	During planning of works and to be implemented during works	<i>Environmental Planning and Assessment Act 1979</i> <i>Protection of the Environment Operations Act 1997</i>
TA2	There will be no construction parking in non-approved zones or parking areas. These would be made evident in toolbox talks and work debriefs	Site Manager Lead Engineer	During works	<i>Local Government Act 1993</i>
TA3	Ensure pedestrian access ways are clearly defined and maintained for the duration of the works. This includes appropriate signage and line marking would be provided to guide pedestrians and cyclists past construction sites and on the surrounding network to allow access to be maintained. Appropriate access measures would be further developed to include guidance for stakeholders with access requirements for disability, including wheelchair users and people with a visual impairment.	Site Manager Lead Engineer	During works	<i>Local Government (General) Regulation 2005</i> <i>Roads Act 1993</i> <i>ISEPP (2007)</i>
TA4	Regular visual checks are to be undertaken to ensure all vehicles are in good working order	Site Manager Lead Engineer	During works	Traffic Management Plan, TAP04-PLN-SA-0005 with City Council CEMF Section 6.1
TA5	A Road Occupancy Licence (ROL) would be gained and approved	Site Manager Lead Engineer	Before any traffic impacting works commence	Roads and Maritime Services Traffic control at worksites: Technical Manual 2018
TA6	Minimising heavy vehicle movements during peak traffic times	Site Manager Lead Engineer	During planning of works and to be implemented during works	
TA7	Heavy vehicles used for hauling spoil and fill are only permitted to use the local roads identified for haulage in the EIS and Traffic Management Plan developed specifically for the December 2020 works period.	Site Manager Lead Engineer	During planning of works and to be implemented during works	

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Ref. #	Environmental controls / mitigation measures	Responsible person	Timeframe for implementation	Reference documents
TA8	<p>During construction, all reasonably practicable measures must be implemented to maintain pedestrian and vehicular access to, and parking in the vicinity of, residences, businesses and other affected properties.</p> <p>Disruptions are to be avoided, and where avoidance is not possible, minimised. Where disruption cannot be minimised, alternative pedestrian and vehicular access, and parking arrangements must be developed where reasonably practical and implemented before the disruption.</p> <p>Affected residents, businesses and other affected property owners would be notified before the disruption. Adequate signage and directions to businesses must be provided before, and for the duration of, any disruption.</p>	<p>Site Manager Lead Engineer</p>	<p>During planning of works and to be implemented during works</p>	
TA9	<p>Safe pedestrian and cyclist access must be maintained around work sites during construction. In circumstances where pedestrian and cyclist access is restricted or removed due to construction activities, an alternate route must be provided and signposted.</p>	<p>Site Manager Lead Engineer</p>	<p>During planning of works and to be implemented during works</p>	
TA10	<p>Safe and efficient access routes are provided for pedestrians cyclists and road users, including buses, during construction</p>	<p>Site Manager Lead Engineer</p>	<p>During planning of works and to be implemented during works</p>	
TA11	<p>Relocation of bus stops would be carried out by TfNSW in consultation with the City of Sydney, Royal Prince Alfred Hospital, bus operators and other relevant authorities. Wayfinding and customer information would be provided to notify customers of relocated bus stops</p>	<p>TfNSW</p>	<p>During planning of works and to be implemented during works</p>	
TA12	<p>The new offset parking facilities on Little Eveleigh Street would be constructed prior to the removal of parking, to accommodate parking spaces displaced to facilitate construction activities.</p>	<p>Site Manager Lead Engineer</p>	<p>During planning of works and to be implemented during works</p>	
TA13	<p>Road Safety Audits as per would be carried out to address vehicular access and egress, and pedestrian, cyclist and public transport safety. Road Occupancy Licenses (or equivalent) for temporary road/lane closures would be obtained where required. The audit</p>	<p>TfNSW</p>	<p>During works</p>	

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Ref. #	Environmental controls / mitigation measures	Responsible person	Timeframe for implementation	Reference documents
	location would be outlined in the Construction Traffic Management Sub-Plan.			
TA14	Community consultation would be carried out and notifications would be issued in advance for any proposed road and pedestrian network changes through appropriate channels and forms of communication.	Community and Stakeholder Engagement Manager	During planning of works and to be implemented during works	
TA15	Construction sites would be managed to minimise construction worker parking on surrounding streets. Workers would be encouraged to use public or active transport and ride share with the implementation of a Green Travel Plan initiative. A workers' reward scheme would be implemented for those who adhere to the initiative.	Site Manager Lead Engineer	During works	
TA16	Construction site traffic would be managed to minimise traffic impacts during the peak periods through scheduling construction vehicle movements outside the peak hours. Where possible, group deliveries would be restricted.	Site Manager Lead Engineer	During planning of works and to be implemented during works	
TA17	During construction, all reasonably practicable measures must be implemented to maintain access for all customers to Redfern Station, while the station is operational.	Site Manager Lead Engineer	During works	
TA18	Maintain access for emergency vehicles, waste management services and deliveries to be maintained during construction. This is captured in the December 2020 works TMP.	Site Manager Lead Engineer	During works	

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ERAP 06: Hazardous and contaminated material

The set targets/s with measurable KPIS and supporting measurement tool, assist in achieving the overarching objective. These are summarised in the Table below.

Objective	Target	Measurement Tool	Key Performance Indicators (KPIs)
To comply with contractual and legislative requirements and ensure that hazardous / contaminated material from construction activities does not cause an environmental nuisance / harm and is disposed of in accordance with legislative requirements.	No environmental incidences involving contaminated/ hazardous materials	INX system – recorded as an environmental incident The finding of any contaminated material on site will be reported in accordance with the project's unexpected finds procedure.	Zero (0) incidents occurred and logged into the INX system
	No pollution events of the surrounding environmental and water ways by contaminated material	INX system – recorded as an environmental incident The finding of any contaminated material on site will be reported in accordance with the project's unexpected finds procedure.	Zero (0) incidents occurred and logged into the INX system
	All transport of any found contaminated material will be tracked	Receipts for the disposal of any found hazardous material will be filed on site by the ESTR EPA's online tracking system	100% of all contaminated material found is transported off-site to a facility legally able to accept that waste and is tracked. 100% of all disposal receipts are retained

Note: Consultation requirements: Soil, contamination and water Sub-Plan with City Council (CoA C6(d)).

The Environmental Controls, responsible person, timeframe for implementation, consultation required and any applicable reference documents, are summarised in the table below.

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Ref. #	Environmental controls / mitigation measures	Responsible person	Timeframe for implementation	Reference documents
HC1	Suspected material may include that which is visibly different to surrounding material, fibrous in nature, exhibits hydrocarbon odours or other unexpected characteristics, unknown containers, piping, underground storage tanks, or similar structures are discovered	All personnel	During works	<i>Environmental Planning and Assessment Act 1979</i>
HC2	If suspected contaminated material is found, implement the Unexpected Contaminated Land and Asbestos Finds Procedure	All personnel	Immediately upon discovering unexpected material	<i>Protection of the Environment Operations Act 1997</i>
HC3	Delineate the 'unexpected find' to prevent access and install appropriate environmental and safety controls	Site Supervisor	Immediately upon discovering unexpected material	<i>Contaminated Land Management Act 1997</i>
HC4	Project Leader to contact the relevant TfNSW representative	Project Leader	Immediately upon discovering unexpected material	<i>Sydney Water Act 1994</i>
HC5	If substance is assessed as not presenting an unacceptable risk to human health, then the Site Supervisor to remove controls and continue work with additional controls implemented	Site Supervisor Qualified hygienist	After substance has been assessed and clearance has been given	<i>ISEPP (2007)</i>
HC6	Manage any contaminated material as per legislative/EPA requirements and the Unexpected Contaminated Land and Asbestos Finds Procedure including the testing and assessment at the direction of the Client's representative	Environmental and Sustainability Manager Client's Representative	Upon discovering contaminated material	Hazardous Materials Management Plan, S-00911.HMMP_202009
HC7	Protect the environment by implementing control measures to divert surface runoff away from the potentially contaminated ground	Site Supervisor	During works	Sustainability Management Plan (SMP)
HC8	Capture and manage any surface runoff contaminated by exposure to contaminated ground	Site Supervisor	During works	
HC9	Environmental awareness training relating to the identification and management of acid sulphate soils to be provided to all site personnel involved in earthworks, excavation or drainage construction activities	Environmental and Sustainability Manager Environmental Adviser	Prior to works	
HC10	The Client's Representative shall be notified upon discovery of suspected Acid Sulphate Soils or Potential Acid Sulphate Soils	Environmental and Sustainability Manager Environmental Adviser	During works	
HC11	Implementation of a specific runoff control plan to prevent acid runoff from contaminating site areas and watercourses	Environmental and Sustainability Manager	During planning of works and to be implemented during works	

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Ref. #	Environmental controls / mitigation measures	Responsible person	Timeframe for implementation	Reference documents
HC12	Suspected Acid Sulphate Soils stockpiles to be covered with plastic overnight	Site Supervisor	During works	
HC13	'Dial before you dig' searches would be carried prior to excavation work taking place.	Site Supervisor Lead Engineer	Prior to works	
HC14	A stocked spill kit is to be located within the compounds. Employees would be trained in the correct use of spill kits.	Site Supervisor ESTR	During planning of works and to be implemented during works	
HC15	<p>Preliminary site investigations were undertaken by Jacobs, 2018 (Redfern Station Investigation Works - Contamination Investigation Report) which targeted 'hotspot' areas planned for excavation at risk of encountering contaminated soil.</p> <p>Results indicated low levels of copper, zinc and benzo(a)pyrene detected in 3 borehole locations at concentrations exceeding ecological assessment criteria.</p> <p>Soil in investigated areas has been pre-classified as General Solid Waste (non-putrescible).</p> <p>Spoil excavated from areas outside of the scope for the pre-classification assessment (mentioned above) will undergo further testing, in accordance with Unexpected Contaminated Finds procedure and the process captured in CoAD48, as required, by a suitably qualified environmental consultant to determine waste classification prior to removal from site and the</p>	Suitably qualified contaminated land specialist Site Supervisor ESTR	During works	

Emergency scenarios as well as preparation and response measures are detailed in the table below.

Emergency scenario:

Responsibility: Project Manager, Site Supervisor, ESTR and the Safety Representative

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Emergency scenario:

Preparation measures	Response measures
<ul style="list-style-type: none"> ■ Review previous land uses and environmental reports for potential for friable asbestos ■ Include asbestos awareness in the site induction where the potential exists ■ Include contingency in relevant work procedures and SWMs ■ Identify potential service providers for asbestos control and removal. 	<ul style="list-style-type: none"> ■ Quarantine suspected area ■ Cover or provide dust mitigation strategies ■ Engage licensed/approved removal and disposal organisation ■ Complete post-removal verification

ERAP 07: Trade waste

The set targets/s with measurable KPIS and supporting measurement tool, assist in achieving the overarching objective. These are summarised in the Table below.

Objective	Target	Measurement Tool	Key Performance Indicators (KPIs)
To comply with contractual and legislative requirements and ensure that trade waste from construction activities does not cause an environmental nuisance / harm.	All trade waste to be discharged in accordance with legislation and approvals – no breaches to legislation or approvals	Visually monitored daily by the ESTR Inspection report F1227 detailing any trade waste issues will be completed by the ESTR INX InSystem – logged as an incident	Zero (0) breaches to legislation or approvals Zero (0) reportable/notifiable incidents to the EPA Zero (0) incidents occurred and logged into the INX system
	Educate Novo Rail staff and subcontractors on the relevant legislation, the correct use of the washout system and applicable Trade Waste Permit(s) where required	Toolbox talk sign-on sheet Records/copies retained of the presentation delivered on Trade Waste	Conduct at a minimum one (1) toolbox talk in relation to trade waste for the duration of the Enabling Works Phase
	No impacts to the surrounding environment and waterways	Visually monitored daily by the ESTR Inspection report F1227 detailing any trade waste issues will be completed by the ESTR	Zero (0) trade waste impacting the surrounding environment and waterways

The Environmental Controls, responsible person, timeframe for implementation, consultation required and any applicable reference documents, are summarised in the table below.

Ref. #	Environmental controls / mitigation measures	Responsible person	Timeframe for implementation	Reference documents
TW1	Application and approval of trade waste agreement	Project Leader	During planning of works and to be implemented during works	<i>Environmental Planning and Assessment Act 1979</i>

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Ref. #	Environmental controls / mitigation measures	Responsible person	Timeframe for implementation	Reference documents
TW2	Provide a washout system where there is a need to discharge to the local sewer system in meeting relevant legislation and contract conditions	Project Leader Site Supervisor	Prior to works	<i>Protection of the Environment Operations Act 1997</i>
TW3	Any paint washout required shall only be undertaken in the designated areas with appropriate bunding and control measures	All personnel	During works	<i>Contaminated Land Management Act 1997</i>
TW4	Ensure the washout system is in a location which is away from stormwater drains and water courses	Project Leader Site Supervisor	During planning of works and to be implemented during works	<i>Sydney Water Act 1994</i>
TW5	Trade waste or other prohibited substances will not be discharged into infrastructure (storm water drains or sewerage system). <i>Note: Project personnel may be prosecuted if they are found illegally dumping trade waste and could be responsible for paying sewerage system repair costs. Regulatory action such as fines or jail time may also apply</i>	Project Leader	During planning of works and to be implemented during works	<i>ISEPP (2007)</i>
TW6	Toolbox talks will be conducted for Novo Rail staff and subcontractors in the correct use of the washout system and legislation	Environmental and Sustainability Manager Environmental Adviser	Prior to works	
TW7	Ensure the washout system is monitored and cleaned on a regular basis	Environmental and Sustainability Manager Environmental Adviser Site Supervisor	During works	

ERAP 08: Concrete Wash

The set targets/s with measurable KPIS and supporting measurement tool, assist in achieving the overarching objective. These are summarised in the Table below.

Objective	Target	Measurement Tool	Key Performance Indicators (KPIs)
To comply with contractual and legislative requirements in relation to the washing out of concrete on the project	No spills, uncontrolled releases or incidents of concrete	Weekly inspections to be recorded on the Environmental and Sustainability Inspection Report Record of daily inspection to be kept in Site Manager's/Supervisor's diary when concrete washout is being undertaken INX InSystem – logged as an incident Incidents or spills of concrete to be recorded on form Environmental Incident and Complaint Report	Zero (0) instances of spills or uncontrolled release of concrete Zero (0) incidents recording in relation to concrete wash 100% weekly inspections completed on time 100% of all records retained from daily inspections

Note: Consultation requirements: Soil, contamination and water Sub-Plan with City Council (CoA C6(d))

The Environmental Controls, responsible person, timeframe for implementation, consultation required and any applicable reference documents, are summarised in the table below.

Ref. #	Environmental controls / mitigation measures	Responsible person	Timeframe for implementation	Reference documents
CW1	Concrete washout to be constructed with geo-fabric lining and bunded	Site Supervisor Site Manager	Prior to works	<i>Environmental Planning and Assessment Act 1979</i>
CW2	Location of washout to be distanced from any drainage line or stormwater system	Site Supervisor Site Manager	Prior to works	<i>Protection of the Environment Operations Act 1997</i>
CW3	Temporary washout to be constructed to adequate capacity prior to commencement of concrete works	Site Supervisor	Prior to works	

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Ref. #	Environmental controls / mitigation measures	Responsible person	Timeframe for implementation	Reference documents
		Site Manager		<i>Contaminated Land Management Act 1997</i>
CW4	Washout to be barricaded off on all sides when not in use to prevent unauthorised entry	Site Supervisor Site Manager	Prior to works	<i>Sydney Water Act 1994</i>
CW5	Washout area is to be inspected daily by the Site Manager to ensure residual water levels don't exceed 75% of capacity	Site Manager	Daily for the duration of the works	<i>ISEPP (2007)</i>
CW6	Washout area to be cleaned when the capacity has been reduced below 50%	Site Supervisor Site Manager	During works	Landcom; Blue Book; Managing Urban Stormwater: Soils & Construction 2004
CW7	Cleaning of washout to involve, removal of spoiled geo-fabric material and disposed of in licensed landfill. Records to be retained	Site Supervisor Site Manager	During works	Concrete Washout Guidelines - DMS-SD-112
CW8	Where possible waste concrete shall be returned to the batch plant or concrete recycler	Site Supervisor Site Manager	During works	Water Discharge and Reuse Guideline - DMS-SD-024
CW9	Concrete truck drivers are to be advised of the location of the washout area prior to arrival on site	Site Supervisor Site Manager Concrete truck drivers	During works	Discharge or Reuse Water Approval - DMS-FT-207
CW10	The requirements relating to concrete washout on site are to be provided to the supplier prior to the works	Site Supervisor Site Manager Suppliers	Prior to works	
CW11	The washout area should be located away and/or downslope from drainage lines, storm water drains and water bodies.	Site Supervisor Site Manager Suppliers	Prior to works	
CW12	The concrete washout area should be conveniently located for washing out equipment and clearly signposted.	Site Supervisor Site Manager Suppliers	Prior to works	
CW13	All wash down water is to be contained within the designated impervious bund.	Site Supervisor Site Manager Suppliers	During works	

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Ref. #	Environmental controls / mitigation measures	Responsible person	Timeframe for implementation	Reference documents
CW14	Concrete washout areas are generally not designed for the collection of excess concrete. Excess concrete waste should be returned to the local batching plant for treatment and re-use, or placed in a site receptacle designated for concrete and masonry, and allowed to set.	Site Supervisor Site Manager Suppliers	During works	
CW15	To minimise the amount of washout water generated, excess concrete should be scraped off the equipment before it is washed and placed in a site receptacle designated for concrete and masonry.	Site Supervisor Site Manager Suppliers	During works	
CW16	A high pressure, low volume water spray nozzle reduces water use.	Site Supervisor Site Manager Suppliers	During works	

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ERAP 09: Delivery and Storage Hazardous Substances and Dangerous Goods

The set targets/s with measurable KPIS and supporting measurement tool, assist in achieving the overarching objective. These are summarised in the Table below.

Objective	Target	Measurement Tool	Key Performance Indicators (KPIs)
To comply with contractual and legislative requirements in relation to: <ul style="list-style-type: none"> - the transport of dangerous goods - storage of chemicals, fuels and oils on site - hazardous substances and dangerous goods are adequately addressed for all operations, including adequate storage 	No spills or uncontrolled release of fuel, oils or chemicals associated with Novo Rail Operation	Weekly inspections to be recorded on the Environmental and Sustainability Inspection Report Chemicals entered into the Chemicals, Fuels/Oils and Hazardous Materials Register Incidents or spills to be recorded on form Environmental Incident and Complaint Report. INX InSystem – recorded as an incident	Zero (0) spills or uncontrolled releases of fuel, oils or chemicals associated with Novo Rail Operation Zero (0) logged incidents 100% weekly inspections completed on time 100% of all chemicals entered into the Register
	No breaches to compliance of relevant transport and storage requirements of chemicals, fuels/oils or hazardous substances	Weekly inspections to be recorded on the Environmental and Sustainability Inspection Report Chemicals entered into the Chemicals, Fuels/Oils and Hazardous Materials Register Storage areas are to be inspected by the Supervisory personnel – site surveillance INX InSystem – recorded as an incident	100% weekly inspections completed on time 100% of all chemicals entered into the Register Zero (0) logged incidents 100% of all weekly inspections captured in the form with record retained and inspections are conducted on time
	All vehicles transporting dangerous goods have appropriate placards, licenses and emergency equipment and procedures	Complete the Dangerous Goods Transport Note/form Transport information/manifest is required to be included with any quantity of Dangerous Goods transported by Novo Rail – Form 1232 Dangerous Goods Transport	100% of forms completed on time and retained

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Objective	Target	Measurement Tool	Key Performance Indicators (KPIs)
		Note is to be used unless it can be demonstrated that the activity is exempt	

Note: Consultation requirements: Soil, contamination and water Sub-Plan with City Council (CoA C6(d))

The Environmental Controls, responsible person, timeframe for implementation, consultation required and any applicable reference documents, are summarised in the table below.

