



## **Biannual Trip Origin Destination Report**

01 May 2024 – 31 October 2024

Moorebank Precinct East

24/06/2025

P1065r11

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I	24/06/2025	Issue I	J. Lam	J. Laidler

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#### Appendix A. BTODR Framework Report



# Glossary

Acronym	Description
BTODR	Biannual Trip Origin Destination Report
GFA	Gross Floor Area
IMEX	Import-Export Intermodal Terminal
INTS	Interstate Intermodal Terminal
MPE	Moorebank Precinct East
MPW	Moorebank Precinct West
OD	Origin-Destination
OTTIA	Operational Traffic and Transport Impact Assessment
RMS	Roads & Maritime Services
SSD	State Significant Development
TAIA	Traffic & Accessibility Impact Assessment
Tactical	Tactical Project Management Pty Ltd
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 2024	Biannual Trip Origin Destination Report, Moorebank Precinct East, Ref:1065r09 (Ason Group, July 2024)
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

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Ason Group has been commissioned by Tactical Project Management Pty Ltd on behalf of ESR to prepare a Biannual Trip Origin Destination Report for Moorebank Precinct East, including the Import-Export Intermodal Terminal, as outlined within the development consents SSD 7628 and SSD 6766. This BTODR has been prepared following Condition B28 of SSD 7628:

**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 the reporting period, 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, and process, that is ultimately intended for when MPE is fully operational. Currently MPE has a mixture of lots with operational warehouses or warehouses under construction; which creates challenges for collecting the full extent of data envisaged. Accordingly, this BTODR has been compiled based on the data currently available, with a view to achieving as best as possible the objectives of the BTODR.

Further to the above, **Table 1** summarises the operational status of the facilities within MPE.

**TABLE 1: BREAKDOWN OF OPERATIONAL STATUS WITHIN MPE**

Tenanted Area	Operational	
	1 May 2024 – 31 Oct 2024	1 Nov 2024 – 30 Apr 2025
IMEX	Yes	Yes
WH 1	Yes	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	Yes	Yes

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

## 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

The reporting period for this BTODR is the 6-month period from 01 Nov 2024 – 30 April 2025 (inclusive). The scope of this BTODR includes:

- Review of the number shipping containers dispatched and received (expressed in twenty-foot equivalent units).
- Review the number of days in the 6-month period that the truck gate was open for dispatching 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 road network.
- Comment on the employee numbers at MPE.

This report has assumed selected Origin-Destination 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 Data Collection

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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 some areas within the precinct that are under construction.

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

- Shipping Container Transport: 1 November 2024 – 30 April 2025
- Truck Gate opening period: 1 November 2024 – 30 April 2025
- Traffic Volumes: 5 May 2025 – 9 May 2025
- Origin / Destination Numbers: 5 May 2025 – 9 May 2025

## 2 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.

For reference, the BTODR considers the following movements for container movements.

- Inbound Movements: Containers (TEUs) from IMEX/INT Terminal to subject warehouse
- Outbound Movements: Containers (TEUs) from subject warehouse to IMEX/INT Terminal

Any and all information relating to the operations of the IMEX and Interstate Terminals have been outlined below, and has been sourced by Tactical, BMD, Qube Logistics, ESR and/or Knight Frank.

**TABLE 2: SHIPPING CONTAINER TRANSPORT (MEASURED IN TEU'S)**

Reporting Period	Month	Total Containers Received / Dispatched		Cumulative Total for Period	
		Inbound	Outbound	Inbound	Outbound
Period 9	May-2024	1,029	2,825	1,029	2,825
	Jun-2024	792	1,994	1,821	4,819
	Jul-2024	1,308	2,322	3,129	7,141
	Aug-2024	1,096	1,578	4,225	8,719
	Sep-2024	1,937	2,677	6,162	11,396
	Oct-2024	2,915	3,277	9,077	14,673
Period 10	Nov-2024	13,361	13,427	13,361	13,427
	Dec-2024	12,308	12,287	25,669	25,714
	Jan-2025	13,684	13,703	39,353	39,417
	Feb-2025	15,417	15,191	54,770	54,608
	Mar-2025	15,539	15,522	70,309	70,130
	Apr-2025	16,098	15,992	86,407	86,122

# 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 MPE	
Reporting Period	Period of Opening
Period 9	1 May 2024 – 31 October 2024
Period 10	1 November 2024 – 30 April 2025

## 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 9	No Closures during this period	-
Period 10	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: 4:00am – 3:00am
- Saturday: 4:00am – 4:00pm
- Sunday: Closed

# 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 accesses on Moorebank Avenue. Noting that access to the MPE warehouse tenancies and MPE IMEX terminal have now been separated, the reported traffic volumes have since been updated to include data from both access points. **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	
		Light Vehicles	Heavy Vehicles	Light Vehicles	Heavy Vehicles
Period 9	18 Nov 2024 – 22 Nov 2024	964	456	1,011	489
Period 10	5 May 2025 – 9 May 2025	1,579	871	1,589	904

## 5 Origin-Destination Results

### 5.1 Survey Locations

OD surveys have been undertaken to understand the assignment and 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 in **Table 6**.

**TABLE 6: OD SURVEY GATES**

Gate Number	Gate Location
OD1	Moorebank Ave, about 350m 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 Ave, about 300m south of the M5 South Western Motorway
OD7	Anzac Rd
OD8	MPE Main Access
OD9	MPE IMEX Main Access
OD10	Cambridge Ave
OD11	MPW Main Access
OD12	MPW INTS Main Access

### 5.2 Amendments to Survey Locations

During a previous reporting period of the BTODR (Period 4: 1 May 2022 – 31 October 2022), concerns were raised by the Department of Defence (DoD). DoD owns and manages sensitive properties within proximity of the Moorebank Intermodal (IMT) and were concerned about the potential for security issues for their property and/or personnel arising from traffic survey data that is routinely collected for the IMT using video camera technology. The main concern of DoD relates to the security of personnel arriving/departing from their lands and the potential for the driver and/or their vehicles being identified from the video footage.

The DoD outlined the 2 intersections that are of significance, being:

- Access intersection of the Defence Joint Logistics Unit (DJLU) with Moorebank Avenue
- Moorebank Avenue intersection with Cambridge Avenue – The southern approach of Moorebank Avenue effectively provides the rear access to the Holsworthy Military Barracks

Ason Group were instructed to remove OD and CIC survey from both intersections, therefore for this reporting period of the BTODR, both survey locations have been removed. The updated survey locations are outlined in **Table 6** and **Figure 1**.



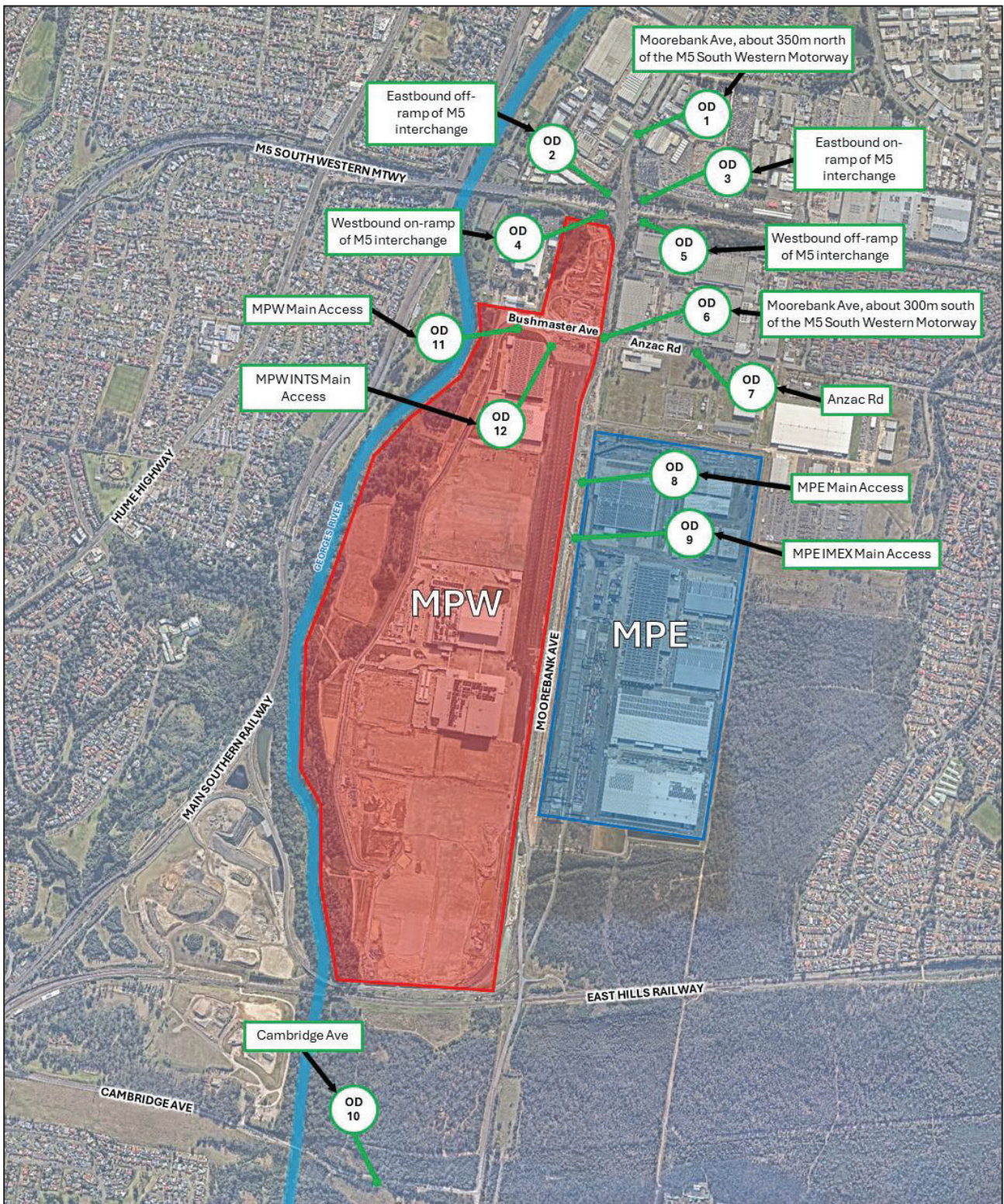


Figure 1: Origin-Destination Gates

Additionally, the Moorebank Precinct West began operations during the reporting period 1 May 2024 – 31 October 2024. Hence, 2 additional sites have since been included in the OD surveys:

- OD 11: Access intersection of the Moorebank Precinct West with Consignment Street.
- OD 12: Access intersection of the Moorebank Precinct West Interstate Terminal with Bushmaster Avenue.



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

**TABLE 7: AVERAGE OD MOVEMENTS – ALL VEHICLES**

	To Station												
From Station	1	2	3	4	5	6	7	8	9	10	11	12	Total
1	0	0	497	10,391	0	3,363	924	217	29	1,393	216	0	17,030
2	16,279	0	0	354	0	5,318	1,414	491	140	1,889	463	0	26,348
3	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0
5	1,691	0	1,691	0	0	3,333	811	221	79	1,292	199	0	9,317
6	3,743	0	3,564	4,398	0	0	3,434	1,156	413	4,790	1,086	0	22,584
7	919	0	614	883	0	2,416	0	207	32	1,532	76	0	6,679
8	377	0	218	341	0	920	198	0	0	122	12	0	2,188
9	363	0	137	255	0	751	27	13	0	24	3	0	1,573
10	2,460	0	2,102	2,132	0	6,694	1,687	141	48	0	102	0	15,366
11	232	0	55	110	0	397	70	3	4	61	0	1	933
12	9	0	3	4	0	10	0	0	0	0	3	0	29
Total	26,073	0	8,881	18,868	0	23,202	8,565	2,449	745	11,103	2,160	1	102,047

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

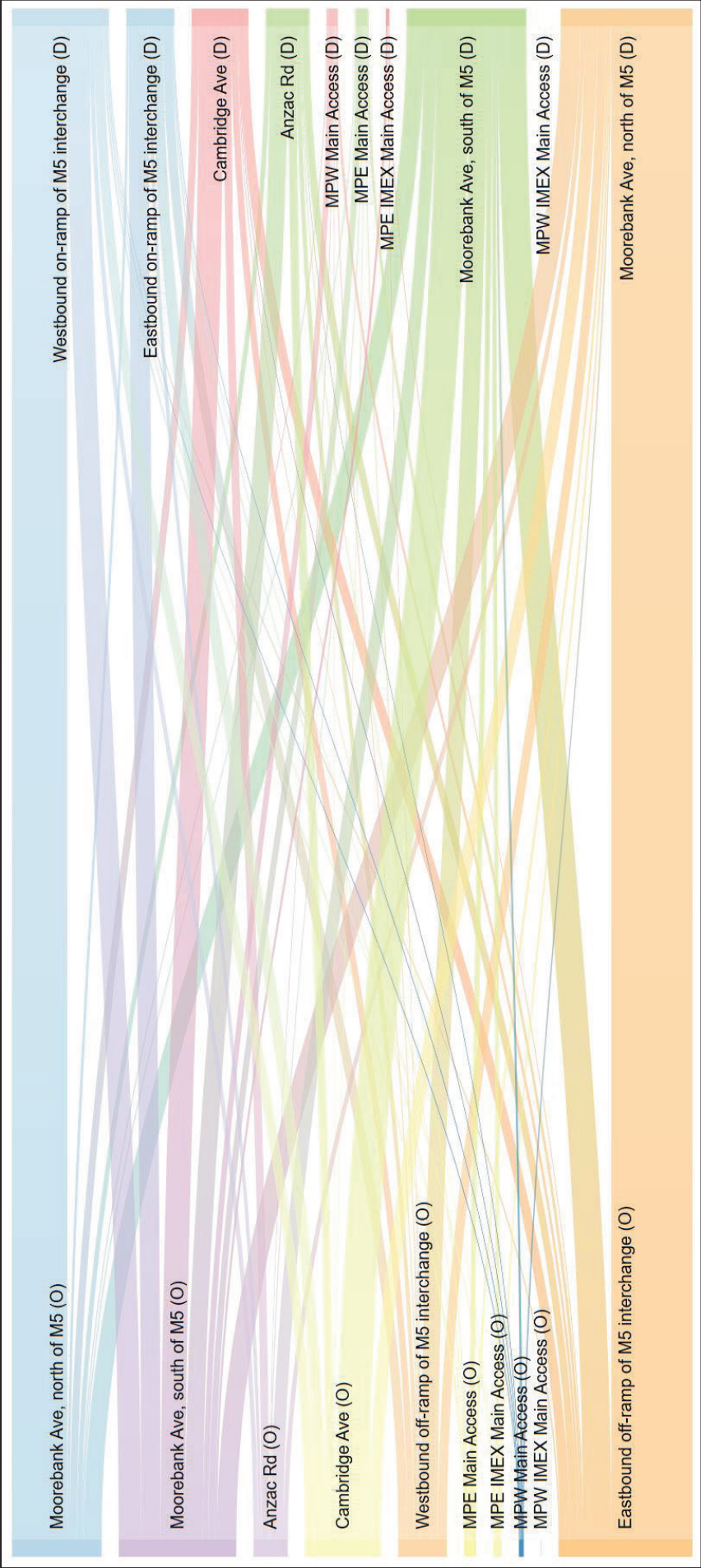


Figure 2: Visual of Average OD Movements – All Vehicles

**TABLE 8: AVERAGE OD MOVEMENTS – LIGHT VEHICLES**

To Station													
From Station	1	2	3	4	5	6	7	8	9	10	11	12	Total
1	0	0	393	8,850	0	2,993	858	169	19	1,368	193	0	14,843
2	14,747	0	0	333	0	4,518	1,310	348	48	1,848	382	0	23,534
3	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0
5	1,559	0	1,559	0	0	2,853	757	171	15	1,253	184	0	8,351
6	3,398	0	3,045	3,638	0	0	3,095	775	158	4,589	858	0	19,556
7	758	0	567	796	0	2,121	0	202	32	1,528	59	0	6,063
8	361	0	210	330	0	901	192	0	0	98	5	0	2,097
9	141	0	42	70	0	253	27	0	0	21	0	0	554
10	2,349	0	2,061	2,077	0	6,487	1,676	126	13	0	102	0	14,891
11	119	0	41	64	0	224	59	0	0	59	0	1	567
12	7	0	3	3	0	7	0	0	0	0	3	0	23
Total	23,439	0	7,921	16,161	0	20,357	7,974	1,791	285	10,764	1,786	1	90,479

