Traffic Audit Framework Report

Moorebank SEPP

19/12/2022

P1947r02v1

info@asongroup.com.au
+61 2 9083 6601
Suite 17.02, Level 17,
1 Castlereagh Street,
Sydney, NSW 2000

Document Control

Project No	1947
Project	Moorebank SEPP Traffic Baseline, Monitoring, Audit Process
Client	Department of Planning and Environment
File Reference	1947r02v1_Moorebank SEPP Traffic Audit Framework, Issue I.docx

Revision History

Revision No.	Date	Details	Author	Approved by
-	27 July 2022	Draft	M. Kong	P. Trethewey
1	19 December 2022	Issue I	M. Kong	P. Trethewey

contents

contents continued

APPENDICES

Glossary

Acronym	Description
AM Peak	Morning Peak Period
AVD	Average Vehicle Delay
CIC	Classified Intersection Count
DOS	Degree Of Saturation
DPE	Department of Planning & Environment
HV	Heavy Vehicle
IMT	Intermodal Terminal
LGA	Local Government Area
LOS	Level Of Service
LV	Light Vehicle
MLP	Moorebank Logistics Park
MPE	Moorebank Precinct East
MPW	Moorebank Precinct West
PM Peak	Afternoon / Evening Peak Period
RMS	Roads & Maritime Services (now incorporated in Transport for New South Wales)
SEPP	State Environmental Planning Policy
SSD	State Significant Development
SSI	State Significant Infrastructure
TEU	Twenty-foot Equivalent Units
TfNSW	Transport for New South Wales

1 Introduction

1.1 Overview

Ason Group has been engaged by the NSW Department of Planning & Environment to provide traffic and transport consultancy services for the implementation of the Moorebank State Environmental Planning Policy for the Moorebank Intermodal Terminal Facility located on Moorebank Avenue, Moorebank within the Liverpool City Council LGA.

The Moorebank IMT facility, also referred to as Moorebank Logistics Park, consists of 2, currently separate Precincts, Moorebank Precinct West and Moorebank Precinct East. The MLP is Australia's largest freight infrastructure project, providing:

- Capacity to handle 1.55 million TEUs (twenty-foot equivalent units) of freight, and
- 850,000 m^2 of high specification warehousing.

The location of the MLP is presented in **Figure 1**.

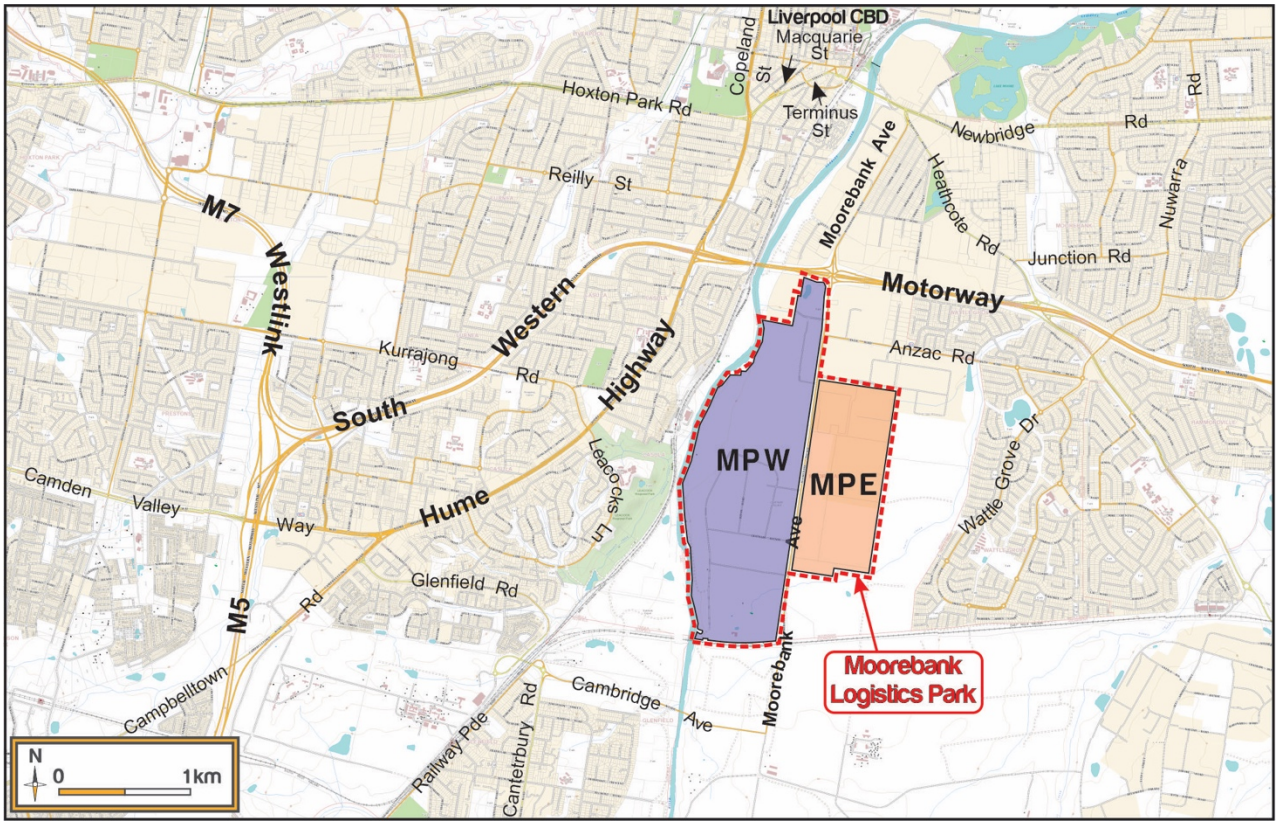


Figure 1: Site Location and Study Area

The proposed Moorebank SEPP looks to streamline the delivery of low-impact development within the MLP. This will provide for the timely development of the Precinct to service the growing freight needs across Western Sydney, NSW and nationally.

Regarding traffic, the SEPP requires proponents to obtain a Traffic Certificate from the Secretary DPE in support of a complying development application. To support the Traffic Certificate process, 2 further processes will be implemented:

- Traffic Monitoring
- Traffic Audit

In summary, when the traffic monitoring process reports that a specified traffic threshold (or trigger point) has been reached, the SEPP would require a traffic audit be undertaken by an independent traffic consultant to confirm the safe and efficient operation of the surrounding road network.

1.2 Traffic Monitoring Requirements

The overall approved MLP concept plan is forecast to generate approximately 20,180 vehicle movements per day, consisting of 9,380 light vehicle (car) movements and 10,800 heavy vehicle (truck) movements. DPE has adopted daily HV movements as a key measure for the SEPP with the following interim traffic thresholds identified:

- 25% - 2,700 HV movement per day
- 50% - 5,400 HV movements per day
- 75% - 8,100 HV movements per day

The primary function of the traffic monitoring system is to count HV operational traffic entering and exiting the MLP so it can be reported against the interim thresholds above, and eventually the 'ultimate' threshold of 10,800 HV movements per day.

As a minimum, the counts need to be undertaken on the direct access roads (that provide access for operational truck traffic) that connect the MLP to the local road network. At the time of writing there is a single direct access road to the MLP (which consists currently of just MPE in terms of operational traffic) from Moorebank Avenue. However, the future master plan is for upwards of 5 operational access roads.

Traffic data would be collected on a 24/7 continuous basis, consistent with the current monitoring obligations of the MLP. When the traffic monitoring system indicates that an interim threshold has been reached, the SEPP would require a traffic audit to be undertaken by an independent traffic consultant to confirm the safe and efficient operation of the surrounding road network.

1.3 Baseline Assessment

To enact the SEPP, an initial baseline assessment of the surrounding network and the intersections has been undertaken. The primary objective of the baseline assessment was to provide a current 'snapshot' of the performance of the road network, thereby establishing an up-to-date reference point for the commencement of the SEPP against which any future traffic audits can be compared. The following provides a summary of the scope of the baseline assessment:

- Collect relevant traffic data, including classified vehicle counts.
- Identify peak periods.
- Determine daily traffic generation, particularly heavy vehicle traffic, for the MLP.

