



884 – 928 Mamre Road, Kemps Creek

State-Significant Development Application

Kemps Creek

19/08/2021

P1509r03



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Appendix A. SIDRA Results

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Glossary

Acronym	Description
AGRD	Austroads Guide to Road Design
AGTM	Austroads Guide to Traffic Management
AV	20m Articulate Vehicles (Semi-trailers)
CC	Construction Certificate
Council	Penrith City Council
CTMP	Construction Traffic Management Plan
DA	Development Application
DCP	Development Control Plan
DoS	Degree of Saturation
DPIE	Department of Planning, Industry and Environment
EIS	Environmental Impact Assessment
FSR	Floor space ratio
GFA	Gross Floor Area
GTP	Green Travel Plan
HRV	Heavy Rigid Vehicle (as defined by AS2890.2:2018)
LEP	Local Environmental Plan
LGA	Local Government Area
LoS	Level of Service
MOD	Section 4.55 Modification (also referred as a S4.55)
MRV	Medium Rigid Vehicle (as defined by AS2890.2:2018)
MRP	Mamre Road Precinct
NHVR	National Heavy Vehicle Regulator
OC	Occupation Certificate
RMS Guide	Transport for NSW (formerly Roads and Traffic Authority), Guide to Traffic Generating Developments, 2002
S4.55	Section 4.55 Modification (also referenced as MOD)
S96	Section 96 Modification (former process terminology for an S4.55)
SEARS	Secretary's Environmental Assessment Requirements
SSDA	State Significant Development Application
STFM	Strategic Transport Forecasting Model 2019
TDT 2013/04a	TfNSW Technical Direction, Guide to Traffic Generating Developments – Updated traffic surveys, August 2013
TfNSW	Transport for New South Wales
TIA	Transport Impact Assessment
TIS	Transport Impact Statement
TMAP	Transport Management and Accessibility Plan
veh/hr	Vehicle movements per hour (1 vehicle in & out = 2 movements)

1 Introduction

1.1 Overview

Ason Group has been engaged by Altis Property Partners to prepare a Transport Management Accessibility Plan (TMAP) to support a state significant development (SSDA) in relation to a proposed industrial estate at 884-928 Mamre Road, Kemps Creek (the Site). The Estate is located east of Mamre Road, Kemps Creek within the Penrith City Council Local Government Area.

The Department of Planning, Industry and Environment (DPIE) rezoned Mamre Road Precinct (MRP), including the Site, in June 2020 under the State Environmental Planning Policy (Western Sydney Employment Area) 2009 (WSEA SEPP). The rezoning of this precinct responds to the demand for industrial land in Western Sydney. The Site is primarily zoned IN1 General.

This document refers to master plan development of the Site, consisting of a scoped Stage 1 as well as concept approval for the wider master plan consisting of 16 lots - with 13 developable lots. It is noted that subsequent development for these lots will be subject to their own Development Applications following concept approval of the TMAP.

Full details of the Stage 1 and Master plan Proposal are provided in EIS which this document accompanies. A reduced copy of the preliminary staging plan has been prepared by Nettleton Tribe and provided below at a reduced scale.



Figure 1: Lot 2 & Master plan

This document provides an assessment of the relevant traffic, transport and parking implications of the Proposal.

Separate assessments in the form of a Construction Traffic Management Plan (CTMP) and Green Travel Plan (GTP) have also been prepared and is included as appendices to this document.

1.2 Summary of Proposed Development

There are two parts to this application:

1. A master plan for the broader site, and
2. The detailed application for Stage 1 (Lot 2).

These are discussed separately below for clarity.

1.2.1 Master plan

This SSDA relates to development of a proposed industrial estate located in the Mamre Road Precinct. The below table summarises the key aspects of the master plan.

TABLE 1: MASTER PLAN YIELD

Element	Yield
Site Area	202,470 m ²
Total Developable Area	161,721 m ²
Indicative Total Building Area (GFA)	84,605 m ²
Lots	14 lots ¹

Notes) 1. Nominally 14 discrete Lots; however, Lot 1 refers to the western portion of the master plan reserved water and biological retention basins and ancillary supporting infrastructure. As such, there are 13 lots earmarked for future development.

1.2.2 Stage 1 Works

As referenced above, the SSDA also includes seeks approval for Stage 1 works, consisting of the following:

- Demolition and bulk earthworks,
- Construction of internal road network including the junction at Mamre Road; and
- Construction of Warehouse 2 (Lot 2).

The yield provisions for Lot 2 are captured below, with the plans provided at a reduced scale in **Figure 3**, while the extent of internal road network is provided in **Figure 2**.

TABLE 2: STAGE 1 (LOT 2) WAREHOUSE YIELD

Element	Yield
Lot 2 Site Area	66,109 m ²
Warehouse Area (GFA)	35,800 m ²
Office Area (GFA)	2,000m ² (1,800 m ² office + 200 m ² dock office)

TABLE 2: STAGE 1 (LOT 2) WAREHOUSE YIELD

Total Building Area (GFA)	37,800 m ²
Parking Provision	170 (including 2 accessible spaces)