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

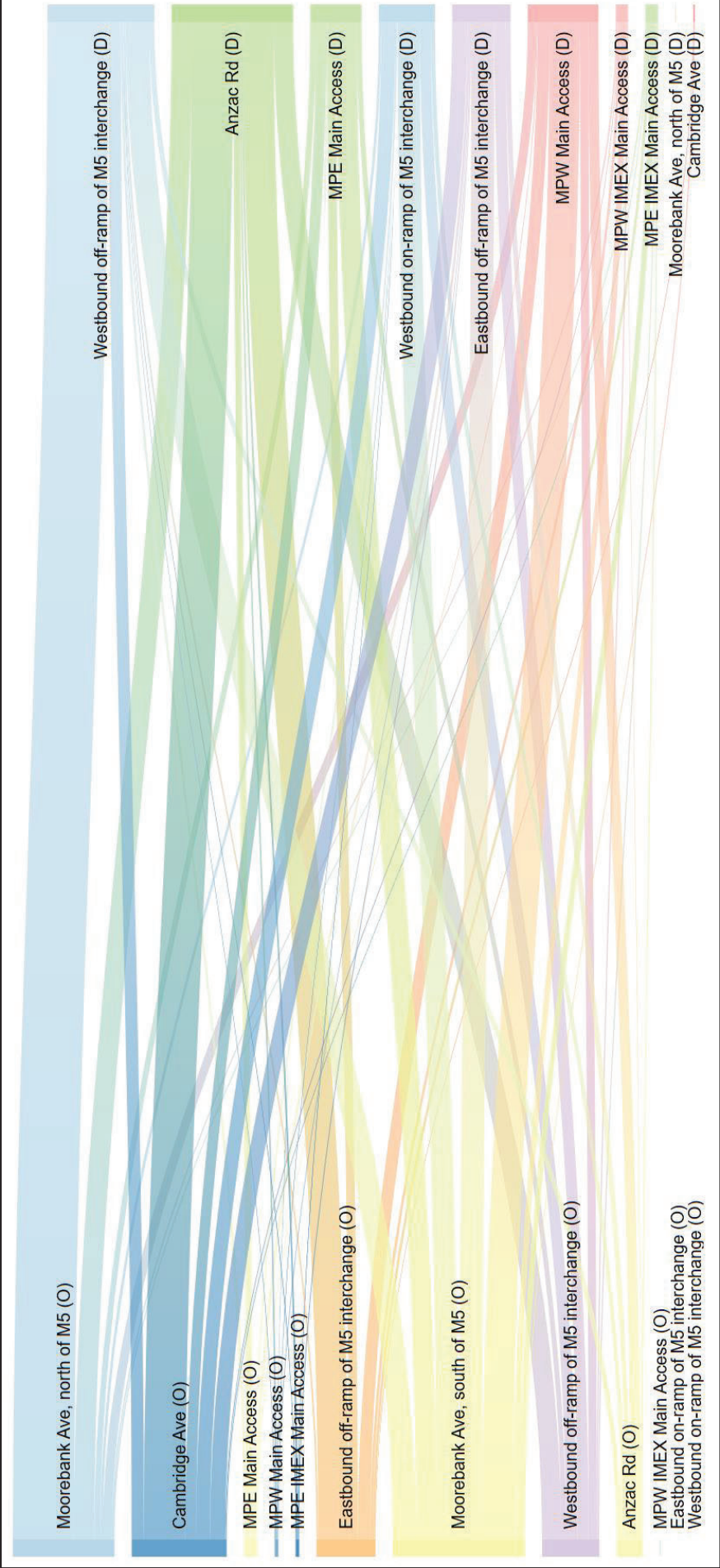


Figure 3: Visual of Average OD Movements – Light Vehicles

**TABLE 9: AVERAGE OD MOVEMENTS – RIGID HEAVY VEHICLES**

	To Station												
From Station	1	2	3	4	5	6	7	8	9	10	11	12	Total
1	0	0	67	971	0	311	65	46	0	25	23	0	1,508
2	1,040	0	0	19	0	406	85	76	0	34	40	0	1,700
3	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0
5	98	0	98	0	0	239	41	37	0	21	12	0	546
6	271	0	268	403	0	0	271	224	13	148	129	0	1,727
7	120	0	41	71	0	232	0	5	0	4	17	0	490
8	11	0	5	7	0	13	6	0	0	24	3	0	69
9	126	0	65	106	0	295	0	12	0	3	0	0	607
10	103	0	38	50	0	191	11	15	13	0	0	0	421
11	59	0	10	25	0	94	11	1	0	2	0	0	202
12	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	1,828	0	592	1,652	0	1,781	490	416	26	261	224	0	7,270



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

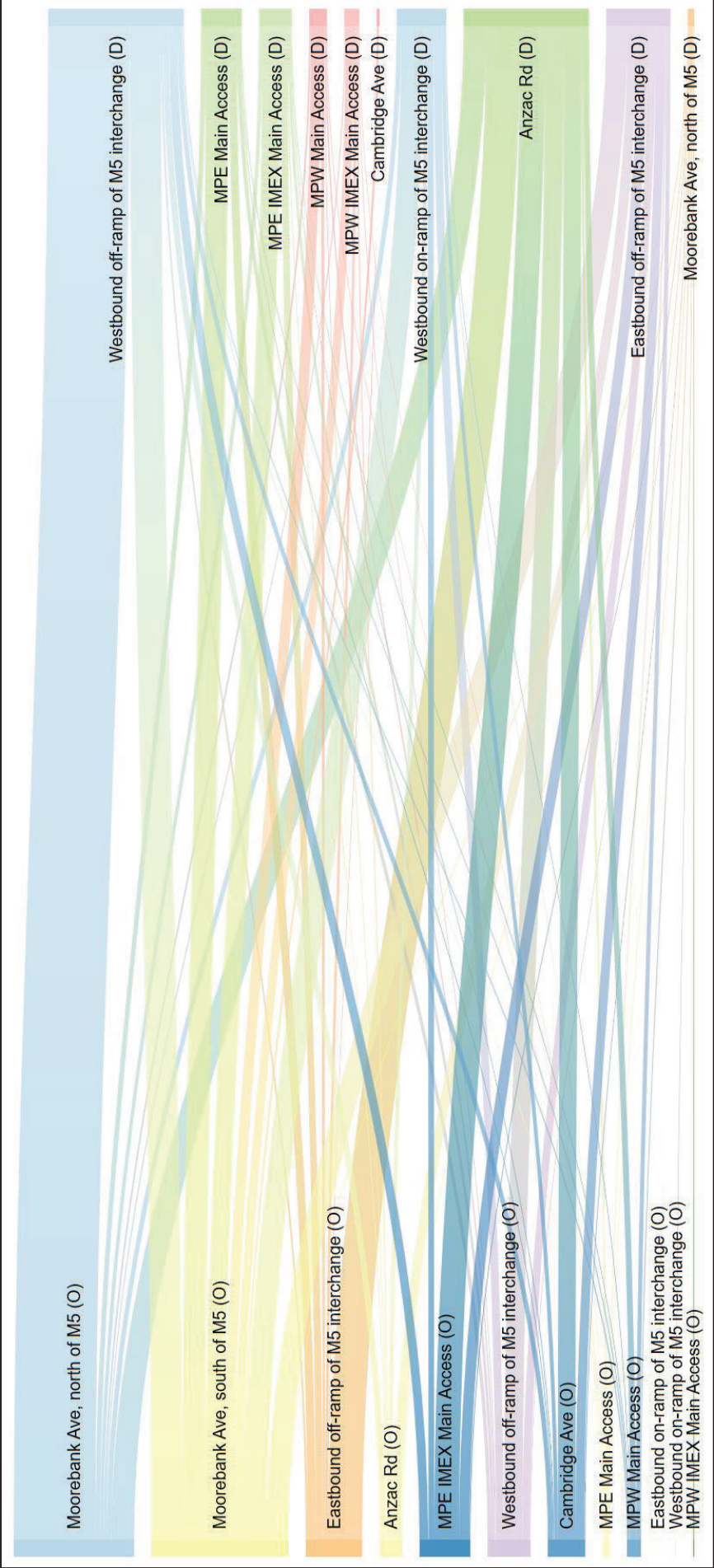


Figure 4: Visual of Average OD Movements – Rigid Heavy Vehicles

**TABLE 10: AVERAGE OD MOVEMENTS – ARTICULATED HEAVY VEHICLES**

	To Station												
From Station	1	2	3	4	5	6	7	8	9	10	11	12	Total
1	0	0	37	570	0	59	1	2	10	0	0	0	679
2	492	0	0	2	0	394	19	67	92	7	41	0	1,114
3	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0
5	34	0	34	0	0	241	13	13	64	18	3	0	420
6	74	0	251	357	0	0	68	157	242	53	99	0	1,301
7	41	0	6	16	0	63	0	0	0	0	0	0	126
8	5	0	3	4	0	6	0	0	0	0	4	0	22
9	96	0	30	79	0	203	0	1	0	0	3	0	412
10	8	0	3	5	0	16	0	0	22	0	0	0	54
11	54	0	4	21	0	79	0	2	4	0	0	0	164
12	2	0	0	1	0	3	0	0	0	0	0	0	6
Total	806	0	368	1,055	0	1,064	101	242	434	78	150	0	4,298



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

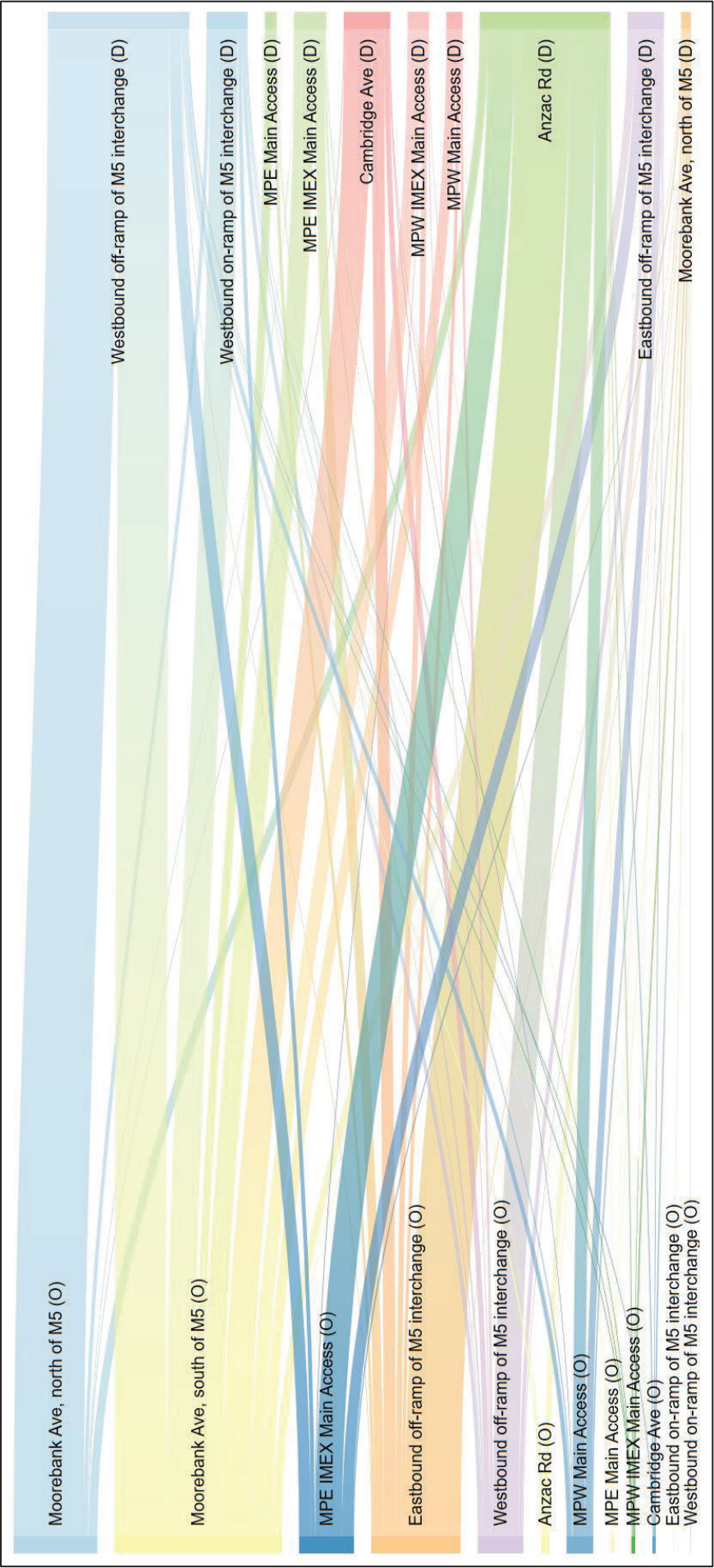


Figure 5: Visual of Average OD Movements – Articulated Heavy Vehicles

# 6 Employee Numbers

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

TABLE 11: EMPLOYEE NUMBERS BY FACILITY		
Tenanted Area	Employee Numbers	
	Period 9 (1 May 2024 – 31 Oct 2024)	Period 10 (1 Nov 2024 – 30 Apr 2025)
IMEX	31	31 <sup>(1)</sup>
Rail Link	9 <sup>(1)</sup>	9 <sup>(1)</sup>
WH 1	80	180
WH 3A	15	15
WH 3B	52	54
WH 4A	12	20
WH 4B	36	32
WH 5	10	10 <sup>(1)</sup>
WH 6	N/A	N/A
WH 7	110	125

*Note: (1) Any information not received from individual tenants have been assumed to be consistent with the previous reporting period. This report will be updated if/when the information is provided.*

## 7 Summary

The data provided within this BTODR for MPE 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 1 November 2024 and 30 April 2025.

# Appendix A. BTODR Framework Report

# MOOREBANK PRECINCT EAST - BIANNUAL TRIP ORIGIN DESTINATION REPORT

Framework for Data Collection and Reporting

27 AUGUST 2019





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# QUBE

## MOOREBANK PRECINCT EAST - BIANNUAL TRIP ORIGIN DESTINATION REPORT

Framework for Data Collection and Reporting

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## REVISIONS

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005	28/06/19	Revised to address further agency comments	KP	NV
006	29/07/19	Revised to address further agency comments	NV	KP
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008	27/08/19	Updated to close out RMS consultation	NV	AL

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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	<i>Environmental Planning and Assessment Act 1979</i>
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
<b>Primary Conditions</b>		
B28	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 gate was open for despatching trucks 24 hours a day, 7 days a week and detail and exceptions to this and advise actual hours of operation;	Section 3 Section 5 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.
	c. records of vehicle numbers accessing the site; and	Section 5
	d. representative vehicle origin and destinations, based on a cordon in the surrounding network.	Section 5
	<b>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.</b>	This document provides a framework for recording and reporting on the data required for the <i>Biannual Trip Origin and Destination Report</i>

CoC	Requirement	Document Reference
	<p>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.</p> <p>The cordon count at (d) above will:</p> <ul style="list-style-type: none"> <li>• apply to all classes of vehicles; and</li> <li>• cover the intermodal terminal, the warehousing facility and any other uses such as the freight village.</li> </ul>	Section 3.1
<b>Secondary Conditions</b>		
B89	<p>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.</p>	Section 2.3

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

CoC	Requirement	Document Reference
<b>Secondary Conditions</b>		
	<p>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:</p>	Section 3.1
G11	<p>a) The number of twenty foot equivalent units dispatched and received during the period</p>	<p>Section 3</p> <p>Section 5</p>
	<p>b) A record of heavy vehicle entry by date and approximate time; and</p>	Section 5
	<p>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</p>	Section 5
G14	<p>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.</p>	Section 2.3

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
Transport for NSW (TfNSW)	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
	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

Roads and Maritime Service (RMS)	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
	26/4/19	RMS representative	Email to follow up on progress of review	Open
	2/5/19	RMS representative	Email to follow up on progress of review	Open
Roads and Maritime Service (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 Export (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.



