



# Port Kembla Gas Terminal

**Construction Traffic Management Plan  
Stage 2A and 2B Marine Berth  
Construction and Dredging – Land and  
Marine Based**

Australian Industrial Energy

17 March 2022

→ The Power of Commitment



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# Acronyms

Acronym	Definition
AIE	Australian Industrial Energy
AMSA	Australian Maritime Safety Authority
ASSMP	Acid Sulfate Soil Management Plan
Berth 101	MBD Site Compound
COLK	Certificate of Local Knowledge
COLREG	Convention on the International Regulations for Preventing Collisions at Sea, 1972
Council	Wollongong City Council
CSP	Contaminated Spoil Protocol
CSSI	Critical State Significant Infrastructure
CTMP	Construction Traffic Management Plan
DEMP	Dredge and Excavation Management Plan
DPIE	Department of Planning, Industry and Environment
ECR	Emplacement Cell Report
EIS	Environmental Impact Statement
EMS	Environmental Management Strategy
EPA	NSW Environment Protection Authority
EP&A Act	<i>Environmental Planning and Assessment Act 197</i>
EPL	Environment Protection Licence
ESCP	Erosion and Sediment Control Plan
FSRU	Floating Storage and Re-gasification Unit
GHD	GHD Pty Ltd
GML	General Mass Limits
HM	Harbour Muds
HS	Harbour Silts
HSE	Health, Safety and Environment
HVNL	Heavy Vehicle National Law
ICNG	<i>Interim Construction Noise Guideline</i>
ISM code	International Safety Management code
ISPS Code	International Ship and Port Facility Security Code
ISSC	International Ship Security Certificate
KPI	Key Performance Indicators
LNG	Liquefied natural gas
m <sup>3</sup>	Cubic metres
MARPOL	International Convention for the Prevention of Pollution from Ships
MBD	Marine Berth Construction and Dredging
MLA	Marine Loading Arms
OHDSKA	Outer Harbour Dredged Spoil Containment Area

Acronym	Definition
OPLINC	TfNSW Online Planned Incident system
ORF	Onshore Receiving Facilities
OSOM	Oversize Over Mass
PANSW	Port Authority of NSW
PASS	Potential Acid Sulfate Soils
PIRMP	Pollution Incident Response Management Plan
PKGT	Port Kembla Gas Terminal
PKGT EIS	Port Kembla Gas Terminal Environmental Impact Statement
PKHD	Port Kembla Height Datum
POEO Act	<i>Protection of the Environment Operations Act 1997</i>
POMP	Port Operations Management Plan
RL	Reduced level
Roads Act	<i>Roads Act 1993</i>
ROL	Road Occupancy Licences
SHB	Split Hopper Barge
SMEC	SMEC Australia Pty Ltd
SMP	Spoil Management Plan
SOLAS	International Convention for the Safety of Life at Sea 1914
SOPEP	Shipboard Oil Pollution Emergency Plan
SRD SEPP	State Environmental Planning Policy State and Regional Development
SWMS	Safe Work Method Statement
TfNSW	Transport for NSW
The Project	Port Kembla Gas Terminal Project
VTS	Vessel Traffic Services
WQMP	Water Quality Monitoring Plan



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# 1. Introduction

## 1.1 Overview

This Construction Traffic Management Plan (CTMP) has been developed as a Sub - plan to the Port Kembla Gas Terminal Project (the Project) Environmental Management Strategy (EMS). This CTMP has been prepared by GHD Pty Ltd (GHD) on behalf of Australian Industrial Energy (AIE) to apply to land and marine based traffic movements associated with Stage 2A and Stage 2B construction of the Project. Marine-based traffic movements are adapted from the Port Operations Management Plan (POMP), produced by the Stage 2B Principal Contractor in consultation with the Port Authority of NSW (PANSW). This Stage 2A and Stage 2B CTMP supersedes the Stage 2A CTMP.

This CTMP interfaces with the other associated Sub - plans, which together describe the proposed structure for environmental management and monitoring requirements for the Project. This CTMP addresses the requirements of the Port Kembla Gas Terminal Environmental Impact Statement (PKGT EIS) and associated Infrastructure Approval (SSI 9471) and Environment Protection Licence (EPL) No. 21529 and has been prepared in consultation with Transport for NSW (TfNSW), Wollongong City Council (Council) and NSW Ports.

## 1.2 Background

AIE is developing the Project which involves the development of a liquefied natural gas (LNG) import terminal at Port Kembla, south of Wollongong, NSW. The Project will be the first of its kind in NSW and will provide a simple and flexible solution to the state's gas supply challenges.

NSW currently imports more than 95 per cent of the natural gas it uses from other eastern states. In recent years, gas supplies to the Australian east coast market have tightened, resulting in increased natural gas prices for both industrial and domestic users.

The Project provides an immediate solution to address the predicted shortages and will result in significant economic benefits for both the Illawarra region and NSW. The Project will have a capacity to deliver more than 100 petajoules of natural gas, equivalent to more than 70 per cent of NSW gas needs and will provide between 10 to 12 days of natural gas storage in case of interstate supply interruption. LNG will be sourced from worldwide suppliers and transported by LNG carriers to the gas terminal at Port Kembla where it will be re-gasified for input into the NSW gas transmission network.

The Project has been declared Critical State Significant Infrastructure (CSSI) in accordance with Section 5.13 of the *Environmental Planning and Assessment Act 1979* (EP&A Act) (NSW) and Schedule 5 of the State Environmental Planning Policy (State and Regional Development) 2011 (SRD SEPP). The Project received Infrastructure Approval from the Minister for Planning and Public Spaces on 29 April 2019.

The construction of the Project is primarily associated with the establishment of a new berth facility at Port Kembla to enable an LNG carrier to berth alongside the Floating Storage and Re-gasification Unit (FSRU) and new infrastructure to connect the terminal to the existing gas network. Excavation and dredging would be required to establish the new berth facility, with spoil deposited in a cell (referred to as the 'Emplacement Cell') in the Outer Harbour.

The development has progressed to Stage 2A and Stage 2B works located at Berth 101 (referred to as the 'Marine Berth Construction and Dredging (MBD) Site Compound') and the Outer Harbour Dredged Spoil Containment Area (referred to as 'OHDSOA' or the Emplacement Cell). Collectively, these two locations are referred to as "the site". The Stage 2A works include:

- Completion of excavation works undertaken during Stage 1 (including transport of spoil materials to the Emplacement Cell Construction Site).
- Construction of the quay wall at the MBD Site Compound.
- Construction of Onshore Receiving Facilities (ORF) at the MBD Site Compound (including construction of Wharf Topside Area, Utility Area, and Common Area).
- Installation and commissioning of power, communications, and potable water.
- Installation of gas pipeline within the MBD Site Compound as part of ORF.



The Stage 2B works include:

- Continuation of Stage 2A works.
- Excavation and dredging of the MBD Site Compound in the Inner Harbour and the Emplacement Cell in the Outer Harbour.
- Construction of the Emplacement Cell in the Outer Harbour.
- Marine based construction activities including installation of navigational aids and revetments at the MBD Site Compound.

## 1.3 Purpose

This CTMP has been prepared in accordance with the PKGT EIS and associated Infrastructure Approval (SSI 9471) and EPL No. 21529. It describes how the management measures and commitments in the PKGT EIS, Infrastructure Approval (SSI 9471) and EPL No. 21529 relating to traffic movements are to be implemented by the Principal Contractors during Stage 2A and Stage 2B construction of the Project. Specifically, this plan includes requirements to:

- Provide for the safe movement of marine, vessels, vehicular and pedestrian traffic.
- Provide protection of workers and pedestrians from passing traffic.
- Provide access to properties located within the limits of the works.
- Incorporate appropriate traffic and access controls during the design, construction, maintenance and removal of any necessary temporary roadways and detours.
- Provide appropriate traffic control where required.
- Provide installation of temporary signs, road markings, lighting, and safety barriers.

This plan addresses the above requirements and includes, but is not limited to:

- Performance criteria for traffic safety measures including safe driving practices.
- Mitigation strategies to minimise impacts on local transport routes and pedestrians.
- Mitigation strategies to minimise dust and dirt when transporting spoil materials.

AIE and its contractors acknowledge that maintaining local traffic and port traffic safety in the vicinity of the Project site is paramount to the successful delivery of the construction phase of the Project. AIE is committed to ensuring this CTMP is implemented, reviewed and updated regularly to ensure its objectives are met and that the approval conditions outlined in the Infrastructure Approval (SSI 9471) and EPL No. 21529 are achieved.

This CTMP is applicable to all staff, employees, subcontractors, and any statutory service authorities undertaking the Stage 2A and Stage 2B works described in Section 2 of this CTMP. The CTMP implementation and on-going development will be managed by the Project Team (refer to Section 3).

## 2. Project overview

### 2.1 Site description

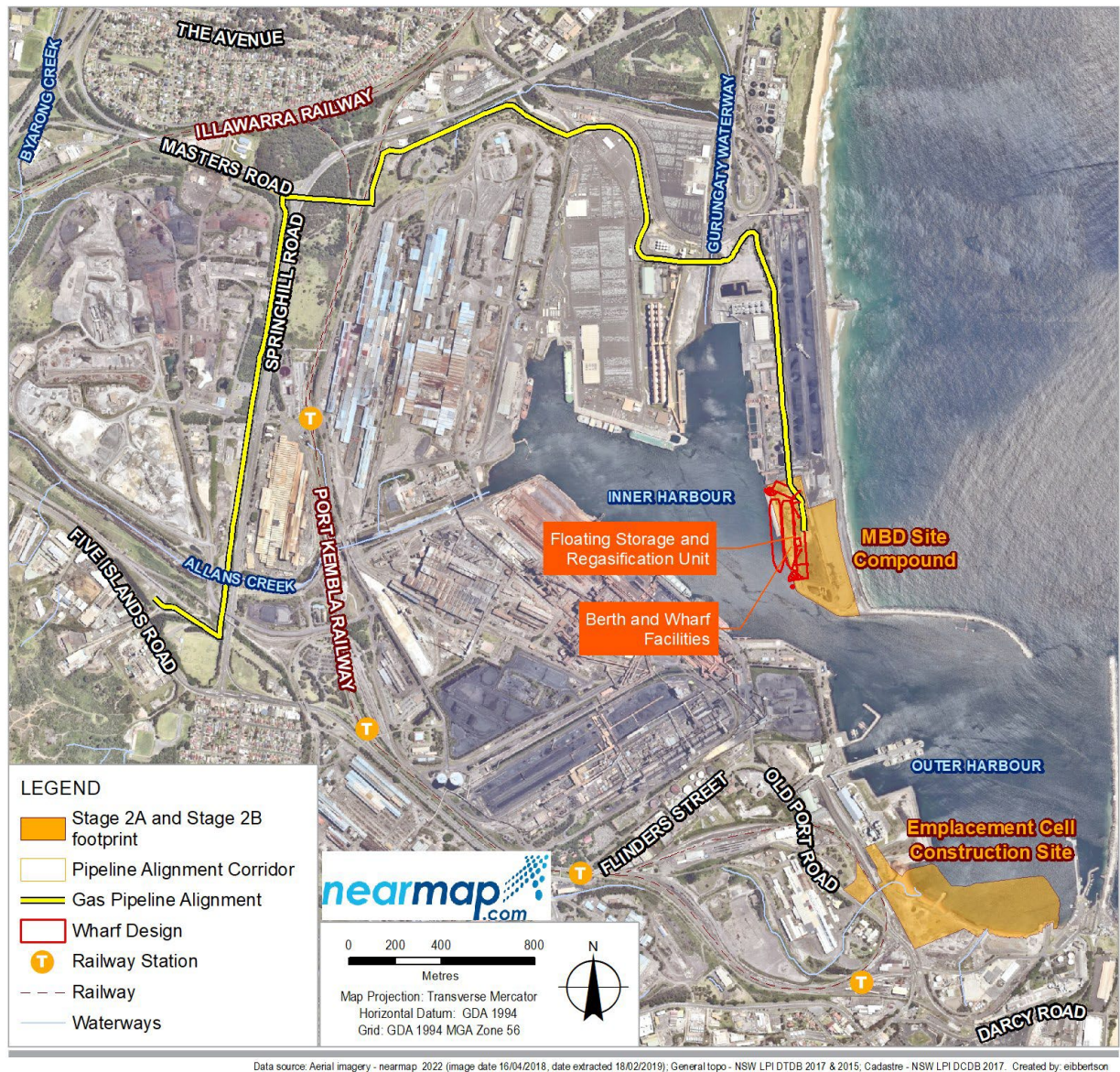
The site of the Project is situated at Port Kembla within the Illawarra region of NSW, about 80 kilometres south of Sydney. Port Kembla is mainly characterised by an existing import and export terminal and multiple other business, cargo, logistics, bulk goods, and heavy industrial facilities in the vicinity.

Port Kembla is situated about two kilometres south of the centre of Wollongong. Other localities surrounding Port Kembla and the Project site include Mangerton, Mount St. Thomas and Figtree to the north-west; Unanderra to the west; Berkeley to the south-west; and Cringila, Lake Heights, Warrawong and the residential region of Port Kembla to the south.

The zoned land use in the region includes special use and industrial use at Port Kembla and a mix of primarily residential and commercial uses at the surrounding localities. Major infrastructure in the region of Port Kembla includes the Princes Highway, which is a major state and regional highway connecting Sydney and Wollongong and regional areas further south. Princes Highway provides access to Port Kembla through turnoffs at Masters Road, Five Islands Road and Northcliffe Drive and is broadly utilised including by heavy vehicles from the port.

The South Coast railway line runs along the periphery of Port Kembla including the stations Port Kembla, Port Kembla North, Cringila and Lysaghts. The rail line services commuters and is also used to transport bulk solid goods like coal, grain, copper and steel from Port Kembla. The environmental features of Port Kembla and the surrounding region are limited given the extensive industrial, commercial and residential development. Waterways in the region include the Gurungaty Waterway, Allans Creek, American Creek and Byarong Creek. Green space includes JJ Kelly Park and Wollongong Golf Club to the north and a larger open area to the south-west.

The Project will be predominantly located within land zoned for dedicated port and industrial uses. Berth and wharf facilities, as well as the FSRU, would be situated at Berth 101 at the Inner Harbour, while the gas pipeline would extend around the periphery of port operations from Berth 101 to a tie-in point at Cringila. The Emplacement Cell will be located in the Outer Harbour. A site overview is provided as Figure 2.1.



**Figure 2.1** Site overview

## 2.2 Project construction scope of works

### 2.2.1 Overview

The Project construction scope of work has been divided into the three main packages (with associated activities), as outlined in Table 2.1. Construction staging of the Project has been approved in accordance with Condition 3 of Schedule 4 of Infrastructure Approval (SSI-9471) as per correspondence from the Department of Planning and Environment (DP&E) dated 27 October 2021. This CTMP applies only to the works associated with Stage 2A and Stage 2B.

**Table 2.1** Construction stages/work packages

Stage	Package	Proposed commencement	Activities
1	Early Enabling Works	May 2021	Demolition of Berth 101, removal of structures and land-based excavation works, and Cone Penetration Testing in the Outer Harbour to inform Emplacement Cell design and relocation of Bunker Oil Pipeline.
2A	Marine Berth Construction – Land Based	January 2022	Completion of excavation works undertaken during Stage 1. Transport of spoil materials to Emplacement Cell Construction Site. Quay wall construction.
		February 2022	Installation of communications conduit, potable water line, 11kV power cable, and padmount substation within the MBD Site Compound.
		April 2022	Construction of the ORF, which comprises three areas: Wharf Topside Area; Utility Area; and Common Area.
		June 2022	Pipeline construction and associated ancillary infrastructure within MBD Site Compound
2B	Marine Berth Construction and Dredging – Land and Marine Based	March 2022	Continuation of Stage 2A with addition of the following activities:
			Excavation/dredging of the MBD Site Compound in the Inner Harbour and construction of the Emplacement Cell in the Outer Harbour
			Marine based construction activities including installation of navigational aids and revetment shore protection.
3	Pipeline Installation including tie-ins (NGP)	June 2022	Construction of an 18" onshore natural gas pipeline approximately 6.3km in length from the Berth 101 site boundary to tie-in facility at Cringila for connection to the Eastern Gas Pipeline Pipeline construction to occur concurrently with Jemena, subject to separate set of management plans.

\*Proposed dates and may be subject to change.

The following will be undertaken as part of the Stage 2A land-based works:

- Construction of the quay wall at MBD Site Compound incorporating finalisation of excavation works undertaken during Stage 1 (including transport of spoil materials to Emplacement Cell Construction Site).
- Installation of and commissioning of power, communications, and potable water.
- Construction of ORF at MBD Site Compound (including construction of Wharf Topside Area, Utility Area, and Common Area).
- Installation of gas pipeline within the MBD Compound site.

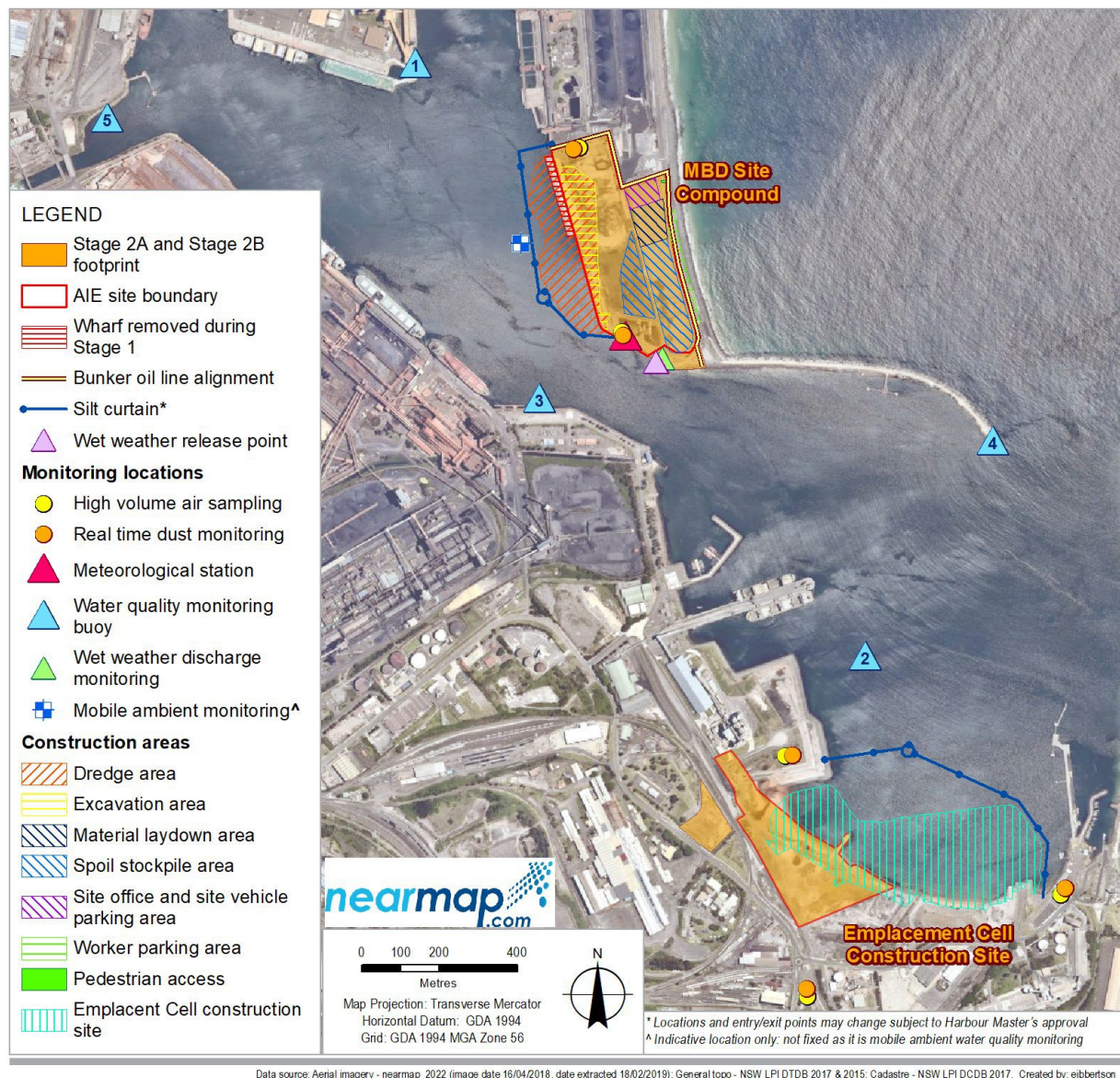
The following will be undertaken as part of the Stage 2B land and marine-based works:

- Continuation of Stage 2A works.
- Installation of site facilities and preparatory earthworks at Emplacement Cell Construction Site.
- Marine-based construction activities including installation of silt curtains, navigational aids, and revetment shore protection at the MBD Site Compound.



- Construction of the Emplacement Cell in the Outer Harbour.
- Excavation and dredging of the MBD Site Compound in the Inner Harbour.

An outline of the tasks associated with Stage 2A and Stage 2B is provided in Section 2.3 through Section 2.7. The site includes the MBD Site Compound, the Emplacement Cell Construction Site, and the Emplacement Cell located in the Outer Harbour. The location of the Stage 2A and Stage 2B works is shown in Figure 2.2.



**Figure 2.2** Stage 2A and Stage 2B works and location of MBD Site Compound, Emplacement Cell and Emplacement Cell Construction Site

## 2.2.2 Traffic

Road traffic generated by Stage 2A and Stage 2B will be controlled through the gate on Sea Wall Road. Heavy vehicle movements will be generated by the delivery of materials, equipment, and plant to the MBD Site Compound and transport of stockpiled material to the Emplacement Cell Construction Site.

In addition to the material that has already been transported to Emplacement Cell Construction Site (Outer Harbour Laydown Area) during Stage 2A, up to 30,000 cubic metres (m<sup>3</sup>) of material from the MBD Site Compound is anticipated to be transported via road to the Emplacement Cell Construction Site during Stage 2B. The activities associated with this task will involve loading, road transportation via truck and trailer (approximately 30-tonne capacity), unloading, stockpiling, and management of the stockpiles.

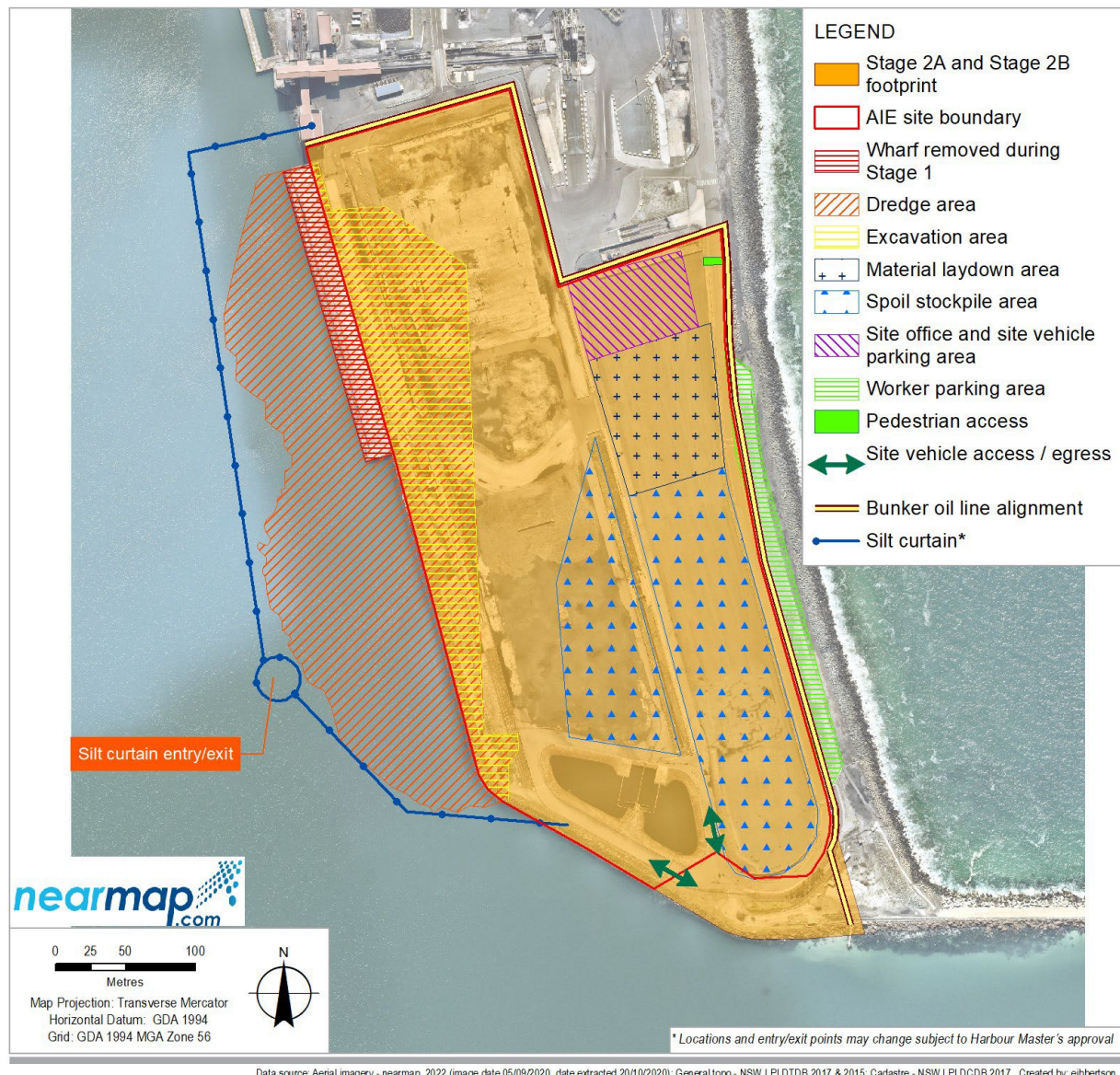


Light vehicle movements will be generated from construction workers accessing the MBD Site Compound and Emplacement Cell Construction Site. Parking will be provided for up to approximately 100 workers on the MBD Site Compound and approximately 37 workers at the Emplacement Cell Construction Site (refer to Figure 2.3 and Figure 2.4).