Figure 2: Master plan Road Network

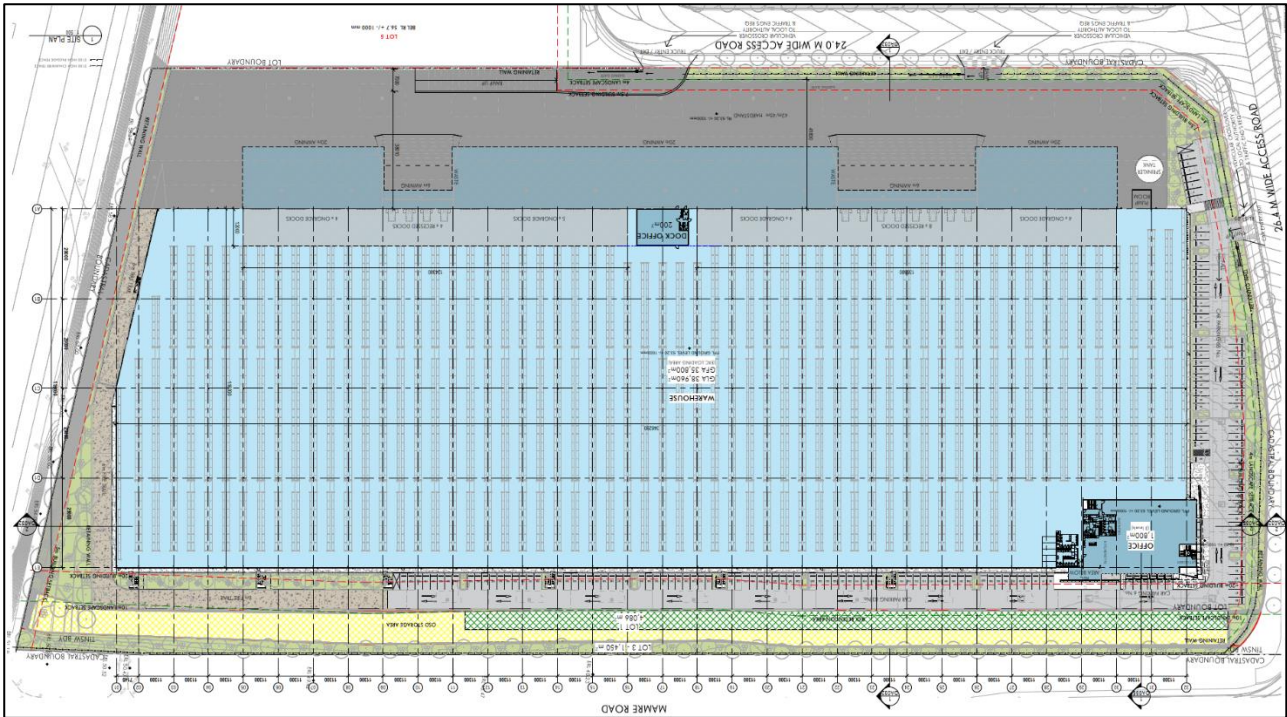


Figure 3: Lot 2 Warehouse Plan

1.2.3 Access Arrangements

The Estate includes the provision of a Left-in / Left-out access at the south-western corner of the Site to provide both access to the subject Estate and connectivity to the future MRP road network east of the site. A reduced drawing of this intersection is included in **Figure 4** below, as prepared by MU Group.

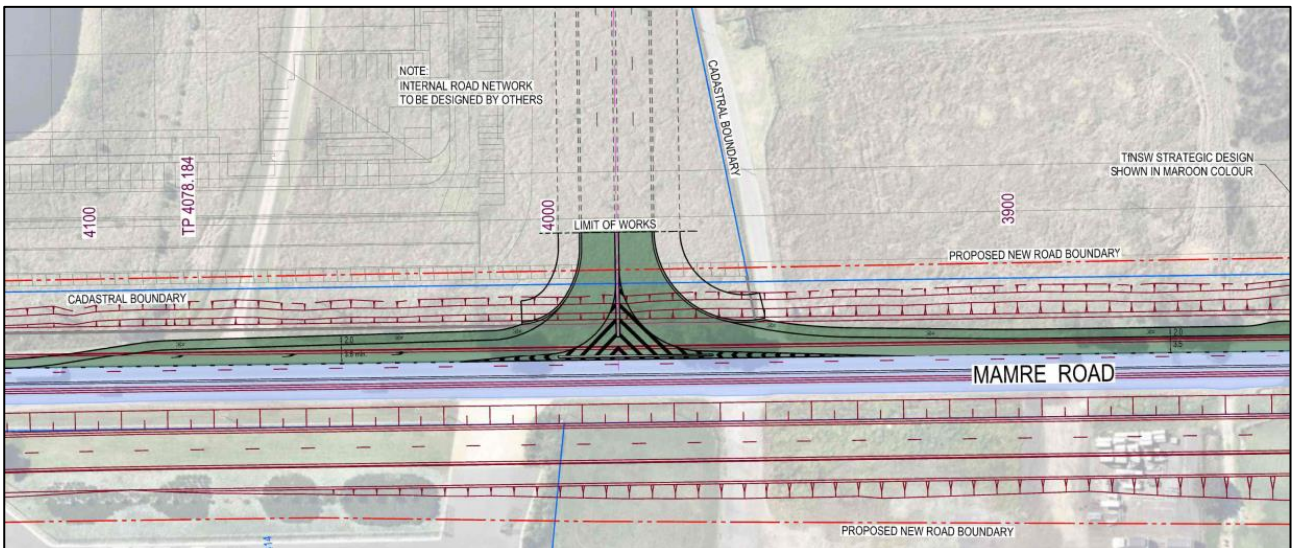


Figure 4: Left-in / Left-out intersection

In addition, a roundabout is proposed to the Sites' south-east, providing connectivity to the proposed local road network east of Mamre Road. The northward connection is anticipated to provide direct connectivity to the

Mamre Road / Mirvac Access intersection (proposed under SSD-10448¹), which is intended to form a key access intersection for the MRP for full range of movements to Mamre Road. A reduced drawing of the roundabout is included in **Figure 5** below.

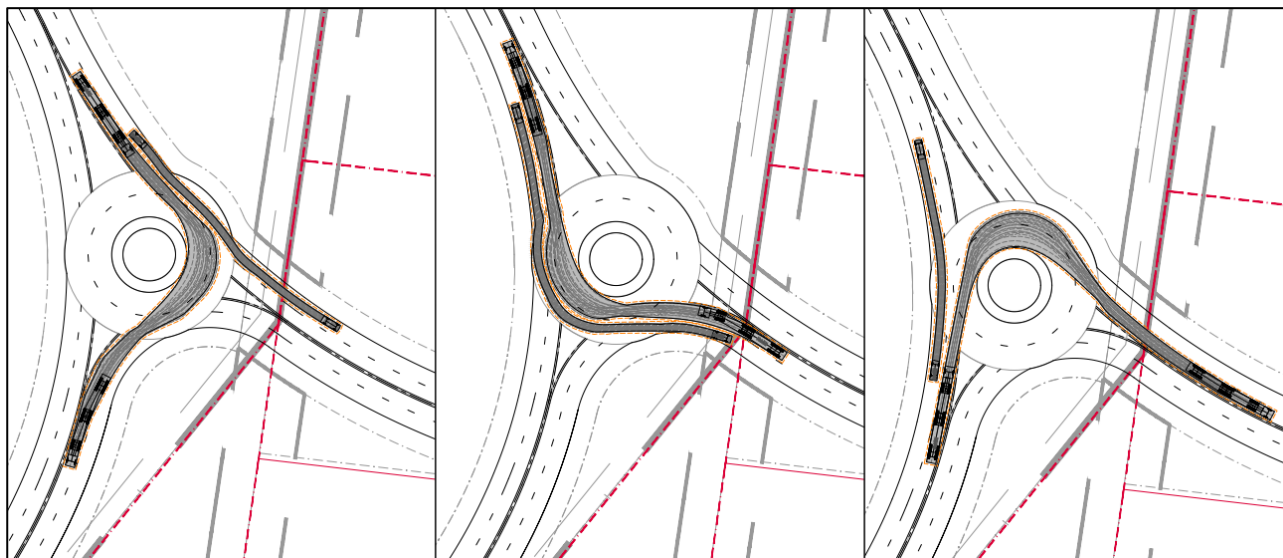


Figure 5: Master plan Roundabout

1.2.4 Freight Network Connection

In accordance with the development of an internal freight network for the MRP as outlined in the draft MRP DCP, a proposed easement has been included as part of the master plan to the east of the Site. The Site location forms part of the adjacent corridor with direct accessibility to the freight network.

1.3 SSD Background and Assessment Requirements

A draft DCP for the MRP was released by DPIE in November 2020, with Section 3.4.2-Control 1 requiring the preparation of a TMAP for all significant developments.