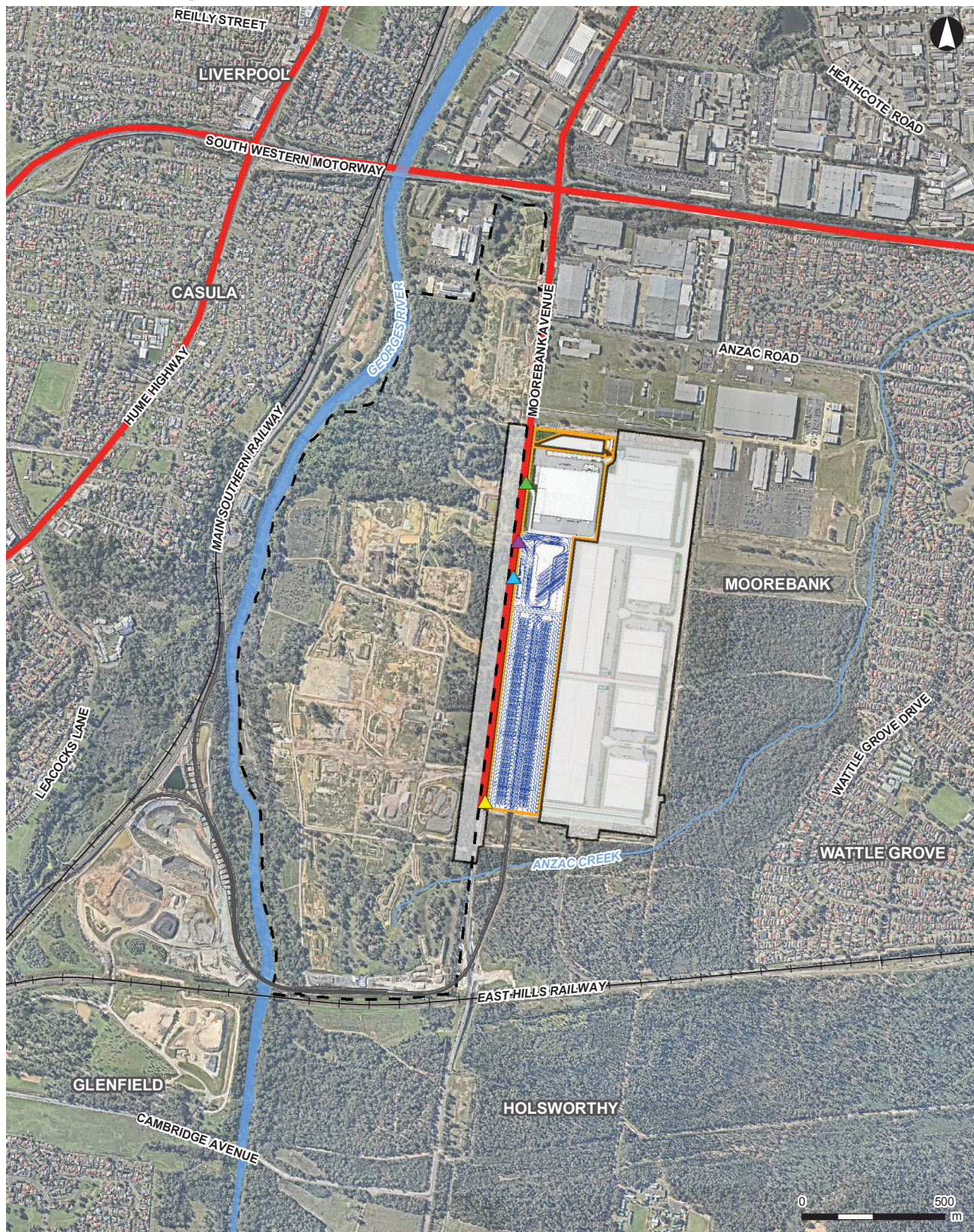
Biannual Trip Origin Destination Report Framework



Figure 2-1: Site Location and Local Context



## Biannual Trip Origin Destination Report Framework



### LEGEND

- |                                     |                            |
|-------------------------------------|----------------------------|
| MLP East Precinct construction area | MPW site                   |
| MLP East Precinct operational area  | Heavy vehicle access route |
| Warehouse access                    | Existing railway           |
| IMEX truck access                   | Watercourse                |
| IMEX office access                  | Operational rail link      |
| Emergency access                    |                            |

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 ABN 76 104 485 289  
 Level 16, 580 George St | Sydney NSW 2000  
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 Coordinate System: GDA 1994 MGA Zone 56  
 Date issued: June 26, 2019  
 Aerial imagery supplied by Neamap (Mar, 2019)

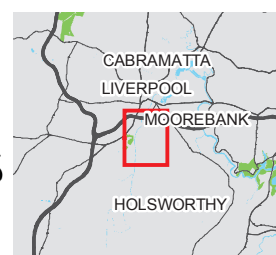


Figure 2-2: Heavy Vehicle Access Routes to MPE site



## 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.

Table 3-1: Report Outline and Structure

Section	Description
Introduction	<p>This section will include the following subsections:</p> <ul style="list-style-type: none"><li>• Introduction</li><li>• Purpose</li><li>• Scope</li><li>• Period of Reporting.</li></ul>
Shipping container transport	<p>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.</p> <p>This section will include the following subsections:</p> <ul style="list-style-type: none"><li>• Shipping containers received</li><li>• Shipping containers dispatched.</li></ul> <p>This data will be presented using a combination of tables (refer to template in Appendix A) and graphs.</p>
Truck gate opening periods	<p>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).</p> <p>This section will include the following subsections:</p> <ul style="list-style-type: none"><li>• Period of opening</li><li>• Exceptions to full time opening</li><li>• Actual hours of opening.</li></ul> <p>This data will be presented in a table (refer to template in Appendix A) with commentary of the results under each subsection.</p>

Section	Description
Traffic volumes	<p>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.</p> <p>This section will include the following subsections:</p> <ul style="list-style-type: none"> <li>• Total vehicles accessing the site for reporting period.</li> </ul> <p>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.</p>
Origin-destination results	<p>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.</p> <p>This section will include the following subsections:</p> <ul style="list-style-type: none"> <li>• Approach distribution (origin)</li> <li>• Departure distribution (destination).</li> </ul> <p>The data will be presented on plans indicating approach/ departure routes with the proportion of the total vehicles arriving/ leaving the MPE site.</p>
Employee numbers	<p>The Workplace Travel Plan requires Annual reporting of employee numbers to DP&amp;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></p>
Summary	<p>Provides an overview of the findings reported above</p>

### 3.3 Process

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



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.

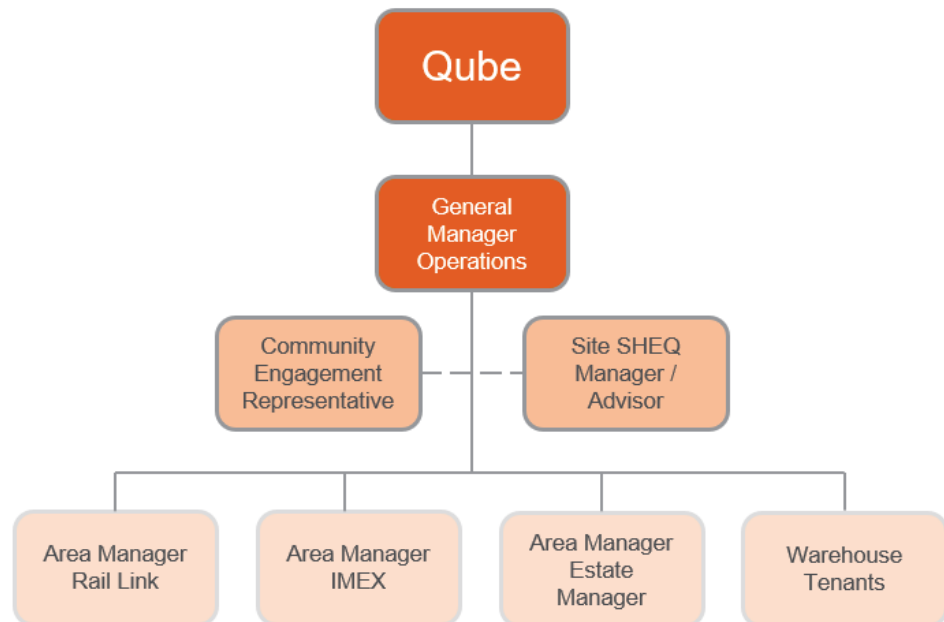


Figure 4-1: Key roles for MLP East Precinct

Table 4-1: Key roles and responsibilities

Role	Responsibility
<b>General Manager Operations</b>	<ul style="list-style-type: none"> <li>Accountable for the operational activities and performance of the MLP East Precinct</li> <li>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</li> <li>Define, document and communicate roles, responsibilities and authorities of all personnel to facilitate data collection, analysis and reporting</li> <li>Review and approve changes to the framework and <i>Biannual Trip Origin Destination Report</i></li> <li>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.</li> </ul>
<b>Area Managers:</b> <ul style="list-style-type: none"> <li>IMEX</li> <li>Rail Link</li> <li>Estate Manager</li> </ul>	<ul style="list-style-type: none"> <li>Responsible for the implementation of the <i>Biannual Trip Origin Destination Report</i> and framework within the areas of responsibility</li> <li>Provide operational data to support the <i>Biannual Trip Origin Destination Report</i>, including logistical schedules and on-site monitoring data</li> </ul>

Role	Responsibility
	<ul style="list-style-type: none"> <li>Communicate the requirements of the <i>Biannual Trip Origin Destination Report</i> and framework and obligations to the operational team</li> <li>Monitor operations against the requirements of the CoC, collect data and maintain records required to inform the <i>Biannual Trip Origin Destination Report</i></li> <li>Where required, implement changes to activities to manage ongoing operation to the satisfaction of TfNSW and RMS</li> <li>Report issues pertaining to the preparation of the <i>Biannual Trip Origin Destination Report</i> to the General Manager Operations.</li> </ul>
<b>Site Safety, Health, Environment and Quality Manager / Advisor</b> <b>(Site HSEQ Manager / Advisor)</b>	<ul style="list-style-type: none"> <li>Act as the primary contact point for TfNSW and RMS in relation to the <i>Biannual Trip Origin Destination Report</i></li> <li>Provide advice on matters specified in the CoC relating to the IMEX, Rail Link and Estate operations</li> <li>Review and implement <i>Biannual Trip Origin Destination Report</i> and framework and monitoring programs required under the CoC</li> <li>Monitor operations against the <i>Biannual Trip Origin Destination Report</i> and framework to evaluate compliance with the CoC</li> <li>Commission surveys and collate data required to carry out analysis and produce the <i>Biannual Trip Origin Destination Report</i></li> <li>Commission (if required), coordinate and manage resources to carry out the data collection, analysis and preparation of the <i>Biannual Trip Origin Destination Report</i></li> <li>Maintain the register of data collection and reports issued.</li> </ul>
<b>Community Engagement Representative</b>	<ul style="list-style-type: none"> <li>Act as the 'control tower' for all public communications and be the central contact to keep nearby residential receivers informed of monitoring/ surveys</li> <li>Communicate community concerns to the Qube Environmental Representative in relation to vehicle movements within the surrounding road network.</li> </ul>
<b>Individual Tenants</b>	<ul style="list-style-type: none"> <li>Support the compliance with the CoC and provide data and information to Qube to inform the development of the <i>Biannual Trip Origin Destination Report</i> as required.</li> </ul>



## 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 on-site 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.

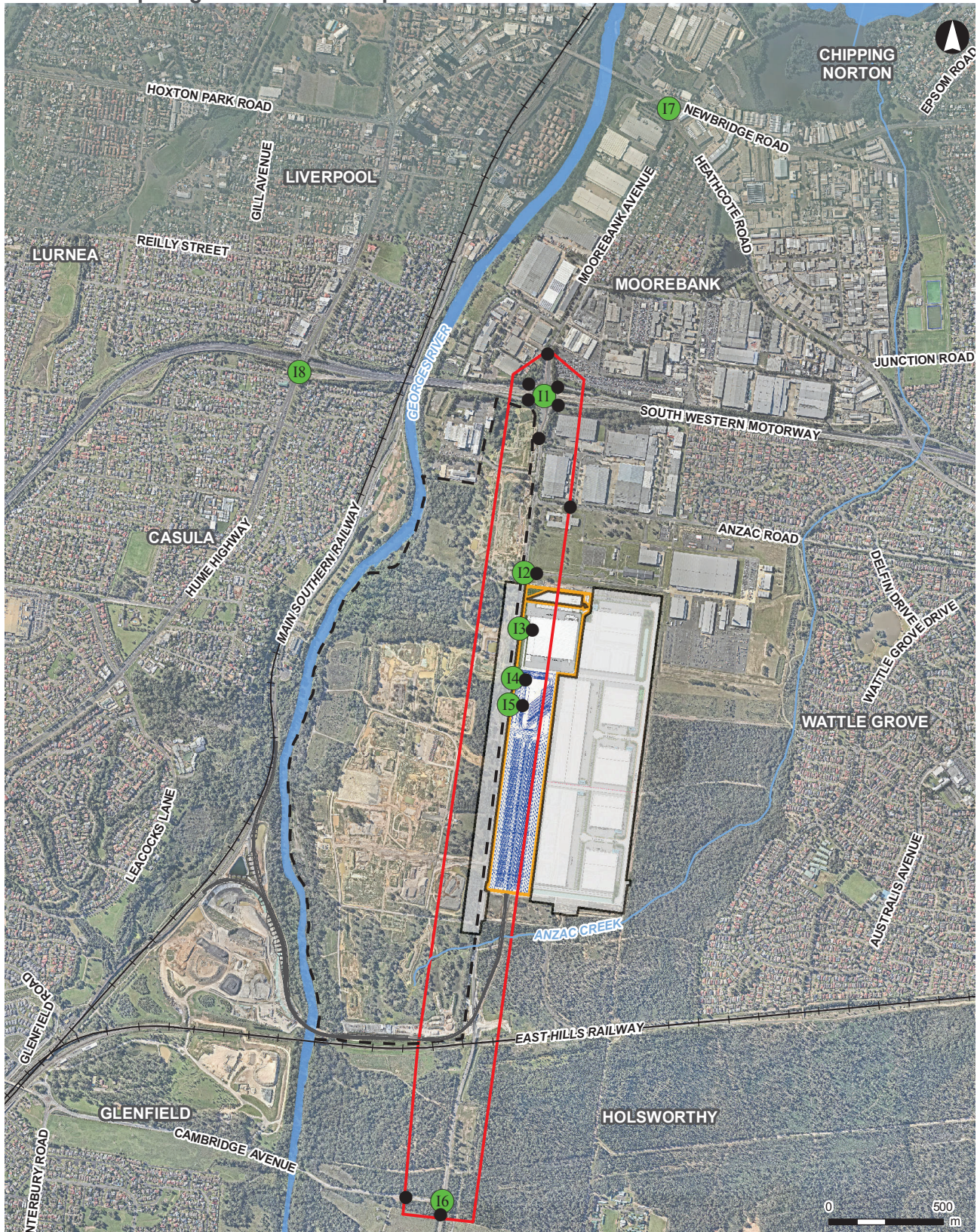
The OD survey locations were determined in consultation with a survey company to adequately capture the vehicle movements generated by the site for a recommended survey cordon, which includes the M5 South Western Motorway as well as RMS and TfNSW. The recommended cordon is considered appropriate to provide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



