Ancillary Facility Management Plan - Northern Connection

Line Wide Works Contract Sydney Metro City & Southwest.

Project number:	C600
Document number:	SMCSWLWC-SYC-1NL-PM-PLN-000380
Revision date:	09/04/2020
Revision:	00

Document Approval

	Environment and Sustainability Manager	Project Director
Signature:	M Billings	S Hunter

Details of Revision Amendments

Document Control

The Project Director is responsible for ensuring that this sub-plan is reviewed and approved. The Project Environment & Sustainability Manager is responsible for updating this sub-plan to reflect changes to Environment and Sustainability legal and other requirements, as required.

Amendments

Any revisions or amendments must be approved by the Project Director and/or client before being distributed / implemented.

Revision Details

Revision	Date	Prepared by	Details
A	07/04/2020	K Truscott	Issued for review.
00	09/04/2020	K Truscott	Issued for information following Environmental Representative endorsement.

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Tables

Glossary / Abbreviations

Abbreviations	Definition
AA	Acoustic Advisor
AFMP	Ancillary Facility Management Plan
AMM	Additional Mitigation Measures
Ancillary facility	Temporary facility for construction, including for example an office and amenities compound, construction compound, batch plant (concrete or bitumen), materials storage compound, maintenance workshop, testing laboratory or material stockpile area.
C2B	Chatswood to Bankstown
C2S	Chatswood to Sydenham
CCS	Community Communications Strategy
CCS-LW	Community Communications Strategy – Line-wide Works
CEMF	Construction Environmental Management Framework
CEMP C2B	Construction Environmental Management Plan – Chatswood to Bankstown
CNVIS	Construction Noise and Vibration Impact Statement
CNVMP	Construction Noise and Vibration Management Plan
CNVS	Sydney Metro City and Southwest Construction Noise and Vibration Strategy
CoA	Conditions of Approval as per State Significant Infrastructure Planning Approvals as issue by the NSW Department of Planning and Environment, relevant staging reports and as listed in Schedule E3 of the Line-wide Works Contract, (ITC 600)
Compound	A site facility established for the construction of the project that is enclosed by a fence
Consistency assessment	An assessment of whether a proposed activity for the purpose of the CSSI is consistent with the terms of this approval
CPB	CPB Contractors Pty Limited
CSR	Combined Services Route
CSSI 7400	Approval of application SSI 7400 provides for construction and operation of a metro line approximately 16.5 kilometers long (of which approximately 15.5 is in underground rail tunnels) between Chatswood and Sydenham (C2S) including construction of a tunnel under Sydney Harbour, links with the existing rail network, seven metro stations and associated ancillary infrastructure. The proposal is declared as Critical State Significant Infrastructure (CSSI).
CSSI 8256	Approval of application SSI 8256 provides for construction and operation of a metro line, approximately 13 kilometers long between Marrickville and Bankstown (S2B), including ten metro stations and associated infrastructure. The proposal is declared as Critical State Significant Infrastructure (CSSI).
CTMP	Construction Traffic Management Plan
DPIE	NSW Department of Planning Industry & Environment (formally Department of Planning and Environment)
EIS	Environmental Impact Statement
EMS	Environmental Management System (integrated as part of the PMS)

Abbreviations	Definition
Environment and Sustainability Policy	Statement by an organisation of its intention and principles for environmental and sustainability performance.
Environmental incident	An occurrence or set of circumstances, as a consequence of which pollution (air, water, noise, and land) or an adverse environmental impact has occurred or is likely to have occurred.
Environmental issue	An occurrence or set of circumstances where Environmental Harm or Non-compliance could occur if not rectified.
Environmental Non-Compliance (NC)	A breach of an Environmental Requirement originating from Planning Approvals, Environment Protection Licenses, lease agreements, and other requirements documented in environmental management plans.
Environmental objective	Defined by AS/NZS ISO 14001:2004 as an overall environmental goal, consistent with the Environment Policy, that an organisation sets Line-wide to achieve.
Environmental target	Defined by AS/NZS ISO 14001:2004 as a detailed performance requirement, applicable to the organisation or parts thereof, that arises from the environmental objectives and that needs to be set and met in order to achieve those objectives.
Environmental team	Members of LW environmental team including sub-contractors authorised by the Environment and Sustainability Manger to work on environmental issues related to the Project
EP&A Act	Environmental Planning and Assessment Act 1979
EPL	Environment Protection Licence
ER	The Environmental Representative for the CSSI(s).
ERP	Emergency Response Plan
ESCP	Erosion and Sediment Control Plan
Hold Point	Activities which are not to proceed without objective review and approval by the nominated authority.
H&S	Health & Safety
ICNG	Interim Construction Noise Guidelines
LORAC	Laing O'Rourke
LW	Line-wide
LW Works	Line-wide Works (contract scope under ITC 0600)
Minor ancillary facility	A temporary facility for Construction of the CSSI such as lunch sheds, office sheds, portable toilet facilities, and the like.
NC	Northern Connection
NML	Noise Management Level
Non-compliance	An occurrence, set of circumstances or development that is a breach of this approval.
OHW	Overhead Wiring
OOHW	Out of Hours Work
PMS	Project Management System
POEO Act	Protection of the Environment Operations Act 1997 (NSW)
RBL	Rating Background Level (Noise)
REMM	Revised Environmental Mitigation Measures
RMS	Road and Maritime Services
S2B	Sydenham to Bankstown

Abbreviations	Definition
SC	Systems Connect
SC Project Environmental Representative	Refers to Systems Connect Environment and Sustainability Manager or someone delegated by him to perform a task, release a hold point or approve a document
Sensitive Receiver	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 others as defined by the Planning Secretary.
SEP	Site Environment Plan
SM	Sydney Metro
SMCSW	Sydney Metro City & Southwest (the project)
SMNW	Sydney Metro Northwest
SWMS	Safe Work Method Statement
Synergy	System Connect's Incident Reporting Tool
TfNSW	Transport for New South Wales
UGL	UGL Engineering Pty Limited
WHS	Workplace Health & Safety

1. Introduction

Sydney Metro City and Southwest (SMCSW) is a new 30km metro line extending metro rail from the end of Sydney Metro Northwest (SMNW) at Chatswood under Sydney Harbour, through new CBD stations and southwest to Bankstown. It is due to open in 2024 with the capacity to run a metro train every two minutes each way through the centre of Sydney. The Line-wide (LW) Works is a key component of the SMCSW, with works taking place over the full length of the project.

As identified in the Chatswood to Sydenham Environmental Impact Statement (EIS), the project includes a number of ancillary components, including new overhead wiring and alterations to existing overhead wiring (OHW), signalling, access tracks / paths, rail corridor fencing, noise walls, fresh air ventilation equipment, temporary and permanent alterations to the road network, facilities for pedestrians, and other construction related works.

The proposed ancillary facilities for LW, as detailed in this plan, were not identified in the Chatswood to Sydenham EIS or Preferred Infrastructure Report (PIR).

1.1 Project Background

Line-wide scope of works includes tunnel fit out, services, stabling and power. A detailed description of the LW scope is included in the Construction Environment Management Plan – Chatswood to Bankstown - C2B (SMCSWLWC-SYC-1NL-PM-PLN-000033). One of the significant LW work areas is the Northern Connection (NC).

Works at the Northern Connection site (shown in Appendix A) include:

Site establishment – installation of environmental controls, construction of piling pads and access tracks. Possible power and plumbing into site for amenities, site sheds, etc.

Sydney Trains Works – Permanent Down

- Earthworks and combined services route (CSR), stormwater drainage installation
- Piling works for an intertrack retaining wall
- Track construction including tamping, grinding and turnouts
- OHW foundations, structures and wiring
- Installation of signalling infrastructure and wiring
- Removal of redundant track & infrastructure
- Wall demolition

Sydney Metro Connection – Open Dive

- Piling works for the open dive
- Form-Reo-Pour construction, capping beam and transition slab
- Installation of signalling infrastructure and wiring
- Earthworks and bulk excavation, stormwater drainage installation
- Track construction including tamping and grinding
- OHW foundations, structures and wiring

An indicative schedule of the Northern Connection Work Activities is provided in Appendix B.

The main NC Ancillary Facility and laydown area, established at Cleland Road Artarmon, will be used for the duration of the project. Further site ancillary facilities have been established within the rail corridor. A summary is provided below:

- Cleland Road
- Valetta Lane
- Drake Street
- Lambs Road

- Gore Hill Freeway laydown (Francis Street)
- Chandos Street.

The ancillary facilities and laydown areas described in this plan have already been established by the previous Sydney Metro contractor working in this location, Laing O'Rourke (LORAC). They will be progressively handed over for LW Northern Connection works. This plan should be read in conjunction with their previously approved management plan, see Section 2.5.

1.2 Purpose and Scope

This Ancillary Facility Management Plan (AFMP) describes how Systems Connect (SC) will manage construction compounds and ancillary facilities during the construction phase of the LW project, Northern Connection works, in accordance with the Client's requirements, Systems Connect's Environmental Management System and the Minister's Conditions of Approval (CSSI 7400).

This Plan has been prepared as a sub-plan to the Construction Environmental Management Plan – C2B (CEMP C2B) for the LW Works and:

- Describes the legislative framework specific to ancillary facility issues and relevant guidelines that must be followed
- Identifies the existing worksite issues
- Identifies key risks and impacts associated with the works
- Describes procedures that will be used for management of aspects and potential impacts associated with Ancillary Facilities.

1.3 Objectives and Targets

The key objective of the AFMP is to ensure that environmental impacts associated with the operation of the ancillary facilities are minimised. This will be achieved through the following targets which have been derived from the CEMP C2B.

- Identify potential issues arising from the operation, rehabilitation and decommissioning of ancillary facilities
- Identify the types of, timing and known locations of ancillary facilities required for the delivery of the project
- Identify and describe site specific measures to be implemented in addition to those outlined in the CEMP C2B, where specific controls are required for a location
- Ensure ancillary facilities are managed in accordance with this Plan, the CEMP C2B, Planning Approval and relevant Deeds
- Outline a monitoring, auditing and reporting framework to assess the effectiveness of the controls implemented.

1.4 Consultation and Communication

The AFMP has been developed in consultation with Sydney Metro and the Environmental Representative (ER) for the project.

The AFMP will be reviewed by the ER and endorsed prior to submitting the Sydney Metro for approval. Works will not commence until written approval of all relevant plans, including this AFMP, has been received from the ER and Sydney Metro.

Should additional ancillary facilities be required, this Plan will be updated and submitted to the ER and Sydney Metro for approval following further consultation and review in reference to the conditions of the approval.