This assessment seeks to address the above requirement, with further specific requirements discussed below.

TABLE 3: DRAFT DCP OBJECTIVES

Element	Objective	AG Response
a)	To reduce travel demand including the number of trips generated by development and the distances travelled, especially by car.	Reference should be made to strategies outlined in the Green Travel Plan attached in Appendix D.
b)	To promote and facilitate the use of public transport as a more sustainable alternative to the private car for personal travel.	Reference should be made to strategies outlined in the Green Travel Plan attached in Appendix D.
c)	To ensure that transit infrastructure is effectively integrated with other development, to maximise safety, security and convenience for transit users.	The proposed master plan refers to the integration of the internal road network with the wider transit infrastructure goals outlined as part of the draft DCP.

¹ <https://www.planningportal.nsw.gov.au/major-projects/project/30521>

d)	To promote and facilitate walking and cycling within transit oriented precincts by establishing and maintaining high levels of amenity, safety and permeability in the urban form.	Reference should be made to strategies outlined in the Green Travel Plan attached in Appendix D.
e)	To encourage the orderly and economic provision of road and intersection works.	The proposed master plan refers to the integration of the internal road network with the wider road network outlined as part of the draft DCP.
f)	To ensure that existing roads and intersections are upgraded to provide a satisfactory level of service consistent with the volume and nature of traffic generated by the proposed development.	Comprehensive modelling assessments have been undertaken to assess intersection performance associated with the development. Reference should be made to modelling results in section 6.4.1, as well as planned upgrade referred in section 6.5.

1.4 TMAP Objectives

The key objectives of this SSDA TMAP are to:

- Establish that the development of the Site, and further to the Stage 1 Proposal, is compliant and consistent with the access, traffic and parking principles outlined in the draft MRP DCP submitted as part of this SSDA.
- Establish that the trip generation of the Estate and Stage 1 Proposal can appropriately be accommodated by completed/committed upgrades to the local road network.
- Demonstrate that there is an appropriate and sustainable provision of car parking across the Site for the Stage 1 proposal.
- Confirm that the proposed access driveways, internal roads, car parks and service facilities can provide a design compliant with the relevant Australian Standards.

1.5 Secretary's Environmental Assessment Requirements

Secretary's Environmental Assessment Requirements (SEARs) were issued by DPIE on 14th May 2021 regarding the broader Estate and Stage 1 Proposals and includes both a general DPIE SEARs and more specific Transport for NSW (TfNSW) SEARs. The DPIE SEARs relating to transport issues are outlined below, while the TfNSW SEARs are outlined in **Table 5**. In both tables, Ason Group has provided a summary response to each SEAR, and reference to the section of this SSDA TA providing a more detailed analysis of each SEAR.

TABLE 4: DPIE SEARS

No.	SEARs	AG Response
1	details of all traffic types and volumes likely to be generated during construction and operation, including a description of key access and haul routes. Traffic flows are to be shown diagrammatically to a level of detail sufficient for easy interpretation;	Refer Section 6.2 for operational traffic. A preliminary CTMP is also included Appendix C.
2	an assessment of the predicted impacts of this traffic on road safety and the capacity of the road network, including consideration of cumulative traffic impacts at key intersections using SIDRA or similar traffic	Cumulative traffic impacts are addressed as part of the broader studies for the MRP undertaken on behalf of the Land

TABLE 4: DPIE SEARS

No.	SEARs	AG Response
	model. This is to include the identification and consideration of approved and proposed developments/planning proposals/road upgrades in the vicinity. The assessment needs to consider the impact on Mamre Road for the duration of the works because traffic growth in this area is expected to increase more quickly than standard growth rates;	Owner Group (LOG) lands, of which this site forms a part. Interim modelling is addressed in Section 6.4
3	details of how the development connects to adjoining sites to facilitate their future development for their intended purposes in line with the draft Mamre Road Precinct Development Control Plan;	Refer Section 3.4 for details of the proposed local road spanning E-W providing connectivity from Mamre Road to the local road network in the east of the Precinct. Connectivity is also planned to the Mirvac Aspect Industrial Estate to the north.
4	addressing the detailed design comments by Transport for NSW regarding the Mamre Road/development intersection and the future Mamre Road alignment;	Refer Table 5 below.
5	plans demonstrating how all vehicles likely to be generated during construction and operation and awaiting loading, unloading or servicing can be accommodated on the site to avoid queuing in the street network;	Refer Section 7 for in relation to the design of operational facilities. A preliminary CTMP also included in Appendix C which addresses the construction traffic of this development.
6	details and plans of the proposal internal road network, loading dock servicing and provisions, on-site parking provisions, and sufficient pedestrian and cyclist facilities, in accordance with the relevant Australian Standards and draft Mamre Road Precinct Development Control Plan;	Refer section 7.1 for design compliance standards for the master plan, as well as section 7.5 for loading dock provisions specific to Lot 2. An assessment of parking provision against the Draft MRP DCP is undertaken in Section 5.
7	swept path diagrams depicting the largest anticipated vehicles entering, exiting and manoeuvring throughout the site;	Refer Appendix B.
8	details of road upgrades, infrastructure works, or new roads or access points required for the development;	Refer section 3 for broader context, and Section 6.5 which captures key upgrades required for the wider MRP.
9	details of travel demand management measures to minimise the impact on general traffic and bus operations, including details of a location-specific sustainable travel plan (Green Travel Plan and specific Workplace travel plan) and the provision of facilities to increase the non-car mode share for travel to and from the site;	Refer section 4.2 and Green Travel Plan provided in Appendix D.
10	details of the adequacy of existing public transport or any future public transport infrastructure within the vicinity of the site, pedestrian and bicycle networks and associated infrastructure to meet the likely future demand of the development; and	Refer Green Travel Plan in Appendix D.
11	measures to integrate the development with the existing/future public transport network.	Refer Green Travel Plan in Appendix D.

A summary of the response to relevant TfNSW SEARs inputs is provided below.