## LEGEND

- |                                     |                              |
|-------------------------------------|------------------------------|
| MLP East Precinct construction area | Intersection ID and location |
| MLP East Precinct operational area  | OD station                   |
| MPW site                            | Existing railway             |
| Cordon area                         | Watercourse                  |
|                                     | Operational rail link        |

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 ABN 76 104 485 289  
 Level 16, 580 George St | Sydney NSW 2000  
 P: +61 (0) 2 8907 9000 | F: +61 (0) 2 8907 9001  
 Coordinate System: GDA 1994 MGA Zone 56  
 Date issued: July 29, 2019  
 Aerial imagery supplied by Neamap (Mar, 2019)

1:25,000 at A4

**ARCADIS**

**SIMTA** | SYSTEM INTEGRATED  
 MULTIMODAL TRIP ANALYSIS

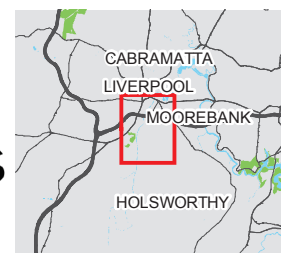


Figure 5-1: Survey Locations



## 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
Period 1 2019	January		
	February		
	March		
	April		
	May		
	June		

## Truck Gate Opening Period

Truck gate closure record

Date	Period of closure	Reason for closure

## Traffic Volumes

Traffic volumes accessing site by month

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

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

Traffic volumes accessing site by week

Reporting period	Week	Vehicles in		Vehicles out	
		Light vehicles	Heavy vehicles	Light vehicles	Heavy vehicles
Period 1 2019	1				
	2				
	3				
	4				
	5				
	6				
	7				
	8				
	9				
	10				
	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
Period 1 2019	January			
	February			
	March			
	April			
	May			
	June			

## **APPENDIX B EVIDENCE OF CONSULTATION**

Mr Ibrahim Awad  
Environmental Manager  
Tactical Group  
Level 15  
124 Walker Street  
North Sydney NSW 2060

Dear Mr Awad

**Moorebank Logistics Park MPE Stage 1 (SSD-6766) and Stage 2 (SSD\_7628) - B2 (CTAMP-B), B28 (Biannual Report Framework), B26 OTAMP & B29 WTP**

Thank you for your correspondence dated 11 April 2019, requesting Transport for NSW (TfNSW) comments on the following reports:

- Construction Traffic & Access Management Plan B (CTAMP B)
- Operations Traffic & Access Management Plan (OTAMP)
- Bi-annual Trip Report
- Workplace Travel Plan (WTP)

It is advised that:

- Roads and Maritime Services will provide a separate response on the Construction Traffic & Access Management Plan B (CTAMP B) and Operations Traffic & Access Management Plan (OTAMP); and
- Details comments on the Bi-annual trip report and the Workplace Travel Plan (WTP) are included in **TAB A**.

If you require clarification on the above, please don't hesitate to contact Para Sangar, Senior Transport Planner on 0466 024 892.

Yours sincerely



16/5/2019

Mark Ozinga  
**Principal Manager, Land Use Planning and Development  
Freight, Strategy and Planning**

Objective Number CD19/03084

## **TAB A – Detailed Comments**

### **Bi-Annual Trip Report**

#### **Section 5.1.2 – Traffic Surveys**

- This section needs to clearly state the purpose of these traffic surveys and whether light and heavy vehicles will be surveyed;
- Peak periods of the development is not included for the survey period (5am-6am and 1pm-2pm);
- No information in relation to the sample size for light and heavy vehicles that would be captured for Origin-Destination surveys is provided; and
- The proposed Origin-Destination Surveys do not capture vehicle movements along the interchange ramps of M5 Motorway/Moorebank Avenue.

### **Workplace Travel Plan (WTP)**

#### **Section 1.5 - Objectives and Targets**

The overall objective of the precinct-wide Workplace Travel Plan (WTP) should incorporate visitors as well as employees and the target mode share highlighted - 30% for public and active transport - should be set for an initial period of time not the lifetime of operations and targets should be reviewed and revised as appropriate during the monitoring and evaluation process.

#### **Section 2.2.1 – EPBC Act Approval**

The summary of mitigation measures includes the following:

- Consideration of the establishment of Glenfield Station to Liverpool Station express bus;
- Installation of a bus interchange and waiting area; and
- Consideration of the extension of Bus Route 901.

It is advised that

- Providing an attractive public bus route is not possible until Cambridge Avenue has been upgraded to eliminate flooding;
- Any bus route diversion needs to be logical and does not require the bus to double back on itself. Bus facilities for east and west Moorebank sites needs to ensure that in servicing both sites buses are not doubling back on themselves as well;
- If Cambridge Avenue upgrade is implemented, any on site diversions and bus facilities need also to be built to be compatible with a bus route linking Glenfield to Liverpool via Cambridge Avenue and Moorebank Avenue which services both sites rather than the 901 which would only ever be attractive for workers coming from Liverpool; and
- Future bus facilities need to consider the realignment of Moorebank Avenue.

### Section 2.3 - Roles and Responsibilities

An important component of the overall WTP for the Moorebank Logistics Park – East precinct going forward will be the preparation of individual / organisational WTPs by each tenant/occupant. It should be a requirement of all tenants/occupants to develop and manage an individual WTP and contribute to the on-going development and management of the precinct-wide WTP.

It is recommended that:

- A Steering Group (comprising representatives from each organisation across the precinct) is formed to oversee the development and management of the precinct-wide WTP and individual WTPs; and
- A succinct one page summary of key components of the precinct-wide WTP/individual organisational WTPs is provided to include:
  - Statement demonstrating ongoing commitment of senior executive management across all workplaces across the Precinct to the:
    - Promotion of sustainable transport and operating practices; and
    - Ongoing development, implementation, monitoring, evaluation, reporting and management of a precinct-wide / individual organisational WTP.
  - Governance structure:
    - Details of precinct-wide Steering Group (interim arrangements until full occupation of precinct) and intent to form a Working Group comprising nominated Travel Plan coordinator/champion for the precinct / representative for each workplace/organisation.
- Agreed Action Plan:
  - As agreed by precinct-wide Steering Group, overview of WTP outcomes, goals and objectives, mode share targets and action plan including proposed measures, initiatives, monitoring, evaluation, reporting and stakeholder engagement strategies with indicative timeline and individual / group / agency responsible for actioning; and
  - Each tenant/organisation should prepare a summary, as detailed above, of its WTP, developed in close consultation with its occupants and visitors.

### Section 6.3 – Management Measures

It is recommended that the following management measures are added:

- The Interim Steering Group needs to establish a stakeholder engagement strategy as early as possible, identifying and consulting with key partners at the earliest opportunity to assist with the progression of identified actions prior to occupation e.g. State government, local council, local community, transport operators.
- Travel Information Pack needs to be prepared to include an introductory statement from the Precinct management/ Steering Group promoting sustainable transport and operating practices and encouraging use of active and public transport. The document provides an opportunity to raise awareness of the WTP and individual organisation WTPs and the intent of the precinct management to include the whole precinct community in the on-going development, implementation and management of the wider and individual WTPs.

- The Travel Information Pack including the Transport Access Guide (TAG) and Travel Survey is prepared to inform and gain information from prospective tenants, employees and visitors prior to occupation. There is an opportunity to provide information to future users of the precinct during staff recruitment, procurement of servicing, maintenance, cleaning and caretaking, regular deliveries etc. It is recommended that the promotion of carpooling (and request to register interest in its establishment) is included in the TAG.
- On-going monitoring, education and awareness activities should be planned to promote sustainable travel from the outset. There is potential to establish a forum for interested employees who wish to participate in workplace / precinct-wide Travel Plan activities. The establishment of focus groups across precinct workplaces is another useful engagement method to gain a better understanding of transport challenges and opportunities facing occupants of the precinct
- Preferential parking provision is considered for staff / visitors who carpool with designated spaces allocated and signage displayed. Administration and management will need to be established.
- If not yet installed the car park should be future proofed to incorporate sufficient power and conduits to enable the installation of charging stations for Electric and Hybrid Vehicles and Connected and Autonomous vehicles.
- Consideration is to be given in collaboration with occupants of the precinct to the future repurposing of the car parking spaces to be removed as active and public transport use increases e.g. communal sports / recreation facilities.
- Quality end of trip facilities (including locker and secure storage facilities) should be installed to encourage greater take up of active transport as the precinct becomes more established. Such facilities will also encourage active transport during staff comfort breaks contributing to employee wellbeing. It is important that maintenance and replacement of such facilities is explicit in the Cycling and Pedestrian Access Sub Plan (not appended to WTP).
- There is an opportunity to establish a walking and cycling buddy scheme to encourage increased participation in active transport.

#### Appendix D - Staff Travel Surveys

- The travel survey questions workplace occupants and visitors about existing and preferred modes and seeks to gain a better understanding of any challenges and opportunities to the use of active and public transport to/from home to the precinct and during the working shift; and
- While the travel survey should not be too onerous to complete it should seek to gain as much information on existing/preferred transport mode and working practices and any challenges/opportunities e.g. shift times, scope for remote working, virtual meetings etc as this will help inform and develop targeted initiatives.

#### Technical Note

It is recommended that the proposals outlined in the Technical Note be considered in consultation with relevant agencies, operators and known occupants (tenants and employees) of the precinct as a matter of priority.





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---

**From:** Para Sangar <[Para.Sangar@transport.nsw.gov.au](mailto:Para.Sangar@transport.nsw.gov.au)>  
**Sent:** Friday, 16 August 2019 11:10 AM  
**To:** Ibrahim Awad <[iawad@tacticalgroup.com.au](mailto:iawad@tacticalgroup.com.au)>  
**Cc:** Mark Ozinga <[Mark.Ozinga@transport.nsw.gov.au](mailto:Mark.Ozinga@transport.nsw.gov.au)>; Laura Van putten <[Laura.VAN.PUTTEN@rms.nsw.gov.au](mailto:Laura.VAN.PUTTEN@rms.nsw.gov.au)>  
**Subject:** RE: TfNSW Consultations - B28 (Biannual Trip Report Framework) - Moorebank Logistics Park MPE Stage 2 (SSD\_7628)

Hi Ibrahim

Further to my email message below, TfNSW has consulted with RMS to finalise our comments on the above report. RMS has advised the following:

*"Roads and Maritime has no further comments for consideration subject to the following minor changes:*

- *The intersection count at M5 / Hume Hwy also needs to count the movements down on the **M5 through lanes**, not just the movements up top, at the signals. This is really a full "interchange" count, not just an "intersection" count. Please ensure the wording is updated to guarantee that a full interchange count is undertaken.*
- *Roads and Maritime requests that the actual traffic survey **data files** are provided, not simply tabulated summaries in reports."*

It would be appreciated if you could amend the report to reflect the above and send it back to us for TfNSW and RMS sign off.

Should you have any further queries, please contact me.

Regards

Para

Para Sangar  
Senior Transport Planner  
Customer Strategy and Technology  
**Transport for NSW**

T 0466 024 892  
Level 26, 477 Pitt Street, Haymarket, NSW 2008



**Transport  
for NSW**

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---

**From:** Para Sangar  
**Sent:** Tuesday, 13 August 2019 11:33 AM  
**To:** Ibrahim Awad  
**Cc:** Mark Ozinga  
**Subject:** RE: TfNSW Consultations - B28 (Biannual Trip Report Framework) - Moorebank Logistics Park MPE Stage 2 (SSD\_7628)

Hi Ibrahim

Thank you for providing the amended report for comment.

Further to our telephone conversation today, please amend the row highlighted in yellow in the attached table to reflect the changes made in the report in relation to OD surveys proposed on the M5/Moorebank Avenue interchange ramps.

Should you have any further queries, please contact me.

Regards

Para

Para Sangar  
Senior Transport Planner  
Customer Strategy and Technology  
**Transport for NSW**

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Level 26, 477 Pitt Street, Haymarket, NSW 2008



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---

**From:** Ibrahim Awad [<mailto:iawad@tacticalgroup.com.au>]  
**Sent:** Wednesday, 7 August 2019 6:41 PM  
**To:** Para Sangar  
**Cc:** Mark Ozinga; Nathan Cairney; Fei Chen  
**Subject:** RE: TfNSW Consultations - B28 (Biannual Trip Report Framework) - Moorebank Logistics Park MPE Stage 2 (SSD\_7628)

Hi Para

Please find attached the updated consultation response table and BTODR addressing your additional comment in the below email.

Can you please confirm that you are satisfied we have addressed your comment so that we can move to close out our consultation on this Report and submit to DPIE for approval?

Please let me know if you need any further information and/ or would like to discuss.

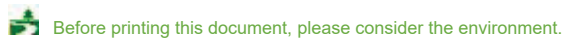
Thanks,  
Ibrahim

Regards,  
IBRAHIM AWAD  
ENVIRONMENTAL MANAGER



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---

**From:** Para sangar Sangarapillai <[Para.Sangar@transport.nsw.gov.au](mailto:Para.Sangar@transport.nsw.gov.au)>  
**Sent:** Friday, 12 July 2019 10:49 AM  
**To:** Ibrahim Awad <[iawad@tacticalgroup.com.au](mailto:iawad@tacticalgroup.com.au)>  
**Cc:** Mark Ozinga <[Mark.Ozinga@transport.nsw.gov.au](mailto:Mark.Ozinga@transport.nsw.gov.au)>  
**Subject:** RE: TfNSW Consultations - B28 (Biannual Trip Report Framework) - Moorebank Logistics Park MPE Stage 2 (SSD\_7628)

Hi Ibrahim

Thank you for sending the revised report for comments.

It is noted that Section 5.1.2 (page 15) of the attached report includes the following without further details:

*"Therefore, the OD surveys will be undertaken during the following times;"*

It is also noted that the survey period 8pm-10pm does not cover the movements of workers leaving the site. A copy of spreadsheet that includes further details is attached for your information.

If you have any further details, please contact me.

Regards  
Para

Para Sangar  
Senior Transport Planner  
Customer Strategy and Technology  
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---

**From:** Ibrahim Awad [<mailto:iawad@tacticalgroup.com.au>]  
**Sent:** Saturday, 29 June 2019 8:52 AM  
**To:** Para Sangar  
**Cc:** Mark Ozinga; Nathan Cairney; Fei Chen  
**Subject:** RE: TfNSW Consultations - B28 (Biannual Trip Report Framework) - Moorebank Logistics Park MPE Stage 2 (SSD\_7628)

Hi Para

We have received approval from Qube to expand the OD survey as requested in your consultation comments and our recent meeting. In summary, the changes include expanding the OD survey to include the surrounding network, directional split, 'on and off ramps' for the M5, and development peak hours/traffic.

Please find attached the following:

- Revised MoM with the changes requested in your email below
- Updated BTODR with details of the expanded OD survey (marked in track changes)
- Final pdf copy of the BTODR

Could you please confirm that you are satisfied with these changes so that we can present this agreed framework to DPE?

We will also forward a copy of these changes to RMS as they have also requested an expansion of the OD survey for very similar reasons.

Thanks and regards,

Ibrahim

Regards,  
IBRAHIM AWAD  
ENVIRONMENTAL MANAGER



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**From:** Para Sangar <[Para.Sangar@transport.nsw.gov.au](mailto:Para.Sangar@transport.nsw.gov.au)>  
**Sent:** Tuesday, 25 June 2019 12:19 PM  
**To:** Ibrahim Awad <[iawad@tacticalgroup.com.au](mailto:iawad@tacticalgroup.com.au)>  
**Cc:** Mark Ozinga <[Mark.Ozinga@transport.nsw.gov.au](mailto:Mark.Ozinga@transport.nsw.gov.au)>  
**Subject:** FW: TfNSW Consultations - B28 (Biannual Trip Report Framework) - Moorebank Logistics Park MPE Stage 2 (SSD\_7628)

Hi Ibrahim

Thank you for sending the draft minutes of meeting.

