

Biannual Trip Origin Destination Report

01 November 2021 – 30 April 2022

Moorebank Precinct East 11/10/2022 P1065r05



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Appendix A. BTODR Framework Report





Glossary

Acronym	Description	
BTODR	Biannual Trip Origin Destination Report	
GFA	Gross Floor Area	
IMEX	IMEX (Import-Export) Intermodal Terminal	
MLP	Moorebank Logistics Park	
MPE	Moorebank Precinct East	
OD	Origin - Destination	
QUBE	Qube Property Management Services Pty Limited	
RMS	Roads & Maritime Services	
SSD	State Significant Development	
ТА	Transport Assessment	
TEU	Twenty Foot Equivalent Units	
TfNSW	Transport for New South Wales	

Reference Documents

Abbreviation	Document
BTODR Framework Report	Moorebank Precinct East -Biannual Trip Origin Destination Report Framework for Data Collection and Reporting,
	(Arcadis, August 2019)
BTODR Report May 2021	Biannual Trip Origin Destination Report, Moorebank Precinct East, Ref:1065r03v1
	(Ason Group, May 2021)
MPE Stage 1 - TAIA	SIMTA Intermodal Terminal Facility Stage 1 Traffic & Accessibility Impact Assessment
	(Hyder Consulting, March 2015)
MPE Stage 2 - OTTIA	Moorebank Precinct East Stage 2 Proposal - Operational Traffic and Transport Impact Assessment
	(Arcadis, December 2016)
MPE Stage 2 – RtS	Moorebank Precinct East Stage 2 Proposal – Response to Submission - Appendix C3: Consolidated Traffic Table
	(Arcadis, July 2017)



1 Introduction

1.1 Introduction

Ason Group has been commissioned by Qube Property Management Services Pty Limited to prepare an initial BTODR for MPE (including IMEX), as outlined within the development consents SSD 7628 and SSD 6766. This report has been prepared following Condition B28 of SSD 7628, which has been provided below;

Condition B28. The Applicant is to prepare a Biannual Trip Origin and Destination Report each six months following commencement of any operation (in a format agreed with TfNSW and RMS) that advises:

- a) the number of actual and standard twenty-foot equivalent shipping containers despatched and received during the period;
- b) the number of days in the period that the truck gate was open for despatching trucks 24 hours a day,
 7 days a week and detail any exceptions to this and advise actual hours of operation;
- c) records of vehicle numbers accessing the site; and
- d) representative vehicle origins and destinations, based on a cordon in the surrounding network.

A framework for recording and reporting on the data required for the report, prepared to the satisfaction of TfNSW and RMS, is to be submitted to the Secretary three months prior to the commencement of operation.

The report is to be submitted within one month of its preparation throughout operation of the project, starting six months from the commencement of operation, unless otherwise agreed by the Secretary, TfNSW and RMS.

The cordon count at (d) above will:

- apply to all classes of vehicles; and
- cover the intermodal terminal, the warehousing facility, and any other uses such as the freight village.

As such, this report has been prepared on the basis of a review of the documentation provided and relevant publicly available documentation associated with the staged redevelopment of the MPE. Additionally, the reference BTODR Framework report (at **Appendix A**) forms the basis and format of this report and has been prepared to the satisfaction of Transport for NSW.

The BTODR is a document ultimately intended for when MPE is fully operational. Currently MPE has a mixture of lots where warehouses are operational or under construction; therefore, there are challenges to collect the full extent of data envisaged at this stage. Accordingly, this BTODR has been compiled on the basis of the data available at this time, with a view to achieving as best as possible the objectives of the BTODR.

1.2 Purpose

This BTODR addresses the relevant requirements of the Project Approvals and other guidelines and standards applicable during operations of MPE. The BTODR is proposed to keep an accurate record of the shipping containers and vehicle arrivals / departures against approved volumes.



1.3 Scope

For the purpose of the BTODR, the scope of this report shall include:

- Review of the number of twenty-foot equivalent shipping containers dispatched and received.
- Review the number of days in the period that the truck gate was open for despatching trucks and detail • any exceptions to the actual hours of operation.
- Record the number of vehicles accessing MPE. •
- Outline the vehicle origin and destinations based on a cordon in the surrounding round network.
- Comment on the employee numbers at MPE.

This report has assumed selected OD cordons (as outlined within Figure 1) which will apply to all classes of vehicles (while also covering the IMEX, warehousing facilities and any other uses such as the freight village).

1.4 Period of Reporting

As mentioned above, the main objective of the BTODR is to report on traffic once MPE is completed and fully operational. At this stage, MPE is only partially operational and has a number of areas within the Site that are under construction.

TABLE 1: BREAKDOWN OF OPERATIONAL STATUS WITHIN MPE				
Tenanted Area	Operational			
	1 May 2021 – 31 Oct 2021	1 Nov 2021 – 30 Apr 2022		
IMEX	Yes	Yes		
WH 1	No	Yes		
WH 3A	Yes Yes			
WH 3B	Yes	Yes		
WH 4A	Yes	Yes		
WH 4B	Yes Yes			
WH 5	Yes Yes			
WH 6	No	No		
WH 7	No	No		
WH 8	No	No		

Note: Those in **bold** are the changes from the precious reporting period.

The reporting periods assessed by this BTODR - based on available data - are outlined below:

Shipping Container Transport: 1 Nov 2021 - 30 April 2022 1 Nov 2021 - 30 April 2022 Truck Gate opening period: Traffic Volumes: 3 June 2022 – 8 June 2022 Origin / Destination Numbers: 2 June 2022 – 3 June 2022 & 6 June 2022 – 8 June 2022 Employee Numbers: 1 Nov 2021 – 30 April 2022



2 Shipping Container Transport

This section provides the total number of actual TEUs dispatched and received during the reporting period. The analysis is based on the operational data from logistical schedules.

The information outlined below has been sourced by Tactical, BMD, Qube Logistics, Knight Frank who are currently operating in some form within MPE. **Table 2** presents the total TEUs received and dispatched from the IMEX terminal.

TABLE 2: SHIPPING CONTAINER TRANSPORT				
Reporting Period	Month	Total Containers Received / Dispatched	Cumulative Total for Period	
Period 3	May-2021	918	918	
	Jun-2021	1,192	2,110	
	Jul-2021	840	2,950	
	Aug-2021	950	3,900	
	Sep-2021	924	4,824	
	Oct-2021	736	5,560	
Period 4	Nov-2021	4,894	4,894	
	Dec-2021	6,696	11,590	
	Jan-2022	8,556	20,146	
	Feb-2022	9,202	29,348	
	Mar-2022	9,226	38,574	
	Apr-2022	2,696	41,270	



3 Truck Gate Opening Periods

3.1 Period of Opening

The BTODR Framework requires reporting on the number of days in a specific period that the truck gate was operational. In response, the period of time where the gate was operational has been in **Table 3**.