TABLE 5: TFNSW SEARS

No.	SEARs	AG Response
1	Traffic Control Signals: The preliminary site plan proposes a signalised intersection with Mamre Road at the southwest corner of the site. These signals are not inclusive on TfNSW Mamre Road upgrade strategic plan; however, it is noted that they are proposed in the Mamre Road Precinct draft Development Control Plan (DCP). It is understood that the DCP has not yet been finalised and that currently there is an active investigation by AsonGroup on behalf of the Land Owners Group into whether signals at this location are warranted to alleviate traffic from other intersections along Mamre Road. In this regard, subject to the finding of the traffic modelling investigations, TfNSW recommends that alternative options are investigated and modelled for review. This should include but not be limited to a temporary access from Mamre Road until the ultimate local road network is delivered and the connection to ultimate local road network with no access to Mamre Road.	It has been considered that the Mamre Road Upgrade Strategic Design Report (2016) did not contemplate the access location. Notwithstanding, the following provides context relating to the left-in/left-out intersection: • A nominated signalised intersection was proposed at the location as part of the 2019 TfNSW SLR briefing. • Consequently, the Draft Mamre Road DCP proposed the 'potential' signalised location • Currently, the Final MRP DCP is being informed by the MRP modelling undertaken by Ason Group. The following has been considered – ▪ Necessary Warrants for are not met at this location. ▪ The signals would not provide substantial public benefit relating to corridor travel times. • Accordingly, current MRP modelling has adopted the left-in/left-out intersection at this location, which is expected to be formally included upon finalisation of the DCP.
2	Details of all traffic types and volumes likely to be generated by the proposed development during construction and operation, including a description of haul route origins and destinations, including:	
2a	Daily inbound and outbound vehicle traffic profile by time of day and day of week (if travel patterns differ across the week);	Refer Section 6.2 for operational traffic. A preliminary CTMP is also included Appendix C.
2b	Site and traffic management plan on how to manage number of vehicles likely to be generated during construction and operation and awaiting loading, unloading or servicing can be accommodated on the site to avoid queuing in the surrounding road network;	Refer Section 7 for in relation to the design of operational facilities and any operational management requirements. A preliminary CTMP is also included in Appendix C.
2c	Detailed plan of proposed layout of internal road network to demonstrate that the site will be able to accommodate the most productive vehicle types and parking on site in accordance with the relevant Australian Standard and Council's Development Control Plan;	A detailed plan of the internal road network will accompany the submission. Reference should be made to section 7 and swept paths undertaken in Appendix B.
2d	Plans detailing how the proposed development connects to adjoining sites to facilitate their future development for their intended purposes;	Refer section 3.4 for connectivity to local road network.

TABLE 5: TFNSW SEARS

No.	SEARs	AG Response
2e	demonstrate compliance with the Western Sydney Employment Area State Environmental Planning Policy, Part 6; clause 33C; Development within the Mamre Road Precinct; specifically: - integration with the Mamre Road Precinct dedicated freight corridor (DFC), including provision for access from the DFC to the entire estate. The applicant should continue to liaise with TfNSW to ensure the DFC is incorporate;	Necessary clarity with regard to the interface between the DFC and the warehouse precincts has not yet been provided by Government. However, the proposal does make provision for the DFC by including an easement within part of the eastern Lot 14.
2f	Swept path diagrams to demonstrate vehicles entering, exiting and manoeuvring throughout the site;	Refer appendix B.
2g	An assessment of the forecast impacts on traffic volume generated on road safety and capacity of road network including consideration of cumulative traffic impacts at key intersections using SIDRA or similar traffic model as prescribed by TfNSW (former Roads and Maritime). The traffic modelling should consider the scenarios of year 2026, 2031, 2036. These should include, but not be limited to: - Mamre Road at Bakers Lane (Aldington Road); and - Mamre Road at Abbots Road.	As part of wider modelling undertaken for the MRP on behalf of the Land Owners Group, wholistic modelling has been undertaken, with results provided for the specified intersections, as well as results for the Mamre Road / Mirvac Access. Refer Section 6.5 for SIDRA modelling results, as well as the MRP Transport Assessment document, undertaken by Ason Group and submitted in June 2021.
2h	An assessment of potential impact on load road pavement lifespan including: - Aldington Road/ Bakers Lane/ Abbots Road; and - Mamre Road.	The broader MRP studies have contemplated this development and, as such, the detailed design of roads shall appropriately consider the forecast traffic and loads associated with development traffic.
2i	To ensure that the above requirements are fully addressed, an assessment of the predicted impacts of this traffic on road safety and the capacity of the road network, including consideration of cumulative traffic impacts at key intersections using SIDRA or similar traffic model. This is to include the identification and consideration of approved and proposed developments/planning proposals/road upgrades in the vicinity. The assessment needs to consider the impact on Mamre Road for the duration of the works because traffic growth in this area is expected to increase more quickly than standard growth rates;	It should be considered that the MRP Transport Assessment document, undertaken by Ason Group and submitted in June 2021, relates to the cumulative impacts of all sub-precincts (inclusive of this master plan) as part of its modelling scope. Notwithstanding, identified modelling scope specific to the proposed master plan is undertaken in Section 6.5
2j	details of road upgrades, infrastructure works, or new roads or access points required for the development;	Refer Section 6.5 for road infrastructure and upgrade works associated with the modelling.
2k	details of travel demand management measures to minimise the impact on general traffic and bus operations, including details of a location-specific sustainable travel plan (Green Travel Plan and specific Workplace Travel Plan) and the provision of facilities to increase the non-car mode share for travel to and from the site;	Refer section 4.2 and the preliminary Green Travel Plan in Appendix D.

TABLE 5: TFNSW SEARS

No.	SEARs	AG Response
2l	details of the adequacy of existing public transport or any future public transport infrastructure within the vicinity of the site, pedestrian and bicycle networks and associated infrastructure to meet the likely future demand for the proposed development; and	Refer section 2.3 and 2.4 for details of the existing and future states of public and active transport connectivity in the locale, as well as commentary in section 4.2.
2m	measures to integrate the development with the existing/future public transport network	Refer appendix D for Green Travel Plan.
2n	The preparation of a preliminary Construction Pedestrian and Traffic Management Plan (CPTMP) to demonstrate the proposed management of the impact in relation to construction traffic addressing the following: i. assessment of cumulative impacts associated with other construction activities (if any); ii. an assessment of road safety at key intersection and locations subject to heavy vehicle construction traffic movements and high pedestrian activity; iii. details of construction program detailing the anticipated construction duration and highlighting significant and milestone stages and events during the construction process; iv. details of anticipated peak hour and daily construction vehicle movements to and from the site; v. details of on-site car parking and access arrangements of construction vehicles, construction workers to and from the site, emergency vehicles and service vehicle. vi. details of temporary cycling and pedestrian access during construction.	Refer appendix C for Preliminary Construction Traffic Management Plan.

1.6 Reference Documents

As referred above, the Site form part of the MRP and accordingly; Ason Group has referenced the draft MRP DCP as it will ultimately provide the overarching controls for the Site and the wider Precinct:

- DPIE, Western Sydney Employment Area, Mamre Road precinct, Draft Development Control Plan, November 2020 (Draft DCP).

The draft document was on exhibition between 10 November to 17 December 2020. The feedback from the exhibition period, as well as the findings of the background Precinct modelling being undertaken, will be considered in the finalisation of the DCP.

Ason Group has also referenced the following additional policies and guidelines relevant to the assessment of the Proposal:

- Australian Standard 2890.1:2004: Parking Facilities – Off Street Car Parking (AS 2890.1:2004).
- Australian Standard 2890.2:2018 Parking Facilities – Off Street Commercial Vehicle Facilities (AS 2890.2:2018).
- Australian Standard 2890.3:2015: Parking Facilities – Bicycle Parking (AS 2890.3:2015).