Please remove the last point as shown in the attached document.

Should you have any further queries, please contact me.

Regards

Para

Para Sangar  
Senior Transport Planner  
Customer Strategy and Technology  
**Transport for NSW**

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---

**From:** Ibrahim Awad [<mailto:iawad@tacticalgroup.com.au>]  
**Sent:** Monday, 17 June 2019 2:03 PM  
**To:** Para Sangar  
**Cc:** Mark Ozinga; Nathan Cairney; Patel, Ketan; Vukic, Nicole; Fei Chen  
**Subject:** TfNSW Consultations - B28 (Biannual Trip Report Framework) - Moorebank Logistics Park MPE Stage 2 (SSD\_7628)

Hi Para

Once again, thank-you for making time last Thursday to meet with us to discuss your outstanding comments on the BTODR.

Please find attached the draft Minutes of Meeting. Could you please let me know if we've missed anything and/ or otherwise if you have any corrections?

Thanks,  
Ibrahim

Regards,  
IBRAHIM AWAD  
ENVIRONMENTAL MANAGER



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---

**From:** Para Sangar <[Para.Sangar@transport.nsw.gov.au](mailto:Para.Sangar@transport.nsw.gov.au)>  
**Sent:** Wednesday, 12 June 2019 10:00 AM  
**To:** Ibrahim Awad <[iawad@tacticalgroup.com.au](mailto:iawad@tacticalgroup.com.au)>  
**Cc:** Mark Ozinga <[Mark.Ozinga@transport.nsw.gov.au](mailto:Mark.Ozinga@transport.nsw.gov.au)>  
**Subject:** FW: TfNSW Consultations - Moorebank Logistics Park MPE Stage 1 (SSD-6766) and Stage 2 (SSD\_7628) - B2 (CTAMP-B), B28 (Biannual Report Framework), B26 OTAMP & B29 WTP

Hi Ibrahim

Thank you for your email message.

I have already sent an invitation for the meeting that has been scheduled to occur tomorrow (Thursday 13 June 2019).

Please accept the meeting invitation.

Regards  
Para

Para Sangar  
Senior Transport Planner  
Customer Strategy and Technology  
**Transport for NSW**

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**Transport  
for NSW**

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---

**From:** Ibrahim Awad [<mailto:iawad@tacticalgroup.com.au>]  
**Sent:** Saturday, 8 June 2019 8:15 AM  
**To:** Para Sangar  
**Cc:** Mark Ozinga; Nathan Cairney; Fei Chen  
**Subject:** RE: TfNSW Consultations - Moorebank Logistics Park MPE Stage 1 (SSD-6766) and Stage 2 (SSD\_7628) - B2 (CTAMP-B), B28 (Biannual Report Framework), B26 OTAMP & B29 WTP

Hi Para

Thanks for your additional comments on the WTP and BTODR.

We have noted your comments and recommendations for our consideration in the future application and further development of the WTP and consider our consultation on this document for this pre-operational phase closed. A log of your comments and these consultations will be provided in the updated WTP for submission and approval by DPE.

With regards your further comments on the BTODR, I would suggest that a face-to-face meeting to discuss the technical details / surveys with our Consultant might be the best way to address and resolve these outstanding comments and I'd like to request a meeting with your team for 13-15 June to discuss. Could you please confirm the availability of your relevant staff to attend such a meeting and your preferred date/time/location for this meeting?

We look forward to the opportunity to meet and discuss this with you soon.

Thanks,  
Ibrahim

Regards,  
IBRAHIM AWAD  
ENVIRONMENTAL MANAGER



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**From:** Para Sangar <[Para.Sangar@transport.nsw.gov.au](mailto:Para.Sangar@transport.nsw.gov.au)>  
**Sent:** Friday, 7 June 2019 12:13 PM  
**To:** Ibrahim Awad <[iawad@tacticalgroup.com.au](mailto:iawad@tacticalgroup.com.au)>  
**Cc:** Mark Ozinga <[Mark.Ozinga@transport.nsw.gov.au](mailto:Mark.Ozinga@transport.nsw.gov.au)>  
**Subject:** RE: TfNSW Consultations - Moorebank Logistics Park MPE Stage 1 (SSD-6766) and Stage 2 (SSD\_7628) - B2 (CTAMP-B), B28 (Biannual Report Framework), B26 OTAMP & B29 WTP

Hi Ibrahim

Please find attached comments on the Tactical Group Response to TfNSW comments on the WTP and Biannual Report Framework.

Should you have any further queries, please contact me.

Regards

Para

Para Sangar  
Senior Transport Planner  
Customer Strategy and Technology  
**Transport for NSW**

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---

**From:** Ibrahim Awad [<mailto:iawad@tacticalgroup.com.au>]  
**Sent:** Friday, 7 June 2019 8:11 AM  
**To:** Para Sangar  
**Cc:** Mark Ozinga; Nathan Cairney; Fei Chen  
**Subject:** RE: TfNSW Consultations - Moorebank Logistics Park MPE Stage 1 (SSD-6766) and Stage 2 (SSD\_7628) - B2 (CTAMP-B), B28 (Biannual Report Framework), B26 OTAMP & B29 WTP

Hi Para

Thanks for the update on this and we look forward to hearing from you today /early next week.

Regards,  
Ibrahim

Regards,  
IBRAHIM AWAD  
ENVIRONMENTAL MANAGER



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---

**From:** Para Sangar <[Para.Sangar@transport.nsw.gov.au](mailto:Para.Sangar@transport.nsw.gov.au)>  
**Sent:** Thursday, 6 June 2019 3:57 PM  
**To:** Ibrahim Awad <[iawad@tacticalgroup.com.au](mailto:iawad@tacticalgroup.com.au)>  
**Cc:** Mark Ozinga <[Mark.Ozinga@transport.nsw.gov.au](mailto:Mark.Ozinga@transport.nsw.gov.au)>; Nathan Cairney <[ncairney@tacticalgroup.com.au](mailto:ncairney@tacticalgroup.com.au)>; Fei Chen <[fchen@tacticalgroup.com.au](mailto:fchen@tacticalgroup.com.au)>  
**Subject:** RE: TfNSW Consultations - Moorebank Logistics Park MPE Stage 1 (SSD-6766) and Stage 2 (SSD\_7628) - B2 (CTAMP-B), B28 (Biannual Report Framework), B26 OTAMP & B29 WTP

Hi Ibrahim

Please note that I responded to you in relation to the status of TfNSW response via email dated on 31 May 2019 (A copy of the email message is attached).

Current status of TfNSW response is provided below:

- I have received internal comments for WTP and Biannual Report Framework. TfNSW executives are currently reviewing the TfNSW comments on the Tactical Group's response. I am aiming send our comments tomorrow/early next week.
- I am still waiting for comments from internal stakeholders for the OEMP.

Should you have any further queries, please contact me.

Regards

Para

Para Sangar  
Senior Transport Planner  
Customer Strategy and Technology  
**Transport for NSW**

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Level 26, 477 Pitt Street, Haymarket, NSW 2008



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---

**From:** Ibrahim Awad [<mailto:iawad@tacticalgroup.com.au>]  
**Sent:** Thursday, 6 June 2019 11:20 AM  
**To:** Para Sangar  
**Cc:** Mark Ozinga; Nathan Cairney; Fei Chen  
**Subject:** FW: TfNSW Consultations - Moorebank Logistics Park MPE Stage 1 (SSD-6766) and Stage 2 (SSD\_7628) - B2 (CTAMP-B), B28 (Biannual Report Framework), B26 OTAMP & B29 WTP

Hi Para

We have still not received confirmation on your satisfaction with our response in which we have sought to address your comments on the WTP and BTODR (sent to you on 26 May 19 as per the below email) nor any further comments on the OEMP.

I've tried to follow up by email / phone on 26 May, 30 May, 3 June and 5 June but haven't been able to speak to you. We've planned to close out our consultation with TfNSW on these traffic management plans by tomorrow (Friday 7 June 19) and would be grateful to receive a confirmation from you that you are satisfied that we have addressed your comments and/ or otherwise a request to meeting to discuss / address any outstanding comments.

Please let me know if there's anything that we can do to assist in the close out of this consultation.

Thanks,  
Ibrahim

Regards,  
IBRAHIM AWAD  
ENVIRONMENTAL MANAGER



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W [www.tacticalgroup.com.au](http://www.tacticalgroup.com.au)



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---

**From:** Ibrahim Awad  
**Sent:** Sunday, 26 May 2019 12:10 PM  
**To:** 'Para Sangar Sangarapillai' <[Para.Sangar@transport.nsw.gov.au](mailto:Para.Sangar@transport.nsw.gov.au)>  
**Cc:** Mark Ozinga <[Mark.Ozinga@transport.nsw.gov.au](mailto:Mark.Ozinga@transport.nsw.gov.au)>; Nathan Cairney <[ncairney@tacticalgroup.com.au](mailto:ncairney@tacticalgroup.com.au)>; Fei Chen <[fchen@tacticalgroup.com.au](mailto:fchen@tacticalgroup.com.au)>  
**Subject:** TfNSW Consultations - Moorebank Logistics Park MPE Stage 1 (SSD-6766) and Stage 2 (SSD\_7628) - B2 (CTAMP-B), B28 (Biannual Report Framework), B26 OTAMP & B29 WTP

Hi Para

Please find attached our response to your comments on the BTODR and WTP.

We have already provided RMS with our response to the OTAMP and will be providing them with a response to the CTAMP-B and BTODR early this week.

Please let me know if you have any further comments on these plans and/ or would like to

discuss over the phone or in person.

Thanks and regards,

Ibrahim

Regards,  
IBRAHIM AWAD  
ENVIRONMENTAL MANAGER



**LEVEL 15 | 124 WALKER STREET | NORTH SYDNEY | NSW | 2060**

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W [www.tacticalgroup.com.au](http://www.tacticalgroup.com.au)



 Before printing this document, please consider the environment.

---

**From:** Para Sangar Sangarapillai <[Para.Sangar@transport.nsw.gov.au](mailto:Para.Sangar@transport.nsw.gov.au)>

**Sent:** Thursday, 16 May 2019 2:50 PM

**To:** Ibrahim Awad <[iawad@tacticalgroup.com.au](mailto:iawad@tacticalgroup.com.au)>

**Cc:** Mark Ozinga <[Mark.Ozinga@transport.nsw.gov.au](mailto:Mark.Ozinga@transport.nsw.gov.au)>

**Subject:** RE: TfNSW Consultations - Moorebank Logistics Park MPE Stage 1 (SSD-6766) and Stage 2 (SSD\_7628) - B2 (CTAMP-B), B28 (Biannual Report Framework), B26 OTAMP & B29 WTP

Hi Ibrahim

Please find attached a copy of the response letter for the above.

Should you have any further queries, please contact me.

Regards

Para

Para Sangar  
Senior Transport Planner  
Customer Strategy and Technology  
**Transport for NSW**

T 0466 024 892  
Level 26, 477 Pitt Street, Haymarket, NSW 2008



**Transport  
for NSW**

**SENSITIVE: NSW GOVERNMENT**

---

**From:** Ibrahim Awad [<mailto:iawad@tacticalgroup.com.au>]  
**Sent:** Wednesday, 15 May 2019 3:47 PM  
**To:** Para Sangar Sangarapillai  
**Cc:** Mark Ozinga; Nathan Cairney; Dan Blyde; Fei Chen  
**Subject:** RE: TfNSW Consultations - Moorebank Logistics Park MPE Stage 1 (SSD-6766) and Stage 2 (SSD\_7628) - B2 (CTAMP-B), B28 (Biannual Report Framework), B26 OTAMP & B29 WTP

Hi Para

Thanks very much for the update and we look forward to receiving your comments soon.

Regards,  
Ibrahim

Regards,  
IBRAHIM AWAD  
ENVIRONMENTAL MANAGER



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W [www.tacticalgroup.com.au](http://www.tacticalgroup.com.au)



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**From:** Para Sangar Sangarapillai <[Para.Sangar@transport.nsw.gov.au](mailto:Para.Sangar@transport.nsw.gov.au)>  
**Sent:** Wednesday, 15 May 2019 1:57 PM  
**To:** Ibrahim Awad <[iawad@tacticalgroup.com.au](mailto:iawad@tacticalgroup.com.au)>  
**Cc:** Mark Ozinga <[Mark.Ozinga@transport.nsw.gov.au](mailto:Mark.Ozinga@transport.nsw.gov.au)>  
**Subject:** RE: TfNSW Consultations - Moorebank Logistics Park MPE Stage 1 (SSD-6766) and Stage 2 (SSD\_7628) - B2 (CTAMP-B), B28 (Biannual Report Framework), B26 OTAMP & B29 WTP

Hi Ibrahim

This is to inform that the draft letter is currently reviewed by TfNSW executives. I will forward the signed letter once it is signed off.

If you have any further queries, please contact me.

Regards  
Para

Para Sangar  
Senior Transport Planner  
Freight, Strategy and Planning

## Transport for NSW

T 0466 024 892

Level 26, 477 Pitt Street, Haymarket, NSW 2008



Transport  
for NSW

SENSITIVE: NSW GOVERNMENT

---

**From:** Ibrahim Awad [<mailto:iawad@tacticalgroup.com.au>]

**Sent:** Friday, 10 May 2019 2:45 PM

**To:** Para Sangar Sangarapillai

**Cc:** Mark Ozinga; Nathan Cairney; Dan Blyde; Fei Chen

**Subject:** RE: TfNSW Consultations - Moorebank Logistics Park MPE Stage 1 (SSD-6766) and Stage 2 (SSD\_7628) - B2 (CTAMP-B), B28 (Biannual Report Framework), B26 OTAMP & B29 WTP

Hi Para

Thanks for the update. That's great news and we look forward to receiving your comments then.

Thanks and regards,

Ibrahim

Regards,  
IBRAHIM AWAD

ENVIRONMENTAL MANAGER



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W [www.tacticalgroup.com.au](http://www.tacticalgroup.com.au)



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**From:** Para Sangar Sangarapillai <[Para.Sangar@transport.nsw.gov.au](mailto:Para.Sangar@transport.nsw.gov.au)>

**Sent:** Friday, 10 May 2019 12:53 PM

**To:** Ibrahim Awad <[iawad@tacticalgroup.com.au](mailto:iawad@tacticalgroup.com.au)>

**Cc:** Mark Ozinga <[Mark.Ozinga@transport.nsw.gov.au](mailto:Mark.Ozinga@transport.nsw.gov.au)>

**Subject:** RE: TfNSW Consultations - Moorebank Logistics Park MPE Stage 1 (SSD-6766) and Stage 2 (SSD\_7628) - B2 (CTAMP-B), B28 (Biannual Report Framework), B26 OTAMP & B29 WTP

Hi Ibrahim

Thank you for your email message.

I have received comments from most of the TfNSW internal stakeholders.

We are aiming to provide TfNSW response by middle of next week at this stage.

Should you have any further queries, please contact me.

Regards

Para

Para Sangar  
Senior Transport Planner  
Freight, Strategy and Planning  
**Transport for NSW**

T 0466 024 892  
Level 26, 477 Pitt Street, Haymarket, NSW 2008



**SENSITIVE: NSW GOVERNMENT**

---

**From:** Ibrahim Awad [<mailto:iawad@tacticalgroup.com.au>]  
**Sent:** Thursday, 9 May 2019 4:15 PM  
**To:** Para Sangar Sangarapillai  
**Cc:** Mark Ozinga; Nathan Cairney; Steve Ryan; Dan Blyde; Fei Chen  
**Subject:** TfNSW Consultations - Moorebank Logistics Park MPE Stage 1 (SSD-6766) and Stage 2 (SSD\_7628) - B2 (CTAMP-B), B28 (Biannual Report Framework), B26 OTAMP & B29 WTP

Hi Para

I just called and left a message with regards the review of the above plans.