TABLE 3: BREAKDOWN OF OPERATIONAL STATUS WITHIN MPEReporting PeriodPeriod of OpeningPeriod 31 May 2021 – 31 October 2021Period 41 November 2021 – 30 April 2022

3.2 Exceptions to Full Time Opening

Further to the above, the BTODR Framework requires reporting on any periods when the gates were not open. In response, **Table 4** outlines the timeframes and reasons for when no containers left IMEX by truck.

TABLE 4: TRUCK GATE OPENING PERIOD EXCEPTIONS			
Reporting Period	Period of Closure	Reason for Closure	
Period 3	No Closures during this period	-	
Period 4	No Closures during this period	-	

3.3 Actual Hours of Opening

At present, the general truck gate daily opening times are outlined below.

- Monday Friday: 6:00am 10:00pm
- Saturday & Sunday: Closed

These times remain unchanged from the previous period of reporting.



4 Traffic Volumes

4.1 MPE Main Access

Traffic data has been collected to identify the volumes of light and heavy vehicles accessing MPE from the current main access on Moorebank Avenue. Table 5 summarises the average daily volumes from the data collected.

TABLE 5: AVERAGE DAILY TRAFFIC VOLUMES					
Reporting Period	Reporting Dates	Vehicles In		Vehicles Out	
renou	Dates	Light Vehicles	Heavy Vehicles	Light Vehicles	Heavy Vehicles
Period 3	27 Oct 2021 - 2 Nov 2021	701	326	740	339
Period 4	3 June 2022 – 8 June 2022	773	362	772	386



5 Origin-Destination Results

OD surveys have been undertaken to understand the distribution of MPE traffic on the surrounding road network. To meet the requirements of the BTODR, the OD surveys have recorded traffic volumes across a 24-hour period, with the locations of the survey and corresponding gate numbers presented on **Figure 1** and outlined below.

TABLE 6: OD SURVEY GATES				
Gate Number	Gate Location			
OD1	Moorebank Avenue, about 350 metres north of the M5 South Western Motorway			
OD2	Eastbound off-ramp of M5 Interchange			
OD3	Eastbound on-ramp of M5 Interchange			
OD4	Westbound on-ramp of M5 Interchange			
OD5	Westbound off-ramp of M5 Interchange			
OD6	Moorebank Avenue, about 300 metres south of the M5 South Western Motorway			
OD7	Anzac Road			
OD8	Defence Joint Logistics Access			
OD9	IMEX/MPE Main Access			
OD10	Cambridge Avenue			
OD11	Moorebank Avenue, south of Cambridge Avenue			

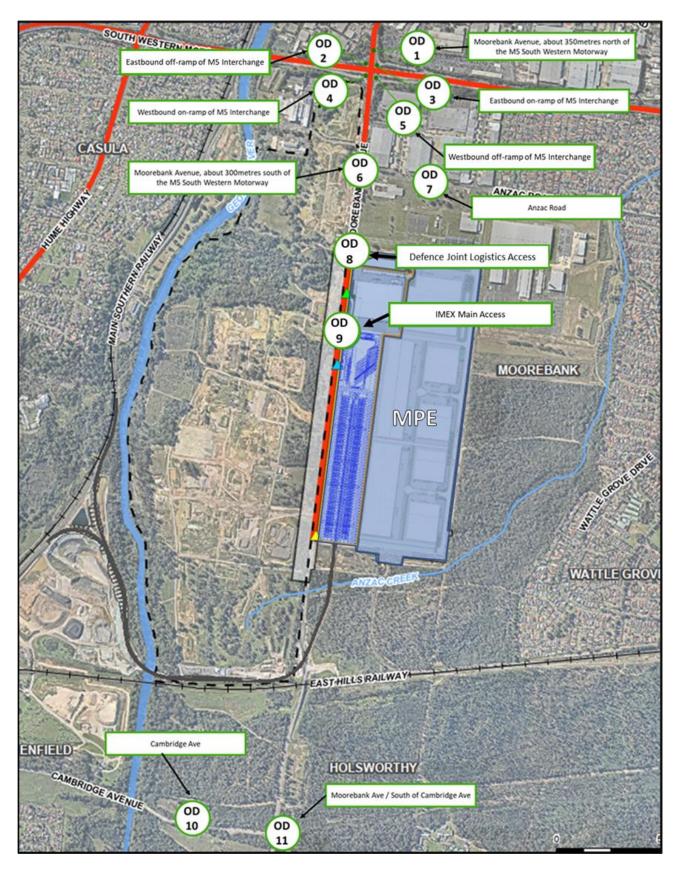


Figure 1: Origin-Destination Gates

The data of the OD surveys have been collated and is presented on the following tables for the relevant vehicle classes, as well as graphically on the following figures.



TABLE 7: AVERAGE OD MOVEMENTS – ALL VEHICLES												
					т	o Station						
From Station	1	2	3	4	5	6	7	8	9	10	11	Total
1		0	427	9,565	0	2,839	979	40	160	1,372	33	15,414
2	12,908		0	323	0	4,480	1,572	113	428	1,938	84	21,846
3	0	0		0	0	0	0	0	0	0	0	0
4	0	0	0		0	0	0	0	0	0	0	0
5	1,740	0	1,740	0		2,736	830	45	185	1,265	37	8,577
6	2,917	0	3,082	3,860	0		3,660	288	961	4,765	230	19,764
7	830	0	801	1,188	0	2,777		0	87	1,972	0	7,655
8	15	0	82	132	0	229	37		4	117	0	617
9	176	0	391	525	0	1,049	0	0		112	0	2,253
10	803	0	2,559	1,489	0	4,839	2,069	110	121		421	12,410
11	22	0	97	133	0	252	32	1	0	433		970
Total	19,412	0	9,179	17,215	0	19,201	9,179	596	1,946	11,975	805	89,508