- Determine the performance of relevant intersections; performance measure to include an assessment of the Level of Service and Degree of Saturation.
- Present the results of the traffic analysis in a format that can be readily adopted for future comparison as part of the traffic audit process.

1.4 Traffic Audit Framework

The primary objective of a traffic audit is generally consistent with that of the baseline assessment, namely, to provide (in the future) a snapshot of the performance of the road network, which can be compared against the baseline assessment. When the traffic monitoring system notifies that a trigger point has been reached, the Precinct Operator (the entity responsible for the management of the Moorebank IMT facility) would engage an Independent Traffic Auditor, with the initial task being to prepare a scope of works for the traffic audit. The methodology used would remain consistent between audits, but the scope of works would confirm which intersections are to be included, allowing for the addition of new entry points as the precinct evolves, or the exclusion of any intersections that are no longer considered appropriate.

Prior to commencement of the traffic audit, the precinct operator would seek endorsement from the DPE Secretary for the nominated independent traffic auditor and the scope of works for the pending traffic audit. The objective of this Traffic Audit Framework is to provide a guide for the independent traffic auditor relating to the:

1. Preparation of the scope of works for endorsement by the DPE Secretary.
2. Presentation of the findings of the traffic audit study, such that it can be readily compared with the baseline assessment and/or earlier traffic audits.

The remainder of this traffic audit framework is structured as follows:

- Status of network upgrades (**Section 2**)
- Data collection - commission traffic surveys in accordance with **Section 3**
- Data analysis (See **Section 4**)
- Reporting (See **Section 5**)
  - Traffic Data Presentation
  - Modelling Results Presentation

This traffic audit framework has been developed based on future traffic audits having a scope that is generally consistent with the scope of the 2022 baseline assessment. However, it is noted that the Implementation Plan that has been written to support the implementation of the SEPP, provides a high-level traffic audit scope that is effectively less extensive than the scope for the baseline assessment. For example, the number of intersections to be assessed have reduced and link flow analysis is no longer required.

Notwithstanding, the Moorebank SEPP and/or the implementation plan, include reviewal processes and therefore could be updated in the future. Therefore, future independent traffic auditors are to use this framework as a guide only for informing the scope of a future traffic audit, with further consideration for expanding (or reducing) the scope to be given prior to submission of the scope of works to the DPE Secretary for endorsement.

2 Status of Network Upgrades

The intersection and road infrastructure upgrades that are conditionally required as a result of the relevant SSD and SSI approvals, are summarised in **Table 1**. The list of relevant upgrades should be reviewed as part of the audit process to ensure it reflects the current position following any modifications.

TABLE 1: SSDA & SSI APPROVAL REQUIRED INTERSECTION AND ROAD INFRASTRUCTURE UPGRADES

SSDA #	ID	Intersection/ Road	Upgrade requirements	Required timing for 100% design approval by RMS	Required timing for completion of upgrade
Moorebank Precinct West (SSD-7709)	CIC-8	Moorebank Ave / Anzac Rd	1. Moorebank Avenue and Anzac Road intersection upgrades, road widening and road upgrade works, and associated civil works 2. Indicative layout plans (RIUW- ARC-CV-SKC-2003-P1 and RIUW-ARC-CV-SKC-1005-P2) included in Appendix 1 (See **Appendix A of this report** for details), subject to design development and approval by RMS, and incorporating a bicycle/ pedestrian share path.	To be obtained within 12 months of the date of this consent, or prior to the issue of the first Occupation Certificate for warehousing, whichever is the sooner.	Prior to issue of an Occupation Certificate for warehousing in excess of 100,000 m^2 of gross floor area
Moorebank Intermodal Precinct East Stage 2 (SSD 7628)	CIC-7	M5 Mwy / Moorebank Ave	Indicative layout to be provided by Applicant, subject to design development and approval by RMS	To be obtained prior to the issue of the first Occupation Certificate for warehousing in excess of 132,000m^2 on the site	Prior to issue of the first Occupation Certificate for warehousing in excess of 100,000m^2 132,000m^2*, or no later than December 2020, or a later date as agreed with the Secretary of Transport for NSW
	CIC-9**	Newbridge Road / Heathcote Road and Heathcote Road / Moorebank Avenue intersections	1. Indicative layout to be provided by Applicant, subject to design development and approval by RMS 2. As strategically described for intersection I-5 Moorebank/Heathcote Road (page 76, MPE Stage 2 EIS Operational Traffic and Transport Impact Assessment) - (See Appendix B of this report for details) 3. Heathcote Road bus jump lane must be retained, or a bus jump lane of equivalent length replaced by the Applicant.	To be obtained prior to the issue of the first Occupation Certificate for warehousing in excess of 132,000m2* on the site	By December 2022
	NA	Moorebank Avenue Upgrade, being the upgrade of Moorebank Avenue to four lanes between Anzac Avenue and the IMEX Terminal Main access point	Indicative layout provided by Applicant, subject to design development and approval by RMS, and incorporating a bicycle/pedestrian share lane	To be obtained within 12 months of the date of this consent, or prior to the issue of the first Occupation Certificate for warehousing in excess of 132,000m2* on the site, whichever is the sooner	Prior to issue of an Occupation Certificate for warehousing in excess of 100,000m^2 132,000m^2* of gross floor area

SSDA #	ID	Intersection/ Road	Upgrade requirements	Required timing for 100% design approval by RMS	Required timing for completion of upgrade
Moorebank Avenue Realignment (SSI-10053)	NA	The realignment and upgrade of the existing Moorebank Avenue from south of Anzac Road to the East Hills Railway, running predominantly to the east of the Moorebank Precinct East site.	1. Signalisation of intersections as described in Section 5.3.5 (the existing Moorebank Avenue alignment and the realigned Moorebank Avenue - See **Appendix C** for details) of the EIS referenced in Condition A1 is not approved unless agreed to by TfNSW following the outcomes of the process outlined in Condition E57. 2. Before commencement of construction in relation to intersections, an assessment of appropriate intersection treatments must be undertaken of the intersections identified in section 5.3.5 of the EIS identified in Condition A1, to inform the final design of the SSI in consultation with and to the satisfaction of TfNSW. Justification of the preferred option must be supported by the findings of the assessment.	NA	NA

Note:

* the 132,000m² referred to in this table is the certified occupation Gross Floor Area at the time of approval of MOD 1

** The implementation plan only includes CIC-9 - Newbridge Road / Heathcote Road as this intersection is critical in terms of performance. However, upgrades are required at both CIC-9 and the adjacent Heathcote Road/ Moorebank Avenue intersections to improve the intersection of CIC-9.

Future traffic audits will be required to provide a summary on the status of these upgrades that are required by the approvals.

3 Data Collection

3.1 Data Collection Scope and Methodology

The scope of any future traffic audit(s) is to be agreed with the DPE Secretary prior to commencement. This will allow for the addition of new entry points as the precinct develops, or the exclusion of intersections which are no longer considered appropriate. Within this context, **Table 2** presents the operational data and intersection survey data that was collected to inform the baseline assessment:

TABLE 2: LIST OF TRAFFIC DATA

#	Data Type	Duration	Time
1	Classified Intersection Count	3 typical weekdays (Tuesday – Thursday)	6:00-9:00 AM & 3:00-6:00 PM
2	Queue Length and Signal Phasing / Timing	1 typical weekday (for the assessed weekday)	6:00-9:00AM & 3:00-6:00 PM
3	SCATS Signal Phasing / Timing (from TfNSW)	1 typical weekday (for the assessed weekday)	Assessed 1-hour AM and PM Peak Hours
4	Site Access	5 typical weekdays	24 hours

3.2 Traffic Surveys Locations

Consistent with the traffic data requirements in Table 2, the location of the 6 intersection surveys, and the extent of the study road network, are presented in **Table 3** and illustrated in **Figure 2**.