1.5 Related Documents

This Plan is a sub-plan of the Construction Environmental Management Plan – Chatswood to Bankstown (CEMP C2B). It has the following interrelationships with other management plans and documents:

Table 1 - Interactions with other management plans

Document Name	Interface
Construction Environmental Management Plan – Chatswood to Bankstown (CEMP C2B) (SMCSWLWC-SYC-1NL-PM-PLN-000033)	The AFMP forms a sub plan to the CEMP which outlines overarching environmental management of the works.
Waste, Recycling and Spoil Management Plan C2B (SMCSWLWC-SYC-1NL-PM-PLN-000374)	Management of waste, spoil and recycling during construction
Construction Traffic Management Plan – Northern Connections – Traffic Operations (SMCSWLWC-SYC-NCW-TF-PLN-002507)	Management of the traffic and transportation impacts of heavy and light vehicles during construction
Construction Noise and Vibration Management Plan (CNVMP) (SMCSWLWC-SYC-1NL-PM-PLN-000032)	Management of noise and vibration including out of hours working and sensitive receive
Air Quality Management Sub-Plan C2B (AQMP) (SMCSWLWC-SYC-1NL-PM-PLN-000373)	Management of dust and other air quality management measures during construction
Community Communications Strategy (CCS-LW) (SMCSWLWC-SYC-1NL-PM-PLN-000027)	Management of community and stakeholder consultation during construction including management of complaints
Sustainability Management Plan (SMCSWLWC-SYC-1NL-PM-PLN-000024)	Addresses the sustainability requirements for the project

2. Legal and Other Requirements

2.1 Project Approval and Development Consent

The works are to be delivered under the Environmental Planning and Assessment Act (1979) in accordance with the Critical State Significant Infrastructure Sydney Metro City & Southwest Chatswood to Sydenham Conditions of Approval (CSSI 7400) issued for the Project. The approval process includes specific planning conditions and commitments that must be addressed in this Plan and delivered during the Project.

2.2 Environmental Authority / Licence

LW Works associated with delivery of Northern Connection are all within the rail corridor, therefore will be delivered in accordance with the Sydney Trains Environmental Protection Licence (EPL) 12208 and all information required by the EPL will be submitted to Sydney Trains or relevant authority within the stipulated timeframes and subject to requirements of the interface agreement in place between Sydney Trains, RailCorp and Sydney Metro. Compliance with all relevant licence conditions will be tracked, monitored and ensured. If any inconsistencies between the EPL and planning approval arise, the planning approval takes precedence. EPL 12208 has been granted for the Scheduled Activity: Railway systems activities.

2.3 Key Legislation

The legislation relevant to construction ancillary facilities for the Project includes the following:

- Biosecurity Act (2015)
- Biosecurity Regulation (2017)
- Contaminated Land Management Act (1997)
- Dangerous Goods (Road and Rail Transport) Act (2008)
- Environmentally Hazardous Chemicals Act (1985)
- Environmental Planning and Assessment Act (1979)
- Environmental Planning and Assessment Regulation (2000)
- Environment Protection and Biodiversity Conservation Act 1999 (Cwth)
- Land and Environment Court Act (1979)
- Local Government Act (1993)
- Local Government (General) Regulation (2005)
- Native Vegetation Act (2003)
- Native Vegetation Regulation (2005)
- Protection of the Environment Operations Act (1997) (POEO Act).
- Roads Act (1993)
- Roads (General) Regulation (2000)
- Soil Conservation Act (1938)
- Threatened Species Conservation Act (1995)
- Threatened Species Conservation Regulation (2002)
- Threatened Species Conservation (Savings and Transitional) Regulation (1996)
- Waste Avoidance and Resource Recovery Act (2001)
- Water Management Act (2000)
- Water Management (General) Regulation (2004).

2.4 References, Standards, Codes and Regulations

In addition to legislative requirements, the following environmental publications, standards, codes of practice and guidelines are relevant to the LW Works and are referenced throughout this Plan. Other aspect specific guidelines are discussed in the relevant CEMP Sub-Plans and other project management plans.

- Managing Urban Stormwater: Soils and Construction. Volume 2D: Main Road, DECC (2008)
- Managing Urban Stormwater: Soils and Construction. Volume 1 of the 'Blue Book', Landcom (2004)
- Crime Prevention through Environmental Design (CPTED) principles
- NWRL Style Guidelines (Co-branding) (TfNSW, November 2012)
- Relevant Australian Standards including:
  - National Construction Code AS1428 Design for Access and Mobility
  - AS/NZS 16802.4 Interior Lighting
  - AS/NZS 1940: 2004 The Storage and Handling of Flammable and Combustible Liquid
  - SafeWork Australia Codes of Practice
  - TfNSW Chemical Storage and Spill Response Guidelines 9TP-SD-066.

2.5 Assessment and Approval of Ancillary Facilities

Ancillary facilities not identified by description and location in the EIS, must meet the criteria as listed in A16, unless otherwise approved by the Secretary.

Before establishment of any ancillary facility that satisfies the criteria in Condition A16, the Proponent must prepare an Ancillary Facilities Management Plan which outlines the environmental management practices and procedures to be implemented for the establishment and operation of the ancillary facility. The Ancillary Facilities Management Plan must be prepared in consultation with the EPA and the relevant council(s) and submitted to the Secretary for approval one month before installation of the relevant ancillary facilities.

All of the assessment, consultation and approval requirements of A16 were carried out by the preceding contractor, LORAC, for the establishment of the ancillary facilities covered by this plan, and approval was granted by DPIE on 18/05/2018. The approved management plan details are:

Construction Ancillary Facilities Management Plan - Sydney Metro City & Southwest Northern Corridor Works Project - Final (Rev 07) - Client Copy.

Please see Table 3 in the LORAC plan for full details of compliance with A16 requirements.

2.6 Minor Changes to Approved Ancillary Facilities

Whilst this document covers previously established ancillary facilities, it should be noted that distinct project phases may see a need to make minor changes to facilitate constructability, amenity or traffic staging requirements. This may include:

- Interchangeable use of laydown/storage and car parking areas for the aforementioned purpose
- Relocation of internal access roads to allow for efficiencies in heavy vehicle/light vehicle movements
- Alteration to car parking/ container and laydown areas for safe working distances
- Movement of portable site accommodation/containers for construction staging
- Environmental constraints and/or in response to community and agency feedback.

Key structures such as barriers and fencing will be modified as appropriate to minimise any noise, visual and air quality impacts. These changes would occur where there is a neutral or positive amenity/ environmental impact generally, as determined by the Environmental Representative (with advice from the Acoustic Advisor as required).

This document is submitted due to a change in project phase, which is the commencement of the LW scope of work utilising most of the ancillary areas already established by LORAC. These areas will be taken over, with minimal changes to existing controls. The updated document will be submitted to the ER and Sydney Metro for approval of a minor amendment, as there are no envisaged impacts as a result of the minor changes.

3. Ancillary Facilities

3.1 Overview of LW worksite and Ancillary Facilities

There is minimal space within the rail corridor for ancillary facilities and materials storage. As such, Systems Connect propose to use the existing ancillary facility located within the rail corridor at Cleland Rd, Artarmon NSW and other locations mentioned above.

Site layout plans for the ancillary facilities (Appendix A) show the location of the facilities and laydown areas in relation to the worksite.

Layout plans are indicative, noting that these will be progressively updated in more detail by the construction teams throughout LW Works.

3.2 Construction Ancillary Facilities

Details of the ancillary facilities and laydown areas to be used by SC are included in Table 2. They will accommodate offices, lunchrooms, toilets, security, laydown, and security fencing and lighting. The sites will have minimal on-site parking for the construction workforce, which will be expected to utilise existing public transport. Some of the ancillary areas used by LORAC will not be used by LW and have been removed from this plan.

To minimise impacts, the following factors were considered by SC during site selection:

- Cleland Road Ancillary Facility location of an existing worksite compound of sufficient size to accommodate the required facilities
- Drake Street and Valetta Lane locations within the rail corridor and near existing corridor access gates
- accessible for construction traffic deliveries
- close to key construction activities
- located away from (or able to be managed in such a way so to not significantly impact) heritage items or environmental sensitive areas.

Where reasonable and feasible, temporary site facilities will incorporate:

- energy efficient lighting schemes and light fittings
- plug-in electrical equipment which complies with the requirements of the Equipment Energy Efficiency Program (E3) “Minimum Energy Performance Standards” and has at least a five star Energy Rating Label
- natural daylighting
- natural ventilation
- water efficient fixtures, fittings and controls
- air conditioning refrigerants with low or zero global warming potential
- crime prevention through environmental design principles.

3.3 Laydown Areas

Laydown areas will be required at various locations within the proposed construction footprint (in addition to the ancillary facilities described above) for storage of small tools, equipment and machinery, materials (e.g. track, conduits), traffic controls, etc. near the construction worksites (see Table 2). The location of the laydown areas is shown in Appendix A.

Table 2: Overview of ancillary facilities and temporary laydown areas

Facility	Location and Surrounding Environment	Activities	Access and Parking	No. of Heavy Vehicles (Estimated)	Indicative Operational Period	Hours of Operation
Cleland Rd (Ancillary Facility)	The site ancillary facility is located within the rail corridor on the down side. The site has been a worksite ancillary facility previously and maintains existing environmental controls. The western side fence boundary of the ancillary facility has shade cloth hoardings and sediment fence installed. Nearby properties include residential properties on Cleland Rd. An area of Coastal Enriched Sandstone Dry Forest is present along Parkes Rd.	Main ancillary facility and laydown area for the project. • Limited parking for construction vehicles • Site office • Amenities for work force • Storage containers • Hazardous good storage area • Erosion and sediment control around ancillary facility	Access from Cleland Rd, Artarmon. Minimal parking for construction workers will be provided at this site. No parking on Cleland Rd [1]	<5 (Deliveries only)	Apr 2020 – Jan 2023	Normal working hours: • 7am to 6pm Monday to Friday • 8am to 1pm Saturdays OOHW as approved under the conditions of the EPL for possession works.
Valetta Lane (Ancillary Facility)	The site ancillary facility is located within the rail corridor on the up side adjacent to Valetta Lane. The site will be used as a temporary ancillary facility during rail possessions and for material storage as required for the duration of the works. The ancillary facility will maintain fence shadecloth and erosion sediment controls on the eastern side fence boundary at all time in preparation for a possession. Nearby properties include residential properties on Valetta Lane.	• Limited parking for construction vehicles • Site Office • Amenities for work force • Laydown area and material storage • Erosion and sediment control around ancillary facility	Access from Brand St, Artarmon. Minimal parking for construction workers will be provided at this site. No parking on Brand St or Valetta Ln at any time	<5 (Deliveries and spoil removal)	Apr 2020 – Jan 2023	Normal working hours: • 7am to 6pm Monday to Friday • 8am to 1pm Saturdays OOHW as approved under the conditions of the EPL for possession works.