Below is a visual representation of the OD Movements within Table 7

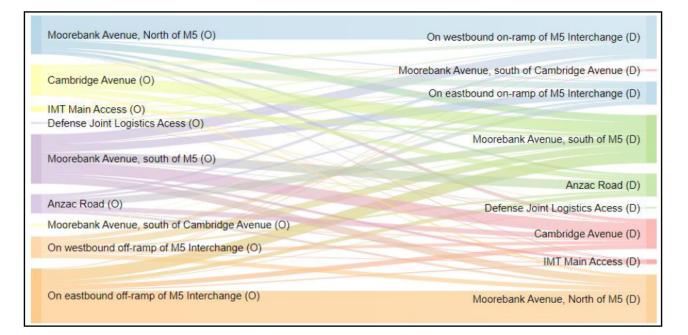






TABLE 8	TABLE 8: AVERAGE OD MOVEMENTS – LIGHT VEHICLES											
					т	o Station						
From Station	1	2	3	4	5	6	7	8	9	10	11	Total
1		0	305	8,251	0	2,595	927	39	126	1,318	32	13,593
2	11,570		0	292	0	3,972	1,478	109	281	1,859	80	19,640
3	0	0		0	0	0	0	0	0	0	0	0
4	0	0	0		0	0	0	0	0	0	0	0
5	1,586	0	1,586	0		2,440	796	44	129	1,203	36	7,821
6	2,683	0	2,747	3,356	0		3,389	260	612	4,489	209	17,746
7	738	0	740	1,048	0	2,523		0	87	1,919	0	7,055
8	15	0	79	113	0	207	37		4	105	0	561
9	105	0	291	303	0	687	0	0		87	0	1,473
10	753	0	2,487	1,399	0	4,642	2,018	101	97		419	11,917
11	22	0	91	109	0	222	32	1	0	426		903
Total	17,473	0	8,326	14,871	0	17,289	8,679	554	1,335	11,407	775	80,709

Below is a visual representation of the OD Movements within Table 8

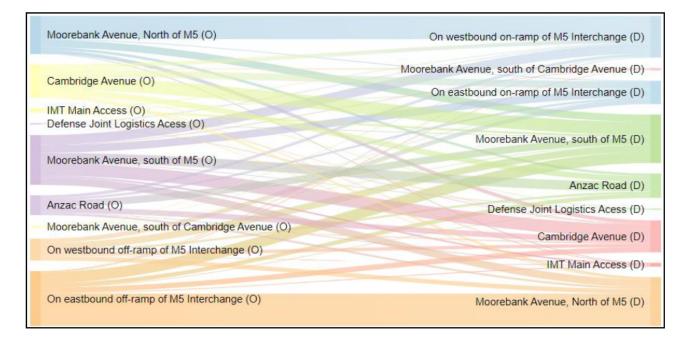






TABLE 9: AVERAGE OD MOVEMENTS -HEAVY VEHICLES												
						To Stati	ion					
From Station	1	2	3	4	5	6	7	8	9	10	11	Total
1		0	82	812	0	214	51	1	26	54	1	1,240
2	919		0	22	0	272	73	3	41	67	4	1,400
3	0	0		0	0	0	0	0	0	0	0	0
4	0	0	0		0	0	0	0	0	0	0	0
5	112	0	112	0		151	30	0	17	34	0	456
6	191	0	182	271	0		220	22	137	220	19	1,262
7	75	0	45	99	0	202		0	0	50	0	472
8	0	0	3	13	0	16	0		0	11	0	44
9	43	0	44	74	0	138	0	0		20	0	320
10	43	0	52	60	0	143	46	8	20		2	374
11	0	0	6	19	0	25	0	0	0	8		58
Total	1,384	0	526	1,370	0	1,161	420	33	241	463	27	5,625

Below is a visual representation of the OD Movements within Table 9.

Moorebank Avenue, North of M5 (O) On westbound on-ramp of M5 Interchange (D) Moorebank Avenue, south of Cambridge Avenue (O) Defense Joint Logistics Acess (O) Moorebank Avenue, south of M5 (D) IMT Main Access (O) Anzac Road (O) On eastbound on-ramp of M5 Interchange (D) Cambridge Avenue (O) Cambridge Avenue (D) Moorebank Avenue, south of M5 (O) Anzac Road (D) IMT Main Access (D) Defense Joint Logistics Acess (D) Moorebank Avenue, south of Cambridge Avenue (D) On westbound off-ramp of M5 Interchange (O) On eastbound off-ramp of M5 Interchange (O) Moorebank Avenue, North of M5 (D)

Figure 4: Visual of Average OD Movements - Heavy Vehicles



TABLE 10	TABLE 10: AVERAGE OD MOVEMENTS – ARTICULATED HEAVY VEHICLES											
					Т	o Statio	on					
From Station	1	2	3	4	5	6	7	8	9	10	11	Total
1		0	40	502	0	30	1	0	8	1	0	581
2	419		0	10	0	237	20	1	107	11	0	806
3	0	0		0	0	0	0	0	0	0	0	0
4	0	0	0		0	0	0	0	0	0	0	0
5	42	0	42	0		145	4	0	39	28	0	301
6	43	0	154	233	0		51	6	213	56	1	757
7	17	0	16	41	0	51		0	0	3	0	128
8	0	0	0	6	0	6	0		0	1	0	13
9	28	0	56	148	0	224	0	0		4	0	460
10	7	0	20	30	0	53	4	1	4		0	119
11	0	0	0	5	0	5	0	0	0	0		10
Total	555	0	328	973	0	751	80	9	371	106	2	3,174

Below is a visual representation of the OD Movements within Table 10.

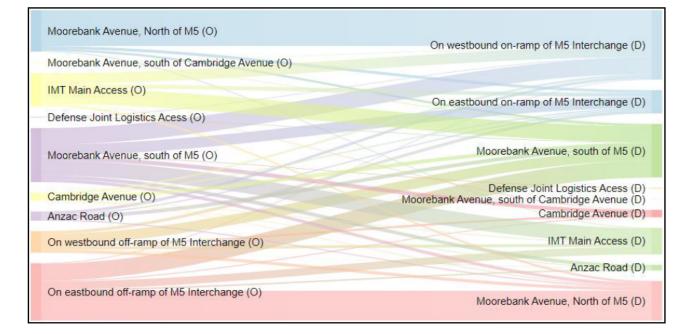


Figure 5: Visual of Average OD Movements - Articulated Heavy Vehicles



6 Employee Numbers

To corroborate data provided within the Workplace Travel Plan and minimise the need for additional reporting, **Table 11** presents relevant information on employee numbers for each of the sub-area's within MPE.

TABLE 11: OD SURVEY GATES						
Reporting Periods	Month	IMEX	Rail Link	Tenanted Area		
Period 3	01-May-2021	6	40	WH 1	2	
	- 31-Oct-2021	- 31-Oct-2021			WH 3A	30
				WH 3B	14	
				WH 4A	18	
				WH 4B	24	
				WH 5	12	
Period 4	01-Nov 2021	61	9	WH 1	*	
	- 30 Apr 2022			WH 3A	15	
				WH 3B	38	
				WH 4A	11	
				WH 4B	*	
				WH 5	110	

Note: Any information not received from individual tenants have been marked with an *. This report will be updated if/when the information is provided.