The intersection count data comprises:

- those intersections for which upgrade are conditions of previous SSD approvals (CIC-7, CIC-8 and CIC-9).
- the intersections of the M5 west & eastbound ramps with the Hume Highway (CIC-5).
- the roundabout junction of Cambridge Avenue with Glenfield Road / Canterbury Road / Railway Parade (CIC-4).
- the MPE operational site access/Moorebank Avenue (CIC-13). It is noted that currently CIC-13 represents the only operational access to the MLP. However, there will be upwards of 5 operational access once completed and future audits will need to undertake surveys at all operational accesses.

It is noted that 5 of these intersections were assessed as part of the earlier SSD application assessments for the MLP.

Notwithstanding the above, the scope of data collection will be confirmed prior to the commencement of any future traffic audit.

TABLE 3: INTERSECTION SURVEYS	
ID	**Intersection**
CIC-4	Glenfield Rd, Cambridge Ave & Canterbury Rd
CIC-5	M5 Mwy & Hume Hwy
CIC-7	M5 Mwy & Moorebank Ave
CIC-8	Moorebank Ave & Anzac Rd
CIC-9	Newbridge & Heathcote Rd / Moorebank Ave
CIC-13	Moorebank Ave & MPE Access

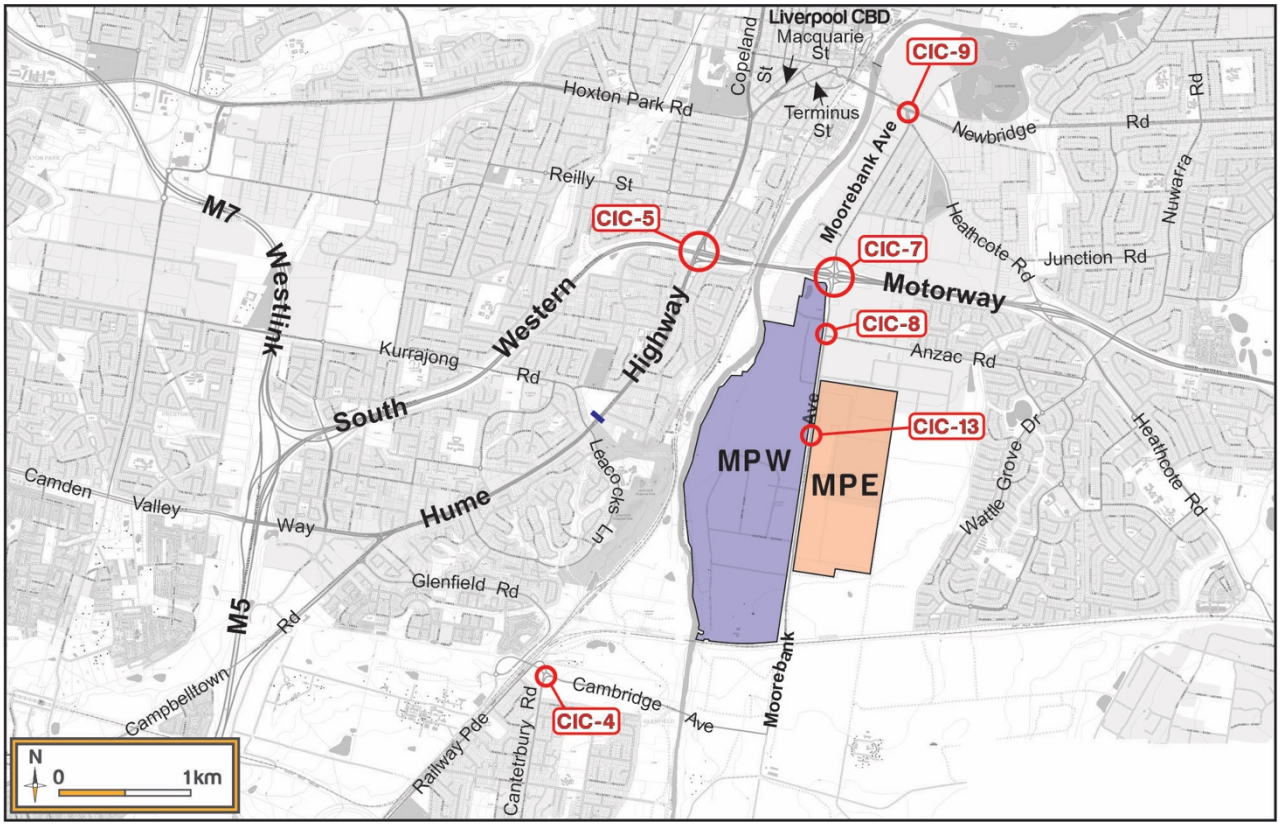


Figure 2: Traffic Survey Locations

3.3 Intersection Survey Requirements

The data from the intersection turn counts would be used to analyse the general network peak period volumes. Intersection surveys would be required for:

- On typical weekdays (not within two weeks before or after school holidays)
- Survey data classification:
  - Pedestrians
  - Light vehicles
  - Heavy vehicles:
- 15-minute intervals
- Peak hour identified and reported

3.4 Site Access Data Collection

The operational data (total HV operational traffic entering and exiting the MLP) will be obtained via the proposed on-site monitoring system:

- Existing access: a single direct access road to the MLP (which consists currently of just MPE in terms of operational traffic) from Moorebank Avenue.
- Proposed 5 operational access roads, consisting of:
  - 1 main access to MPW (warehouses and interstate IMT) at the future Moorebank Avenue / Anzac Road signalised intersection.
  - 3 accesses to MPE warehousing at 3 separate signalised intersections with the future Moorebank Avenue Realignment Road.
  - 1 main access to the IMEX IMT.

4 Data Analysis

Future traffic audits will be required to undertake network performance testing of the study network intersections. SIDRA models provide several outputs to measure the performance of an intersection, including:

- **Delay**: Also known as Average Vehicle Delay or AVD, which is expressed in seconds. The Delay or AVD is measured across all vehicles in a signalised intersection and for the worst movement in a priority-controlled intersection.
- **Level of Service** (LOS): An indication of critical AVD in any intersection, denoted by the alphabetic letters from A to F. AVD in the range of LOS A up to LOS D is considered acceptable.
- **Degree of Saturation** (DOS): The ratio of volumes by capacity. The maximum acceptable DOS for signalised and roundabouts intersections are 0.90 and 0.85, respectively.

Table 4 provides a summary of the SIDRA recommended criteria for the assessment of intersections with reference to AVD and LOS, as outlined in the RMS Guide.

TABLE 4: SIDRA LEVEL OF SERVICE CRITERIA

LOS	Average Vehicle Delay (sec/veh)	Traffic Signals & Roundabout	Give Way & Stop Signs
A	<14	Good Operation	Good operation
B	15 – 28	Good with acceptable delays & spare capacity	Acceptable delays & spare capacity
C	29 – 42	Satisfactory	Satisfactory, but accident study required
D	43 – 56	Operating near capacity	Near capacity & accident study required
E	57 – 70	At capacity: at signals, incidents will cause excessive delays. Roundabouts require other control mode	At capacity, requires other control mode
F	>70	Unsatisfactory and requires additional capacity	Unsatisfactory and requires other control mode or major treatment

When applying the above criteria, it is recommended that for traffic signals, the LOS should be calculated based on the average vehicle delay at the whole intersection, whereas for roundabouts and priority-controlled intersections, the critical measure of LOS is determined by the movement with the highest delay.

5 Data Reporting

5.1 Traffic Data Presentation

5.1.1 Network Peak Hour

Future traffic audits would be required to analyse the morning and evening weekday peak period CIC data with a view to identifying the AM and PM peak hours to be adopted for subsequent SIDRA analysis. This is to be done by adding the total arrival flows at all intersections (on the separate days) to identify the peak hour. This exercise is to be presented graphically for each of the morning and evening peak periods, with **Figure 3** presenting the baseline assessment analysis of the morning peak period.