Road traffic movements will be undertaken in accordance with this Stage 2A and Stage 2B Construction Traffic Management Plan (CTMP).

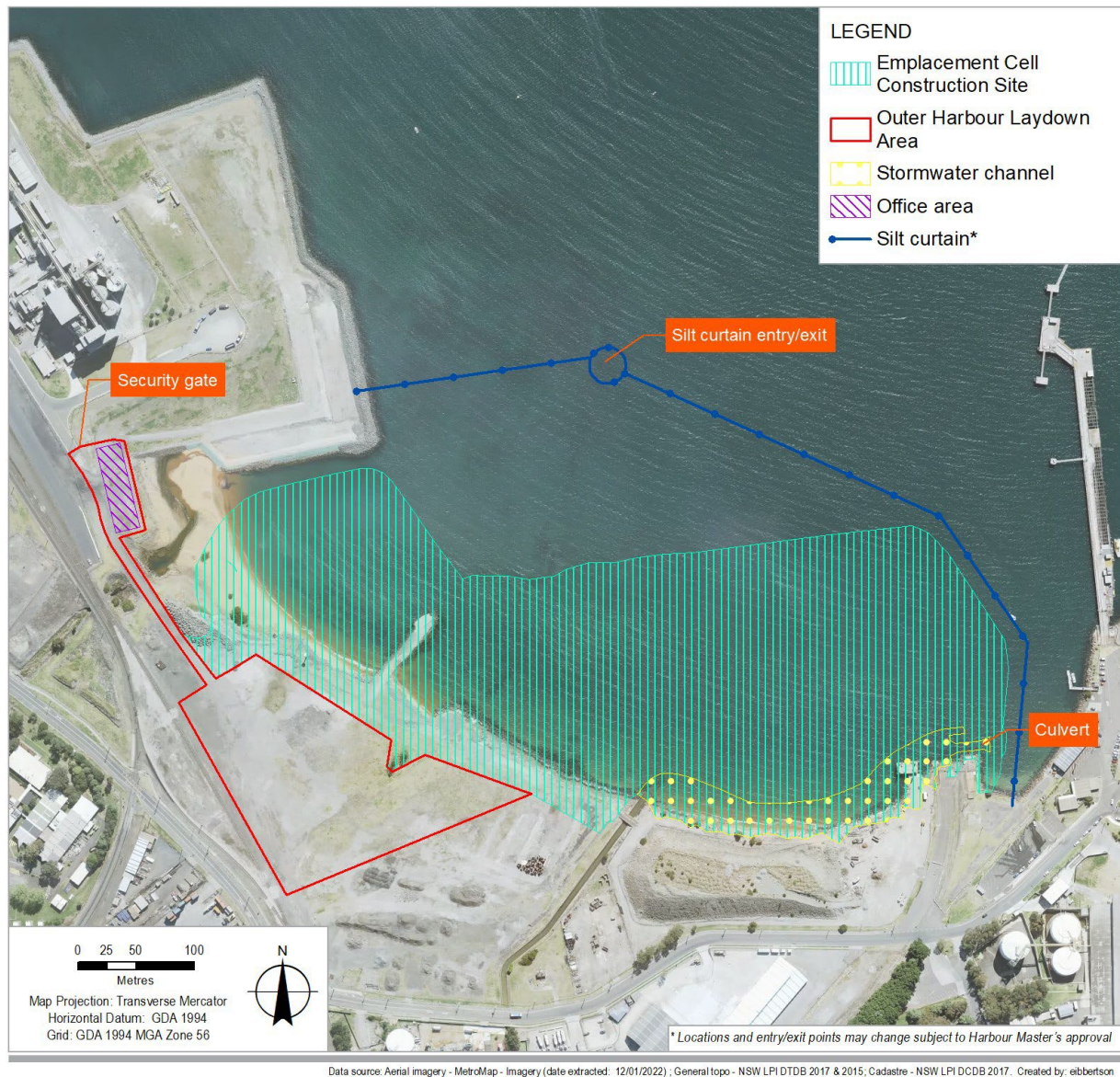
The road traffic generated by Stage 2B will mainly be associated with the delivery of the quarry materials from quarries located in the surrounding area. It is anticipated that about 40-50 daily truck movements will be required, consisting of three - five axle semi-trailers or rigid truck and five axle dog-trailers of less than 40 tonnes (GML). The activities will take place during the standard daytime construction working hours, averaging approximately eight heavy truck movements per hour (four vehicles in and out of site). The total number of vehicles required for the operation will be 12-16.

The majority of traffic generated during Stage 2B activities will be marine traffic movements during dredging operations. Marine traffic navigation and management will be undertaken in accordance with a Port Navigation Plan, herein referred to as the Port Operations Management Plan (POMP). The POMP has been produced by the Stage 2B Principal Contractor in consultation with the Port Authority of NSW (PANSW) and is consistent with the principles in the CTMP for Stage 2A.



**Figure 2.3** Layout of MBD Site Compound





**Figure 2.4** *Layout of Emplacement Cell Construction Site*

## 2.2.3 Program

The Stage 2A works are anticipated to commence in January 2022. Stage 2B which includes the continuation of land-based construction and water-based works) are then anticipated to commence in March 2022 (refer to Table 2.2 for construction staging). As noted in Section 2.2, these dates are only proposed and may be subject to change.

## 2.3 Stage 2A: Construction of quay wall (MBD – Land Based)

A number of structures will be constructed within the MBD Site Compound to accommodate the FSRU and LNG carrier for the Project. Excavation and stockpiling activities from the Stage 1 Early Enabling Works will continue on-site during Stage 2A to lay the platform for ongoing construction activities at the MBD Site Compound.

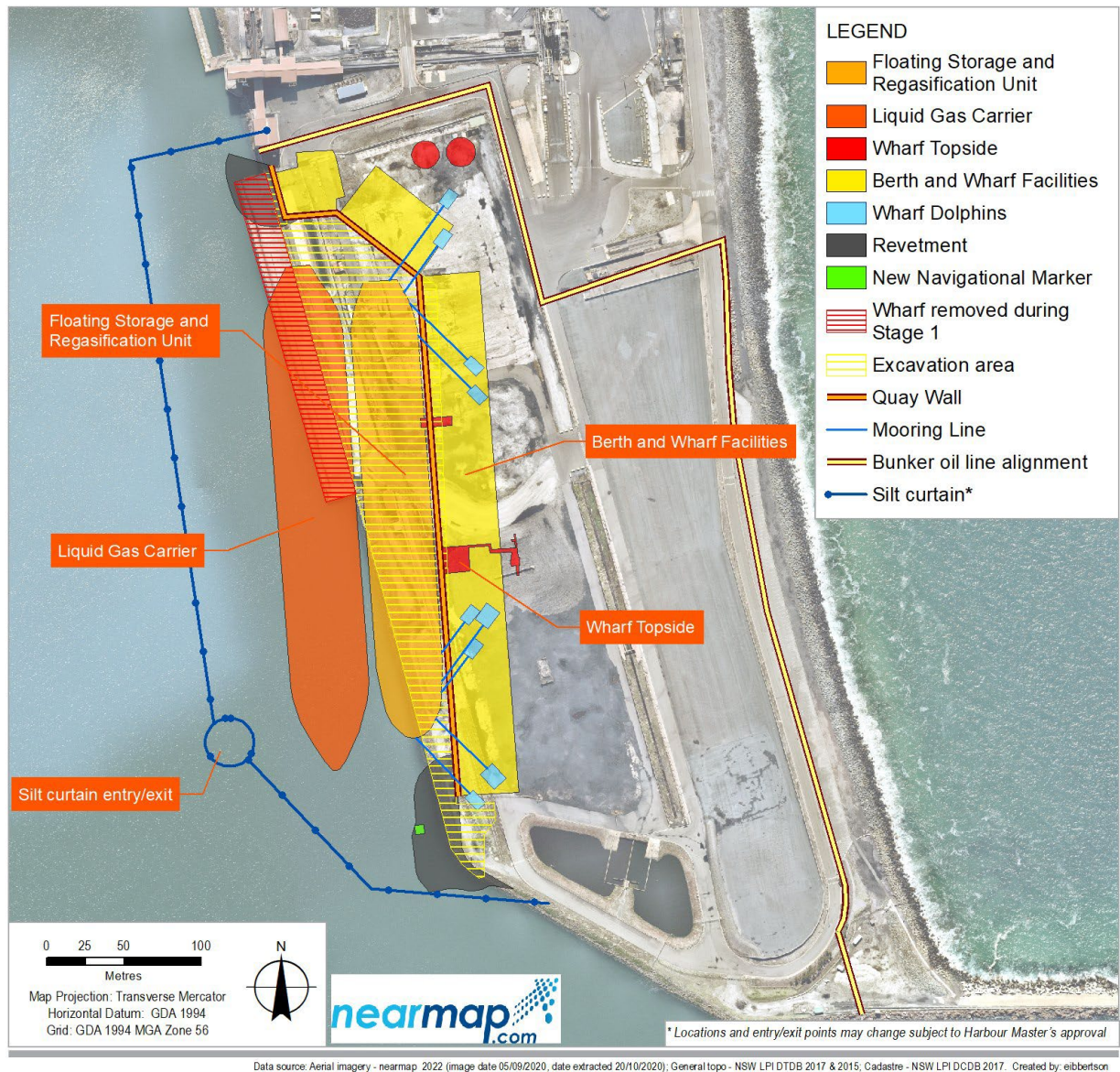
The new structures that will commence construction during Stage 2A are summarised in Table 2.2. The location of the quay wall and layout of the marine berth and wharf facilities is shown in Figure 2.5.

**Table 2.2** Marine berth and wharf structures to be constructed during Stage 2A

Component	Works required
Earthworks and stockpiles	<ul style="list-style-type: none"> <li>– Completion of excavation and backfilling works from Stage 1 Early Enabling Works.</li> <li>– Excavated materials from the Early Enabling Works have been stockpiled within the Eastern and Western Stockyards of the MBD Site Compound and the Emplacement Cell Construction Site.</li> <li>– The excavated materials stockpiled at the MBD Site Compound include: <ul style="list-style-type: none"> <li>• Approximately 9,700m<sup>3</sup> of demolished concrete crushed to nominal 70mm minus.</li> <li>• Approximately 12,500m<sup>3</sup> of heavily bound base course crushed to nominal -150mm minus.</li> <li>• Approximately 33,900m<sup>3</sup> of mixed slag, general fill, and coal nominally &lt; 150mm in size.</li> <li>• Approximately 10,700m<sup>3</sup> of predominantly sand material.</li> <li>• Approximately 8,6000 m<sup>3</sup> of asbestos impacted soils. *</li> </ul> </li> <li>– The excavated materials stockpiled at the Emplacement Cell Construction Site include: <ul style="list-style-type: none"> <li>– Approximately 44,000 m<sup>3</sup> of sand material.</li> </ul> </li> <li>– The excavated materials will be used/reused for quay wall construction and to backfill the landside area of the quay wall or transported to the Emplacement Cell Construction Site for storage and use in construction of the Emplacement Cell.</li> </ul>
Quay wall	<ul style="list-style-type: none"> <li>– Construction of a new piled quay wall keyed into bedrock where necessary complete with sheet pile anchor wall, capping beam and tie rods to the south of the existing coal terminal.</li> <li>– Excavated and processed materials from the Stage 1 Early Enabling Works are stockpiled within the MBD Site Compound and will be used during construction of the quay wall and to backfill on landside area of the wall.</li> <li>– Installation of a marine fender system attached to the capping beam along the quay wall to protect the quay wall from berthing and mooring loads.</li> <li>– Installation of a cathodic protection system to the quay wall and associated elements, including assessment of the potential impacts the FSRU and pipeline cathodic protection will have on quay wall.</li> <li>– Backfilling and compaction on landside area of wall utilising the site stockpiled materials.</li> </ul>
Mooring dolphins	<ul style="list-style-type: none"> <li>– Installation of landside mooring dolphin structures on reinforced concrete platforms supported by steel piles.</li> <li>– Mooring equipment will be installed and comprise the following: <ul style="list-style-type: none"> <li>• 20 load sensing quick release hooks.</li> <li>• Up to four land-based mooring winches on mooring dolphins may be required.</li> <li>• Up to four swivel fairleads may be required to enable each mooring line to land-based winches to be fed in a horizontal alignment.</li> </ul> </li> </ul>
Marine Loading Arm (MLA) foundations	Construction of a new reinforced concrete foundation supported on steel piles, located behind the new quay wall.
Gangway tower foundation	Construction of foundation for Gangway tower.
Fire monitor foundation	Fire monitor foundations, subject to risk studies.

\*The volumes provided are approximate and may vary.





**Figure 2.5** Location of quay wall and layout of MBD and ORF

## 2.4 Stage 2A: Power, communications, and water connections

Works required for power, communications, and water connections for Stage 2A are summarised in Table 2.3.

**Table 2.3** Construction of power connections for Stage 2A

Component	Works required
Power and communications	<ul style="list-style-type: none"> <li>Construction and installation of a new 11kV power cable in a buried conduit and Substation.</li> <li>Energisation of the padmount substation and 415kV temporary building supply.</li> <li>Installation of communication conduit and pits.</li> </ul>
Potable water	<ul style="list-style-type: none"> <li>Extension of existing potable water line within MBD Site Compound.</li> </ul>

## 2.5 Stage 2A: Construction of ORF

The general layout of the ORF areas is shown in Figure 2.5. Works required for the three ORF areas during Stage 2A are summarised in Table 2.4.

**Table 2.4** Structures to be constructed for ORF during Stage 2A

Component	Works required
<b>Wharf Topside Area</b>	
MLAs	Installation of MLAs, including: <ul style="list-style-type: none"> <li>Civils and structures.</li> <li>Associated works such as piping, hydraulics, electrical, instrumentation, and auxiliary systems.</li> </ul>
Piping and valving	<ul style="list-style-type: none"> <li>All necessary piping and valving.</li> <li>Odorant injection facilities.</li> <li>Pig launcher, downstream of the MLAs to tie-in to the natural gas pipeline.</li> </ul>
Gangway	<ul style="list-style-type: none"> <li>Gangway access tower to provide connection between the wharf and FSRU.</li> </ul>
Utility connections	FSRU utilities connections for: <ul style="list-style-type: none"> <li>Communications.</li> <li>Marine Diesel Oil.</li> <li>Freshwater.</li> <li>Sewage, bilge, and grey water.</li> </ul>
<b>Utility Area</b>	
Site Utilities	Site utilities including: <ul style="list-style-type: none"> <li>Potable water and sewerage.</li> <li>Instrument air and bottled nitrogen.</li> <li>Diesel storage.</li> <li>Electrical distribution (including UPS and emergency diesel generators).</li> <li>Control and instrumentation.</li> <li>Telecommunications.</li> </ul>
<b>Common Areas</b>	
Firefighting systems and equipment	Firefighting equipment including: <ul style="list-style-type: none"> <li>Firewater storage.</li> <li>Pumps.</li> <li>Firewater monitors.</li> </ul>
Security systems and equipment	<ul style="list-style-type: none"> <li>CCTV.</li> <li>Fencing and gates.</li> </ul>

Component	Works required
	<ul style="list-style-type: none"> <li>– Security access and monitoring systems.</li> </ul>
Equipment housing	Equipment shelters and buildings to house: <ul style="list-style-type: none"> <li>– Electrical, control, and operating equipment, critical spares, emergency response and site monitoring facilities.</li> <li>– Buildings will include appropriate building services e.g., heating, ventilation and air conditioning, potable water, amenities, sewerage etc.</li> </ul>
Site roadways, lighting and drainage	<ul style="list-style-type: none"> <li>– Roads and car parking areas.</li> <li>– General lighting, earthing, lightning system.</li> <li>– Drainage system to tie into the existing Port Kembla drainage system.</li> </ul>
Gas Pipeline	A section of gas pipeline will be installed within the MBD Compound site as part of the Stage 2A works. Final safety studies will be prepared prior to the construction of the gas pipeline and prior to commencement of operation as per Schedule 3, Condition 21 of Infrastructure Approval (SSI 9471).

## 2.6 Stage 2B: Excavation and dredging

An Emplacement Cell Report (ECR) has been developed by SMEC Australia Pty Ltd (SMEC) titled 'Port Kembla Gas Terminal Development – Emplacement Cell Report' in accordance with Infrastructure Approval (SSI 9471) Schedule 3, Condition 8 and 9. The ECR outlines the design and construction methodology of the Emplacement Cell.

Approximately 450,000 m<sup>3</sup> of materials will be excavated/dredged from the MBD Site Compound and placed within the boundaries of the Emplacement Cell. Further details, including detailed design drawings, can be found in the ECR (SMEC, 2022). A summary of the excavation and dredging works is provided in Section 2.6.2 and Section 2.6.3.

### 2.6.1 Silt curtains

Prior to the commencement of dredging activities, silt curtains will be installed within the Inner Harbour (MBD Site Compound) and Outer Harbour (Emplacement Cell). A fixed gate or bubble curtain gate will be installed to allow for the entrance and exit of barges whilst also controlling the dispersion of silt.

Silt curtains will be suitable for tidal and working harbour conditions.

Navigation and special markers will be installed to the satisfaction of the Harbour Master to alert marine vessels operating in the port harbours of the presence of silt curtains any other risks to navigation.

Further information regarding the use of silt curtains is provided in the Dredge and Excavation Management Plan (DEMP) for Stage 2A and Stage 2B.

### 2.6.2 Excavation and dredge staging

Construction activities undertaken during Stage 1 involved the excavation of fill materials at the MBD Site Compound. Excavation has continued through Stage 2A and will continue as part of Stage 2B. On completion of existing fill materials being excavated, dredging operations will commence at the MBD Site Compound as part of the Stage 2B works.

Dredging activities at the MBD Site Compound and Emplacement Cell will be staged to accommodate other construction works occurring at the MBD Site Compound.

Construction staging for excavation and dredging activities to be undertaken are summarised in the ECR (SMEC, 2022). Excavation and dredging at the MBD Site Compound is shown in Figure 2.6. An overview of the Emplacement Cell is shown in Figure 2.7.

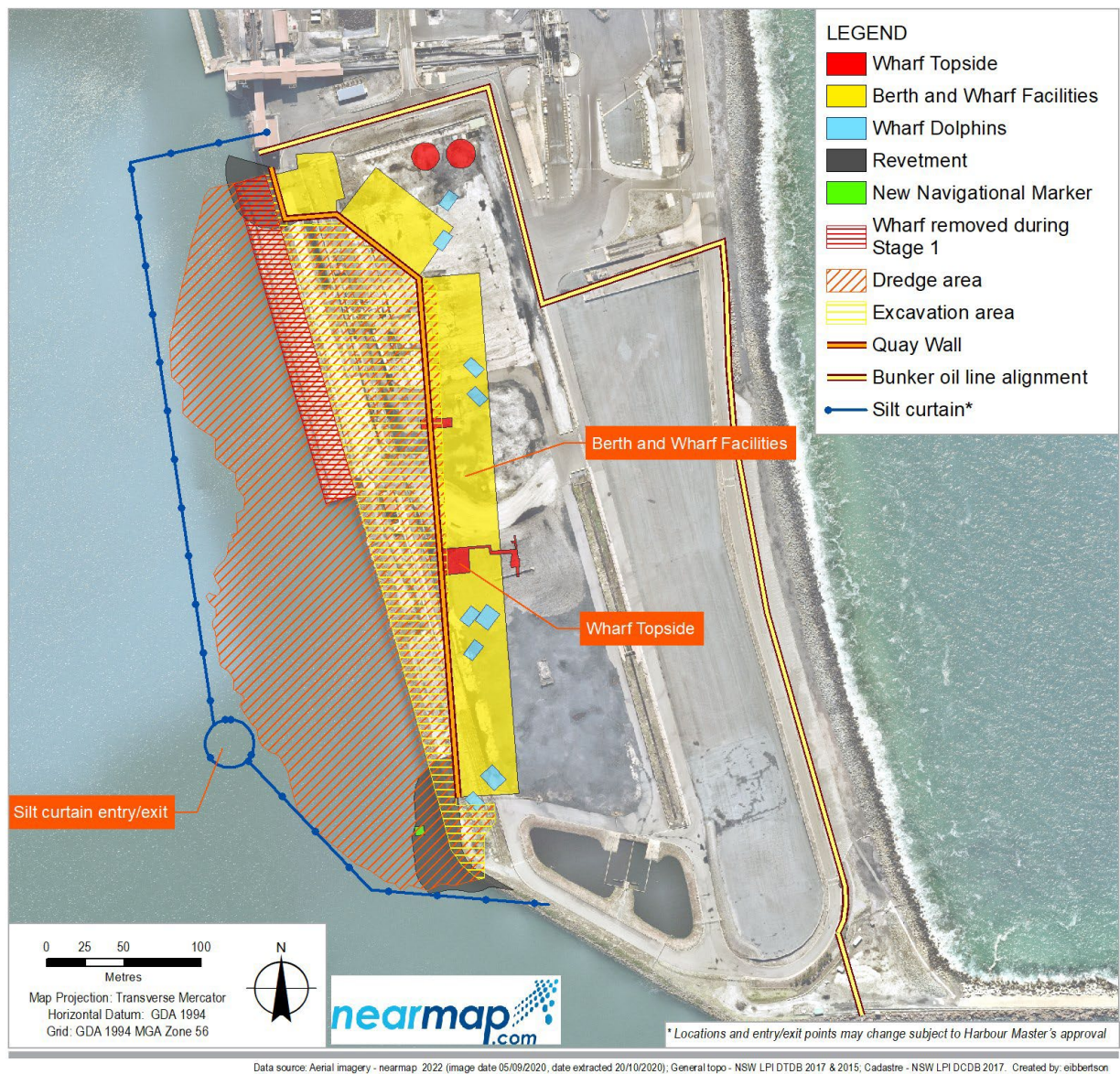
### 2.6.3 Marine-based construction activities at MBD Site Compound

Marine based construction works required at the MBD Site Compound during Stage 2B are summarised in Table 2.5.