- Australian Standard 2890.6:2009 Parking Facilities – Off Street Parking for People with Disabilities (AS 2890.6:2009).
- Department of Planning & Environment (DPE) Western Sydney Aerotropolis Land Use and Infrastructure Implementation Plan Stage 1: Initial Precincts (WSA Stage 1 Plan).
- DPE Mamre West Land Investigation Area Development Control Plan 2016 (Mamre West DCP).
- Roads and Maritime Guide to Traffic Generating Developments Updated Traffic Surveys, August 2013 (RMS Guide Update).
- Roads and Maritime Services (Roads and Maritime) Guide to Traffic Generating Developments 2002 (RMS Guide).
- State Environmental Planning Policy (Western Sydney Employment Area) 2009 (SEPP WSEA).

Finally, Ason Group has specifically referenced the most recent assessments available regarding the recent rezoning of the MRP, including:

- Aecom Western Sydney Aerotropolis Transport Planning and Modelling Stage 2 Report, October 2020 (Aecom Report).
- NSW Government Mamre Road Precinct Rezoning Exhibition Discussion Paper, November 2019 (MRP Rezoning Paper).
- NSW Government Mamre Road Precinct Rezoning Finalisation Report, June 2020 (MRP Finalisation Report).
- Numerous reports prepared by Ason Group and others for similar industrial development within the Mamre West, Kemps Creek and Erskine Park industrial precincts.
- Roads & Maritime Mamre Road Upgrade Community Consultation Report May 2019 (MR Upgrade CC Report).
- Roads & Maritime Mamre Road Upgrades Kerrs Road to M4 Motorway, November 2017 (MR Upgrade Report).

2 Existing Conditions

2.1 Site and Location

The Site is located within Kemps Creek, forming part of the Penrith City Council LGA. It is neighboured by several significant industrial developments as part of the Greater Western Sydney Employment Area. The broader precinct will include the following Lot numbers:

- 884-902 Mamre Road, Kemps Creek (Lot 53 DP 259135 – this Lot includes the Site)
- 904-928 Mamre Road, Kemps Creek (Lot 52 DP 259135).

A Site context plan is presented in **Figure 6** which provides an appreciation of the Site and the existing road network condition. The Site is bounded by Mamre Road to the west and predominantly rural properties to the east, north and west.

In line with the WSEA SEPP, the Site is classified within an IN1 General Industrial zone. Currently, the Site is used for rural purposes, with few structures and low traffic generation.

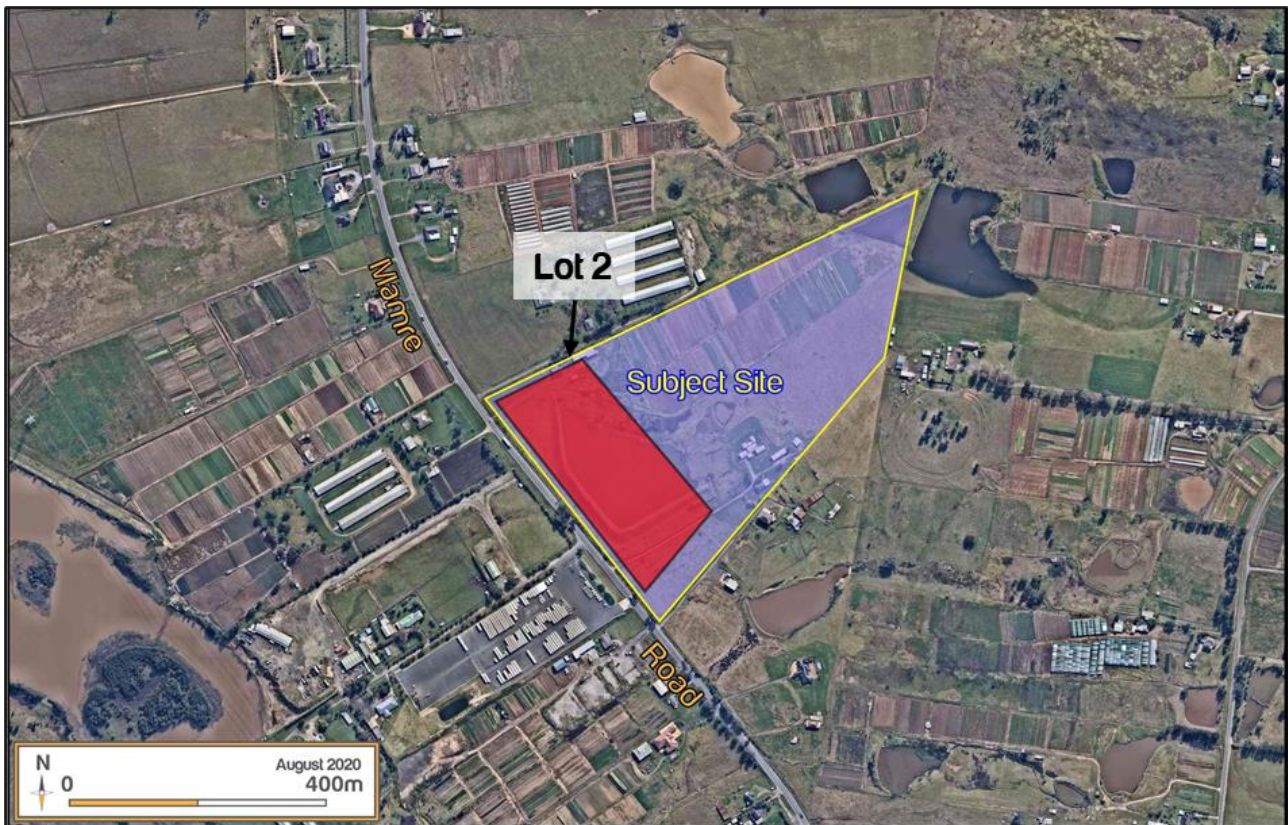


Figure 6: Site Context Plan

2.2 Local Road Network

With reference to **Figure 7**, the key road influenced by the application is Mamre Road; an arterial road servicing traffic between the Great Western Highway and M4 to the north and Elizabeth Drive to the south. In the vicinity of the Site, Mamre Road generally provides two lane undivided carriageway.

Ason Group have undertaken traffic surveys on Mamre Road in 2018. The volumes shown in the below table provide a general indicator for existing traffic flows for Mamre Road, south of Bakers Lane.

TABLE 6: EXISTING ROADS

Road Name	Road Classification	Peak Hourly Volumes ¹	Speed Limit ²
Mamre Road	Arterial	AM Peak: 1,274 veh	80 km/h
		PM Peak: 1,507 veh	

Notes: 1) Two-way movements
2) Sign posted speed limit. Actual speeds may vary.