7 Summary

The data provided within this report has been collected in accordance with the BTODR Framework report and enables a comparative assessment of traffic accessing the Site and future growth in operational activities.

All data is a fair and accurate representation of the operational traffic for MPE and its surrounding road network. This data has been collected for the reporting period between 01 Nov 2021 – 30 Apr 2022.



Appendix A. BTODR Framework Report





MOOREBANK PRECINCT EAST -BIANNUAL TRIP ORIGIN DESTINATION REPORT

Framework for Data Collection and Reporting

27 AUGUST 2019

CONTACT



QUBE

MOOREBANK PRECINCT EAST - BIANNUAL TRIP ORIGIN DESTINATION REPORT

Framework for Data Collection and Reporting

Author		
Checker		
Approver		
Report No	PREC-ARC-TR-RPT-0001	
Date	27/08/2019	
Revision Text	008	

This report has been prepared for Qube in accordance with the terms and conditions of appointment for Moorebank Precinct East dated 7 October 2016. Arcadis Australia Pacific Pty Limited (ABN 76 104 485 289) cannot accept any responsibility for any use of or reliance on the contents of this report by any third party.

REVISIONS

Revision	Date	Description	Prepared by	Approved by
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002	13/03/19	Revised and issued for client review		
003	5/06/19	Revised to address agency comment		
004	14/06/19	Revised to address further agency comment		
005	28/06/19	Revised to address further agency comments		
006	29/07/19	Revised to address further agency comments		
007	15/08/19	Consultation table updated to close out agency comments		

Revision	Date	Description	Prepared by	Approved by
008	27/08/19	Updated to close out RMS consultation		-

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ACRONYMS AND DEFINITIONS

Acronym	Meaning			
CoC	Conditions of Consent			
DJLU	Defence Joint Logistics Unit			
DP&E	Department of Planning and Environment			
EP&A Act	Environmental Planning and Assessment Act 1979			
IMEX	Import-Export			
MLP	Moorebank Logistics Park			
MPE	Moorebank Precinct East			
MPW	Moorebank Precinct West			
RFID	Radio-Frequency Identification			
RMS	Roads and Maritime Services			
Secretary	Secretary under the EP&A Act, or nominee			
SIMTA	Sydney Intermodal Terminal Alliance			
SSD	State Significant Development			
TfNSW	Transport for New South Wales			
the Moorebank Precinct	Moorebank Intermodal Precinct			

1 INTRODUCTION

1.1 Background.

The Sydney Intermodal Terminal Alliance (SIMTA) received approval for the construction and operation of Stage 2 of the MPE Project (SSD 7628), which together comprises the second stage of development under the MPE Concept Consent (MP10_0193). Operations are due to commence in April 2018.

This Biannual Trip Origin and Destination Report addresses the relevant requirements of the Project Approvals, including the Environmental Impact Statement (EIS), Revised Statement of Commitments (RSoC), Response to Submissions (RtS) and Minister's Conditions of Consent (CoC), and guidelines and standards applicable during operations of the MLP East Precinct.

1.1 Scope and Purpose

Condition of Consent (CoC) B28 of SSD 7628 requires that a *Biannual Trip Origin and Destination Report* is prepared. Table 1-1 and Table 1-2 details the applicable CoC.

Table 1-1: CoCs of SSD 7628 (MPE Stage 2)

CoC	Requirement	Document Reference			
Primary	mary Conditions				
	The Applicant is to prepare a Biannual Trip Origin and Destination Report each six months following the commencement of any operation (in a format agreed with TfNSW and RMS) that advises:				
	 a. the number of actual and standard twenty-foot equivalent shipping containers despatched and received during the period; 	Section 3 Section 5			
	b. the number of days in the period that the truck	Section 3			
	gate was open for despatching trucks 24 hours a day, 7 days a week and detail and exceptions to	Section 5			
B28	this and advise actual hours of operation;	Note that there is no truck gate at the warehouse entrance however a truck gate is in operation at the IMEX entrance where truck numbers will be monitored.			
	 records of vehicle numbers accessing the site; and 	Section 5			
	 representative vehicle origin and destinations, based on a cordon in the surrounding network. 	Section 5			
	A framework for recording and reporting on the data required for the report, prepared to the satisfaction of TfNSW and RMS, is to be submitted to the Secretary three months prior to the commencement of operation.	This document provides a framework for recording and reporting on the data required for the <i>Biannual</i> <i>Trip Origin and Destination</i> <i>Report</i>			

CoC	Requirement	Document Reference
	 The report is to be submitted within one month of its preparation throughout operation of the project, starting six months from the commencement of operation, unless otherwise agreed by the Secretary, TfNSW and RMS. The cordon count at (d) above will: apply to all classes of vehicles; and cover the intermodal terminal, the warehousing facility and any other uses such as the freight village. 	Section 3.1
Second	ary Conditions	
B89	Heavy road freight vehicles are not permitted to use Moorebank Avenue south of the East Hills Railway corridor. A main gate monitoring system (eg CCTV) shall be installed to identify heavy vehicles turning left from the terminal site onto Moorebank Avenue, or turning right from Moorebank Avenue to the terminal site. The Secretary may at any time request the Applicant to provide a heavy vehicle monitoring report for the prior 12 month period.	Section 2.3

Table 1-2: CoCs of SSD 6766 (MPE Stage 1)

CoC	Requirement	Document Reference
Second	ary Conditions	
G11	The Applicant shall prepare a six-monthly report to the Secretary with the results of container and vehicle monitoring for a period of 3 years, or as otherwise agreed with the Secretary, from the commencement of operation of the IMEX terminal. The Secretary shall consider the need for further reporting following a review of the results for year 3. The report shall include:	Section 3.1
	a) The number of twenty foot equivalent units	Section 3
••••	dispatched and received during the period	Section 5
	 A record of heavy vehicle entry by date and approximate time; and 	Section 5
	c) The number of light vehicles turning right into the terminal site from Moorebank Avenue and turning left from the terminal site onto Moorebank Avenue for a representative day	Section 5
G14	Heavy road freight vehicles are not permitted to use Moorebank Avenue south of the East Hills Railway corridor. A main gate monitoring system (eg CCTV) shall be installed to identify heavy vehicles turning left from the terminal site onto Moorebank Avenue, or turning right from Moorebank Avenue to the terminal site. The Secretary may at any time request the Applicant to provide a heavy vehicle monitoring report for the prior 12 month period.	

This report has been prepared to provide a framework for recording and reporting on the data required for the *Biannual Trip Origin and Destination Report*, which will be used to agree a format for the six-month reports with TfNSW and RMS. This report assumes that the condition is related to the impact of 20-foot equivalent shipping containers and does not address other heavy vehicles associated with operations, such as garbage trucks and maintenance vehicles.