**Table 2.5** *Marine based construction works during Stage 2B*

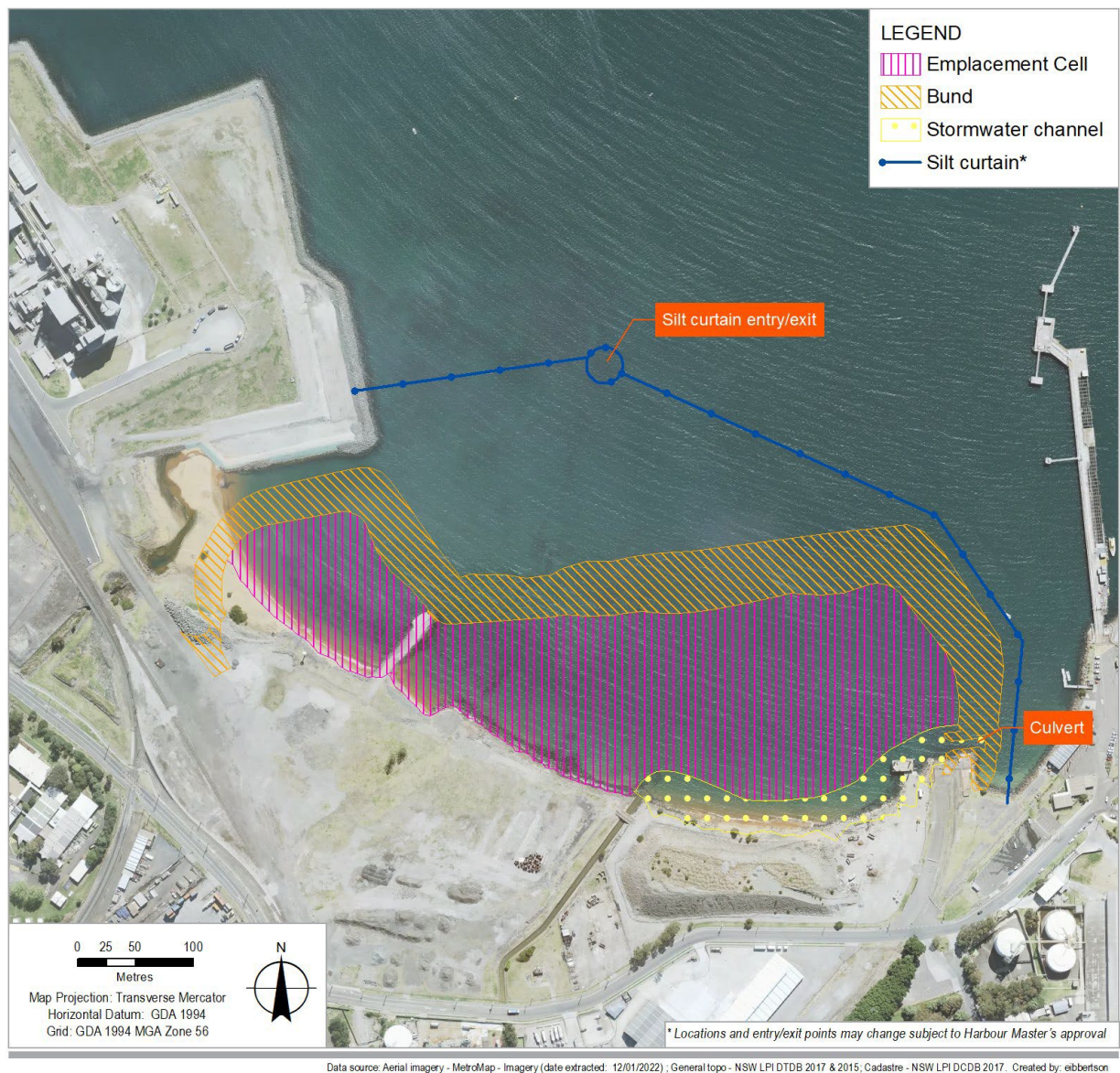
Component	Works required
Navigational aids	<ul style="list-style-type: none"> <li>– Construction of new navigation aid pile through the new southern revetment.</li> <li>– Installation of navigation platform, tower, and lights, including all access requirements such as ladders, platforms, and handrails.</li> <li>– Lights will be battery powered and charged via solar panels.</li> <li>– Existing navigation aid to be removed after the commission of the new navigation aid.</li> </ul>
Revetment shore protection	<ul style="list-style-type: none"> <li>– Revetments will be constructed at the north and south embankments of the new MBD Site Compound wharf (refer to Figure 2.6) following completion of dredging works.</li> <li>– Works will comprise: <ul style="list-style-type: none"> <li>• Laydown of Texcel 1200R geotextile.</li> <li>• Placement of thick quarry run to a depth of 190mm.</li> <li>• Placement of underlay rock to a depth of 400mm.</li> <li>• Placement of armour rock to a depth of 900 mm.</li> </ul> </li> </ul>
Revetted Trench	<ul style="list-style-type: none"> <li>– Dredging of an approximate 10x10m trench to -14.5 reduced level (RL) Port Kembla Height Datum (PKHD) for accommodating the under-keel requirements of the FSRU strainers. An approach channel may also be required.</li> <li>– The trench should have sufficient scour protection.</li> </ul>
Berthing box	<ul style="list-style-type: none"> <li>– Dredging will be undertaken to facilitate berthing boxes to be constructed.</li> </ul>





**Figure 2.6** Dredging and excavation works for MBD Site Compound (Stage 2B)





**Figure 2.7** *Emplacement Cell overview (Stage 2B)*

## 2.7 Stage 2B: Construction of the Emplacement Cell

The Emplacement Cell will be located within the Outer Harbour, comprising of an approximate 800-metre perimeter bund. The Emplacement Cell has been designed and constructed to receive approximately 450,000 m<sup>3</sup> of dredged materials from the MBD Site Compound. All contaminated materials including Harbour Muds (HM)/Harbour Silts (HS) and Potential Acid Sulfate Soils (PASS) will be placed below +0.9m PKHD within the Emplacement Cell.

The construction work components and key features of the Emplacement Cell are summarised in Table 2.6. An overview of the Emplacement Cell is shown in Figure 2.7. Further details are provided in the ECR (SMEC, 2022).

**Table 2.6** Emplacement Cell key features – Stage 2B

Component	Description
Emplacement Cell	<ul style="list-style-type: none"> <li>– All contaminated soils, including HM/HS and PASS, will be placed within the Emplacement Cell below maximum +0.9m PKHD.</li> <li>– The final Emplacement Cell levels will be graded towards the proposed stormwater channel.</li> <li>– Design life of 15 years.</li> <li>– The final Emplacement Cell design does not include the submerged emplacement north of the main bund. The design of the submerged cell was not progressed due to various factors, including its limited capacity to provide storage of dredged sediments.</li> </ul>
Perimeter bund	<ul style="list-style-type: none"> <li>– The design bund crest level was derived based on tide, storm surge, sea level rise and wave overtopping and assumed to be +3.55m PKHD. The adopted crest level also includes allowance for assessed post-construction settlement of up to 250mm.</li> <li>– Minimum crest width of 6m and 11m at passing bays.</li> <li>– Maximum permanent batter slopes of 1V:3H for seaward slopes and 1V:2H for landward/internal slopes.</li> <li>– The bund is to accommodate a 110t long reach excavator, fully loaded semi-trailer and temporary material stockpiles.</li> </ul>
Rock revetment	<ul style="list-style-type: none"> <li>– Rock revetment structure will extend to the toe of the main bund to provide protection to the bund structure against coastal processes.</li> </ul>
Stormwater channel	<ul style="list-style-type: none"> <li>– Stormwater channel to extend from the existing Darcy Road drain outlet to the eastern side of the Emplacement Cell.</li> <li>– Stormwater channel outlet is to comprise a box culvert structure on the eastern end of the Emplacement Cell, providing vehicular access onto the bund at the Jetty 3 abutment and within the NSW Ports property boundary.</li> </ul>

### 3. Roles and responsibilities

The Project Team is responsible for all activities associated with Stage 2A and Stage 2B, including the implementation and maintenance of the various mitigation/management measures outlined in this CTMP. Relevant roles and responsibilities of the Project Team are outlined in Table 3.1.

**Table 3.1** Roles and responsibilities of Project Team

Project Role	Responsibility
AIE Project Director	<ul style="list-style-type: none"> <li>Responsible for the overall funding and direction of works associated with Stage 2A and Stage 2B.</li> <li>Ensuring provision of adequate resources to achieve the environmental objectives for the Project including ensuring sufficient resourcing for the Environmental Team, Engineering and Construction Teams.</li> </ul>
AIE Construction Manager	<ul style="list-style-type: none"> <li>Proactively stewards the effective implementation of Stage 2A and Stage 2B in accordance with requirements of the Infrastructure Approval (SSI9471), this CTMP, Environmental Strategy, and all related Sub - Plans.</li> <li>Demonstrate proactive support for environmental requirements.</li> </ul>
AIE HSE Manager	<ul style="list-style-type: none"> <li>Develop and update all Health, Safety and Environmental (HSE) Management Strategies and Sub - plans.</li> <li>Ongoing liaison and engagement with government agencies and point of escalation for any environmental incidents.</li> <li>Identifying environmental issues as they arise and proposing solutions.</li> <li>Coordinate and facilitate periodic environmental inspections with the key contractors.</li> <li>Environmental Reporting.</li> </ul>
Contaminated Site Auditor	<ul style="list-style-type: none"> <li>Provide consultation on the preparation of reports and environmental management plans, including: <ul style="list-style-type: none"> <li>ECR (SMEC, 2022) and,</li> <li>This Spoil Management Plan (SMP) (including Sub - plans): <ol style="list-style-type: none"> <li>Water Quality Monitoring Plan (WQMP),</li> <li>Contaminated Spoil Protocol (CSP),</li> <li>Acid Sulfate Soil Management Plan (ASSMP),</li> <li>Erosion and Sediment Control Plan (ESCP), and</li> <li>DEMP.</li> </ol> </li> </ul> </li> </ul>
Emplacement Cell Auditor	<ul style="list-style-type: none"> <li>Audit the construction of the Emplacement Cell and verify that works have been completed in accordance with the design intent (Emplacement Cell). The auditor role is to satisfy Condition 10 Schedule 3 of the Infrastructure Approval and any other relevant conditions therein.</li> </ul>
Stage 2A Principal Contractor Project Manager and Stage 2B Principal Contractor Project Manager	<ul style="list-style-type: none"> <li>On-site Project management and control.</li> <li>Decision-making authority relating to environmental performance of the construction program.</li> <li>Authority over Project construction and site activities in accordance with the EMS.</li> <li>Ensure relevant training is provided to all Project staff prior to commencing individual activities.</li> <li>Reports to AIE Construction Manager on environmental matters.</li> <li>Ensures appropriate Contractor resources are allocated to implement the environmental requirements.</li> <li>Responsible for planning and scheduling of construction, and to ensure operations are conducted in accordance with statutory requirements and the EMS.</li> <li>Monitors performance against environmental Key Performance Indicators (KPI's).</li> <li>Ensures that all environmental objectives associated with the Project are achieved.</li> <li>Day-to-day decision-making authority relating to environmental performance of construction activities and direct site activities and construction.</li> <li>To provide resources to ensure environmental compliance and continuous improvement.</li> </ul>



Project Role	Responsibility
	<ul style="list-style-type: none"> <li>– Ensure all personnel are aware of any changes to EMS, this CTMP and improved procedures.</li> <li>– Ensure this CTMP is implemented for the duration of Stage 2A and Stage 2B.</li> </ul>
Stage 2A Principal Contractor Construction Foreman and Stage 2B Principal Contractor Construction Foreman	<ul style="list-style-type: none"> <li>– Implement requirements contained in the EMS and Sub - Plans, work procedures and standard drawings.</li> <li>– Maintaining open and transparent communication with other Project discipline managers and other areas of the Project.</li> <li>– Reporting of hazards and incidents and implementing any rectification measures.</li> <li>– Ensures appropriate contractor resources are allocated.</li> <li>– Orders STOP WORK for any environmental breaches and reports incidents to the Project Manager.</li> <li>– Ensure this CTMP is implemented for the duration of Stage 2A and Stage 2B.</li> </ul>
Stage 2A Principal Contractor Environmental Representative and Stage 2B Principal Contractor Environmental Representative	<ul style="list-style-type: none"> <li>– Delivers environmentally focussed toolbox talks and provides applicable site inductions.</li> <li>– Provides environmental advice, assistance, and direction to Project Manager to ensure construction activities are conducted in accordance with regulatory legislation and this CTMP.</li> <li>– Participate and cooperate with AIE HSE Manager with regards to undertaking of joint environmental site inspections.</li> <li>– Coordinate / undertake wet-weather inspections as per EPL No. 21529 and report accordingly to the AIE HSE Manager.</li> <li>– Develop strong working relationships with the AIE team and Consultants.</li> <li>– Ensure environmental risks are appropriately identified, communicated, and effectively managed.</li> <li>– Ensure communication of relevant environmental information to Project personnel.</li> <li>– Provide specialist advice and input as required.</li> <li>– Ensure construction manager, superintendents and field supervisors fully understand the environmental constraints and how construction practices must ensure any such constraints are considered and mitigated against during construction.</li> <li>– Orders STOP WORK for any environmental breaches and immediately reports incidents to Principal Contractor Project Manager and AIE HSE Manager.</li> </ul>
Independent Discipline Engineering Consultants	<ul style="list-style-type: none"> <li>– Certify the design and that the works have been completed in accordance with the design.</li> </ul>
AIE Environmental Representative and AIE Environmental Contractor	<ul style="list-style-type: none"> <li>– Develop strong working relationships with the Principal Contractor Team and Consultants.</li> <li>– Ensure environmental risks are appropriately identified, communicated, and effectively managed.</li> <li>– Instruct and advise management team on compliance issues.</li> <li>– Provide specialist advice and input as required.</li> <li>– Co-ordinate internal audits of this CTMP.</li> <li>– Conduct audit review as required.</li> <li>– Reports on the performance of this CTMP and recommends changes or improvements to Project Manager.</li> <li>– Orders STOP WORK for any environmental breaches and immediately reports incidents to the AIE Construction Manager and AIE HSE Manager.</li> <li>– Conducts investigation and response to environmental complaints and inquiries, where required.</li> <li>– Undertake all required environmental monitoring for this phase of the Project.</li> </ul>
Subcontractors and construction personnel	<ul style="list-style-type: none"> <li>– Undertake an environmental induction prior to accessing to site.</li> <li>– Comply with legislative requirements.</li> <li>– Participate in inspections and audits.</li> <li>– Follow environmental procedures.</li> <li>– Report all environmental incidents and hazards.</li> <li>– Introduce environmental topics to prestart meetings.</li> <li>– Ensure that all relevant permits and clearances are in place prior to commencing work.</li> </ul>

## 4. Legislative requirements

The legislative requirements applicable to Stage 2A and Stage 2B are listed in Table 4.1.

**Table 4.1** Legislation and relevant policy applicable to this CTMP

Legislation and Regulation	Description	Applicability
<b>International</b>		
International Safety Management code (ISM Code)	The ISM Code is the international standard for the safe operation of ships and pollution prevention through various ISM Code certifications. The Australian Maritime Safety Authority (AMSA) is the recognised government body who issues certifications to Australian registered vessels. AMSA have established a number of standards, legislation and guidelines to support the implementation of the objectives and requirements set out by the ISM Code.	The ISM Code is primarily implemented through the Federal <i>Navigation Act 2012</i> and NSW legislation as outlined below. Applicable legislative requirements to Stage 2A and Stage 2B marine vessels movements and pollution are addressed below in the respective legislation.
International Convention for the Prevention of Pollution from Ships (MARPOL)	<p>MARPOL is the international standard for addressing ship sourced pollution. It includes regulations aimed at preventing accidental pollution and pollution generated from routine vessel operations. MARPOL includes the following six technical annexes:</p> <p>Annex I: Regulations for the prevention of pollution by oil.</p> <p>Annex II: Regulations for the control of pollution by noxious liquid substances in bulk.</p> <p>Annex III: Regulations for the prevention of pollution by harmful substances carried by sea in packaged form.</p> <p>Annex IV: Regulations for the prevention of pollution by sewage from ships.</p> <p>Annex V: Regulations for the prevention of pollution by garbage from ships.</p> <p>Annex VI: Regulations for the prevention of air pollution from ships.</p>	<p>MARPOL is implemented through various Federal legislation which are applicable to Stage 2A and Stage 2B works, including:</p> <p><i>Protection of the Sea (Prevention of Pollution From Ships) Act 1983.</i></p> <p><i>Protection of the Sea (Prevention of Pollution From Ships) (orders) Regulations 1994.</i></p> <p><i>Navigation Act 2012.</i></p> <p>AMSA also implements the following marine orders which give effect to MARPOL:</p> <p>Marine Order 91 (Marine pollution prevention—oil) 2014</p> <p>Marine Order 93 (Marine pollution prevention—noxious liquid substances) 2014</p> <p>Marine Order 94 (Marine pollution prevention—packaged harmful substances) 2014</p> <p>Marine Order 95 (Marine pollution prevention—garbage) 2013</p> <p>Marine Order 96 (Marine pollution prevention—sewage) 2013</p> <p>Marine Order 97 (Marine pollution prevention—air pollution) 2013.</p> <p>NSW legislation which gives effect to MARPOL is the <i>Marine Pollution Act 2012</i>. These requirements are addressed below.</p>
International Convention for the Safety of Life at Sea 1914 (SOLAS)	The International Ship and Port Facility Security Code (ISPS Code) is made under Chapter XI-2 of SOLAS and provides comprehensive measures for the security of ships and port facilities.	The PANSW requires all vessels arriving in Port Kembla to be in possession of an International Ship Security Certificate (ISSC) in accordance with the ISPS Code.

Legislation and Regulation	Description	Applicability
<b>State</b>		
<i>Roads Act 1993 (Roads Act)</i>	<p>The objectives of the Roads Act are to establish roads classification, the role of TfNSW and other public authorities in road management and regulates any activity being carried out on public road. Part 9 outlines the regulation of road works, structure and activities carried out on roads and the various approvals required.</p>	<p>Section 138 of the Act requires applicants to obtain consent from the relevant road's authority for the erection of a structure, carrying out of work in or under a public road, digging up or disturbance to the surface of a public road. This is not applicable for the Stage 2A and Stage 2B works but likely to apply to the pipeline installation phase of works (Stage 3).</p> <p>Section 138 permits will be required from the relevant road's authority prior to commencement of construction through the road corridor as part of the subsequent phases of development (Stage 3).</p> <p>Road Occupancy Licences (ROL) are also required for the subsequent phases of development.</p>
<i>Ports and Maritime Administration Act 1995</i>	<p>The <i>Ports and Maritime Administration Act 1995</i> regulates the operation of ports in NSW across a range of matters including commercial operation and port charges that apply, management of port infrastructure, port safety and the functions of port corporations as well as TfNSW in relation to port operations. Section 6 establishes the PANSW as a statutory State-owned corporation.</p> <p>The Act provides broad powers to port operators to regulate activities that may pose a risk to the safety or security of the port including but not limited to the movement of vehicles and the loading/unloading of material.</p> <p>The Act defines a 'port operator' as the person declared to be the port operator of a private port who is responsible for the management and operation of the port facilities. Under Section 38 a port operator may give directions to regulate driving, stopping and parking of vehicles and the movement and storage of goods. NSW Ports are the appointed port operator of Port Kembla.</p>	<p>The port road network is owned and controlled by NSW Ports. The road network has been designed to accommodate a variety of heavy vehicles up to and including B-double trucks. Roads located within the NSW Ports precinct that have been identified as transportation routes are outlined in Appendix A.</p> <p>NSW Ports utilise Direction 4 of 2021 issued under Section 38 of the <i>Ports and Maritime Administration Act 1995</i> which prohibits any person from undertaking any works within the port lease boundary, including roads, without the written consent of NSW Ports. Additional information on notification of the Stage 2A and Stage 2B works to NSW Ports is included in Section 8.4.</p> <p>A Port Safety Operating Licence has been issued to the PANSW under Section 12 of the Act which enables the PANSW to perform safety functions related to pilotage, navigation aids and emergency response, and the management of water-based activities, including navigation and operational safety, and waterside security.</p> <p>The PANSW are authorised by AMSA to operate the Port Kembla Vessel Traffic Services (VTS) which provides 24/7, year round traffic organisation and navigational assistance services. All vessels must participate in the VTS area (refer to Figure 7.1) unless exempt. Exemptions apply to vessels less than 30 metres in length, sea planes and emergency services vessels. All marine vessels greater than 30 metres during the Stage 2A and Stage 2B works will comply with the VTS and all Harbour Master directions (PANSW, 2021).</p>

Legislation and Regulation	Description	Applicability
<i>Heavy Vehicle National Law (NSW) (HVNL)</i>	The HVNL outlines the regulation of heavy vehicles on roads in NSW regarding public safety, impact of heavy vehicles on the environment, road infrastructure and public amenity while promoting industry productivity and efficiency through heavy vehicle usage.	Chapter 4 Part 4.2 outlines the mass limit requirements of heavy vehicles to ensure public safety and minimise the impacts of excessively loaded vehicles on road infrastructure. Loading limits of vehicles must be complied with.
<i>Road Rules 2014</i>	The <i>Road Rules 2014</i> consolidate all applicable road rules in NSW into one instrument. The Rules are based on the <i>Australian Road Rules</i> to ensure consistency with national road rules. <i>Road Rules 2014</i> applies to all roads and road related areas within NSW which drivers must abide by.	The NSW Ports Port Kembla road network comprises port road (common areas) and tenant roads. 'Road related areas' are defined under Rule 13 which applies to any area that divides a road and footpaths and nature strips. All traffic and parking controls within the NSW Ports boundary are enforceable by the <i>Road Rules 2014</i> and other applicable road legislation.
<i>Marine Safety Act 1998</i>	The <i>Marine Safety Act 1998</i> ensures the safe operations of vessels within ports and waterways within NSW and promotes the responsible operation of vessels to ensure the safety and amenity of users. The Act outlines the framework for marine legislation enforcement and investigation of marine accidents. The Act applies and makes provisions of the Commonwealth <i>Marine Safety (Domestic Commercial Vessel) National Law Act 2012</i> as a law of NSW.	A 'vessel' under the Act is defined as 'water craft of any description used or capable of being used as a means of transportation on water'. Marine based activities undertaken during Stage 2A and Stage 2B will be subject to the provisions of the Act. Division 3 outlines the requirements of port pilotage, stating pilotage is compulsory in every pilotage port for vessel movements entering, leaving or within the port. Tugs towing and all other vessels 30 metres or greater in length are required to have a pilot on board as per Section 74. A Certificate of Local Knowledge (COLK) administered under the Act are required for Masters of commercial vessels between 30 – 80 m length overall.  The authority to issue the Harbour Master Directions Port Kembla (PANSW, 2021) are issued under Section 88. The Master of any vessel within Port Kembla must comply with these directions and any other direction given by the Harbour Master.
Marine Safety Regulation 2016	The Marine Safety Regulation 2016 incorporates safety requirements of the Convention on the International Regulations for Preventing Collisions at Sea, 1972 (COLREGs) in an NSW localised context. Schedule 4 outlines modifications to the COLREGs to NSW 'special rules' regarding signals, diving operations and flag and lighting requirements.	Vessel movements required for the Stage 2A and Stage 2B works will be managed and undertaken in accordance with the Regulations for preventing collisions at sea.  Part 5, Division 7 outlines the requirements for applications for COLK, the conditions of COLK and vessels for which certificates are not valid. A COLK is required for Masters of marine vessels proposed to be used during the Stage 2A and Stage 2B works.
<i>Marine Pollution Act 2012</i>	The <i>Marine Pollution Act 2012</i> aims to enhance and protect NSW waters from marine pollution from vessels. The Act gives effect to the following annexes of MARPOL:	A 'ship' is defined under the Act as any vessel capable of being used on or in water, including floating craft, fixed or floating platforms and barges (self-propelled or not). Under Part 10 of the Act, it is an obligation for a Shipboard Oil Pollution Emergency



Legislation and Regulation	Description	Applicability
	<p>Annex I: Regulations for the prevention of pollution by oil.</p> <p>Annex II: Regulations for the control of pollution by noxious liquid substances in bulk.</p> <p>Annex III: Regulations for the prevention of pollution by harmful substances carried by sea in packaged form.</p> <p>Annex IV: Regulations for the prevention of pollution by sewage from ships.</p> <p>Annex V: Regulations for the prevention of pollution by garbage from ships.</p> <p>The Act provides the framework for the protection of NSW water from vessel pollution that is complementary of Commonwealth legislation.</p>	<p>Plan (SOPEP) to be carried on board a ship. Section 97 outlines the contents that must be included in the SOPEP, including procedures to be followed in reporting incidents, authorities to be notified in reporting a reportable incident and actions to be taken in combating pollution caused by the incident. The Dredging Principal Contractor has prepared a SOPEP for the Stage 2A and Stage 2B works to be enacted in the event of marine vessel collision resulting in an oil spill.</p>

## 5. Planning requirements

### 5.1 Conditions of approval

The planning requirements and the corresponding land and marine traffic and access management measures applicable to Stage 2A and Stage 2B are listed in Table 5.1 and Table 5.2. Management measures are detailed in Section 6 through Section 8, Appendix A and Appendix D.

The planning requirements include the conditions set out in the Infrastructure Approval (SSI 9471) dated 13 October 2021, EPL No. 21529 and the mitigation/management measures outlined in the PKGT EIS.