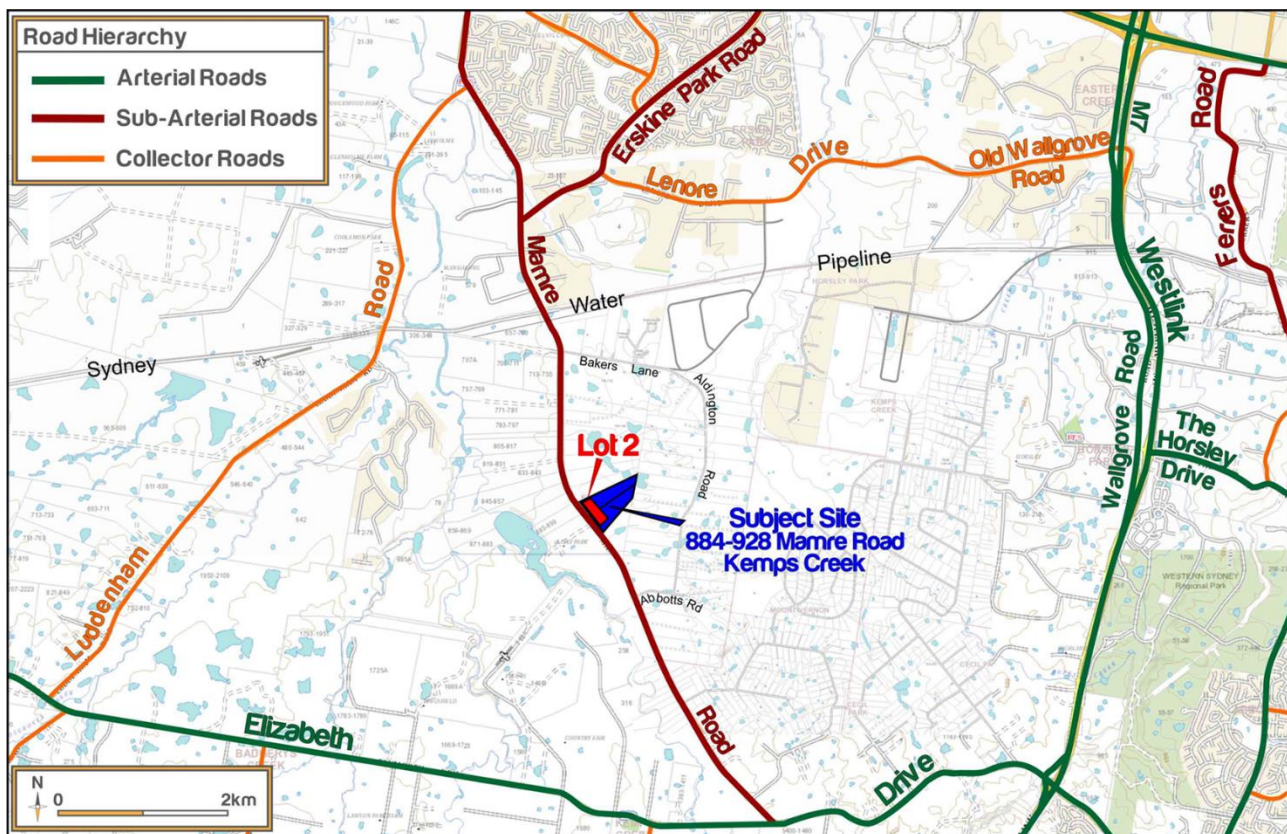


Figure 7: Existing Road Hierarchy

2.3 Surrounding Active Transport connections

Currently, no existing pedestrian amenity connects to the Site from Mamre Road. However, it is anticipated as part of the planned road upgrades that both pedestrian footpaths, cycling routes and infrastructure will accompany upgrade works to promote active accessibility to the area.

2.4 Public Transport Network

2.4.1 Existing Bus Services

Existing bus services within the vicinity of the Site are shown in **Figure 8**. It is evident that the Site is not directly serviced by frequent public transport operations at this time. Notwithstanding, the opportunities for future connections have been identified to support the MRP more broadly and are discussed further below.

2.4.2 Future Bus Service Opportunities

While it is apparent that the Site will be well served by a future road network, it is nonetheless important that people are provided opportunity to use public transport, which requires improved connectivity to the broader area in the first instance. This is possible through an extension of the 779 bus route, that provides a key connection to the St Mary's railway station and to the broader transport network. In addition, future Metro stations are proposed to west of the MRP for improved connectivity with interconnecting services.

Planning of bus services in Sydney is governed by the NSW Service Planning Guidelines, which aim to establish Strategic Transport Corridors and a hierarchy of bus route types that:

- link to regional centres (such as Penrith and Mt Druitt).
- pass through patronage generators such as district centres, TAFE colleges, hospitals and universities.
- connect with other transport modes (trains, ferries and other buses).
- are multifunctional (serving journeys to work, education, shopping and recreation).
- are direct and frequent.
- meet the network planning principles.

It is also the case that the establishment of public transport services as early as possible in the development stages of the area is important to achieve a culture of public transport use from the outset. To make public transport a viable choice in the study area, the services should ideally:

- integrate with existing bus services in the area.
- connect to regional centres of Penrith, Mt Druitt and Blacktown.
- in the long term connect to areas such as Leppington in the South West Growth Centre, Prairiewood and the Liverpool to Parramatta T-Way.

3 Future Context

3.1 Mamre Road Upgrade Plan

TfNSW has identified potential for future upgrades to Mamre Road in the vicinity of the Site, as part of the broader arterial road network serving WSEA and the future Western Sydney Aerotropolis. Detailed design of these upgrades – in the vicinity of the subject site – have not been finalised but are expected to include widening of Mamre Road to four lanes (2 in each direction) with a wide median to eventually provide 6 lanes (3 in each direction) plus auxiliary turning lanes at key intersections. An extract of the indicative upgrades and intersection treatments at key junctions is provided below.

