B4A Expansion Project

Construction Traffic Management Plan

Greenfield

Document Number: 233771-HS-PL-00004					
Rev	**Date**	**Description**	**Prepared**	**Checked**	**Approved**
2.2	22/1/20	Issue for Use	Mark Millevoy Construction Manager	P.P. Jamil Kharoudeh SHEQ Manager	Alan Chambers Head of Projects & Engineering
Changes to be Approved By		Construction Manager, Greenfield			

Version Control	**Date**	**Version**	**Nature of Change**	**Approved By (Name)**
IFR	22/1/20	2.1b	Updated to include NSW Ports Commetns	Mark Millevoy
IFU	20/12/19	2	Issue for Use	Alan Chambers
IFR	20/12/19	1c	NSW Ports Comments	Mark Millevoy
IFR	12/12/19	1b	NSW Ports Comments	Mark Millevoy
IFR	6/12/19	1a	Randwick City Council Comments	Mark Millevoy
Approved	19/11/19	1	Issue for Information	CB&I

Reliance Notice

This document is intended for the Vopak B4A Expansion Project for use by employees of Vopak. Reliance by any other party on the contents of the document shall be at its own risk.

Vopak makes no warranty or representation, expressed or implied, to any other party with respect to the accuracy, completeness, or usefulness of the information contained in this document and assumes no liabilities with respect to any other party's use of or damages resulting from such use of any information, conclusions or recommendations disclosed in this document.

TABLE OF CONTENTS

1 Requirements

This Construction Traffic Management Plan applies to the works for the Vopak Port Botany (B4A) Expansion Project. This includes traffic management details for works inside the designated Project boundary, access to and from the Project site via public roadways and roadways owned by NSW Ports Authority for construction and public vehicles.

Associated works on Friendship Road shall be addressed in a specific Traffic Management Plan for these works and approved one month prior to these works commencing.

This plan applies to:

- All project personnel, this comprises all contract employees, subcontractors, both temporary and permanent, vendors, suppliers and all categories of visitor.
- the Designated Work Areas (DWA) such as all on-site facilities, material lay-down areas, site offices used by the Principal Contractor and their subcontractors.

1.1 Description of Works

The Vopak Port Botany B4A Expansion Project specifically refers to the following construction scopes of work:

The Mechanical Tanks scope of work includes:

- Design of three (3) x 35,000m³ (working volume) steel storage tanks
- Inspection, testing, pre-commissioning and commissioning of tanks (including hydro test)

The structural, mechanical and piping scope of work includes:

- Detailed design for the procurement, fabrication and construction of all structural, mechanical and piping components inclusive of
- Transfer lines
- Valve manifold
- Tank Inlet / Outlet piping
- Tank recirculation piping and pump station piping
- Stormwater, oily water system for wastewater sumps to the separator and interceptor pit
- Compressed air reticulation and utility connections
- Potable water supply and distribution including safety showers
- Firewater piping
- Painting and insulation
- Inspection, testing and commissioning of all piping

The Civil Scope of work includes:

- Mobilisation of site offices
- Site preparation (clearing, grubbing, ground improvements)
- Tank foundations
- Concrete bund walls, sumps and lining
- Roads and pavements, including kerbs and car parks
- Stormwater and drainage
- Potable water installation
- Structural and equipment slabs, plinths, foundations and grouting
- The demobilisation of site offices

The electrical and instrumentation scope includes:

- Detailed design of all electrical, instrumentation and automation systems
- Procurement, fabrication and installation

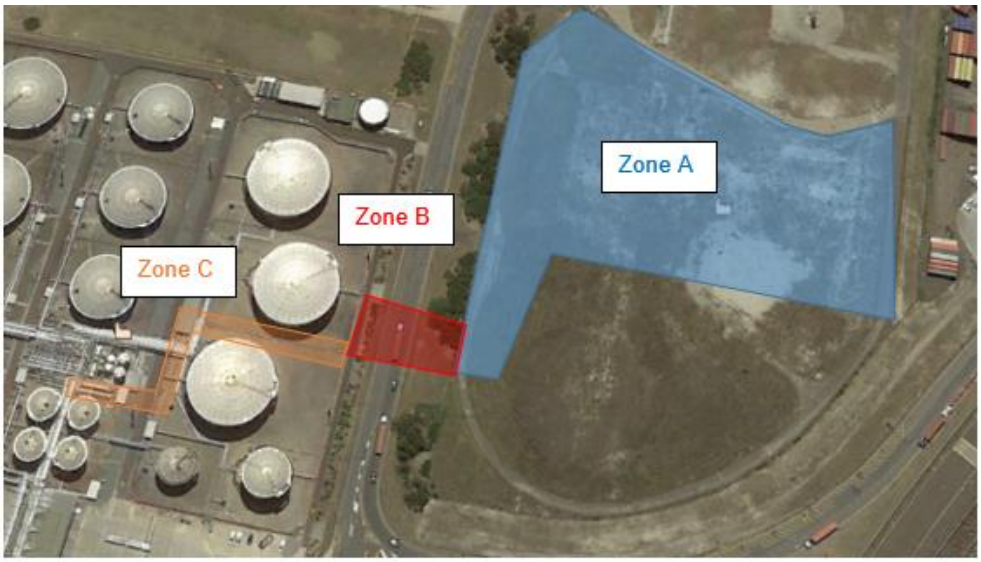


Figure 1: Zone A / Zone B / Zone C Project Area

Zone 'A' and Zone 'B' is a segregated work area and will be controlled by the Principal Contractor on behalf of Vopak Terminals Australia under the NSW Work Health and Safety (WHS) Regulation 2011 and shall meet all the requirements under the WHS Regulation. This shall include the full implementation of the Principal Contractor's HSE Management System.

1.2 Plan Intent

This Plan intends to meet the requirements detailed within the *State Significant Development (SSD) 7000* Development Consent for Vopak Terminals (Sydney) Pty Ltd, Section B18 Construction Traffic Management Plan.

This Plan aims to address the following requirements contained within the above-referenced Development of Consent:

- Details the measures that would be implemented to ensure road safety, network efficiency and access during construction;
- Include the Drivers Code of Conduct to:
- Minimise the impacts of construction on the local and regional road network;
- Minimise conflicts with other road users;
- Details construction vehicle routes, number of trucks, access and parking arrangements; and
- Details the procedures for notifying nearby residents of any potential disruptions to selected project routes.

1.3 Objectives

The Principal Contractor and their subcontractors shall ensure the contents of this plan are strictly implemented and adhered to as to ensure the safety of all project personnel, non-project road users inclusive of neighbours, the public, nearby residents, and that any delays and disruptions are kept to a minimum.

The main objectives of the Project Traffic Management Strategy are to:

- Ensure that the road capacity is sufficient to accommodate construction vehicle traffic volumes and that disruptions are minimised;
- Ensure that appropriate warning and information signs are installed;
- Advance warning of a change in traffic conditions in time for users to adjust;
- Information and guidance on how to safely negotiate the work site; that is, delineation of the travel path, its separation from the worksite and any necessary barricades for road users, motorists, pedestrians, cyclists, public transport passengers and people with disabilities;
- Details related to the movements and choice of construction vehicles; and
- Plan for work activities to be undertaken sequentially to reduce the adverse impacts of the work

2 Existing Conditions

The site is located within the Port Botany precinct, approximately 12km south of Sydney CBD, as shown in Figure 2. As the project site is located within Port Botany (see Figure 3), the area surrounding the proposed facility is entirely port-related activities that include industrial users and commercial areas. The nearest residential area is located at Philip Bay, with the closest residential property being approximately 2km from the site.

Figure 2: Port Botany Project Location

2.1 Surrounding Road Network

The surrounding road network is shown in Figure 3.

Botany Road (GREEN LINE)

Botany Road, between Foreshore Road and Bunnerong Road, is a six-lane, divided road with additional turning lanes at the signalised intersection with Bumborah Point Road. It distributes port traffic to the east to Bunnerong Road and west to Foreshore Road. It has a posted **70km/h speed limit**.

Foreshore Road (PURPLE LINE)

Foreshore Road is a four-lane, divided road with limited access points. Foreshore Road provides arterial road access to Vopak Site B4, and the general Port Botany precinct, from General Holmes Drive. It has a posted **70km/h speed limit**, east of the Botany Road / Penrhyn Road intersection, and an **80 km/h speed limit**, west of the same intersection.