Facility	Location and Surrounding Environment	Activities	Access and Parking	No. of Heavy Vehicles (Estimated)	Indicative Operational Period	Hours of Operation
Drake St (Ancillary Facility)	The area is located within the rail corridor on the up side. Nearby properties include residences on Drake St and Hawkins St.	Ancillary facility and laydown areas • Site office • Amenities for workforce • Erosion and sediment control around ancillary facility • Storage for materials (laydown area) • Containers and hazardous storage area • Concrete washout	Access from Drake St, Artarmon. Minimal parking for construction workers will be provided at this site. No parking permitted on Drake St.	<5	Apr 2020 – Jan 2023	Normal working hours: • 7am to 6pm Monday to Friday • 8am to 1pm Saturdays OOHW as approved under the conditions of the EPL
Lambs Road (Ancillary Facility)	The area is located within the rail corridor on the down side. Nearby properties include substation and commercial buildings across the road.	Ancillary facility and laydown area • Storage of materials (laydown area) • Containers and hazardous storage area • Erosion and sediment control around ancillary facility	Access from Lambs Road, Artarmon. No parking provided on site or in surrounding streets.	<5 (Deliveries only)	Apr 2020 – Jan 2023	Normal working hours: • 7am to 6pm Monday to Friday • 8am to 1pm Saturdays OOHW as approved under the conditions of the EPL
Gore Hill Fwy – Francis Street (Laydown)	The area is located within the rail corridor on the up side. Nearby properties include residences on Francis St.	Laydown and service facility • Erosion and sediment control around ancillary facility • Storage for materials (laydown area) • Containers and hazardous storage area	Access from Francis St, St Leonards. No parking provided on site or in surrounding streets.	<5 (Deliveries only)	Apr 2020 – Jan 2023	Normal working hours: • 7am to 6pm Monday to Friday • 8am to 1pm Saturdays OOHW as approved under the conditions of the EPL

Facility	Location and Surrounding Environment	Activities	Access and Parking	No. of Heavy Vehicles (Estimated)	Indicative Operational Period	Hours of Operation
Chandos St (Laydown)	The area is located within the rail corridor on the up side adjacent to St Leonards Railway Station.	Laydown and service facility • Erosion and sediment control around ancillary facility • Storage for materials (laydown area) • Containers and hazardous storage area	Access from Chandos St, St Leonards. Parking for vehicles on site.	Deliveries for possession only (<5)	Apr 2020 – Jan 2023	Normal working hours: • 7am to 6pm Monday to Friday • 8am to 1pm Saturdays OOHW as approved under the conditions of the EPL

[1] – Construction workers will be expected to utilise public transport in normal construction hours.

4. Aspects, Impacts and Risks

4.1 General Management

Ancillary Facilities will be maintained in accordance with the following requirements:

- Site sheds would be as new and maintained in excellent condition and be established at locations and positions that minimise the impact (including visual) on adjoining properties and residents.
- Temporary site facilities would meet the sustainability requirements of the project.
- Temporary site facilities, including site sheds, would be maintained free of graffiti.
- Ancillary facilities will be located outside of the 50m riparian buffer zones of watercourses.
- All facilities utilised for the purpose of LW activities must be sited, constructed and maintained to meet the requirements of Sydney Metro and relevant authorities.
- Daily inspections of all temporary site facilities including site sheds.

Site establishment elements, further to those already in place, may need to be implemented by SC. These should include sheds will be made from as-new materials or in excellent condition, with the layout of each site arranged to minimise impacts on the surrounding community and in accordance with the requirements of Sydney Metro and relevant authorities.

Work is to be undertaken during periods specified in the planning conditions and EPL. Any work outside these periods are subject to risk assessment and environmental approval (refer to Section 4.10 Working Hours).

4.2 Site Establishment

In accordance with the Project planning approval (CSSI 7400), some ancillary facilities may be established prior to construction works commencing and prior to the approval of the CEMP C2B and Sub-Plans. Where this occurs, a Sydney Metro approved Minor Works Approval (MWA) as approved by the Environmental Representative under CoA A18 will be in place prior to site establishment works commencing, and all controls implemented as per that approval. For ancillary facilities established and maintained during construction, the CEMP C2B and relevant Sub-Plans will apply.

Typical site establishment activities at each ancillary facility site have already been carried out by LORAC, however any additional establishment activities by SC may include the following:

- Set up traffic controls as required and controlled site entry and egress points.
- Install fencing/hoarding around the perimeter of the ancillary facility sites where required.
- Install relevant construction signage and way finding signage as required.
- Install environmental controls in accordance with the Site Environmental Plans (SEP's) for each ancillary facility site which will be developed specific to each site to outline the various environmental controls to be implemented.
- Establish temporary lunch room, office, toilets and site amenities as required (including all necessary generators, holding tanks, etc.) within the ancillary facility site where required.
- The establishment of site offices and amenities facilities may require footings to support/stabilise the structure. If any ancillary facility site is located on any area deemed to potentially contain artefacts (by the independent heritage specialist in consultation with Aboriginal Community Representatives), those areas would be further assessed (e.g. via test excavations, monitoring, etc.). If items of significance were found, then those sites would be managed in accordance with the Heritage Management Sub-Plan.
- Designated storage areas will be established as required, either within the ancillary facility site and/or within the worksite for stockpiles and construction materials. Stockpile areas will have erosion and sediment controls installed to prevent runoff. Secured containers will house materials and tools.
- Ventilated, self-bunded fuel and chemical storage units will be utilised in accordance with AS 1940 for the storage of dangerous goods and hazardous materials.

- Connect into existing services/utilities at the site as required (and as permitted by the utility providers) to service the ancillary facility site, or temporary provisions (e.g. generators) where connections cannot be established.
- Mobilise plant and personnel to the ancillary facility site.

All materials and machinery will be stored behind fencing where possible to mitigate visual impacts to the surrounding area using screening as specified in Section 4.3 (Site Fencing and Lighting).

Site-specific site establishment requirements also may include changes to pedestrian and vehicle access, offsets to site boundaries, tree protection measures and heritage protection. These will be outlined in SEPs prepared for each location. Any tree that is required to be removed will be undertaken in accordance with condition of approval E6 and with respect to the Sydney Metro City and Southwest - Tree Impact Assessment Report (11 March 2019). Traffic management site establishment will be in accordance with Section 4.7 of this Plan. Further to this, approval will be sought as required from local authorities prior to undertaking works.

An existing area of Coastal Enriched Sandstone Dry Forest is present adjacent to the Cleland Rd Ancillary Facility. Although this native community was not identified within the EIS, management actions included in the SEP for the Cleland Rd site will be maintained as per Section 6.1 (SEPs) of this plan.

Management actions will also be applied as outlined in the CEMP C2B and Sub-plans. In addition, specifically, the following control measures will be applied at all times:

- No works to be conducted outside the rail corridor at Cleland Rd (within the area of the native community).
- Location of environmentally sensitive areas/native vegetation and community risk areas to be specified on the Cleland Rd Ancillary Facility SEP and briefed to the workforce.
- Awareness training provided to the workforce on protection measures applicable to the native vegetation.
- Monitoring and inspections to include the native vegetation and surrounding areas.

4.3 Site Fencing and Lighting

The construction ancillary facilities and laydown areas have been/will be fenced off and secured from pedestrians by using the existing rail corridor fencing. This will create a barrier between the construction site and sensitive receivers minimising the visual impact of offices and plant/equipment, reducing noise impacts through the application of noise curtains and reduce visual air quality impacts through the application of a visual barrier.

All site boundary screening required under Condition A19, REMM LV1 and REMM LV4 will minimise visual, noise and air quality impacts on adjacent sensitive receivers and be implemented at all ancillary facilities.

To achieve this Systems Connect will maintain noise curtain material and Sydney Metro branded screening (where it has previously been needed) to the rail corridor fence and temporary fences in the vicinity of the ancillary facilities for the duration of construction. It is expected that this will achieve an approximate reduction of -10dB. It is noted that under CoA A19 screening may not be installed if it is “agreed with relevant Council(s), and affected residents, business operators and landowners”.

Section 6 of the CNVMP identifies the sensitive receivers adjacent to the project site and impacted by ancillary facilities. At these locations adjacent to ancillary facilities (where already in place) noise curtain material and Sydney Metro branded screening to the rail corridor fence and temporary fences will be applied to minimize impacts.

Temporary lighting will only be utilised during approved OOHW possession activities. Lighting will only be used in accordance with Condition E99 of the CoA, minimizing light spill. All lighting will be the minimum level of illumination necessary and must comply with AS: 4282:1997 – Control of the Obtrusive Effects of Outdoor Lighting and relevant Australian Standards in the series AS/NZ 1158 – Lighting for Roads and Public Spaces.

4.4 Stockpiling

Stockpiling of construction materials and spoil will occur within Cleland Rd Ancillary Facility and other ancillary sites, as well as short-term storage of stockpiles within rail corridor as required to accommodate works in each area, i.e. temporary stockpile prior to backfilling, or prior to transport offsite to a nearby approved ancillary facility site or approved offsite disposal facility. Material to be stockpiled may include:

- Mulch
- Excess spoil
- Fill material
- Bulk materials required during construction (e.g. rail).

All stockpiles whether temporary or longer-term will be managed in accordance with the mitigation measures outlined in the CEMP C2B and Sub-plans.

4.5 Waste Management

All waste is to be managed in accordance with the relevant legislative requirements and must be classified in accordance with the NSW Waste Classification Guidelines and the mitigation measures outlined in the CEMP C2B and the Waste, Spoil and Recycling Management Sub-Plan (SMCSWLWC-SYC-1NL-PM-PLN-000374).

Construction Waste will be managed in accordance with the Waste Avoidance and Recovery Act 2001 and meet the recycling target objectives of the project. Where possible waste will be diverted from landfill and re-used or recycled.

4.6 Storage of Dangerous and Hazardous Goods

Onsite storage of fuel will be kept to a minimum by using contractors to refuel construction vehicles, therefore minimising the need to store fuel for refueling construction vehicles within the ancillary facilities.

Storage of dangerous and hazardous goods will be limited to small quantities. Fuel would be stored in sealed containers and bunded areas as per appropriate regulations and guidelines e.g. AS/NZS 1940:2004. The storage of dangerous and hazardous goods on the project will be managed in accordance with the mitigation measures outlined in the CEMP C2B and Sub-plans.

Dangerous goods, as defined by the Australian Dangerous Goods Code, must be stored and handled strictly in accordance with:

a) all relevant Australian Standards
b) for liquids, a minimum bund volume requirement of 110% of the volume of the largest single stored volume within the bund
c) Storing and Handling Liquids: Environmental Protection – Participants Manual (Department of Environment and Climate Change, May 2007)
d) the Environmental Compliance Report: Liquid Chemical Storage, Handling and Spill Management – Part B Review of Best Practice and Regulation (Department of Environment and Conservation (NSW), 2005).

4.7 Traffic Management

The Construction Traffic Management Plan – Northern Connections – Traffic Operations (CTMP) (SMCSWLWC-SYC-NCW-TF-PLN-002507) outlines all traffic management and the proposed management of parking for the project.

Vehicles involved in project activities will only enter, operate within, or exit from the local traffic flow in a manner according to the CTMP. Construction Vehicle Routes and Traffic Control Plans are included within the CTMP. Volume of vehicles for the work is expected to be low and insignificant. Construction traffic generated by the Northern Connection works is not predicted to impact the local network performance due to the nature of the works, which are not traffic volume generating (no spoil, no mass haul) and do not produce a constant traffic flow cycle/pattern to be modelled/analysed. Northern Connection traffic is a “get-in” to the rail connection gates and “get-out” of the rail connection gates during working hours and no significant traffic movements in

between in and out gap. Construction traffic is also distributed over the various gates along the works corridor. Accordingly, access movements to Ancillary Facilities will be limited. Predicted construction traffic volumes through the Drake Street and Brand Street Gates are provided in Table 1 in the CTMP. Generally heavy vehicles will not access Ancillary Facilities unless specific deliveries are required.