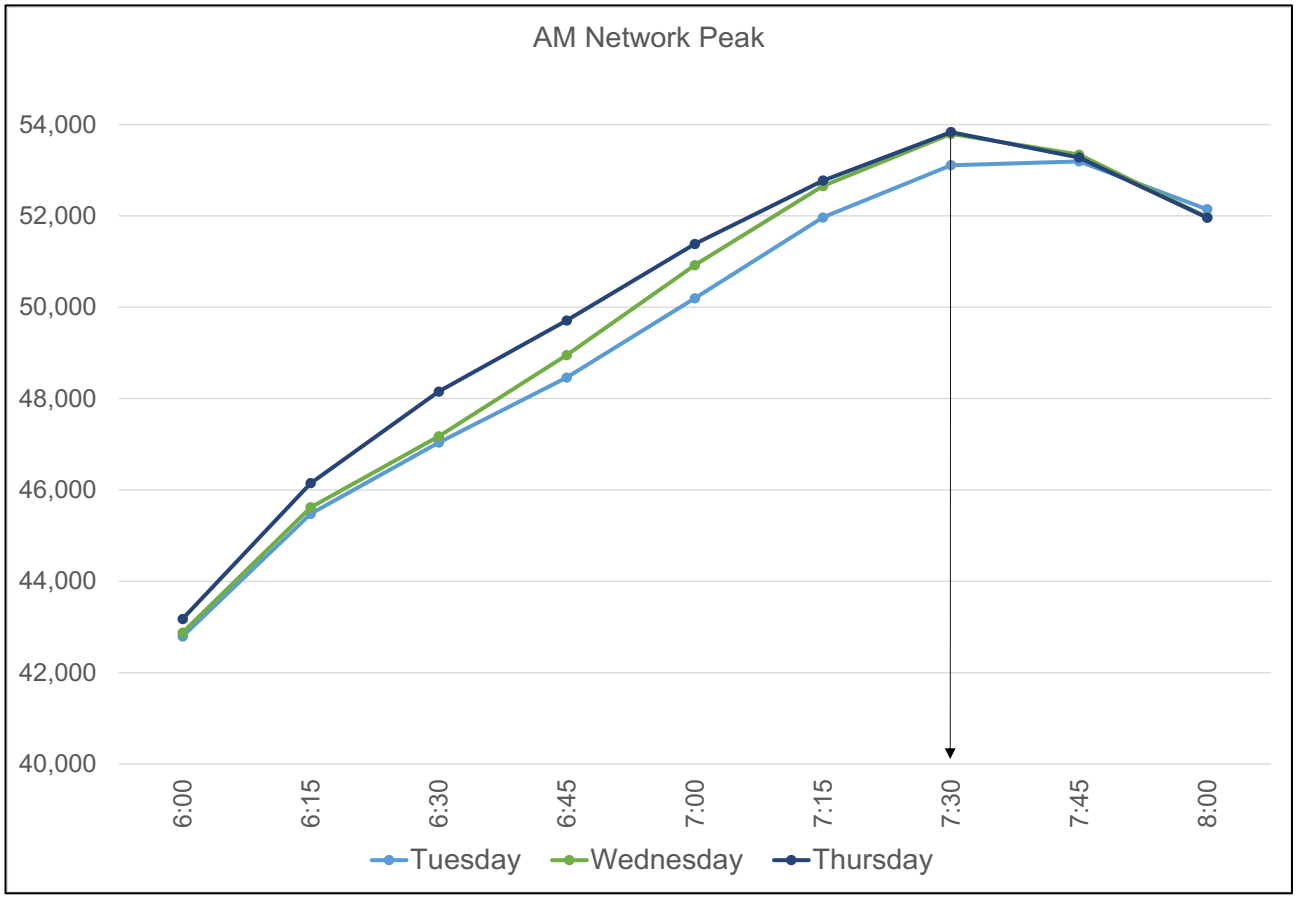


Figure 3: Hourly Traffic (Total Network) Turning Movement Count Profiles – AM Peak (Baseline Assessment)

This exercise would also determine which of the 3 survey days accommodated the highest volume of traffic on the study network. The peak hour traffic volumes at each intersection for the day that has the highest traffic volumes would be adopted as the peak hour traffic volumes for subsequent SIDRA analysis.

5.1.2 Site Traffic Generation Surveys

The AM and PM peak hours as well as the daily traffic generation (for Tuesday, Wednesday, and Thursday and the average for the 3 days) for the existing and new accesses should be presented in a table similar in format to **Table 5.**

TABLE 5: SITE TRAFFIC GENERATION

Access	Period	Tuesday			Wednesday			Thursday			Average Weekday		
		LV	HV	Total	LV	HV	Total	LV	HV	Total	LV	HV	Total
Access No./ Road Name	AM PEAK HR												
	PM PEAK HR												
	DAILY												

The average daily HV traffic volumes across the 3-day survey period at the site access point should be presented in a table similar in format to **Table 6**.

TABLE 6: SURVEYED AVERAGE DAILY HV TRAFFIC VOLUMES

DATE	March 2022	Audit Month, Year	Audit Month, Year
MOVEMENTS			

5.2 SIDRA Modelling Results Presentation

SIDRA assessment results of each key intersection in the study area for AM / PM peak hour should be summarised in a table similar in format to **Table 7**.

TABLE 7: AM / PM PEAK – CURRENT AUDIT CONDITIONS – SIDRA RESULTS

#	Intersection	Control	Approach	Volume	DOS	Delay (s)	LOS	95th % Queue
CIC-X	Road Name/ Road Name	Signal / Priority / Roundabout	Approach x					
			Approach x					
			Approach x					
			Approach x					
			Worst Movement (for Priority / Roundabout)/ Overall (Signal)					

5.3 Assessment Comparison Presentation

A comparison between the baseline/previous audit and current audit conditions in relation to the LOS, DOS and the extent of the 95th % Queue lengths should be presented in a table similar in format to **Table 8**.

TABLE 8: COMPARISON OF BASELINE/ PREVIOUS AUDIT AND CURRENT AUDIT AM/ PM PEAK INTERSECTION PERFORMANCES

#	Inter-section	Approach	Baseline Or Previous Audit			Current Audit			Change in		
			DOS	LOS	95th % Queue	DOS	LOS	95th % Queue	DOS	LOS	95th % Queue
CIC-X	Road Name / Road Name	Approach x									
		Approach x									
		Approach x									
		Approach x									
		Worst Movement (for Priority / Roundabout)/ Overall (Signal)									