The B4A Project Heavy Haulage vehicles shall utilise Foreshore Road and Botany Road, West of Bumborah Point Road to access the Port Botany area and Project Site. This will minimise construction traffic through residential areas on the east end of Botany Road via Bunnerong Road.

No Heavy Haulage construction vehicles are to access the project site from East of Bumborah Point Road (i.e. Botany Road east of Bumborah Point Road, Bunnerong Road, and Military Road).

Bumborah Point Road (BLUE LINE)

Bumborah Point Road is a two-lane, divided road, with turning slots provided at local intersections. It has wide carriageways to allow for heavy vehicles movements and turning manoeuvres. It has a posted **60km/h speed limit**.

Simblist Road (ORANGE LINE)

Simblist Road is a one-way one-lane road with marshalling lanes accessible from Bumborah Point Road. It provides access into the Vopak Project site via an Emergency/Temporary access gate located at the South of the Vopak B4A site. It has a posted **60km/h speed limit**.

Friendship Road (YELLOW LINE)

Friendship Road continues from the intersection of Simblist Road, providing local access to the Port Botany precinct. The primary site construction access shall be via the main project site entrance on Friendship Road. It has a posted **60km/h speed limit**.

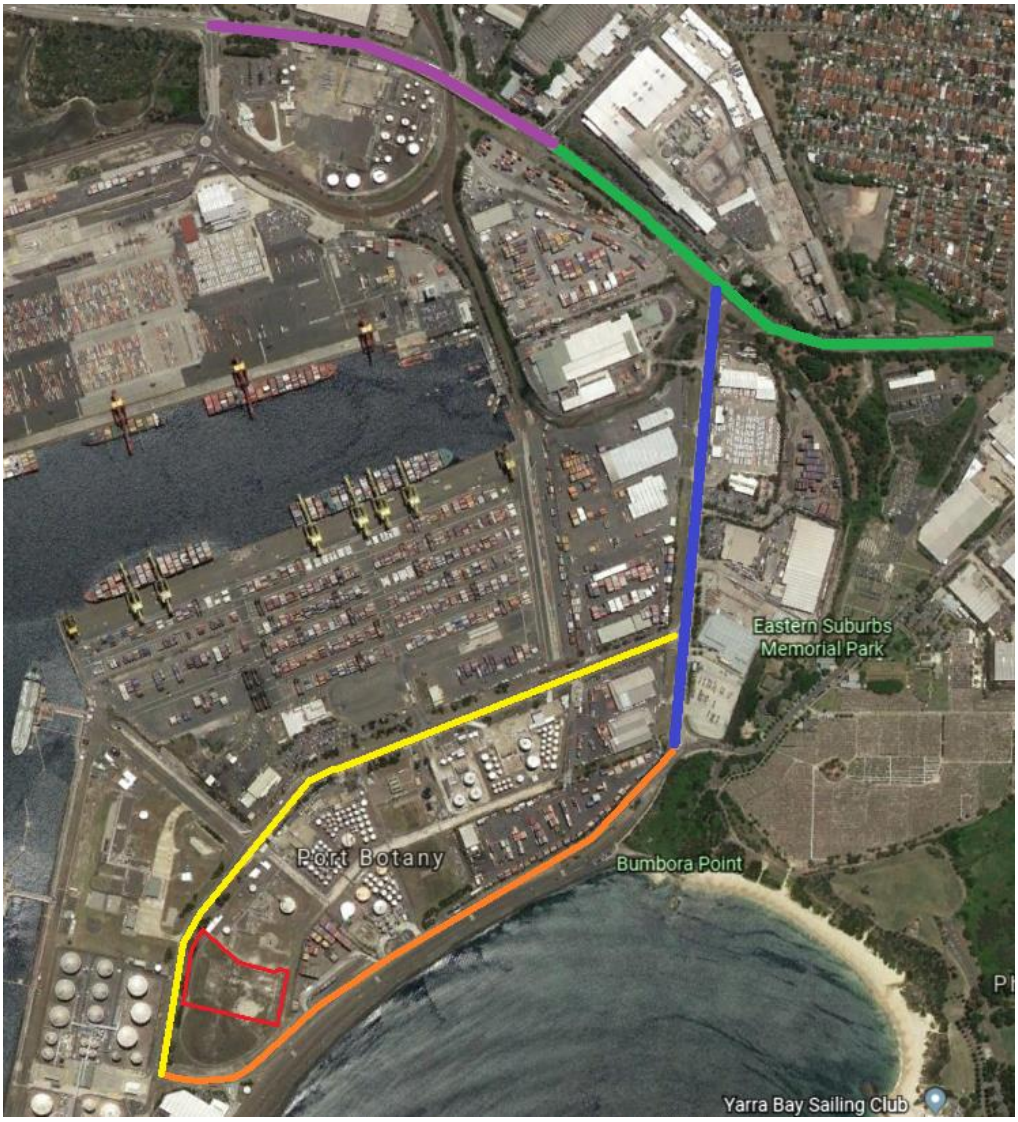


Figure 3: Road Network Surrounding the Vopak B4A project Site

3 References

This plan shall form part of the Principal Contractor's Project HSE Management System. All management and supervisory personnel shall be made aware of its contents and their personal commitment to satisfying the requirements of the plan.

The Construction Traffic Impact Assessment – Vopak Terminal B4 – State Significant Development (8-Oct-2015) completed by AECOM has been used to assist in the development of this Plan for CB&I to support the determination of control measures as necessary for construction purposes.

Port Botany Freight Study Revision 2 completed by Aurecon has been used to gauge average traffic conditions to be expected during construction.

3.1 Applicable Sub-plans

Plan, Policy, Procedure Name	*CB&I Document Number*
Health & Safety Management Plan	233771-HS-PL-00001
Construction Environmental Management Plan	233771-HS-PL-00002
Emergency Preparedness Plan	233771-HS-PL-00003
Fitness for Work and Fatigue Management	DF-HSE-STD-017
Management of Alcohol and Other Drugs	DF-HSE-STD-020

3.2 Acronyms and Definitions

Term	*Definition*
ALARP	As Low as is Reasonably Practicable
Company	Vopak Terminals Sydney Pty Ltd
Competent person	A person by reason of qualifications, training and/or experience has the skills necessary to perform a particular task.
Principal Contractor	Delegated Contractor selected by Vopak to execute the works.
SME	Surface Mobile Equipment (Mobile cranes, excavators, Semi-trailers, Low Loaders)
Subcontractor	Any approved Subcontractor engaged by the Principal Contractor to complete works under the contract
SWMS	Safe Work Method Statement
B4A	Project/Site Name – B4A Expansion Project
LV	Light Vehicle
CTIA	Construction Traffic Impact Assessment – Vopak B4 (Oct-15)
DPW	DP World Logistics – Shipping Container Logistics
ACFS	Australian Container Freight Services Pty Ltd
NSW Ports	Management of Port Botany under a 99-year lease from the NSW government
TCF	Temporary Construction Facilities

3.3 Legislation

The following is a list of Australian legislation which applies to the traffic and journey management of this project.

Legislation Name
Work Health and Safety Act of 2011
Work Health and Safety Regulation 2017
Road Transport Act of 2013

3.4 Australian Standards

Reference	*Australian Standard Name*
AS 1742-2009	Manual of Uniform Traffic Control

4 Accountabilities

Reference: 233771-HS-PL-00001, Construction Safety and Health Management Plan
233771-HS-PL-00002, Construction Environmental Management Plan

The Principal Contractor and their subcontractors engaged in executing the B4A Project scope have responsibilities for operating, working with or around light vehicles, mobile plant and equipment. These people, including Vopak employees, must work within the framework of this Plan whilst engaged on the Project.