Table 5.1 Planning requirements

Requirement	Reference	Responsibility	Evidence	Applicability to this CTMP
<b>Infrastructure Approval Requirements (SSI 9471)</b>				
<b>Spoil Management</b> The Proponent must not transport more than 360,000 cubic metres of spoil to the disposal area by road and must maintain records of the volume of spoil transported by road to track compliance against this condition.	Schedule 3, Condition 7	<ul style="list-style-type: none"> <li>– AIE HSE Manager</li> <li>– AIE Construction Manager</li> </ul>	Section 8.6 Refer to SMP	Applicable
<b>Construction Traffic Management Plan</b> Prior to the commencement of construction, unless the Planning Secretary agrees otherwise, the Proponent must prepare a CTMP for the development to the satisfaction of the Planning Secretary. This plan must:	Schedule 3, Condition 15	<ul style="list-style-type: none"> <li>– AIE HSE Manager</li> <li>– AIE Construction Manager</li> </ul>	This CTMP	Applicable
a. be prepared in Consultation with TfNSW, NSW Ports and Council.		<ul style="list-style-type: none"> <li>– AIE HSE Manager</li> <li>– AIE Construction Manager</li> </ul>	Section 1.1	Applicable
b. include details of the transport route to be used for all construction traffic.		<ul style="list-style-type: none"> <li>– AIE HSE Manager</li> <li>– AIE Construction Manager</li> </ul>	Section 6.2 <b>Appendix A</b>	Applicable
c. include details of the measures that would be implemented to minimise traffic safety issues and disruption to local users of the transport route/s during construction works, including: <ul style="list-style-type: none"> <li>• facilitating the use of barges to transfer spoil to the disposal site.</li> <li>• temporary traffic controls, including detours and signage.</li> <li>• ensure loaded vehicles entering or leaving the site have their loads covered or contained.</li> <li>• minimise dirt being tracked on the public road network from development-related traffic.</li> </ul>		<ul style="list-style-type: none"> <li>– AIE HSE Manager</li> <li>– AIE Construction Manager</li> <li>– Stage 2A Principal Contractor Project Manager and Stage 2B Principal Contractor Project Manager</li> <li>– Stage 2A Principal Contractor Construction Foreman and Stage 2B Principal Contractor Construction Foreman</li> </ul>	Section 6 Section 7 Appendix B Appendix C	Applicable
d. Include a driver's code of conduct that addresses: <ul style="list-style-type: none"> <li>• Travelling speeds.</li> <li>• Driver fatigue.</li> </ul>		<ul style="list-style-type: none"> <li>– AIE HSE Manager</li> <li>– AIE Construction Manager</li> </ul>	Appendix C	Applicable

Requirement	Reference	Responsibility	Evidence	Applicability to this CTMP
<ul style="list-style-type: none"> <li>Procedures to ensure that drivers adhere to the designated transport route/s.</li> <li>Procedures to ensure that drivers implement safe driving practices.</li> </ul>				
The Proponent must implement the approved CTMP for the development.	Schedule 3, Condition 16	<ul style="list-style-type: none"> <li>AIE HSE Manager</li> <li>AIE Construction Manager</li> <li>Stage 2A Principal Contractor Project Manager and Stage 2B Principal Contractor Project Manager</li> </ul>	This Plan Section 1.3	Applicable
<p><b>Construction Hours</b></p> <p>Unless the Secretary agrees otherwise, the Proponent may only undertake construction activities on site between:</p> <ol style="list-style-type: none"> <li>7 am to 6 pm Monday to Friday</li> <li>8 am to 1 pm Saturdays; and</li> <li>at no time on Sundays and NSW public holidays.</li> </ol> <p>The following construction activities may be undertaken outside these hours without the approval of the Secretary:</p> <ol style="list-style-type: none"> <li>the delivery of materials as requested by the NSW Police Force or other authorities for safety reasons.</li> <li>emergency work to avoid the loss of life, property and/or material harm to the environment.</li> <li>construction works that cause LAeq (15 mins) noise levels that are: <ul style="list-style-type: none"> <li>no more than 5 dB(A) above the rating background level at any residence in accordance with the <i>Interim Construction Noise Guideline</i> (ICNG) (DECC, 2009); and</li> <li>no more than the noise management levels specified in Table 3 of the ICNG (DECC, 2009) at other sensitive land uses; and</li> <li>continuous or impulsive vibration values, measured at the most affected residence, are no more than those for human exposure to vibration, specified in Table 2.2 of <i>Assessing vibration: a technical guideline</i> (DEC, 2006); and</li> <li>intermittent vibration values measured at the most affected residence are no more than those for human exposure to vibration, specified in Table 2.4 of <i>Assessing vibration: a technical guideline</i> (DEC, 2006); or</li> </ul> </li> <li>where a negotiated agreement has been reached with affected receivers.</li> </ol>	Schedule 3, Condition 27	<ul style="list-style-type: none"> <li>AIE HSE Manager</li> <li>AIE Construction Manager</li> <li>Stage 2A Principal Contractor Project Manager and Stage 2B Principal Contractor Project Manager</li> <li>Stage 2A Principal Contractor Construction Foreman and Stage 2B Principal Contractor Construction Foreman</li> <li>Stage 2A Principal Contractor Environmental Rep and Stage 2B Principal Contractor Environmental Rep</li> </ul>	Section 6 Appendix C	Applicable



Requirement	Reference	Responsibility	Evidence	Applicability to this CTMP
<b>Air</b> The Proponent must minimise and/or prevent the: <ul style="list-style-type: none"> <li>a. dust emissions of the development, including wind-blown and traffic generated dust</li> <li>b. surface disturbance of the development; and</li> </ul>	Schedule 3, Condition 31	<ul style="list-style-type: none"> <li>– AIE HSE Manager</li> <li>– AIE Construction Manager</li> <li>– AIE Environmental Representative and AIE Environmental Contractor</li> </ul>	Section 6.9 Section 8.5 Refer to AQMP	Applicable
c. greenhouse gas emissions of the development.				Not applicable
<b>PKGT EIS Management Measures</b>				
A CTMP be prepared prior to the commencement of works with site induction for construction personnel being undertaken to outline the requirements of the CTMP. The aim of the CTMP is to maintain the safety of all workers and road users within the vicinity site including but not limited to: <ul style="list-style-type: none"> <li>– site access routes.</li> <li>– construction parking arrangement.</li> <li>– traffic management.</li> <li>– pedestrian and bicycle rider management.</li> <li>– roadside hazards.</li> </ul>	EIS Measure T1	<ul style="list-style-type: none"> <li>– AIE HSE Manager</li> <li>– AIE Construction Manager</li> <li>– Stage 2A Principal Contractor Project Manager and Stage 2B Principal Contractor Project Manager</li> <li>– Stage 2A Principal Contractor Construction Foreman and Stage 2B Principal Contractor Construction Foreman</li> <li>– Stage 2A Principal Contractor Environmental Rep and Stage 2B Principal Contractor Environmental Rep</li> </ul>	Section 6 Section 8.1 Appendix C	Applicable
Develop a Traffic Control Plan in accordance with the TfNSW <i>Traffic control at work sites</i> and AS1742.3 – requirements <i>Traffic control devices for works on roads</i> .	EIS Measure T2	– AIE HSE Manager	Appendix B	Applicable
Seek to minimise traffic movements where possible during the morning and afternoon peak hours.	EIS Measure T3	– Stage 2A Principal Contractor Construction Foreman and Stage 2B Principal Contractor	Section 6.1	Applicable
Encourage construction workers to carpool or utilise public transport, where practicable.	EIS Measure T4			

Requirement	Reference	Responsibility	Evidence	Applicability to this CTMP
		Contractor Construction Foreman		
Light spill from the nearshore vessel operations will be minimised where possible using directional lighting.	EIS Measure ME7	<ul style="list-style-type: none"> <li>– AIE HSE Manager</li> <li>– AIE Construction Manager</li> <li>– Stage 2A Principal Contractor Project Manager and Stage 2B Principal Contractor Project Manager</li> </ul>	Section 7	Applicable
Lighting on vessel decks or the berth construction area will be managed to reduce direct light spill onto marine waters or surrounding landscape, unless such actions do not comply with site safety or navigation and vessel safety standards (Australian Maritime Safety Authority Marine Orders Part 30: Prevention of Collisions; AMSA Marine Orders Part 21: Safety of Navigation and Emergency Procedures).	EIS Measure M38	<ul style="list-style-type: none"> <li>– AIE HSE Manager</li> <li>– AIE Construction Manager</li> <li>– Stage 2A Principal Contractor Project Manager and Stage 2B Principal Contractor Project Manager</li> </ul>	Section 7	Applicable
The movement of barges will be coordinated by the PANSW VTS. Adherence with existing Port Kembla navigational protocols through close liaison and compliance to directions of the Harbour Master.	EIS Measure PN2	<ul style="list-style-type: none"> <li>– AIE Construction Manager</li> <li>– AIE HSE Manager</li> <li>– Stage 2A Principal Contractor Construction Foreman and Stage 2B Principal Contractor Construction Foreman</li> <li>– Stage 2A Principal Contractor Environmental Rep and Stage 2B Principal Contractor Environmental Rep</li> </ul>	Section 7.1	Applicable
Development of a construction marine traffic management plan for submission to the Harbour Master.	EIS Measure PN3	<ul style="list-style-type: none"> <li>– AIE HSE Manager</li> <li>– AIE Construction Manager</li> </ul>	Section 7.1	Applicable

Requirement	Reference	Responsibility	Evidence	Applicability to this CTMP
Barge operation will be controlled through a permit system under the control of the Harbour Master (through the VTS) and Masters will be required to obtain a COLK as required by the Harbour Master and NSW Marine Safety Regulation 2016.	EIS Measure PN4	<ul style="list-style-type: none"> <li>– AIE HSE Manager</li> <li>– AIE Construction Manager</li> <li>– Stage 2A Principal Contractor Project Manager and Stage 2B Principal Contractor Project Manager</li> <li>– Stage 2A Principal Contractor Construction Foreman and Stage 2B Principal Contractor Construction Foreman</li> </ul>	Section 7.1	Applicable
<p>Permission of the Harbour Master will be sought for split hopper barges to be used at night.</p> <p>Construction will be coordinated so as to not impact other vessels and port navigation, with due regard to the port instructions and port protocols (Port Authority of NSW, 2015).</p>	EIS Measure PN5	<ul style="list-style-type: none"> <li>– AIE HSE Manager</li> <li>– AIE Construction Manager</li> <li>– Stage 2A Principal Contractor Project Manager and Stage 2B Principal Contractor Project Manager</li> <li>– Stage 2A Principal Contractor Construction Foreman and Stage 2B Principal Contractor Construction Foreman</li> </ul>	Section 7.1	Applicable
Monitoring of the depth of deposited dredged material from the seabed in the disposal area to ensure that the barges transferring dredged material are not at risk of grounding.	EIS Measure PN6	<ul style="list-style-type: none"> <li>– AIE HSE Manager</li> <li>– AIE Construction Manager</li> <li>– Stage 2A Principal Contractor Project Manager and Stage 2B Principal Contractor Project Manager</li> </ul>	Section 7.2	Applicable

Requirement	Reference	Responsibility	Evidence	Applicability to this CTMP
		<ul style="list-style-type: none"> <li>– Stage 2A Principal Contractor Construction Foreman and Stage 2B Principal Contractor Construction Foreman</li> </ul>		
<p>Visual observations will be maintained by watch keepers on all vessels and plant/moving machinery.</p> <p>All vessels must comply with relevant marine navigation and safety standards.</p> <p>Marine diesel oil compliant with MARPOL Annex VI Regulation 14.2 (i.e. sulphur content of less than 3.50% m/m) is the only diesel engine fuel to be used by the vessels.</p> <p>Oil spill responses will be executed in accordance with the vessel's SOPEP, as required under MARPOL.</p> <p>Emergency spill response procedures would be developed and implemented when required.</p>	EIS Measure ME12	<ul style="list-style-type: none"> <li>– Stage 2A Principal Contractor Project Manager and Stage 2B Principal Contractor Project Manager</li> <li>– Stage 2A Principal Contractor Construction Foreman and Stage 2B Principal Contractor Construction Foreman</li> <li>– Stage 2A Principal Contractor Environmental Rep and Stage 2B Principal Contractor Environmental Rep</li> <li>– Subcontractors and construction personnel</li> </ul>	Section 7.3	Applicable



## 5.2 Environment Protection Licence

AIE have been issued an EPL under the *Protection of the Environment Operations Act 1997* (POEO Act) as of 2 June 2021. Conditions applicable to construction traffic and marine vessel movements and monitoring requirements are outlined in Table 5.2.

Table 5.2 EPL No. 21529 conditions

Condition	Reference	Evidence
<b>Activities must be carried out in a competent manner</b> Licensed activities must be carried out in a competent manner. This includes: <ul style="list-style-type: none"> <li>a. the processing, handling, movement and storage of materials and substances used to carry out the activity; and</li> <li>b. the treatment, storage, processing, reprocessing, transport and disposal of waste generated by the activity.</li> </ul>	Section O1.1	Section 6 Appendix C
<b>Maintenance of plant and equipment</b> All plant and equipment installed at the premises or used in connection with the licensed activity: <ul style="list-style-type: none"> <li>a. must be maintained in a proper and efficient condition; and</li> <li>b. must be operated in a proper and efficient manner.</li> </ul>	Condition O2.1	Section 6.1 Section 10.1
The premises must be maintained in a condition that minimises and/or prevents the emission of dust from the premises at all times.	Condition O3.1	Section 6.9 Appendix C Refer to ESCP
Trucks entering and leaving the premises (including travelling between non-contiguous areas of the premises) that are carrying loads of dust generating materials must have their loads covered at all times, except during loading and unloading.	Condition O3.2	Section 6.9 Section 10.1 Section 10.2
<b>Processes and management</b> The licensee must implement all feasible and reasonable erosion and sediment controls as may be necessary throughout the life of construction works and activities to minimise sediment leaving the premises.	Condition O4.1	Section 6.9 Refer to ESCP
The licensee must ensure erosion and sediment controls are designed (stability, location, type and size), constructed, operated and maintained in accordance with Managing Urban Stormwater – Soils and Construction, Volume 1, 4th Edition (Landcom, 2004).	Condition O4.2	Refer to ESCP
The licensee must ensure: <ul style="list-style-type: none"> <li>a. all vehicular access points to the premises are designed, constructed, maintained and stabilised to minimise tracking of materials onto public roads and to ensure all-weather entry and exit.</li> <li>b. mud, splatter, dust and other material likely to fall from or be cast off the wheels, underside or body of any vehicle, trailer, motorised plant and equipment leaving the premises, is removed to the greatest extent practicable before it leaves the premises.</li> </ul>	Condition O4.3	Section 6.2 Section 6.9 Refer to ESCP
All erosion and sediment control measures on the premises must be inspected and works undertaken to repair and/or maintain these controls: <ul style="list-style-type: none"> <li>a. weekly during normal construction hours</li> <li>b. daily during periods of rainfall; and</li> <li>c. within 24 hours of cessation of a rainfall event causing runoff to occur on or from the premises.</li> </ul> The Licensee must record all such inspections including observations and works undertaken to repair and/or maintain erosion and sediment controls.	Condition O4.4	Section 10 Refer to ESCP
Vessels used for the transport of dredge spoil from the dredge site to the Outer Harbour stockpile area must not leak or release dredge spoil into waters en-route.	Condition O4.10	Section 7.3

Condition	Reference	Evidence
<b>Monitoring records</b> The results of any monitoring required to be conducted by this licence or a load calculation protocol must be recorded and retained as set out in this condition. All records required to be kept by this licence must be: <ul style="list-style-type: none"> <li>a. in a legible form, or in a form that can readily be reduced to a legible form</li> <li>b. kept for at least 4 years after the monitoring or event to which they relate took place; and</li> <li>c. produced in a legible form to any authorised officer of the Environment Protection Authority (EPA) who asks to see them.</li> </ul>	Condition M1.1	Section 10.2
<b>Recording of pollution complaints</b> The licensee must keep a legible record of all complaints made to the licensee or any employee or agent of the licensee in relation to pollution arising from any activity to which this licence applies.	Condition M7.1	Section 9.3
The record must include details of the following: <ul style="list-style-type: none"> <li>a. the date and time of the complaint.</li> <li>b. the method by which the complaint was made.</li> <li>c. any personal details of the complainant which were provided by the complainant or, if no such details were provided, a note to that effect.</li> <li>d. the nature of the complaint.</li> <li>e. the action taken by the licensee in relation to the complaint, including any follow-up contact with the complainant; and</li> <li>f. if no action was taken by the licensee, the reasons why no action was taken.</li> </ul>	Condition M7.2	Section 9.3
The record of a complaint must be kept for at least 4 years after the complaint was made.	Condition M7.3	Section 9.3
The record must be produced to any authorised officer of the EPA who asks to see them.	Condition M7.4	Section 9.3
<b>Telephone complaints line</b> The licensee must operate during its operating hours a telephone complaints line for the purpose of receiving any complaints from members of the public in relation to activities conducted at the premises or by the vehicle or mobile plant, unless otherwise specified in the licence.	Condition M8.1	Section 9.3
The licensee must notify the public of the complaints line telephone number and the fact that it is a complaints line so that the impacted community knows how to make a complaint.	Condition M8.2	Section 9.3
<b>Notification of environmental harm</b> Notifications must be made by telephoning the Environment Line service on 131 555. Note: The licensee or its employees must notify all relevant authorities of incidents causing or threatening material harm to the environment immediately after the person becomes aware of the incident in accordance with the requirements of Part 5.7 of the Act. The licensee must provide written details of the notification to the EPA within 7 days of the date on which they became aware of the incident.	Condition R2.1-R2.2	Section 11.1.2
<b>Pollution Incident Response Management Plan (PIRMP)</b> The Licensee must prepare a PIRMP that complies with Part 5.7A of the POEO Act in relation to the activity to which the licence relates. The PIRMP must be in the form required by the 'Regulations' and include the following: <ul style="list-style-type: none"> <li>– the procedures to be followed by the holder of the relevant environment protection licence, or the occupier of the relevant premises, in notifying a pollution incident to:</li> </ul>	Condition E2	Section 12.1 Section 12.3

Condition	Reference	Evidence
<ul style="list-style-type: none"> <li>the owners or occupiers of premises in the vicinity of the premises to which the environment protection licence or the direction under section 153B relates, and</li> <li>the local authority for the area in which the premises to which the environment protection licence or the direction under section 153B relates are located and any area affected, or potentially affected, by the pollution, and</li> <li>any persons or authorities required to be notified by Part 5.7,</li> </ul> <ul style="list-style-type: none"> <li>a detailed description of the action to be taken, immediately after a pollution incident, by the holder of the relevant environment protection licence, or the occupier of the relevant premises, to reduce or control any pollution,</li> <li>the procedures to be followed for co-ordinating, with the authorities or persons that have been notified, any action taken in combating the pollution caused by the incident and, in particular, the persons through whom all communications are to be made,</li> <li>any other matter required by the regulations, including 'Keeping of Plan', 'Testing of Plan', 'Making Plan Readily Available' and 'Implementation of Plan'.</li> </ul>		

## 6. Traffic and access management

### 6.1 Construction vehicles and volume

Light and heavy vehicles will be required for the Stage 2A and Stage 2B works. Light vehicle movements will primarily be due to the transportation of the construction workforce. Heavy vehicle movements will be used for the transport of piles to the MBD Site Compound, equipment to and from the MBD Site Compound and Emplacement Cell Construction Site, and excavated materials between the MBD Site Compound and Emplacement Cell Construction Site. All vehicles will be well maintained in a good working condition applicable to the vehicle specifications. Vehicles will be operated in a safe and proper manner by qualified drivers (refer to Appendix C).

An overview of the type and volume of heavy and light vehicles is provided in Table 6.1. Numbers given are approximate only based on the maximum expected, worse-case scenario of movements per vehicle and are subject to change based on construction works scope change. Traffic generation for both heavy and light vehicles is also consistent with the Traffic Impact Assessment undertaken for the PKGT EIS (GHDA, 2018) throughout the Stage 2A and Stage 2B activities. It is not anticipated that traffic generated will exceed these numbers.

**Table 6.1** Approximate volume of construction vehicles for Stage 2A and Stage 2B

Vehicle description	Number	Movement per vehicle per day	Duration
<b>Heavy vehicles</b>			
Prime mover and extendable trailer (pile material deliveries)	6	4 movements, 2 days per week	3 months
Prime mover and extendable trailer (general piling plant mobilisation & demobilisation)	30	2 movements anticipated in any one day	2 weeks
Prime mover and float trailer (crane car body mobilisation & demobilisation)	8	2 movements, 1 day per week	2 weeks
Truck and dog trailer (import/export of soil/fill materials)	35	2 movements, 5 days per week	8 months
MR/HR trucks	6	4 movements, 5 days per week	2 months
Concrete truck	6	8 movements, 1 day per week	3 months
<b>Light vehicles</b>			
Personnel vehicles	40	4 movements per day*	11 months
Pilot vehicles	2	4 movements, 2 days per week	3 months

\*Accounts for 50% of workers leaving site for errands/lunch.

### 6.2 Site access

Light and heavy vehicles will access (enter / exit) the MBD Site Compound from the single entry and exit on Sea Wall Road, as shown in Appendix A. Sea Wall Road is considered a public road; however, it is currently closed to the public and is owned and managed by NSW Ports. Access is controlled via security access points on Port Kembla Road and Tom Thumb Road. As such, the MBD Site Compound is restricted to authorised personnel only. Traffic control signage will be initiated from the site entrance, as presented in Appendix B.

Light and heavy vehicles will access (enter / exit) the Emplacement Cell Construction Site via Flinders Street (which turns into Old Port Road), onto Christy Drive, and then Arawata Drive, as shown in Appendix A and Appendix B. Traffic control signage will be initiated from the site entrance, as presented in Appendix B.

Traffic movements will be minimised, where possible, during the morning and afternoon peak hours. Construction workers will be encouraged to carpool or to use public transport, where practicable.



## 6.3 Loading and unloading area

Loading and unloading of material and equipment (large or small) will be done within the boundaries of each site, the MBD Site Compound and Emplacement Cell Construction Site (refer to Figure 2.2). There will be no loading or unloading of materials outside the site boundaries. There will be a dedicated area for unloading, loading, and storing of materials on each site. Authorised traffic controllers may be required for major deliveries to ensure motorists, cyclists and pedestrian safety as trucks enter and exit the work site(s).

## 6.4 On-site parking

Designated parking areas will be established within the MBD Site Compound and the Emplacement Cell Construction Site (refer to Figure 2.3 and Appendix B). The largest parking requirement will be the MBD Site Compound, where an allocated parking area has been set out for at least 76 vehicles. Workers are encouraged to car share or use public transport to minimise the impact on surrounding streets, when possible and as per NSW Public Health Orders regarding COVID-19.

## 6.5 Transport of piles

Pile transportation involves the movement of piles being unloaded and transported to the storage area, and transportation between the storage area and MBD Site Compound. Transportation routes are described below.

### 6.5.1 Transport of piles to laydown area

Piles will be unloaded from the import berth adjacent to, and to the west of, the MBD Site Compound (Berth 1 or Berth 2, subject to availability). Piles will be loaded onto trucks and transported to the interim pile storage area off Morton Way via the AAT facility utilising Farrer Road. Vehicles will make a right-hand turn onto Tom Thumb Road and right onto Morton Way to access the storage compound.

### 6.5.2 Transport of piles from laydown area to MBD Site Compound

The piles required for Stage 2A will be stored in the interim pile storage area off Morton Way within the NSW Ports precinct. When required, the piles will be transported to the MBD Site Compound through the port via two route options, Tom Thumb Road and Seawall Road, or Springhill Road and Port Kembla Road (refer to Construction Traffic Route D in Appendix A).

The pile transportation routes, vehicle movements and traffic controls are also included in the Vehicle Movement Plans provided in Appendix B. Traffic controls will only be engaged when transporting pile materials. The need for traffic controls is based on the size and weight of the vehicle as per the HVNL regulations, such as the use of pilot vehicles for oversize or overweight loads. Pilot vehicles are permitted for either nominated route.

## 6.6 Out of hours deliveries

Out of hours deliveries will only be permitted in accordance with Infrastructure Approval (SSI 9471). The following activities are approved outside the construction hours without approval from the Secretary:

- The delivery of materials as requested by the NSW Police Force or other authorities for safety reasons.
- Emergency work to avoid the loss of life, property and/or material harm to the environment.
- Construction works that cause LAeq (15 mins) noise levels that are:
  - No more than 5 dB(A) above the rating background level at any residence in accordance with the ICNG (DECC, 2009).
  - No more than the noise management levels specified in Table 3 of the ICNG (DECC, 2009) at other sensitive land uses.
  - Continuous or impulsive vibration values, measured at the most affected residence, are no more than those for human exposure to vibration, specified in Table 2.2 of *Assessing vibration: a technical guideline* (DEC, 2006).

- Intermittent vibration values measured at the most affected residence are no more than those for human exposure to vibration, specified in Table 2.4 of *Assessing vibration: a technical guideline* (DEC, 2006).
- Where a negotiated agreement has been reached with affected receivers.

## 6.7 Oversized vehicle movements

Oversized vehicle movements may be required to deliver equipment and materials to the MBD Site Compound and Emplacement Cell Construction Site. The approved oversized routes are included in Appendix D. Each oversized vehicle movement will have to obtain Oversize Over Mass (OSOM) permits and traffic controls, as required, from the National Heavy Vehicle Register and all other relevant authorities. Additionally, over-sized deliveries will be required to adhere to the working hour restrictions as outlined in Section 6.6. Where curfews are required, over-sized loads will be required to schedule access to the site and wait until working hours to commence unloading or loading.

Pilot vehicles will be utilised when applicable as per the HVNL (refer to Table 4.1).

## 6.8 Potential hazards

There would be negligible impact to pedestrians and cyclists, nor would there be any impact to public transport services, including bus infrastructure, in the vicinity of the MBD Site Compound or Emplacement Cell Construction Site. Traffic control will be implemented at the access points to sites, as illustrated in the Vehicle Movement Plan in Appendix B.

The truck driver induction (Appendix C) outlines requirements drivers must comply with during the Stage 2A and Stage 2B works, including in wet weather conditions. Drivers must operate vehicles on the road in a safe manner with consideration to weather conditions. Controls related to driving in wet weather include:

- Check daily weather reports to know in advance expected weather conditions for the day.
- Ensure vehicles have been serviced as per manufacturer's specifications e.g., tyre tread and pressure.
- Drive with headlights and windshield wipers on for increased visibility during inclement weather.
- Drive to the conditions and slow down travel speed.

## 6.9 Dust and mud control

All sites will implement controls to minimise mud tracked on to roads and subsequent dust generation. Controls include:

- Use of existing hard stand roads, where possible.
- Construction of granular haul roads.
- Construction of rumble grids at the MBD Site Compound and the Emplacement Cell Construction Site, similar to those pictured below in Figure 6.1 and Figure 6.2.
- Scheduling of regular road sweeping on an as-needed basis across site access points.
- Additional road sweeping to be available in response to an observation of mud being tracked onto roads

Additional road maintenance activities will be undertaken to ensure all roads are maintained in safe working order and to prevent any damage from truck movements i.e., potholes. All roads proposed as transport routes are sealed and, with the above controls implemented, would not increase tracking on surrounding public roads. A dilapidation survey of Seawall Road prior to the commencement of construction was undertaken by AIE to assess the road condition. Additional dilapidation surveys will be undertaken during construction stages of the Project (refer to Section 8.5).