Appendix A. CIC-8: Moorebank Ave / Anzac Rd Indicative Layout Plan

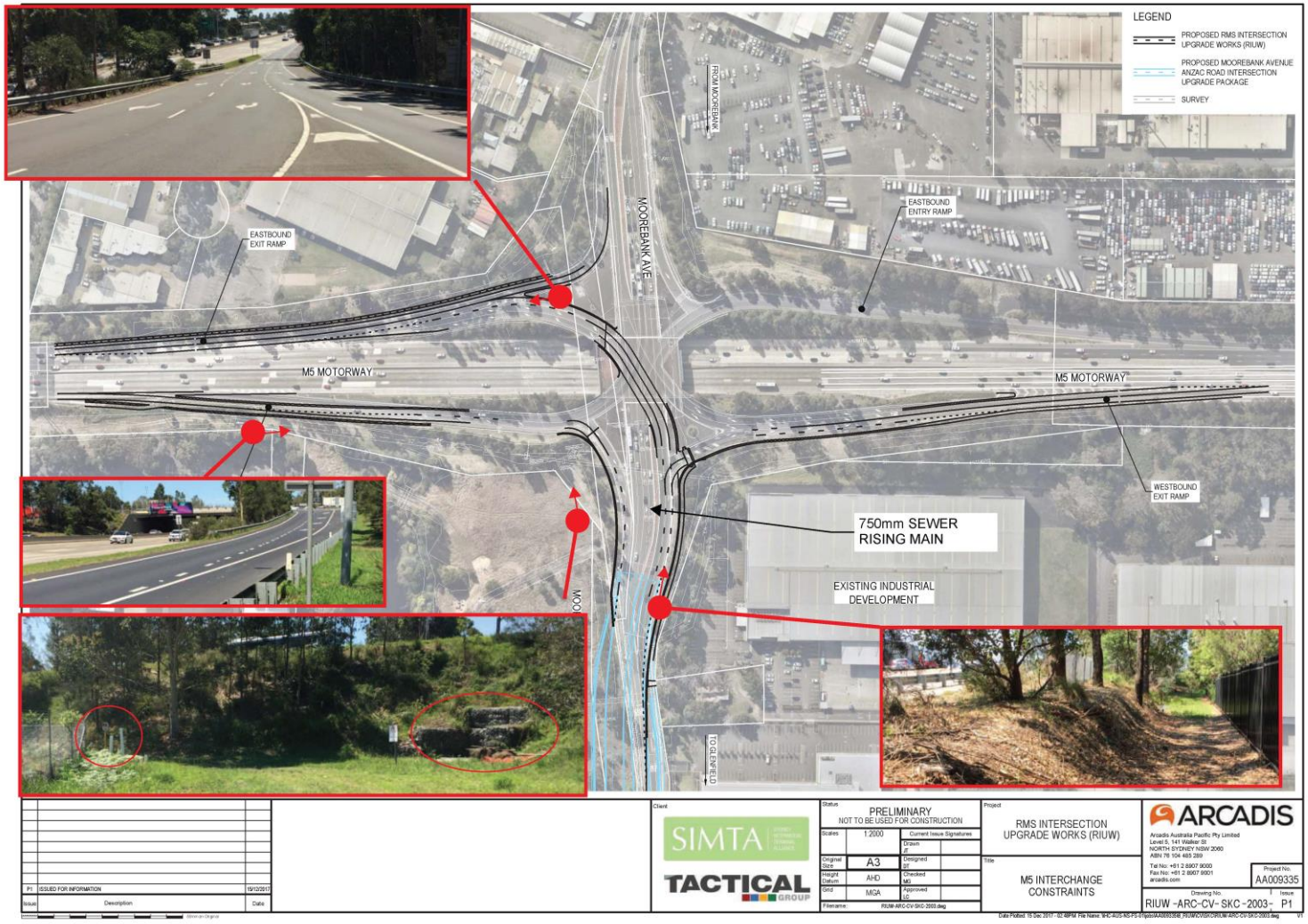


Figure 2: Indicative Layout Plan - Moorebank Avenue Road Upgrade near M5

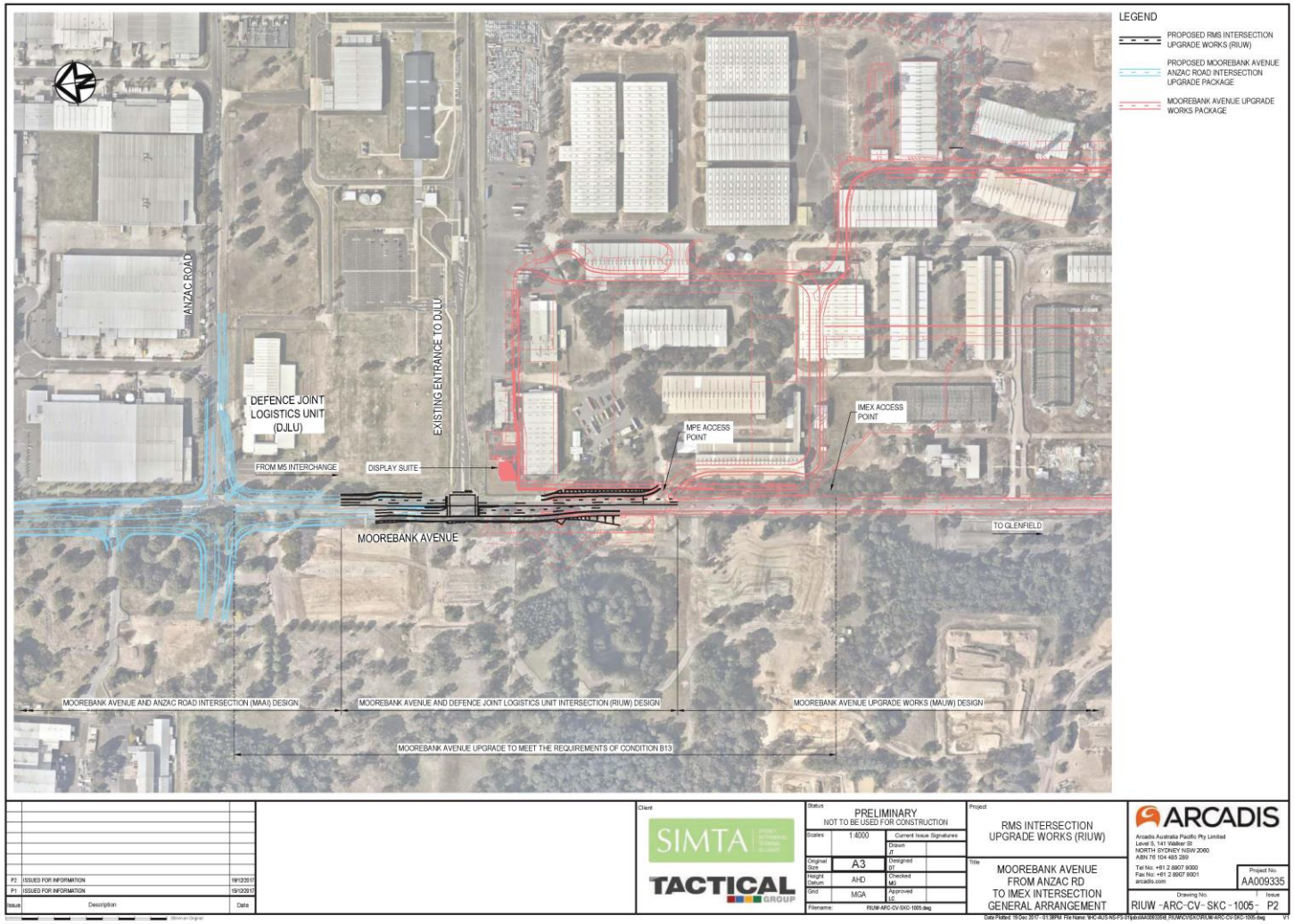


Figure 3: Indicative Layout Plan – Moorebank Avenue/ Anzac Road Intersection Upgrade

Appendix B. Page 76, MPE Stage 2 EIS Operational Traffic and Transport Impact Assessment

Table 6-1 Assumed Network Upgrades

ID	Intersection	Recommended Network Improvements to Mitigate Background and Cumulative Traffic	Indicative Timing	Required for
I-1	Moorebank Avenue / Anzac Road	1. Upgrade Moorebank Avenue/Anzac Road signalised intersection to include lane capacity improvements on the northern and southern approaches. The current configuration on Anzac Road (eastern approach) will be retained. 2. Implement vehicle actuated signals 3. Upgraded intersection to comply with relevant RMS design standards	2019	Background and cumulative
I-2	M5 Motorway / Moorebank Avenue	1. Provide additional capacity on M5 westbound on-ramp. 2. Provide additional capacity on M5 eastbound off-ramp 3. Increase the storage lengths of the existing (two-lane) right turn bay on Moorebank Avenue northern approach 4. Widen Moorebank Avenue to four lanes between the M5 Motorway/Moorebank Avenue intersection and Moorebank Avenue/Anzac Road intersection 5. Change the signal to vehicle actuated to improve west and north approaches (See Figure 6-1). 6. Upgraded intersection to comply with relevant RMS design standards	Staged upgrading starting from 2019	Background and cumulative
I-3	M5 Motorway / Hume Highway	Change the signal to vehicle actuation in the PM peak to improve traffic signal operations	2019	Background
I-4	Moorebank Avenue / Newbridge Road	1. Add an additional right turn lane from Moorebank Avenue south approach and change the signal to vehicle actuation in the PM peak to improve traffic signal operations. 2. Upgraded intersection to comply with relevant RMS design standards	2019	Background
I-5	Moorebank Avenue / Heathcote Road	1. Extend right turn lane from Moorebank Avenue south approach and change the signal to vehicle actuation in the PM peak to improve traffic signal operations. 2. Upgraded intersection to comply with relevant RMS design standards	2019	Background
I-6	M5 Motorway / Heathcote Road	Change the signal to vehicle actuated in PM peak to improve traffic signal operations.	2019	Background