Local parking is not expected to be directly impacted during normal working hours. During rail possession work, some parking space at the end of nominated side streets will need to be occupied to provide extra space for plant set-up and eliminate risks to any parked cars. The community engagement team will liaise with the local community in advance of these planned works.

Some access gates are located on residential streets. Construction vehicles must not queue on these roads but enter through the gate as soon as possible after arriving. Vehicle arrivals will be managed to avoid any 'waiting' outside the worksite by ensuring vehicles immediately enter the worksite.

Parking will be managed in accordance with Section 4.2 of the CTMP. Construction staff vehicles for the northern corridor work is forecasted in the circa of 15 vehicles for the Northern Connection work. This volume is considered low and unlikely to cause issues in competing for general parking space.

Systems Connect will reinforce the project parking rules by discouraging construction staff from parking along the nearest streets to the site entrance via the site induction and patrolling for any offenders. Most of the side streets in the vicinity are signposted as 2P or 4P limit, which acts as a self-deterrent for construction staff to park for the whole day.

Construction staff are also encouraged to use public transport as the main mode of transportation to site. It is safe to assume construction staff will naturally select the train as the main mode of transportation going to site with 2 major train stations (Chatswood interchange and Artarmon) within walking distance.

In addition, some onsite parking will be available at the Northern Dive site (adjacent to the Northern Connection works) at the intersection of Mowbray Road and Pacific Highway.

4.8 Noise and Vibration

The CNVMP (SMCSWLWC-SYC-1NL-PM-PLN-000032) Section 7 outlines the proposed management in relation to noise and vibration from the Project and any associated ancillary facilities and laydown areas. This describes the overall approach to managing and mitigating noise and vibration impacts as a result of the Project based on the predicted impacts as summarised in the CNVMP.

Section 5.1 of the CNVMP identifies the Noise Management Levels (NML) applicable for the construction and operation of the ancillary facilities at the most-affected receptor adjacent to each ancillary facility (within 30m). Furthermore, Table 10 of the CNVMP provides NMLs for standard and out of hours construction periods.

Any noise generated by on-site vehicle movements is considered as construction noise and managed holistically with on-site mobile plant in accordance with the Interim Construction Noise Guideline (ICNG), Sydney Metro City and Southwest Construction Noise and Vibration Strategy (CNVS) and the Industrial Noise Policy (INP) as well as in accordance with the CEMP C2B and additional mitigation measures described in Section 7.4 of the CNVMP.

Mitigation measures will be adopted during the NC works in accordance with the Construction Noise and Vibration Impact Statement Portion 3 - Northern Connection (CNVIS) – which presents the methodology, findings and recommendations of the noise and vibration impact assessment completed for construction aspects for this project. These will be implemented for the works to manage and potentially reduce construction noise and vibration impacts.

Construction activities will be undertaken as per the hours of work listed in Section 4.10 below.

Noise and vibration monitoring for the LW Works will be implemented in accordance with the Construction Noise and Vibration Monitoring Program (included in the CNVMP) at the commencement of works throughout the project (i.e. when new construction activities commence)

to quantify the airborne noise, ground-borne noise and vibration levels associated with construction activities. Monitoring would also be required in the event of a complaint being received or during OOHW where the Additional Mitigation Measures (AMM) has identified monitoring.

Impacts from construction traffic will be mitigated by minimising movements at all times (both within the rail corridor and on external roads), minimising periods of idling, avoiding reversing and using non-tonal reversing alarms. Mitigation measures from Section 7 of the Sydney Metro City and Southwest Construction Noise and Vibration Strategy (CNVS) will also be implemented.

There is no limit on vehicle movements outside of normal construction hours (evenings, night and weekends). Vehicle movements will be minimised, however, the amount of vehicle movements required will be dependent on the scope of the OOHW. Any vehicle movements during these times will be assessed as part of an OOHW application.

4.9 Air Quality

Construction and operation of each ancillary facility is to be undertaken to minimise impacts identified in the CEMP C2B and Air Quality Management Sub-Plan C2B (SMCSWLWC-SYC-1NL-PM-PLN-000373). Mitigation measures are to be applied to minimise dust generation from stockpiles and prevent carrying of loose potentially dusty material from each site.

Where vehicles are used onsite they are to be switched off when not in use for an extended period of time. Plant will be well maintained and serviced to reduce emissions. Plant emissions are to be assessed as part of the pre-acceptance process.

4.10 Working Hours

Work is to be undertaken during periods specified in the planning conditions (CSSI 7400). Any work outside these periods will be subject to risk assessment and approval from Sydney Metro and the ER in consultation with the AA.

In accordance with CoA – E36, except as allowed by Condition E48, works must only be undertaken during the following standard construction hours:

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

It is noted that all ancillary facilities will be established during standard construction hours.

EPL12208 Condition O5.1 states that maintenance or construction must be undertaken within the above timeframe. Note that the EPL defines maintenance as “repair, upgrading or alteration of existing track and ancillary works on the licensed premises” and construction as “erection or installation of new track and ancillary works”. It is noted that as per the definition within Schedule 1 of the POEO Act 1997, site compounds are not considered “ancillary works” under Rail Systems Activities.

Out of Hours Works (OOHW) are proposed for a number of phases during construction of the LW Works. Any works required to be undertaken outside standard hours will follow the Out of Hours Works procedures documented in the Construction Noise and Vibration Management Plan (CNVMP) and will not commence until appropriate approvals have been obtained. Any activities at the ancillary facilities or laydown areas specified within this plan will be subject to modelling (and monitoring as required) and will be included in an OOHW application.

CoA - E44(c) states that works may occur outside of standard construction hours where permitted under an EPL. EPL conditions O5.2 and O5.4 provide further detail on OOHW work requirements for the project. These requirements are further detailed within the CNVMP.

The following Possessions have been nominated for the project, it should be noted that these works will be conducted during Out of Hours. These dates may be subject to change, based on Sydney Trains updates to the possession calendar.

Table 3:Schedule of Possessions

Possession #	ST WE	Sydney Trains Dates
1	WE44	2&3 May 2020
2	WE03	18 & 19 July 2020
3	WE17	24 & 25 October 2020
4	WE38	20 & 21 March 2021
5	WE51	20 June 2021 SUNDAY ONLY
6	WE09	28 & 29 August 2021
7	WE19	6 & 7 November 2021
8	WE31	29 & 30 January 2022
9	WE48	28 & 29 May 2022
10	WE09	27 & 28 August 2022
11	WE19	5 & 6 November 2022

4.11 Worksite Handover, Decommissioning and Rehabilitation

Full decommissioning of worksites (sites accepted by Sydney Trains during handover and Sydney Trains established sites) would be undertaken by Systems Connect. All construction access points will be restored to their state at handover by LORAC or upgraded in accordance with the LW Works design, to the satisfaction of the relevant authority. Works areas will be handed back to the satisfaction of Sydney Trains.

Dilapidation surveys would be completed for adjacent roads and ancillary facility areas (and ancillary facilities if required) that don't form part of the permanent works. Once the ancillary facility is no longer required for construction activities all materials, buildings and equipment will be removed and the sites reinstated to their preconstruction condition.

De-mobilisation of the ancillary facility site will include the following activities:

- Remove all fencing / hoarding, signage and temporary ancillary facilities, including capping off or removing any underground utilities
- Reinstate and stabilize the ground surface as per the original condition or as agreed in the relevant third-party Development Agreement (Dilapidation Reports prepared before start of construction will be used to assess the quality of reinstated sites)
- Reinstate any existing or new planted areas, including maintenance
- Reinstate any heritage items removed during construction
- Remove environmental controls (e.g. erosion and sediment controls) once the site is stabilised.

Rehabilitation will be carried out in accordance with the project approvals. This may include transplanting trees or re-turfing grassed areas, as well as maintenance requirements to ensure successful rehabilitation of revegetated areas.

4.12 Cumulative Impacts

The LW worksite is situated adjacent to another large Sydney Metro construction site for the Tunnel and Station Excavation (TSE) works, which will be operational at the same time and could potentially result in cumulative impacts in terms of traffic. However, this would be managed through the implementation of the Construction Traffic Management Plan (CTMP), including adherence to the haulage routes for the project in the CTMP.

Due to the location of the proposed ancillary facility sites and the distances between them, other cumulative impacts such as noise, dust and visual impacts to nearby receivers are not expected to be significant as the ancillary facility-based works will impact different receivers to the TSE works.

5. Environmental Risk Assessment and Control

Based on typical activities and associated impacts from ancillary facilities as identified above, the overall impacts/risks to the environment as a result of the ancillary facilities are listed in Appendix C. This risk assessment has been based on the Preliminary Risk Assessment within Appendix C3 of the CEMP C2B. A Risk Matrix included in Appendix C3 of the CEMP C2B is used to evaluate the intersection of risk probability (likelihood) with severity (consequence). A risk score (from 'A' Very High to 'D' Low) is used to indicate the severity of a risk. In accordance with the Risk Matrix, each aspect has been assigned a risk rating from 'A' to 'D'.

If the risk rating returns a result of 'medium' or above, then additional controls sufficient to reduce the risk rating to 'low' or an alternative acceptable level using cost effective designs and engineering and/or administrative controls are to be utilised. Residual risks with a 'high' or 'very high' risk rating will be considered 'significant' and must be controlled using appropriate systems of work, including Environmental Sub-Plans and project work procedures, along with available "hard controls". Approval to proceed is required prior to commencing.

Accountability for the implementation of each control is assigned in the respective Sub-Plan, Procedure and SEPs. Timing is set for its implementation as appropriate. Controls are selected in consultation with the Environment and Sustainability Manager to achieve the following, in order of preference:

- Eliminate the risk by not performing the relevant activity
- Substitute by performing the relevant activity in a way that presents a lower risk
- Implement physical (engineered) controls (e.g. sediment basins, check dams)
- Implement administrative controls (e.g. procedures, training, inspections).

The key environmental risks as defined in the CEMP C2B will be reviewed as and when required during the course of the contract when the following situations arise:

- 6-monthly during the periodic review of the CEMP C2B
- Client recommendations for changes (particularly following initial review)
- Changes to the Company's standard system
- Opportunities for improvement or deficiencies in the project system are identified
- Following an audit of the system or the occurrence of significant incidents and non-conformances.

It is expected that the Environmental Audits and Management Reviews will be undertaken in accordance with conditions A37 to A40 and will be undertaken on an annual basis. Actions are to be followed up and closed out within agreed timeframes. The audit report is to be captured within the Systems Connect Synergy compliance assurance system.

If additional risks are encountered on site, these will be addressed by updating the project CEMP C2B, Sub-plans and the AFMP.

6. Management and Mitigation Measures

This Section describes the overall approach and principles associated with managing and mitigating environmental impacts and risks associated with ancillary facilities for the Project.