You mentioned last we spoke that you were expecting to receive internal comments this week. Could you please help us with an update on the status of these comments and let me know if it would help for us to meet your team in person to discuss / resolve any comments?

Please also let me know if there is anything else we can do to assist you / TfNSW in this consultation process.

Thanks and regards,

Ibrahim

Regards,  
**IBRAHIM AWAD**  
**ENVIRONMENTAL MANAGER**



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W [www.tacticalgroup.com.au](http://www.tacticalgroup.com.au)



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**From:** Ibrahim Awad  
**Sent:** Saturday, 4 May 2019 10:20 AM  
**To:** [para.sangar@transport.nsw.gov.au](mailto:para.sangar@transport.nsw.gov.au)  
**Cc:** 'mark.ozinga@transport.nsw.gov.au' <[mark.ozinga@transport.nsw.gov.au](mailto:mark.ozinga@transport.nsw.gov.au)>; Steve Ryan <[sryan@tacticalgroup.com.au](mailto:sryan@tacticalgroup.com.au)>; Nathan Cairney <[ncairney@tacticalgroup.com.au](mailto:ncairney@tacticalgroup.com.au)>; 'Dan Blyde' <[Dan.Blyde@qube.com.au](mailto:Dan.Blyde@qube.com.au)>; 'VAN PUTTEN Laura E' <[Laura.VAN.PUTTEN@rms.nsw.gov.au](mailto:Laura.VAN.PUTTEN@rms.nsw.gov.au)>  
**Subject:** TfNSW Consultations - Moorebank Logistics Park MPE Stage 1 (SSD-6766) and Stage 2 (SSD\_7628) - B2 (CTAMP-B), B28 (Biannual Report Framework), B26 OTAMP & B29 WTP

Hi Para

Further to Dan's email, Laura Van Putten (copied in) has emailed me to say that she will be looking after the review of these plans at RMS and that they are also looking to get us comments this coming week. You might be able to contact Laura on this if you have not heard back from Rachel Cummings.

Please note that we are awaiting comment on the below plans, with the OTAMP and WTP being of critical importance to DPE to enable the commencement of operations of the Target Warehouse next month (June 19):

1. Construction Traffic & Access Management Plan B (CTAMP B)
2. Operations Traffic & Access Management Plan (OTAMP)
3. Bi-annual trip report
4. Workplace Travel Plan (WTP)

Please let me know if there is anything else that we can assist with.

Thanks and regards,

Ibrahim

Regards,  
IBRAHIM AWAD  
ENVIRONMENTAL MANAGER





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W [www.tacticalgroup.com.au](http://www.tacticalgroup.com.au)



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**From:** Dan Blyde <[Dan.Blyde@qube.com.au](mailto:Dan.Blyde@qube.com.au)>  
**Sent:** Friday, 3 May 2019 1:42 PM  
**To:** [para.sangar@transport.nsw.gov.au](mailto:para.sangar@transport.nsw.gov.au)  
**Cc:** Ibrahim Awad <[iawad@tacticalgroup.com.au](mailto:iawad@tacticalgroup.com.au)>; Fei Chen <[fchen@tacticalgroup.com.au](mailto:fchen@tacticalgroup.com.au)>; Steve Ryan <[sryan@tacticalgroup.com.au](mailto:sryan@tacticalgroup.com.au)>; Nathan Cairney <[ncairney@tacticalgroup.com.au](mailto:ncairney@tacticalgroup.com.au)>; Ozinga Mark <[Mark.Ozinga@transport.nsw.gov.au](mailto:Mark.Ozinga@transport.nsw.gov.au)>  
**Subject:** Re: MPE Stage 1 (SSD-6766) and Stage 2 (SSD\_7628) TfNSW Consultation - B2 (CTAMP-B) and B28 (Biannual Report Framework)

Dear Para,

As discussed, RMS have told us they have received advice on the above plans from their internal stakeholders and are now dealing directly with DPE regarding the review and approval process.

It would be greatly appreciated if you could liaise with Rachel Cumming ASAP so the TfNSW comments can either be incorporated or sent separately to us and DPE as soon as they are ready so we can finalise the consultation process.

As mentioned on our call, closing out the consultation on these plans is becoming critical given that it is a planning requirement before the first train can run into the Moorebank site and is also needed for Target to occupy and operate its major distribution warehouse on our site.

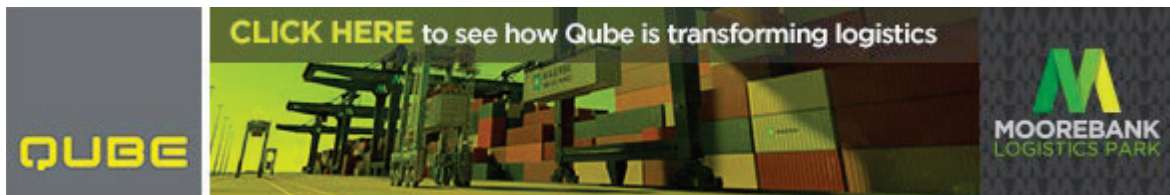
Appreciate your help on getting this completed.

Regards,

Dan

**Dan Blyde** | Senior Advisor - Corporate Affairs  
Qube Holdings Limited

Fax: +61 2 9080 1999



On 29 Apr 2019, at 5:27 pm, Nathan Cairney <[ncairney@tacticalgroup.com.au](mailto:ncairney@tacticalgroup.com.au)> wrote:

Dan,

This one is at least a little more positive, after many weeks of trying we have today confirmed that TfNSW are targeting responses to our request for consultation by 10 May. If there is anything you can do to help this along, obtaining some certainty on this date would be relieving.

Regards,  
NATHAN CAIRNEY  
DIRECTOR  
<image012.jpg>

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<image013.jpg>

<image005.jpg> Before printing this document, please consider the environment.

---

**From:** Ibrahim Awad

**Sent:** Monday, 29 April 2019 10:28 AM

**To:** [para.sangar@transport.nsw.gov.au](mailto:para.sangar@transport.nsw.gov.au)

**Cc:** [mark.ozinga@transport.nsw.gov.au](mailto:mark.ozinga@transport.nsw.gov.au); Nathan Cairney  
<[ncairney@tacticalgroup.com.au](mailto:ncairney@tacticalgroup.com.au)>; Fei Chen <[fchen@tacticalgroup.com.au](mailto:fchen@tacticalgroup.com.au)>

**Subject:** FW: MPE Stage 1 (SSD-6766) and Stage 2 (SSD\_7628) TfNSW Consultation  
- B2 (CTAMP-B) and B28 (Biannual Report Framework)

Hi Para

Thanks for your call earlier and for confirming that you have now issued the plans for internal review / comment.

I note that you are coordinating the internal reviews and that you are expecting internal comments to be received by the end of this week, at which point you will then consult externally with RMS to seek their comments.

I also note that you will aim to get comments to us by the 10<sup>th</sup> May '19, subject to the receipt / resolution of RMS comments.

Thanks again for your help on this and we look forward to hearing from you in due course.

Regards,

Ibrahim

Regards,  
IBRAHIM AWAD

ENVIRONMENTAL MANAGER

[<image001.gif>](#)

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[<image003.jpg>](#)

[<image004.jpg>](#) Before printing this document, please consider the environment.

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**From:** Ibrahim Awad

**Sent:** Monday, 29 April 2019 10:07 AM

**To:** 'para.sangar@transport.nsw.gov.au' <para.sangar@transport.nsw.gov.au>;

'mark.ozinga@transport.nsw.gov.au' <mark.ozinga@transport.nsw.gov.au>

**Cc:** Nathan Cairney <ncairney@tacticalgroup.com.au>; Fei Chen

<fchen@tacticalgroup.com.au>

**Subject:** FW: MPE Stage 1 (SSD-6766) and Stage 2 (SSD\_7628) TfNSW Consultation  
- B2 (CTAMP-B) and B28 (Biannual Report Framework)

Hi Para

I just called and left a message. I'm doing the weekly follow up on our consultations with TfNSW on the above plans.

Could you please let me know if this plan has now been assigned to one of your officers for review / comment and the contact details of that officer so that I can follow up?

Please also let me know if you have already reviewed and would like to discuss your comments over the phone or in person, or if there is anything else that we can do to help you in this process.

We look forward to hearing from you soon.

Thanks and regards,

Ibrahim

Regards,

IBRAHIM AWAD

ENVIRONMENTAL MANAGER

[<image001.gif>](#)

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[<image003.jpg>](#)

[<image004.jpg>](#) Before printing this document, please consider the environment.

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**From:** Ibrahim Awad

**Sent:** Thursday, 18 April 2019 5:05 PM

**To:** '[para.sangar@transport.nsw.gov.au](mailto:para.sangar@transport.nsw.gov.au)' <[para.sangar@transport.nsw.gov.au](mailto:para.sangar@transport.nsw.gov.au)>

**Cc:** '[mark.ozinga@transport.nsw.gov.au](mailto:mark.ozinga@transport.nsw.gov.au)' <[mark.ozinga@transport.nsw.gov.au](mailto:mark.ozinga@transport.nsw.gov.au)>;

Nathan Cairney <[ncairney@tacticalgroup.com.au](mailto:ncairney@tacticalgroup.com.au)>; Fei Chen

<[fchen@tacticalgroup.com.au](mailto:fchen@tacticalgroup.com.au)>

**Subject:** FW: MPE Stage 1 (SSD-6766) and Stage 2 (SSD\_7628) TfNSW Consultation - B2 (CTAMP-B) and B28 (Biannual Report Framework)

Hi Para

I tried to call earlier on your mobile phone and have left a message.

I'm doing the weekly follow up on our consultations with TfNSW on the OEMP/sub-plans submitted to you for review and comment.

I wanted to ask if you'd had a chance to review the documents and/ or if you've identified an alternative contact person for us to follow-up with.

Could you please let me know if there is anything we can continue to help with and/ or if you'd like to discuss any further comments over the phone or in person?

Thanks and regards,

Ibrahim

Regards,

IBRAHIM AWAD

ENVIRONMENTAL MANAGER

[<image001.gif>](#)

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[<image003.jpg>](#)

[<image004.jpg>](#) Before printing this document, please consider the environment.

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**From:** Ibrahim Awad

**Sent:** Thursday, 11 April 2019 10:45 AM

**To:** '[para.sangar@transport.nsw.gov.au](mailto:para.sangar@transport.nsw.gov.au)' <[para.sangar@transport.nsw.gov.au](mailto:para.sangar@transport.nsw.gov.au)>

**Cc:** '[mark.ozinga@transport.nsw.gov.au](mailto:mark.ozinga@transport.nsw.gov.au)' <[mark.ozinga@transport.nsw.gov.au](mailto:mark.ozinga@transport.nsw.gov.au)>;

Nathan Cairney <[ncairney@tacticalgroup.com.au](mailto:ncairney@tacticalgroup.com.au)>; Fei Chen

<[fchen@tacticalgroup.com.au](mailto:fchen@tacticalgroup.com.au)>

**Subject:** FW: MPE Stage 1 (SSD-6766) and Stage 2 (SSD\_7628) TfNSW Consultation

- B2 (CTAMP-B) and B28 (Biannual Report Framework)

Hi Para

Good to talk to you just then and thanks for the update on your review. We've made a note that you are still considering this and will be speaking to and / or coordinating with RMS on this.

As mentioned, if it would help, our contact at RMS for the same consultations on these plans is:

Rachel Cumming – [rachel.cumming@rms.nsw.gov.au](mailto:rachel.cumming@rms.nsw.gov.au) ph. 8849 2077

We look forward to hearing from you soon.

Thanks and regards,

Ibrahim

Regards,  
IBRAHIM AWAD  
ENVIRONMENTAL MANAGER  
[<image001.gif>](#)

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W [www.tacticalgroup.com.au](http://www.tacticalgroup.com.au)

[<image003.jpg>](#)

[<image004.jpg>](#) Before printing this document, please consider the environment.

---

**From:** Nathan Cairney

**Sent:** Tuesday, 26 March 2019 5:37 PM

**To:** 'Mark.Ozinga@transport.nsw.gov.au'

[Mark.Ozinga@transport.nsw.gov.au](mailto:Mark.Ozinga@transport.nsw.gov.au); [development@transport.nsw.gov.au](mailto:development@transport.nsw.gov.au)

**Cc:** [bob.rutledge@transport.nsw.gov.au](mailto:bob.rutledge@transport.nsw.gov.au); Steve Ryan

[sryan@tacticalgroup.com.au](mailto:sryan@tacticalgroup.com.au); Fei Chen [fchen@tacticalgroup.com.au](mailto:fchen@tacticalgroup.com.au); Ian Irwin

[iirwin@tacticalgroup.com.au](mailto:iirwin@tacticalgroup.com.au); Ibrahim Awad [iawad@tacticalgroup.com.au](mailto:iawad@tacticalgroup.com.au)

**Subject:** MPE Stage 1 (SSD-6766) and Stage 2 (SSD\_7628) TfNSW Consultation - B2 (CTAMP-B) and B28 (Biannual Report Framework)

Hi Mark,

I spoke to Tim Dewey on the phone today to discuss consultation for a number of documents for the Moorebank Logistics Park and Tim informed me that he no longer works in your team and you would be the best contact to start with. I'm hoping to organise a session for us to discuss the upcoming consultation

requirements for the project and would like to confirm who the most appropriate contact would be for this.

In the meantime below is an extract of the conditions that relate to the documents that we expect to provide for consultation in the coming weeks, and attached is the first two of those documents for TfNSW's review and comment.

Please can you confirm who the appropriate contact would be for this consultation and suggest a suitable time that we may be able to meet with you to clarify any comments you or your team may have and assist in your understanding of the documents before making formal comments.

We would hope to be able to conclude consultation for the attached 2 documents by no later than 18 April 2019 to allow these documents to be submitted to DPE for their review and approval shortly thereafter. If there is anything that we can do in addition to the above to support meeting that timeframe please don't hesitate to let us know so that we can action appropriately.

Documents to be provided and timing:

- MPE 2 CoC B2: CTAMP B for the upgrade of Moorebank Avenue – provided in the attached
- MPE 2 CoC B28: Biannual Trip Origin Destination Reporting Framework - provided in the attached
- MPE 2 CoC B26 (including MPE 1 OTAMP): Operational TAMP – to be provided in the coming week
- MPE 2 CoC B29: Workplace travel plan – to be provided in 3 weeks
- MPE 1 and 2 overall: OEMP can be provided for reference if TfNSW would like to receive a copy.

Extract of the relevant conditions:

<image002.png>

<image006.png>

<image007.png>

<image008.png>

<image009.png>

Regards,  
NATHAN CAIRNEY  
DIRECTOR  
<image014.jpg>

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CPQQRT



<image015.jpg>

<image005.jpg> Before printing this document, please consider the environment.