Ref. #	Environmental controls / mitigation measures	Responsible person	Timeframe for implementation	Reference documents
HDG1	Minimise storage of fuel, oil, chemicals or other dangerous goods on site, though efficient and timely ordering	Site Supervisor Site Manager	During planning of works and to be implemented during works	<i>Environmental Planning and Assessment Act 1979</i>
HDG2	The Safety Data Sheet (SDS) is to be current and maintained with a copy included in the SWMS	Health and Safety Representative/s	During works	<i>Protection of the Environment Operations Act 1997</i>
HDG3	Any specific control measures mentioned in the SDS need to be implemented as per the SDS	Environmental and Sustainability Manager Environmental Adviser	During planning of works and to be implemented during works	<i>Contaminated Land Management Act 1997</i>
HDG4	A material risk assessment must be undertaken for chemical/substance, using the SDS, and (where required) submitted to TfNSW for every substance before the substance arrives onto site	Health and Safety Representative/s Environmental and Sustainability Manager	Prior to works	<i>Dangerous Goods (Road and Rail Transport) Act 2008</i> <i>Pesticides Act 1999</i>
HDG5	Ensure SDSs are available on site for all fuels, oils, chemicals and dangerous goods. Suppliers are to provide SDS prior to dispatch of the material	Environmental and Sustainability Manager	Prior to and during works	<i>ISEPP (2007)</i> AS/ NZS 1940: 2004 – The Storage and Handling of
HDG6	Chemicals fuels, oils and chemicals to be stored inside impervious bunds of sufficient capacity to contain 110% of the stored volume.	All personnel	During works	

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Ref. #	Environmental controls / mitigation measures	Responsible person	Timeframe for implementation	Reference documents
	Bunded areas must have sufficient cover to prevent ingress of rain and must have appropriate signage			Flammable and Combustible Liquids
HDG7	Materials removed from the bunded storage area for use are to be returned to the bund at the end of each shift	All personnel	During works	Australian Dangerous Goods Code, 7.5 Edition Hazardous Materials Management Plan NSW EPA Waste Classification Guidelines Chemical Storage and Spill Response Guidelines - DMS-SD-066
HDG8	Storage sites are to be distanced from operational facilities, drainage lines, and areas prone to flooding or on slopes > 1V:10H	Site Supervisor	Prior to works	
HDG9	Driver or Supervisor to be in attendance at all times when unloading of fuel, oil or chemicals takes place on site with delivery drivers are to be provided with specific drop off and storage instructions	Site Supervisor Driver	During works	
HDG10	No water to be discharged from bunded areas into site drainage system. Contaminated water to be removed by appropriately licensed contractor & taken to a suitably licensed waste facility	Site Supervisor	During works	
HDG11	Spill kits & absorbent material to be located adjacent to storage bunds	Site Supervisor Environmental Adviser	During works	
HDG12	Training is to be provided to the workforce in the application of this ERAP and the use of spill kits	Environmental and Sustainability Manager Environmental Adviser	Prior to works	
HDG13	Absorbent material used to clean up spills to be disposed of in accordance with the NSW EPA Waste Classification Guidelines	Site Supervisor	During works	
HDG14	Each construction method statement shall identify the use of chemicals, fuels & oils and hazardous materials	Environmental and Sustainability Manager Environmental Adviser	Prior to works and maintained during works	
HDG15	SWMSs to address the specific requirements relevant to the work to be undertaken and document relevant site control measures	Health and Safety Representative/s Environmental and Sustainability Manager	During planning of works and to be implemented during works	
HDG16	Ensure transporters of dangerous good materials are appropriately licenced. This includes relevant licenses for vehicles and drivers	Site Supervisor	During works	
HDG17	Dangerous goods that are to be transported in receptacles greater than 500lt/kg may require specific licenses and shall not be	Project Leader Workplace Manager's	During works	

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Ref. #	Environmental controls / mitigation measures	Responsible person	Timeframe for implementation	Reference documents
	transported by Novo Rail without the Project Leader/Workplace Manager's approval			
HDG18	Where dangerous goods are transported by Novo Rail, a SWMS must be developed and include dangerous goods requirements	Health and Safety Representative/s Environmental and Sustainability Manager	Prior to works and during works	
HDG19	Transport information/manifest is required to be included with any quantity of Dangerous Goods transported by Novo Rail – Form 1232 Dangerous Goods Transport Note is to be used unless it can be demonstrated that the activity is exempt	Site Supervisor Health and Safety Representative/s Environmental and Sustainability Manager	During planning of works and to be implemented during works	
HDG20	The SWMS statement must address the requirement for Licensing, Placards or other specific regulatory requirements for Dangerous Goods. Transport activities in quantities that trigger the requirements of a "Placard Load" under the regulations require the following: - Transport vehicle to have appropriate Dangerous Goods Placard - Transport documents including manifests - Emergency procedures and information in an appropriate holder - 30B fire extinguisher - Double-sided reflectors - Driver safety equipment and PPE	Health and Safety Representative/s Environmental and Sustainability Manager	During planning of works and to be implemented during works	
HDG21	Dangerous goods must be secured and where required segregated from incompatible goods	Health and Safety Representative/s Site Supervisor	During planning of works and to be implemented during works	
HDG22	Dangerous goods must be appropriately marked in accordance with the Australian Dangerous Goods Code	Health and Safety Representative/s	Prior to works	
HDG23	Dangerous goods storage on site must comply with the requirements of AS 1940:2004 including maintaining separation distances for incompatible materials	Health and Safety Representative/s	Prior to works	

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Ref. #	Environmental controls / mitigation measures	Responsible person	Timeframe for implementation	Reference documents
HDG24	The proposed materials need to be assessed for compatibility and required separation distances or control measures implemented	Health and Safety Representative/s	Prior to works	
HDG25	Flammable materials storage is to be distanced from site facilities, officers, amenities or protected places	Health and Safety Representative/s	Prior to works	
HDG26	Quantities to be stored must be assessed to determine if they are considered manifest quantities - manifest quantities will require notification to SafeWork NSW	Health and Safety Representative/s	Prior to works	
HDG27	A storage location plan is required and needs to include internal layout, location of registers/manifests for the storage location	Health and Safety Representative/s Site Supervisors	Prior to works	
HDG28	Bunding to be impervious and of sufficient capacity to contain 110% of the stored volume. Materials should be stored in a safe area (e.g. bunded and/or store) which will prevent or contain accidental spillage and harm to the environment.	Health and Safety Representative/s Site Supervisors Environmental and Sustainability Manager	Prior to works	
HDG29	Appropriate spill containment material and fire extinguishers are also required	Health and Safety Representative/s Site Supervisors Environmental and Sustainability Manager	Prior to works	
HDG30	For Dangerous Goods, regardless of the quantity, appropriate transport documentation must be included with each load unless a specific exemption exists. Transport documentation must include the following: <ul style="list-style-type: none"> – Project/workplace name, contact number – Transporter name, contact number – Transport date, origin and destination – Product name, classification, container type, quantity. 	Health and Safety Representative/s	Prior to works	

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Emergency scenarios as well as preparation and response measures are detailed in the table below.

Emergency scenario:

Responsibility: Site Supervisor and the ESTR

Preparation measures	Response measures
<ul style="list-style-type: none"> Awareness training of appropriate response and procedures to be incorporated into Project Induction Safety Data Sheets on site for all materials and kept up to date Adequate supply of absorbent materials available in the site compound and on vehicles at work location. 	<ul style="list-style-type: none"> Report spills immediately to Site Manager and/or the ESTR Attempts to be made to limit or contain the spill using sand bags to construct a bund wall, use of absorbent material, temporary sealing of cracks or leaks in containers, use of geotextile or silt fencing to contain the spill Site Supervisors to coordinate the response, clean up and disposal of the material Material to be disposed of in accordance with the manufacturers' recommendations and applicable legislation.

Emergency scenario:

Responsibility: Project Manager, Site Supervisor and the ESTR

Preparation measures	Response measures
<ul style="list-style-type: none"> Awareness training of appropriate response and procedures to be incorporated into Environmental and Safety Induction 	<ul style="list-style-type: none"> Report spill immediately to Project Leader and/or Site Manager who will notify the client

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Emergency scenario:

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| <ul style="list-style-type: none"> ■ Safety Data Sheet on site for all materials and kept up to date ■ Adequate supply of absorbent materials available in the site compound and on vehicles in work location ■ Emergency telephone numbers for Emergency Response organisations/fire brigade prominently displayed around office and issued to supervisors ■ Initial contact to be made with relevant organisations at project commencement. | <ul style="list-style-type: none"> ■ Attempts to be made to limit or contain the spill using sand bags to construct a bund wall, use of absorbent material, temporary sealing of cracks or leaks in containers, use of geotextile or silt fencing to contain the spill, transferring remaining material. ■ Implement procedures to notify the relevant authorities. ■ Site Manager to coordinate the response, clean up ■ Fire brigade or emergency organisations should be called if spill cannot be controlled by site resources. ■ Evacuation procedures are to be implemented to remove non-essential personnel from the affected area ■ On site client personnel are informed of the incident, internal reporting as per potential Class 1 matter. ■ Access and egress to the area is established to ensure the appropriate vehicles have effective access and congestion is minimised. ■ Senior Officer from fire brigade /emergency organisation assumes control of the operation with Novo Rail personnel assisting as required. ■ Commence data gathering and investigation once emergency is contained. |
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ERAP 10: Biodiversity management

The set targets/s with measurable KPIS and supporting measurement tool, assist in achieving the overarching objective. These are summarised in the Table below.

Objective	Target	Measurement Tool	Key Performance Indicators (KPIs)
To comply with contractual and legislative requirements and ensure that native fauna and flora are protected from construction activities	No death or injury to fauna	Visually monitored daily Environmental and Sustainability Inspection Report detailing any flora and fauna Discovery of fauna is to be managed in accordance with the TfNSW Fauna Management Guideline including observing HOLD-POINT and notification to the TfNSW Environmental Representative INX InSystem – recorded as an incident	Zero (0) incidents or instances of death or injury to native fauna
	No unapproved removal of flora	Visually monitored daily Environmental and Sustainability Inspection Report detailing any flora and fauna INX InSystem – recorded as an incident	Zero (0) incidents or instances of unapproved removal of flora

Note: Consultation during preparation of management plans as required

The Environmental Controls, responsible person, timeframe for implementation, consultation required and any applicable reference documents, are summarised in the table below.

Ref. #	Environmental controls / mitigation measures	Responsible person	Timeframe for implementation	Reference documents
B1	All works potentially impacting on fauna and flora is to be undertaken in accordance with the planning approval and to be marked up on relevant drawings and plans, including ECMs	All personnel	During planning of works and to be implemented during works	<i>Environmental Planning and Assessment Act 1979</i>

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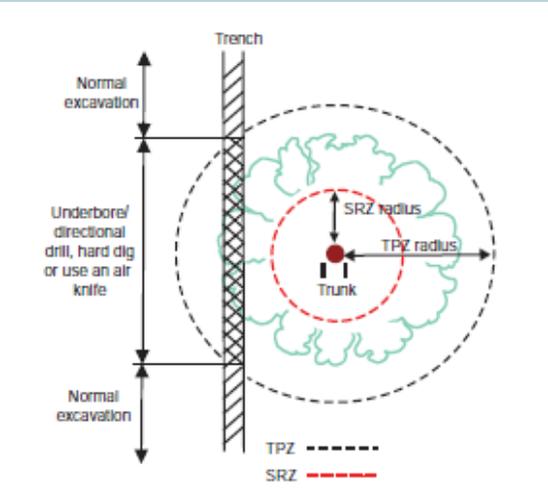
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Ref. #	Environmental controls / mitigation measures	Responsible person	Timeframe for implementation	Reference documents
B2	A qualified and experienced fauna spotter/ecologist would be engaged to inspect trees prior to and during removal and trimming to relocate any fauna that may be present in each tree. This process should be documented (including photos) for record keeping.	Environmental and Sustainability Manager Qualified Arborist	Prior to works	<i>Protection of the Environment Operations Act 1997</i> <i>Environment Protection and Biodiversity Conservation Act 1999 (Cwth)</i>
B3	Removal of trees within the project site to be undertaken by a Qualified Arborist in accordance with the Standard and any other requirements	Environmental and Sustainability Manager Qualified Arborist	During works	<i>Biosecurity Act 2015 (commenced on 01 July 2017)</i>
B4	Qualified Arborist with a background and experience in ecology to conduct a visual pre-check habitat inspection prior to de-vegetation to ensure no evidence of fauna, nesting, hatchlings, etc. Wildlife spotter/catcher to conduct a visual check in conjunction with Arborist prior to vegetation removal activities	Environmental and Sustainability Manager Environmental Advisor Qualified Arborist Licensed wildlife spotter/catcher	Prior to works	<i>Pesticides Act 1999</i> <i>ISEPP (2007)</i> Ecological Management Plan, TAP-PLN-EN-0008
B5	Vegetation offsetting requirements to be internalised within design development	Environmental and Sustainability Manager	Prior to works	CEMF Section 6.8
B6	Site inductions, pre-work briefings and toolbox talks will cover the need for safeguarding vegetation for retention, clearing limits, the need for reporting any habitats and/or fauna during daily activities and pruning and tree removal requirements	Environmental and Sustainability Manager Environmental Advisor	Prior to works	Weed Management and Disposal Guideline - DMS-SD-110
B7	Trenches/excavation zones are to be covered at the completion of each shift if they cannot be backfilled. This is to prevent local fauna from becoming trapped within such zones. Work-zones are to be inspected prior to works to prevent any potential harm to local fauna	Site Supervisor	During works	Vegetation Management (Protection and Removal) Guideline - DMS-SD-111
B8	If native fauna is identified within the disturbance footprint, the person taking the action must take all necessary steps to minimise harm and mortality to those animals. Wildlife spotter/catcher to assist with any necessary relocation of fauna	All personnel Licensed wildlife spotter/catcher	During works	Vegetation Offset Calculator - DMS-SD-067
B9	Open excavations and storage areas to be inspected regularly for the presence of fauna species	All personnel	During works	

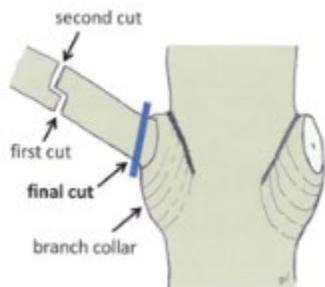
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Ref. #	Environmental controls / mitigation measures	Responsible person	Timeframe for implementation	Reference documents
B10	Establishment of exclusion 'no go zones,' i.e. Tree Protection Zones (TPZ) where required using an appropriate physical demarcation for vegetation that may be potentially disturbed during works and which are not permitted for removal	Site Supervisor Environmental and Sustainability Manager Environmental Advisor	Prior to works	Vegetation Offset Guide - DMS-SD-087 AS 4373-2007 – Pruning of amenity trees
B11	Plant and equipment including vehicles and construction materials are not to be stored within the TPZs of vegetation to be retained and would be stockpiled. Equipment would be stored, stockpiled and refuelled within the identified construction ancillary facilities.	All personnel	During works	
B12	All tools and plant are to be washed outside the TPZ	All personnel	During works	
B13	Stockpiles to be located outside the TPZ at all times	All personnel	During works	
B14	All required trenching activities are to be undertaken outside the TPZ where practicable of those trees marked for retention under the project. <i>Note: Impacting >10% of the TPZ can affect the long-term health of the tree.</i>	All personnel	During works	
B15	Where cables must be laid within the SRZ and/or TPZ, minimise the extent impacted and for significant encroachments, under-bore/directional drill at least 600 mm beneath the ground surface, or if excavating, hand dig or use an air knife	All personnel	During works	
B16	Protection of trees to be undertaken as per AS 4970 – Protection of trees on development sites – 2009	All personnel	During works	

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Ref. #	Environmental controls / mitigation measures	Responsible person	Timeframe for implementation	Reference documents
	 <p>The diagram illustrates trenching activities near a tree. A vertical trench is shown on the left. To its right, a tree trunk is marked with a red dot. Two concentric circles represent protection zones: an inner red dashed circle for the SRZ (Sensitive Root Zone) and an outer black dashed circle for the TPZ (Tree Protection Zone). The distance from the trunk to the SRZ is labeled 'SRZ radius', and the distance to the TPZ is labeled 'TPZ radius'. Three excavation methods are indicated by vertical arrows: 'Normal excavation' (top), 'Underbore/directional drill, hard dig or use an air knife' (middle, positioned between the SRZ and TPZ), and 'Normal excavation' (bottom). A legend at the bottom identifies the TPZ as a black dashed line and the SRZ as a red dashed line.</p> <p>Figure 14-2 Trenching activities: under-bore/ directional drill at least 600 mm beneath the ground surface when encroaching on the TPZ and/or SRZ. Source: p42, TfNSW: NUS 174C – Environmental Handbook for Construction & Maintenance (July 2014)</p>			
B17	Pruning of branches in proximity to overhead wiring and overhanging pedestrian pathways to be undertaken by a Qualified Arborist in accordance with AS 4373-2007 – Pruning of amenity trees	Environmental and Sustainability Manager Environmental Advisor Qualified arborist	During works	
B18	Supervision to be provided for pruning activities which will include a Qualified Arborist and Project Environmental representative	Novo Rail representative	During works	
B19	Attendance of arborist and ecologist to ensure an appropriate inspection is carried out in regard to any existing habitat(s) prior to and during vegetation removal.	Environmental Adviser Qualified Arborist Ecologist	During works	

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Ref. #	Environmental controls / mitigation measures	Responsible person	Timeframe for implementation	Reference documents
B20	Protect and retain the branch collar and branch bark ridge when carrying out pruning of any branches of trees (where required). This is to minimise the risk of infection and decay	Qualified Arborist	During works	
B21	<p>Step cut method to be employed when any such pruning is required as illustrated below</p>  <p>Figure 14-3 Step cut method to be employed (pruning activities)</p>	Qualified Arborist	During works	
B22	Plant and equipment brought on to site must be cleaned and free of deleterious material, mud and other material that may harbour weed seeds	All personnel	During works	
B23	Identification of high priority weeds or Weeds of National Significance is to be quarantined and disposed of accordingly. Weeds would be stockpiled separately from any green waste	Environmental and Sustainability Manager All personnel	During works	
B24	Any relocation or handling of fauna will be arranged through the Environmental & Sustainability Manager or nominated representative	Licensed wildlife spotter/catcher Environmental and Sustainability Manager	During works	
B25	<p>Project Environmental Representative in conjunction with TfNSW Representatives and WIRES to arrange an alternative suitable habitat areas for found native fauna.</p> <p>WIRES would be consulted if any injured fauna are encountered, or any fauna is otherwise found within the construction areas and is impeding work.</p>	Environmental and Sustainability Manager/ Environmental Advisor TfNSW Representatives WIRES	During works	

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Ref. #	Environmental controls / mitigation measures	Responsible person	Timeframe for implementation	Reference documents
		Licensed wildlife spotter/catcher		
B26	Novo Rail to provide immediate notification as soon as reasonably practicable to TfNSW and WIRES for any injured fauna	Environmental and Sustainability Manager Environmental Adviser TfNSW Representatives WIRES	During works	
B27	Where areas around trees are to be grassed, areas with exposed roots is to have top soil added to cover roots and prevent damage during maintenance	Site Supervisor Environmental and Sustainability Manager Environmental Adviser	During works	
B28	Weed management is to be undertaken in areas affected by construction prior to any clearing works in accordance with the <i>Biosecurity Act 2015</i> .	All personnel	During works	
B29	Limit disturbance of vegetation to the minimum amount necessary to construct the Project, particularly within the streetscapes affected by the Project.	All personnel	During planning of works and to be implemented during works	
B30	Vegetation offsets and/or landscaping would be undertaken in accordance with the Vegetation Offset Guide (TfNSW, 2019b) and in consultation with City of Sydney Council.	Environmental and Sustainability Manager Sustainability Adviser	Prior to works	
B31	Inspections would be undertaken at least every three months for weed infestations and to assess the need for control measures. Any weeds identified would be managed in accordance with the relevant guidelines.	ESTR	During works	
B32	Compounds are to be established on disturbed areas only. Vegetation not to be removed or damaged.	ESTR Design Lead Site Supervisor	Prior to works	
B33	Should it be determined that any additional trees require trimming or removal, the TfNSW Tree Removal Application Form would be completed and submit it to TfNSW for approval.	Environmental and Sustainability Manager	During works (as required)	

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Emergency scenarios as well as preparation and response measures are detailed in the table below.