4.1 Project Contacts

Company:	Address:	Description:	Contact Name:	Contact Details:
Dialog (Principal Contractor)	B4A Project Site	Project Engineer	Andrew Taylor	M: 0410742 268
	B4A Project Site	Project Manager	Alan Pulsen	M: 04 0901 3387
Vopak	B4A Project Site	Construction Manager	Mark Millevoy	M: 0404 483 989
	Site 'B', Gate 47, 20 Friendship Road, Port Botany	SHE Manager	Jamil Kharoudeh	M: 0455 212 438
		Head of Project and Engineering	Alan Chambers	M: 0417 896 479

4.2 External Contacts:

Company:	Address:	Description:	Contact Details:
Emergency Fire/ Ambulance/Police	N/A	Emergency Services.	Tel: 000 Mob Tel: 112
NSW Ports	Brotherson House Level 2 Gate B103, Penrhyn Rd, Port Botany NSW 2036	NSW Ports Operator Tel: 1300 922 524	**Wayne Ashton,** Port Operations Manager M: 0417 217 274 **Carsten Varming,** Port Development Manager M: 0411 067 560
BSMS Security	7/31 Chaplin Dr, Lane Cove West NSW 2066	NSW Ports Security	Tel: 1300 889 059 M: 0434 424 642
General Hospital: Prince Of Wales Hospital	320-346 Barker St, Randwick NSW 2031	Local Public Hospital for Emergency Treatment (24hr)	Tel: (02) 9382 2222
Fire and Rescue Botany Fire Station	3 Banksia Street, Botany, 2019	Local Fire Authority	Tel: (02) 9666 5440
Police	136 Maroubra Rd, Maroubra NSW 2035	Local Police Station	Tel: 131 444 (General enquires) Tel: (02) 9349 9299 (Maroubra Stn.)
SafeWork NSW	92-100 Donnison St Gosford, 2250	Health and Safety Regulator	Toll-free: 13 10 50
Environmental Protection Authority	L14, 59-61 Goulburn St, Sydney	Environmental Regulator.	Tel: 13 15 55
Sydney Water	1 Smith Street, Parramatta NSW 2150	Emergency services and repairs	Tel: 13 20 90
Ausgrid	130 Joynton Ave, Zetland NSW 2017	Electrical Utility Operator	Tel: 13 13 65 (02) 4951 0899

Specific traffic and journey management responsibilities are summarised below:

4.3 Project Manager (Principal Contractor)

The Project Manager is responsible for implementing this Plan for all works associated with the Principal Contractor's issued scope of work and personnel on the project. These responsibilities include the following:

- Ensure that adequate resources are allocated to ensure that the requirements of this plan are fulfilled;
- Ensure that the Project Team and supervisors actively support and exercise leadership in their respective individual and collective traffic and journey management responsibilities;
- Lead investigations of any project traffic or motor vehicle incidents;
- Assist with and support traffic and journey management reviews of the site; and
- Ensure that all subcontractors at the site are aware of and comply with the requirements of this plan.

4.4 Construction Manager (Vopak)

The Vopak Construction Manager is responsible for auditing and managing the Principal Contractors implementation of this Plan for all works associated with the project. These responsibilities include the following:

- Assist with and support traffic and journey management reviews of the site, and coordination with stakeholders, and seeking relevant approvals;
- Reviewing induction and training documentation to ensure alignment with this plan;
- Review and approve any project traffic or vehicle incident
- Audit the effectiveness of resources are allocated to ensure that the requirements of this plan are fulfilled; and
- Audit the project team and supervisors to ensure they actively support and exercise leadership in their respective individual and collective traffic and journey management responsibilities.

4.5 Project Engineer/Construction Leads (Principal Contractor)

The Project Engineer/Construction Leads are responsible for ensuring that all traffic management requirements are in place and followed per this Plan. Their responsibilities include:

- Ensure that the content of this plan is disseminated to all personnel within the project scope and that it is adhered to;
- Ensure that this Plan and relevant documentation is kept up to date and that all personnel are made aware of any changes; and
- Participate (where required lead) in the investigation of any traffic or motor vehicle incidents occurring in areas under his control.

4.6 Safety, Health and Environment (SHE) Manager / Advisor (Vopak)

The Vopak SHE Manager/Advisor will be directly involved in the implementation and monitoring of the Traffic Management Plan. The main responsibilities of the HSE Manager/Advisor are to:

- Develop and maintain this Plan;
- Oversee, or in his absence delegate responsibility for the delivery of the Site Induction for all site employees which shall include Traffic Management;
- Audit the effectiveness of the plan;
- Ensure the Principal Contractor and its subcontractors comply with their responsibilities within this plan;
- Assist with the implementation of the Project alcohol and substance abuse policy; and
- Co-ordinate the investigation of any motor vehicle incident, supporting line management.

4.7 Employees and Subcontractors

All project employees, subcontractor personnel and visitors have a responsibility on the Project to ensure they behave in a manner to not bring harm to themselves or others. These responsibilities include the following:

- Arriving at the worksite in a fit condition and not under the influence of alcohol or illicit drugs;
- Ensuring they are suitably trained and competent to operate a light vehicle or piece of machinery whether on or off-site;

- Undertake road and Project traffic management duties if they are suitably trained and authorised to do so;
- The correct parking of personal vehicles in the designated project parking area;
- Not use a mobile phone (or similar) while operating (or spotting) a vehicle, mobile plant, or any kind of machinery;
- Participate in inductions and training and subsequent toolbox discussions to stay abreast of traffic movements; and
- Ensuring they identify, report and appropriately manage traffic hazards when they occur.

5 Construction Programme

5.1 Work Hours

The proposed Project hours of works are:
Monday – Friday (inclusive): 7:00am-6:00pm
Saturday: 8:00am-1:00pm.

No works or deliveries will take place outside these hours, on Sundays or on public holidays without prior written consent from NSW Ports and Vopak. The Principal Contractor will endeavour to maintain construction activities within the above time periods. However, it is noted that there may be exceptions to the proposed hours. These occasions include the following circumstances:

- Loads or vehicles are required to be transported under a permit from the Roads and Maritime Services (RMS) or police;
- Certain construction activities which may be planned and would have prior written approval from the Director-General;
- Any works such as security operations which are permitted within the Minister's current Conditions of Consent (those deemed inaudible by closest receivers);
- Deliveries to the site using lengthy vehicles which are restricted during certain hours as provided in the NSW Road Rules (a lengthy vehicle is a vehicle that is longer than 12.5m); and
- Where a direction from the Police or any other relevant authority deems, work must occur for safety and/ or emergency reasons.

In all cases stated above, NSW Ports and Vopak need to be kept informed so that other road users in the port can be notified of any unusual vehicles entering and transiting the port.

5.2 Construction Schedule

The construction of the issued scope of work for the Vopak B4A Project is anticipated to last approximately 18-months. Subject to necessary approvals and issuance of the contract, these works are anticipated to commence in February 2020.

Start date – 1st Quarter 2020
Finish – 3rd Quarter 2021
Peak construction period – 2nd Quarter 2020- 1st Quarter 2021
Anticipated peak workforce number

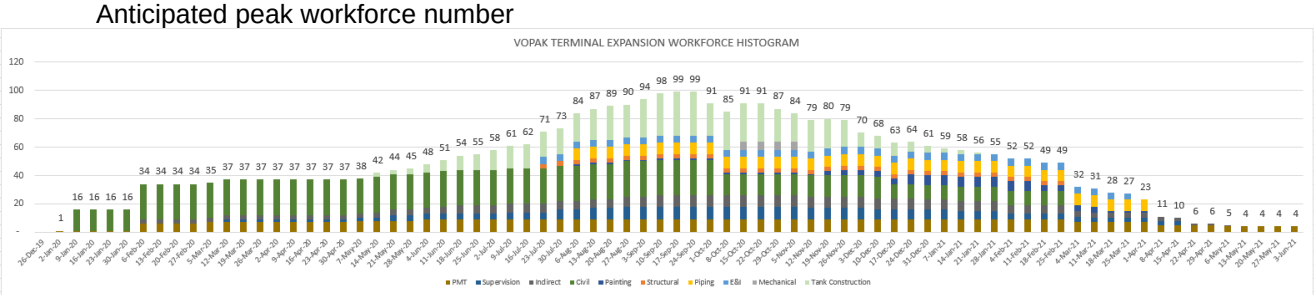


Figure 4: Anticipated Workforce

6 Traffic Impacts from B4A Construction works

A Construction Traffic Impact Assessment was completed for the Vopak Terminal B4 Project in October 2015. This document formed part of the State Significant Development requirements to examine the traffic impacts from the forecast increase in vehicle numbers generated by Port Botany (including the new terminal) during construction and operation of the new terminal.

In addition to the Construction Traffic Impact Assessment, the Port Botany Freight Study completed by Aurecon in 2016 was analysed to determine traffic conditions for Port Operations.

The analysis shows that overall the proposed construction traffic is likely to have a minor impact on the operation of the Botany Road / Bumborah Point Road intersection, the main access intersection from the strategic road network. In both the morning and evening peak hours, the intersection is likely to experience a small increase in average delay – the level of service experienced remains at LoS B.