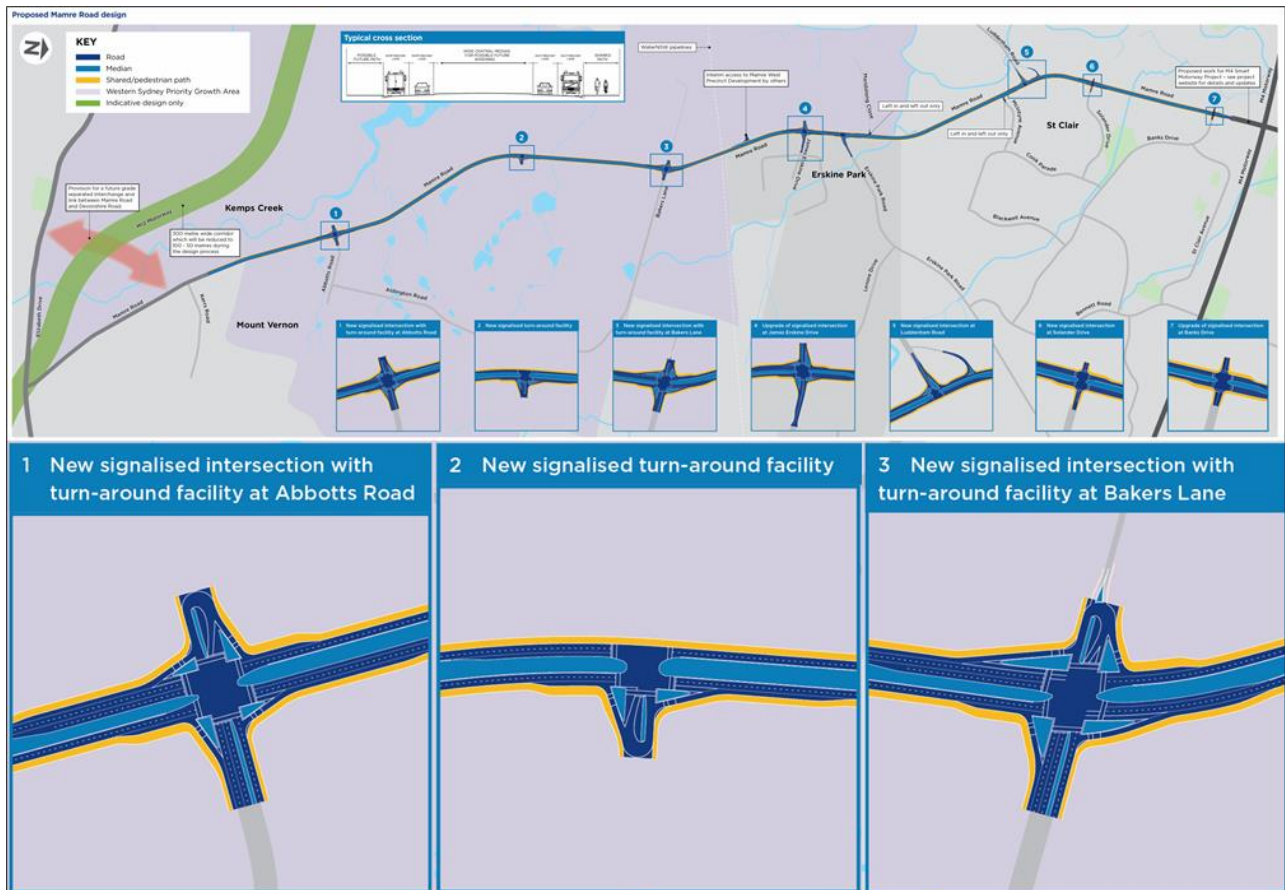


Figure 9: Mamre Road Upgrade

The Mamre Road Upgrade map indicates that signalised junctions will be provided at the future SLR intersection as well as Abbotts Road to the south. Mid-block signals and junction locations are also envisaged to provide increased local access to the Aldington Precinct and lands to the west of Mamre Road. In February 2019, the NSW Government announced \$220M funding for a 3.8-kilometre section of the Mamre Road Upgrade between M4 Motorway and Erskine Park Road to -

“...transform the existing two-lane undivided road into a four-lane divided road, providing a safer, higher-capacity link. The Mamre Road upgrade will also be future proofed, allowing another two lanes to be added down the track,”

Furthermore, based on our liaison with the Mamre Road Upgrade Team at TfNSW, the following timelines have been outlined for this regional upgrade:

- TfNSW are currently undertaking surveys to develop the concept design and have invited tenders for the concept design and environmental assessment. TfNSW expects to present this design to the community in early 2021,
- Construction is expected to start by 2023,
- The aim is to complete this upgrade work by 2026 in time for the airport,
- Late 2025 is TfNSW expected date for completion for Stage 1 regional upgrade including the intersection of Mamre Road and Erskine Park Road.

Resolution of Stage 2 Mamre Road Upgrade works is expected to occur as part of the Mamre Road Precinct studies currently underway. Notwithstanding, key connections to Mamre Road are expected to remain consistent with that planned under the Mamre Road Upgrade.

3.2 Southern Link Road

DPIE have engaged TfNSW to prepare concept designs for the future Southern Link Road (SLR). It is broadly understood that the preferred alignment will run parallel to and south of the existing Bakers Lane alignment, as indicated by the earlier concept designs by Aecom.

Recent discussions with the TfNSW in relation to the SLR studies indicate that substantial departures from the Aecom designs are currently being explored and, accordingly, there is a level of heightened uncertainty regarding the nature of the future connectivity of the broader MRP to SLR and/or Bakers Lane. Notwithstanding, a potential alignment for Southern Link Road is provided in **Figure 10** with context to the Site locale.

3.3 Internal Freight Network

Proposed as part of the draft MRP DCP, the Western Sydney Intermodal Terminal has been proposed to the north of the MRP and is anticipated to provide direct serviceability to developments spanning the corridor of a dedicated, internal freight network as demonstrated in Figure 10. The freight network and intermodal are anticipated to provide dedicated access and reduce the level of operational traffic to the broader regional road network.

3.4 Mamre Road Precinct Internal Road Networks

In line with advice provided by TfNSW in the Key Stakeholder Briefing July 2019, several access strategies have been explored providing connectivity through the wider area, linking key developments with the Mamre Road and the anticipated Southern Link Road, indicating for road connectivity and accessibility for this Site.

With reference to **Figure 10** below, the Draft Mamre DCP provides additional context to the potential configuration of roads east of Mamre Road and confirms the configuration of a north-south connection to the east of the Site.

As it relates to this DA, the Lot 2 access will be provided via a proposed public road with direct connectivity to Mamre Road, to facilitate vehicular movements for the Site and its surrounding neighbours. It is expected that this access road will then be connected to the future local road network facilitating a wider precinct access for the Site to the east in addition to Mamre Road from the west.