Appendix C. Section 5.3.5 of Moorebank Avenue Realignment EIS

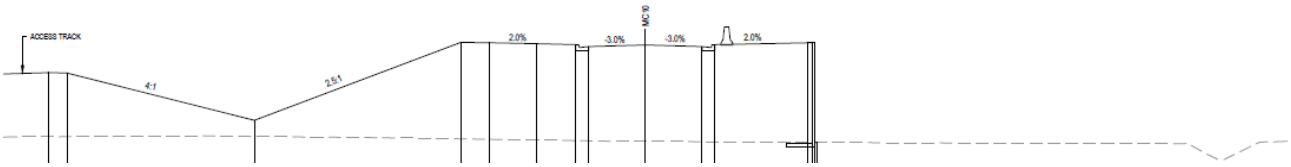


Figure 5.10 Indicative typical cross-section of alignment near East Hills Railway bridge

5.3.4 Pavement

Pavement would comprise (from bottom to top):

- Prepared subgrade – being the existing ground that has been stripped of topsoil, grubbed, levelled, and rolled. It may also include an embankment of compacted fill and/or an upper zone formation of placed fill to design levels;
- Sub-base – layers of compacted granular, select material, placed in layers of increasing strength as the pavement level gets higher;
- Lean mix concrete sub-base;
- Base course – comprising asphaltic concrete (AC); and
- Wearing course – a 45 mm AC layer.

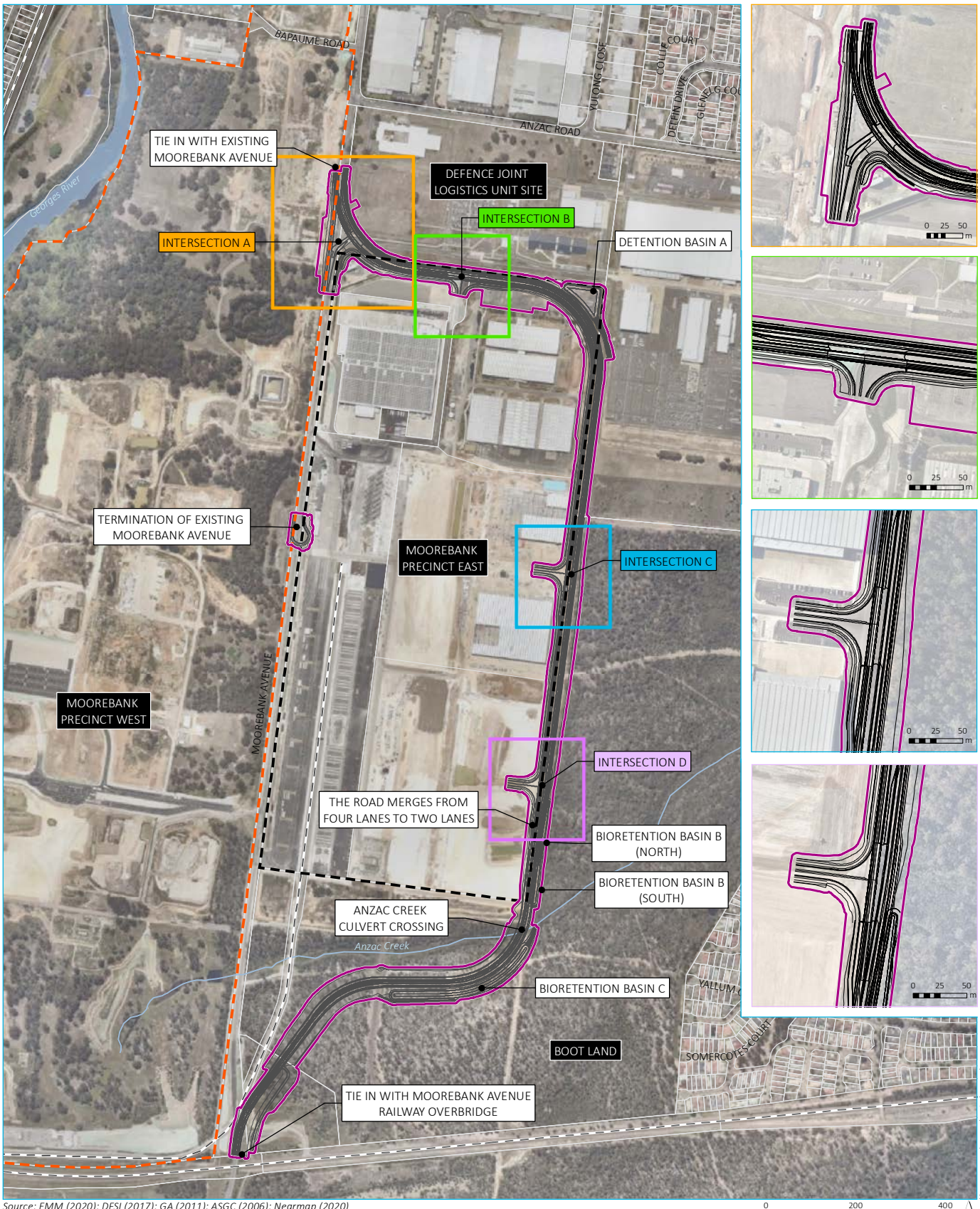
Pavement construction would typically involve select subgrade material and general earthworks material would be placed on top of the road formation to form the subbase courses. An upper pavement layer of concrete would be placed over the lower subbase courses and overlaid with the AC base courses. The wearing course would be a 45 thick AC layer.

5.3.5 Intersections

The Project has been designed with direct connections to the MPE Site. The Project includes four key intersections to replicate current conditions along Moorebank Avenue. The Intersections are named for descriptive purposes and include:

- Intersection A – an at-grade signalised intersection providing connection between the existing Moorebank Avenue alignment and the realigned Moorebank Avenue;
- Intersection B – a three-leg intersection providing access to the northern section of the MPE Site internal road network between Warehouse 1 and Warehouse 2;
- Intersection C – a three-leg intersection providing access to the eastern section of the MPE Site internal road network between Warehouse 3 and Warehouse 4; and
- Intersection D – a three-leg intersection providing access to the eastern section of the MPE Site internal road network between Warehouse 6 and Warehouse 7.

The intersections are shown in Figure 5.11 and are described in further detail in this section, with corresponding intersection figures.



Source: EMM (2020); DFSI (2017); GA (2011); ASGC (2006); Nearmap (2020)

KEY

- Construction footprint
- Moorebank Precinct East
- Moorebank Precinct West
- Cadastral boundary
- Road design
- Rail line
- Watercourse

Intersections

Moorebank Avenue realignment
Environmental impact assessment
Figure 5.11

EMM creating opportunities

i Intersection A

Intersection A would be an at grade signalised intersection constructed at the northern extremity of the proposed realignment route in the vicinity of the northern boundary of the MLP. The three-leg intersection would provide connection between the existing Moorebank Avenue alignment and the Project. Connection would also be provided to the existing Moorebank Avenue between the MPW Site and MPE Site, providing restricted access to the MLP. The intersection will replace the existing intersection and require the relocation of shared user paths and bus stops. Intersection A is shown in Figure 5.12.