Level of Service	Average Delay (Secs/Veh)	Traffic Signals, Roundabouts	Give Way and Stop Signs
Los B	15 to 28	Good with acceptable delays and spare capacity	Acceptable delays and spare capacity

Source: Vopak Construction Traffic Impact Assessment, Rev C, 2015

Construction traffic is also forecast to not have a significant impact on the mid-block capacity of the surrounding road network. The increase in traffic during construction is relatively minor, especially considering the temporary nature of the construction activities. The additional construction volumes would be within any daily variations along the surrounding road network.

All project personnel parking will take place on Prince of Wales Drive with the crew transported to the Project site via shuttle bus.

6.1 Existing Traffic Conditions

The Port Precinct covers the Port (immediately south of Foreshore Road and Botany Road) and the industrial area to the north (including Coal Pier Estate). Figure 5 shows a visual representation of traffic operating in the Precinct, with thicker lines representing more traffic.

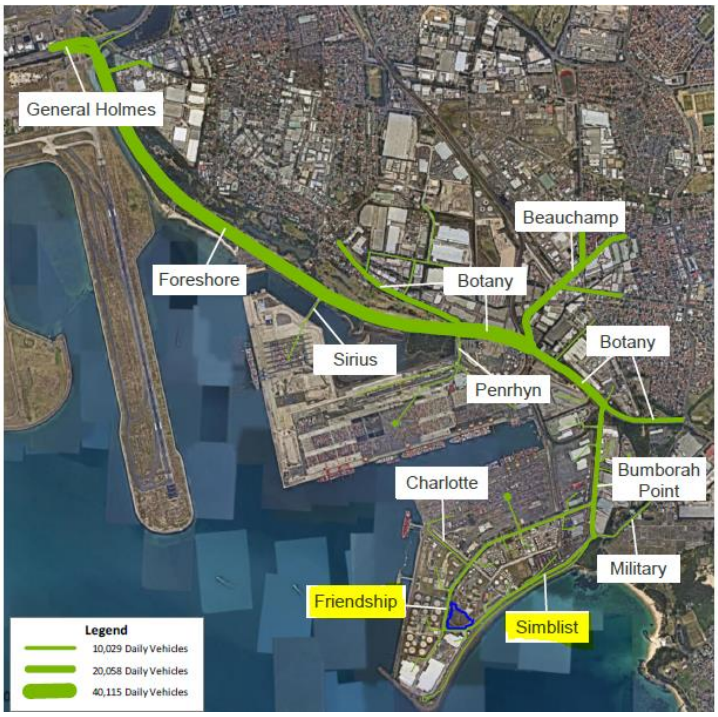


Figure 5: Average weekday total vehicles (with road labels) Source - File Port Botany Freight Study

Apart from the western end of Foreshore Road, Botany Road, between Foreshore Road and Beauchamp Road, carries the most traffic in the precinct on an average weekday, most of which comes from Foreshore Road. Key road volumes are shown in Table 1, with the main Foreshore Road- Botany Road corridor rows highlighted.

Location	Detail	Direction	Car	LCV	Small HCV	Large HCV	Total
Foreshore (ATC)	North of Hale	Two-way	27,309	5,734	5,849	7,196	46,088
Foreshore (Video)	West of Penrhyn	Two-way	22,073	4,635	3,074	7,381	37,164
Botany (ATC)	South of Stephen	Two-way	7,275	2,167	2,015	381	11,838
Botany (ATC)	North of Penrhyn	Two-way	6,986	2,080	2,388	2,765	14,220
Penrhyn (ATC)	South of Foreshore	Two-way	1,142	295	448	2,533	4,418
Botany (Video)	East of Penrhyn	Two-way	24,587	5,285	3,391	6,194	39,457
Botany (Video)	West of Beauchamp	Two-way	24,214	5,339	3,371	6,194	39,118
Beauchamp (ATC)	North of Botany	Two-way	12,967	3,109	2,631	1,704	20,411
Botany (Video)	East of Beauchamp	Two-way	11,827	2,545	2,373	6,052	22,796
Botany (Video)	West of Bumborah	Two-way	11,497	2,425	2,264	5,913	22,098
Botany (ATC)	East of Bumborah	Two-way	8,069	1,527	1,645	296	11,536
Bumborah (ATC)	South of Botany	Two-way	3,583	1,067	2,683	5,447	12,780
Military (Video)	East of Bumborah	Two-way	1,177	253	621	449	2,500
Simblist (ATC)	South of Prince of Wales	WB	1,267	223	464	3,107	5,061
Friendship (ATC)	North of Simblist	NB	1,245	220	505	3,117	5,088

Table 1, Anticipated traffic volumes and peak traffic periods on Friendship Road

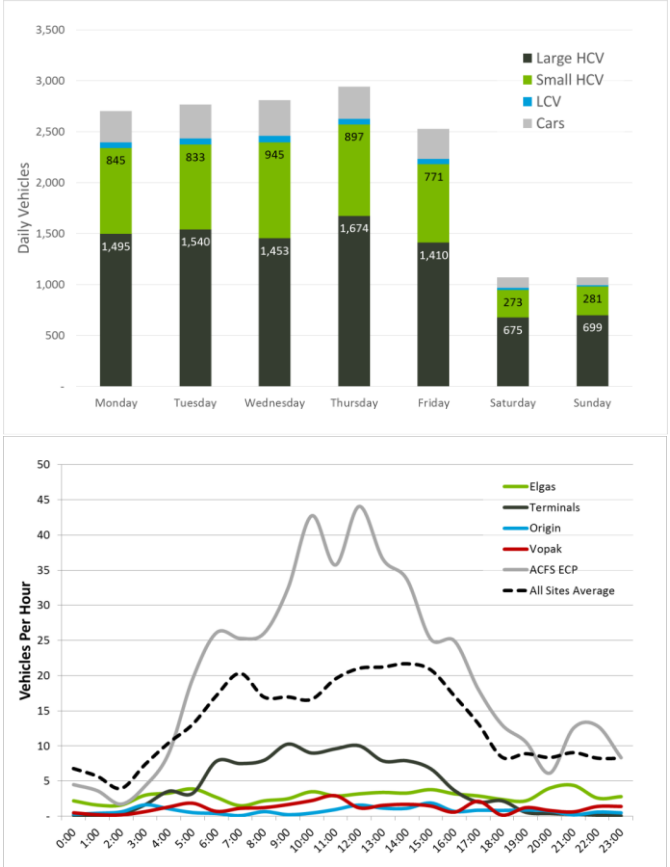


Figure 6, Daily vehicles exiting terminals on Friendship Road

For the terminals (operating companies) on Friendship Road, Elgas, Origin and Vopak all operate relatively evenly across the 24-hour period, while Terminals Pty Ltd is busiest from 6:00 AM to 4:00 PM. The ACFS on Friendship Road (ACFS ECP) terminal is the busiest of the terminals, with high demand starting at 6:00 AM and peaking in the middle of the day 10:00 AM to 2:00 PM. This is evident from trucks using marshalling lanes along Simblist and Friendship during these periods.

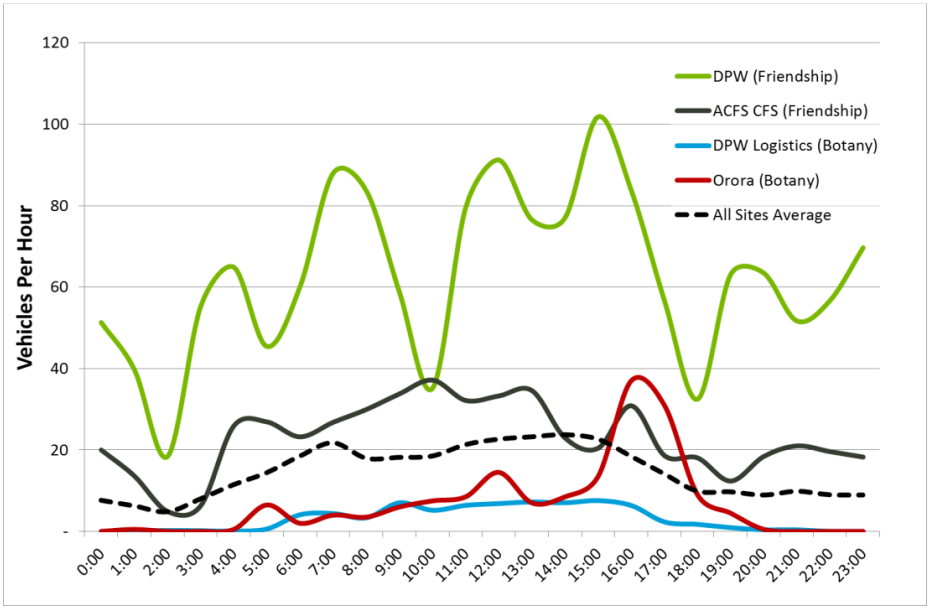


Figure 7: Weekday time of day profile for vehicles exiting terminals on Friendship and Botany

For DP World on Friendship Road, sees higher traffic volumes and a high degree of variability from hour-to-hour, with the bulk of exits coming between 4:00 AM and 4:00 PM. For DP World Logistics on Botany Road, we observe core operating hours between 6:00 AM and 4:00 PM and consistent movements across the day

For Large Heavy Commercial Vehicles (HCVs), the core corridor is from Foreshore, Botany, Bumborah Point, Simblist and then Friendship Road (with much higher use of the terminals). This is seen by that the majority of traffic entering the Bumborah Point Road intersection, 82% of which turns right into Simblist Road for access to Port Terminals on Simblist and Friendship Roads.