Emergency scenario:

Responsibility: Site Supervisor and the ESTR

Preparation measures	Response measures
<ul style="list-style-type: none"> ■ Clearly demarcate site boundaries, clearing areas and brief site personnel ■ Identify/mark vegetation to be retained or that is protected ■ Identify species that may be impacted, include material within the project induction ■ Included requirements within construction planning documentation. 	<ul style="list-style-type: none"> ■ Immediately cease activities ■ Engage consultant to assess damage to vegetation and presence of any endangered or threatened communities.

Emergency scenario:

Responsibility: Site Supervisor and the ESTR

Preparation measures	Response measures
<ul style="list-style-type: none"> ■ Identify potentially impacted species prior to commencement on site ■ Identify species that may be impacted, include material within the project induction 	<ul style="list-style-type: none"> ■ Immediately cease activities upon discovery of injured fauna ■ Implement procedure for short-term stabilisation and transport to Vet or WIRES

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Emergency scenario:

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| <ul style="list-style-type: none"> ■ Review/inspect vegetation to be cleared prior to clearing – utilise ecologist/spotter where there is the potential for endangered/threatened species ■ Engage with local vet/WIRES representative on the appropriate contact/procedure ■ Site procedure for the short term management of injured fauna. | <ul style="list-style-type: none"> ■ Undertake additional vegetation inspection to identify any remaining fauna prior to recommencement. |
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ERAP 11: Dust and Air Quality

The set targets/s with measurable KPIS and supporting measurement tool, assist in achieving the overarching objective. These are summarised in the Table below.

Objective	Target	Measurement Tool	Key Performance Indicators (KPIs)
To comply with contractual requirements and ensure that dust and other air emissions from construction activities do not cause impacts on sensitive receivers and equipment.	No valid dust complaints from construction works for the Enabling Works Phase	Consultation Manager (CM) – no complaints lodged in the database for the duration Phase	Zero (0) complaints lodged in the database for the duration of the Phase
	No dust impacting on offsite activities or surrounding residences	Consultation Manager (CM) – no complaints lodged in the database for the duration Phase	Zero (0) complaints lodged in the database for the duration of the Phase
	No release of contaminants (odour, smoke etc) into the air	Visual and olfactory monitoring of contaminants	Zero (0) releases of contaminants

Note: Consultation during preparation of management plans as required.

The Environmental Controls, responsible person, timeframe for implementation, consultation required and any applicable reference documents, are summarised in the table below.

Ref. #	Environmental controls / mitigation measures	Responsible person	Timeframe for implementation	Reference documents
DA1	Spraying formations and exposed work areas to suppress dust using water carts, tankers and other suitable equipment	Construction Supervisor All personnel	During works	<i>Environmental Planning and Assessment Act 1979</i>
DA2	Minimise traffic on exposed areas – create designated haul roads	All personnel	Prior to works	

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Ref. #	Environmental controls / mitigation measures	Responsible person	Timeframe for implementation	Reference documents
DA3	Cover haul vehicles loads & ensure tail gates are closed when operating on public roads	All personnel	During works	<i>Protection of the Environment Operations Act 1997</i>
DA4	Provide shaker grids or rumble strip at site egress points or similar such as aggregate at entrance points to site <i>Note: where aggregate is used, minimum size is 150mm</i>	Construction Supervisor	During works	<i>Pesticides Act 1999</i> <i>ISEPP (2007)</i>
DA5	Remove mud from haul vehicles prior to entering public roads	All personnel	During works	CEMF Section 6.7
DA6	Remove spilt mud by construction equipment or vehicles on public roads	All personnel	During works	
DA7	Reprogram dust generating work during periods of high wind	Construction Supervisor	During works	Air Quality Management Guideline - DMS-SD-107
DA8	Provide awareness training in the need to minimise dust during site inductions and toolbox talks	Environmental and Sustainability Manager Environmental Adviser	Prior to works	
DA9	Regular visual monitoring of dust generation	Site Manager Construction Supervisor	During works	
DA10	Plant and equipment will be serviced and maintained in good working order to reduce unnecessary emissions from exhaust fumes. Maintenance of Plant & Equipment as per manufacturers requirements	Construction Supervisor	Prior to and during works	
DA11	Plant, machinery and vehicles would be turned off while not in use, where safe to do so	All personnel	During works	
DA12	Equipment (including all internal combustion engines) would be properly maintained and would run efficiently to ensure exhaust emissions are minimised, where practicable	All personnel Site Supervisor	During works	
DA13	Construction plant, machinery or vehicles producing excessive visual exhaust would be turned off, tagged 'out of order' and not used	All personnel	During works	
DA14	All emission controls used on vehicle and equipment would comply with standards listed in Schedule 4 of the Protection of the Environment Operations (Clean Air) Regulation 2010	All personnel	During works	
DA15	Construction site layout and placement of plant would consider air quality impacts to nearby receivers.	All personnel	During works	

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Ref. #	Environmental controls / mitigation measures	Responsible person	Timeframe for implementation	Reference documents
DA16	In the event that odour emissions are generated, work would cease until the source and nature of the odour can be determined and an appropriate course of action carried out. This may include further assessment to determine potential impacts on the nearest sensitive receptors.	All personnel	During works	

Emergency scenarios as well as preparation and response measures are detailed in the table below.

Emergency scenario:

Responsibility: Site Supervisor and the ESTR

Preparation measures	Response measures
<ul style="list-style-type: none"> Monitor meteorological conditions for the area and develop contingency for wind speeds in excess of 16m/s (55km/hr) High wind 'stop works' protocols in place Establish contingency strategy for additional dust control measures, additional water carts, dust suppressants, stockpile covers etc. 	<ul style="list-style-type: none"> Dust generating activities will cease under direction of the Environment Manager or Site Supervisor until adverse conditions subside Deploy additional mitigation measures to exposed areas stockpiles and other dust generating items will be water sprayed or covered.

Emergency scenario:

Responsibility: Site Supervisor and the ESTR

Preparation measures	Response measures
----------------------	-------------------

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Emergency scenario:

- | | |
|--|---|
| <ul style="list-style-type: none"> ■ Awareness training of appropriate response and procedures to be incorporated into Environmental and Safety Induction ■ Fire extinguishers maintained, clearly labelled and distributed around site compound and vehicles ■ Training in the use of fire extinguishers and which one to use for each type of fire ■ First Aid supplies are stocked and adequate ■ Emergency telephone numbers for Emergency Response organisations/fire brigade prominently displayed around office and issued to supervisors ■ Initial contact to be made with relevant organisations at project commencement. | <ul style="list-style-type: none"> ■ For small fires, attempts to be made to extinguish the fire or limit its spread with available fire extinguishers or water hoses if appropriate. ■ Supervisor is to be informed immediately ■ Supervisor to contact client and external services where necessary (fire, ambulance) as a precautionary measure ■ All personnel in the vicinity to be assembled in the Evacuation Assembly Area and a head count performed ■ Any resulting fuel or chemical spill to be handled as detailed above ■ Supervisor to coordinate with emergency services and provide assistance as required. |
|--|---|

ERAP 12: Visual amenity

The set targets/s with measurable KPIS and supporting measurement tool, assist in achieving the overarching objective. These are summarised in the Table below.

Objective	Target	Measurement Tool	Key Performance Indicators (KPIs)
To comply with contractual requirements and ensure that visual amenity from construction activities do not cause impacts on sensitive receivers.	No valid visual amenity complaints from construction works for the Enabling Works Phase	Consultation Manager (CM) – no complaints lodged in the database for the duration Phase Visually inspect barriers regularly to ensure condition is maintained	Zero (0) complaints lodged in the database for the duration of the Phase
	Minimal impacts to existing structure during construction	Visually inspect existing structures during construction Major impacts of structures recorded as an incident in the INX InSystem	Zero (0) incidents lodged as a result from impacts to existing structures

Note: Consultation during preparation of management plans as required.

The Environmental Controls, responsible person, timeframe for implementation, consultation required and any applicable reference documents, are summarised in the table below.

Ref. #	Environmental controls / mitigation measures	Responsible person	Timeframe for implementation	Reference documents
VA1	The maintenance of outward facing elements of site hoarding or noise barriers, including the removal of graffiti and weeds	Site Supervisor	During works	<i>Environmental Planning and Assessment Act 1979</i>
VA2	Boundary screening made from plywood and acoustic attenuation barriers must be erected around all ancillary facilities that are adjacent to sensitive receivers for the duration of construction of the Project. Location and arrangement of the screening will be considered to assist in reducing impacts to sensitive receivers.	Site Supervisor	Prior to and during works.	<i>Protection of the Environment Operations Act 1997</i>

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Ref. #	Environmental controls / mitigation measures	Responsible person	Timeframe for implementation	Reference documents
VA3	Wherever feasible and reasonable, vegetation around the perimeter of the construction sites will be maintained	Environmental and Sustainability Manager	During planning of works and to be implemented during works	CEMF Section 6.4
VA4	Temporary site lighting, for security purposes or night works will be installed and operated in accordance with AS4282:1997 Control of the Obtrusive Effect of Outdoor Lighting	Site Supervisor	Prior to and during works	RSUP-DISY-REP-UD-0001 Urban Design & Public Domain Plan (May 2020)
VA5	Provide cut-off or directed lighting within the construction areas, with lighting location and direction considered to ensure glare and light spill is minimised.	Lead Engineer Site Supervisor	During planning of works and to be implemented during works	Australian Standard 4282-1997 Control of the obtrusive effects of outdoor lighting
VA6	Community artwork, graphics and images to enhance the visual appearance of temporary works in high visibility locations	Environmental and Sustainability Manager	During planning of works and to be implemented during works	Principles of Crime Prevention Through Environmental Design (CPTED)
VA7	Signage on fencing or hoardings surrounding construction ancillary facilities must include the SSI name and application number, Project telephone number, postal address and email address.	Environmental and Sustainability Manager Community and Stakeholder Engagement Representative	During planning of works and to be implemented during works	
VA8	Community information, including contact numbers for enquiries / complaints must be available on site boundary fencing / hoarding at each construction site and ancillary facility before the commencement of construction. This information must also be provided on the website.	Community and Stakeholder Engagement Representative	During planning of works and to be implemented during works	
VA9	Construction activities undertaken in proximity to businesses would maintain visibility of business frontage, associated signage and access points, where possible. Temporary signage would be provided in the vicinity of a business if construction works obstruct views to the business. Business impacts resulting from changes to amenity or access would be managed in line with mitigation measures identified for other relevant environmental issues.	Environmental and Sustainability Manager Community and Stakeholder Engagement Representative	During planning of works and to be implemented during works	
VA10	Relevant safety and environmental control measures, including signage with relevant safety and site information would be installed	Environmental and Sustainability Manager Site Supervisor	Prior to and during works	

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Ref. #	Environmental controls / mitigation measures	Responsible person	Timeframe for implementation	Reference documents
VA11	The design of all temporary works will require TfNSW approval in relation to urban design and visual impacts and TfNSW will stipulate the design of hoarding artwork, including NSW Government logos and branding	Project Leader Environmental and Sustainability Manager TfNSW Representative	During planning of works and to be implemented during works	
VA12	Construction hoardings, scaffolding and acoustic sheds will be regularly inspected for defects and repaired and kept clean and free of dust build up. Graffiti on construction hoardings, scaffolding or acoustic sheds will be removed or painted over promptly in line with the following timeframes: - Offensive graffiti must be cleaned or covered within 24 hours - Highly visible yet non-offensive graffiti must be cleaned or covered within one week - Graffiti that is neither offensive nor highly visible must be cleared or covered during normal operations within	Site Supervisor	During works	
VA13	The principles of Crime Prevention Through Environmental Design will be applied to all works, including temporary works that have a public interface.	Project Leader Environmental and Sustainability Manager	During planning of works and to be implemented during works	
VA14	Minimise clearing of vegetation and undertake replacement planting where required in consultation with Stakeholders	Environmental and Sustainability Manager Lead Engineer Design Lead	During planning of works and to be implemented during works	
VA15	Where appropriate, use landscape and structural screening treatments including screening fences, and vegetation screening	Environmental and Sustainability Manager	During planning of works and to be implemented during works	
VA16	Provide well-presented and maintained construction hoarding and site fencing with shade cloth (or similar material) (where necessary) to minimise visual impacts on key viewpoints during construction. The construction ancillary facilities would be designed to limit or deter graffiti.	Lead Engineer Design Lead	During planning of works and to be implemented during works	

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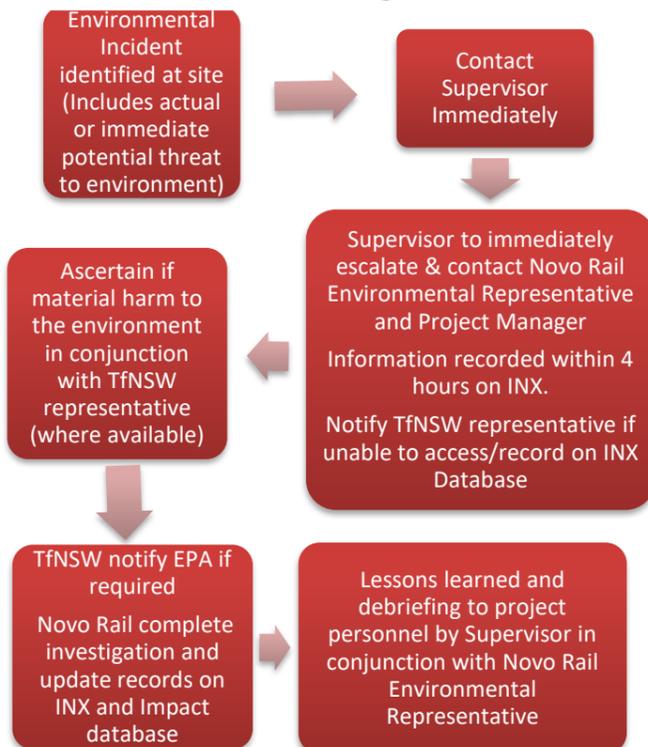
Ref. #	Environmental controls / mitigation measures	Responsible person	Timeframe for implementation	Reference documents
	Hoardings, site and acoustic fencing would be removed following construction completion.			
VA17	Ancillary facility gates will be kept locked when the facility is not in use, and the boundary fence will be maintained during occupation of the facility.	Lead Engineer Design Lead	During planning of works and to be implemented during works	

APPENDIX D: Environmental Control Map (ECM)

ECM 1 OF 17 – Environmental Control Map Mitigation Measures

General	
Misc Construction Controls to Avoid Environmental Incidents	
<ul style="list-style-type: none"> Activity specific SWMS followed and job specific controls as outlined in pre-work brief. All works to be completed within standard construction hours. Any work required outside these hours is subject to approval through TfNSW's OOHW Protocol TAP04-PLN-EN-0016 Fatigue monitored to ensure environmental & safety incidents are avoided. Plant and equipment to be operated by a trained competent and authorised person only. Pre-mobilisation Inspection for all plant & equipment. Planning approval for works: SSI Final Determination Report; EIA Checklist - Northern Trenching (Dec 2020); Consistency Assessment (Dec 2020) Exempt Development Records and Environmental Reviews. 	
Environmental Risks	
Impact	Risk Level
Noise Pollution	[L]
Water Pollution	[L]
Air Quality	[L]
Contamination/Chemical Spills	[L]
Management of Regulated Waste	[M]
Waste and Resource	[L]
Biodiversity	[L]
Housekeeping	[L]
Traffic and Vehicle Movement	[L]
Heritage	[M]

Environmental Incident Management Process

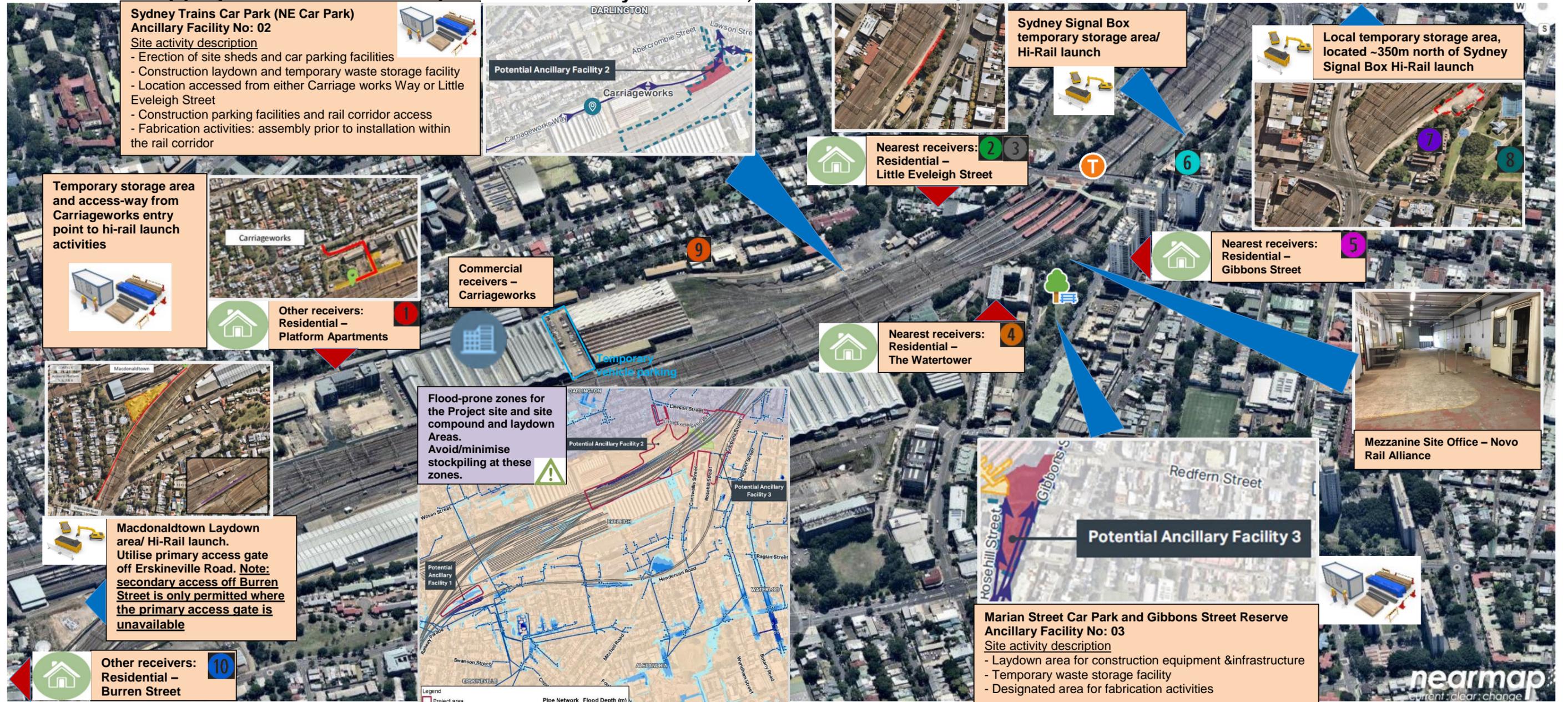


Project Contacts		
Project Title	Name	Contact Number
Alliance General Manager	James Renwick	0472 879 840
Project Manager	Jerome Cargnino	0408 821 466
Construction Manager	Phil Goddard	0467 716 971
Senior Project Engineer	Marijan Harris	0428 673 164
Environmental & Sustainability Manager	Larry Melnick	0451 941 717
Environmental Advisor	Laura Atencio	0415 713 535
Sustainability Lead	Erin Knaap	0401 615 933
Novo Rail Comms Rep	Tania Harper	0419 182 048
Safety Manager	Andrew Perrott-Jones	0436 676 285
TfNSW Environment & Planning Manager	Hannah Barker	0434 861 604
TfNSW A/ Senior Manager, Environment	Tara Wilcoxon	0467 888 828
EPA Pollution Hotline		131 555
WIRES – Animal rescue		1300 094 737
Transport Project Information Line		1800 684 490
TfNSW 24 Hour Urgent Complaint Line		1800 775 465
Emergency – Fire and Rescue		000
Standard Working Hours		
Working Hours		
<ul style="list-style-type: none"> No works to be undertaken outside of recommended hours without prior endorsement from TfNSW. Recommended hours Mon – Fri → 0700Hrs to 1800Hrs Sat → 0800Hrs to 1800Hrs 		
Contamination and Management of Regulated Waste		
Controls / Actions	Responsibility	
Unidentified Contamination – Upon identification/suspicion of contaminants, work will cease and a Hygienist will be engaged to investigate.	Site Personnel	
Licensed Asbestos Contractor Class A for Friable Asbestos and Class B for Bonded Asbestos. Refer to HAZMAT Report.	Safety Manager	
Contractors for transport of asbestos to use WasteLocate Tracking System	Waste transporter	
Traffic and Vehicle Movement (If Required)		
Controls and Management	Responsibility	
As per Project Traffic Management Plan(s) and applicable TCPs and SWMS Be mindful of neighbours when access roadways en-route to rail corridor No unnecessary braking & loud radios	Site Supervisor Project Manager	
Noise Management		
Controls and Management	Responsibility	
Noise levels within standard Limits. Nearest receivers: Little Eveleigh Street and the Watertower)	Site Supervisor	
Implementation of TfNSW's Construction Noise & Vibration Strategy (Version 4) & activity specific SWMS. Refer to maps 2 & 16	Project Leader Site Engineer Environment Rep	