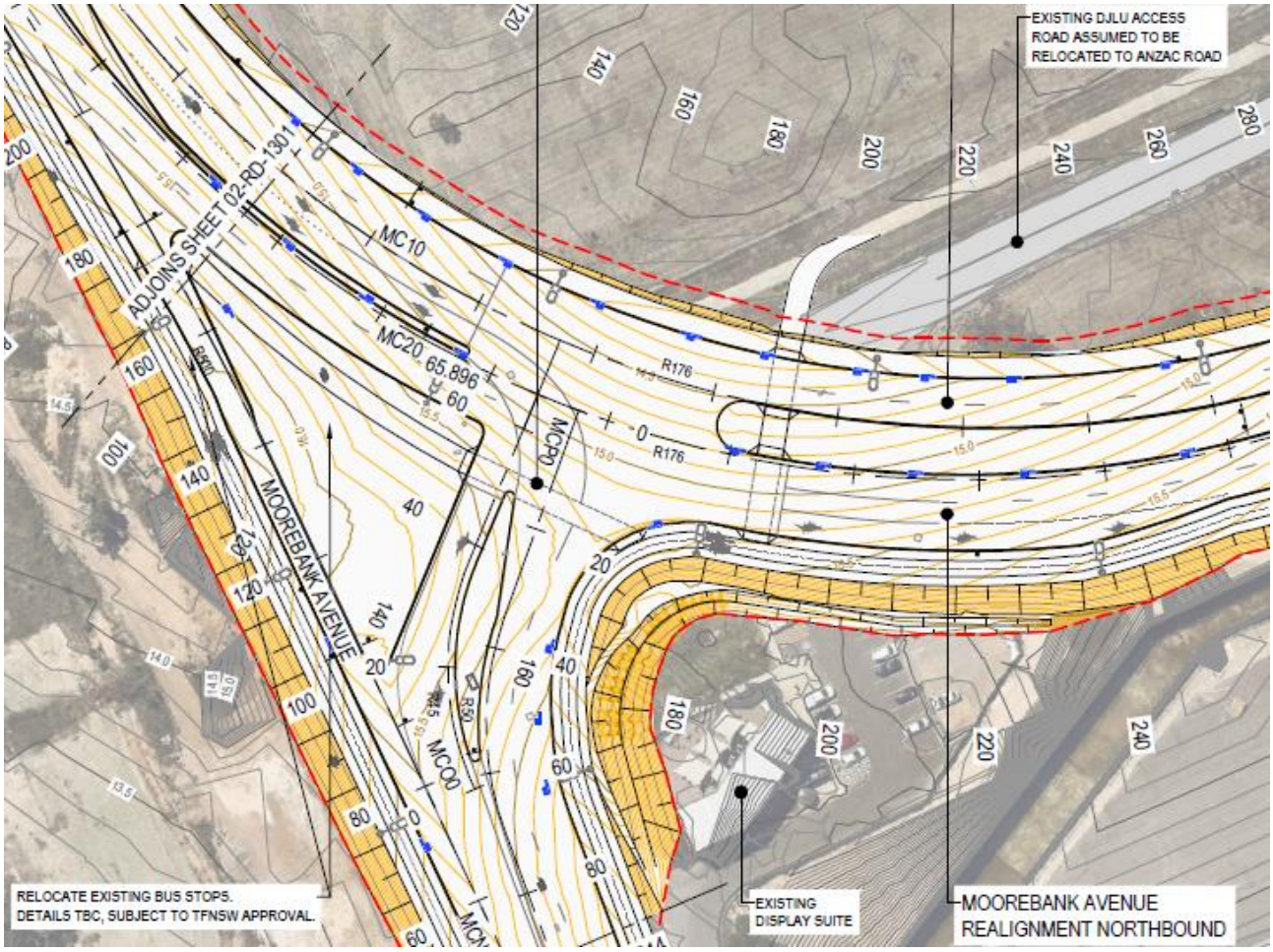


Figure 5.12 Intersection A (indicative only)

ii Intersection B

Intersection B would be established along the northern boundary of the MPE Site between Warehouse 1 and Warehouse 2. The intersection would tie into the internal MPE road network. Turning lanes would be provided to allow for left and right turns into the MPE site and left and right turns out of the MPE site. Intersection B is shown in Figure 5.13.

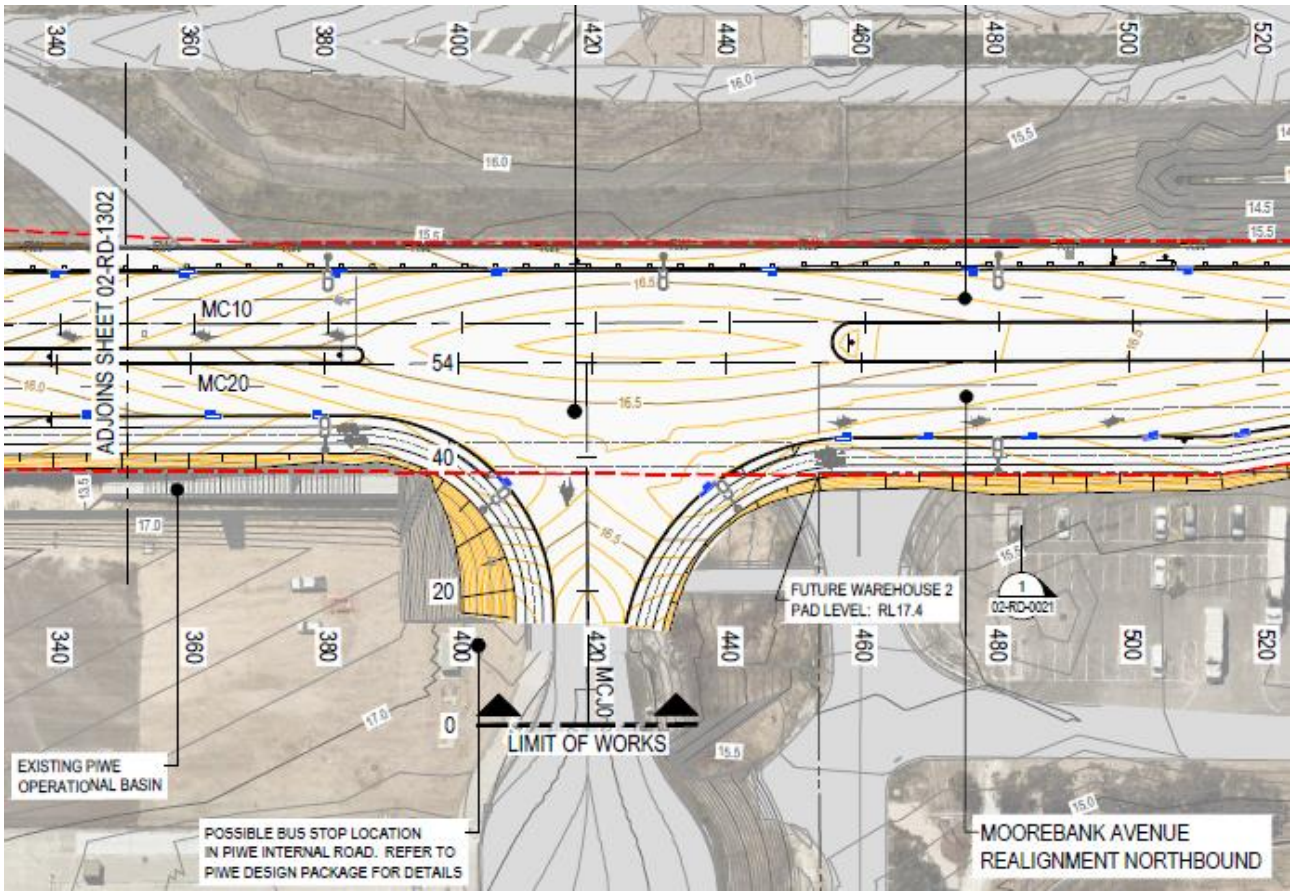


Figure 5.13 Intersection B (indicative only)

iii Intersection C

Intersection C would be established along the eastern boundary of the MPE Site between Warehouse 3 and Warehouse 4. The intersection would tie into the internal MPE road network. Turning lanes would be provided to allow for left and right turns into the MPE site and left and right turns out of the MPE site. Intersection C is shown in Figure 5.14.