6.1 Site Environment Plans

Site Environment Plans (SEPs) are prepared using the Systems Connect Geographic Information System (GIS). SEPs provide site-specific detail and draw the relevant and specific information from the plans, studies and procedures associated with the works. The Site Environment Plans will be developed as LW Works progress and before the start of construction activities on a particular site. SEPs highlight environmental constraints at a worksite, and detail key elements of the site set-up including environmental controls.

SEPs are progressively updated to provide clear and practical mitigation and management measures for each specific construction worksite as works progress. Each SEP will define site boundaries and include illustrative and descriptive management and control measures, e.g. haulage routes and sensitive receivers etc., and reference relevant Procedures that provide the comprehensive details into certain management controls/ measures in a clear step-by-step process.

Site-specific Erosion and Sedimentation Control Plans (ESCPs) and Construction Noise and Vibration Impact Statements (CNVIS) will also inform SEPs and set out additional management and control measures to be applied for activities with the potential to result in high noise generation or pollution of waters.

6.2 Mitigation and Management

As set out above, the SEPs will reference the Environmental procedures applicable to the LW Works. Environment procedures detail key environmental management processes for the construction workforce, how they need to be carried out, and hold points for the implementation of controls, management and mitigation measures. Where possible, procedures include flow diagrams for any required processes or steps to be undertaken and provide an easy reference point for all site personnel. They provide a comprehensive and informative means of communicating environmental management requirements to site personnel.

Key mitigation measures for the Project are defined in the CEMP C2B and Sub-Plans. Any additional Environment procedures will be developed as required during delivery of the Project. The Environment procedures are a key site management tool and will be revised and updated as construction progresses and in response to any issues identified during implementation.

7. Responsibilities and Authorities

Authorities and responsibilities for all Systems Connect positions are defined and communicated in Job Descriptions and project documentation.

Key responsibilities and authorities for Systems Connect personnel include:

Table 4 - Key Responsibilities and Authorities

Position	Key Responsibilities and Authorities
Project Director	• Managing the delivery of the Line-wide Works including overseeing Planning Approval and environmental management, including implementation of this AFMP • Authority to direct personnel and/or subcontractors to carry out actions to avoid or minimise unintended environmental impacts • Act as the Contractor's Representative.
Environment and Sustainability Manager	• Ensure that the AFMP is effectively established, implemented and maintained at the project level • Ensure compliance with all relevant statutes, regulations, rules, procedures, standards and policies • 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 • Ensure that non-compliances and environmental incidents are recorded, and written reports provided to the Client's Representative and Environmental Manager within 24-hours. Liaise with the required stakeholders to confirm the nature of the corrective action required and comply with the timeframe within which corrective actions must occur. • Ensure that environmental controls, materials and equipment are maintained.
Environmental Advisor	• Assist the Environment and Sustainability Manager in the development and implementation of this Sub-Plan and other site-specific environmental documents • Implement the environmental induction program • Conduct and participate in environmental audits • The investigation and close out of environmental complaints • Assist in the implementation of site environmental controls • Undertake environmental monitoring and inspections.
Environment Coordinator	• Assist the Environment and Sustainability Manager and Area Managers in implementing this AFMP • Oversee training on ancillary facilities including inductions, toolbox talks and specific technical training on monitoring equipment • Monitoring and reporting on noise and vibration compliance • Manage, review and continual improvement of this Sub- Plan.
Construction Manager	• Supervise all site construction activities and personnel by ensuring that they meet environmental and other requirements • Organise and manage site plant, labour and temporary materials • Ensure that site environmental controls are properly maintained and provide support for the Environment and Sustainability Manager • Report all environmental incidents • Take action to resolve non-compliances and incidents • Must complete corporate and project induction covering environmental responsibilities and System Connect's environmental management system.

Position	Key Responsibilities and Authorities
Project Engineers Site Engineers Supervisors	• Implement and monitor onsite environmental management and compliance measures on site in conjunction with environmental coordinators • Undertake site inspections, provide support to report on environmental performance.
Safety Manager	• Reports to the Project Leader and Construction Manager • Ensure compliance with all relevant WHS statutes, regulations, rules, procedures, standards and policies • Ensure all H&S incidents and near misses are recorded, and written reports provided to the Client's Representative and Environmental Manager within 24-hours • Take action to resolve non-conformances and incidents • Must complete corporate and project induction covering environmental responsibilities and System Connect's environmental management system
Procurement Personnel	• Reports to the Project Director and Construction Manager • Carefully select suppliers and subcontractors based upon their ability to meet stated requirements • Ensure that purchase orders and agreements include environmental requirements as necessary • Where practical, select materials which are "environmentally friendly" • Must complete corporate and project induction covering environmental responsibilities and Systems Connect's environmental management system.
Sub-Contractors	• Comply with all legal and contractual requirements • Comply with site environmental requirements • Comply with management / supervisory directions • Participate in induction and training as directed • Report all incidents • Environmental qualifications as required by contract • Must complete project induction covering environmental responsibilities and Systems Connect's environmental management system.
All Personnel	• Comply with the relevant Acts, Regulations and Standards • Comply with the Company's environmental policy and procedures • Promptly report to management on any non-conformances, environmental incidents and/or breaches of the system • Undergo induction and training in environmental awareness as directed by management • Report all incidents • Act in an environmentally responsible manner.

Position	Key Responsibilities and Authorities
Environmental Representative	• Consider and inform the Secretary on matters specified in the terms of the planning approval • Consider and recommend any improvements that may be made to work practices to avoid or minimise adverse impact to the environment and to the community • Review all documents required to be prepared under the terms of the planning approval, ensure they address any requirements in or under the planning approval and if so, endorse them before submission to the Secretary (if required to be submitted to the Secretary) or before implementation (if not required to be submitted to the Secretary) • Consider any minor amendments to be made to the CEMP C2B, Sub-Plans and monitoring programs that comprise updating or are of an administrative nature, and are consistent with the terms of the planning approval and the CEMP C2B, Sub-Plans and monitoring programs approved by the Secretary and, if satisfied such amendment is necessary, approve the amendment. This does not include any modifications to the terms of the planning approval. • Assess the impacts of minor ancillary facilities as required by Condition A18 of the planning approval; and prepare and submit to the Secretary and other relevant regulatory agencies, for information, a monthly Environmental Representative Report detailing the ER's actions and decisions on matters for which the ER was responsible in the preceding month (or other timeframe agreed with the Secretary). The Environmental Representative Report must be submitted within seven (7) days following the end of each month for the duration of works and construction of the CSSI, or as otherwise agreed with the Secretary.
Acoustic Advisor	• Review all noise and vibration documents required to be prepared under the project approval and, should they be consistent with the CoA, endorse them prior to submission to the Secretary (if required to be submitted to the Secretary) or before implementation (if not required to be submitted to the Secretary) • Consider and provide recommendations on improvements that may be made to works practices to avoid or minimise noise and vibration impact • Regularly monitor the implementation of all noise and vibration documents required to be prepared under the project approval to ensure implementation is in accordance with what is stated in the document and the project approval • Notify the Secretary of noise and vibration incidents in accordance with CoA A41 • Consider relevant minor amendments made to the CEMP C2B, relevant sub-plans and noise and vibration monitoring programs that require updating or are of an administrative nature, and are consistent with the terms of the project approval and the management plans and monitoring programs approved by the Secretary and, if satisfied such amendment is necessary, endorse the amendment • Assess the noise impacts of minor ancillary facilities as required by Condition A18 of the project approval.

Position	Key Responsibilities and Authorities
Stakeholder and Community Manager	• Provide key stakeholders and the community with information about construction progress • Ensure people understand the scope of the works and mitigation measures • Ensure key stakeholders and the community understand the proposed timing of the works • Take steps to minimise potential impacts from construction works • Work closely with the Northern Connection team to coordinate consultation activities with the community and other stakeholders • Be the single point of contact for affected stakeholder and the community and the project team, who will proactively doorknock properties and also respond quickly to any issues or complaints raised • Be available at all times that any activities are being performed on any construction site to answer any questions, concerns, complaints or enquires in relation to activities • Produce and distribute all community notifications relating to contractor activities • Develop, produce and distribute site specific quarterly newsletters to inform the community of the progress and key milestones or activities taking place during the following three months • Distribute newsletters to all affected commercial and residential properties within a minimum of 200m radius of the construction site for OOHW and 100m for works in standard construction hours. • Provide an initial response to email/written correspondence (letters/faxes) within 48 hours • Provide feedback to requests for information from the Sydney Metro Communication and Engagement team within two hours • Refer enquiries not associated with contractor activities to Sydney Metro Project Communications team immediately • Record all interactions with stakeholders on Consultation Manager in accordance with Consultation Manager data entry procedure within 48 hours • Manage calls to the community information line and redirect to appropriate team members or contractors • Provide at least an oral response to calls forwarded from the community information line within two hours unless otherwise agreed • Lead or be involved in any consultation activities arising from community enquiries as notified by the contractor.

8. Community Engagement

Systems Connect's engagement strategy aims to inform and engage community and relevant stakeholders in a constructive, transparent and fair process. To ensure this happens, detailed and timely information will be provided to Sydney Metro to assist them with fulfilling the consultation and notification requirements. Further details of Systems Connect's commitment to community consultation can be obtained from the Community Communications Strategy – Line-wide (CCS-LW) (SMCSWLWC-SYC-1NL-PM-PLN-000027).

The CCS-LW describes the approach Systems Connect will use to manage engagement and ongoing consultation with stakeholders and the community with an interest in, or potentially affected by SMCSW, including Northern Connection works.

Specifically, the CCS-LW Section 4 provides a summary of the potential site-specific issues and stakeholder consultation overview for the Project.

Engagement will focus on stakeholders and the community adjacent to construction sites who have an interest in, or who are likely to be affected by early works activities.

SC will provide key stakeholders and the community with information about construction progress. Commitments include:

- Ensure people understand the scope of the works and mitigation measures
- Ensure key stakeholders and the community understand the proposed timing of the works
- Take steps to minimise potential impacts
- Maintain and protect Sydney Metro's reputation.

A full suite of Sydney Metro's communication tools is outlined in the Overarching Community Communications Strategy.

The stakeholder and community engagement tools to be used during early works will include:

- Place Managers to be the single point of contact for affected stakeholder and the community and the project team, who will proactively door knock properties and also respond quickly to any issues or complaints raised
- Notifications, signage, newsletters including maps to keep stakeholders and the community informed, explaining the purpose of the works, what they can expect, and any potential impacts (delivered in paper or electronic format)
- Newsletter twice a year to properties within 500 metres of the construction site
- Fact sheets (as required) to provide detail on aspects of the work and the project
- Newspaper advertising as required
- Communications Management Control Group, Sydney Metro will establish a new group or attend existing forums to discuss project activities with neighbouring infrastructure projects.

In relation to specific consultation that was conducted prior to establishment of Ancillary Facilities covered by this plan, please refer to Table 9 in the approved LORAC plan (Construction Ancillary Facilities Management Plan - Sydney Metro City & Southwest Northern Corridor Works Project - Final (Rev 07) - Client Copy).

Further consultation with sensitive receptors around Ancillary Facilities will be undertaken as the project progresses where sensitive periods can be refined based on the type of activities, expected impacts and the particular circumstances of the receptor at that time. All consultation will be undertaken prior to the start of the relevant portion of works predicted to affect those receptors.