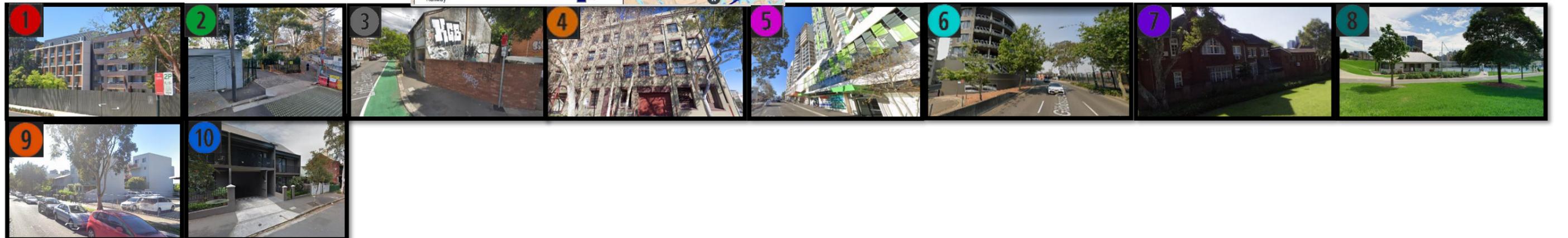
Waste and Resource Consumption	
Controls and Management	Responsibility
Prevent waste being blown or washed outside areas controlled by Novo Rail	Site Supervisor
Waste generated from workers consumables to be disposed of in bins.	Site Supervisor
All waste removed from site and disposed of at licensed facilities.	Environmental Representative
Heritage Management	
Controls and Management	Responsibility
Applicable State Heritage listed sites: 'Redfern Railway Station Group' SHR: 01234 on the S170 Register (4801095). Eveleigh Railway Workshops (SHR 01104; S.170 listing: 4801102) Eveleigh Chief Mechanical Engineer's Office State Heritage curtilage no: 01138; Plan 2314, SHI: 4801126	Project Leader Site Engineer Environmental Representative
All works are to be carried out in accordance with applicable S57 rail-specific heritage exemptions.	
Conditions to be communicated prior to works to applicable project site personnel. Activity specific SWMS to be followed.	
In the event that an unexpected find suspected to be an Indigenous or non-Indigenous heritage is discovered, stop work immediately and inform site supervisor. Refer to TfNSW Unexpected Heritage Finds & Human Remains Procedure	
All personnel to be briefed on heritage/archaeology items present onsite.	
Immediately report any damage to heritage buildings/items to Environmental Representative & I&P.	
Biodiversity Management	
Controls and Management	Responsibility
If encountered, leave Fauna alone and contact Supervisor, Environmental Rep and Project Leader.	Site Personnel
No Vegetation to be trimmed or removed without appropriate approval.	Site Supervisor
Sustainability/other (GREP requirements*)	
WE3 GREP - minimum standards for new electrical appliances/equipment	Project Engineer
A2 GREP - Low-VOC surface coatings for paint/adhesive application	
W3 GREP Water fixtures, minimum standards - new water using appliances	
Light-spill from external lighting must be contained within footprint of work site	
*.Government Resource Energy Policy	-

Air Quality Management	
Controls and Management	Responsibility
Dust control: Work areas to be serviced by Water Trailer as required.	Site Supervisor
Stockpiles to be covered with water resistant material as required.	Site Supervisor
Soil and Water Management	
Controls and Management	Responsibility
Installed sediment erosion controls in accordance with Blue Book as shown in the ECM (as required). Refer to maps 14 – 16	Site Supervisor Environmental Representative Project Leader
Drains to be covered in geofab (where applicable) Stockpiles and similar to avoid/minimise positioning within flood-prone zones. Refer to map 2.	Site Supervisor
Water will not be discharged unless approved. If required, All water discharge will be carried out in accordance with TfNSW Water Discharge & Guidelines. Refer to map 16 for wastewater procedure	Project Engineer Environmental Representative
Chemical Storage	
Controls / Actions	Responsibility
Chemicals, fuels and oils to be stored in fuel-cells and/or within securely contained/bunded areas	Project Engineer Site Supervisor
Bunds to be of sufficient capacity to contain 110% of the stored volume. Bunded areas must have sufficient cover to prevent ingress of rain.	Project Engineer Site Supervisor
Spill kits and absorbent material to be readily accessible at workzone	Site Supervisor
Fuelling and Servicing	
Controls / Actions	Responsibility
The operator must be in attendance at all times during the fuelling process. Spill kits to be located in close proximity to refuelling operations (where applicable)	Site Supervisor
Only minor servicing activities are to be undertaken on site. >20m from drainage lines	Site Personnel
Ground protection measures such as drip trays and plastic sheeting must be installed prior to commencement of servicing.	Site Personnel
Funnels and filler nozzles/fuel cells must be used to refuel smaller plant and equipment such as flex drive motors, welders and generators. Ensure a spill tray is used beneath the fuel nozzle	Site Personnel
If practical fuelling will be undertaken at site compound.	Site Personnel
Complaints management	
Any complaints received by the public are to be directed to the TfNSW 24 Hour Urgent Complaint Line and the Site Supervisor is to be notified immediately for actioning	Site Personnel

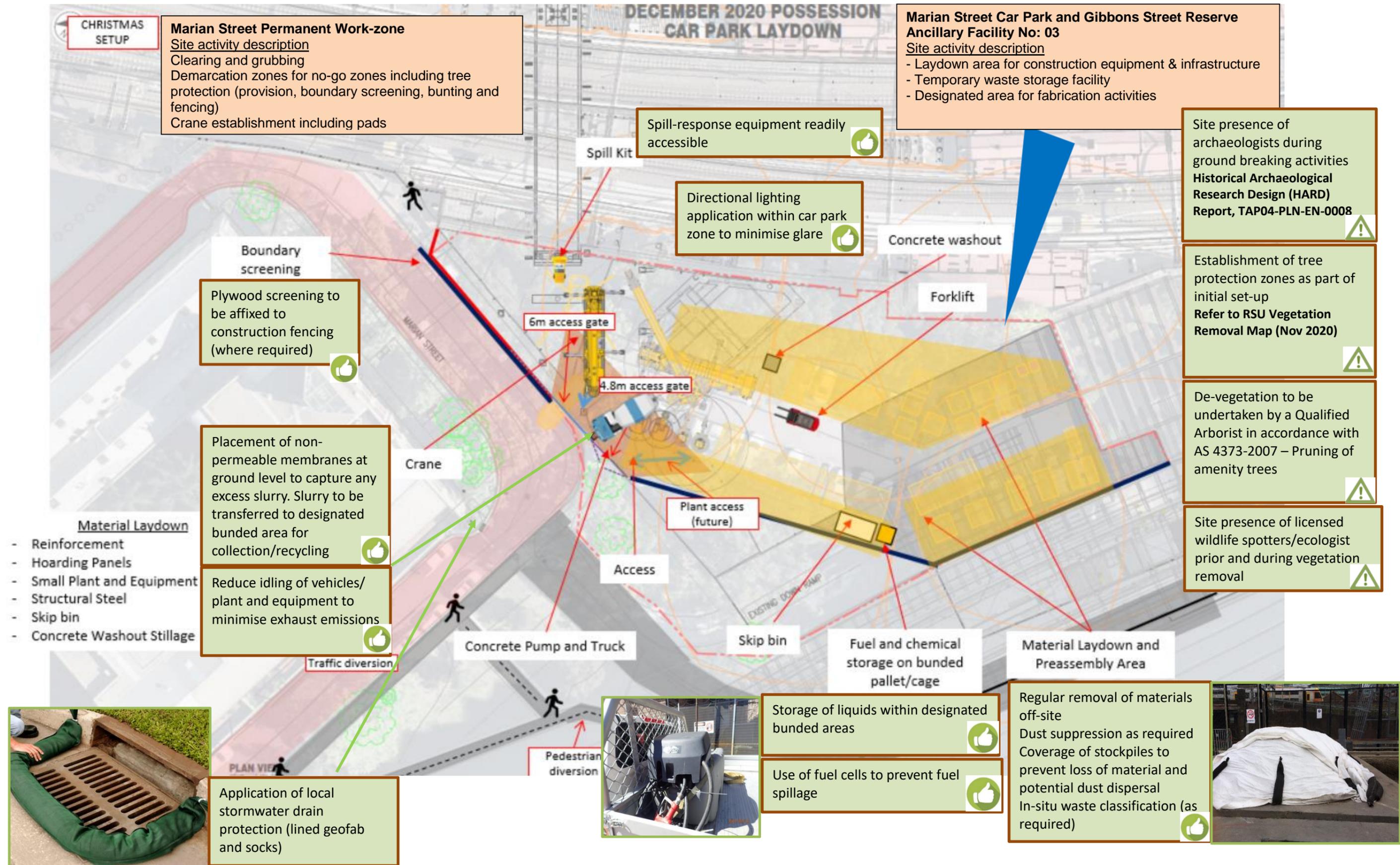
ECM 2 OF 17 Key project features – ancillary work locations/laydown areas, rail corridor access points and noise sensitive receivers



Site reference (Sensitive receivers)



ECM 3 OF 17: Site establishment, low-impact and enabling works, Marian Street Concourse workzone



ECM 4 OF 17: Site establishment, low-impact and enabling works – platform workzone



Spill-response equipment readily accessible
Storage of liquids within designated bunded areas



Establishment of exclusion zones and provision of signage for safeguarding heritage fabric



Platform workzone Site activity description

- Piling Works - Platform 6/7, 8/9, 10
- Hoarding installation - Platform 6/7, 8/9, 10
- Privacy walls removal: P4/5; P6/7 & 8/9 and installation of ply for existing doors P4/5 & P6/7 and addition of temporary door for P8/9 to secure platform building locations

Application of acoustic shroud for absorbing noise emissions (Rock-breaking activities)



Application of acoustic attenuation for high noise generating work activities, saw-cutting, grinding, etc



Provision of geofabric material at platform level and flush to platform for roads being utilised in containing excess spoil during piling activities
Geofab to temporarily contain any potential hydrocarbon leaks from plant/equipment



11kV 512 GST route affixing to entire platform 10 coping.
Minimise penetrations for GST brackets to reduce heritage fabric loss
Refer to requirements under the heritage assessment, Environmental Consistency Assessment



Removal of only permitted heritage fabric with privacy screens located at P4/5; P6/7 & 8/9.

Note: Archival recording to be undertaken prior



ECM 5 OF 17: Scope of works – Platform services relocation and HV power supply (conduit/pit infrastructure only) Geotechnical investigation works (platforms and roadways); OHW – re-profiling and potholing and hazardous materials investigative works

Eveleigh Chief Mechanical Engineer's Office State Heritage curtilage no: 01138. Do not disturb heritage fabric ⚠️

Small materials/equipment and potential stockpile area

Site Containers/Water Tank/Work Benches/Fuel Storage Area/Fire Extinguisher Area/Hazardous Material Storage

Project and staff parking

Additional project & staff parking at Carrageworks

Care to be observed at all times with rail tracks located within the confines of the new temporary site office.
Note: The rail tracks are listed as of exceptional heritage grading and are not to be disturbed ⚠️

Additional Storage Area

Eveleigh Railway Workshops, State Heritage curtilage no: 01140 Do not disturb heritage fabric ⚠️

Regular removal of materials off-site
Dust suppression as required
Coverage of stockpiles to prevent loss of material and potential dust dispersal
In-situ waste classification (as required)
Geofab lining to be observed for storage holding bay 👍

Provision of shade-cloth material affixed to construction fencing (where required)

Access Walkways

Spill-response equipment readily accessible
Storage of liquids within designated banded areas 👍

Temporary new site office erected over the top of the tracks

Storage of liquids within designated banded areas 👍

Use of fuel cells to prevent fuel spillage 👍

Application of local stormwater drain protection (lined geofab and socks) for active work areas 👍

Skip bin lid containment and locked when not in use 👍

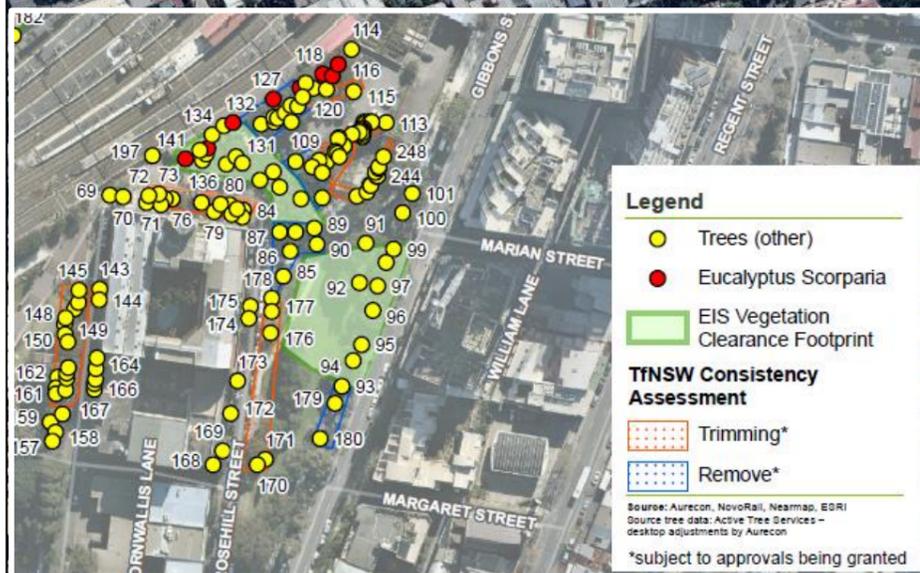
ECM 6 OF 17: Scope of works:



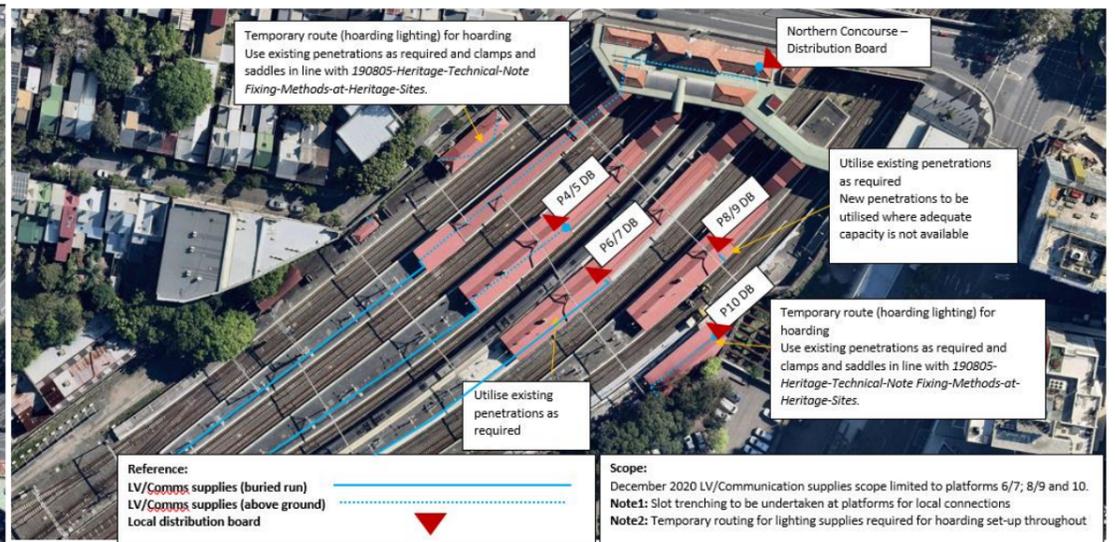
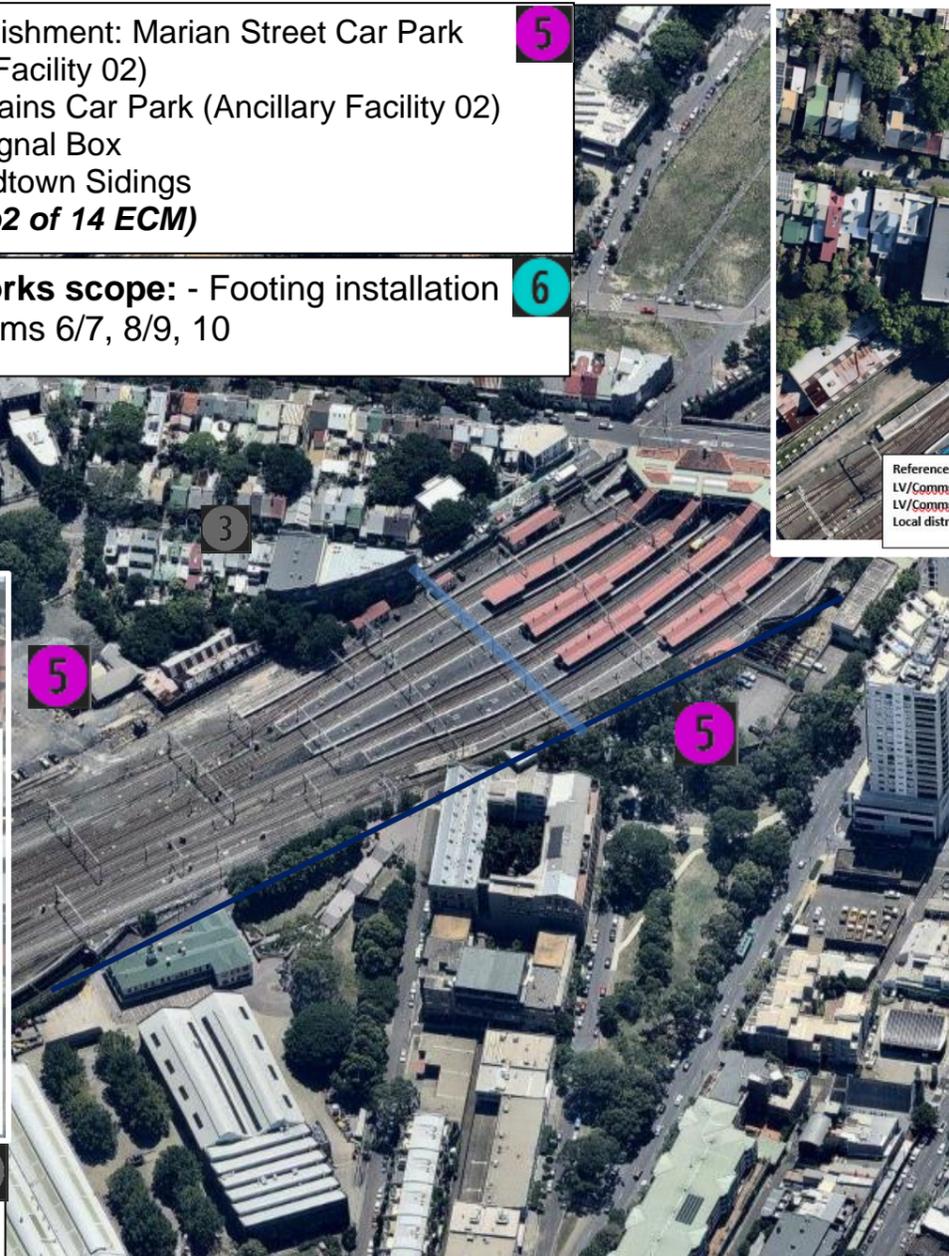
Site establishment: Marian Street Car Park (Ancillary Facility 02)
 Sydney Trains Car Park (Ancillary Facility 02)
 Sydney Signal Box
 Macdonaldtown Sidings
 (refer to p2 of 14 ECM)