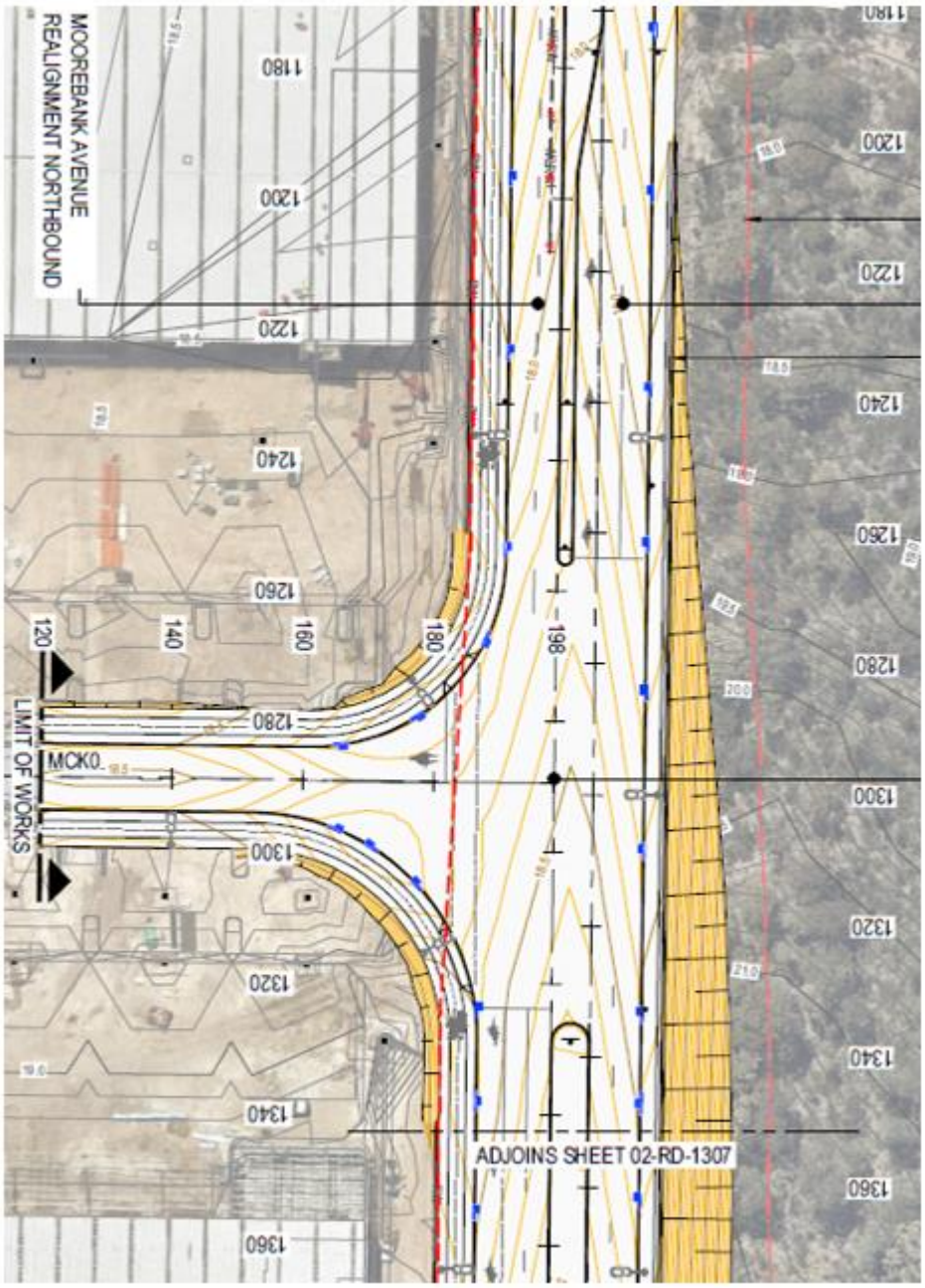


Figure 5.14 Intersection C (indicative only)

iv Intersection D

Intersection D would be established along the eastern boundary of the MPE Site between Warehouse 6 and Warehouse 7. The intersection would tie into the internal MPE road network. Turning lanes would be provided to allow for left and right turns into the MPE site and left and right turns out of the MPE site. Intersection D is shown in Figure 5.15.

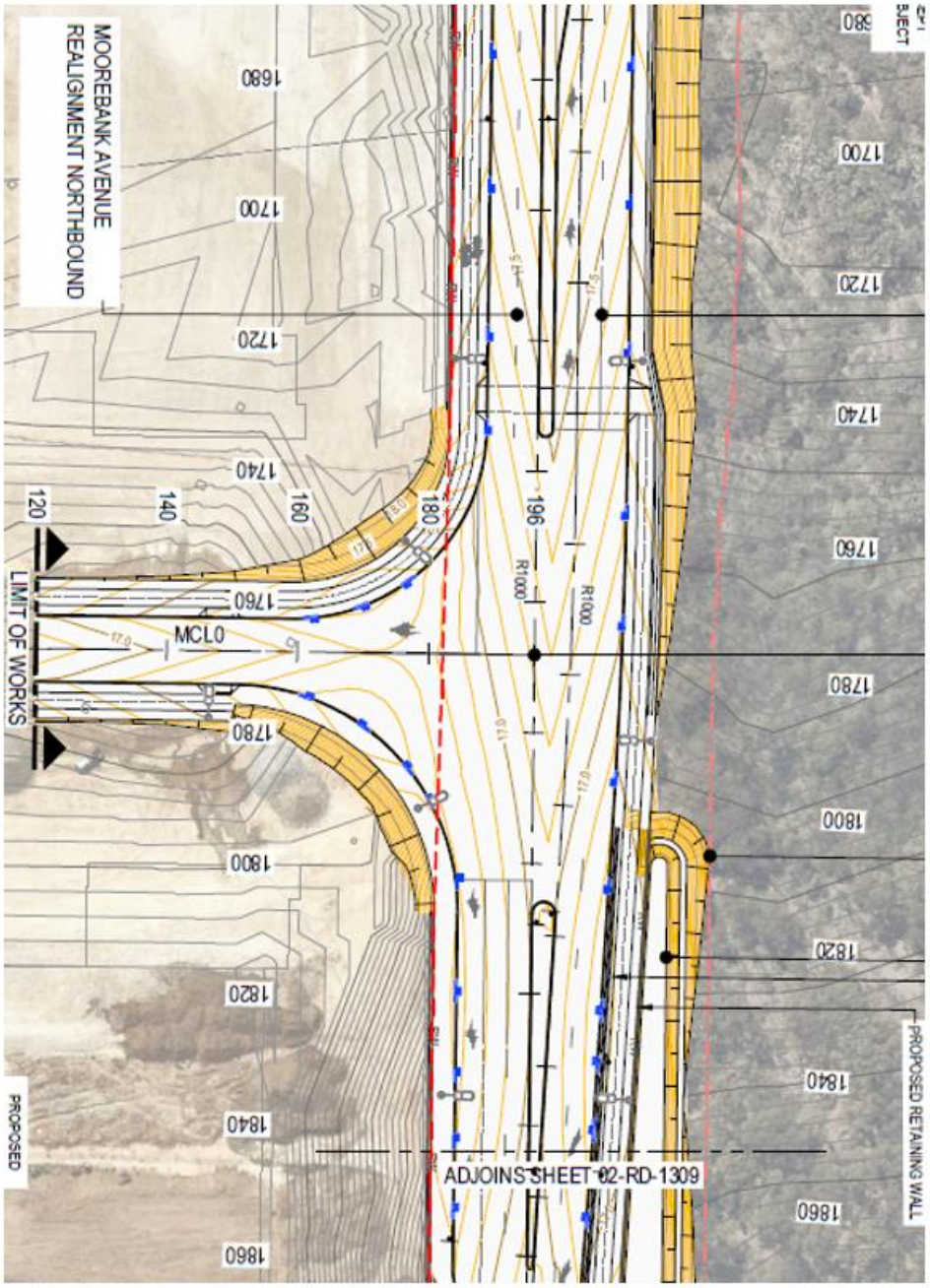


Figure 5.15 Intersection D (indicative only)