Vehicles transporting soils and sediments will adhere to load limit sizes applicable to the vehicle specifications and covered prior to leaving either the MBD Site Compound or Emplacement Cell Construction Site. The truck driver induction (refer to Appendix C) outlines the requirements for ensuring soil and sediment loads are adequately secured and wheels free of dirt prior to entering or exiting of the MBD Site Compound or Emplacement Cell Construction Site. Routine inspections and monitoring will ensure loads are adequately covered (refer to Section 10). Additional information on transport of materials is included in Section 8.1 of the Stage 2A and Stage 2B SMP.



**Figure 6.1** Rumble grid to be installed at MBD Site Compound and Emplacement Cell Construction Sites



**Figure 6.2** Gravel haul road to be installed at MBD Site Compound and Emplacement Cell Construction Sites

## 7. Marine vessel management

The majority of traffic generated during Stage 2B activities will be marine traffic movements during dredging operations (refer to Section 2.2.2 of this CTMP and the Port Operations Management Plan for further details). Marine vessel movements, navigation protocols and safety provisions are outlined below.

### 7.1 Marine vessel movements and navigation

Marine vessels, such as Split Hopper Barges (SHBs) and tugs, will be used to transport dredged materials during the Stage 2A and Stage 2B works. SHBs are expected to transport between five – eight loads of materials from the MBD Site Compound to the Emplacement Cell site (refer to Figure 2.2) per 24-hour period. Vessel masters will be required to navigate between the MBD Site Compound and Emplacement Cell via the designated route when it is safe to do so.

The Port Kembla Harbour is a busy industrial port utilised by a range of both commercial and recreational vessels, including ferries, fishing boats, jet skis, powered yachts and sailing yachts. Vessel Masters are required under International, Federal, and State legislation to pilot marine vessels with regard to safe navigation within the Port Kembla Harbour and on its approaches. The PANSW operates the Port Kembla VTS which provides information services, traffic organisation services and navigational assistance services. These services are provided for 24 hours a day, seven days a week year-round. Participation in VTS is compulsory to all vessels in the VTS area (refer to Section 4) (PANSW, 2021).

The Harbour Master for Port Kembla Harbour is authorised to issue directions in relation to a particular vessel or a particular class of vessels. The Master of any vessel within the port shall comply with these standing directions and any direction that may be given by the Harbour Master or their delegate (refer to Section 4).

All barge movements, including those proposed for day and night-time, will be coordinated between the Vessel Master and PANSW VTS. Permission from VTS is required for the following vessel movements:

- Entering the port limits.
- Departing from the port limits.
- Movement within the port.
- Anchoring within the VTS area.

Additionally, vessels must report to the VTS when passing any VTS reporting line and provide the name of vessel, position, and intention of vessel (refer to Figure 7.1).

Vessel Masters will commit to understanding the communication procedures required by the Harbour Master and follow all directions made by the Harbour Master. Masters will obtain a COLK prior to the commencement of the Stage 2A and Stage 2B works to ensure demonstration of current knowledge related to:

- Pilotage area and physical geography of the Port Kembla Harbour.
- Local weather conditions and their effect on the manoeuvring of vessels.
- Navigation aids, including vessel traffic services and communications requirements.
- Port customs, protocols, and security measures.
- Port infrastructure including depths and high-risk areas.



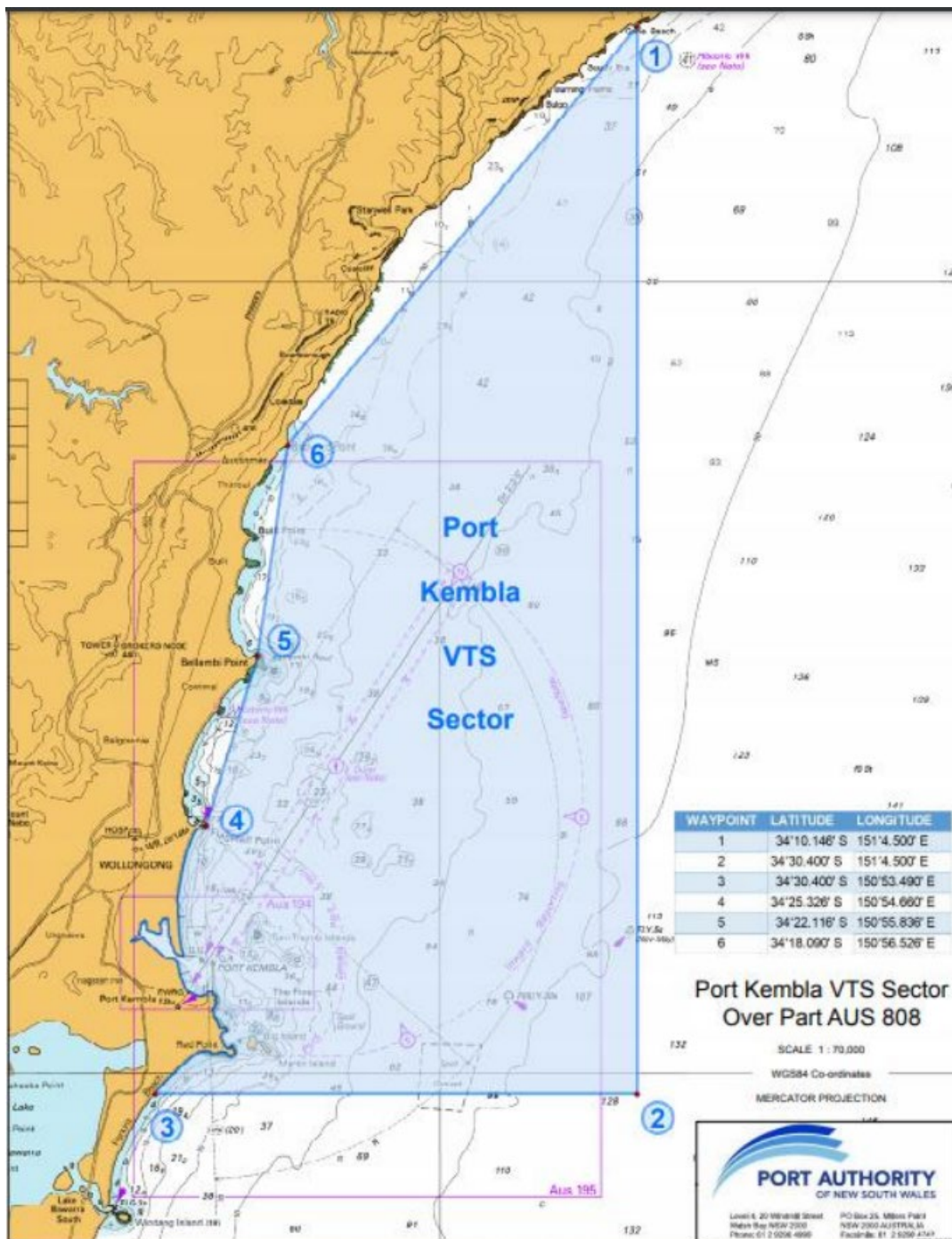


Figure 7.1 Port Kembla VTS area

Lighting on vessel decks and the MBD Site Compound construction area will be managed by the Principal Contractors to reduce direct light spill onto marine waters or surrounding landscape. Lighting will be managed in accordance with the AMSA Marine Orders Part 30: Prevention of Collisions and Part 21: Safety of Navigation and Emergency Procedures.

Light spill from vessel movements and operations will be minimised where possible using directional lighting.

## 7.2 Surveys

Prior to the commencement of dredging, hydrographic surveys will be undertaken at the MBD Site Compound, Emplacement Cell where materials will be placed and the transit route between the two sites. Monitoring of the depth of dredged materials will be continuously undertaken to ensure SHBs are not at risk of grounding when transferring materials. This information is supplied to all dredging vessels on their vessel navigational system.

Additional information is provided in Section 11 and 12 of the Stage 2A and Stage 2B DEMP.

## 7.3 Spill response

No waste materials will be disposed of overboard of vessels. All non-biodegradable and hazardous wastes will be collected, stored, processed and disposed of in accordance with the vessel's Garbage Management Plan as required under Annexure V Regulation 9 of MARPOL.

The Stage 2B Principal Contractor undertaking dredging activities will have the following management processes in place to ensure that:

- Appropriate waste containment facilities will be included on site and managed to avoid overflow or accidental release to the environment.
- Any contaminated material collected will be contained for appropriate onshore disposal in regulated waste bins.
- All marine vessels will be operated and maintained in accordance with NSW regulations and best practice.
- All liquid waste to be stored for discharge to an appropriate onshore facility to regulated contractors.
- Hazardous wastes will be separated, labelled, and retained in storage onboard within secondary containment (e.g., bin located in a bund).
- All recyclable and general wastes to be collected in labelled, covered bins (and compacted where possible) for appropriate disposal at a regulated waste facility.
- Solid non-biodegradable and hazardous wastes will be collected and disposed of onshore at a suitable waste facility.
- Diesel engine fuel compliant with Annexure VI of MARPOL will be the only diesel engine fuel used by all vessels.

All vessels will comply with the relevant marine navigation and safety standards (refer to Section 4) to avoid any potential vessel or plant collisions that could result in pollution to the marine environment.

Additionally visual observations will be undertaken by watch keepers on all vessels and plant and equipment to ensure plant are in good working order and watch for any spills or incidents that may occur. Oil spill responses will be executed in accordance with the vessel's SOPEP. Emergency spill response procedures will be undertaken in accordance with the Stage 2A and Stage 2B Emergency Spill Plan.

## 8. Compliance management

### 8.1 Training

All staff, including subcontractors, will undergo a site-specific induction which will include traffic management issues. Targeted training in the form of truck driver inductions will be supplied to regular truck drivers, specifically concrete trucks, and spoil trucks. A copy of the Truck Driver induction is included in Appendix C.

The driver induction addresses the planning requirements, including:

- Access and working hours.
- Approved designated transport routes.
- Two-way radio communication.
- Procedures to follow in the event of a spill.
- Procedures for securing (including covering) soil and sediment loads and ensuring wheels are free of dirt.
- Site hours:
  - 7 am to 6 pm Monday to Friday
  - 8 am to 1 pm Saturdays.
- Site speed limit (25 kilometres/hour).
- When exiting the site all pedestrians and light vehicles have right of way.
- No verbal communication with the public or media, refer them to the community hotline.
- Upon exit, all road rules will be complied with.
- Slow down at level crossings.
- All vehicles exiting the site are on display.
- Fatigue.
- Project contacts and community consultation contact numbers.

The Stage 2A and Stage 2B Principal Contractors will develop and implement a Project Safe Driving Plan for drivers to refer to and comply with. All drivers will be taken through the nominated routes ahead of the commencement of the Stage 2A and Stage 2B works (refer to Appendix A and Appendix C).

### 8.2 Traffic impact on local roads

Traffic associated with Stage 2A and Stage 2B have been determined to operate well within the acceptable capacity for weekday mornings and evening peak periods. Traffic impacts will be minimal as traffic signals at Port Kembla will be used for phasing of trucks. Truck movements will also be scheduled and sequenced to the flow of traffic signals in and out of the MBD Site Compound and Emplacement Cell Construction Site.

In the event activities are required that could impact on the operational efficiency of the local road network outside of the NSW Ports lease boundary (refer to Appendix C), a ROL application will be submitted to TfNSW through their Online Planned Incident system (OPLINC) at least ten working days prior to the date occupancy is required.

### 8.3 Community engagement

Changes to traffic conditions will be notified to the community on a monthly basis, via the Project webpage and mail outs to the most impacted residents, neighbours, and NSW Ports. A forecast of upcoming road works and traffic plans will also be included in the update.

*Throughout Stage 2A and Stage 2B, a community hotline will be maintained where inquiries and complaints will be recorded and forwarded to the Project contact to respond and or investigate. Community consultation contacts are listed in Table 8.1. Complaints*

Media	Contact
Phone (community hotline)	1800 789 177
Website	<a href="https://ausindenergy.com/contact-us/">https://ausindenergy.com/contact-us/</a>
In person	Referred to AIE HSE Manager

## 8.4 NSW Ports notification

AIE have been provided with the notification process from NSW Ports when undertaking transportation within the NSW Ports road network. Traffic movements utilising internal NSW Ports roads require prior notification seven days in advance of proposed transportation activities being undertaken in accordance with the NSW Ports Direction 4. Notification will then be made to the relevant stakeholders within the NSW Port boundary that may be impacted by the Stage 2A and Stage 2B works.

Consent from NSW Ports to utilise internal roads and the proposed pile laydown area on Morton Way has been obtained. All movements will be controlled as per this CTMP which has been reviewed by NSW Ports with applicable comments incorporated.

## 8.5 Dilapidation surveys

Prior to the commencement of the Project, a dilapidation survey was undertaken of the two primary access roads in and out of the site, Seawall Road and Arawata Road, which recorded the condition of all road surfaces, kerb, and gutters. Copies of the dilapidation reports have been forwarded to TfNSW, Council and NSW Ports and will be reviewed at the completion of the Project to determine if rectification works are required.

At the conclusion of the Project, an additional dilapidation survey will be undertaken.

## 8.6 Monitoring

Monitoring of traffic management and mitigation measures will be undertaken, as required, by the Stage 2A and Stage 2B Project Managers and/or Stage 2A and Stage 2B Primary Contractor Construction Foremen prior to, during, and following Stage 2A and Stage 2B works at both the MBD Site Compound and Emplacement Cell Construction Site.

Traffic monitoring is to include, but not be limited to:

- Weekly inspection of traffic signage.
- Tallying of daily truck movements transporting spoil from the MBD Site Compound to the Emplacement Cell Construction Site.
- Periodic checks of spoil tracking register to ensure no more than 360,000 m<sup>3</sup> of spoil materials will be transported via road in compliance with Infrastructure Approval (SSI 9471) Schedule 3, Condition 7. Additional information on monitoring spoil movements is included in Section 8 of the Stage 2A and Stage 2B SMP.
- Daily pre-start checklist for plant and equipment (including trucks) to ensure they are fit for purpose/adequately maintained. Records will be documented accordingly.

The data will be available to respond to community inquiries and for assessment of traffic impacts on the surrounding areas.

A review of functionality of the CTMP will be undertaken following any traffic incident or complaint received around traffic matters.



## 9. Communication and complaints

Effective communication between the Project Director, Project team, contractors and external stakeholders will be undertaken throughout the Project to ensure effective implementation of this CTMP.

Project communication can be categorised into internal and external communications, as well as communications specifically dealing with complaints. The specific communication methods for each category are discussed below.

### 9.1 Internal communications

Communication on environmental issues related to traffic management within the Project team will be maintained, as a minimum, through the following forums (organiser as noted):

- Weekly project construction team meetings (AIE Construction Manager or delegate).
- Periodic Environmental management team meetings with relevant contractors (AIE HSE Manager or Delegate).
- Toolbox talks and daily pre-start briefings (Principal Contractor Project Manager or delegate).
- Minutes of formal meetings will be taken and distributed to record issues raised and actions required, with action status established at subsequent meetings.
- Monthly review of the internal AIE Environmental Compliance Tracking register (AIE HSE Manager or delegate).

All internal meetings include appropriate documentation in the form of agenda and formal distribution via the Project's document system.

In addition to the above, the AIE Environment Team will also undertake informal planning sessions and resource review meetings to plan and forecast for upcoming key construction dates, critical issues and other relevant matters associated with environmental planning and approvals.

### 9.2 External communications

AIE is committed to keeping the local community and relevant agencies informed about the development of the Project. The principal external communication objectives are, therefore, to:

- Continue to maintain open communication with relevant stakeholders.
- Minimise environmental impacts.
- Be proactive in addressing any concerns that the community / external stakeholder may express.

AIE will build upon the stakeholder and community engagement phase undertaken during project development including multiple group or one on one briefings. A project website ([www.ausindenergy.com](http://www.ausindenergy.com)) has been developed and provides comprehensive, clear, and accessible information that is updated on a regular basis.

As well as the local Port Kembla and broader community of the Wollongong region, extensive engagement was also undertaken with a range of other interested key stakeholders, such as local commerce organisations, the PANSW and local and state government.

Consultation with key stakeholders and the wider community on the Project will continue throughout Stage 2A and Stage 2B and subsequent construction phases. These measures will ensure the stakeholders, including the wider community, remain informed of the Project's progress.

Key methods of engagement are provided in the Stage 2A and Stage 2B EMS.

### 9.3 Complaints management

All complaints where a third party has identified a construction activity as being unsatisfactory or unacceptable will be dealt with promptly and efficiently in accordance with the complaint and dispute response outlined in the Project's Stage 2A and Stage 2B EMS.

AIE will operate a free 24-hour Community Information Line (1800 789 177) where members of the community can leave details about an inquiry, they may have regarding construction activities related to traffic. This message will be passed on to site personnel and/or the Stakeholder Engagement Team, as appropriate. The phone number is listed on the AIE website (<https://ausindenergy.com/contact-us/>) and will be provided on all community newsletters. The AIE HSE Manager has notified the Port Kembla Harbour Environment Group of the Community Information Line.

Initial responses to complaints will be provided within 24 hours of the complaint being received. As part of the response, a review of the activity will be undertaken. If required and possible, immediate changes will be made to reduce any impact on the community. In some cases, the issues cannot be resolved immediately, and ongoing actions might be required to resolve the issue.

All complaints related to traffic will be recorded in a Complaints and Disputes Register. The following information will be recorded for each complaint:

1. The date and time of the complaint.
2. The method by which the complaint was made.
3. Any personal details of the complainant which were provided by the complainant or, if no such details were provided, a note to that effect.
4. The nature of the complaint.
5. The action taken by the licensee in relation to the complaint, including any follow-up contact with the complainant.
6. If no action was taken by the licensee, the reasons why no action was taken.

The Complaints and Disputes Register will be maintained by the Project's HSE Manager or delegate, and will detail what the issue was, initial response provided, how and when the issue was resolved, and by whom. Records will be kept for at least four years after the complaint was made and will be produced on request by any authorised officer of the EPA.

Where resolving a complaint with a third party is protracted or develops into a dispute, the AIE HSE Manager shall escalate proactively to Senior Project Leadership (e.g., AIE Project Manager and/or Project Director) to assist with resolution. AIE will work proactively with the complainant to resolve the dispute including having face to face meetings, site familiarisation sessions and agreeing on actions to resolve the dispute. All communications and agreed actions shall be documented.

For the management and reporting of corrective actions (which may be required in response to a complaint), refer to the Project's Stage 2A and Stage 2B EMS.

# 10. Inspections, monitoring and audits

Monitoring and auditing will be undertaken to determine the impact on the environment and identify opportunities for improvement. Monitoring to be implemented for specific actions or environmental issues (e.g., water quality monitoring, air quality monitoring) will be detailed in their relevant Sub - plan and will specifically address the monitoring requirements for those issues.

## 10.1 Environmental inspections

### 10.1.1 AIE and Principal Contractor joint environmental inspection

As a minimum, the AIE HSE Manager (or nominated delegate) will undertake periodic inspection of the work sites with the relevant Principal Contractor's environmental personnel (Environmental Representative or similar) to evaluate the effectiveness of environmental controls (inclusive of erosion and sediment control measures) and general compliance with the implementation of the CTMP for site-based activities.

If any maintenance and / or deficiencies in environmental controls or in the standard of environmental performance are observed, they will be recorded on the checklist form. Records will also include details of any maintenance required, the nature of the deficiency, any actions required and an implementation priority.

Actions raised during inspections will be documented on the *Environmental Site Checklist* and will be issued formally through the Project's document management system to the relevant Contractor for action. If they represent an actual or potential significant environmental risk, these issues shall be reviewed at the Project Planning meetings and will have non-compliances raised if not closed out in the nominated timeframe (Non-compliance Report).

### 10.1.2 Contractor environmental inspections

In addition to the joint periodic environmental site inspection with AIE, the Principal Contractors will be required to undertake daily site environmental inspections, targeting key environmental risks commensurate with the activity being undertaken. The environmental site inspection will be documented on a checklist, or similar, to be prepared and completed by the Principal Contractors.

Copies of the environmental site inspection records are to be provide to AIE on request.

The HSE Manager is responsible for the initial reporting of significant non-compliances with the CTMP or relevant legislation to the AIE Project Director and government authorities (refer to Section 11).

### 10.1.3 EPL inspection requirements

In accordance with Condition O4.4 of the EPL No 21529, the Contractors will undertake wet-weather inspections daily during periods of rainfall and within 24 hours of cessation of a rainfall event causing runoff to occur on or from the premises (based on site observation, this equates to ten millimetres of rainfall in a 24-hour period).

Daily inspections of water pollution controls will be undertaken in accordance with Condition M.10.1 of the EPL No 21529 and recorded. Records will include the date and time of inspection, location of dredging operations and conditions of silt curtains and other water pollution controls. Records will be produced to an EPA authorised officer on request.

The Principal Contractors must record all such inspections including observations and works undertaken to repair and / or maintain erosion and sediment controls.

## 10.2 Monitoring

Monitoring will be undertaken to validate the impacts predicted for the work, to measure the effectiveness of management plans, environmental controls, and implementation of this CTMP, and to address approval requirements.

Monitoring requirements applicable to the CTMP include:

- Weekly inspection of traffic signage.
- Tallying of daily truck movements transporting spoil from the MBD Site Compound to the Emplacement Cell Construction Site.
- Periodic checks of spoil tracking register to ensure no more than 360,000 cubic metres of spoil materials will be transported via road in compliance with Infrastructure Approval (SSI 9471) Schedule 3, Condition 7. Additional information on monitoring spoil movements is included in Section 8 of the Stage 2A and Stage 2B SMP.
- Daily pre-start checklist for plant and equipment (including trucks) to ensure they are fit for purpose/adequately maintained. Records will be documented accordingly.

Plant and equipment entering or exiting the MBD Site Compound or Emplacement Cell Construction Site will be continuously monitored to ensure soil and sediment loads are adequately secured and wheels free of dirt. This will include:

- Scheduling of regular road sweeping on an as-needed basis across site access points.
- Additional road sweeping to be available in response to an observation of mud being tracked onto roads.
- Inspection of all soil and sediment loads to ensure loads are properly covered prior to vehicle entering and/or exiting work site.

Additional details regarding dust management are included in the Stage 2A and Stage 2B ESCP.

## 10.3 Auditing

AIE will conduct a program of internal audits for the purpose of verifying compliance with the following:

- The EMS and this CTMP.
- Compliance with the requirements of relevant components outlined within the EMS and CTMP, including but not limited to, site inspection compliance, document control / management, non-compliance, and incident management etc.
- Monitoring and reporting requirements as set out under EPL No. 21529.

Additional details regarding the auditing process are detailed in the Project's Stage 2A and Stage 2B EMS.

## 10.4 Environmental reporting

### 10.4.1 DP&E reporting

Regular reports on compliance and other matters will be provided during the construction phase of the Project. This will include reporting to DP&E in accordance with Schedule 4, Conditions 7 and 8 of the Infrastructure Approval (SSI 9471), with specific reference to the *Compliance Reporting Post Approval Requirements* (2020).

In addition, DP&E will be notified in writing of the date of commencement of each of the relevant phases of the Project in accordance with Schedule 2, Condition 8 of the Infrastructure Approval (SSI 9471).

Reporting applicable to this CTMP will consist of:

- Traffic movement monitoring results.
- Requirements of EPL No. 21529.
- Construction works progress and appraisal of traffic safety and movements quality controls.
- Environmental Incident Report(s), as required.
- Annual returns, as required by EPL No. 21529.

## 10.4.2 Other reporting requirements

A monthly environmental monitoring report will be developed for each calendar month which will include details of the monitoring results and frequencies and inclusion of any exceedance of EPL No. 21529 traffic monitoring limits / criteria. A copy of the monthly environmental monitoring report will be made available on the AIE Project website.

Further reporting requirements are provided in Section 10.6 and Section 11.

## 10.5 Compliance tracking register

A Compliance Tracking Register has been developed as a monitoring tool to assist with the compliance reporting requirement as set out under Condition 7, Schedule 4 of the Infrastructure Approval (SSI 9471).

The compliance tracking register includes a breakdown of the requirements from the following key approval and Project documents:

- Infrastructure Approval (SSI 9471).
- EPL No. 21529.
- Requirements of this CTMP.
- *Compliance Reporting Post Approval Requirements* (DPIE, 2020), or its most recent edition.

The Compliance Tracking Register includes tabulation of reference conditions, the requirements, responsibility, status (i.e., ongoing, close-out, not triggered, etc.) and supporting evidence where required.

A routine review of the Compliance Tracking Register is undertaken by the AIE HSE Manager (or delegate) with input sought from the relevant contractors as required. The Compliance Tracking is a live document which is kept up to date for each stage of the construction works.

## 10.6 Non-compliance, corrective, and preventative actions

Non-compliances or potential non-compliances are situations or events that do not comply with the safeguards and procedures stipulated in the EMS or this CTMP.

Non-compliances or potential non-compliances may be identified in any of the following situations:

- As part of site inspections, supervision or monitoring of construction activities.
- During internal audits.
- Following justified / supported verbal or written third party complaints.

All non-compliances related to traffic safety and movements will be managed and reported using the non-compliance function of the Project's document management system. Each non-conformance event and follow-up action will be documented and traceable, including identification of key dates and responsible personnel.

Additional details regarding corrective and preventative actions are outlined in the Project's Stage 2A and Stage 2B EMS.