1.2 Consultation

The Framework for Biannual Trip Origin Destination Report has been prepared to the satisfaction of Transport for NSW (TfNSW) and Roads and Maritime Services (RMS). Following the development of this draft framework, the document will be issued to the Secretary for review and comment.

Table	1-3:	Consultation	Summary
-------	------	--------------	---------

Agency	Date	Person Contacted	Comment	Status
	26/3/19	TfNSW Representative	Draft report emailed for review and comment	Open
	11/4/19	TfNSW Representative	Email to follow up on progress of review	Open
	18/4/19	TfNSW Representative	Email to follow up on progress of review	Open
	29/4/19	TfNSW Representative	Email to follow up on progress of review	Open
	3/5/19	TfNSW Representative	Email to follow up on progress of review	Open
	4/5/19	TfNSW Representative	Email to follow up on progress of review	Open
·	9/5/19	TfNSW Representative	Email to follow up on progress of review	Open
Transport for NSW (TfNSW)	10/5/19	MLP Representative	Email noting that TfNSW is to provide comments early next week	Open
	15/5/19	MLP Representative	Email noting that TfNSW is drafting a letter including comments on the report	Open
	16/5/19	MLP Representative	Letter from TfNSW including comments on the report	Open
·	26/5/19	TfNSW Representative	Email with attachment provided in response to TfNSW's comments	Open
	30/5/19	TfNSW Representative	Email to follow up on progress of review	Open
·	6/6/19	TfNSW Representative	Email to follow up on progress of review	Open
	6/6/19	MLP Representative	Email noting that TfNSW is to provide further comments early next week	Open

	7/6/19	TfNSW Representative	Email to confirm satisfaction of timeframe for comment review	Open
	7/6/19	MLP Representative	Email with attachment provided in response to TfNSW's comments	Open
	13/06/19	TfNSW Representative	Meeting to discuss final comments	Open
	17/06/19	TfNSW Representative	Minutes of meeting submitted for review	Open
	28/06/19	TfNSW Representative	Updated document submitted demonstrating comments incorporated	Open
	12/07/19	MLP Representative	Email with further comments	Open
	7/08/19	TfNSW Representative	Updated document submitted demonstrating comments incorporated	Open
	13/08/19	MLP Representative	Email with further comments	Open
	15/08/19	TfNSW Representative	Updated document submitted demonstrating comments incorporated	Open
	16/08/19	TfNSW Representative	Email with final RMS comments	Closed
	26/3/19	RMS representative	Draft plan emailed for review and comment	Open
	4/4/19	RMS representative	Email to follow up on progress of review	Open
	11/4/19	RMS representative	Email to follow up on progress of review	Open
	18/4/19	RMS representative	Email to follow up on progress of review	Open
Roads and	26/4/19	RMS representative	Email to follow up on progress of review	Open
Maritime Service (RMS)	2/5/19	RMS representative	Email to follow up on progress of review	Open
(RMS)	3/5/19	MLP representative	Email advising that a new contact point for RMS	Open
	9/5/19	RMS representative	Email to follow up on progress of review	Open
	14/5/19	RMS representative	Email to follow up on progress of review	Open
	15/5/19	MLP representative	Email from RMS providing comments on the report	Open
	26/5/19	RMS representative	Email noting that response to RMS review would be provided in the coming days	Open

3/6/19	RMS representative	Email noting that response to RMS review would be provided in the coming days	Open
3/6/19	MLP representative	Email to confirm satisfaction of timeframe for response	Open
4/6/19	RMS representative	Email with attachment provided in response to RMS's comments	Open
12/6/19	MLP representative	Email providing comments to previous responses	Open
13/06/19	MLP representative	Email providing additional comments to previous responses	Open
29/06/19	RMS representative	Response to comments and updated document submitted demonstrating comments incorporated	Open
22/07/19	MLP representative	Email providing comments on updated document	Open
07/08/19	RMS representative	Email providing updated document to confirm close out of comments	Open
09/08/19	RMS representative	Email and phone call to follow up on progress of close out.	Open
16/08/19	TfNSW Representative	Email with final RMS comments	Closed

2 PROJECT DESCRIPTION

2.1 Site Location

The MPE Project site, is located approximately 27 kilometres south-west of the Sydney Central Business District (CBD) and approximately 26 kilometres west of Port Botany and includes the former Defence National Storage and Distribution Centre (DNSDC) site. The MPE site is situated within the Liverpool Local Government Area, in Sydney's south west subregion, approximately 2.5 kilometres from the Liverpool city centre.

Figure 2-1 illustrates the MPE site location and local context.

2.2 Site Operations

The operational activities associated with the MLP East Precinct site, which are likely to result in vehicle movements into and out of the site are detailed as follows:

- Import Expert (IMEX) Terminal, operating 24 hours, seven days per week:
 - Rail loading/ unloading and container processing
 - Truck processing and holding
 - Maintenance activities, such as vegetation management, electrical infrastructure, civil and drainage work, signalling and track maintenance
- Rail link, operating 24 hours, seven days per week to support the IMEX terminal activities:
 - Maintenance activities, such as vegetation management, electrical infrastructure, civil and drainage work, signalling and track maintenance
- Common or non-tenanted areas:
 - An internal road network to enable efficient movement of vehicles, dispatch of freight from the warehouses and transport of containers between the IMEX Terminal and warehouse and distribution facilities
 - Maintenance activities, such as internal roads, utilities services, fire protection systems, drainage, fencing and signage, bush fire hazard reduction and pest and vegetation control
 - Waste management
- Warehousing operational activities (24 hours, seven days per week), which will be dependent on the individual tenant and will be detailed in the respective Warehouse Operational Environmental Management Plans.