6.2 Project Vehicle Generation and Distribution

Construction traffic includes light vehicles for workers (vehicles required for site activities), shuttle buses for crew transport from Prince of Wales Drive and heavy vehicles for delivery.

Light vehicles and shuttle buses would arrive prior to 6 am and leave after 5 pm from Monday to Saturday.

The *Construction Traffic Impact Assessment – Vopak B4, Oct-15* **(CTIA)** has been based on 100 Project personnel with a vehicle occupancy of 1.2 persons per car. Vopak anticipates a construction workforce of approximately 70 personnel at peak manning, which is substantially less than the proposed construction traffic flow estimates in the Traffic Impact Assessment.

Based on the calculations of the CTIA, approx. 84 light vehicles would arrive at Prince of Wales Drive per day in the morning, and a shuttle bus would transfer workers to site via multiple trips and return trips in the evening. Even though the morning arrivals would be before the AM peak hour on the surrounding road network, it has been tested in the AM peak hour as a worst-case scenario.

Heavy vehicles would mostly avoid traffic peak hours, where possible. About 15 heavy vehicles are forecast to arrive on-site per day at the peak construction period. Assuming 20 per cent of the daily movements occur during the AM and PM peak hours, it is estimated that three heavy vehicles will both arrive and leave the site in each peak hour.

The majority of light and heavy vehicles permitted to enter the construction site will do so via the main site access gate located in the south-west. These same vehicles will exit the project via the north-west exit gate.

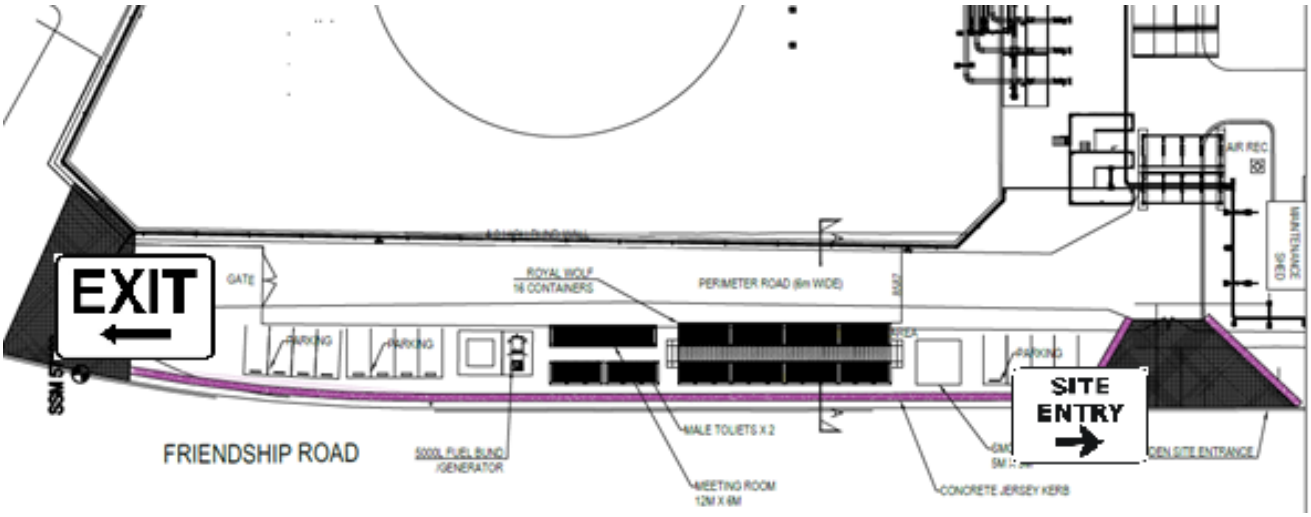


Figure 8: Site Entry and Exit

7 Traffic Management During Construction

7.1 Code of Conduct

Reference: DF-HSE-STD-017 Fitness for Work & Fatigue Management
DF-HSE-STD-020 Management of Alcohol and Other Drugs

The following general rules apply to all vehicles and mobile equipment:

- The first user of every piece of mobile equipment on-site shall conduct a pre-start inspection;
- Mobile phones **SHALL NOT** be used whilst operating a vehicle or piece of mobile equipment;
- Vehicles shall be reversed parked where indicated whilst parking at the Project car park;
- No seat – No ride. Persons shall only travel in a vehicle when they can be seated in a seat;
- All occupants of a vehicle or piece of mobile equipment shall be responsible for wearing a seatbelt at all times whilst that vehicle or piece of mobile equipment is in motion;
- No functional seat belt – No ride;
- All operators of vehicles and mobile equipment must have current licenses for the type of vehicle/machine and be authorised to operate it on-site;
- The operators' cabin of all Mobile Equipment shall be kept free of loose objects or rubbish;
- The operator shall maintain the windows and mirrors in a clean and serviceable condition; and
- Vehicle must have installed flashing beacon and reversing alarm.

7.2 Site Speed Limits

The following specific speed controls shall be complied with:

- No light vehicle or SME shall exceed 10 km/h in the Project Area;
- No light vehicle or SME shall exceed the speed indicated on signage on public roads accessing the Project site;
- All persons operating any type of mobile equipment are to drive at a speed that suits the road and environmental conditions;
- Consideration shall be given to any load or equipment being carried by the mobile equipment that may demand a speed less than the particular road speed limit; and
- Mobile equipment shall operate at a speed that takes into consideration the size of the vehicle and whether it is travelling on a shared or dedicated roadway.

7.3 Traffic Signage

All traffic signage shall be installed in accordance with AS 1742-2009 Manual of Uniform Traffic Control. Types of signage may include:

- Speed limitations
- Hazard notification, i.e. rail crossing, mobile equipment
- Instructional signage, i.e. reverse parking, Stop, Give Way
- Designated walkway
- Directional Flow

To assist with entry and exit to the site, signs indicating trucks turning and 'access to construction site' would be placed prior to the intersection.

Access signage would also be installed indicating Construction Site Access is approaching, and trucks will be turning into the project site.

Current site entrance would be widened to allow trucks to turn into the site and mitigate traffic congestion on Friendship Rd.

7.4 Vehicle Management Plan

A Vehicle Management Plan (VMP) will be prepared, forming part of daily toolbox meeting minutes, for vehicle usage within the work zone covering the construction vehicles movement. The purpose of the plan is to detail the measures to be implemented for the safe management of construction vehicle movements within the construction site.

The VMP is intended to cover vehicle movements on-site and access to and from the site. The VMP shall be discussed during pre-start communications and represented visually on a notice board within the pre-start area.

7.5 Vehicles Entering Restricted Areas

All vehicle operators shall follow any instructions given prior to entering any restricted areas and obey any erected barricading and/or signage.

No vehicles shall travel through or into the following areas:

- Beyond any sign that prohibits vehicle access;
- Any area designated for pedestrian travel only;
- Construction signed areas that require prior “call up” permission, i.e. escort or spotter; and
- Beyond “No Entry” signage.

7.6 Site Parking Requirements

7.6.1 Light Vehicles (Onsite)

A Project Light Vehicle (LV) parking area shall be set up, as shown in figure 8. Onsite project parking is limited to 12 vehicles. This would include reserved visitor parking, disabled parking and site required vehicles. Access to the LV Parking shall be through the main gate located on Friendship Road.