OHW Works scope: - Footing installation on platforms 6/7, 8/9, 10

Civil scope: Piling Works including foundations
 FRP for platforms 6/7, 8/9, 10
 Slot trenching investigation works



Civil scope (De-vegetation): Marian Street Concourse permanent works footprint



Platform services relocation scope: LV and telecommunications supplies, platforms 6/7; 8/9 & 10



HV scope: HV investigation works; P10 GST affixing (512 fdr) P10 bends (512/515 fdrs)

ECM 7 OF 17: Material storage area - Carriageworks

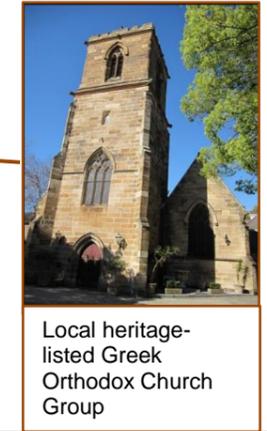


Carriageworks Temporary Ancillary Facility
Site activity description
 - Hi-rail access point
 - Storage of construction equipment & materials
 - Aggregates storage contained by geofabric and gravel socks, covered when not in use
 - Temporary waste storage facility – materials contained within skips or sediment controls
 - Concrete washout bins (as required)
 - Portaloo
 - Plant parking

Legend:

Item	Reference	Notes
Vehicle access		Carriageworks Way, off Wilson St, Eveleigh
Hi-Rail movement (rail corridor)		On the up/down as per possession configuration management
Silt socks and geofab application (as required)		Over stormwater inlets (as required) To contain aggregate stockpiles
Spill response kit (as required)		Spill kit wheelie bin In Hi-Rail plant and rig
Concrete washout (as required)		Ensure sufficient capacity/washout bags, all concrete material to be contained
Stormwater inlets		Protect as required
s170 heritage curtilage		'Eveleigh Railway Workshops' (4801102).
Nearest receiving water body		Munni St stormwater system
Recreational areas		None
Residential/commercial receivers		Nearest sensitive receivers – The Platform Apartments, Iverys Ln
Temporary waste skip bins		GSW only
Repurpose/recycle materials		Provision of dedicated recycling bag receptacles
Flora protection		No trimming or removal of vegetation without prior approval
Fauna protection		No removal of threatened and vulnerable species without approval

ECM 8 OF 17: Material storage area – Sydney Signal Box



Legend:

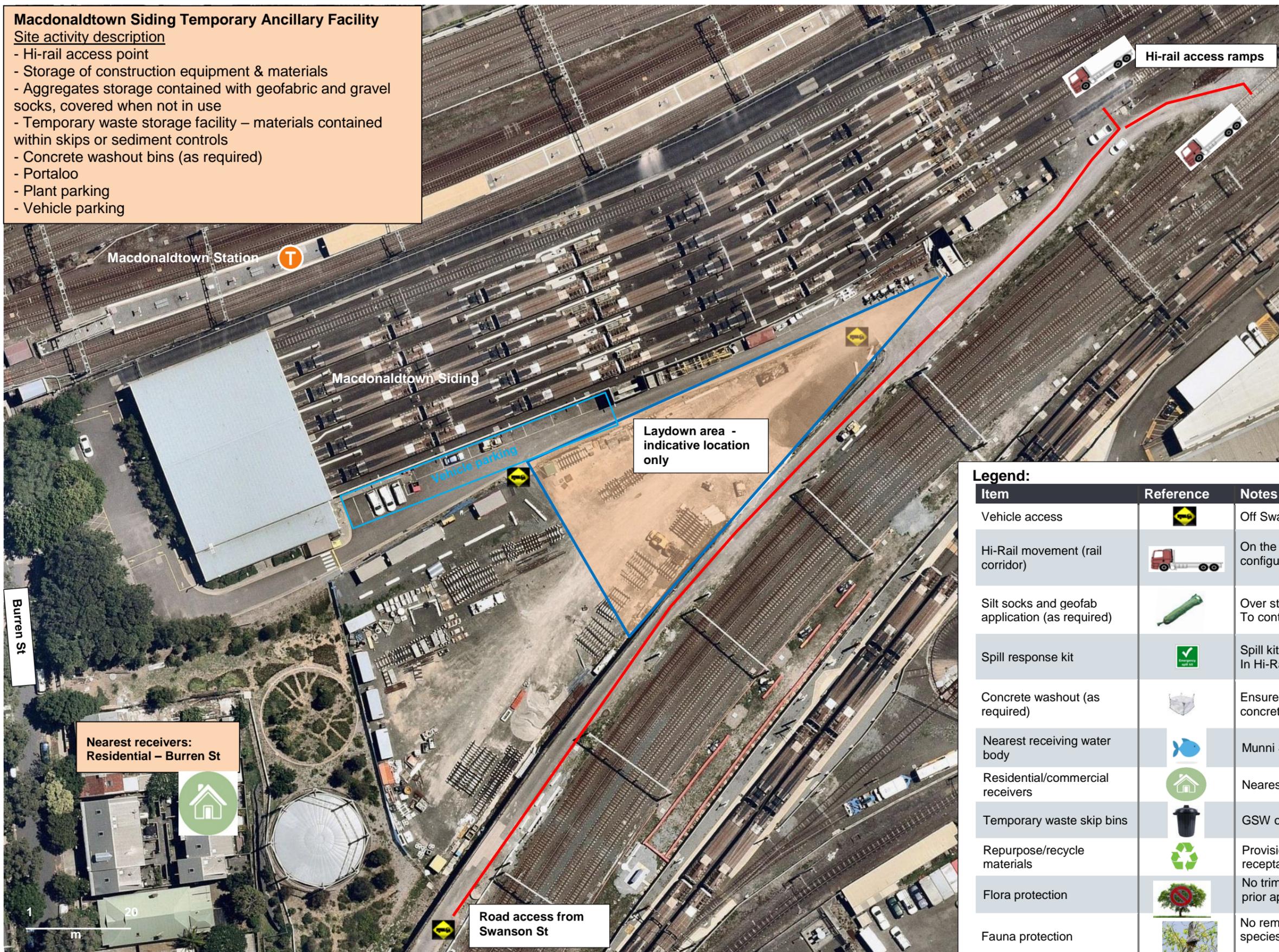
Item	Reference	Notes
Vehicle access		Off Gibbons St, Redfern
Hi-Rail movement (rail corridor)		On the up/down as per possession configuration management
Silt socks and geofab application (as required)		Over stormwater inlets (as required) To contain aggregate stockpiles
Spill response kit		Spill kit wheelie bin In Hi-Rail plant and rig
Concrete washout (as required)		Ensure sufficient capacity/washout bags, all concrete material to be contained
State heritage curtilage		'Sydney Terminal and Central Railway Station Group' (SHR: 01255) & s170 Register (4801296).
Nearest receiving water body		Blackwattle Bay
Recreational areas		Prince Alfred Park
Residential/commercial receivers		Nearest sensitive receivers – Regent St, Cleveland St, Gibbons St Greek Orthodox Church
Temporary waste skip bins		GSW only
Repurpose/recycle materials		Provision of dedicated recycling bag receptacles
Flora protection		No trimming or removal of vegetation without prior approval

ECM 9 OF 17: Material storage area – Macdonaldtown Siding

Macdonaldtown Siding Temporary Ancillary Facility

Site activity description

- Hi-rail access point
- Storage of construction equipment & materials
- Aggregates storage contained with geofabric and gravel socks, covered when not in use
- Temporary waste storage facility – materials contained within skips or sediment controls
- Concrete washout bins (as required)
- Portaloo
- Plant parking
- Vehicle parking



Legend:

Item	Reference	Notes
Vehicle access		Off Swanson St, Erskineville
Hi-Rail movement (rail corridor)		On the up/down as per possession configuration management
Silt socks and geofab application (as required)		Over stormwater inlets (as required) To contain aggregate stockpiles
Spill response kit		Spill kit wheelie bin In Hi-Rail plant and rig
Concrete washout (as required)		Ensure sufficient capacity/washout bags, all concrete material to be contained
Nearest receiving water body		Munni St stormwater system
Residential/commercial receivers		Nearest sensitive receivers – Burren St
Temporary waste skip bins		GSW only
Repurpose/recycle materials		Provision of dedicated recycling bag receptacles
Flora protection		No trimming or removal of vegetation without prior approval
Fauna protection		No removal of threatened and vulnerable species without approval

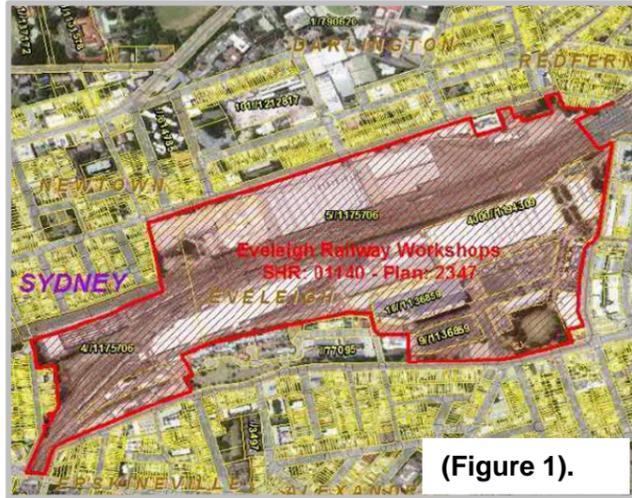
ECM 10 OF 17: Site constraints and environmental control measures



Legend:

Item	Reference	Notes	Item	Reference	Notes
State heritage curtilage		'Redfern Railway Station Group' (SHR: 01234) & S170 Register (4801095).	Nearest receiving water body		Blackwattle Bay ~<2km NNW
Archaeological potential	Refer to ECM 9 of 14		Recreational areas		Gibbons Street Reserve
Silt socks and geofab application (as required)		Platforms in proximity to workzone	Residential/commercial receivers		Nearest receivers – Little Eveleigh Street; Watertower/Gibbons Street
Spill response kit (as required)		Hi-Rail plant and rig	Temporary waste bin		GSW only
Vehicle access		Eveleigh Site Compound 136 Railway Pde & Rail Corridor	Repurpose/recycle materials		Provision of dedicated recycling bag receptacles
Hi-Rail movement (rail corridor)		On the up/down as per possession configuration management	Application of acoustic attenuation (saw-cutting)		Platform work activities
Flora protection		Removal of approved vegetation only. Tree protection via demarcation means to be observed for potentially impacted upon trees (Marian/Rosehill & Cornwallis St)	Fauna protection		No removal of threatened and vulnerable species without approval

ECM 12 of 17: Archaeological Potential Zones and applicable State Heritage Curtilages



(Figure 1).



(Figure 2).



(Figure 3).

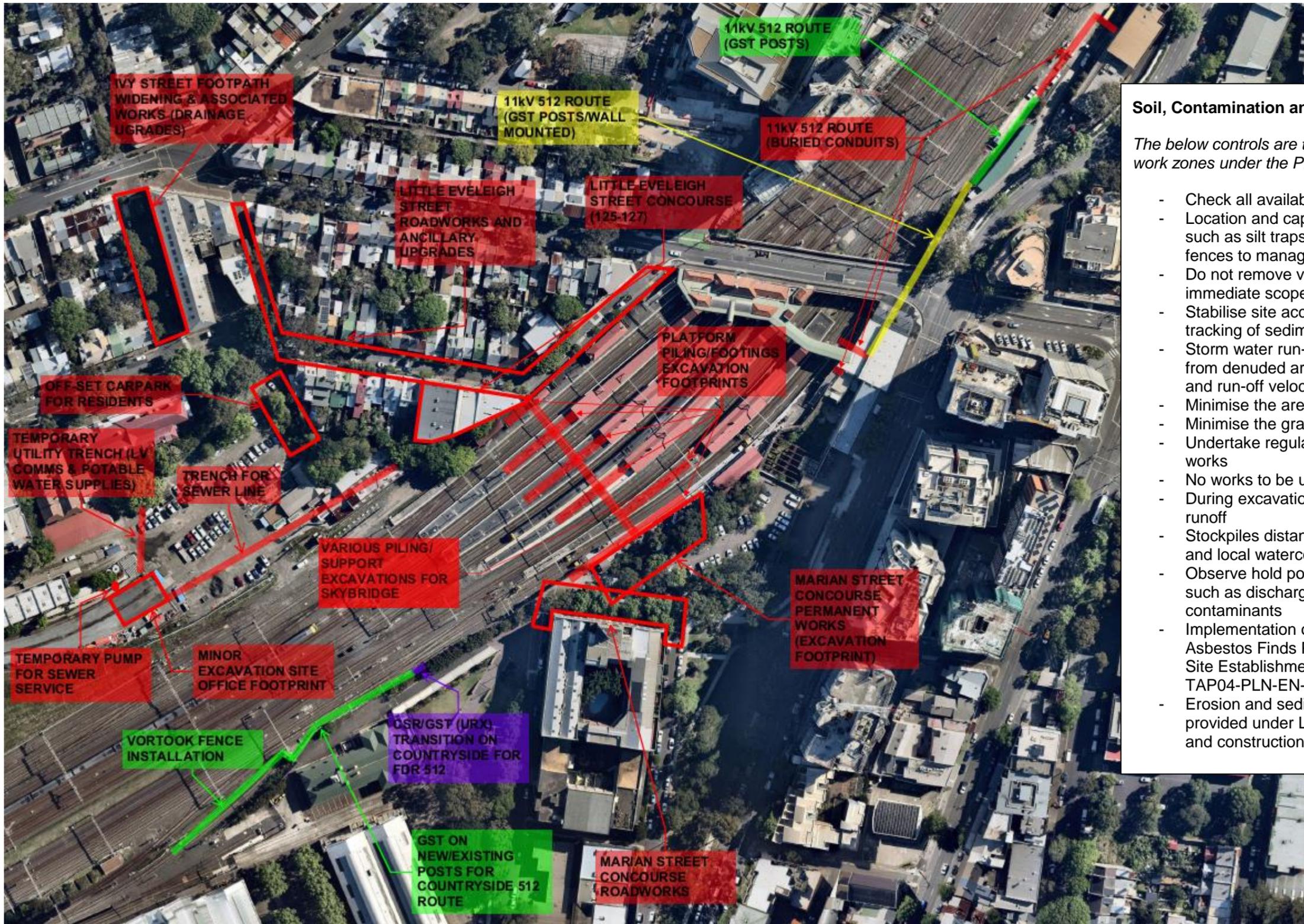
SHR curtilages of note:

- Redfern Railway Station Group, which is listed on the SHR (#01234) and RailCorp Section 170 Heritage and Conservation Register (#4801095) (Figure 1)
- Eveleigh Railway Workshops, which is listed on the SHR (#01140) and RailCorp Section 170 Heritage and Conservation Register (#4801102) (Figure 2)
- Eveleigh Chief Mechanical Engineers Office and moveable relics, which is listed on the SHR (#01138) and RailCorp Section 170 Heritage and Conservation Register (#4801126) (Figure 3).



Source: AMAC (Nov 2020)

ECM 13 of 17: Excavation footprint areas associated with various work discipline deliverables



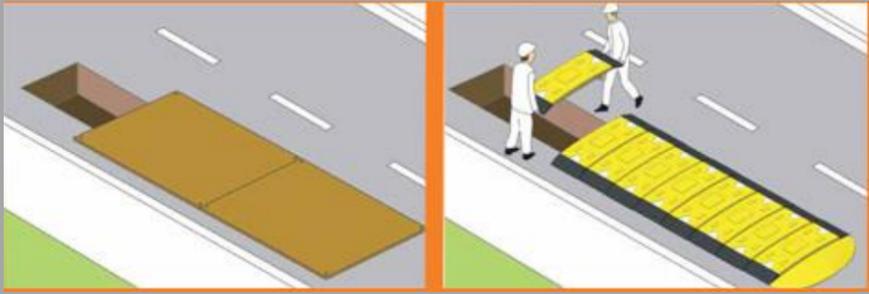
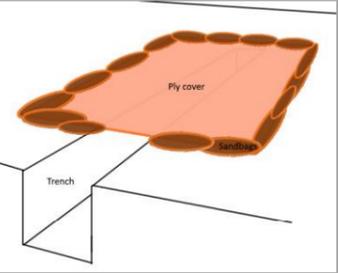
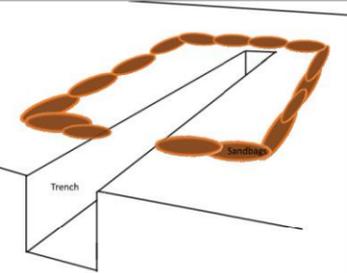
Soil, Contamination and Water Mitigation Measures

The below controls are to be observed where applicable for excavation work zones under the Project.