<SSS2-QPMS-EN-PLN-0040\_vB\_clean.pdf><190313\_Biannual Trip Origin  
Destination Report Framework\_Final Draft\_clean.pdf>

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## Biannual Trip Origin Destination Report (Revision 002 (Final Draft) dated 13 March 2019)

### Status of comments from TfNSW

Stakeholder	Initial Comment Date	Comment	Arcadis Response	Initial Response Date
TfNSW	16-May-19	Section 5.1.2 – Traffic Surveys		21-May-2019
TfNSW	16-May-19	This section needs to clearly state the purpose of these traffic surveys and whether light and heavy vehicles will be surveyed;	<p>Section 5.1.2 has been updated to state what the surveys are intended to capture based on our understanding of the intent of the condition. It also specifies which surveys will capture light and/ or heavy vehicle movements.</p> <p><i>TfNSW comments: Condition 28 (d) states that representative vehicle origin and destinations based on a cordon in the surrounding road network. This section needs to demonstrate that the development peak periods for light and heavy vehicles have been considered to identify representative vehicle origin and destinations.</i></p> <p>The survey scope has been extended to include the development peak periods (capturing shift changes and forecast heavy vehicle peaks) as well as the general network peak periods.</p>	21-May-2019
TfNSW	16-May-19	Peak periods of the development is not included for the survey period (5am-6am and 1pm-2pm);	<p>It is understood that surveys are intended to provide a representative OD for the site. It is recommended that to capture the overall network peak, the surveys are carried out in standard peak periods.</p> <p><i>TfNSW comments: Condition 28 (d) states that representative vehicle origin and destinations based on a cordon in the surrounding road network. Missing development peak periods during the survey would not provide representative vehicle origin and destinations and therefore, the proposed survey period does not satisfy condition 28(d).</i></p> <p>The survey scope has been extended to include the development peak periods (capturing shift changes and forecast heavy vehicle peaks) as well as the general network peak periods.</p>	21-May-2019
				13 June 2019

Stakeholder	Initial Comment Date	Comment	Arcadis Response	Initial Response Date
TfNSW	16-May-19	No information in relation to the sample size for light and heavy vehicles that would be captured for Origin-Destination surveys is provided; and	<p>Section 5.1.2 has been updated to state that it is intended to capture all vehicles in the OD surveys. The OD survey result tables provided by the survey company commissioned will specify exactly how many vehicles were captured and based on the intersection surveys it will be determined what portion of total vehicles were accounted for in the OD.</p> <p><i>TfNSW comments: Prior to the OD surveys, please confirm that it is intended to capture 100% (or close as close as possible) of the light and heavy vehicles.</i></p> <p>It is the intention to capture as close as possible to 100% of vehicles passing through the OD stations. Any expansion factors required to correct missed vehicles will be recorded in the report prepared by the survey company. This has been specified in the <i>Biannual Trip Origin Destination Report</i>. Arcadis notes that TfNSW would not mandate that 100% of vehicles were captured in the OD survey.</p>	<p>21-May-2019</p> <p>13-June-2019</p>
TfNSW	16-May-19	The proposed Origin-Destination Surveys do not capture vehicle movements along the interchange ramps of M5 Motorway/Moorebank Avenue.	<p>Advice from the survey company indicated that locating cameras on the ramps is highly undesirable. Therefore, the locations of the OD stations were determined to capture each of the movements required to inform the monitoring of the traffic generated by the site.</p> <p><b>No further updates to the document are proposed.</b></p> <p><i>TfNSW: Please reflect the changes made in the report in relation to OD surveys proposed on the M5/Moorebank Avenue interchange ramps.</i></p> <p>Following further consultation with TfNSW, the survey scope was modified to include the entry and exit ramps of the M5 Motorway. Therefore, the response above has been superseded and it has been confirmed with the survey company that placing cameras on the ramps has been allowed for.</p>	<p>21-May-2019</p> <p>14-Aug-2019</p>

Stakeholder	Initial Comment Date	Comment	Arcadis Response	Initial Response Date
TfNSW	12-July-19	It is noted that Section 5.1.2 (page 15) of the attached report includes the following without further details: "Therefore, the OD surveys will be undertaken during the following times;"	The report has been amended to correct the text and summarise the OD survey periods, capturing both the general network peak and development peak periods.	22-July-19
TfNSW	12-July-19	It is also noted that the survey period 8pm-10pm does not cover the movements of workers leaving the site. A copy of spreadsheet that includes further details is attached for your information.	The night-time survey period has been extended to 8pm to 11pm, which captures the shift change over and workers leaving the site, in accordance with the spreadsheet attached to TfNSW's email dated 12 July 2019.	22-July-19

# MEETING MINUTES – NO 001

Moorebank Logistics Park – East Precinct Pre-Ops



**PROJECT** Moorebank Logistics Park – East Precinct MPE Stage 2  
**MEETING TYPE** Traffic Management Plan Consultation Meeting with TfNSW  
**TIME & DATE** 10am, Thurs 13 June 2019  
**LOCATION** TfNSW offices, Zenith Tower, Chatswood  
**ISSUED** 17 June 2019

PRESENT	ORGANISATION	INITIAL	EMAIL ADDRESS
YES APOLOGIES			
<input checked="" type="checkbox"/> <input type="checkbox"/>	TfNSW	MO	mark.ozinga@transport.nsw.gov.au
<input checked="" type="checkbox"/> <input type="checkbox"/>	TfNSW	PS	para.sangar@transport.nsw.gov.au
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<input checked="" type="checkbox"/> <input type="checkbox"/>	Arcadis	KP	ketan.patel@arcadis.com
<input checked="" type="checkbox"/> <input type="checkbox"/>	Tactical	IA	iawad@tacticalgroup.com.au
<input checked="" type="checkbox"/> <input type="checkbox"/>	Tactical	FC	fchen@tacticalgroup.com.au

## DISTRIBUTION AS ABOVE AND

Nathan Cairney  
Heather Tilley

ITEM	DESCRIPTION	ACTION	DATE
1.	<b>GENERAL</b>		
1.1.	Introductions	N/A	N/A
1.1.1.	IA noted the plans that had been submitted to TfNSW for review and comment and their current status, including close out of consultation with TfNSW on WTP and comments on BTODR. IA noted that RMS had also raised very similar comments with respect the BTODR.	N/A	N/A
1.1.2.	PS confirmed that the OEMP was still under review and that he'd emailed IA to request a copy of the ONVMP	IA TO PROVIDE COPY OF ONVMP TO PS  PS to get back to IA on OEMP	N/A
1.1.3.	IA introduced NV to discuss details of comments on BTODR	N/A	N/A



## MEETING MINUTES – NO 001

Moorebank Logistics Park – East Precinct Pre-Ops

ITEM	DESCRIPTION	ACTION	DATE
2.	<b>TRAFFIC – BTODR</b>		
2.1.	NV confirmed TfNSW request (comment) with respect the intent to capture 100% traffic movement in OD survey. MO stated that was the preferred approach but that it would be understandable if did not capture 100% but a little less. NV noted that the survey company would detail the proportion captured and document any adjustments required.	N/A	
2.1.1.	<p>MO/PS stated that they would like to capture development peak periods, and different patterns of development peak periods in addition to network peaks and that TfNSW was interested in heavy vehicle peak periods including capturing:</p> <ul style="list-style-type: none"><li>- Shift changes</li><li>- Heavy vehicle peaks</li><li>- General network peaks</li></ul> <p>These would confirm uncertainty about the assumptions in the initial assessments.</p> <p>NV confirmed that the Consultant understood the intent of the comments and above recommendations and that the Consultant would look to capture these in an expanded OD survey.</p> <p>IA stated that we would first need to discuss the above further actions with Qube first and seek their input / feedback / approval on any further work in this regard.</p>	IA to raise the request to cover development peak periods in an expanded OD survey with Qube and get back to TfNSW on the outcome.	Week end - 21 June 2019
2.1.1.1	MO and PS stated they were interested in understanding the directional split on the M5, which has high existing heavy vehicle volumes.	IA to raise with TfNSW request for expanding scope of OD survey to cover	Week end – 21 June 2019

## MEETING MINUTES – NO 001

Moorebank Logistics Park – East Precinct Pre-Ops

ITEM	DESCRIPTION	ACTION	DATE
	<p>NV stated that the Consultant understood the intent of this request but noted that there were previous difficulties with survey companies placing cameras on the ramps and safety issues and restrictions by various motorway operators.</p> <p>MO noted that Qube may need to sign a commercial / confidentiality agreement with Interlink before placing the cameras in order to get approval to place the cameras on the ramps.</p> <p>MO stated and agreed with NV that we do not need to count vehicles on the M5 just on the ramps.</p> <p>NV noted that the Consultant could look to include this in an expanded OD survey.</p> <p>IA noted that Tactical will raise this request for additional OD survey work with Qube and will come back to TfNSW with feedback.</p>	<p>directional split with Qube and come back to TfNSW with feedback.</p>	

ISSUED BY  
**TACTICAL GROUP**

IBRAHIM AWAD  
**ENVIRONMENTAL MANAGER**

**From:** [Ibrahim Awad](#)  
**To:** [Laura Van putten](#)  
**Cc:** [Nathan Cairney](#); [Fei Chen](#)  
**Subject:** FW: Tactical & RMS Consultation - B, Biannual Trip Report - Moorebank Intermodal - MPE Stage 1 (SSD-6766) and Stage 2 (SSD\_7628)  
**Date:** Friday, 9 August 2019 10:20:06 AM  
**Attachments:** [BTODR - response to RMS comments - 25 Jul 19 tracked.docx](#)  
[190724 Biannual Trip Origin Destination Report Framework Final Draft 006 clean FINAL \(002\).pdf](#)

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Hi Laura

I just called to follow up on the above. Can you please give me a call when you get a chance?

Thanks,  
Ibrahim

Regards,  
IBRAHIM AWAD  
ENVIRONMENTAL MANAGER



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**From:** Ibrahim Awad  
**Sent:** Wednesday, 7 August 2019 6:37 PM  
**To:** 'Laura Van putten' <Laura.VAN.PUTTEN@rms.nsw.gov.au>  
**Cc:** Rachel Cumming <rachel.cumming@rms.nsw.gov.au>; Nathan Cairney <ncairney@tacticalgroup.com.au>; Fei Chen <fchen@tacticalgroup.com.au>  
**Subject:** RE: Tactical & RMS Consultation - B, Biannual Trip Report - Moorebank Intermodal - MPE Stage 1 (SSD-6766) and Stage 2 (SSD\_7628)

Hi Laura

Please find attached the updated consultation response table and BTODR addressing your comments below.

Can you please confirm you are satisfied we have addressed your comments so that we can move to close out our consultation on this Report and submit to DPIE for approval?

Please let me know if you need any further information on this and/ or would like to discuss.

Thanks,  
Ibrahim

Regards,  
IBRAHIM AWAD  
ENVIRONMENTAL MANAGER



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**From:** Laura Van putten <[Laura.VAN.PUTTEN@rms.nsw.gov.au](mailto:Laura.VAN.PUTTEN@rms.nsw.gov.au)>  
**Sent:** Monday, 22 July 2019 2:37 PM  
**To:** Ibrahim Awad <[iawad@tacticalgroup.com.au](mailto:iawad@tacticalgroup.com.au)>  
**Cc:** Rachel Cumming <[rachel.cumming@rms.nsw.gov.au](mailto:rachel.cumming@rms.nsw.gov.au)>  
**Subject:** Tactical & RMS Consultation - B, Biannual Trip Report - Moorebank Intermodal - MPE Stage 1 (SSD-6766) and Stage 2 (SSD\_7628)

Hi Ibrahim

Thank you for providing the updated Biannual Trip Origin Destination Report (BTODR). Whilst we appreciate the updates and note that the changes address some of our concerns, however the following issues remain to be addressed:

1. The OD survey will now include the movements onto and off the M5, in each direction. While the new survey points on the 4 ramps are described as "OD station" in Fig 4-1, they are described this way on page 16:

*'The sites located on Moorebank Avenue, north and south of the South Western Motorway will be used to determine the vehicles travelling to and from the site through interpolation and combined with survey equipment on the on and off ramps of the M5 South Western Motorway will provide an adequate over of the origin and destination of light and heavy vehicles from the facility.'*

It is unclear if the term "survey equipment" which is used to explain the equipment located on the 4 ramps will be collecting exactly the same type of information as the other OD stations. Further detail is required to inform that the OD Stations will be collecting the same data (for example number plates) and not simply counting vehicles. this data needs to be able to identify actual trips moving onto and off the M5, not just derive estimates based on some pro-rata split of count volumes on the ramps.

2. RMS preference is to extend the OD survey to cover the orientation of trips at Moorebank Ave / Newbridge Rd and at M5 / Hume Hwy, to provide further information on HV movements onto and from these key arterials. However, we accept that this would add significantly to the OD survey expense & complexity, and would suggest as an alternative that these two locations could

be added to the list of intersection surveys (ie simple counts, not OD) shown on page 16. For example, if the OD survey showed a high level of left turn movement onto M5 from the new intermodal facility, we would like to know if those HVs stayed on M5 (where their impact is less) or exited at Casula onto the Hume Hwy (where their impact is greater).

Should you have any questions happy to discuss my contact details are below.

**Kind regards,**

**Laura van Putten**

A/Senior Land Use Planner  
Strategic Land Use | Sydney Planning

**Greater Sydney Division**

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**Roads and Maritime Services**

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---

**From:** Ibrahim Awad [<mailto:iawad@tacticalgroup.com.au>]

**Sent:** Saturday, 29 June 2019 9:12 AM

**To:** Laura Van putten; Pahee Rathan

**Cc:** Nathan Cairney; Fei Chen

**Subject:** RE: RMS Consultation - OTAMP, CTAMP-B, Biannual Trip Report - Moorebank Intermodal - MPE Stage 1 (SSD-6766) and Stage 2 (SSD\_7628)

Hi Laura, Pahee

We have updated the BTODR to address very similar requests from both RMS (as per your email below) as well as TfNSW with respect to expanding the OD survey to cover traffic in the broader surrounding network, directional split, 'on and off' ramps for M5, and development traffic peaks.

These updates are marked in track changes in the OD Survey section (of the attached BTODR) and the changes have now been communicated back to TfNSW.

Could you please confirm that you are satisfied with these changes so that we can present the agreed framework to DPE?

Thanks and we look forward to meeting you next Thursday.

Regards,  
Ibrahim

Regards,  
IBRAHIM AWAD  
ENVIRONMENTAL MANAGER



**From:** [Ibrahim Awad](#)  
**To:** [Patel, Ketan](#); [Vukic, Nicole](#)  
**Cc:** [Tilley, Heather](#); [Nathan Cairney](#); [Fei Chen](#)  
**Subject:** FW: RMS Consultation - OTAMP, CTAMP-B, Biannual Trip Report - Moorebank Intermodal - MPE Stage 1 (SSD-6766) and Stage 2 (SSD\_7628)  
**Date:** Thursday, June 13, 2019 8:40:43 AM  
**Attachments:** [image001.gif](#)  
[image002.jpg](#)  
[image003.jpg](#)  
[image006.jpg](#)  
[image004.jpg](#)  
[BTODR - response to RMS comments - 3 Jun 19.docx](#)

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Hi Ketan, Nicole

Please see further comments from RMS on the BTODR. I'll organise a time to discuss these before or after our meeting with TfNSW today and decide further actions.

Thanks,  
Ibrahim

Regards,  
IBRAHIM AWAD  
ENVIRONMENTAL MANAGER



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**From:** Pahee Rathan <[Pahee.RATHAN@rms.nsw.gov.au](mailto:Pahee.RATHAN@rms.nsw.gov.au)>

**Sent:** Wednesday, 12 June 2019 5:06 PM

**To:** Ibrahim Awad <[iawad@tacticalgroup.com.au](mailto:iawad@tacticalgroup.com.au)>

**Cc:** Laura Van putten <[Laura.VAN.PUTTEN@rms.nsw.gov.au](mailto:Laura.VAN.PUTTEN@rms.nsw.gov.au)>

**Subject:** FW: RMS Consultation - OTAMP, CTAMP-B, Biannual Trip Report - Moorebank Intermodal - MPE Stage 1 (SSD-6766) and Stage 2 (SSD\_7628)

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Hi Ibrahim

Roads and Maritime has reviewed Tactical's response to the Roads and Maritime comments in regards to the Biannual Trip Report and has the following comments:

Roads and Maritime does not agree with the following statement, that the OD survey will *"adequately capture the vehicle movements generated by the site for a recommended survey cordon, which includes the M5 South Western Motorway."*

The "recommended survey cordon" is very limited, and does not include all of the defined HV access routes (Fig 2-2). Roads and Maritime has an interest in knowing (as a minimum) the **directional split of the HVs on M5 and Newbridge Rd**. This will assist with answering questions such as will the intermodal's HVs predominantly be adding to the peak demand flow, or travelling mainly in the contra-peak direction? Etc.

The OD survey should be designed so that it provides insights into how the intermodal's HVs use M5 and Newbridge Rd over a typical day. This also extends to the Hume Highway, which is the other key HV access route. This is expected to add to the quality and usefulness of the data.