The Department must be notified in writing via the Department's Major Projects Website within seven days after the identification of any non-compliance issue. The notification must identify the development, including the application number, set out the condition of approval that the development is non-compliant with, the way in which it does not comply, the reasons for the non-compliance (if known) and what actions have been taken, or will be taken, to address the non-compliance.



# 11. Incident management and emergency response

## 11.1 Incident management

### 11.1.1 Overview

Incidents are defined as an occurrence or set of circumstances that causes or threatens to cause material harm and which may or may not be or cause a non-compliance. The consequences of such incidents may result in material environmental harm, damage, or asset loss. 'Near misses' are extraordinary events that could have reasonably resulted in an incident.

All incidents related to traffic, including those of the Principal Contractors, its subcontractors, and visitors that occur during the undertaking of the construction works for the Project will be managed to satisfy the requirements of AIE's Incident Reporting and Investigation System Requirements. Whilst it is noted that key Contractors will be implementing their own environmental management system procedures and processes, AIE will be responsible for ensuring that these systems and processes satisfy the requirements of the AIE EMS, including the incident management components. The Principal Contractors will be responsible for providing all necessary documentation with regards to the incident investigation and close - out actions where required. The timing of the provision of this documentation is to align with the AIE requirements.

The AIE HSE Manager must be notified immediately of any environmental incident or near miss related to traffic. These may include, but are not limited to the following:

- Exceedance of air quality monitoring criteria from traffic movements as required under the Project EPL (EPL No. 21529).
- Spill of any dangerous goods or hazardous substance to ground or water.
- Substantiated complaints received from members of the community or regulatory authorities.
- Regulatory breaches such as fines, prosecutions, improvement notices, breaches of licence conditions.
- All incidents of third-party property damage or loss.
- Incidents involving impact or potential damage to items or places of cultural heritage significance.
- Land-based off-site sediment loss to the environment, including sediment tracking onto the roadway.

The AIE HSE Manager will be responsible for regulatory notification of all notifiable environmental incidents (refer to Section 11.1.3 for notifiable incidents). All environmental incidents will be reported immediately to DP&E in writing via the Department's Major Projects Website after AIE becomes aware of the incident, as per Schedule 4 Condition 5 of the Infrastructure Approval (SSI 9471). The notification must identify the development, including the application number, and set out the location and nature of the incident.

In the event of a notifiable non-compliance incident arising, the Principal Contractor will notify the AIE HSE Manager immediately to allow the AIE HSE Manager to notify DPIE in writing via the Department's Major Projects Website within seven days of AIE becoming aware of the non-compliance, as per Schedule 4 Condition 6 of the Infrastructure Approval (SSI 9471). The notification must identify the development, including the application number, set out the condition of approval that the development is non-compliant with, the way in which it does not comply, the reasons for the non-compliance (if known) and what actions have been taken, or will be taken, to address the non-compliance.

### 11.1.2 Notifiable incident under the POEO Act

In the event of a Notifiable Incident as defined under the POEO Act, AIE is responsible for immediately notifying the NSW EPA, and any other relevant authority, of pollution incidents on or around the site via the EPA Environment Line (telephone 131 555) in accordance with Part 5.7 of the POEO Act. The circumstances where this will take place include:

- If the actual or potential harm to the health or safety of human beings or ecosystems is not trivial.
- If actual or potential loss or property damage (including clean-up costs) associated with an environmental incident exceeds \$10,000.

Follow-up written notification to the EPA and any other relevant authorities will be required in accordance with the POEO Act and requirements of the EPA. This includes the provision of written details of the notification to the EPA within seven days of the date on which the incident occurred.

All notifiable incidents will also be managed, documented, and reported in accordance with the AIE *Incident Reporting and Investigation System Requirement*.

In addition, an authorised officer of the EPA has the right to request a written report (in accordance with Condition R3 of the EPL No. 21529) if they suspect on reasonable grounds that an event has occurred at the licensed premises which has caused, is causing or is likely to cause material harm to the environment (whether the harm occurs on or off premises to which the licence applies). The written report is to address all the requirements under Condition R3 of the EPL.

### 11.1.3 Notifiable incident under the Infrastructure Approval (SSI-9471)

In accordance with Condition 5 of Schedule 4, DP&E must be notified in writing via the Department's Major Projects Website immediately after AIE becomes aware of an incident on site.

Additional details regarding notifiable incidents and procedures are outlined in the Project's Stage 2A and Stage 2B EMS.

## 11.2 Emergency response

Actual or potential emergency situations will vary in type and severity. The required level of response and notification will be at the discretion of the AIE Construction Manager in consultation with the AIE HSE Manager.

Any emergency situation may require only isolated containment and control or may require the complete evacuation of the site and notification of relevant emergency services. Consideration should be made of the response requirements for different situations. If at any time there is uncertainty on how to proceed, response should be for the worst possible scenario. Ultimately, the AIE Construction Manager or representative has authority and responsibility to instigate an evacuation if he/she feels it is warranted.

In the event of an emergency, the following plans listed in Table 11.1 shall be consulted and implemented, as relevant.

**Table 11.1** *Emergency plans*

Plan	Reference	Application
Principal Contractor Local Emergency Response Plan	-	Principal Contractor's emergency response plan implemented in the event of any incident occurring during a Project activity as per the Contractor's policies and management framework.
AIE Port Kembla Gas Terminal Emergency Spill Plan	PKGT-AIE-PRO-039	Developed as a Sub - Plan to the EMS to be implemented detailing: <ul style="list-style-type: none"> <li>– Response plans in the event of land or water-based spill events.</li> <li>– Inspections, notification, and incident management requirements in accordance with the Infrastructure Approval (SSI 9471) and EPL No 21529 in relation to spills.</li> </ul>
PIRMP	PKGT-AIE-PRO-007	Implemented immediately in the event of a pollution incident occurring during a Project activity. The PIRMP: <ul style="list-style-type: none"> <li>– Outlines the actions to be taken during or immediately after a pollution incident.</li> <li>– Lists details of relevant authorities to be notified, as required.</li> </ul>

Plan	Reference	Application
		<ul style="list-style-type: none"> <li>– Outlines community and neighbour notification details, as required.</li> </ul>
AIE Emergency Management Procedures	PKGT-AIE-PRO-014	<p>Implemented immediately in the event of any emergency incident occurring during the Project. Procedures include:</p> <ul style="list-style-type: none"> <li>– Types of emergencies and the detailed steps to be taken in response.</li> <li>– Notification details to relevant authorities and AIE Project team.</li> <li>– Incident response to follow up from incident and preventative actions to be implemented, if applicable.</li> </ul>

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## 12. Document management and review

### 12.1 Record management

Records and registers specified in this CTMP for Stage 2A and Stage 2B shall be maintained. Records to be kept may include but will not be limited to the following:

- Environmental Inspection Checklist.
- Environment Reporting.
- Environmental Monitoring Reports / Records.
- Fauna and Weed Register.
- Internal Audit Reports.
- Incident Reports and Register.
- Toolbox Talk Records.
- Induction Presentation and Register.
- Environmental Activities Safe Work Method Statement (SWMS).
- Corrective Actions Register.
- Waste and Resource Register.
- Material Tracking Register.
- Training Register / Matrix.
- Complaints Register.

### 12.2 Review and revision of CTMP

This CTMP will be reviewed and updated, as required under Condition 3 of Schedule 4 of Infrastructure Approval (SSI 9471) to ensure the objectives of the applicable approval conditions contained within are being met throughout Stage 2A and Stage 2B.

In addition, as required under Condition 4 of Schedule 4 of Infrastructure Approval (SSI 9471), the CTMP must be reviewed, and if necessary, revised within 3 months (unless otherwise agreed with DP&E) for any of the following:

- Following the submission of an incident report as per Condition 5, Schedule 4 of Infrastructure Approval (SSI 9471) (refer to Section 11).
- Following approval of any modification to the conditions of approval outlined in Infrastructure Approval (SSI 9471).
- At the direction of the Planning Secretary as per Condition 4, Schedule 2 4 of Infrastructure Approval (SSI 9471).

Where a review leads to a revision of this plan, within four weeks the revised CTMP will be submitted to the Planning Secretary for approval unless otherwise agreed with the Planning Secretary.

### 12.3 Access to information

AIE will make the following information publicly available on the PKGT website, as per Schedule 4, Condition 12 of the Infrastructure Approval (SSI 9471) and the requirements as set-out under the Project EPL No. 21529:

- The PKGT EIS.
- Current statutory approvals for the Project.
- Approved strategies, plans or programs required under the conditions of Infrastructure Approval (SSI 9471).

- A comprehensive summary of the monitoring results of the development, reported in accordance with the specification of any conditions, or any approved plans and programs relating to Infrastructure Approval (SSI 9471).
- A summary of complaints (updated monthly).
- Any independent environmental audit, and responses to the recommendations in any audit.
- The approved premises map (EPL No. 21259, Condition A2.4).
- PIRMP (EPL No. 21529, Condition E2).
- Any other matter required by the Planning Secretary.

This information will be kept up to date by AIE when required.

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# References

*Australian Standards 1742.3 – Manual of uniform traffic control devices, Part 3: Traffic control for works on roads.*

DEC 2006, *Assessing Vibration: A Technical Guideline.*

DECCW 2009, *Interim Construction Noise Guideline.*

DPIE 2020, *Compliance Reporting Post Approval Requirements.*

Environment Protection Licence No. 21529, dated 3 December 2021.

GHD 2018, Port Kembla Gas Terminal Environmental Impact Statement.

GHDA 2018, Port Kembla Gas Terminal Environmental Impact Statement Traffic Impact Assessment.

Infrastructure Approval SSI 9471 dated 13 October 2021.

Port Authority of NSW April 2021, Port Kembla Harbour Master Directions.

SMEC March 2022, Port Kembla Gas Terminal Development – Emplacement Cell Report.

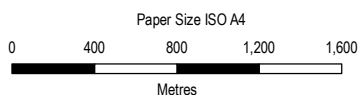
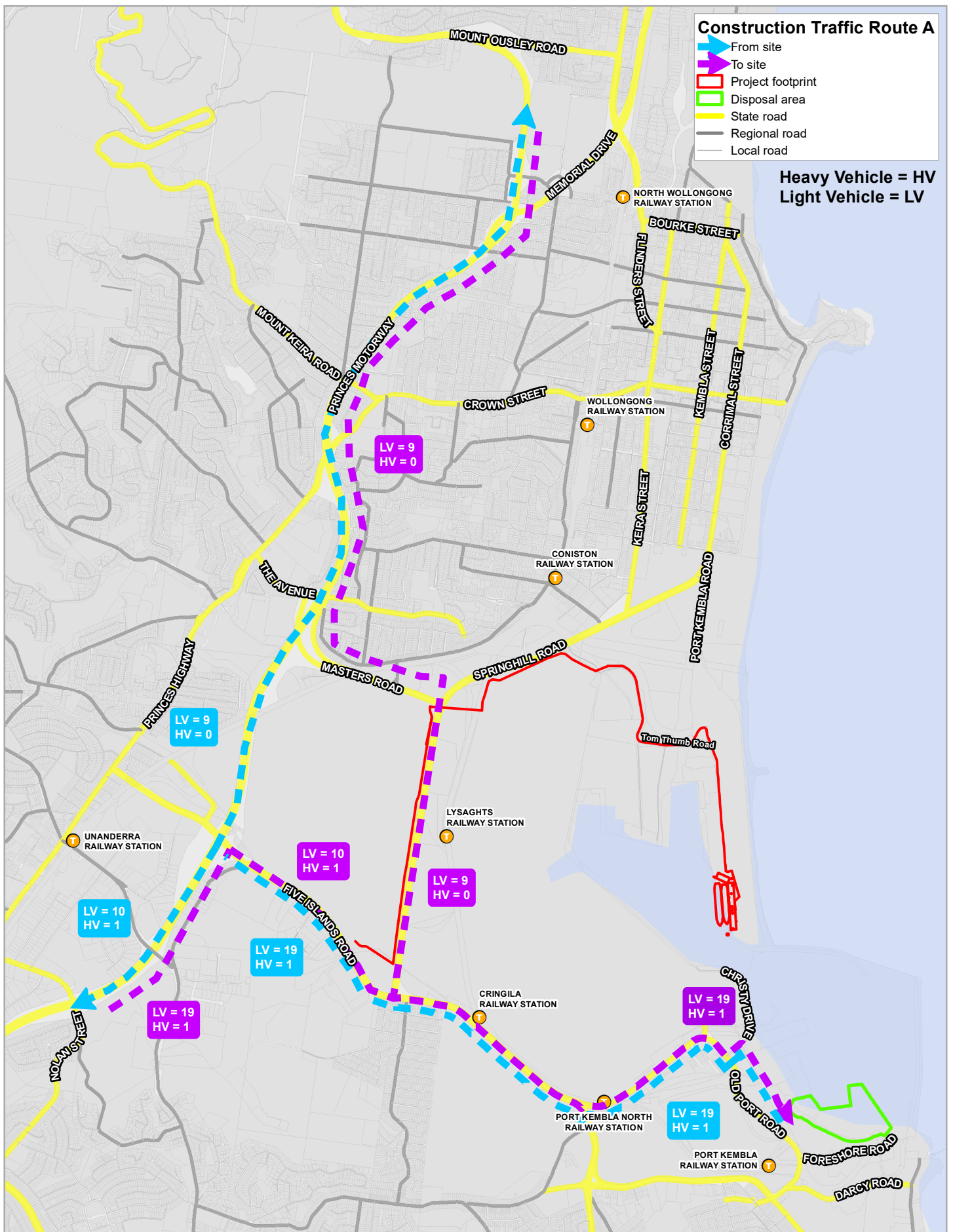
TfNSW 2020, *Traffic control at work sites Technical Manual.*

# Appendices

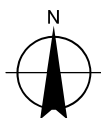
# **Appendix A**

**Construction traffic routes**





Map Projection: Transverse Mercator  
Horizontal Datum: GDA 1994  
Grid: GDA 1994 MGA Zone 56

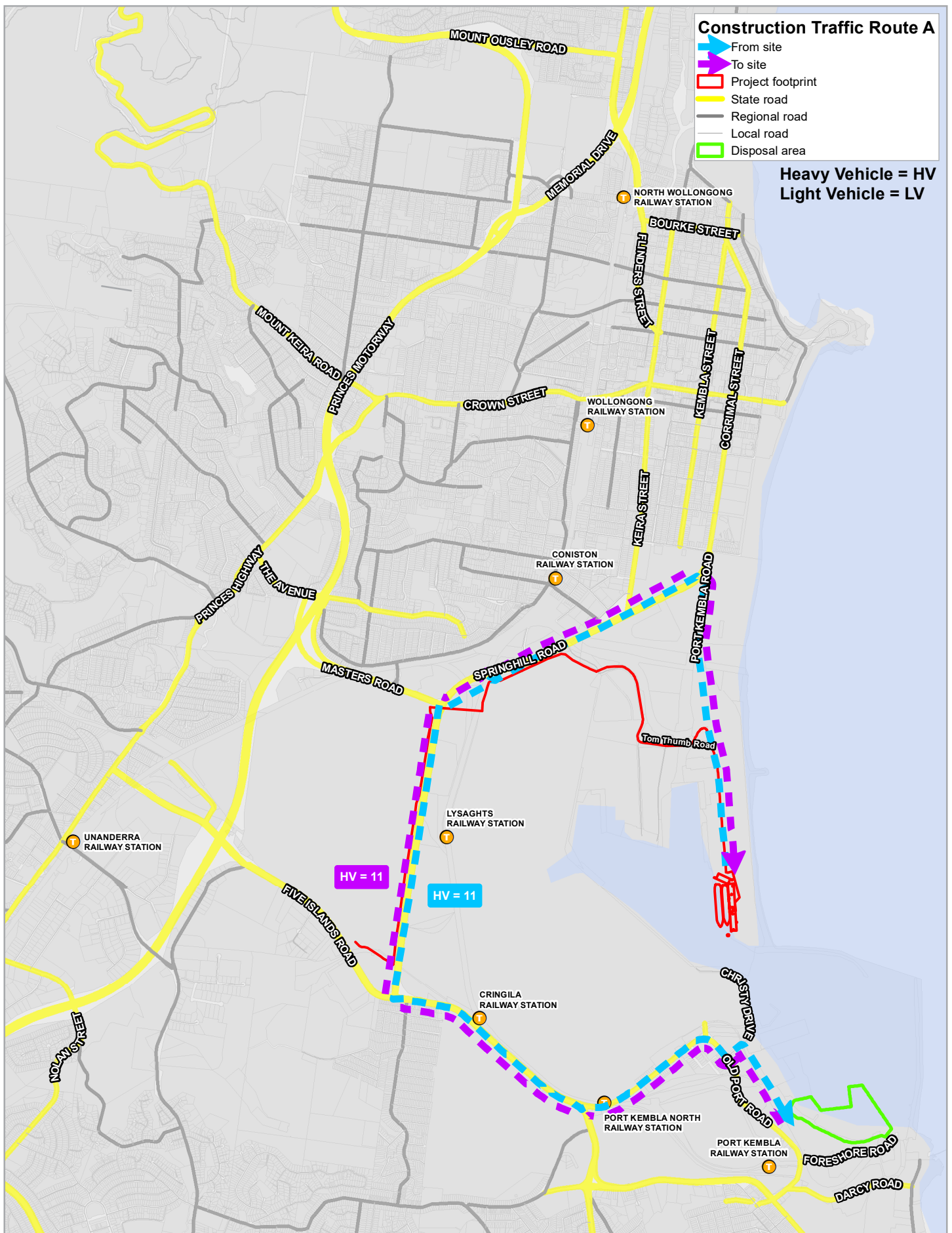


Australian Industrial Energy  
Port Kembla Gas Terminal

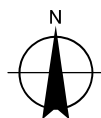
**Construction Traffic Route B: Access  
to Emplacement Cell Construction Site**

Project No. 21-27477  
Revision No. A  
Date 28 Apr 2021





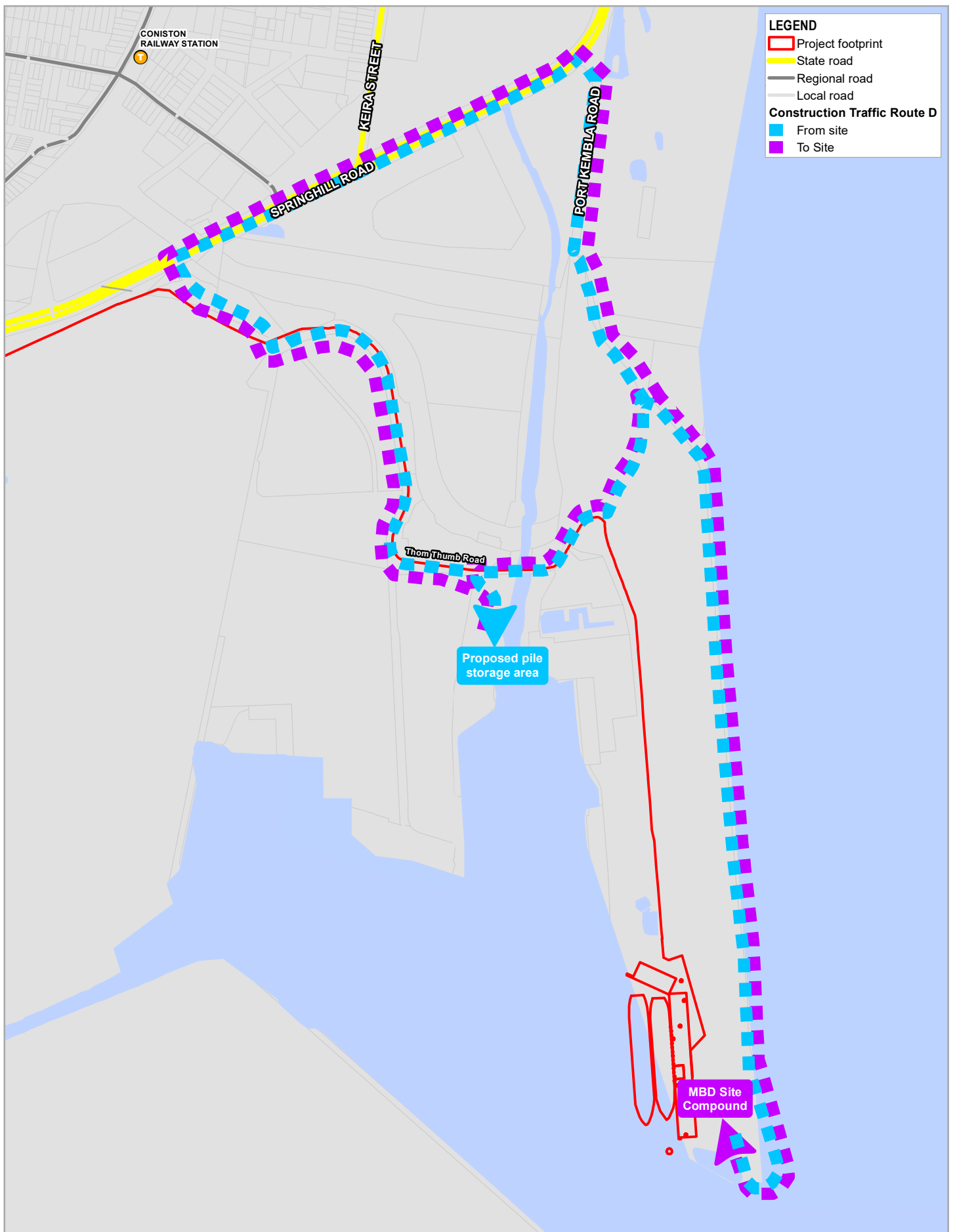
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Map Projection: Transverse Mercator  
Horizontal Datum: GDA 1994  
Grid: GDA 1994 MGA Zone 56



Australian Industrial Energy  
Port Kembla Gas Terminal  
**Construction Traffic Route C: Access  
between MBD Site Compound and  
Emplacement Cell Construction Site**

Project No. 21-27477  
Revision No. A  
Date 28 Apr 2021



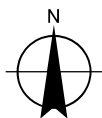


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Metres

Map Projection: Transverse Mercator  
Horizontal Datum: GDA 1994  
Grid: GDA 1994 MGA Zone 56



Australian Industrial Energy  
Port Kembla Gas Terminal

**Construction Traffic Route D:**  
**Route for pile transportation from lay**  
**down area to MBD Site Compound**

Project No. **21-27477**  
Revision No. **A**  
Date **11 Oct 2021**

# **Appendix B**

## **Vehicle movement plans**



Effective Date: 3/12/21  
Version: 3  
Client: Rare Environmental  
Location: Tom Thumb Rd Port Kembla  
Activity: Vehicle Movement Plan  
TGS Number: DWRAE1

Figure 1 - Pile Transportation from MBD Site Compound

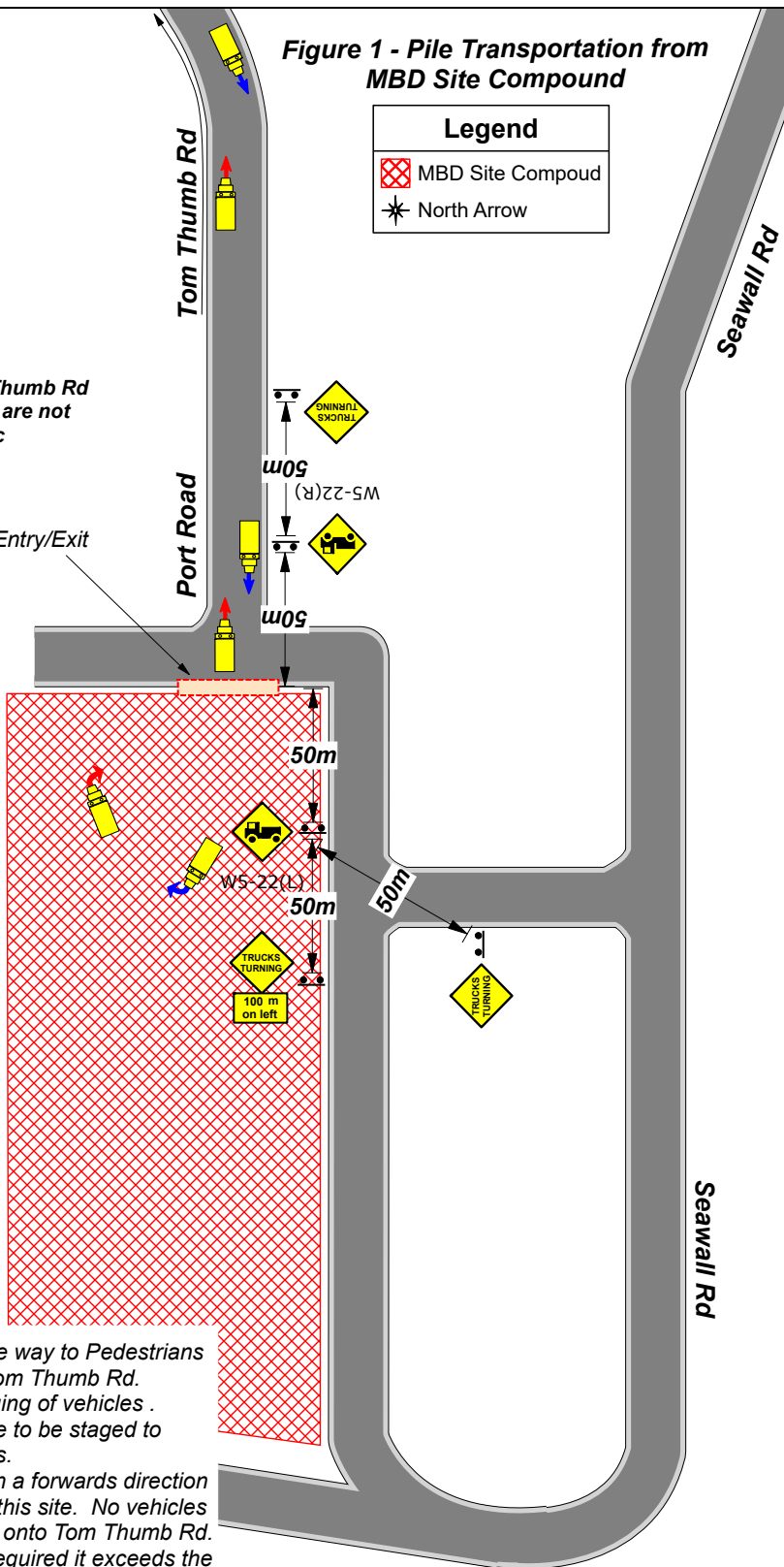
Legend

MBD Site Compound

North Arrow

Notes :-  
Seawall Rd , Port Road & Tom Thumb Rd  
are all internal port roads and are not  
accessible to the public

Site Entry/Exit



Drivers at all times SHALL give way to Pedestrians  
and through traffic on Tom Thumb Rd.  
There SHALL be no queuing of vehicles .  
Deliveries of materials are to be staged to  
prevent this.  
All vehicles SHALL be driven in a forwards direction  
when entering and / or exiting this site. No vehicles  
SHALL be permitted to reverse onto Tom Thumb Rd.  
If such a vehicle maneuver is required it exceeds the  
scope of this management plan.