- Check all available plans/drawings for the area to be disturbed
- Location and capacity of erosion and sediment control measures such as silt traps, sediment basins, perimeter banks and silt fences to manage the potential for sediment laden waters
- Do not remove vegetation/surface seal until required for immediate scope of work
- Stabilise site access points with aggregate to minimise the tracking of sediment
- Storm water run-off will be controlled by diverting storm water from denuded areas, and minimising slope gradients, lengths and run-off velocities
- Minimise the area of exposed soil surfaces
- Minimise the gradient of excavation / exposed soil work area.
- Undertake regular weather forecasting in line with scheduled works
- No works to be undertaken during heavy rainfall events
- During excavation works all soils to be stabilised to prevent runoff
- Stockpiles distanced from stormwater drains and drainage lines and local watercourses, i.e. Blackwattle Bay
- Observe hold point and cease works for uncontrolled events such as discharge of waters or exposure of suspected contaminants
- Implementation of the Unexpected Contaminated Land and Asbestos Finds Procedure within TAP04-PLN-EN-0015 and the Site Establishment and Enabling Works Management Plan TAP04-PLN-EN-0003-SEEWMP
- Erosion and sediment control application is to follow guidance provided under Landcom, Managing Urban Stormwater: Soils and construction (4th edition)

Note: Above excavation footprint are indicative only

ECM 14 OF 17: Illustrative Environmental Control Measures (to be used where practicable and on a needs basis dependent on scope)

<p>Indicative stockpile controls</p>	 <p>Example of a 'Bulk Bag' used for the delivery and/or storage of fill materials/spoil</p>	 <p>Builders film/geofab with tucked edges.</p>	 <p>Example of a covered skip bin. A cover is essential for preventing the entry of rainwater.</p>	 <p>Stockpile underlain with geofab.</p>
<p>Indicative storm water drain controls</p>	 <p>GeoFab laid underneath storm water drain to capture sediment. Ensure these are checked regularly to avoid build up preventing water flow.</p>	 <p>Sediment sock and cover over a curb side drain.</p>	 <p>Formal sediment trap mechanism in place. Must be checked regularly. Useful for high traffic areas.</p>	 <p>Plant nappy encapsulates any drips or spills of oil. The mat however freely allows passage of water, such as rainfall</p>
<p>Indicative concrete washout controls</p>	 <p>Skip washout system</p>	 <p>A sealed container that fits on a pallet for ease of removal can be used for small volumes.</p>	 <p>Concrete Washout Bag</p>	 <p>Application of non-permeable sheeting in place prior to concrete pour. Note: Skip bins typically contain weep holes at base</p>
<p>Indicative excavation controls</p>	 <p>Trench covered with either road plates or plastic trench covers. This allows for safe edge protection and prevents the ingress of water during rain events. Also prevents entry/trapping of fauna within excavation footprint</p>		 <p>Ply board and sandbags used to cover a trench excavation. Safety barricades are also to be used to protect area when not in use.</p>	 <p>Sandbags surrounding excavation to prevent water ingress.</p>

ECM 15 OF 17: Illustrative Environmental Control Measures (to be used where practicable and on a needs basis dependent on scope)

Indicative bunding controls



Bunded enclosed unit for the storage of liquid containers



Bunded pallet for the storage of liquid containers



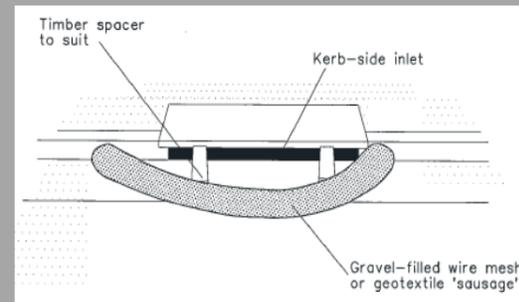
Local refuelling activities - bunded trolley with handle

Insert as required for reference purposes

Indicative storm water drain controls



Silt sock positioned slightly upstream to prevent sediment from entering local stormwater drain. Always adequately fill sock to ensure it remains stable and effective when in use.



Application of timber spacing to support sediment/silt sock from kerb-gutter drain.
 Source: p160, Blue Book (LandCom)



Application of filter roll for kerb-gutter drain.
 Source: p157, Blue Book (LandCom)



Silt sock positioning enclosure for managing local stormwater run-off

Local air quality management and erosion and sediment controls



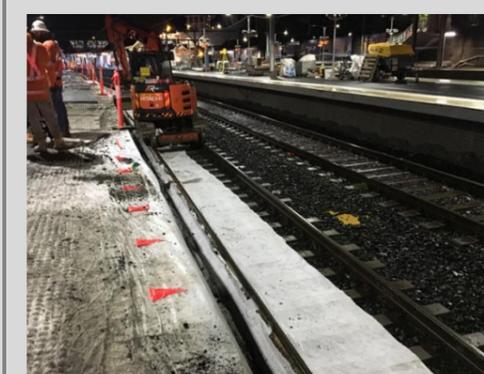
Provision of shade cloth for security fencing and sediment bags at the base.



Provision of shade cloth for security fencing and siltation fencing affixed to fence line.



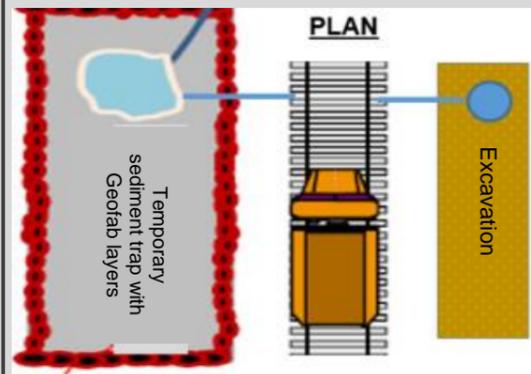
Dust suppression applications are available for dust generating work, i.e. demolition works, bulk earth works, trenching etc



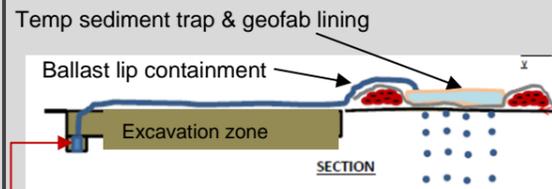
Good application with geofab in proximity to hi-rail excavator in containing spoil to cess and four-foot

ECM 16 OF 17: Illustrative Environmental Control Measures (to be used where practicable and on a needs basis dependent on scope)

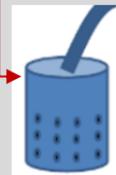
Wastewater management



2D view illustrating generated wastewater at excavation zone being discharged via gravity/oump means to temporary sediment trap for filtration treatment



Cross sectional view illustrating generated wastewater at excavation zone being discharged via gravity/oump means to temporary sediment trap for filtration treatment



Submersible pump positioned within container with <15mm aperture dia. to prevent ballast/stone uptake by pump



Filtering of wastewater through the application of geofab layers onto a sediment trap area over ballast. Layers to be removed & replaced as work progresses where geofab becomes clogged.

Water Pumping Procedure and controls:

- ✓ All water discharge must be approved by the Project Environmental Representative before the discharge can occur. Discharge to be in accordance with TfNSW Water Discharge Guidelines. (below form)
- ✓ To reduce the amount of water in the excavated trench & mix of contaminants, the following procedure should be followed:
- ✓ Pump existing chamber where trench adjoins to.
- ✓ The pump will be placed at lowest level of excavation. The sketches on the left will apply to all these applications.
- ✓ Pump placed inside perforated containment/bucket inside the sump/lowest level excavation. Bucket drilled with ~15mm dia. holes to prevent ballast/stone uptake by pump.
- ✓ ~300mm (min) high ballast dam surrounding sediment trap area.
- ✓ Place 3 layers of geofabric onto a sediment trap area over ballast dam (refer left to images)
- ✓ Layers to be removed & replaced as work progresses and where geofab becomes clogged.
- ✓ Geofab to be disposed of as per CEMP

Noise management controls



Application of noise absorption barriers for platform works, e.g. saw cutting, plate compaction; generators, power tools, etc



Application of the Echo Barrier V1™ & Folding Frame for effectively absorbing point source emissions from local plant. To be applied where safe and practicable and to be used for repetitive saw cuts.



Double laying application and overlap of acoustic attenuation adjacent to Little Eveleigh Street in minimising noise emissions from work site

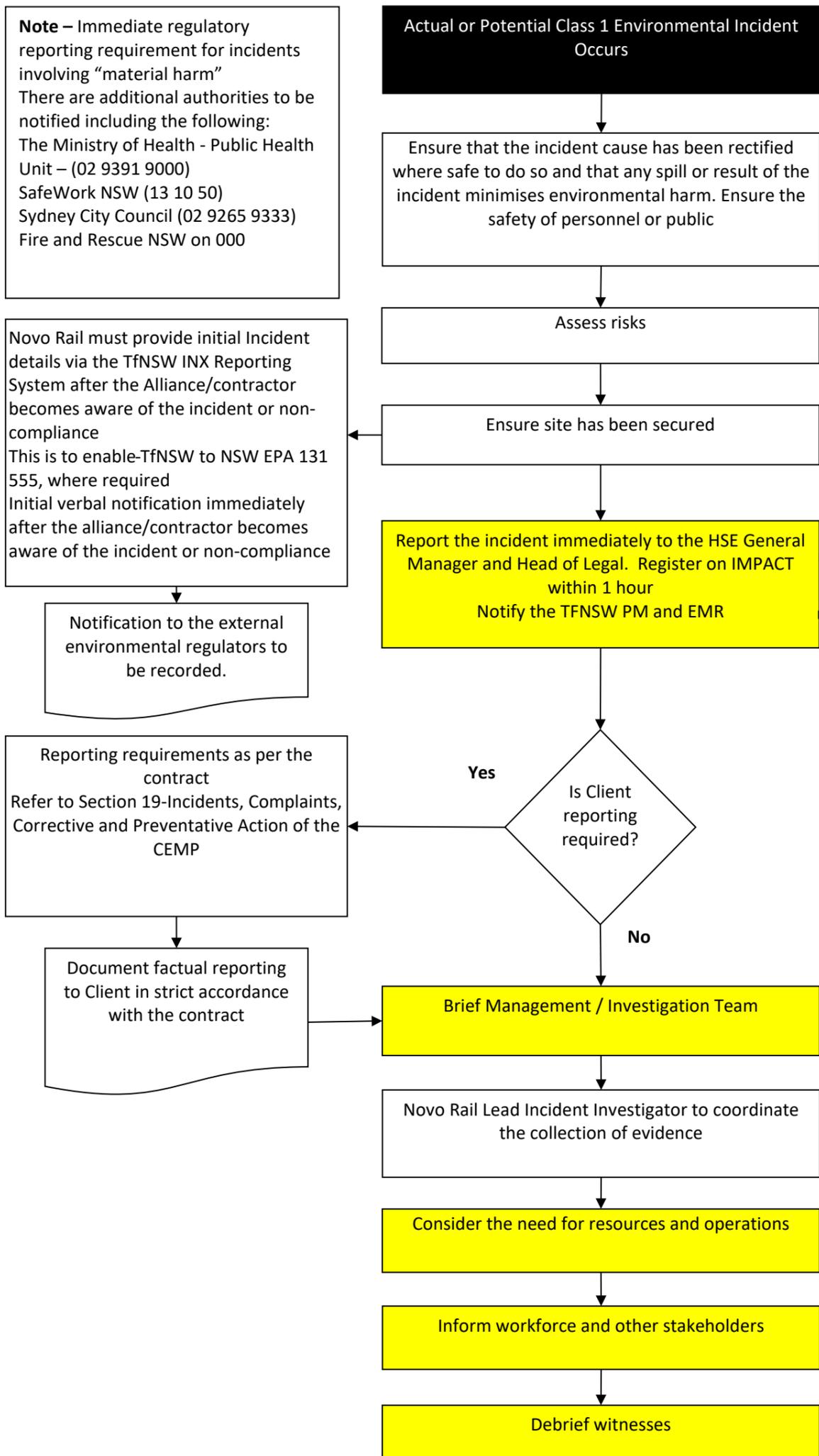


Application of acoustic shroud for absorbing noise emissions

ECM 17 OF 17: Illustrative Environmental Control Measures (to be used where practicable and on a needs basis dependent on scope)

<p>Heritage controls</p>	 <p>Bunting and signage and/or self-supporting separation application. e.g ply with neoprene to prevent potential damage to heritage fabric such as brickface</p>	 <p>Do not cut or notch original decorative rendered mouldings.</p> <p>Avoiding original decorative elements allows for removal at a later date with minimal damage. This installation of an emergency help point shows the conduit path has been modified to avoid decorative building elements. (Redfern Station, 2017)</p>	 <p>Establishment of exclusion zones and provision of signage for safeguarding heritage fabric (Platform 10, Redfern Station, 2020)</p>	<p>Insert as required for reference purposes</p>
<p>Waste management controls</p>	 <p>Provision of containment systems (double-skinned) for excess wastewater from vacuum trucks</p>	 <p>Temporary containment measures for open-end skip bins to prevent loss of waste materials</p>	<p>Insert as required for reference purposes</p>	<p>Insert as required for reference purposes</p>
<p>Environmental management controls (as required)</p>	<p>Insert as required for reference purposes</p>	<p>Insert as required for reference purposes</p>	<p>Insert as required for reference purposes</p>	<p>Insert as required for reference purposes</p>

APPENDIX E: Class 1 Incident Management



Note – Immediate regulatory reporting requirement for incidents involving “material harm”
There are additional authorities to be notified including the following:
The Ministry of Health - Public Health Unit – (02 9391 9000)
SafeWork NSW (13 10 50)
Sydney City Council (02 9265 9333)
Fire and Rescue NSW on 000

Novo Rail must provide initial Incident details via the TfNSW INX Reporting System after the Alliance/contractor becomes aware of the incident or non-compliance
This is to enable TfNSW to NSW EPA 131 555, where required
Initial verbal notification immediately after the alliance/contractor becomes aware of the incident or non-compliance

Notification to the external environmental regulators to be recorded.

Reporting requirements as per the contract
Refer to Section 19-Incidents, Complaints, Corrective and Preventative Action of the CEMP

Document factual reporting to Client in strict accordance with the contract

Role	Name	Number*
HSE General Manager	Richard Coleman	
Head of Legal	Annabel Crookes	
Laing O'Rourke Environmental Lead and Quality Manager	Chris Greenaway	
Alliance General Manager	James Renwick	
Construction Manager	Phil Goddard	
Project Environmental representative	Laura Atencio	
Project Environmental & Sustainability Manager	Larry Melnick	
TfNSW Project Manager	Eddie Wu	
TfNSW Environment and Planning Manager	Senior Manager Planning (SMP)	
TfNSW Environment and Planning Manager	Hannah Barker	
TfNSW Senior Environment and Planning Manager	Tara Wilcoxon	
Environmental Representative	Michael Woolley	

*contact numbers not visible for public display

APPENDIX F: Environmental and Sustainability Inspection Form

Environment Inspection

E-T-8-1227 WEEKLY ENVIRONMENTAL & SUSTAINABILITY INSPECTION REPORT

CONTRACT/PROJECT No.: Redfern Station Upgrade - New Southern Concourse		WORK LOCATION:							
DATE:		TIME:							
A = ACCEPTABLE		AR = ACTION REQUIRED		N/A = NOT ASSESSED					
No.	ITEM	CONFORMANCE			RISK CLASS	DESCRIPTION OF NON-COMPLIANCE/ CORRECTIVE ACTION	CORRECTIVE ACTION REQUIRED	RESPONSIBLE	TARGET DATE
		A	AR	NA					
GENERAL HOUSEKEEPING									
Interface-communication and community awareness									
1.1	Work zones located in close proximity to residential and commercial and other sensitive receivers? (i.e. aged-care facilities, childcare centres, places of workshop, schools)								
1.2	Provision of adequate signage for nearby receivers Is project signage visible at designated access points to the project work site: (signage should include 1) Project Introduction/summary; 2) 24 hour Project Information line - enquiries/complaints and 3) Principal Contractor Site Contacts Emergency contact(s)								
1.3	Evidence of nearby construction works being undertaken separate to this project? Please provide any additional details where applicable under additional comments below.								
Property and Safety									
1.4	Is there evidence of damage to project assets (i.e. lighting, hoarding, site sheds, walkways/access gates, fencing, vegetation)								
1.5	Is there evidence of unoffensive graffiti and unauthorised advertising (i.e. hoarding, perimeter fencing/access gates, vegetation) (Note1: unauthorised advertising required to be removed or concealed within 24 hours; Note2: highly visible (yet inoffensive) graffiti to be removed or concealed within a week)								
1.6	Is there evidence of offensive graffiti (i.e. hoarding, perimeter fencing/access gates, vegetation) (Note: required to be removed or concealed within 24 hours)								
1.7	Is there evidence of damage to property or graffiti to residential or commercial properties?								
1.8	Is passive surveillance and adequate lighting or other controls provided during construction?								
Access and vehicle movement (community)									
1.9	Are vehicles and equipment operating within the approved Project Footprint?								
1.10	Is there evidence of increased congestion on local road networks as a result of works associated with the project								
1.11	Are vehicles associated with the project meeting local road rules (speed limit, parking and turning points, etc)								
1.12	Is access to nearby residential and commercial premises impacted upon as a result of project associated plant, equipment and materials? (i.e physical blockage and/or increased congestion)								
1.13	Is accessibility within the project footprint and in its proximity maintained for all users to local amenities e.g. public transport, schools, shops etc.								
1.14	Have accessibility elements within the project footprint and in its proximity to local amenities been addressed to assist users with a mobility disability or who are visually impaired?								
1.15	Are staff and subcontractor's parking in local streets and restricting access for local residents and commercial operators?								
Site amenity									
1.16	Are the project footprint areas and site compounds kept clean and tidy?								
1.17	Are areas outside of the project area and compounds also free from rubbish and maintained for adequate community use?								
FIRE CONTROLS									
2.1	Hot works conducted under Permit?								
2.2	Any evidence of unapproved fires onsite or offsite along Project boundaries?								
2.3	Fire extinguishers/equipment available and maintained? (vehicles/work areas)								
AIR POLLUTION/CLIMATE CHANGE									
3.1	Are fugitive dust emissions travelling beyond Project boundaries?								
3.2	Evidence of fugitive dust emissions directly impacting upon nearby properties (e.g. child care centres/schools, cafes/restaurants, aged-care facilities)								
3.3	Are dust control measures being implemented to minimise dust emissions (e.g. – sufficient number of watercarts, handling/transport of materials, application of dust suppressants etc.)?								
3.4	Do all vehicles leaving the site with material have their load covered?								