2.3 Heavy Vehicle Access Routes

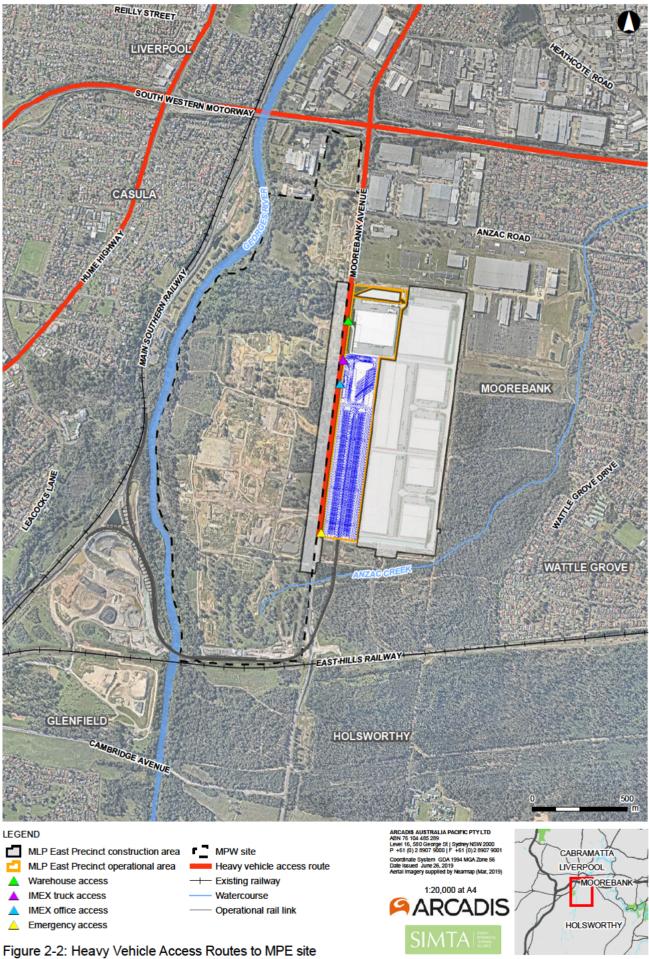
Figure 2-2 illustrates the heavy vehicle access routes to/ from the MPE site during the operation of the proposed facilities.

Biannual Trip Origin Destination Report Framework



Created by : EM

Biannual Trip Origin Destination Report Framework



Created by : EM

3 REPORTING FRAMEWORK

3.1 Frequency of Reporting

The Biannual Trip Origin and Destination Report is to be prepared every six months, starting six months from the commencement of operation. The report will be submitted within one month of its preparation throughout the operation of the MLP East Precinct, unless otherwise agreed by the Secretary, TfNSW and RMS.

3.2 Report Structure

The outline and structure of the *Biannual Trip Origin Destination Report* is provided in Table 3-1.

Appendix A provides templates for presenting the data analysis required for each section within the report.

Section	Description
Introduction	 This section will include the following subsections: Introduction Purpose Scope Period of Reporting.
Shipping container transport	 This section provides the total number of actual and standard 20- foot equivalent shipping containers dispatched and received during the period. This analysis will be primarily based on the operational data from logistical schedules. This section will include the following subsections: Shipping containers received Shipping containers dispatched. This data will be presented using a combination of tables (refer to template in Appendix A) and graphs.
Truck gate opening periods	 This section will detail the number of days in the period that the truck gate was open for dispatching trucks 24 hours a day, seven days a week and detail and exceptions to this and advise actual hours of operation. This analysis will be based on the operational data from logistical schedules and on-site monitoring (refer to Section 5.1.1). This section will include the following subsections: Period of opening Exceptions to full time opening Actual hours of opening. This data will be presented in a table (refer to template in Appendix A) with commentary of the results under each subsection.

Table 3-1: Report Outline and Structure

Section	Description
	This section will record the number of vehicles (split by Austroads light and heavy vehicle classification) accessing the site. This analysis will be based on logistical schedules, on-site monitoring and gate data (for the IMEX). Vehicles accessing the warehouse will be required to be recorded.
Traffic volumes	This section will include the following subsections:
	 Total vehicles accessing the site for reporting period.
	The total vehicles accessing the site will be presented in tables (refer to template in Appendix A) and graphs. The mid-block traffic volume profiles will be presented in graphs.
	This section will provide representative vehicle origins and destinations (split by Austroads light and heavy vehicle classification), based on the cordon identified for the site.
	This section will include the following subsections:
Origin-destination results	Approach distribution (origin)
	Departure distribution (destination).
	The data will be presented on plans indicating approach/ departure routes with the proportion of the total vehicles arriving/ leaving the MPE site.
Employee numbers	The Workplace Travel Plan requires Annual reporting of employee numbers to DP&E, TfNSW and RMS. To minimise the requirement for an additional report, employee numbers will be also included in <i>Biannual Trip Origin Destination Report</i>
Summary	Provides an overview of the findings reported above

3.3 Process

The process for preparing the *Biannual Trip Origin Destination Report* is illustrated in Figure 3-1.

Data collection (refer to Section 4)

- Commission traffic surveys in accordance with Section 4 of the Framework for Data Collection and Reporting
- Collate operational data from logistical schedules/ on-site monitoring.

Data verification and analysis

- Review and verify data
- Where data is incomplete provide qualification
- Analyse data.

Reporting (refer to Section 5)

- Prepare a report every six months of operation, to include:
 - Number of shipping containers
 - Number of days the truck gate was open 24/7
 - Number of vehicles accessing the site
 - Origin-destination analysis

Submission

Submit report to the Secretary, TfNSW and RMS within one month of its preparation

Figure 3-1: Biannual trip origin destination reporting process

4 ROLES AND RESPONSIBILITIES

An overview of the key roles for the MLP East Precinct are provided in Figure 4-1. The responsibilities for the preparation and submission of the *Biannual Trip Origin Destination Report* and implementation of this framework for each of the key roles are outlined in Table 4-1.

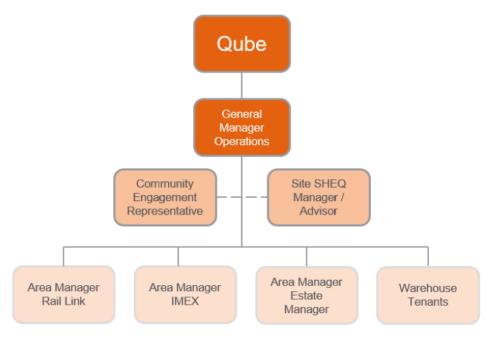


Figure 4-1: Key roles for MLP East Precinct

Table 4-1: Key roles and responsibilities

Role	Responsibility
	 Accountable for the operational activities and performance of the MLP East Precinct
General Manager Operations	 Provide sufficient resources to implement, develop and maintain the <i>Biannual Trip Origin Destination Report</i> and framework throughout the operating life of the MLP East Precinct
	 Define, document and communicate roles, responsibilities and authorities of all personnel to facilitate data collection, analysis and reporting
	 Review and approve changes to the framework and Biannual Trip Origin Destination Report
	 Based on the outcome of the review and validation of the data collected to support the development of the <i>Biannual Trip Origin Destination Report</i>, endorse the data as fit for purpose.
Area Managers: • IMEX	Responsible for the implementation of the <i>Biannual Trip</i> Origin Destination Report and framework within the areas of responsibility
Rail LinkEstate Manager	 Provide operational data to support the <i>Biannual Trip</i> Origin Destination Report, including logistical schedules and on-site monitoring data