Should you have any questions my contact details are below.

Please note that RMS will provide a response to the OTAMP and CTAMP comments provided by Tactical next week.

**Kind regards,**

**Laura van Putten**

Land Use Assessment Officer  
North West Precinct | Sydney Division

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**Roads and Maritime Services**

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**From:** Ibrahim Awad [<mailto:iawad@tacticalgroup.com.au>]  
**Sent:** Tuesday, 4 June 2019 2:48 PM  
**To:** Laura Van putten  
**Cc:** Nathan Cairney; Fei Chen  
**Subject:** RE: RMS Consultation - OTAMP, CTAMP-B, Biannual Trip Report - Moorebank Intermodal - MPE Stage 1 (SSD-6766) and Stage 2 (SSD\_7628)

Hi Laura

Please find attached our response to your comments on the BTODR. Could you please confirm if you are satisfied that we have addressed your comments so that we can close out our consultation on this report?

I was also hoping to get the CATMP-B response to you yesterday but we are still working to address some of the comments and will have this to you soon..

Please also note that I will also shortly forward to you an updated version of the BTODR detailing changes to address comments from TfNSW for your information / reference.

Regards,  
Ibrahim

Regards,  
IBRAHIM AWAD  
ENVIRONMENTAL MANAGER



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**From:** Laura Van putten <[Laura.VAN.PUTTEN@rms.nsw.gov.au](mailto:Laura.VAN.PUTTEN@rms.nsw.gov.au)>  
**Sent:** Monday, 3 June 2019 3:19 PM  
**To:** Ibrahim Awad <[iawad@tacticalgroup.com.au](mailto:iawad@tacticalgroup.com.au)>  
**Subject:** RE: RMS Consultation - OTAMP, CTAMP-B, Biannual Trip Report - Moorebank Intermodal - MPE Stage 1 (SSD-6766) and Stage 2 (SSD\_7628)

Hi Ibrahim

Thank you for your email. Please note that I have sent your response to the relevant RMS sections to review and provide comments, once I have received these comments I will collate and provide to you.

Please note I am expecting to have a response by mid next week. Please let me know if there is any concerns with this timeframe.

**Kind regards,**

**Laura van Putten**

Land Use Assessment Officer  
North West Precinct | Sydney Division  
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**Roads and Maritime Services**

---

**From:** Ibrahim Awad [<mailto:iawad@tacticalgroup.com.au>]  
**Sent:** Monday, 3 June 2019 2:13 PM  
**To:** Laura Van putten  
**Cc:** Nathan Cairney; Fei Chen  
**Subject:** RMS Consultation - OTAMP, CTAMP-B, Biannual Trip Report - Moorebank Intermodal - MPE Stage 1 (SSD-6766) and Stage 2 (SSD\_7628)

Hi Laura

We provided our response to RMS's comments on the OTAMP on the 26 May 19 – please see below. Could you please let me know if you have any further comments that you'd like to discuss over the phone or in person and/or otherwise provide us an indication that you are satisfied we have addressed your comments?

We proposed to close out our consultation with RMS on this plan and submit to DPE for approval on Thursday 6<sup>th</sup> June 2019.

I'll also be forwarding to you our response to your comments on the CTAMP-B and BTODR by this afternoon.

Thanks and regards,

Ibrahim

Regards,  
IBRAHIM AWAD  
ENVIRONMENTAL MANAGER



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**From:** Ibrahim Awad

**Sent:** Sunday, 26 May 2019 12:04 PM

**To:** 'VAN PUTTEN Laura E' <[Laura.VAN.PUTTEN@rms.nsw.gov.au](mailto:Laura.VAN.PUTTEN@rms.nsw.gov.au)>

**Cc:** RATHAN Pahee <[Pahee.RATHAN@rms.nsw.gov.au](mailto:Pahee.RATHAN@rms.nsw.gov.au)>; CUMMING Rachel <[rachel.cumming@rms.nsw.gov.au](mailto:rachel.cumming@rms.nsw.gov.au)>; Nathan Cairney <[ncairney@tacticalgroup.com.au](mailto:ncairney@tacticalgroup.com.au)>; Fei Chen <[fchen@tacticalgroup.com.au](mailto:fchen@tacticalgroup.com.au)>

**Subject:** RE: Moorebank Intermodal - MPE Stage 1 (SSD-6766) and Stage 2 (SSD\_7628) RMS Consultation - B2 (CTAMP-B) and B28 (Biannual Report Framework)

Hi Laura

Please find attached our response to your comments on the OTAMP.

We are working to finalise our response on the CTAMP-B and BTODR and will have these to you early this week.

Please let me know if you have any further comments on this plan and/or would like to discuss over the phone or in person.

Thanks and regards,

Ibrahim

Regards,  
IBRAHIM AWAD  
ENVIRONMENTAL MANAGER



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**From:** VAN PUTTEN Laura E <[Laura.VAN.PUTTEN@rms.nsw.gov.au](mailto:Laura.VAN.PUTTEN@rms.nsw.gov.au)>

**Sent:** Wednesday, 15 May 2019 9:35 AM

**To:** Ibrahim Awad <[iawad@tacticalgroup.com.au](mailto:iawad@tacticalgroup.com.au)>

**Cc:** RATHAN Pahee <[Pahee.RATHAN@rms.nsw.gov.au](mailto:Pahee.RATHAN@rms.nsw.gov.au)>; CUMMING Rachel <[rachel.cumming@rms.nsw.gov.au](mailto:rachel.cumming@rms.nsw.gov.au)>

**Subject:** Moorebank Intermodal - MPE Stage 1 (SSD-6766) and Stage 2 (SSD\_7628) RMS Consultation - B2 (CTAMP-B) and B28 (Biannual Report Framework)

Hi Ibrahim

Roads and Maritime has reviewed the following traffic and transport documents supplied by Tactical Group and submitted under SSD 7628 Moorebank Precinct East Stage 2 (MPE Stage 2) application to satisfy condition B2:

- Construction Traffic and Access Management Plan (CTAMP) – Phase B – SSS2-QPMS-EN-PLN-0040 - 12/03/2019
- Operational Traffic and Access Management Plan (OTAMP) – PREC-QPMS-EN-PLN-0009 - 9/4/2019
- Moorebank Precinct East Biannual Trip Origin Destination Report - PREC-ARC-TR-RPT-0001 – 13/03/2019

Roads and Maritime provides the following comments for consideration:

Construction Traffic and Access Management Plan (CTAMP)

-

- The CTMP needs to meet the requirements of RMS G10 specification see attached G10 specifications document. This includes but not limited to Staging Arrangement Plans, Traffic Control Plans (including temporary signal plans), Vehicle Movement Plans, Pedestrian Movement Plans, Design Drawings, Incident Management Plans etc. Traffic Control Plans and Swept Path Analysis appendices were not supplied. The missing appendices are to be provided in line with RMS requirements.
- The CTMP is to consider / address requirements within the SSD conditions.
- Safety In Design Workshop is to be arranged by the proponent prior to commencement of construction work. An independent WHS consultant is to facilitate the workshop and all effected stakeholders (not limited to) including RMS, TMC, Utilities Providers, Council etc are to attend.
- Trip Distribution figures with clear assumptions at each intersection within the study area should be provided (heavy vehicle breakdown to be included).
- SIDRA outputs are required. Table 19 & 20 Peak intersection performance results: The Level of Service(LoS) column does not corresponds to Delays as per the standard threshold values of LoS vs Average Delays. Please verify and revise accordingly.
- Section 3.1.6 what is the alternative route should the nominated route be unavailable?
- Section 3.2.1 states that the Baseline Peak hour traffic volumes are used from 2015 LMARI traffic model and updated to reflect 2017 data for revised traffic analysis. The traffic volumes should be based on current/recent surveys to simulate the current conditions.
- Section 3.2.4 how will diversions impact traffic impact reduction strategy (3.3.5)? What are the alternative routes proposed?
- Section 3.2.5: the proponent is to Identify the alternate route for pedestrian and bicycle paths during Moorebank Avenue road diversion works.

Section 3.3.3 vehicle movements are unclear, more information required on access and direction.

- Section 3.3.9 TfNSW are to be included as a key stakeholder.

-  
Operational Traffic and Access Management Plan (OTAMP)

- 
- Similar to the CTMP updated traffic counts should be provided to simulate current conditions.
  - Intersection capacity calculations should be provided with Sidra output files.
  - Section 3.1.4.1 Provide the safety implications and proposed mitigations due to high percentage of heavy vehicles (56%) which might require special considerations in road geometry, width, grades and intersection layouts within the study area.
  - What are the assumed network upgrades?
  - Workplace travel plan not provided
  - Access plans unclear
  - What are the public transport services?
  - What is the pedestrian/cycle detour paths?
  - What is the parking management (on and off street)
  - Access swept paths are required for the largest vehicles.

-  
Moorebank Precinct East Biannual Trip Origin Destination Report

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- Figure 2-2 on page 7 shows in red the HV access routes around the facility, in particular M5 (E and W of Moorebank Ave), and Hume Hwy. I would have thus expected that the OD survey would be designed in such a way as to identify which of these HV access routes are used by HVs to/from the facility. However, Fig 4-1 (I think it should be called Fig 5-1) on page 16 shows that the only OD survey points are along Moorebank Ave, Cambridge Ave and Anzac Ave. There are no OD survey sites on M5 or Hume Hwy so it will not be possible to determine which HV access routes have been used. This looks like a huge oversight and brings into question the rationale for the OD survey.

Furthermore, Cambridge Ave and Anzac Ave are not shown in Fig 2-2 as HV access routes. Why are they being surveyed? Purely to detect breaches?

- On page 13 it is stated that the Operational Data Collection will involve trucks fitted with RFID readers. Does this equipment also form the basis of the vehicle identification for the OD surveys? If not, what method will be used to uniquely identify the HVs for the OD survey? Manual observation of number plates? (If so, how will this be done since the surveys extend beyond daylight hours?) Video cameras with number plate recognition software? Bluetooth readers? What level of accuracy can be expected?
- How will the OD data be tabulated / displayed? Appendix A – Reporting Table Templates outlines only the format for tabulation of operational data on vehicle & container volumes entering and leaving, gate opening periods and employee numbers. There is no reference to the presentation of OD data.



Should you have any questions or further enquiries in relation to this matter, my contact details are below or e: [development.sydney@rms.nsw.gov.au](mailto:development.sydney@rms.nsw.gov.au).

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*It is emphasised that the comments provided above are informal and of a Pre-advice nature. They are not to be interpreted as binding upon Roads and Maritime and may change following formal assessment of a submitted development application from the appropriate consent authority.*

**Kind regards,**

**Laura van Putten**

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**Roads and Maritime Services**

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## Biannual Trip Origin Destination Report (Revision 002 (Final Draft) dated 13 March 2019)

### Status of comments from RMS

Stakeholder	Initial Comment Date	Comment	Arcadis Response	Initial Response Date
RMS	15-May-2019	<p>Figure 2-2 on page 7 shows in red the HV access routes around the facility, in particular M5 (E and W of Moorebank Ave), and Hume Hwy.</p> <p>I would have thus expected that the OD survey would be designed in such a way as to identify which of these HV access routes are used by HVs to/from the facility.</p> <p>However, Fig 4-1 (I think it should be called Fig 5-1) on page 16 shows that the only OD survey points are along Moorebank Ave, Cambridge Ave and Anzac Ave.</p> <p>There are no OD survey sites on M5 or Hume Hwy so it will not be possible to determine which HV access routes have been used. This looks like a huge oversight and brings into question the rationale for the OD survey.</p>	<p>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. The recommended cordon is considered sufficient for providing a representative OD pattern for the site. The sites located on Moorebank Avenue, north and south of the South Western Motorway will be used to determine the vehicles travelling to and from the site through interpolation. Given that the Hume Highway is designed to accommodate substantial heavy vehicle movements, it is considered too far for the proposed cordon and heavy vehicles generated by the site would be absorbed in the existing traffic volumes on this part of the network.</p>	21-May-2019
RMS	15-May-2019	<p>Furthermore, Cambridge Ave and Anzac Ave are not shown in Fig 2-2 as HV access routes.</p> <p>Why are they being surveyed? Purely to detect breaches</p>	<p>The OD surveys are intended to capture all vehicles (light and heavy) generated by the site. Additionally, assessing the vehicles on Cambridge Avenue and Anzac Road will enable the identification of heavy vehicles accessing the site using routes that are not designated for heavy vehicles. This section of the report has been amended to clarify this intent.</p>	21-May-2019
RMS	15-May-2019	<p>On page 13 it is stated that the Operational Data Collection will involve trucks filled with RFID readers.</p>	Noted.	21-May-2019
		<p>(a) Does this equipment also form the basis of the vehicle identification for the OD surveys?</p>	<p>They won't be sufficient to give the full spectrum of vehicles and will only cover container trucks. Not rigids, semis and LVs and only covering part of the conditions.</p>	21-May-2019

Stakeholder	Initial Comment Date	Comment	Arcadis Response	Initial Response Date
		<p>(b) If not, what method will be used to uniquely identify the HVs for the OD survey?</p> <p>Manual observation or number plates? (If so, how will this be done since the surveys extend beyond daylight hours?)</p> <p>Video cameras with number plate recognition software?</p> <p>Bluetooth readers?</p> <p>What level of accuracy can be expected?</p>	<p>This will be determined in commissioning the preferred survey company. The predominant method is using CCTV cameras with number plate recognition. The level of accuracy will be reported by the survey company for each survey, dependent on the survey conditions. This section of the report has been updated to specify that this is carried out and documented by the survey company commissioned.</p>	21-May-2019
RMS	15-May-2019	<p>How will the OD data be tabulated / displayed?</p> <p>Appendix A – Reporting Table Templates outlines only the format for tabulation of operational data on vehicle &amp; container volumes entering and leaving, gate opening periods and employee numbers.</p> <p>There is no reference to the presentation of OD data.</p>	<p>The OD survey data will be provided by the survey company. The report will be updated to provide a template for presenting the OD data.</p>	21-May-2019
RMS	22 July 2019	<p>The OD survey will now include the movements onto and off the M5, in each direction. While the new survey points on the 4 ramps are described as “OD station” in Fig 4-1, they are described this way on page 16:</p> <p><i>‘The sites located on Moorebank Avenue, north and south of the South Western Motorway will be used to determine the vehicles travelling to and from the site through interpolation and combined with survey equipment on the on and off ramps of the M5 South Western Motorway will provide an adequate overview of the origin and destination of light and heavy vehicles from the facility.’</i></p> <p>It is unclear if the term “survey equipment” which is used to explain the equipment located on the 4 ramps will be collecting exactly the same type of information as the other OD stations. Further detail is required to inform that</p>	<p>The modified OD survey scope includes data collection on the ramps that is consistent with the remaining stations. The text referred to in the comment has been deleted from the report, since there is no longer requirement to interpolate data.</p>	25 July 2019

Stakeholder	Initial Comment Date	Comment	Arcadis Response	Initial Response Date
		the OD Stations will be collecting the same data (for example number plates) and not simply counting vehicles. this data needs to be able to identify actual trips moving onto and off the M5, not just derive estimates based on some pro-rata split of count volumes on the ramps.		
RMS		RMS preference is to extend the OD survey to cover the orientation of trips at Moorebank Ave / Newbridge Rd and at M5 / Hume Hwy, to provide further information on HV movements onto and from these key arterials. However, we accept that this would add significantly to the OD survey expense & complexity, and would suggest as an alternative that these two locations could be added to the list of intersection surveys (ie simple counts, not OD) shown on page 16. For example, if the OD survey showed a high level of left turn movement onto M5 from the new intermodal facility, we would like to know if those HVs stayed on M5 (where their impact is less) or exited at Casula onto the Hume Hwy (where their impact is greater).	The two intersections of Moorebank Avenue/ Newbridge Road and at M5 / Hume Highway have been added to the scope for intersection surveys.	25 July 2019