Environment Inspection

No.	ITEM	CONFORMANCE			RISK CLASS	DESCRIPTION OF NON-COMPLIANCE/ CORRECTIVE ACTION	CORRECTIVE ACTION REQUIRED	RESPONSIBLE	TARGET DATE
		A	AR	NA					
3.5	Do excessive black smoke emissions from vehicles and equipment occur >10 seconds continuously?								
3.6	Plant/equipment generating potential exhaust fumes (e.g. welding, refuelling, generators, pesticides, etc) adequately distanced from nearby residential premises?								
3.7	Evidence of stationary or non-stationary plant/equipment and/or site compound utilising cleaner fuels (e.g. LPG; biodiesel) or renewable energy sources (e.g. solar and/or carbon offsetting)								
MAINTENANCE / EQUIPMENT / REFUELLING									
4.1	Are vehicles, equipment and plant being serviced on time and according to manufacturer specifications? Maintenance logs up to date & available to view?								
4.2	All gen-sets and diesel tanks are self contained or in 110% capacity bund with no evidence of water or litter pooling within?								
4.3	Is plant/equipment being operated in proximity to waterways or drainage areas?								
4.4	Are refuelling activities taking place at designated zones with spill kits, drip trays and fire extinguishers present?								
4.5	Are fuel-cells or similar utilised for temporary fuel-storage to assist in minimising fuel spillage/discharge?								
WASTE MANAGEMENT									
5.1	Sufficient waste receptacles available to segregate waste streams (e.g. oily rags, plastics, wood, steel, 'butt out bins') & are they placed and accessible to work areas?								
5.2	Are waste streams being segregated into clearly labelled receptacles for re-use/recycling purposes? MINOR ADJUSTMENT TO EXISTING LINE ITEM AND DENOTED IN BLUE								
5.3	Do all waste receptacles have appropriate lids and/or coverings and locks to avoid potential illegal dumping and cross-contamination of recyclables?								
5.4	Evidence within skip/bins of any cross contamination?								
5.6	Any evidence of unreported leaks/spills (e.g. – sewerage overflows/leaks, hydrocarbon spills and vehicle wash-down areas and chemical storage areas)?								
5.7	Are concrete washout areas installed in agreed locations and are they being maintained and emptied?								
5.8	Are bin receptacles adequately distanced from businesses and residents and is there any evidence of noticeable odours (i.e. consistent detectable odour)								
CHEMICAL MANAGEMENT AND SPILLS									
6.1	Are hazardous chemicals/liquids store inside a bund that satisfies the criteria - 110% of the max. storage or 10% of double skinned tank?								
6.2	Are spill kits (hydrocarbon and/or chemical) located within each Work Zone and/or with major vehicles? Are they sealed and protected from weathering?								
6.3	Hazardous materials segregated (no incompatible materials together, (e.g. flammables separated from corrosives) and have correct signage, fire extinguishers, ventilation, correct containers & labels)?								
6.4	Evidence of notable and recent staining (hydrocarbon/paint, etc) of ground surfaces within the project footprint and/or in proximity to residential and commercial properties.								
EROSION AND SEDIMENT CONTROL									
7.1	Are Erosion Control Structures (ESCs) installed as per the current ESCP and/or ECM/CEMP?								
7.2	Are all controls being installed correctly and maintained and have a minimum of 75% capacity?								
7.3	Is there evidence of erosion/sedimentation or surface water discharge occurring external to the Project Footprint?								
7.4	Are sediment basins of adequate size and constructed so that all water on-site is draining to them?								
7.5	Is there evidence of sediment tracking on external public roads?								
7.6	Is the ESCP or ECM up to date in line with the scope of works and catchment areas?								
7.7	Clean water diverted to approved locations and dirty/contaminated water contained? No evidence of contaminated water leaving site?								
7.8	Evidence of clean-water being captured at site and re-used for other purposes, e.g. dust suppression; local irrigation; hosing/cleaning of plant/equipment; flushing of toilets?								
7.9	Are stockpiles adequately covered to prevent dust dispersal and loss of material product and distanced from waterways and/or drainage lines/systems?								
7.10	Designated wash-bay (where applicable) used correctly, i.e. containment of wastewater								
7.11	Are wash grid/shaker grids installed at access points to the project site (i.e. removal of contaminants from under and the under side of vehicles entering and exiting sites.								
WATER QUALITY AND MANAGEMENT									
8.9	Collected water treated and tested prior to discharge offsite?								
8.10	Are current water restriction permits displayed (where applicable) for certain activities, e.g. application of trigger nozzles or high pressure equipment for cleaning building structures/plant and/or equipment?								
BIODIVERSITY - FLORA AND FAUNA PROTECTION									

Environment Inspection

No.	ITEM	CONFORMANCE			RISK CLASS	DESCRIPTION OF NON-COMPLIANCE/ CORRECTIVE ACTION	CORRECTIVE ACTION REQUIRED	RESPONSIBLE	TARGET DATE
		A	AR	NA					
9.1	Are all works occurring within the approved construction work zones? Any evidence of vehicular activity or unapproved activities (i.e. tracks/turning circles etc.) in off-limit areas, known fauna habitats?								
9.2	Is the 'No-Go Zone' fencing and signage for flora and/or fauna protection in good working condition? (i.e. no evidence of damage or missing signage or fencing)								
9.3	Is there evidence of adverse impacts to protected native vegetation (within No Go Zones) on-site and up to 5m around site, along Project roads or infrastructure footprints (e.g. - overspray from dust suppression activities, dust settlement, unauthorised clearing)?								
9.4	Do vehicles have Weed-free Certificates and are Weed Inspection Logs up-to-date?								
9.5	Topsoil/ Vegetation/ Weeds are adequately segregated and provided with clear visible signage?								
9.6	During evening and night works is lighting facing downwards and illuminating work areas only?								
9.7	Are fauna egress points installed in sediment basins and other excavations/trenches?								
NOISE / VIBRATION									
11.1	Equipment is located/directed away from sensitive areas and where suitable are fitted with sound insulation and/or vibration suppression devices?								
11.2	Are all vehicles/plant/equipment being turned off when not in use?								
11.3	Are non-tonal reversing beepers (or an equivalent mechanism) fitted and used on all construction vehicles and mobile plant regularly used on site (i.e. greater than one day) and for any out of hours work ('quacker'/woosher)?								
Indigenous and Non-Indigenous Heritage									
13.1	Does the project site include any delineated (fencing, flagging tape etc) no-go zones due to archaeological potential and/or recent archaeological finds?								
13.2	Are delineated areas (where applicable) adequate to address unauthorised access? (e.g. signage, physical barrier, supervision)								
13.3	Is there evidence of unapproved activities or damage to known Indigenous and/or non-indigenous heritage areas? (e.g. placement/positioning of plant/equipment and materials in close proximity to identified heritage items)								
Contaminated land/PASS/ASS									
14.1	Contamination remediation being undertaken in accordance with approved plan?								
14.2	Physical controls i.e. bunting, barriers, signage, supervision, etc) for known contaminated areas in place and maintained?								
14.3	All PASS/ASS treatment pads and sumps, maintained as per required specifications?								
14.4	Do stockpiles of contaminated materials being stored onsite have appropriate protection measure in place to protect soil and surface waters?								
ADDITIONAL COMMENTS / REQUIRED ACTIONS:									
INSPECTION TEAM:		Risk Class			Environment				
SIGNATURE(S):		0			Requirement Complies with system or criteria.				
Project Manager or Leader:		1			Major Noncompliance e.g.: Nil evidence of implementation, departure from documented system requirement, potential or pending failure leading to long term defect or immediate requirement for rectification or change of work method or construction details. Potential prosecution				
SIGNATURE:		2			Minor Noncompliance. Eg: Issues with system or criteria requirement establishment or implementation, potential failure leading to possible long term defect or review of work method or construction details.				
<i>Note: This form MUST be signed and scanned as electronic copy and saved in the projects Environmental system folder (1430). Hard copy to remain in project file for no less than 12 months. All non-compliances must be uploaded into the Corrective Action Register (E-T-8-</i>		3			Opportunity for Improvement (minor omissions, oversights, identification of recommendations to improve, etc)				

APPENDIX G: Environmental and Sustainability Management Register

Note: this is live document and is too large to export into a PDF format.
However, this Appendix can be provided upon request.

APPENDIX H: Written incident notification and reporting requirements (CoAs, Appendix A)

1. A written incident notification addressing the requirements set out below must be submitted to the Department via the Major Projects website within seven days after the Proponent becomes aware of an incident. Notification is required to be given even if the Proponent fails to give the notification required under Condition A36 or, having given such notification, subsequently forms the view that an incident has not occurred.
2. Written notification of an incident must:
 - (a) identify the SSI 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 Proponent became aware of the incident;
 - (e) identify any actual or potential non-compliance with conditions of approval;
 - (f) describe what immediate steps were taken in relation to the incident;
 - (g) identify further action that will be taken in relation to the incident; and
 - (h) identify a project contact for further communication regarding the incident.
 - (i) Within 30 days of the date on which the incident occurred or as otherwise agreed to by the Planning Secretary, the Proponent 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.
 - (j) The Incident Report must include:
 - (k) a summary of the incident;
 - (l) outcomes of an incident investigation, including identification of the cause of the incident;
 - (m) details of the corrective and preventative actions that have been, or will be, implemented to address the incident and prevent recurrence; and
- (n) details of any communication with other stakeholders regarding the incident.

APPENDIX I: Consultation Summary Report

Consultation Evidence

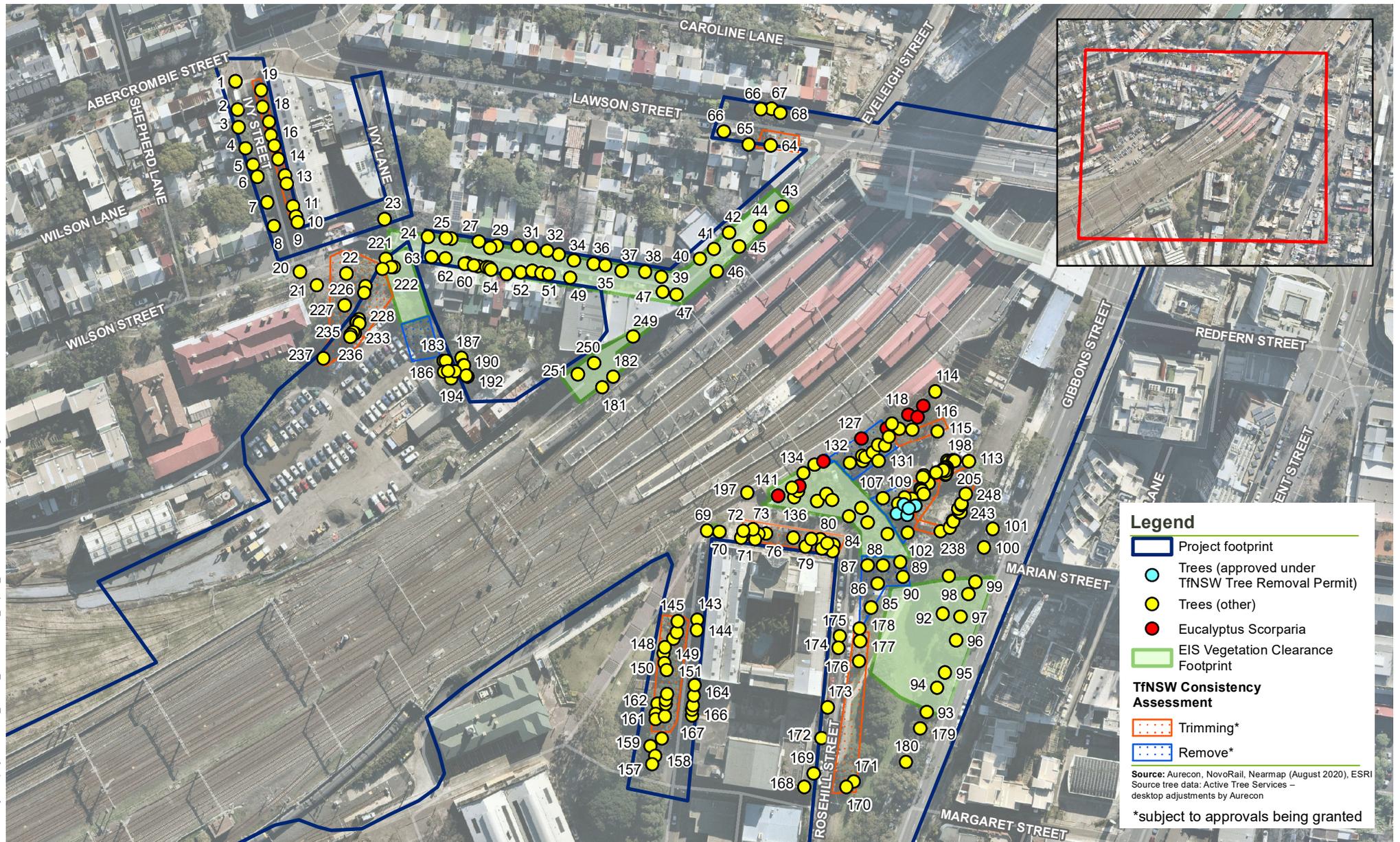
City of Sydney Consultation on the Site Establishment and Enabling Works Management Plan

Table A- 1: Log of consultation with City of Sydney as per A5(a), (b)

In / Out	Date and time	Method of contact	Details of contact
Outgoing	10 November 2020	Meeting (online)	Meeting with CoS to discuss management plan consultation requirements and timeframes. Attendees: Marie Burge, Andrew Rees, Andrew Rees (CoS), Eddie Wu, Megan Gigacz, Simon Cousins, Shani Archer and Tara Wilcoxon (TfNSW).
Outgoing	11 November 2020, 3:42pm	Email	Details of submissions that would be issued to CoS for consultation for the Project with timeframe requirements sent in via email from Tara Wilcoxon (TfNSW) to Marie Burge (CoS), CC Andrew Rees, Andrew Rees (CoS), Hannah Barker, Megan Gigacz, Tanya Coates, Eddie Wu, Shani Archer (TfNSW)
Incoming	12 November 2020, 12:17pm	Email	Acknowledgment of initial email from Marie Burge (CoS).
Outgoing	24 November 2020, 6:14pm	Email	The SEEWMP (Final Draft) sent in via email (secure file transfer) from Hannah Barker (TfNSW) to Marie Burge (CoS), CC Andrew Rees, Andrew Rees (CoS), Megan Gigacz, Eddie Wu, Tara Wilcoxon (TfNSW), and requesting comment by 8 December 2020.
Incoming	9 December 2020, 1:44pm	Email	Marie Burge emailed with feedback from CoS on the SEEWMP and confirmed no issues raised.

APPENDIX J: Vegetation removal footprint

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Legend

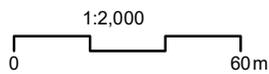
- Project footprint
- Trees (approved under TfNSW Tree Removal Permit)
- Trees (other)
- Eucalyptus Scorparia
- EIS Vegetation Clearance Footprint

TfNSW Consistency Assessment

- Trimming*
- Remove*

Source: Aurecon, NovoRail, Nearmap (August 2020), ESRI
Source tree data: Active Tree Services - desktop adjustments by Aurecon

*subject to approvals being granted



Projection: GDA 1994 MGA Zone 56

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Legend

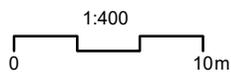
- Project footprint
- Trees (other)

TfNSW Consistency Assessment

- Trimming*
- Remove*

Source: Aurecon, NovoRail, Nearmap (August 2020), ESRI
Source tree data: Active Tree Services – desktop adjustments by Aurecon

*subject to approvals being granted



Projection: GDA 1994 MGA Zone 56

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Legend

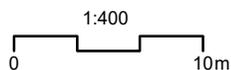
- Project footprint
- Trees (other)
- EIS Vegetation Clearance Footprint

TfNSW Consistency Assessment

- Trimming*
- Remove*

Source: Aurecon, NovoRail, Nearmap (August 2020), ESRI
Source tree data: Active Tree Services – desktop adjustments by Aurecon

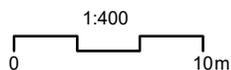
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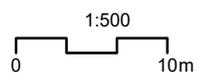
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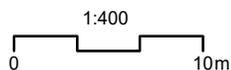
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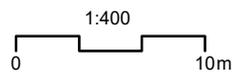
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TfNSW Consistency Assessment

- Trimming*

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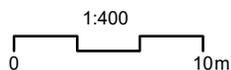
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- Trimming*
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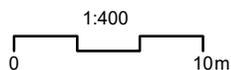
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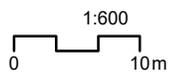
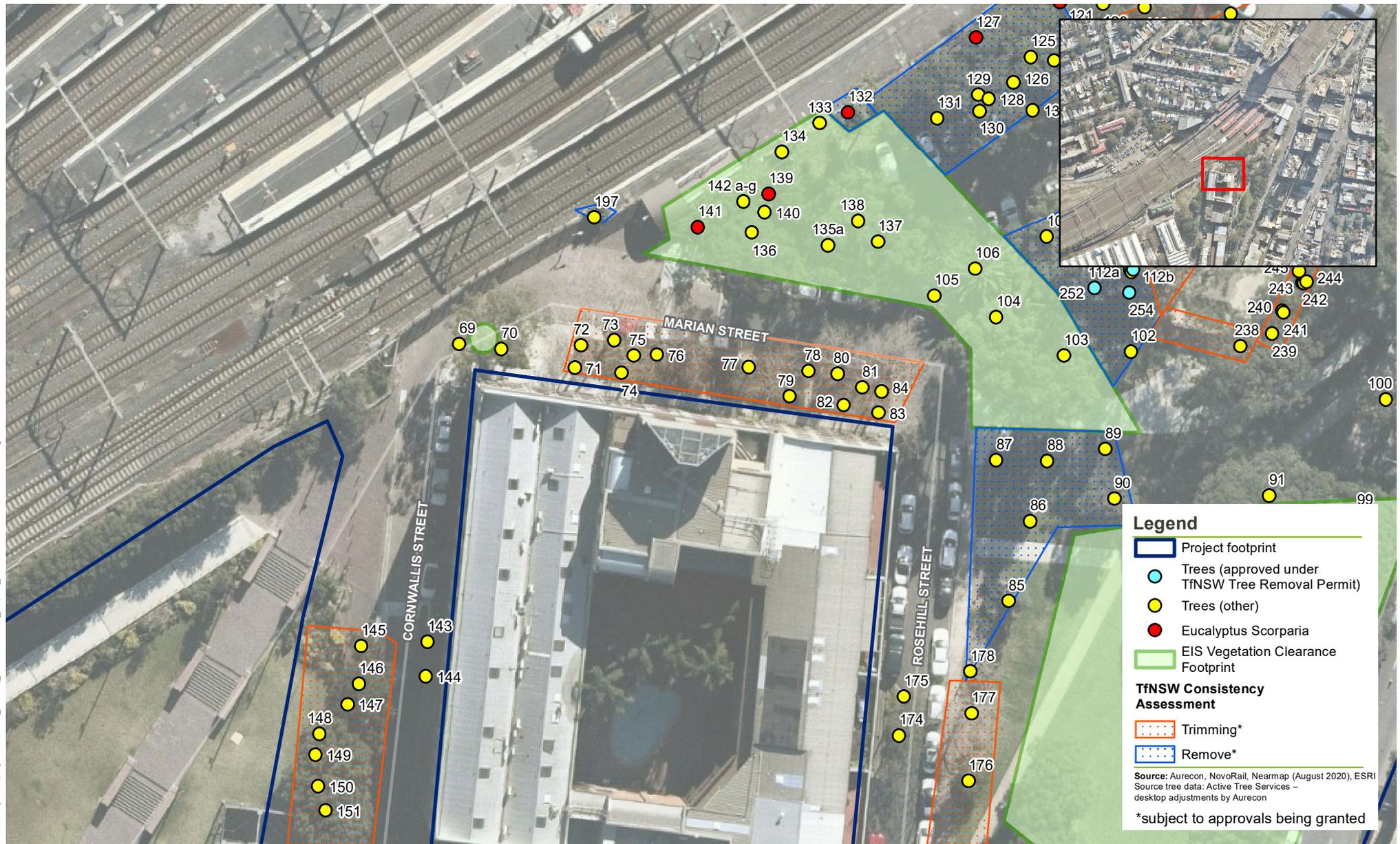