Name:.....  
Date of Modification:.....  
Prepare WZTMP No:.....  
Expiry Date:.....  
Signature:.....

Date: 2/12/21 Author: Dean Woodward Project: Rare Enviro  
Qualification: Prepare a Work Zone TMP - RIICWD503D Ticket No: 0052093919 Expiry Date: 01/08/2022

Comments:  
The author has drawn this TGS based on the information provided by the client. Prior to the implementation of  
TGS a Safe Work Method Statement must be prepared in consultation with the personnel carrying out the work.  
Person(s) implementing this TGS must hold current Implement Traffic Control Plans - RIIVHS302D training.  
Modifications to this TGS must comply with the requirements of the RMS Traffic Control at Work Sites manual  
version 6 and AS1742.3-2019 Manual of uniform traffic control devices Traffic control for works on roads.

Prepare a Work Zone  
Traffic Management Plan  
Card No. 0052093919  
This qualification enables you to prepare Traffic Management Plans and  
conduct inspections on Traffic Management Plans.  
DEAN  
WOODWARD  
Expiry Date:  
01/08/2022  
  
This card is not a proof of identity.

NOT TO SCALE

(02) 9603 38 20

**DIRECT TRAFFIC**

Effective Date: 3/12/21

Version: 3

Client: Australian Industrial Energy

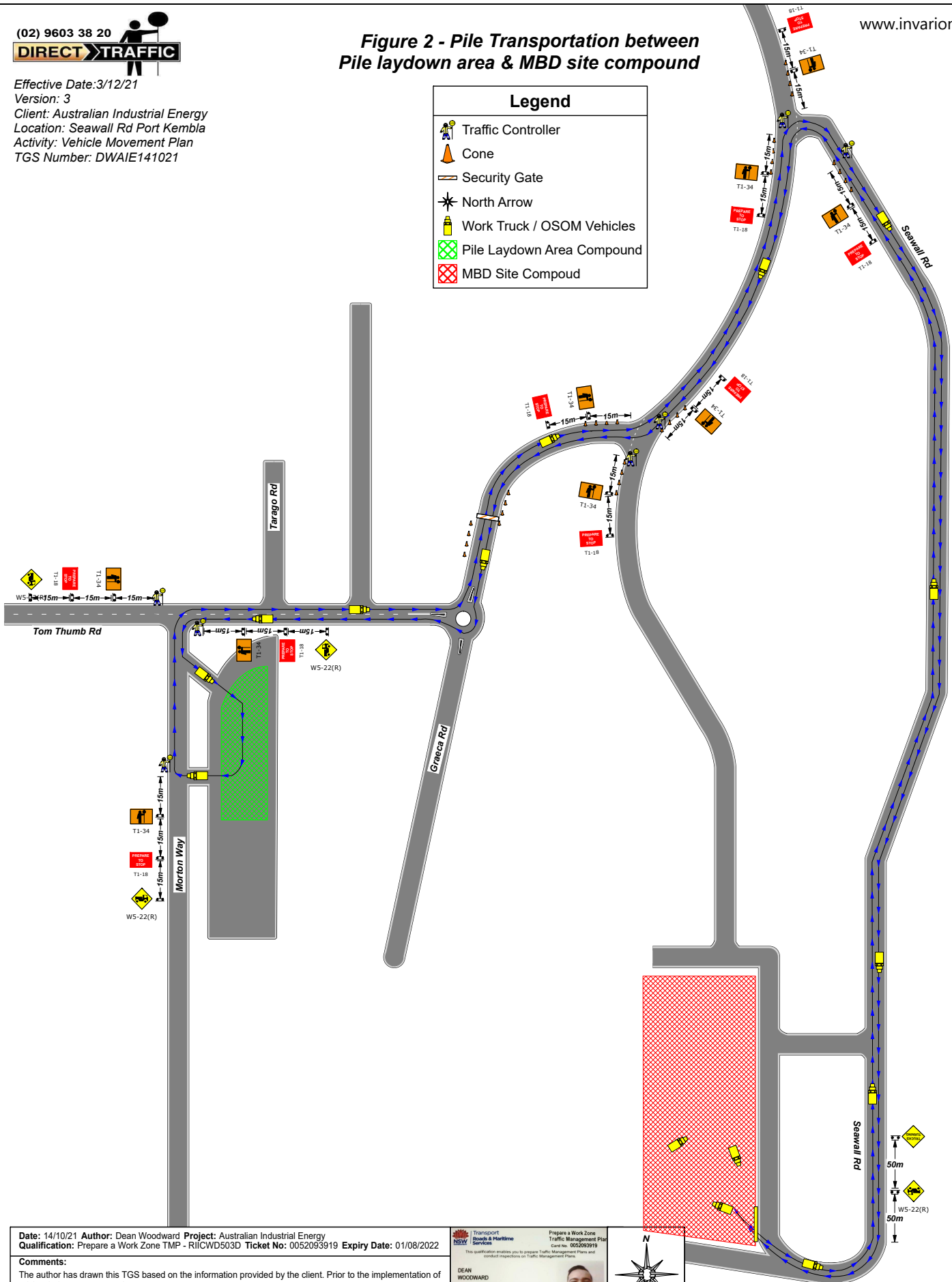
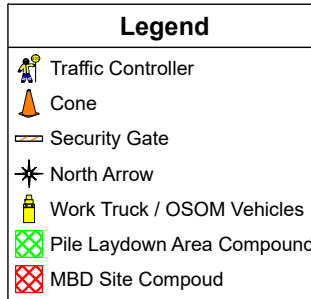
Location: Seawall Rd Port Kembla

Activity: Vehicle Movement Plan

TGS Number: DWAIE141021

**Figure 2 - Pile Transportation between  
Pile laydown area & MBD site compound**

www.invarion.com



Date: 14/10/21 Author: Dean Woodward Project: Australian Industrial Energy  
Qualification: Prepare a Work Zone TMP - RIICWD503D Ticket No: 0052093919 Expiry Date: 01/08/2022

**Comments:**

The author has drawn this TGS based on the information provided by the client. Prior to the implementation of TGS a Safe Work Method Statement must be prepared in consultation with the personnel carrying out the work. Person(s) implementing this TGS must hold current Implement Traffic Control Plans - RIWH302D training. Modifications to this TGS must comply with the requirements of the RMS Traffic Control at Work Sites manual version 6 and AS1742.3-2019 Manual of uniform traffic control devices Traffic control for works on roads.

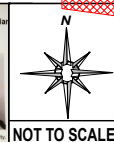
Transport  
Roads & Maritime  
Services

Prepares a Work Zone  
Traffic Management Plan  
Card No: 0052093919  
Expiry Date:  
01/08/2022

DEAN  
WOODWARD

01/08/2022

This card is not a proof of identity









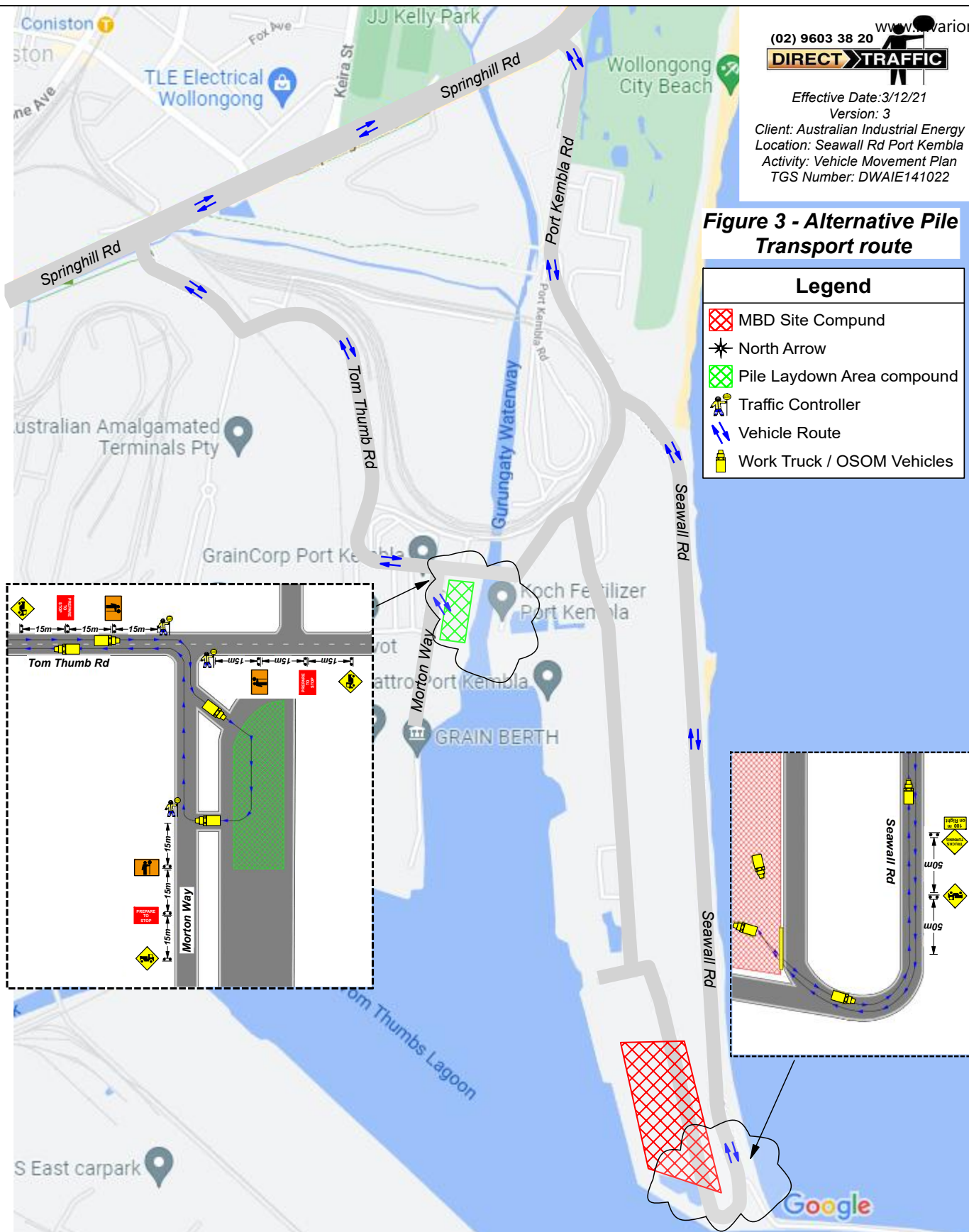
NOT TO SCALE

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**Figure 3 - Alternative Pile Transport route**

**Legend**

-  MBD Site Compound
-  North Arrow
-  Pile Laydown Area compound
-  Traffic Controller
-  Vehicle Route
-  Work Truck / OSOM Vehicles



**Date:** 14/10/21 **Author:** Dean Woodward **Project:** Australian Industrial Energy  
**Qualification:** Prepare a Work Zone TMP - RIICWD503D **Ticket No:** 0052093919 **Expiry Date:** 01/08/2022

**Comments:**

The author has drawn this TGS based on the information provided by the client. Prior to the implementation of TGS a Safe Work Method Statement must be prepared in consultation with the personnel carrying out the work. Person(s) implementing this TGS must hold current Implement Traffic Control Plans - RIWHS302D training. Modifications to this TGS must comply with the requirements of the RMS Traffic Control at Work Sites manual version 6 and AS1742.3-2019 Manual of uniform traffic control devices Traffic control for works on roads.

NSW Transport Roads & Maritime Services

Prepare a Work Zone Traffic Management Plan Card No. 0052093919

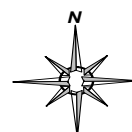
This qualification enables you to prepare Traffic Management Plans and conduct inspections on Traffic Management Plans

DEAN WOODWARD

Expiry Date: 01/08/2022



This card is not a proof of identity



**NOT TO SCALE**

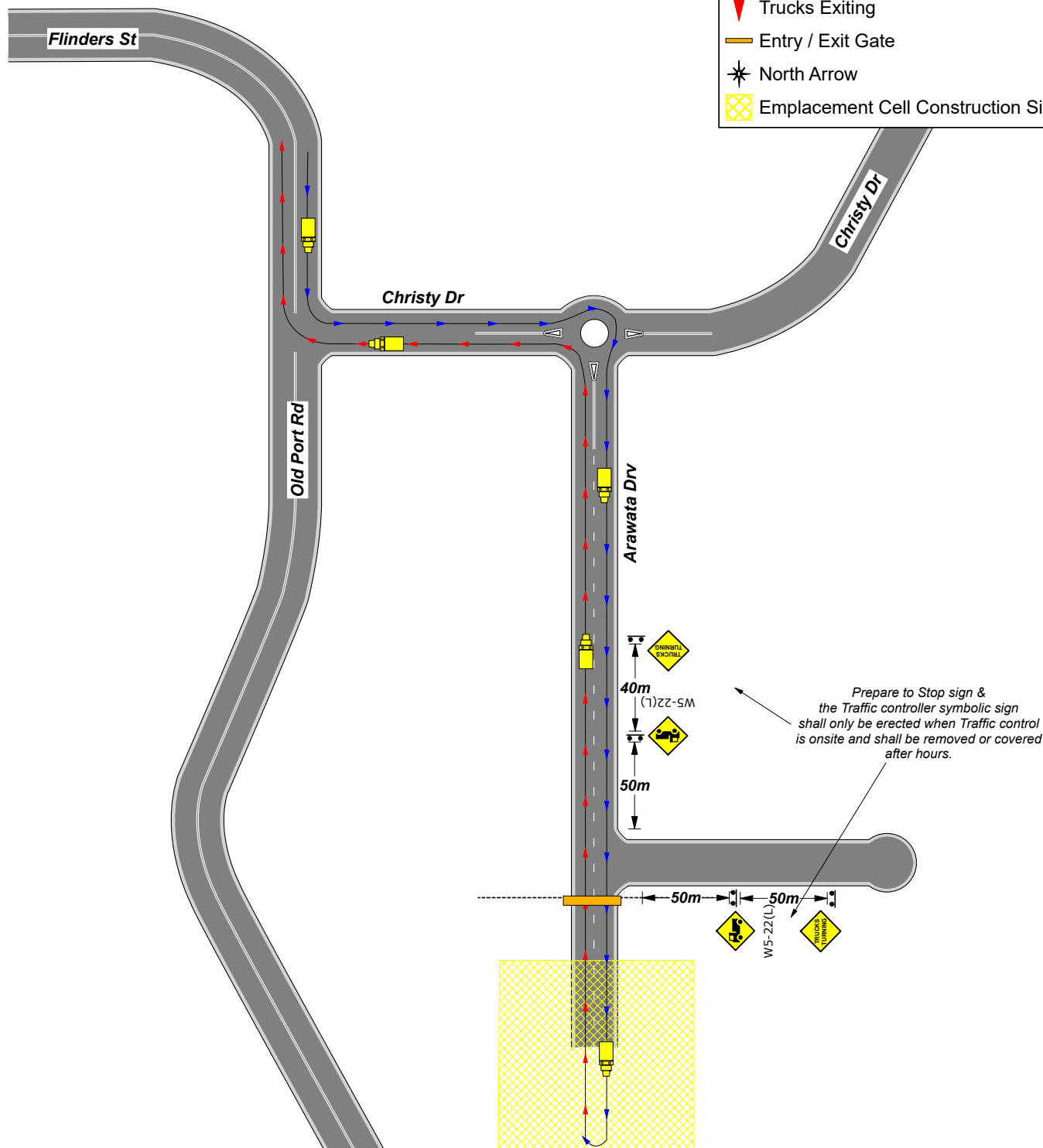
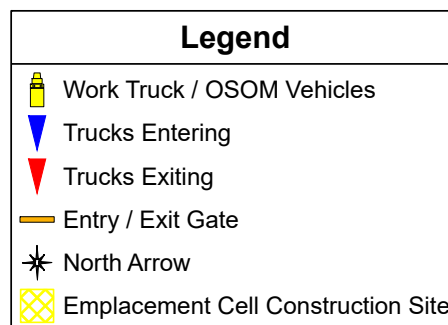
Direct Traffic Pty Ltd accepts no liability for the implementation or execution of this TGS unless implemented by authorized Direct Traffic Pty Ltd personnel. This TGS maintains the property of Direct Traffic Pty Ltd and is not transferable unless express permission is granted by management from Direct Traffic Pty Ltd.

## DIRECT > TRAFFIC



TGS Number: DWRE29421

**Figure 4 - Vehicle Movements to Emplacement cell construction site.**



*Prepare to Stop sign & the Traffic controller symbolic sign shall only be erected when Traffic control is onsite and shall be removed or covered after hours.*

Expiry Date:.....

The author has drawn this TGS based on the information provided by the client. Prior to the implementation of TGS a Safe Work Method Statement must be prepared in consultation with the personnel carrying out the work. Person(s) implementing this TGS must hold current Implement Traffic Control Plans - RI/WH302D training. Modifications to this TGS must comply with the requirements of the RMS Traffic Control at Work Sites manual version 6 and AS1742.3-2019 Manual of uniform traffic control devices Traffic control for works on roads.

Doubt



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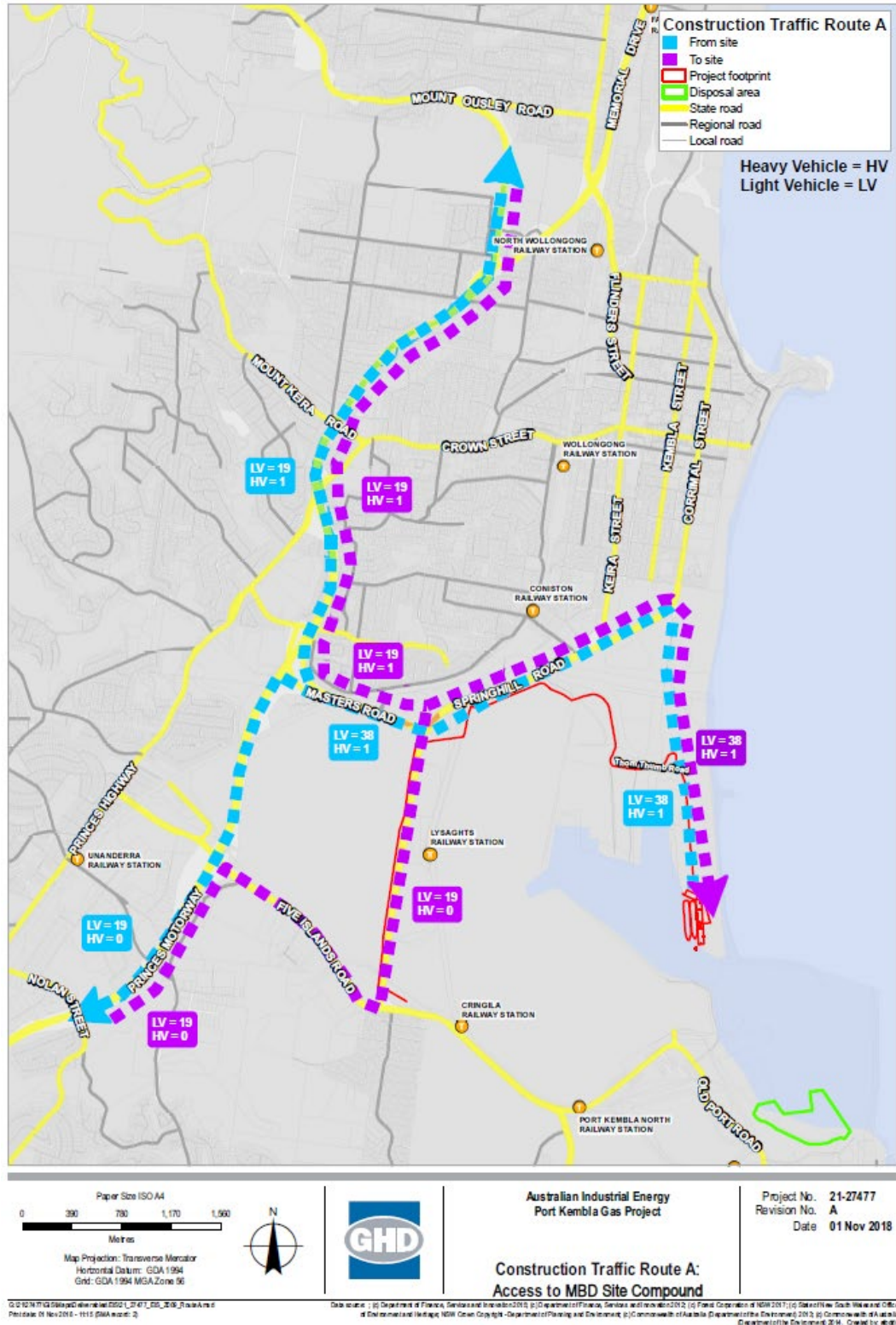
# **Appendix C**

## **Truck driver induction**

## 1 Attention Drivers

All drivers onsite must comply with the following conditions and sign on to the following that they will abide by these conditions during the Stage 2A and Stage 2B works for the Project.

Transportation routes are shown in Figure 1 and Figure 2.



**Figure 1: MBD Site Compound site access**

## TRUCK DRIVER INDUCTION

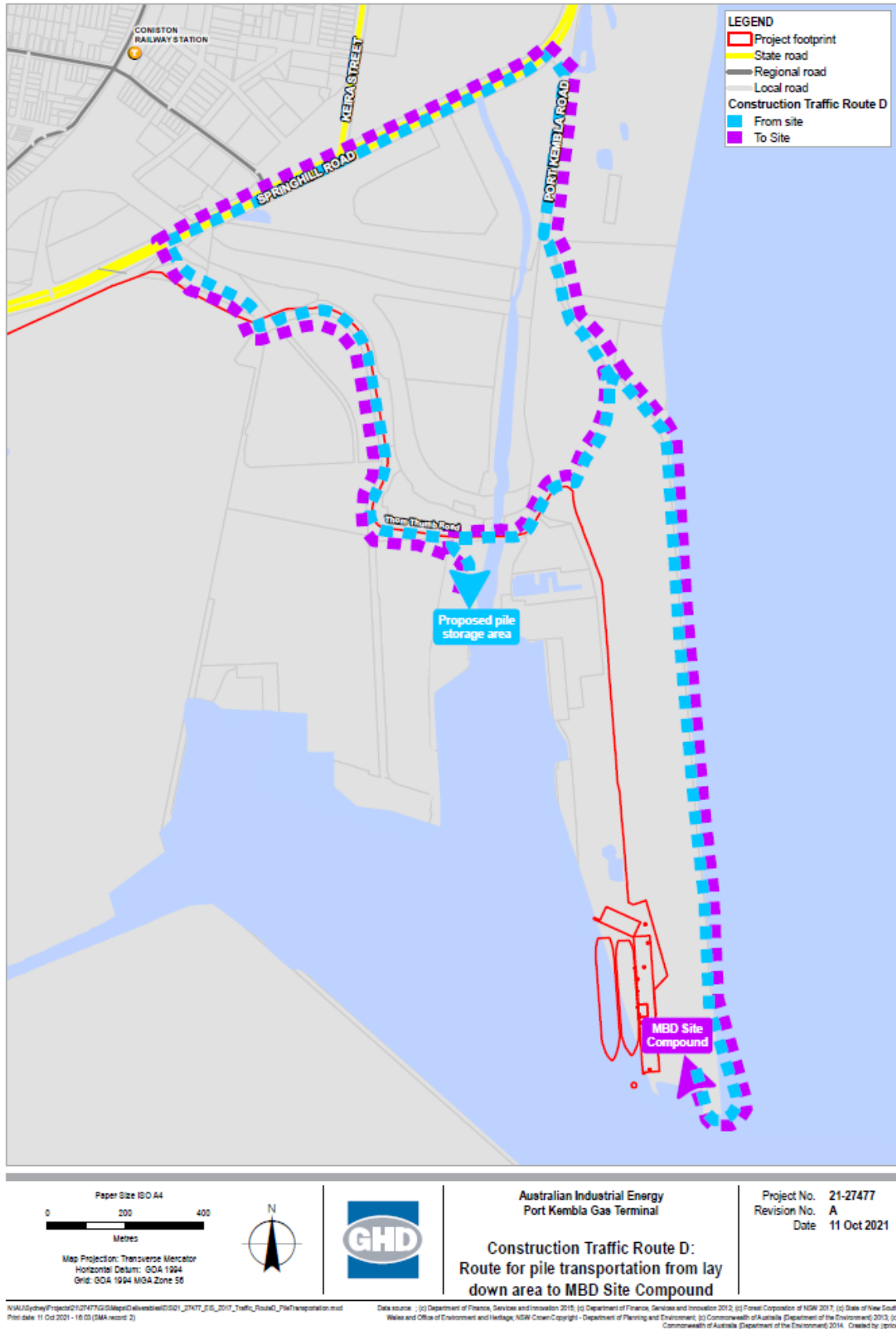


Figure 2: Pile transportation route from MBD Site Compound to storage area

## 2 Drivers Code of Conduct

For the safe construction of the Port Kembla Gas Terminal (PKGT), this Driver Code of Conduct applies to all PKGT users and full compliance is required. Users are those individuals operating a vehicle accessing the PKGT including all Principal Contractor employees or subcontractors, any person conducting business within the PKGT, visitors or on any project associated with the PKGT, whether a direct employee of a site operator / tenant or employed by some other organisation providing a service or product to a PKGT site operator / tenant. Failure to comply with the Drivers Code of Conduct may result in refusal of access to the PKGT.