Copies of specific consultation can be found on the Sydney Metro website: https://www.sydneymetro.info/documents

9. Training, Awareness and Competence

Environmental training will be carried out in accordance with Element 7 of the Project CEMP C2B.

All employees will receive suitable environmental induction / training to ensure that they are aware of their responsibilities and are competent to carry out the work.

Environmental requirements will be explained to employees during site induction and on-going training via toolbox meetings, briefings, notifications and the like.

All employees (including subcontractors) will receive induction/ training in the following:

- Environmental Policy
- Site environmental objectives and targets
- Understanding individual authorities and responsibilities
- Site environmental rules
- Potential consequences of departure from rules
- Emergency procedure and response (e.g. spill clean-up)
- Basic understanding of their legal obligations.

Personnel performing tasks, which can cause significant environmental impacts, will be competent based on appropriate education, training and / or experience.

It should be noted that upon commencement of new personnel, the induction process covers the environmental management and legislative requirements specific to the project.

Ongoing training will be undertaken through toolbox talks and daily pre-start meetings. These will include environmental and community issues relevant to the site personnel and the aspects, impacts and risks pertaining to the proposed works. Attendance of all training and toolbox meetings is recorded and signed off by personnel in attendance. The name of trainee, when the person was trained, the name of the trainer, and a general description of the training content will be included in the records of training and toolbox meetings.

All training records for project staff, including induction records, shall be maintained on the Systems Connect Project K/: Drive.

10. Enquiries, Complaints

All environmental enquiries and complaints will be managed in accordance with Element 6 of the CEMP C2B and the Community Communications Strategy (CCS-LW). This includes internal and external notification, recording, reporting and response processes.

Public Complaints shall be logged into Consultation Manager and are to be responded to in accordance with the Sydney Metro Community Communication Strategy (CCS). Environmental Management related complaints will be forwarded to the Environment Manager.

Lines of enquiries will be made available for the project, including a 24-hour community information line, which has already been set up (1800-171-386), a postal address and email address for receipt of complaints and enquiries, as well as a Project website which includes all these contact details. These details are included in the CNVMP. Community notifications will also include relevant project contact details in the event of an enquiry or complaint.

Additionally, business cards containing project contact information for the community will be available at each site for project personnel to issue if approached directly by a member of the public with an enquiry or complaint.

If any public authority has a request or complaint this should be raised with Sydney Metro who will consider their request or carry out an initial investigation into the complaint.

11. Incident Management

Environmental incidents will be managed in accordance with Element 9 of the CEMP C2B.

Environmental control and performance will be continually monitored on site, with site inspections completed by a member of the SC Environment team C and as required by Sydney Metro's appointed Environmental Representative.

All identified incidents will be registered on Synergy, Systems Connect's online incident reporting system within 48 hours of occurrence. Synergy will allocate a number to the identified incident to ensure traceability. All incident classification, internal and external notification and reporting will be in accordance with the CEMP C2S and associated PMS procedures and tools.

12. Monitoring and Inspection

All monitoring and reporting will be undertaken in accordance with Section 5.8 and Appendix C6 of the CEMP C2B.

12.1 Inspections

Inspections of construction ancillary facilities and worksites will include checks of:

- compliance with erosion and sediment controls
- any tracking of material onto the surrounding road network
- waste storage, collection and disposal
- appropriate chemical and fuel storage
- hoardings and boundary fences for graffiti or advertising material
- compliance with traffic control plan measures.

The LW project Environment and Sustainability Manager is responsible for ensuring effective environmental inspections are carried out and appropriately documented as required using the Environmental Inspection Report. This will be a combination of informal daily checks by the Site Supervisor, noted in the Daily Site Report, as well as in the Environment and Sustainability Checklist. These inspections will be carried out weekly and following heavy rain events, and will ensure environmental controls as per the SEPs.

The Environment and Sustainability Manager or delegate would be in attendance at any periodic ER site inspections. The Environment and Sustainability Manager will be responsible for actioning and responding to any identified corrective actions in timeframes as agreed with the ER.

Where environmental inspection or monitoring outcomes will be recorded into Synergy, a workplace visit is to be created and the associated actions generated. Where deemed necessary by the Environment and Sustainability Manager, and as a result of revisions to project scope or changes to project risks, additional Environmental Risk Action Plans to control potential impacts may be developed.

12.2 Monitoring

Project environmental performance will be measured through regular environmental performance reviews. These will be based on the measurable outcomes identified in each environmental management plan, including the CEMP C2S and Sub-plans.

A Construction Noise and Vibration Monitoring Program has been developed for the Project. The Monitoring Program is included within the CNVMP.

Monitoring of works associated with the operation of the ancillary facilities will be undertaken in accordance with the requirements of the Sydney Metro City & Southwest Construction Noise and Vibration Strategy (CNVS), Conditions of Approval and EPL. There are no high impact noise works associated with the operation of the ancillary facilities. The ancillary facilities will be used during standard and Out of Hours construction hours. Use of the ancillary facilities outside of standard construction hours will be subject to noise modelling and will be included in an OOHW Application. Monitoring will occur when predicted levels require this mitigation measure to be implemented.

There will be no vibratory works associated with the operation of the ancillary facilities identified within this plan. Furthermore, there are no heritage structures or sensitive facilities within the screening zone of plant that will operate within the ancillary facilities. As such, there will be no vibration monitoring unless there is a complaint from a nearby property.

Any vibration monitoring to occur would be attended monitoring, unless otherwise requested and agreed by the Department of Planning and Environment, the NSW EPA, Sydney Metro or an affected resident or business.

12.3 Non-Compliances and Corrective Actions

Non-compliances arising out of the above monitoring, inspections or audit outcomes shall be recorded and addressed by raising a Non-Conformance Report and logged within Synergy. Sydney Metro or the Environmental Representative may raise non-compliances against environmental requirements. All communications from Sydney Metro (including CAR's and Audit reports) expressing concern or dissatisfaction with the implementation or operation of the CEMP C2B shall be documented in Synergy. Management system non-conformances and recurring environmental incidents will be handled in accordance with the CEMP C2S.

Corrective and preventive actions may include:

- Site remediation and rehabilitation
- Increased site inspections and monitoring
- Increase environmental awareness (re-training, tool-box meetings)
- Review and improve existing environmental controls and job safety analyses / work method statements.

12.4 Reporting

Project reporting shall be completed in accordance with Element 12 of the CEMP C2B. This includes monthly Sydney Metro City and Southwest Environmental and Sustainability reports with each report included in the Monthly Project Review.

On a monthly basis, environmental indicators, energy use, water consumption and waste information shall be entered into Synergy.

- Monthly Environmental Metrics, which includes tool-box talks, and inspections
- Waste consumption
- Water usage including volume of water extracted from surface and ground water sources
- Subcontractor energy and emissions data.

Monthly oversight of inspection outcomes, audit issues and corrective actions provided through the Actions created within Synergy. Actions are to be addressed in accordance with the timeframes outlined in the CEMP C2B.

Other Environmental reporting includes;

- Compliance tracking program (CoA A29)
- Construction compliance reports (CoA A34)
- Environmental auditing program (CoA A37)
- Construction monitoring programs (CoA C12)
- Environmental Inspections undertaken by the ER
- Environmental Inspections undertaken by the Acoustic Advisor.

Reports on compliance with the approval or any other statutory requirements will be submitted to Sydney Metro for inclusion in the Construction Compliance Reports prepared and submitted by Sydney Metro for the Secretary for information every six (6) months from the date of the commencement of construction or within another timeframe agreed with the Secretary, for the duration of construction. The Compliance Tracking Reports will be provided to the Environmental Representative for information.

12.5 Issue, Revision and Re-issue

The initial issue of this Sub-Plan has been reviewed by the Environment and Sustainability Manager to ensure it meets the requirements of the current Environmental Management System and policy, contract, specifications and standards. The plan is approved for use on the project by the Project Director. Evidence of initial review and approval is by signatures on the cover sheet.

Revisions of this plan may be required throughout the duration of the project to reflect changing circumstances or identified deficiencies.

Revisions may result from:

- Management Review
- Audit (either internal or by external parties)
- Client complaints or non-conformance reports
- Changes to the Company's standard system.

Revisions shall be reviewed and approved by the Project Director prior to issue. Updates to this plan are numbered consecutively and issued to holders of controlled copies. Updates will be undertaken on a 6-monthly basis.

The ER, in accordance with CoA A24 (j), must consider "minor" amendments to the CEMP C2B, Sub-Plans and monitoring programs that comprise updating or are of an administrative nature, and are consistent with the terms of this approval and the CEMP C2B, sub-plans and monitoring programs approved by the Secretary and, if satisfied such amendment is necessary, approve the amendment. This does not include any modifications to the terms of this approval.

Furthermore, in accordance with CoA A27, (g) in conjunction with the ER, the AA must (iv) consider relevant "minor" amendments made to the CEMP, relevant sub-plans and noise and vibration monitoring programs that require updating or are of an administrative nature, and are consistent with the terms of this approval and the management plans and monitoring programs approved by the Secretary and, if satisfied such amendment is necessary, endorse the amendment. This does not include any modifications to the terms of this approval.

Appendix A: Ancillary Facilities and Laydown Area Locations

GILLAM ST
CAMBRIDGE RD
Drake Street Ancillary Facility
RALEIGH ST
COREE RD
MOWBRAY RD
HAMPDEN RD
DRAKE ST
ELIZABETH ST
MUTTAMA RD
Northern Connection Works Area
(with ancillary elements such as amenities, materials storage, etc.)
HAWKINS ST
PACIFIC HWY
BRAND ST
ARTARMON RD
VALETTA LANE
FEDERATION LANE
PALMER ST
ROBERT ST
Valetta Lane Ancillary Facility
ERIC RD
BARHAM LANE
GARAGE LANE

- Site Access
- Northern Connection Works Area
- Ancillary Facility / Laydown Area