The LV parking area may have two notice signs that state:

- “Light Vehicle Parking Only” – Where any LV’s are parked this sign shall be in place
- “Reverse Parking Only”

The LV parking area shall be separated from mobile equipment parking.

7.6.2 Light Vehicles (Offsite)

Personnel Light Vehicle (LV) shall be parked on Prince of Wales Drive. Shuttle buses shall transport crew to site via multiple trips.

Project personnel will park along the Prince of Wales Drive, excluding the public carpark spaces. The carpark spaces will be reserved for public use.

Any Project vehicles found or notified to be parked incorrectly will be reported the Project Manager who will be responsible for the immediate rectification. Project personnel must comply with this plan, and any breach will be addressed via the disciplinary process.

During non-work hours, Shuttle buses shall remain parked on Prince of Wales Drive.

The Principal Contractor will develop the following control measures:

- A timetable shall be developed that details pickup/drop-off times;
- Location of a dedicated loading point;
- Shuttle bus registration plates to be given to NSW ports;
- LV vehicle registration list including driver details to be given to NSW ports;
- Contractor Parking Permit will be shown on the front windscreen of project personnel vehicles; and
- Contractor Parking will be on the roadside of Prince of Wales Drive.

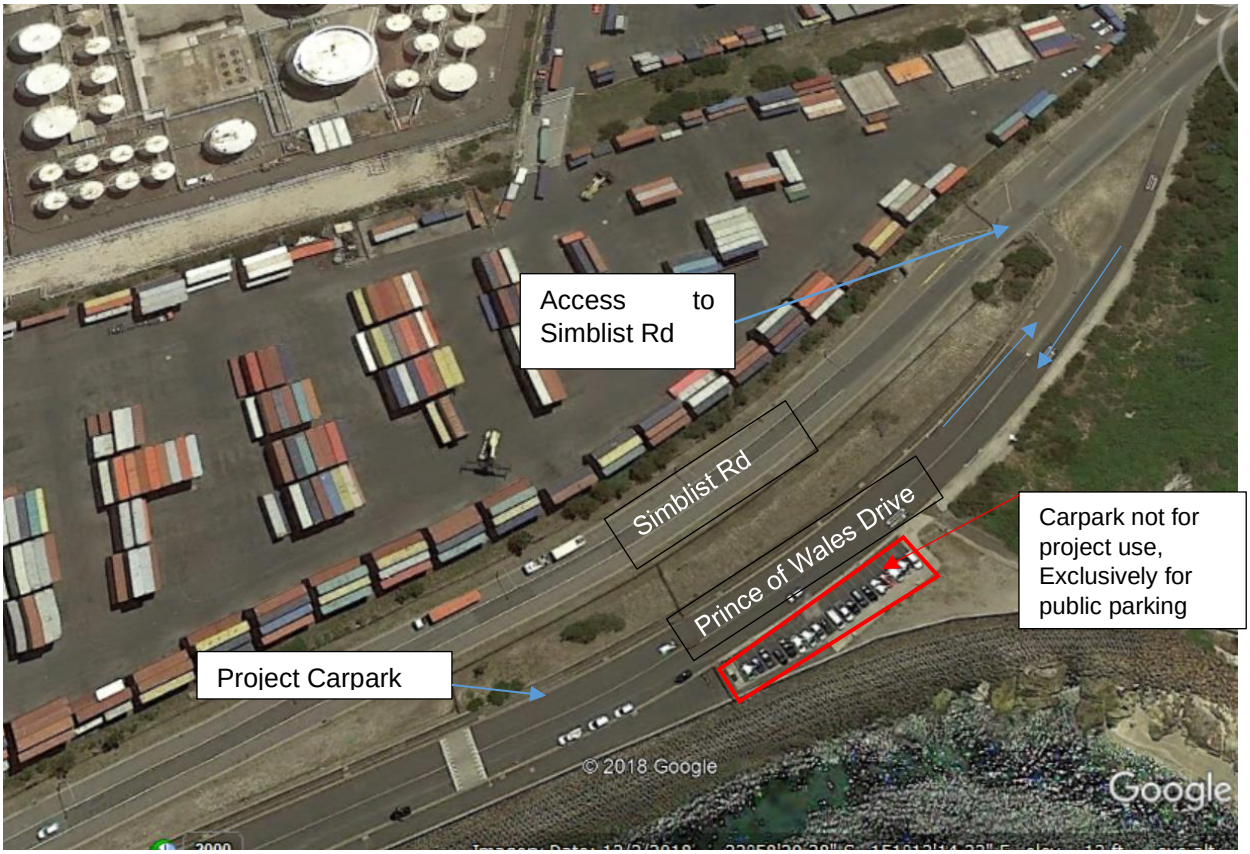


Figure 9 Offsite LV parking

7.6.3 Mobile Equipment

Mobile equipment will be in operation throughout the Project. This may include:

- Flatbed truck
- Mobile crane
- Forklift
- Elevated work platform
- Loader
- Excavator
- Rollers
- Water Truck

The mobile equipment shall meet the following requirements:

- When not used, mobile equipment will be parked in a designated parking area, separate from LV parking areas.
- Be parked in a manner such that the first movement will be a forward motion.
- The ground shall be as flat as possible. Any slope should be on the sides of the vehicle parking position.
- All mobile equipment implements such as buckets, excavator arms, forks, and the like shall be lowered to ground level when the equipment is parked.
- Mobile equipment access to the site shall be via the main gate located on Friendship Road. All mobile equipment must be escorted from the main gate to the desired location within the Project Work Area.
- Vehicle must have installed flashing beacon and reversing alarm.

7.7 Vehicle and Pedestrian Interactions Offices, Crib Rooms and Ablutions

Vehicle and pedestrian segregation around offices, crib rooms and ablution facilities are important to minimise the potential for injury to personnel. The following safeguards and controls should be taken into consideration to minimise the risk of pedestrian and vehicle interaction:

- Defined pedestrian walkways (flagging and signage) shall exist around offices, crib rooms and ablution facilities.
- Speed limits for vehicles or mobiles equipment inside the Project site shall be limited to 10km/h unless approved by the Construction Manager.
- Light vehicles entering the Project area shall be restricted to approved essential project employee or company vehicles only.
- Warning signs shall be erected to manage vehicle and pedestrian interface.
- Concrete Jersey kerb positioned approximately 1.6m off Friendship Rd to protection crib facilities from passing traffic.
- Crib facilities positioned approximately 3m off Friendship Rd.

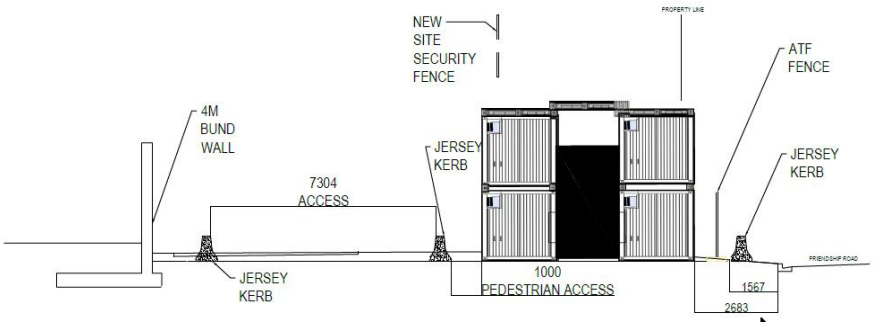


Figure 10 TCF from Friendship Rd

7.8 Delivery Vehicle Access

Delivery Vehicles are to use the Main Access Gate on Friendship Road. Delivery vehicles are to pull up to the Security Gate and await inspection and/or escort to the drop off location.

For delivery vehicles unable to use the Main Access Gate, access will be provided by prior arrangement with NSW Ports, through the rear entrance gate accessible from Simblist Rd via the MT Movements site.

A survey and risk analysis shall be undertaken at several key project stages that anticipate a change of delivery volumes to site. If deemed required, traffic controllers to hold traffic for entering/existing site may be implemented.

During all stages of the works, loading and unloading of plant, equipment and materials should only take place within the B4A Project site area. The trucking strategy is to ensure loading and unloading on-site include the establishment of a controlled truck waiting facility on site.