Role	Responsibility
	 Communicate the requirements of the Biannual Trip Origin Destination Report and framework and obligations to the operational team
	 Monitor operations against the requirements of the CoC, collect data and maintain records required to inform the Biannual Trip Origin Destination Report
	 Where required, implement changes to activities to manage ongoing operation to the satisfaction of TfNSW and RMS
	 Report issues pertaining to the preparation of the Biannual Trip Origin Destination Report to the General Manager Operations.
	 Act as the primary contact point for TfNSW and RMS in relation to the Biannual Trip Origin Destination Report
	 Provide advice on matters specified in the CoC relating to the IMEX, Rail Link and Estate operations
	 Review and implement <i>Biannual Trip Origin Destination</i> Report and framework and monitoring programs required under the CoC
Site Safety, Health, Environment and Quality Manager / Advisor	 Monitor operations against the Biannual Trip Origin Destination Report and framework to evaluate compliance with the CoC
(Site HSEQ Manager / Advisor)	 Commission surveys and collate data required to carry out analysis and produce the Biannual Trip Origin Destination Report
	 Commission (if required), coordinate and manage resources to carry out the data collection, analysis and preparation of the <i>Biannual Trip Origin Destination</i> <i>Report</i>
	 Maintain the register of data collection and reports issued.
Community Engagement	 Act as the 'control tower' for all public communications and be the central contact to keep nearby residential receivers informed of monitoring/ surveys
Representative	 Communicate community concerns to the Qube Environmental Representative in relation to vehicle movements within the surrounding road network.
Individual Tenants	 Support the compliance with the CoC and provide data and information to Qube to inform the development of the Biannual Trip Origin Destination Report as required.

5 DATA COLLECTION FRAMEWORK

5.1 Data Collection Scope and Methodology

The following intersection, mid-block and origin-destination (OD) surveys should be carried out concurrently.

5.1.1 Operational Data Collection

Other Operational Data

The following operational data will be obtained from the logistical schedules or via onsite monitoring:

- Total vehicles accessing the site (B28 [c])
- Number of shipping containers (20-foot equivalent) dispatched and received by the site (B28 [a])
- Truck gate opening periods (B28 [b]).

IMEX Gate Data Collection

The IMEX accesses will be gated and data will be recorded to determine the number of vehicles entering and exiting the site (classified in accordance with Austroads vehicle classifications). In accordance with MPE Stage 1 (SSD 6766) CoC F6, a vehicle booking system will be implemented with all trucks fitted with Radio-Frequency Identification (RFID) readers. Road Operators will pre-book the Truck Visit with IMEX using 1-Stop, and data on road operator, container, truck details, and arrival and departure time(s). This data will be rechecked again on exit from the terminal to confirm load manifests.

Further detail on this process will be included within the Operational Traffic Management Plan developed in consultation with the Cargo Movement Coordination Centre.

The gate data will also be used to determine the periods during which the gates were open for the reporting period. The Area Managers will be responsible for recording the reasons for any potential periods of gate closure.

Warehouse Access Data Collection

The warehouse access will not be gated. Therefore, data will need to be collected to record the number of vehicles entering and exiting the site (classified in accordance with Austroads vehicle classifications) through the installation of permanent tube counters or detector loops.

Logistical Schedules

Logistical schedules maintained by the Area Managers will need to record the total number of 20-foot equivalent shipping containers that are received and dispatched by the MPE site for the reporting period.

5.1.2 Traffic Surveys

Traffic surveys will be commissioned to provide representative vehicle origins and destinations for the MPE site for a cordon area (see Figure 5-1) of the surrounding road network (B28 [d]). This requires collection of:

- Origin-destination (OD) surveys
- Intersection surveys at access points and key intersections.

OD Surveys

OD surveys will be undertaken to understand the traffic distribution of the MPE site on Moorebank Avenue, the M5 South Western Motorway, Anzac Road, Cambridge Avenue as well as all the access points of the MPE site. This data will be collected on the same day as the intersection surveys and will be analysed to provide representative vehicle origins and destinations for the site for a cordon area of the surrounding road network. This will be combined with classification counts in accordance with Austroads vehicle classifications and an hourly and daily summary.

OD surveys will be required as follows:

- During the following network peak periods on a typical weekday (not within two weeks before or after school holidays):
 - Peak morning period (7am to 9am)
 - Evening period (4pm to 6pm)
- During the following expected traffic peak periods for facility operations based on shift patterns and peak heavy vehicle movements Monday to Sunday:
 - 4:30am to 6:30am
 - 8am to 10am
 - 1pm to 3pm
 - 8pm to 11pm

Therefore, the OD surveys will be undertaken during the following times on weekdays:

- 4:30am to 6:30am
- 7am to 10am
- 1pm to 3pm
- 4pm to 6pm
- 8pm to 11pm.

The survey company commissioned to carry out the OD surveys is required to capture all vehicles passing the OD stations. A detailed report will be prepared by the survey company to summarise:

- The data collection process
- Data processing and analysis approach
- Outputs
- Data errors and expansion factors adopted to address incomplete data sets.

Intersection Surveys

Intersection turn counts are to be surveyed at the key MPE accesses along Moorebank Avenue. This data will be used to analyse the general network peak period volumes captured by the OD surveys, which will be undertaken concurrently to provide representative vehicle origins and destinations for the site. This data will also be used to confirm the data recorded at the gates and accesses of the facility during the peak periods.

Intersection surveys will be required for:

- Network peak morning period (7am to 9am) and evening period (4pm to 6pm) on a typical weekday (not within two weeks before or after school holidays)
- Expected facility peak periods of 4:30am to 6:30am, 8am to 10am, 1pm to 3pm, and 8pm to 10pm Monday to Sunday

- Classification counts in accordance with Austroads vehicle classifications
- 15-minute intervals
- Peak hour identified and reported.

The survey at the Moorebank Avenue/ M5 South Western Motorway is a full interchange survey with the through lanes on the M5 South Western Motorway recorded as well as the movements at the traffic signals.