N
W
E
S

0 25 50 75 100 Metres

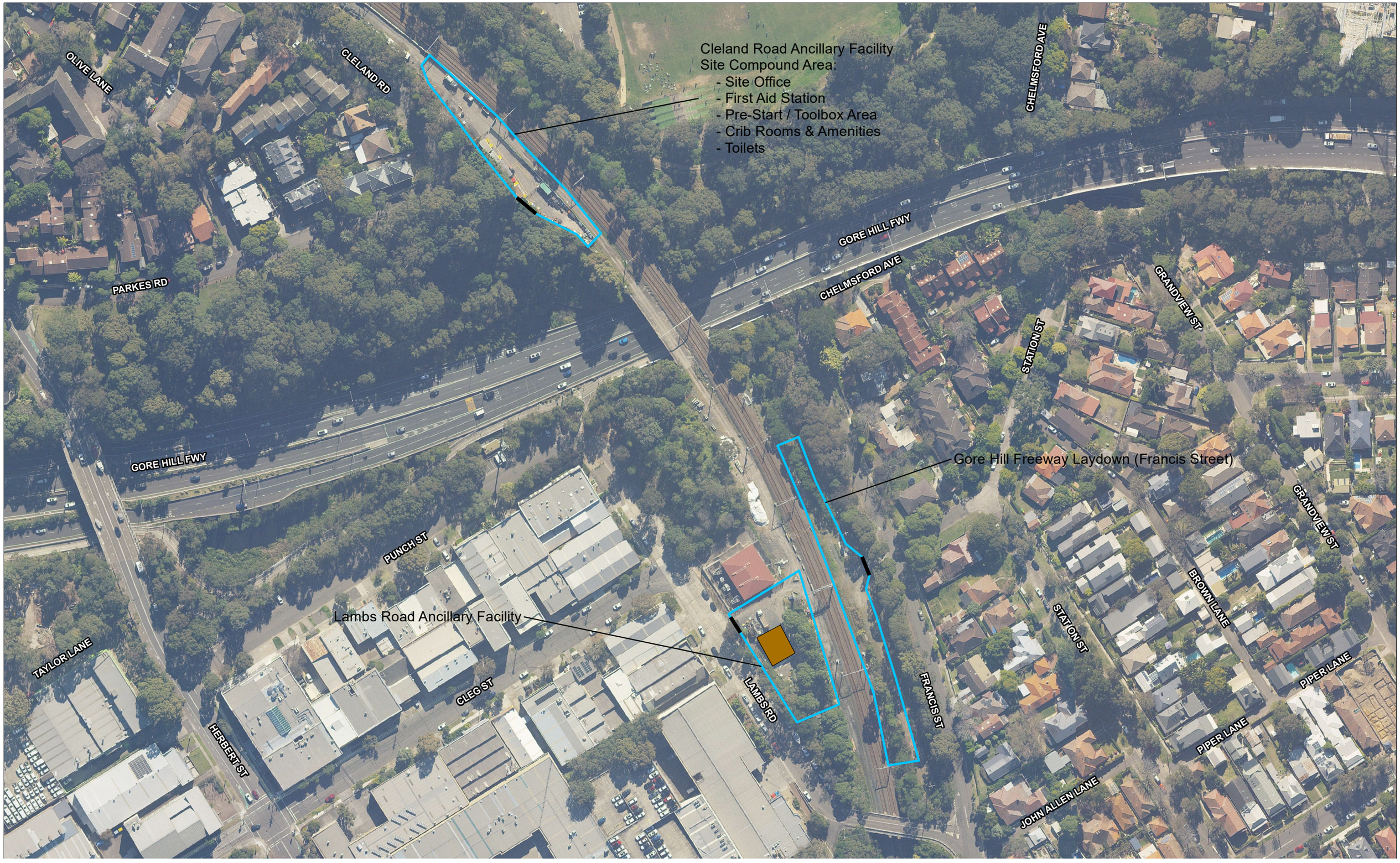
Systems Connect

Status	**FOR CONSTRUCTION**		
Original Size	A3	**Drawn**	GIS
Coordinate System	MGA ZONE 56	**Designed**	PB
Height Datum	AHD	**Date Printed**	23/03/2020
Filename:	Systems_Connect_AncillaryFacilities_NCW.mxd		

Ancillary Facilities & Laydown Areas

Northern Connection Works

Project Number	Location	Discipline	Type	Document Number	Rev



- Site Access
- Ancillary Facility / Laydown Area
- Site Shed

N W E S

0 25 50 75 Metres

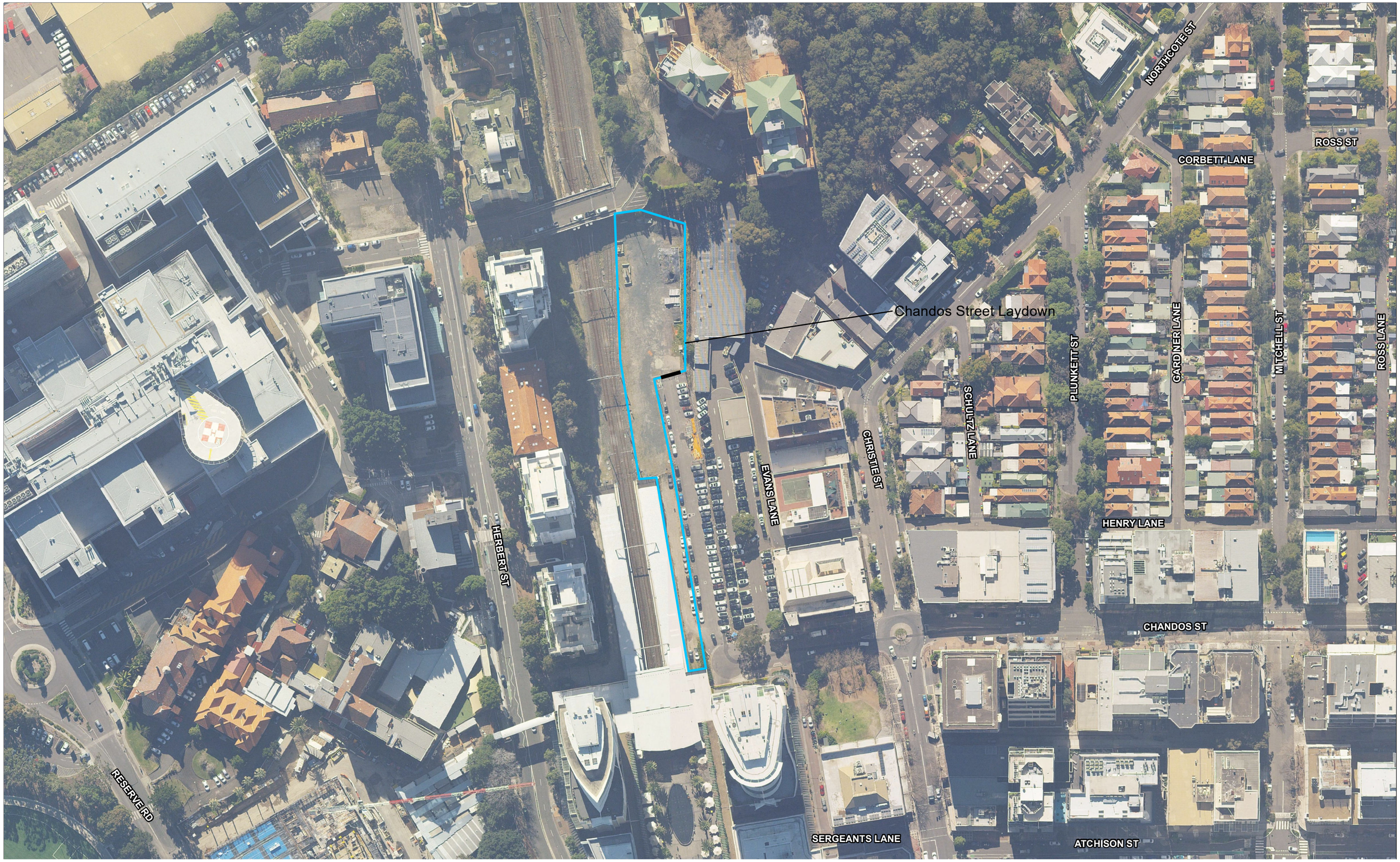
Systems Connect

Status	FOR CONSTRUCTION		
Original Size	A3	Drawn	GIS
Coordinate System	MGA ZONE 56	Designed	PB
Height Datum	AHD	Date Printed	06/03/2020
Filename:	Systems_Connect_AncillaryFacilities_Artarmon.mxd		

Ancillary Facilities & Laydown Areas

Artarmon

Project Number	Location	Discipline	Type	Document Number	Rev



Site Access

Ancillary Facility / Laydown Area

N W E S

0 20 40 60 Metres

Systems Connect

Status	FOR CONSTRUCTION		
Original Size	A3	Drawn	GIS
Coordinate System	MGA ZONE 56	Designed	PB
Height Datum	AHD	Date Printed	06/03/2020
Filename:	Systems_Connect_AncillaryFacilities_StLeonards.mxd		

Ancillary Facilities & Laydown Areas

St Leonards

Project Number	Location	Discipline	Type	Document Number	Rev

Appendix B: Indicative Construction Schedule

Northern Connection Work Activities				2020												2021												2022											
				Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
WE36	7 & 8 Mar-20	Permanent Down Shore	Service investigation																																			
			Geotechnical investigation																																				
		Open Dive	Nil works on track - cannot work under OHW removals																																				
WE44	2 & 3 May-20	Permanent Down Shore	Intertrack wall - 20no. Piles city end [3no. Rigs]																																				
			CSR ULX - 2 track @ 10.750km																																				
		Open Dive	Piling pre-slew 12no. @ north eastern wall 3no. Rigs. 2 piles per shift per rig (1st shift for pile platform construction & for setting up route for tracking in rigs).																																				
WE03	18 & 19 Jul-20	Permanent Down Shore	Intertrack wall - 20no. Piles city end [3no. Rigs]																																				
			Construct drainage crossing under new DN x 2 @ 10.770 & 10.820																																				
			Drainage ULX @ 11.250 [4 track] - 50%																																				
			Redo city end tie-in formation																																				
		Open Dive	Piling pre-slew 12no. @ north eastern wall 3no. Rigs. 2 piles per shift per rig (1st shift for pile platform construction & for setting up route for tracking in rigs).																																				
Midweek	Aug-20 - Oct-20	Permanent Down Shore	Intertrack wall piling - country end - midweek Precast Panel installation Backfill bethind intertrack wall Drainage installation [pit & pipe]																																				
		Open Dive	No Works																																				
WE17	24 & 25 Oct-20	Permanent Down Shore	MW330 piles - 4no. [in advance of drainage].																																				
			Redo country end tie-in formation																																				
			Deliver LWR (16 – 20no. Railsets).																																				
			Drainage ULX @ 11.250 [4 track] - 50%																																				
			Install OHW structure MH10+820																																				
			Deliver strructural fill via. Site dump wagons																																				
		Open Dive	Piling pre-slew - 18no. @ north eastern wall 3no. Rigs. 2 piles per shift per rig (3 productive shifts allowed for - .5 shift at start and end of weekend for mob / demob).																																				
			Constuct 2no. new foundations for OHW terminations on NRT line																																				
Midweek	Nov-20	**HANDOVER OF CLOSED DIVE TSE - 30/11/19**	Note: following handover of closed dive, we will need to excavate into the closed dive mid-week.																																				
Midweek	Dec-20	Permanent Down Shore	Earthworks for PDS [structural fill & capping]																																				
		Open Dive	Excavate from TSE dive tunnel to NTS to provide midweek access																																				
Midweek	Jan-21	Permanent Down Shore	Cess drainage construction GST construction																																				
		Open Dive	No Works																																				
Midweek	Feb-21 - Mar-21	Permanent Down Shore	Track build for PDS pre-slew [ballast, sleepers, rail, welding]																																				
		Open Dive	No Works																																				
WE38	20 & 21 Mar-21	Permanent Down Shore	Slew track to PDS (we need 2 months after handover of closed dive for prep)																																				
			OHW install & commission																																				
			Signalling commission																																				
		Open Dive	Deliver piling rigs to site of NTS lock in place during this possession until WE51																																				
			OHW termination structures to be slewed.																																				
			FRP Capping beam at country end [close to track]																																				
Midweek	Mar-21 - Jun-21	Permanent Down Shore	No Works																																				
		Open Dive	Construct 40 piles [including the 18no. 1200dia. Piles] 13 weeks Mon to Fri piling = 65 days																																				
WE51	20-Jun-21 Sunday only	Permanent Down Shore	Limitied/ no scope for day 1 possession																																				
		Open Dive	Remove piling rigs																																				
WE09	28 & 29 Aug-21	Permanent Down Shore	Removal of redundant track, OHW & signal infrastructure																																				
		Open Dive	36 piles at NE & NW wall, 6no. Rigs. 2 piles per shift per rig.																																				
			Install precast cess drainage – 65m.																																				
			Site wide drainage																																				
WE19	6 & 7 Nov-21	Permanent Down Shore	Demolish existing retaining wall (23m).																																				
		Open Dive	Piling 30 at NE & NW wall, 5no. Rigs. 2 piles per shift per rig. [148 total now complete]																																				
			Install precast cess drainage – 40m.																																				
			Site wide drainage																																				
			PMF pit																																				
			Installation of OHW footings.																																				