No loading/unloading is currently planned outside of the site. It is noted that, if loading and unloading are required outside the site area where additional lane occupancy is required, the following would be carried out:

- An application for a Works Zone and / or lane occupancy to NSW Ports;
- Requirements of the Works Zone and / or lane occupancy would be incorporated into contract documentation, agreements, work instructions and induction requirements and adhered to at all times;
- This Traffic Management Plan would be updated, and a separate Traffic Control Plan developed, approved and implemented;
- The provision would be made for loading and unloading to resume within the site boundary as soon; and as practically possible; and
- No materials or equipment are to be stored outside of the B4A Project site area.

7.9 Heavy Vehicle National Law and Chain of Responsibility

All project personnel who have a responsibility in the heavy vehicle supply chain have a shared responsibility to ensure they comply with all specific legislative obligations. The parties in the Chain of Responsibility for heavy vehicles are:

- An employer of a driver
- A prime contractor for the driver – if the vehicle's driver is self-employed
- An operator of the vehicle
- A scheduler for the vehicle
- A loading manager for any goods in the vehicle
- A loader and/or unloader of a vehicle
- A consignor of any goods for transport by the vehicle
- A consignee of any goods in the vehicle
- A loader and/or unloader of any goods in the vehicle

Under the Heavy Vehicle National Law (HVNL), standards, procedures, and processes must be followed to ensure heavy vehicle drivers meet compliance, including:

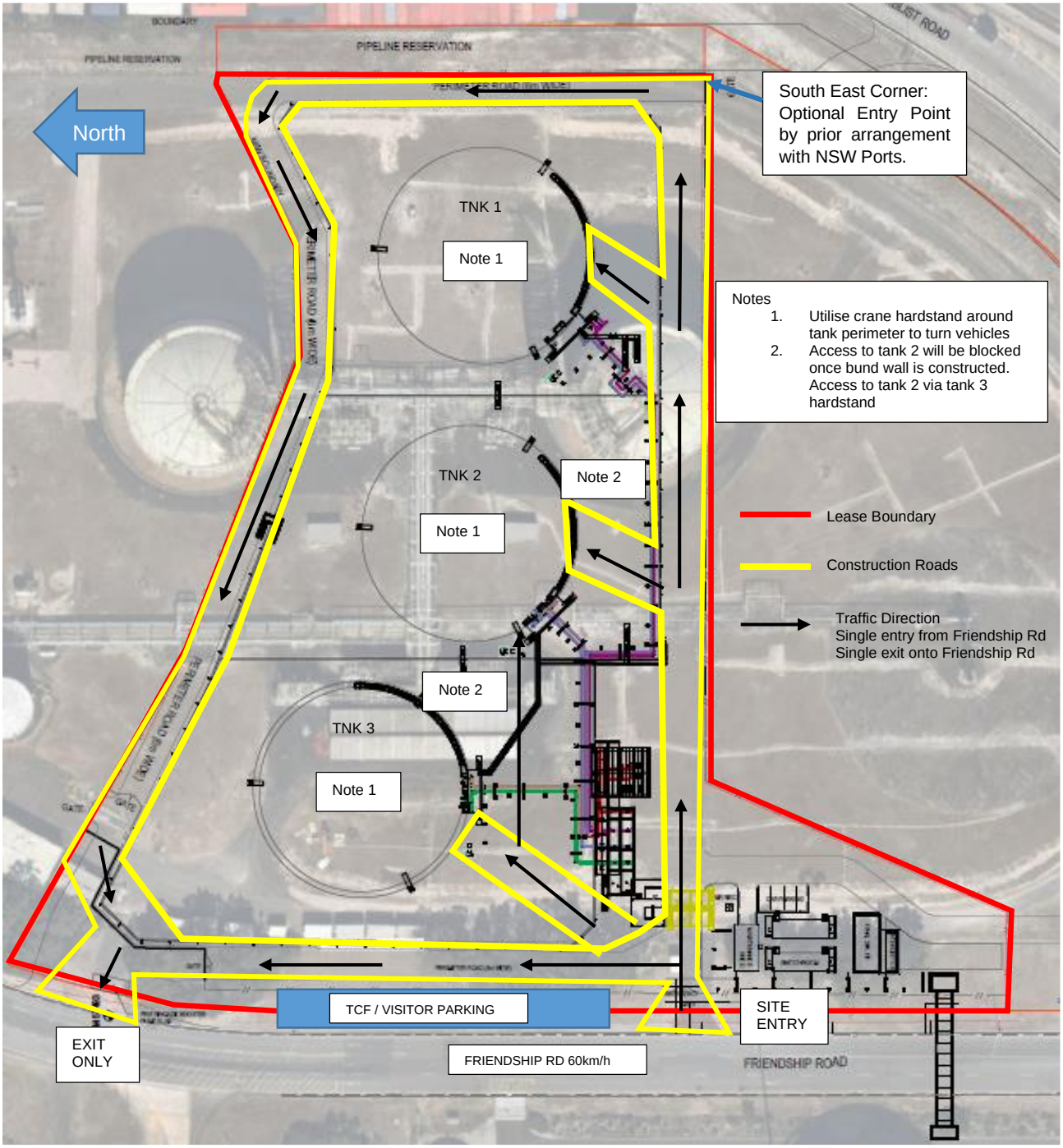
- Chain of Responsibility, including roles and responsibility within the supply chain
- Handling of freight containers and container weight declarations
- Industry-specific codes of practice and accreditation schemes
- The risk-based categorisation of offences
- Reasonable steps defence
- Driver fatigue management and exemptions
- Work and rest requirements, including work diaries and record-keeping
- On-road compliance and enforcement
- Vehicle standards and modifications
- Vehicle mass and dimensions and measurement adjustments
- Load restraint

8 Site Establishment

8.1 Propose Contractor Vehicle Parking and Site Amenities Layout.

The Principal contractor proposes the following location for Contractor Vehicle Parking, Site Amenities and Project Authorised Vehicle Parking.

Directional signage shall be installed on trafficable routes to indicate and reiterate the single flow of traffic around the site.


North
South East Corner: Optional Entry Point by prior arrangement with NSW Ports.
TNK 1
Note 1
TNK 2
Note 2
Note 1
Note 2
TNK 3
Note 1
Notes
1. Utilise crane hardstand around tank perimeter to turn vehicles
2. Access to tank 2 will be blocked once bund wall is constructed. Access to tank 2 via tank 3 hardstand
Lease Boundary
Construction Roads
Traffic Direction
Single entry from Friendship Rd
Single exit onto Friendship Rd
TCF / VISITOR PARKING
SITE ENTRY
EXIT ONLY
FRIENDSHIP RD 60km/h
FRIENDSHIP ROAD
PIPELINE RESERVATION