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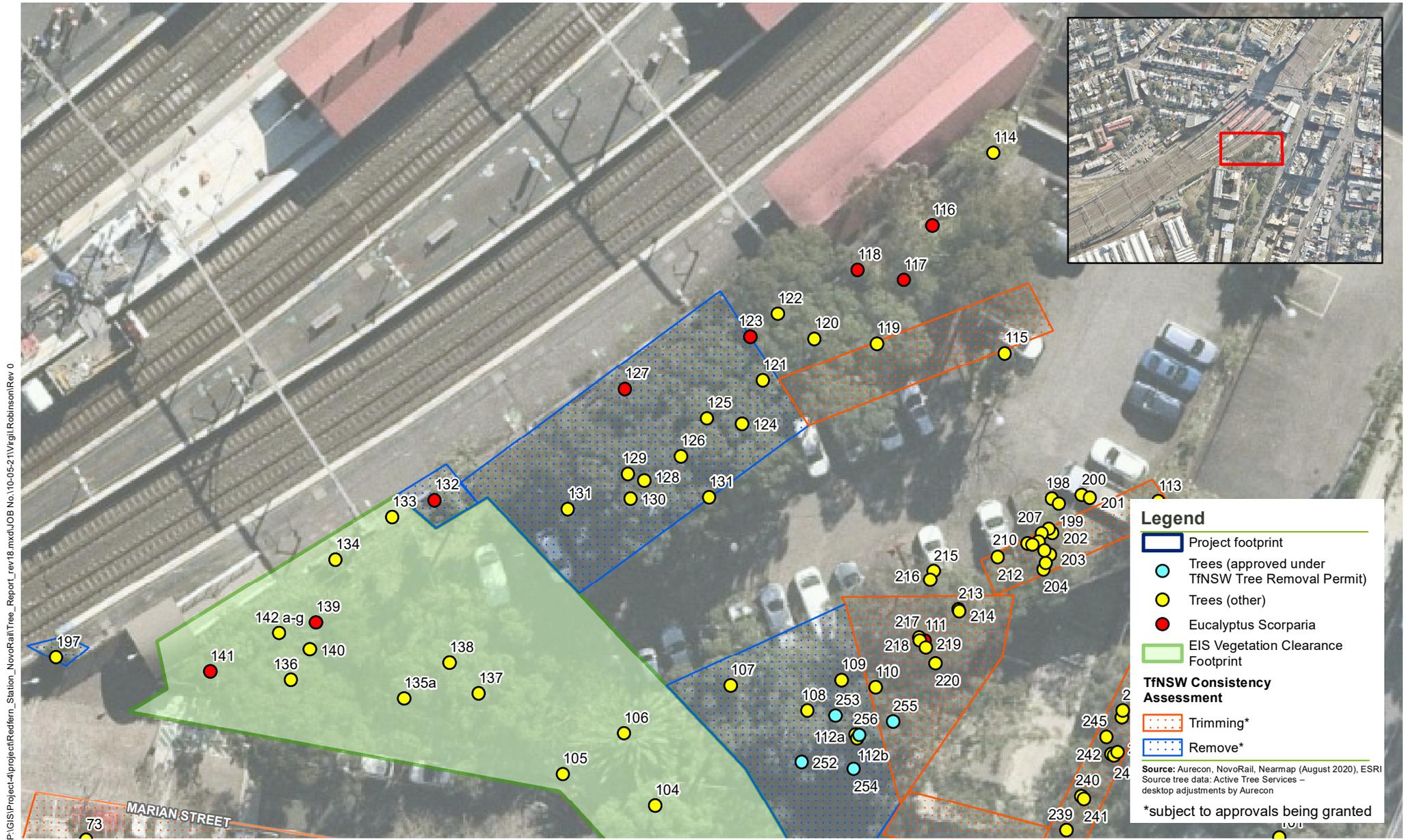


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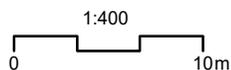
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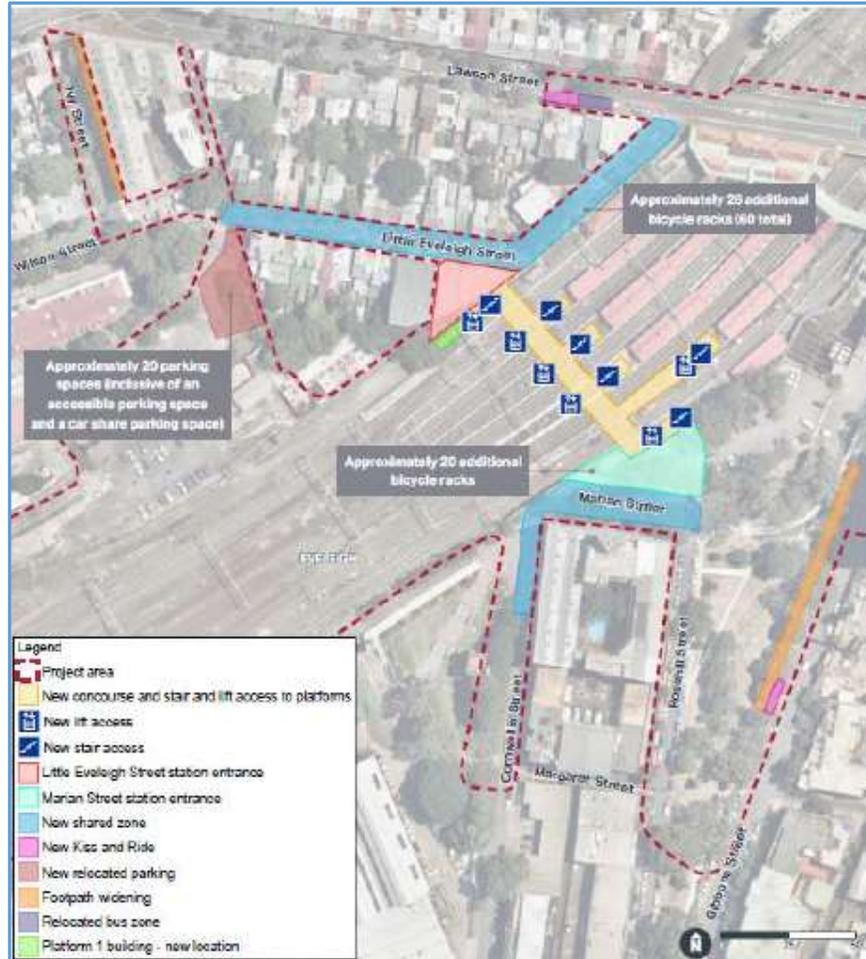
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APPENDIX K: December 2020 TMP

Redfern Station Upgrade – New Southern Concourse Project
Traffic Management Plan
December 2020 to January 2021



Map of the key features of the Redfern Station Upgrade – New Southern Concourse

1 Introduction

The Redfern Station Upgrade – New Southern Concourse Project (the Project) involves construction of a new pedestrian concourse to the south of the existing Lawson Street concourse, extending between Little Eveleigh Street and Marian Street in the suburbs of Redfern and Eveleigh. The new concourse will provide both lift and stair access to Platforms 1-10. Additional project elements include:

- an upgraded station entrance at Marian Street, and a new station entrance at Little Eveleigh Street, both including station services and customer amenities
- formalisation of a shared zone on Little Eveleigh Street
- upgrade of the Marian Street/Cornwallis Street/Rosehill Street area
- relocation of the shuttle bus zone from Little Eveleigh Street to Lawson Street
- kiss and ride on Lawson Street and Gibbons Street, including associated footpath upgrades

- footpath widening on Ivy Street
- relocation of a building on Platform 1 to accommodate the concourse
- repurposing, relocations and alterations to platform building features and other platform features, including platform resurfacing and associated drainage alterations and addition of platform canopies
- service relocations, including relocation of overhead wiring structures and installation of a new rail signal between Platforms 1 and 2.
- installation of station operational components and infrastructure including wayfinding and signage, tactile ground surface indicators (TGSIs), rubbish bins, CCTV cameras, passenger information system (e.g. passenger information display, public address and hearing loops) and emergency equipment (e.g. for fire and life safety).

Novo Rail will be delivering this Project on behalf of Transport for NSW, once planning approval has been granted which is expected in December 2020.

2 About this plan

This Traffic Management Plan has been created to cover the pre and post work activities required for a scheduled Sydney Trains 5 day Trackwork period between 26 and 31 December 2020. This includes pre and post work activities between 11 December 2020 and 8 January 2021. A Construction Traffic Management Plan is currently being produced to cover the main Project delivery period between January 2021 and mid 2022 and will be provided to Council for review in November.

3 Identification and assessment of proposed measures

There are a number of traffic and parking impacts that will need to be in place to enable early work to occur in advance of and during the Sydney Trains 5 day Christmas Shutdown period from 10pm 25 December to 11am 31 December 2020. While some of the traffic and parking arrangements are temporary, a number will become permanent from February/March 2021 in accordance with the design of the Project and as outlined in the Environmental Impact Statement.

The following are the early construction work activities that will occur within the rail corridor that are supported by these traffic arrangements:

- Bridge foundation piling and concrete work
- Overhead wire modifications, above the rail tracks
- Platform service relocations
- High voltage and low voltage cable re-routing
- Tree and vegetation removal at the Marian Street Sydney Trains Car Park
- Removal of fencing and installation of temporary fencing between the footpath and Marian Street Sydney Trains Car Park
- Construction of a temporary crane pad inside the Marian Street Sydney Trains Car Park

In order for these work activities to occur, the following traffic and parking arrangements are required. Note details of these arrangements are listed in the table on the next page.

3.1 Marian Street, Redfern

Permanent removal of 5 parking spaces on the north side of Marian Street, between Rosehill and Cornwallis Streets, including a Go Get ride share parking space, commencing 18 December 2020.

This parking removal is included in the Project design and identified within the Environmental Impact Statement (EIS) that was on display in mid 2020. This area will form part of the new Marian Station entrance to Redfern Station and will be reconstructed to expand the existing raised shared zone.

Removal of this parking in December is necessary to undertake vegetation removal, fencing removal and relocation plus preparatory work in the car park adjacent to Marian Street which is currently being used as a car park for Sydney Trains, Police and Novo Rail.

A temporary road closure in Marian Street, between Margaret and Cornwallis Streets is required from 10pm on 25 December to 11am on 31 December to enable plant, equipment and deliveries to move freely within this area, including delivery of a 350 tonne crane which will operate from the Marian Street car park and adjacent footpath during the 5 day shutdown period. Residential and emergency service access will be maintained. Note that this temporary road closure has previously been instituted by Mirvac during their work activities in Marian Street.

Temporary removal of the 6 parking spaces in front of the Watertower building will also be required from 8am on 23 December to 11am 31 December to ensure this section of the roadway is clear for the 5 day closedown period and provide sufficient space for work and construction activities.

See attached TCP 1.

3.2 Rosehill Street

Temporary removal of parking on the Gibbons Reserve side (eastern side) of Rosehill Street, between Gibbons Street and Marian Street from 7am on 21 December to 11am on 31 December to provide adequate space for the large vehicles and deliveries accessing the Marian Street car park area. Rosehill Street is very narrow and the temporary removal of parking on the eastern side of the street will provide sufficient space for construction vehicles to pass the parked cars on the western side of Rosehill Street.

Note that the first four parking spaces on the western side of Rosehill Street when you enter off Gibbons Street would also be temporarily removed to safely enable sufficient swing path for truck access off Gibbons Street.

See attached TCP 2.

4 Mitigation Measures

4.1 Assessment of impact

Rosehill and Marian Streets are low traffic roads with 2 hr timed parking and permit parking for residents. The apartments adjacent to these roads have parking available within their buildings for residents.

Parking on the western side of Rosehill Street will be maintained for overflow residential parking.

The half-road closure in Marian Street has previously been implemented during work activities by Mirvac. Extensive consultation and notification with stakeholders and advance signage will be installed to communicate the arrangements.

4.2 Measures to ameliorate the impact of re-assigned traffic

Low level traffic roads – minimal impact. Consultation with adjacent stakeholders.

4.3 Assessment of public transport services affected

No impact to public transport services as they do not operate on these roads.

4.4 Details of provision made for emergency vehicles, heavy vehicles, cyclists and pedestrians

Emergency service access will be maintained with traffic control in place.

For heavy vehicle access for the unit blocks and Mirvac, such as garbage and removalist trucks, this will be maintained with the traffic controllers providing access on an as-required basis. During stakeholder consultation, discussions will include requirements for truck access during this period.

Cyclist and pedestrian access is maintained.

4.5 Assessment of effect on existing and future developments with transport implications in the vicinity of the proposed measures

No assessment required for this work period and location. Novo Rail aware there is a DA in place for construction of a new Affordable Housing development on Cornwallis Street however this project has not commenced.

4.6 Assessment of effect of proposed measures on traffic movements in adjoining Council areas

No assessment is required. Area of impact is contained within the one-way road system of Rosehill, Marian and Cornwallis Streets.

4.7 Public consultation process

To minimise the impact on the local community and provide sufficient advance notice, the following communication measures will be carried out:

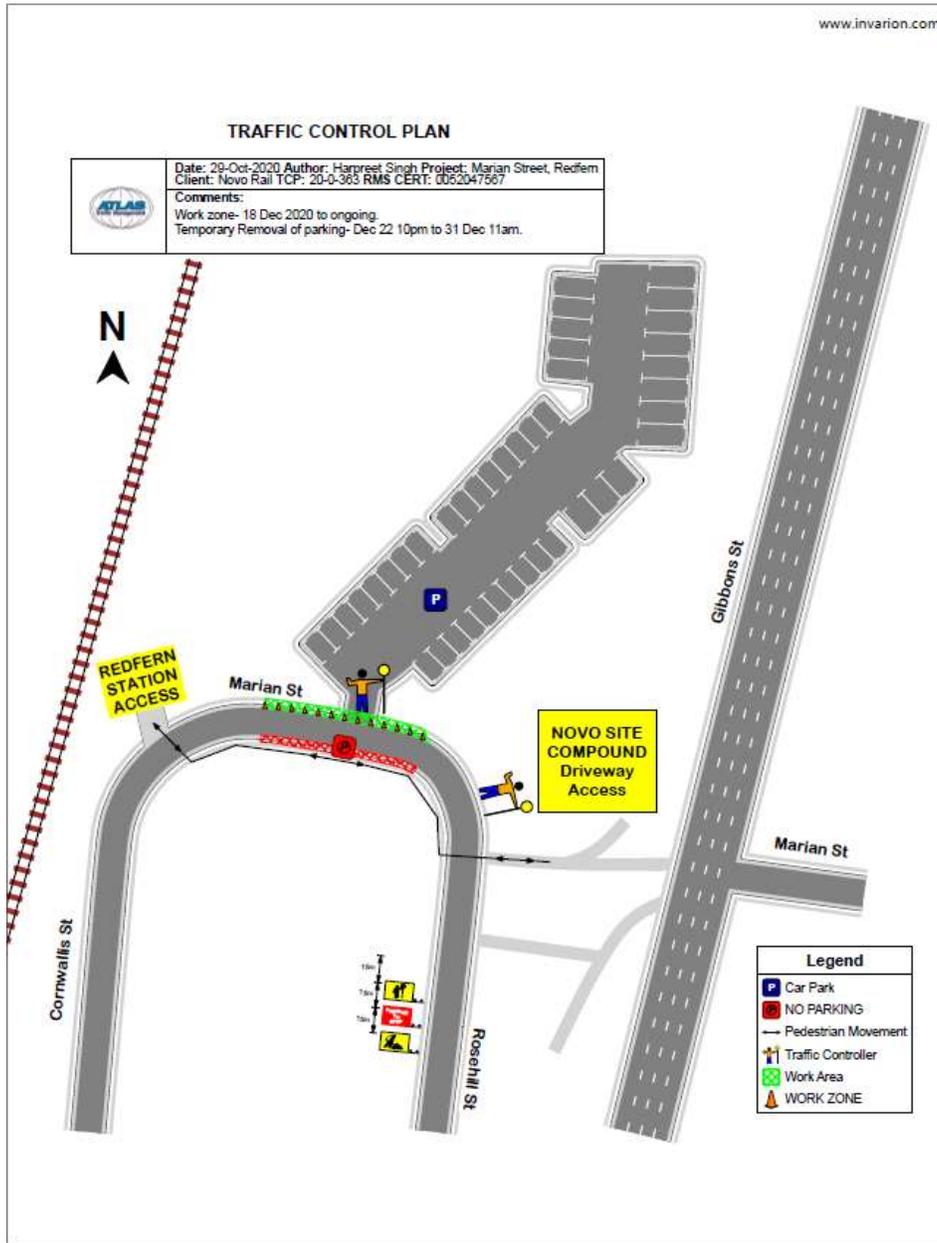
- Late November/early December - Consultation in person with the Body Corporate of The Watertower building on Marian Street and the Ariane building at 32 Cornwallis Street in late November and early December
- Community Notifications provided in early and mid December to inform residents and the community of upcoming work and changes to parking and road access
- Static signage to inform residents and commuters of changes to parking 10-15 days prior to changes
- Installation of static signage within Gibbons Street Reserve, facing northbound traffic in Rosehill Street, advising of changed traffic conditions
- Installation of static signage on Marian and Cornwallis Streets for cyclists advising “Caution - vehicle movements”
- Traffic control in place to provide traffic and pedestrian management during work activities and providing access to resident vehicles, garbage trucks, etc
- Consultation with other stakeholders including City of Sydney Council, Police and Emergency Services, TMC, Cycling NSW, Sydney Trains
- Newspaper advertisement if required

Traffic Arrangements	Date	Purpose	Mitigation Measures
Marian Street between Rosehill Street and Cornwallis Street (TCP 1)			
<p>Permanent removal of parking spaces on the north side of Marian Street (including a Go Get ride share parking space)</p> <p>Closure of north side footpath on Marian Street (between the Redfern Station entrance and the footpath leading to Gibbons Street) and detour pedestrians to south side footpath</p> <p>Removal of galvanised street parking posts on Marian Street north side footpath</p>	18 Dec - ongoing	<ul style="list-style-type: none"> - Establishment of a Work Zone - Tree and vegetation removal within the Sydney Trains Car Park area on Marian Street prior to the installation of a temporary crane pad for the Christmas work period - Installation of water barriers and ATF fencing around the Work Zone including the north side footpath. - Removal and relocation of fencing to existing car park which becomes a construction site area and ultimately the new Marian Street entrance to Redfern Station 	<ul style="list-style-type: none"> - Consultation with residents and stakeholders - Community Notifications - Advance static signage to indicate permanent and temporary removal of parking and closure of footpath - Wayfinding signage installed to direct pedestrians to the footpath on the south side of Marian Street - Traffic controllers in place to manage vehicle and pedestrian movements
Temporary removal of 6 parking spaces on the southern side of Marian Street, in front of the Watertower building	22-31 December	<ul style="list-style-type: none"> - During tree removal chipper and trucks will be located on the north side of Marian Street and temporary fencing, impacting the road width and requiring the parking opposite to be temporarily removed. - Also required during the Christmas closedown period due to crane outriggers and general construction vehicle movements in the area 	As above
Marian Street between Margaret Street and Cornwallis Street (Refer TCP 2)			
<p>Temporary road closure - Marian Street</p> <p>Resident access to be maintained</p>	<p>25 to 31 Dec</p> <p>10pm 25 December to 11am 31 December</p>	<ul style="list-style-type: none"> - Temporary road closure to establish a temporary crane pad in Sydney Trains Car Park on Marian Street and onto the north side footpath (See Appendix 1) and provide sufficient space for construction vehicle movements in the area - Extensive work activity will occur 24/7 during Sydney Trains 5 day Christmas shutdown and from this car park / work compound area 	<ul style="list-style-type: none"> - As above - Emergency services will be informed of the road closure however access for these services will be maintained - Newspaper advertisement, if required



Rosehill Street between Gibbons Street and Marian Street (See TCP 2)			
Temporary removal of parking spaces on Rosehill Street	5am 21 December to 11am 31 December	<ul style="list-style-type: none">– Temporary removal of parking spaces on Rosehill Street to provide adequate space for delivery of a crane and large vehicles to Sydney Trains car park / Marian Street site compound during the 5 day closedown.	<ul style="list-style-type: none">– Community Notification– Advance static signage to advertise temporary removal of parking– Specific Notification produced for local residents– Ongoing consultation with Watertower and local residents to advise access changes– Traffic controllers to provide pedestrian and traffic management– Emergency services will be informed of the road closure however emergency service access will be maintained

TCP 1 – Marian Street – Closure of northside footpath, work zone installation (north side) and temporary parking removal (south side)



Visual layout of TCP1 in operation for Work Zone



APPENDIX K: Environmental Representative Endorsement