Northern Connection Work Activities				2020												2021												2022											
				Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Midweek	Dec-21 - Mar-21	Permanent Down Shore	No Works																																				
		Open Dive	Excavate & shotcrete to baseslab level																																				
WE31	29 & 30 Jan-22	Permanent Down Shore	Hi-rail pad construction																																				
		Open Dive	PMF pit																																				
			Install precast cess drainage – 40m.																																				
			Site wide drainage																																				
			Install OHW structures in open dive.																																				
			Piling contingency scope																																				
			Piling contingency scope																																				
Midweek	Mar-22	Permanent Down Shore	No Works																																				
		Open Dive	Drainage below baseslab																																				
Midweek	Apr-22 - Jun-22	Permanent Down Shore	No Works																																				
		Open Dive	FRP base slab																																				
WE48	28 & 29 May-22	Permanent Down Shore	No Works																																				
		Open Dive	Construction of transition slab																																				
			Install precast cess drainage – 47.5m																																				
			Site wide drainage																																				
Midweek	Jun-22 - Aug-22	Permanent Down Shore	No Works																																				
		Open Dive	Construct track slab Install OHW structures																																				
WE09	27 & 28 Aug-22	Permanent Down Shore	No Works																																				
		Open Dive	Track tie in to SMNW (including lowering of the buffer stops to suit)																																				
WE19	5 & 6 Nov-22	Permanent Down Shore	No Works																																				
		Open Dive	OHW tie in to SMNW																																				

Appendix C: Summary of Risks at Ancillary Locations

Summary of Risks at Ancillary Locations

Category	Aspect	Hazard / Activity	Cause	Consequence /Impact	Current Controls	Risk Score
Environment	Transport and Traffic	Changed traffic conditions in the neighbourhood or increased traffic	• Traffic entering/leaving construction sites and compounds	• Increased local traffic • Impacts on local traffic conditions • Air quality impacts • Increased noise due to traffic • Complaints due to noise and potential delays	• Construction Traffic Management Plan and TCP's • Community Communications Strategy • Project induction included Traffic management obligations • Site Inductions and Truck Driver training included site specific requirements • Road Act Approvals • Air Quality Management Sub-Plan (SMCSWLWC-SYC-1NL-PM-PLN-000373) • Construction Noise and Vibration Management Plan (SMCSWLWC-SYC-1NL-PM-PLN-000032)	11 (Medium)
Environment	Transport and Traffic	Increased heavy vehicles traffic	• Haulage	• Increased local traffic • Changes to local traffic conditions • Air quality impacts • Increased noise due to heavy vehicle traffic • Complaints due to noise and potential delays	• Construction Traffic Management Plan • TCP's and VMPs • Community Communications Strategy • Road Act Approvals • Air Quality Management Sub-Plan (SMCSWLWC-SYC-1NL-PM-PLN-000373) • Construction Noise and Vibration Management Plan (SMCSWLWC-SYC-1NL-PM-PLN-000032) • Site Inductions and Truck Driver training including site specific haulage routes	11 (Medium)
Environment	Transport and Traffic – Loss of Parking	Road closure - for heavy delivery	• Heavy deliveries	• Changes to local traffic conditions • Loss of street parking • Increased local traffic • Community complaints	• Construction Traffic Management Plan/Traffic Control Plans • Community Communications Strategy • Notifications • Site Induction and tool box training including any requirements for parking • Regular inspections of worksites and adjacent streets	7 (Low)

Category	Aspect	Hazard / Activity	Cause	Consequence /Impact	Current Controls	Risk Score
Environment	Transport and Traffic - Deliveries	Delivery of plant, materials and equipment via the road network	• Traffic entering/leaving construction sites and compounds	• Non-compliance with project requirements • Complaints due to noise and potential delays	• Construction Traffic Management Plan/Traffic Control Plans • Site Inductions and Truck Driver training including site specific haulage routes • Delivery drivers provided with haul routes and construction hours • Investigate opportunities for rail deliveries • Planning and staging of works and associated deliveries as much as practicable	11 (Medium)
Environment	Noise and Vibration	Noise from works outside standard hours	• Inadequate planning • Not complying with the out of hours approval process and requirements	• Regulatory action (prosecution, pins). • Contractual Breach • Reputation • Community complaints	• Out of Hours Works on delivery program • Construction Noise and Vibration Management Sub-Plan (SMCSWLWC-SYC-1NL-PM-PLN-000032) • OOHW Procedure (SMCSWLWC-SYC-1NL-EM-PRO-000807) • OOHW Form (SM-17-00000115) approved before works • Induction included reference to obligations for management of OOHW • Toolbox training on management of OOHW • Suitably qualified environment representative in delivery team to assess and monitor	4 (Low)

Category	Aspect	Hazard / Activity	Cause	Consequence /Impact	Current Controls	Risk Score
Environment	Noise and Vibration	Cumulative / daytime noise	• Operation activities not allowing for respite periods • Inadequate planning and consultation • Not complying with the noise management requirements	• Community complaints • Reputation	• Out of Hours Works on delivery program • Construction Noise and Vibration Management Sub-Plan (SMCSWLWC-SYC-1NL-PM-PLN-000032) • OOHW Procedure (SMCSWLWC-SYC-1NL-EM-PRO-000807) • Induction included reference to obligations for management of noisy activities, standard working times and OOHW. • Tool box training on management of noise and vibration • Suitably qualified environment representative in delivery team to assess and monitor • Community Communications Strategy	12 (Medium)
Environment	Soil and Water	Sediment run-off	• Inadequate sediment control • Not complying with ERSED plans	• Pollution of water • Impact on aquatic ecology • Sedimentation of waterways • Regulatory action • Delay to program • Community impacts	• Soil, Water and Groundwater Management Sub-Plan (SMCSWLWC-SYC-1NL-PM-PLN-000372) and associated Procedures • Site specific Erosion and Sediment Control Plans • Induction includes reference to obligations associated with management of spoil and water during construction • Toolbox training on management of ERSED and de-watering • Suitably qualified environment representative in delivery team • Specialist consultant for ERSED development and review as required	13 (Medium)

Category	Aspect	Hazard / Activity	Cause	Consequence /Impact	Current Controls	Risk Score
Environment	Soil and Water	Chemical / hazardous materials storage and use, spills and leaks	• Unapproved use of materials on-site • Inappropriate use or storage • Inadequate storage and containment controls	• Pollution of water • Fines/regulatory action • Contamination of soil	• Construction Safety Management Plan • ERP/PIRMP • Site Environment Plans include designated storage areas, spill kits and stormwater drains/controls • Refuelling procedures • Tool box training substance storage and management, spill response • Induction references substance storage obligations • Spill Management Procedure (SMCSWLWC-SYC-1NL-EM-PRO-000387) • Soil, Water and Groundwater Management Sub-Plan (SMCSWLWC-SYC-1NL-PM-PLN-000372) includes provisions for the storage/management of chemicals. • Storage areas to be away from sensitive areas and bunded in accordance with standards • MSDS and risk assessment prior to accepting all hazardous substances on site • Correct labelling of containers • Regular audit and inspection of storage areas and substances • Reduce/eliminate the need for hazardous substances • Secure all storage areas and sites after use/end of each day	11 (Medium)

Category	Aspect	Hazard / Activity	Cause	Consequence /Impact	Current Controls	Risk Score
Environment	Visual Amenity	Visual impacts	• Not cordoning off the ancillary facility with fencing, shade cloth, etc in accordance with requirements • Inadequate/improper lighting • Poor housekeeping • Stockpiles and laydown • Inadequate visual screening • Removal of vegetation	• Light pollution/spill • Temporary structures/materials and equipment storage changing visual amenity • Vandalised surfaces • Graffiti	• Visual Amenity Management Sub-Plan (SCLW-SYC-1NL-PM-PLN-000376) • Community Communications Strategy • Induction includes reference to visual amenity requirements and housekeeping practices • Toolbox training delivered includes management of visual amenity • Correct direction and monitoring of temporary lighting • Maintenance of screening treatments • Regular inspections to check visual amenity controls	12 (Medium)
Environment	Air Quality	Dust generation	• Poor planning of operation activity in proximity to residential and commercial premises • Not complying with the air quality requirements • Working in windy conditions • Not covering loads • Delays in stabilisation of disturbed land	• Community/business impacts • Complaints • Regulatory action • Air pollution	• Air Quality Management Sub-Plan (SMCSWLWC-SYC-1NL-PM-PLN-000373) • Air Quality and Dust Management Procedure (SMCSWLWC-SYC-1NL-EM-PRO-000392) • Induction includes air quality management requirements • Toolbox Training of workforce on management of air quality during operation • Undertake regular inspections to ensure controls are maintained/effective	12 (Medium)

Category	Aspect	Hazard / Activity	Cause	Consequence /Impact	Current Controls	Risk Score
Environment	Air Quality	Exhaust emissions	• Poor planning of construction activity • Not complying with the air quality management requirements • Inadequate plant management	• Community impacts • Air pollution	• Air Quality Management Sub-Plan (SMCSWLWC-SYC-1NL-PM-PLN-000373) • Induction includes air quality management requirements • Toolbox Training of workforce on management of air quality during operation • Well maintained plant/equipment, pre-start checks and servicing • Non-compliant vehicles, plant etc removed from site/repaired • Verification checks as required	12 (Medium)
Environment	Waste	Incorrect disposal of waste	• Poor planning of operation activity • Not following waste management requirements	• Regulatory action (prosecution, PINs) • Soil and water pollution • Contamination of other waste streams	• Waste, Recycling and Spoil Management Sub-Plan (SMCSWLWC-SYC-1NL-PM-PLN-000374) • Waste Management and Recycling Procedure (SMCSWLWC-SYC-1NL-EM-PRO-000399) • Spoil Classification Reuse and Recycling Procedure (SMCSWLWC-SYC-1NL-EM-PRO-000461) • Induction includes waste management requirements • Toolbox training of workforce on waste management	11 (Medium)