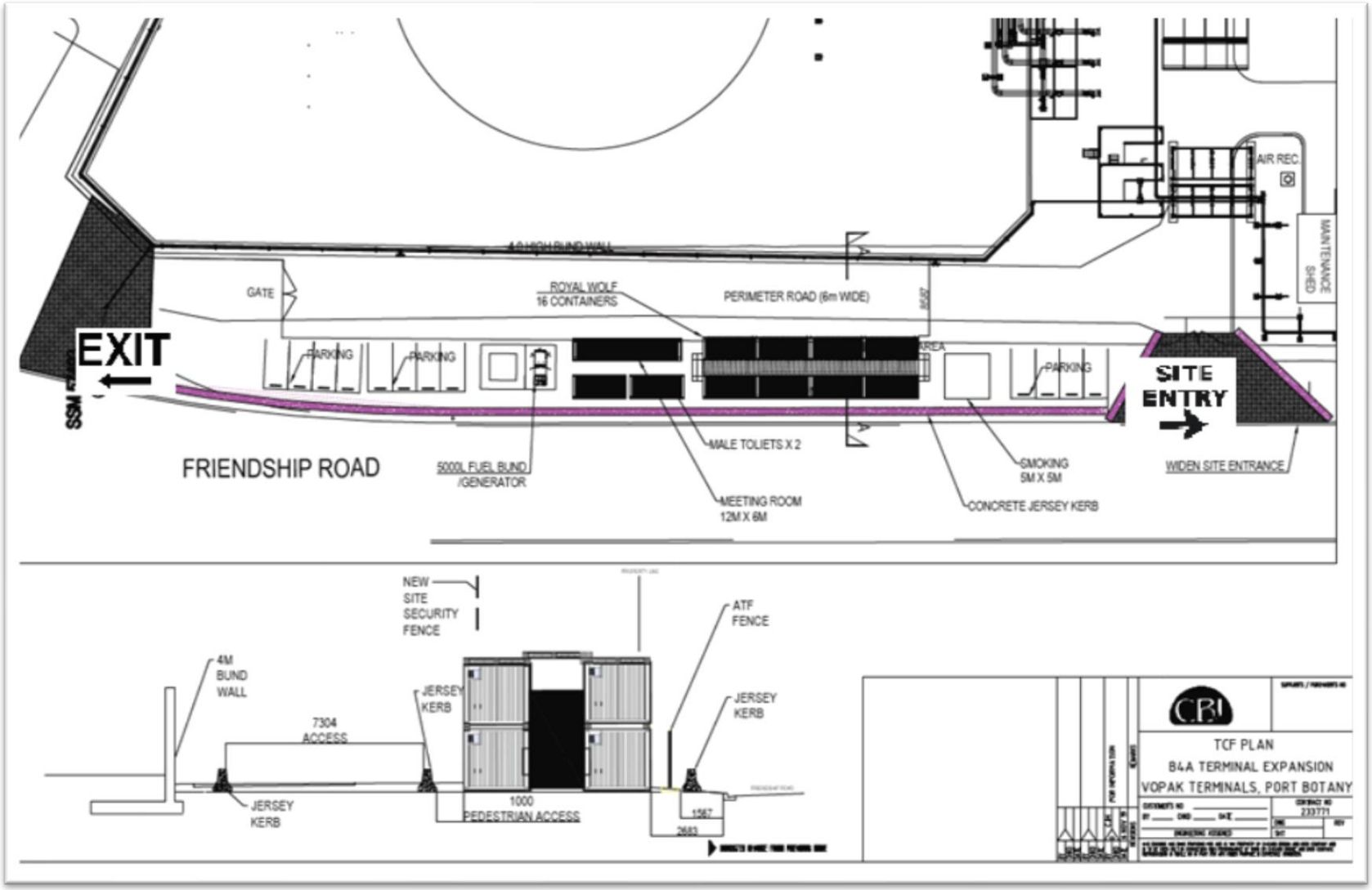


Figure 12: Temporary Construciton Facilities Plan

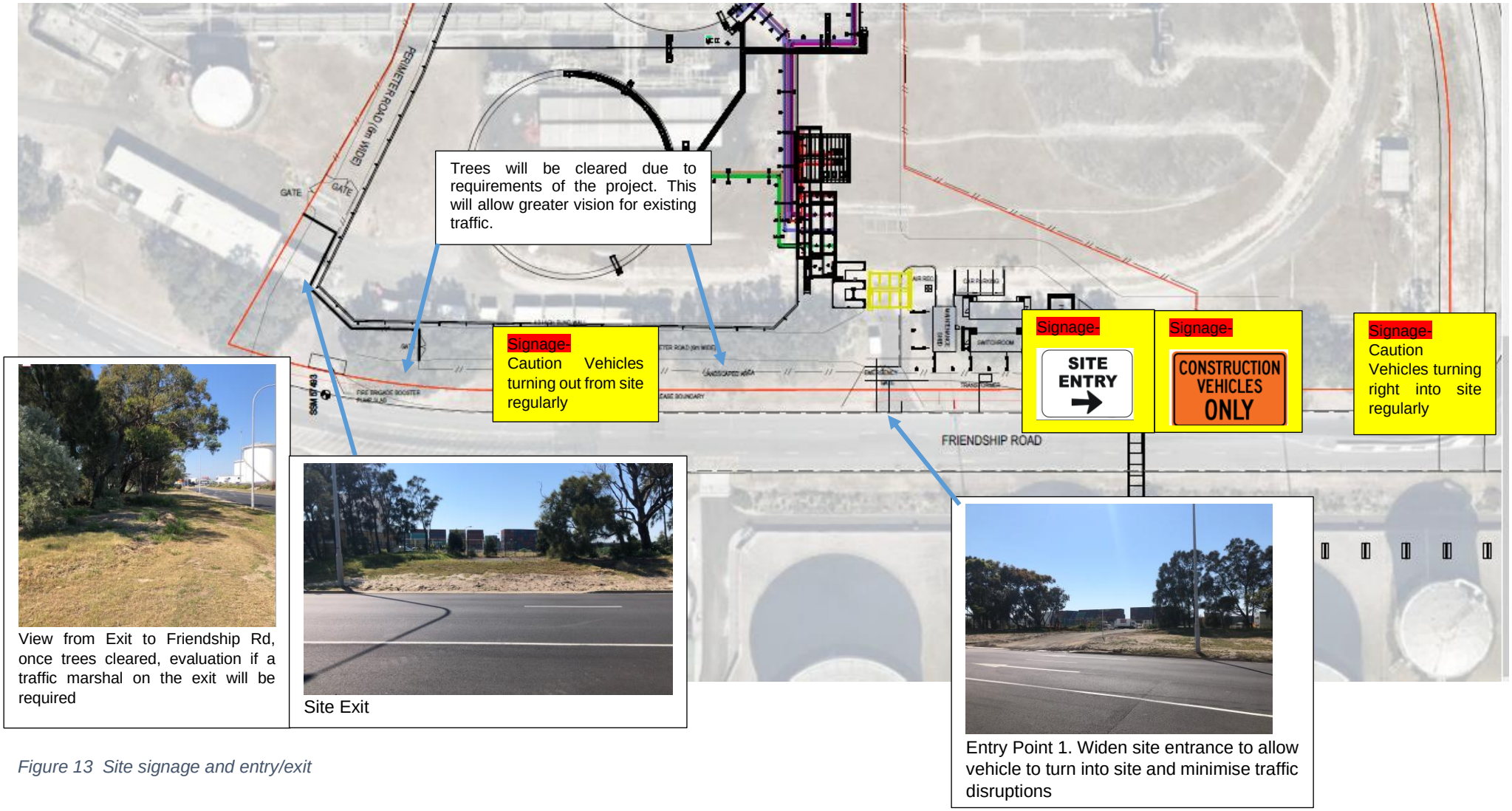


Figure 13 Site signage and entry/exit

8.2 Traffic Management for Duration of Project Works

The primary access to the Project site for Construction vehicles or authorised Project vehicles shall be via the Main Access Gate at Entry Point 1.

All Project vehicles shall utilise the designated vehicle exit point located at the North West Project boundary.

8.3 Traffic Management for Tank Foundation Preparations (Boundary Internal)

Due to the changing nature of construction activities during the earthworks phase, the daily traffic management plan and vehicle movements shall be discussed at the Daily Pre-Start Meeting with all workforce personnel.

Appropriate signage and flagging shall always be maintained, and a one-way traffic flow policy adopted wherever possible.

9 Incident Management

9.1 Emergency Vehicle Access

All incidents and emergencies associated with Project activities shall comply with 233771-HS-PL-00003 Emergency Preparedness Plan.

Any emergency vehicle requiring access to the Project site shall utilise the following access gates:

- Access Gate 1: Main Project Site access located on the South West corner of the Project site at Friendship Road.

10 Consultation

10.1 Stakeholders

The following stakeholders will be consulted as part of this Construction Traffic Management Plan, via NSW Ports and/or directly by the Vopak Project team:

- NSW Ports
- Qenos
- DP World
- Botany Council
- Australian Container Freight Services Pty Ltd (ACFS)
- Patricks
- Hutchison
- Vopak, Site B
- Tyne
- MT Movements
- Terminals Australia
- Puma
- Randwick City Council

Main Shipping Container companies are: DP World / Patricks / Hutchison / ACFS. DP World have a communication system called One-Stop that is used to communicate to their truck drivers. In the event of an emergency or incident, the PBEARS communication system can be used, via NSW Ports, to notify companies operating in the Ports.

For construction works or deliveries that are anticipated to affect external stakeholders, the Principal Contractor shall follow the NSW Ports Notification procedure. The following information shall be submitted to NSW Ports for relay onto affected stakeholders:

- Time/Date/Duration of Works/Delivery
- Layout/Diagram showing work location or delivery expected
- Contact Information
- Details of companies involved in works/delivery

The Principal Contractor will aim to provide correspondence to NSW Ports in-line with notification procedure.

11 Complaints Management

All complaints shall be raised with the Principal Contractor Project Manager and HSE Manager. These complaints shall be recorded in a Project Complaints Register. The Principal Contractor shall consultant with Company Representatives to ensure that all complaints received from the community or other stakeholders are being managed collaboratively to ensure these are adequately addressed in a timely manner.