5.1.3 Survey Locations

The suggested locations of the survey are provided in Figure 5-1, including:

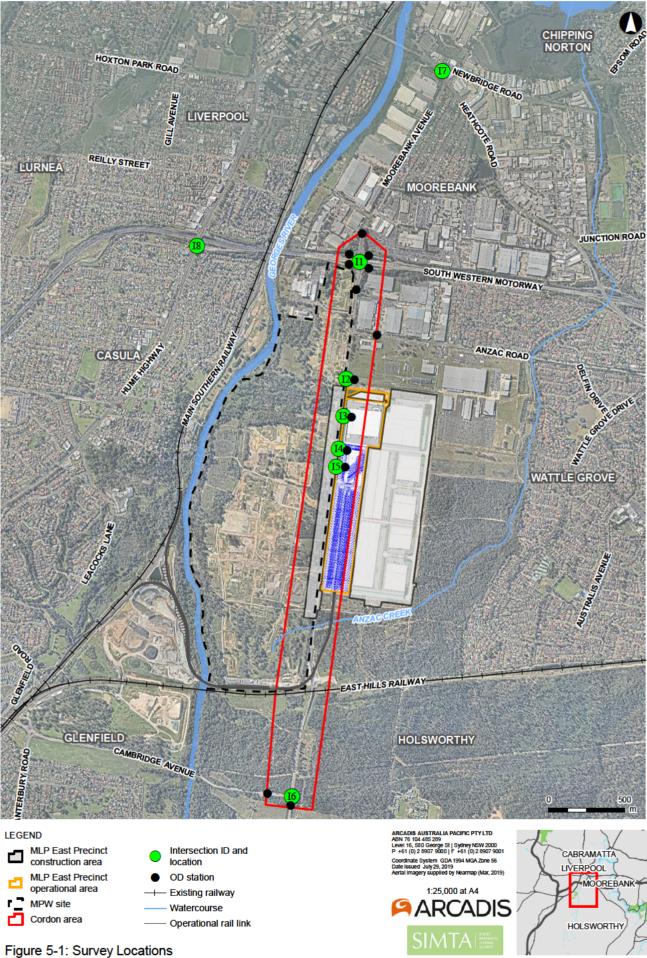
- OD surveys at the following stations:
 - Moorebank Avenue, about 350 metres north of the M5 South Western Motorway
 - Moorebank Avenue, about 300 metres south of the M5 South Western Motorway
 - Moorebank Avenue, south of Cambridge Avenue
 - M5 South Western Motorway on and off ramps to and from Moorebank Avenue
 - Cambridge Avenue
 - Anzac Road
 - Site accesses at MPE warehouse access, MPE IMT truck access and MPE IMT staff access.
- Intersection surveys:
 - I1 Moorebank Avenue/ M5 South Western Motorway interchange (full interchange survey to include M5 South Western Motorway through lanes)
 - I2 Moorebank Avenue/ Defence Joint Logistics Unit (DJLU) access
 - I3 Moorebank Avenue/ MPE warehouse access
 - I4 Moorebank Avenue/ MPE IMT truck access
 - I5 Moorebank Avenue/ MPE IMT staff access
 - I6 Moorebank Avenue/ Cambridge Avenue
 - I7 Moorebank Avenue/ Newbridge Road
 - I8 M5 South Western Motorway/ Hume Highway.

The OD survey locations were determined in consultation with a survey company to adequately capture the vehicle movements generated by the site for a recommended survey cordon, which includes the M5 South Western Motorway as well as RMS and TfNSW. The recommended cordon is considered appropriate to provide a representative OD pattern for the site.

Given that the Hume Highway is designed to accommodate substantial heavy vehicle movements, it is considered too far for the recommended cordon and heavy vehicles generated by the site would be absorbed in the existing traffic volumes on this part of the network.

OD stations have been included on Cambridge Avenue and Anzac Road to capture the travel patterns of all vehicles generated by the site. These stations would also identify any heavy vehicles using these routes, which are not designated heavy vehicle routes.

Biannual Trip Origin Destination Report Framework



Created by : EH

5.2 Using the Data in the Report

Providing Comparable Data

Data collection in accordance with this framework and carrying out surveys using methodology specified in Section 5.1 enables a comparative assessment of traffic accessing the site and growth in operational activities for the MPE facility.

Within the report, the data should be presented to provide a comparison between the current six-month period and preceding period. Table templates are provided in Appendix A, which will be used to present the data collected for each reporting period to satisfy CoC B28.

Data Completeness

Where data is incomplete, or data collection is flawed, the report will provide qualifying commentary, including:

- · Reason for missing/ erroneous data
- Impact on the analysis of the data
- Mitigation implemented for addressing the shortfall in data collection (if any).

Data Validation

All data collected will be reviewed and validated to confirm it is fit for purpose in addressing the requirements of the CoC.

Data Provision

All traffic survey data files will be provided to Transport for NSW and RMS, in addition to the summaries documented in the reporting tables.

APPENDIX A REPORTING TABLE TEMPLATES

Shipping Container Transport

Total number of shipping containers received/ dispatched by month

Reporting period	Month	Total containers received/ dispatched	Cumulative total for period		
	January				
	February				
Period 1 2019	March				
Period 1 2019	April				
	Мау				
	June				

Truck Gate Opening Period

Truck gate closure record

Date	Period of closure	Reason for closure

Traffic Volumes

Traffic volumes accessing site by month

Poperting	Month	Vehicles in		Vehicles out	
Reporting period		Light vehicles	Heavy vehicles	Light vehicles	Heavy vehicles
	January				
Devied 1 2010	February				
Period 1 2019	March				
	April				

Reporting period		Vehicles in		Vehicles out	
	Month	Light vehicles	Heavy vehicles	Light vehicles	Heavy vehicles
	Мау				
	June				

Traffic volumes accessing site by week

Reporting		Vehicles in		Vehicles out	Vehicles out	
period	Week	Light vehicles	Heavy vehicles	Light vehicles	Heavy vehicles	
	1					
	2					
	3					
	4					
	5					
	6					
	7					
	8					
	9					
	10					
Period 1 2019	11					
	12					
	13					
	14					
	15					
	16					
	17					
	18					
	19					
	20					
	21					

Reporting period	Week	Vehicles in		Vehicles out	
		Light vehicles	Heavy vehicles	Light vehicles	Heavy vehicles
	22				
	23				
	24				
	25				
	26				

OD Surveys All Vehicles (count of matched plates)

		To station						
From station	OD1	OD2	OD3	OD4	OD5	OD6	Total	
OD1								
OD2								
OD3								
OD4								
OD5								
OD6								
Total								

OD Surveys Light Vehicles (count of matched plates)

		To station					
From station	OD1	OD2	OD3	OD4	OD5	OD6	Total
OD1							
OD2							
OD3							
OD4							
OD5							

	To station	
OD6		
Total		

OD Surveys Rigid Heavy Vehicles (count of matched plates)

		To station						
From station	OD1	OD2	OD3	OD4	OD5	OD6	Total	
OD1								
OD2								
OD3								
OD4								
OD5								
OD6								
Total								

OD Surveys Articulated Heavy Vehicles (count of matched plates)

	To station						
From station	OD1	OD2	OD3	OD4	OD5	OD6	Total
OD1							
OD2							
OD3							
OD4							
OD5							
OD6							
Total							

Employee Numbers

Employee numbers per area of the site

Reporting period	Month	IMEX	Rail Link	Tenanted area			
	January						
	February						
Period 1 2019	March						
	April						
	Мау						
	June						