### 2.1 General Requirements

All drivers must:

- a) Hold a current and valid driver's licence for the class of vehicle that they operate.
- b) Operate a registered and roadworthy vehicle in accordance with the relevant vehicle standards regulations and laws.
- c) Operate on the road system in a safe and professional manner, with consideration for all road users and weather conditions.
- d) Comply with NSW road traffic regulations within the PKGT; adhere to all parking and traffic controls (including load limits) on the public and internal roads. Be aware that the PKGT internal roads are subject to NSW road rules and therefore the normal fine and penalties apply to breaches of the road rules.
- e) Comply with any directions made by authorised officers of NSW Ports, Traffic Control Officers, Transport for NSW, NSW Police or other authorised parties.
- f) Be mindful of pedestrians and cyclists accessing the internal road areas and marked road crossings.
- g) Not obstruct access to any public roads, internal roads, or pedestrian corridors.
- h) No verbal communication with the public or media, refer them to the community hotline (see contacts Section 4).
- i) Maintain a minimum of 3 metres clearance between truck and any excavation edges if possible and safe to do so.

### 2.2 Heavy Vehicles

All heavy vehicle drivers must:

- a) Be maintained in compliance to the appropriate Australian Vehicle Standards and Design Rules (AVSRs and ADRs).
- b) Undertake an education / induction program for heavy vehicle truck drivers prior to first accessing the PKGT site. This induction includes all relevant site rules and requirements and site specific operational TMPs; approved heavy vehicle routes to and from the PKGT; and local conditions including speed limits, other traffic controls, pedestrian routes within the

## TRUCK DRIVER INDUCTION

site, safety, operation procedure etc.

- c) Report to gate security prior to entry and upon exiting
- d) Ensure the safety of their transport activities in relation to the National Heavy Vehicle Chain of Responsibility (CoR) laws. Drivers have a duty and must take positive steps to prevent a breach of the road transport mass, dimension, loading and work hours laws.
- e) Understand and follow the heavy vehicle routes that are to be used to and from the PKGT as presented in Section 3.
- f) Carry a working UHF and call up traffic control on (UHF TBC) where sign posted. NOTE multiple channels used within the PKGT project. All loads secured soil and sediment loads covered and wheels free of dirt.
- g) REMAIN AWARE OF OVERHEAD POWERLINES OVER SITE ENTRANCE.
- h) When closing tailgates or working around pinch points keep both hands on the tail gate and ensure all limbs and other personnel are well clear prior to closing.
- i) Creep tipping must be carried out under supervision.
- j) Any hazards must be reported to the Construction Foreman.
- k) Site hours:
  - a. Monday to Friday 700hrs to 1800hrs
  - b. Saturday 800hrs to 1300hrs
- l) Ensure working hours and full period of breaks are adhered too.
- m) Ensure basic fatigue management rules are complied with.
- n) No shifts longer than 14 hours.
- o) Ensure log books diaries are up to date
- p) Any operators on medication that can affect your attention or work skills must be declared.

### 2.3 Vehicle Speed

All drivers must:

- a) Adhere to site speed limits on the public and internal roads, including temporary speed signage during roadworks or construction zones. The *PKGT* is subject to NSW road rules and fines apply. Vehicles in breach of site speed limits may be denied access to the site.
- b) 25km/h limit within all PKGT sites.
- c) Where road or weather conditions are poor (i.e.: rain or heavy traffic) maintain an appropriate speed for the conditions and vehicle load.

## TRUCK DRIVER INDUCTION

- d) All vehicles operating out of the PKGT are to observe the posted public road speed limits, with speed adjusted appropriately to suit the road environment and prevailing weather conditions.

### **2.4 Heavy Vehicle Noise**

To reduce the impact of vehicle noise, in particular during nonstandard business hours, drivers should:

- a) Reduce vehicle speed to reduce instances and severity of compression breaking.
- b) No excessive or unnecessary use of horns, in particular during nonstandard working hours.
- c) Minimise reversing when possible.

### **2.5 Breakdowns and Incidents**

To ensure that traffic impacts are minimised in the event of a breakdown or incident, drivers must contact the Project Manager as soon as the vehicle is safely secured (refer to Section 4).

As the operator of a vehicle within the PKGT you are subject to the environmental regulations and the Construction Environmental Management Plan.

If there is a product spill the driver must:

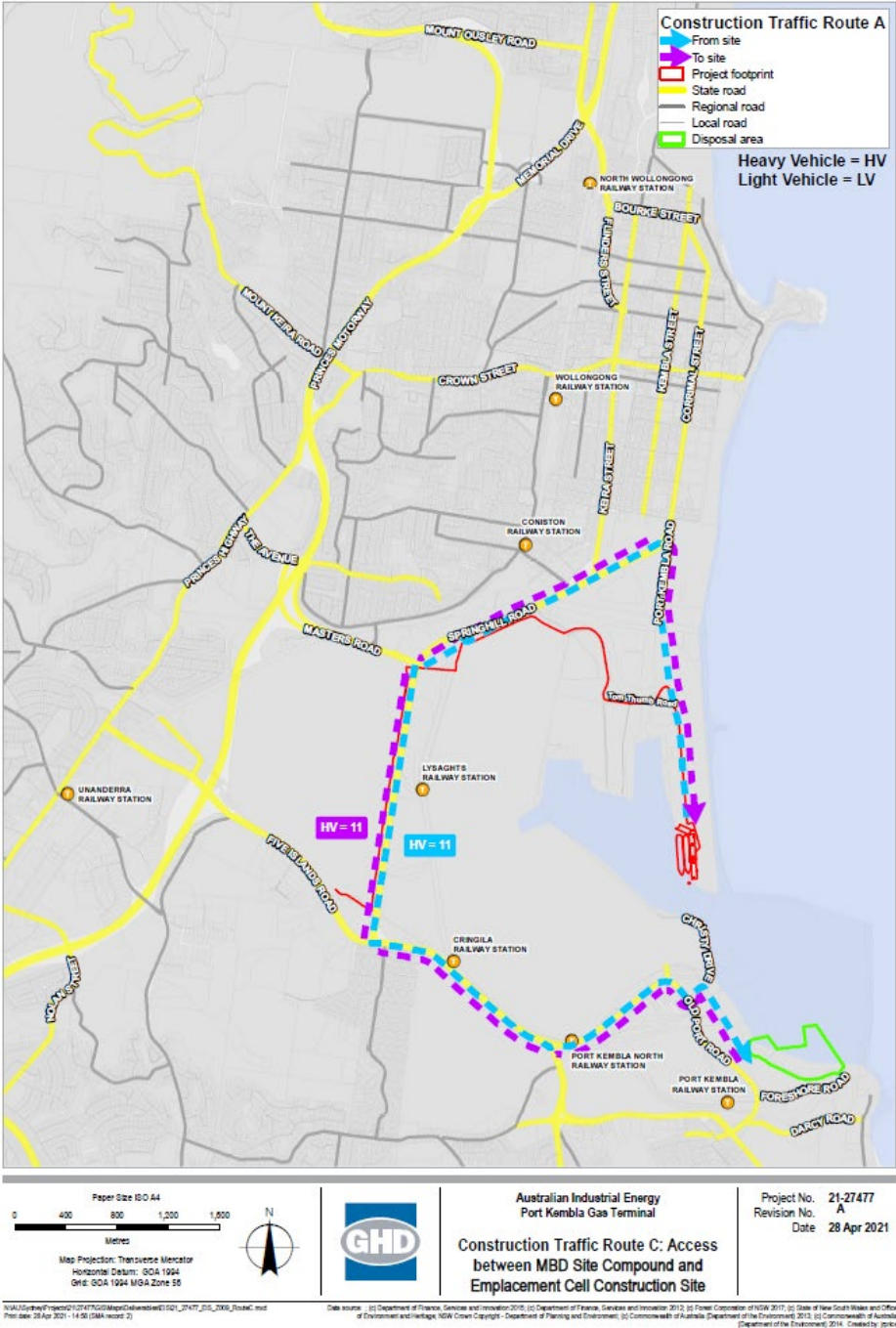
- a) Immediately warn persons in the area who may be at risk.
- b) Inform their project manager/site manager/security immediately so that emergency services can be contacted and a clean-up initiated.
- c) All spills must be adequately cleaned up and waste disposed of in an acceptable manner.
- d) Put out warning triangles where it is safe to do so.
- e) All bins completely down.

Contact the NSW Police Service or appropriate emergency services (refer to Section 4).



3 Site Access – MBD Site Compound and Emplacement Cell Site

Site access for the MBD Site Compound is provided in Figure 3. Site access for the Emplacement Cell site is provided in Figure 4. Site access to the pile storage area is provided in Figure 5 and Figure 6.



**Figure 4 - Vehicle Movements to  
Emplacement cell construction site.**

**Legend**

- Work Truck / OSOM Vehicles
- Trucks Entering
- Trucks Exiting
- Entry / Exit Gate
- North Arrow
- Emplacement Cell Construction Site

**Effective Date:** 3/12/21  
**Version:** 5  
**Client:** Rare-Enviro  
**Location:** Arawata Dr Port Kembla  
**Activity:** Vehicle Movement Plan  
**TGS Number:** DWRE29421

**Flinders St**  
**Christy Dr**  
**Old Port Rd**  
**Arawata Dr**

**Signage and Distances:**  
 - 40m distance from Christy Dr intersection to work zone.  
 - 50m distance from Old Port Rd intersection to work zone.  
 - 50m distance from work zone to Christy Dr intersection.  
 - 50m distance from work zone to Old Port Rd intersection.  
 - Signs: W5-22(L), W5-22(R), W5-22(L), W5-22(R), W5-22(L), W5-22(R).

**Notes:**  
 Prepare to Stop sign & the Traffic controller symbolic sign shall only be erected when Traffic control is on-site and shall be removed or covered after hours.

**NOT TO SCALE**

**Direct Traffic Pty Ltd**  
 Date: 29/4/21 Author: Dean Woodward Project: Rare Enviro  
 Qualification: Prepare a Work Zone TMP - RUCWD503D Ticket No: 0052093919 Expiry Date: 01/08/2022  
 Comments:  
 The author has drawn this TGS based on the information provided by the client. Prior to the implementation of TGS a Safe Work Method Statement must be prepared in consultation with the personnel carrying out the work. Person(s) implementing this TGS must hold current implement Traffic Control Plans - RUCWD503D training. Modifications to this TGS must comply with the requirements of the RMS Traffic Control at Work Sites manual version 6 and AS1742.3-2019 Manual of uniform traffic control devices Traffic control for works on roads.  
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**Figure 4: Emplacement Cell Construction Site— Access via Arawata Drive**

TRUCK DRIVER INDUCTION

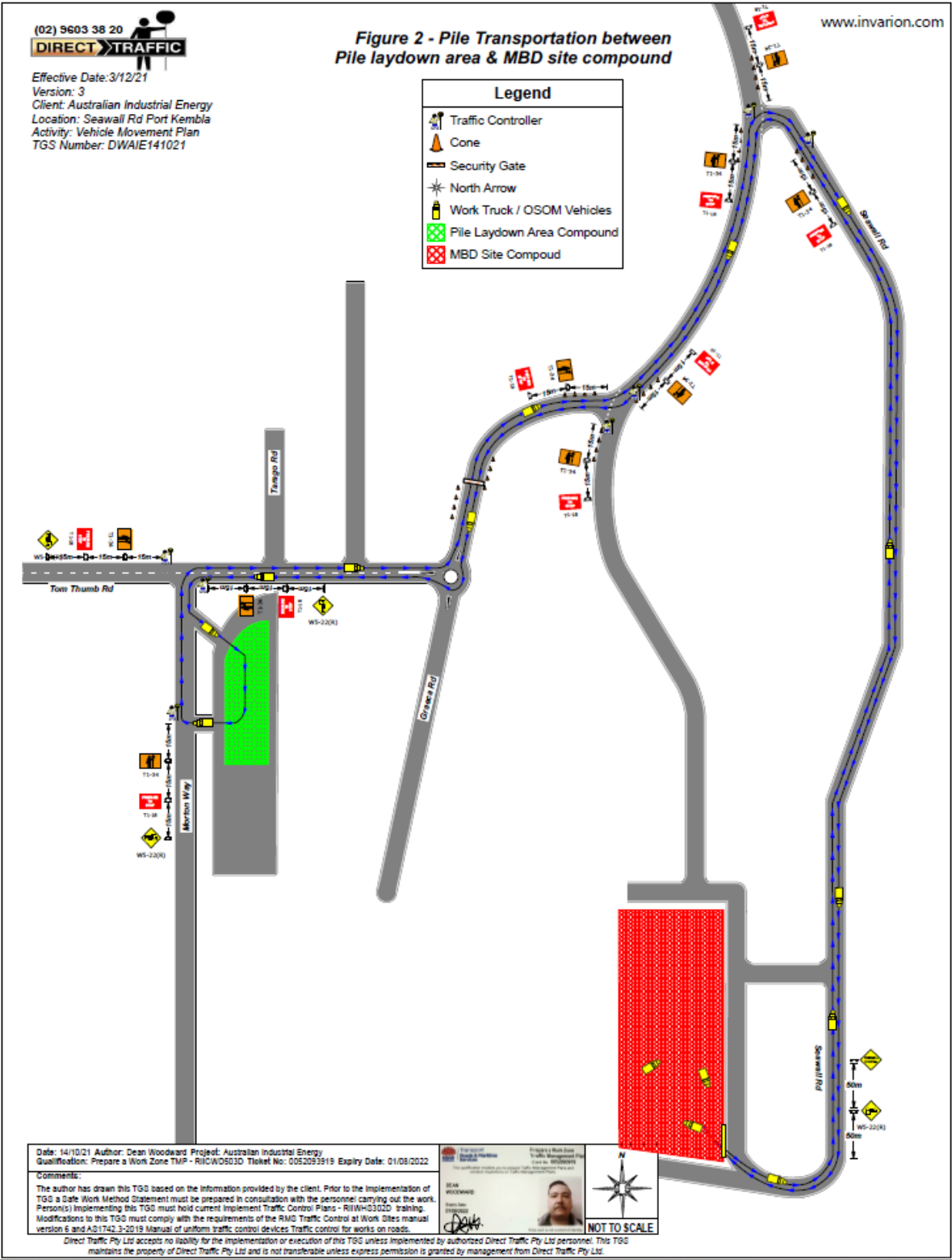


Figure 5: Pile storage area from Emplacement Cell Construction Site

TRUCK DRIVER INDUCTION

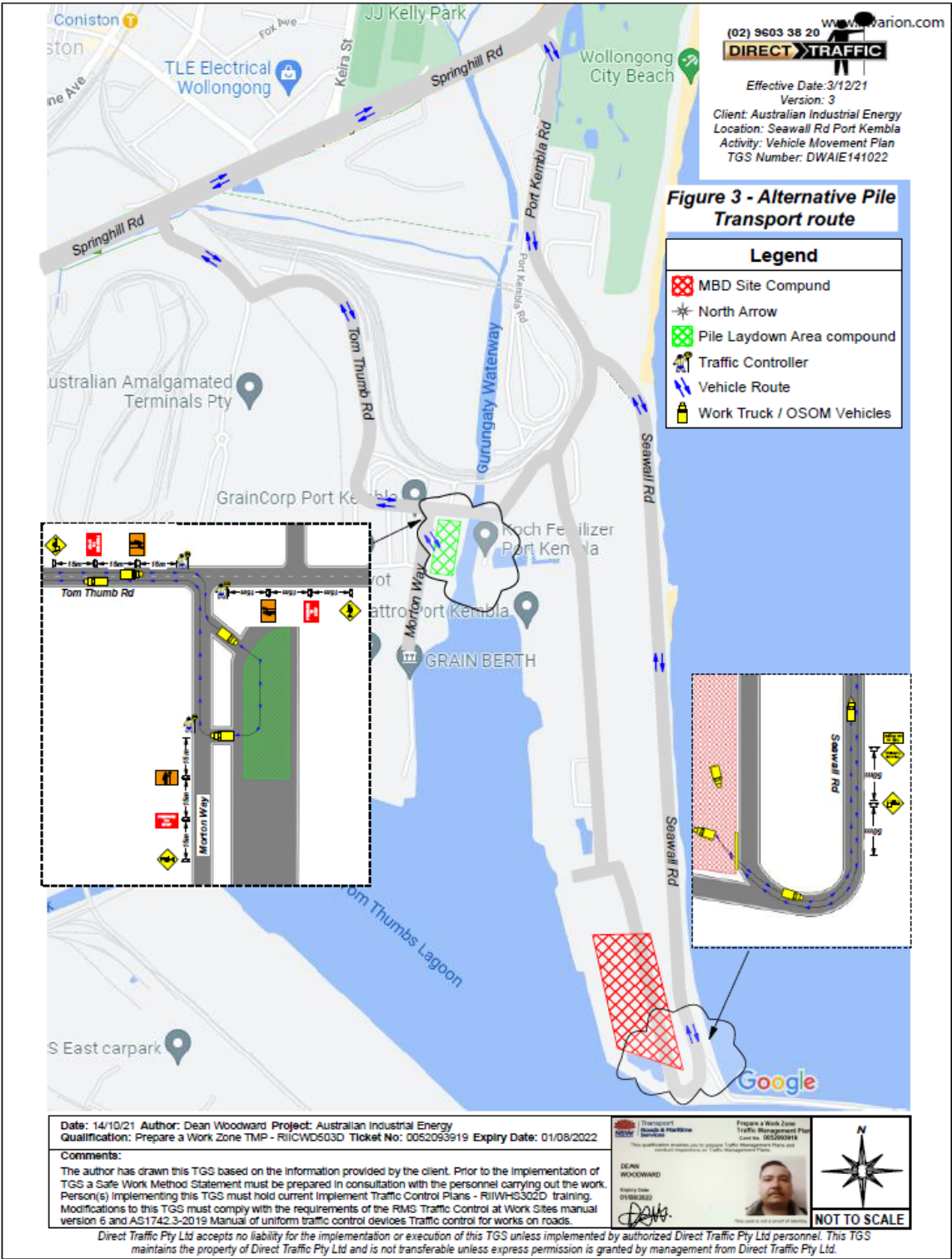


Figure 6: Emplacement Cell Construction Site and Pile Storage access

#### 4 Contacts

Company	Position	Contact	Phone
AIE	Community Hotline	Alex Lovell (HSE Manager)	1800 789 177
Principal Contractor (MConnell Dowell) (24 Hrs)	Project Manager		
Principal Contractor (Heron) (24 Hrs)	Project Manager		
Port NSW	TBA	Bryan Beudeker (Environment Manager)	02 9316 1190 / 0408 015 185
	Port Kembla Police	-	(02) 4276 5199
	NSW EPA	-	131 555

## TRUCK DRIVER INDUCTION

## 5 Truck Driver Sign-on

[illegible]



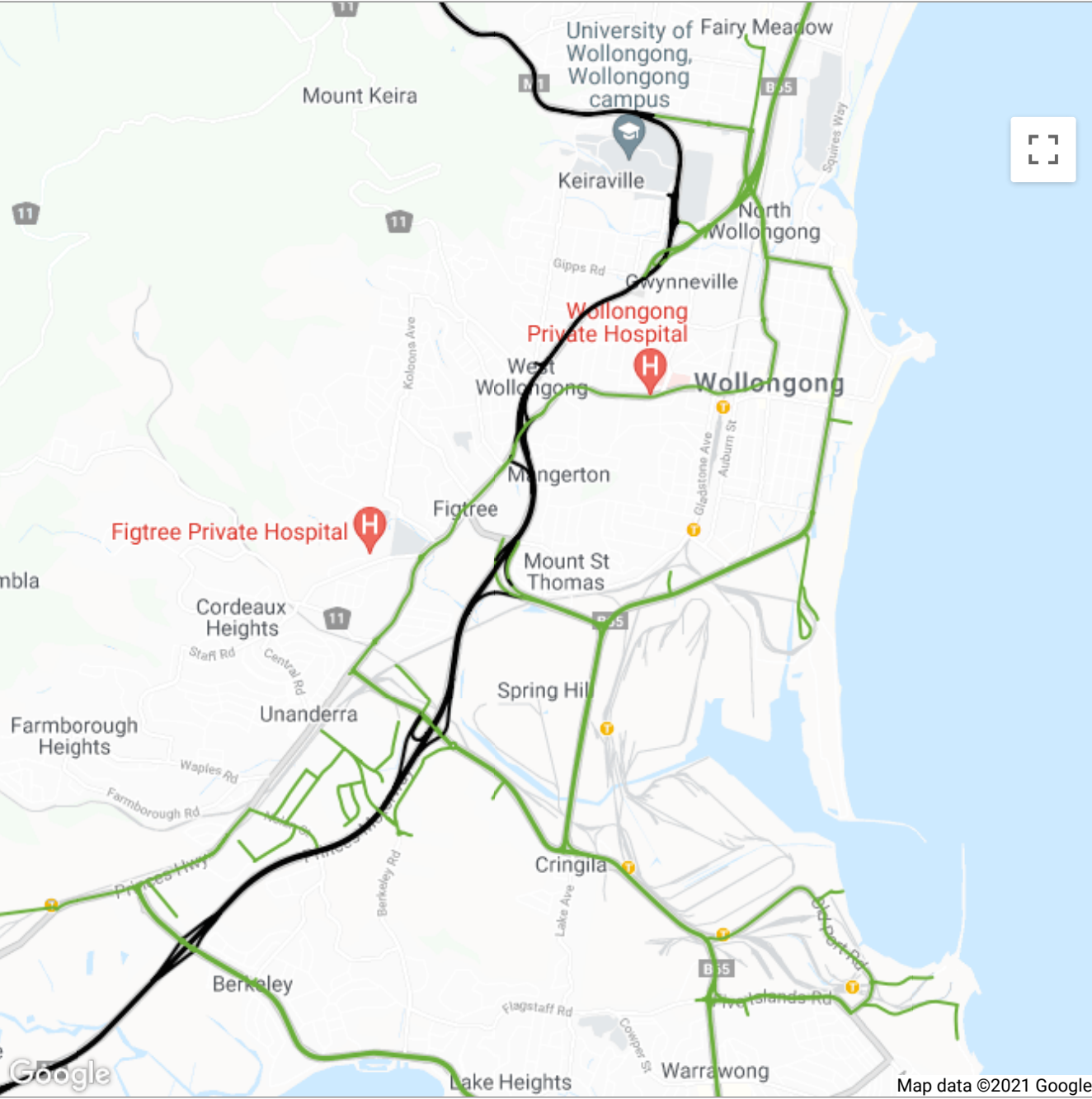
# **Appendix D**

## **Oversized vehicle routes**

# NSW Oversize Overmass Load Carrying Vehicles Network Map



Map last updated: 05/11/2021



**Legend**  
**OSOM Network**  

NSW Oversize Overmass Load Carrying Vehicles Network Approved Roads

Exception Routes (not approved)

Limited Access Locations

Limited Access Zones

Restricted Structures with Conditional Access - Railway Level Crossings

Restricted Structures - Bridges

Restricted Structures - Railway Level Crossings

**Network Disclaimer**  
The NSW Oversize Overmass Load Carrying Vehicles Network map displays the legally enforceable network for eligible vehicles operating under the Multi-State Class 1 Load Carrying Vehicles Mass Exemption Notice and the Multi-State Class 1 Load Carrying Vehicles Dimension Exemption Notice.



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