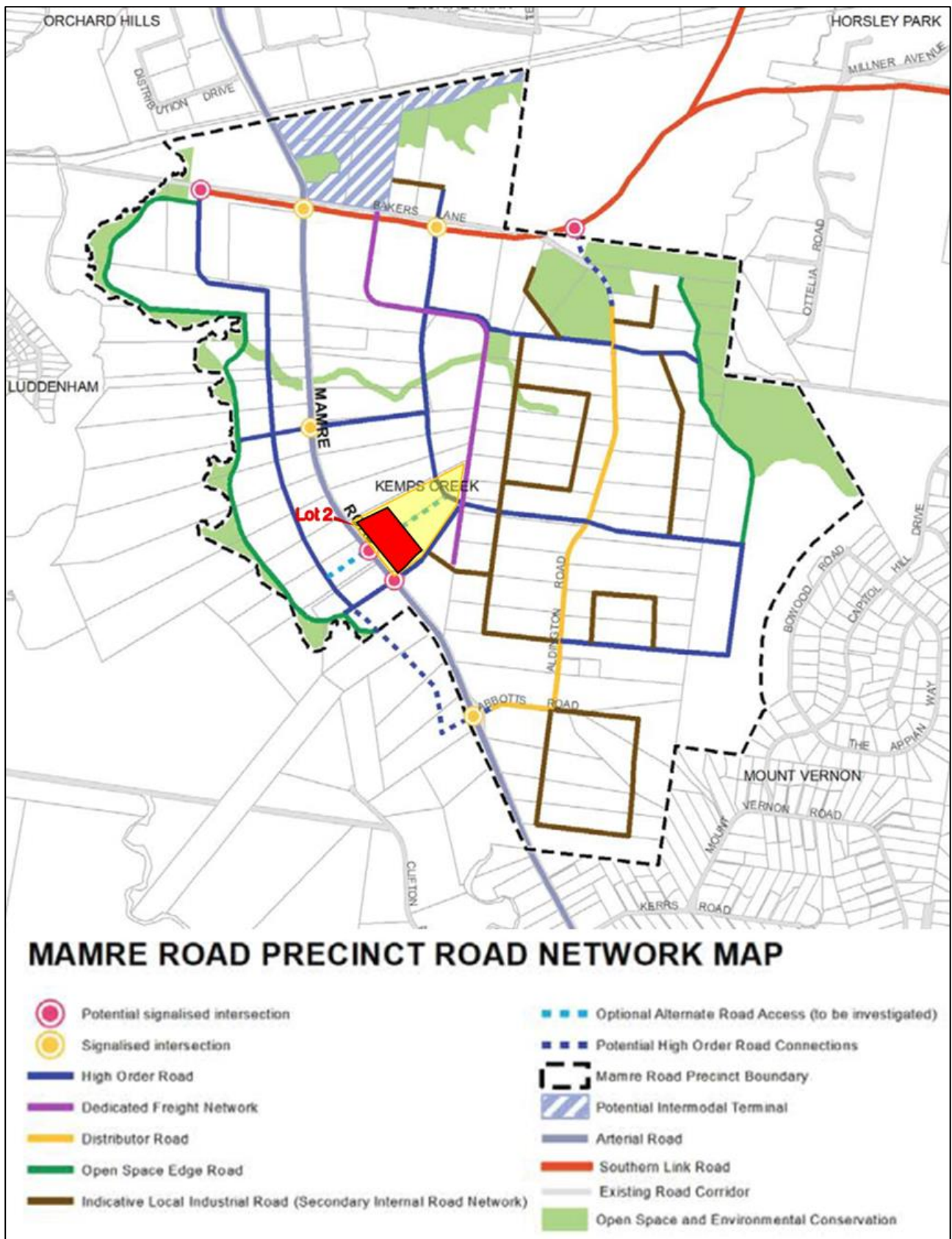


Figure 10: Indicative Road Network and Access Plan

4 Transport Assessment

4.1 Travel Mode Share

Journey-to-Work (JTW) data from the Australian Bureau of Statistics (ABS) 2016 Census and specifically aggregated Destination Zones (DZ) have been referenced to understand the baseline travel characteristics of the Site.

A summary of key travel modes for those travelling to the locality for work have been reviewed with regard for the surrounding Destination Zone 115184210, within the Horsley Park – Kemps Creek statistical area. The travel modes are presented in **Figure 11**.

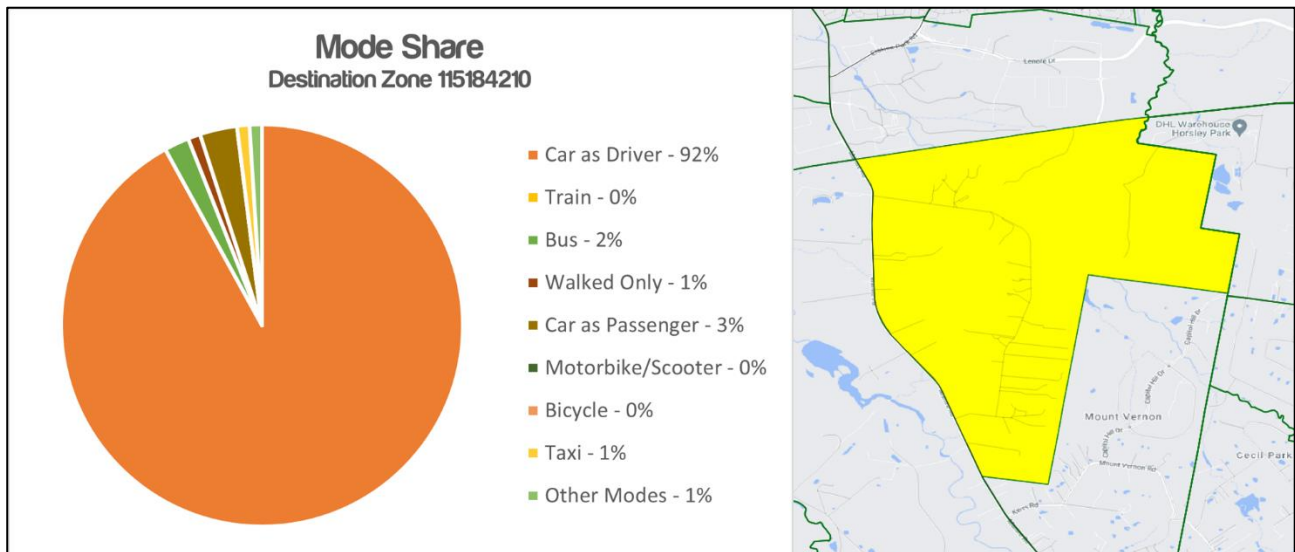


Figure 11: Travel Mode Share

It is evident that the private vehicle (car) is the overwhelming preferred mode of choice for commuters travelling to work in the area. The data indicates that 95% travel to work by car with 92% as the driver and 3% as passenger.

This is reflective of the current nature of the area, which accommodates rural residential properties and agricultural businesses only. However, noting the future land use of the Site as industrial in nature, it is expected that the JTW data accurately reflects the current trends for travel to places of work at industrial sites.

The RMS Guide Update itself provides details in relation to the principal mode of travel used by staff at the Erskine Park and Eastern Creek warehouses surveyed by TfNSW. These surveys indicate that 90% of all workers would travel via private vehicles, with 8% travelling as passengers. Therefore, it is evident that the existing census data is reflective of existing travel patterns of industrial development.

4.2 Measures to Reduce Private Vehicle Use

4.2.1 Delivering the Vision of the Aerotropolis

The MRP forms one of the initial precincts of the Aerotropolis (although not included within SEPP WSA), with various background studies providing context with regards to travel demand management.

The Aecom Report is one of the technical reports supporting the delivery of the Draft Aerotropolis Precinct Plan (November 2020) vision, which aims to create “Sustainable urban connections including efficient and accessible public transport links, walking and cycling facilities”. The Aecom Report provides 2 key “enablers” being “Transport Policies and Strategies”, which includes travel demand strategies; and “Transport Infrastructure and Services” which requires planning of a multi-modal, connected network.

Of most relevance to the Site are the following objectives identified for Travel Demand Strategies:

- Provide excellent travel choices and encourage walking, cycling and public transport trips;
- Limit unnecessary car trips, particularly for shorter trips;
- Promote alternatives to vehicle ownership;
- Reduce the need to travel, especially in peak periods;
- Facilitate the efficient use of land, through road space allocation and proximity of jobs and services to people; and
- Create a liveable community, with excellent local environmental quality and community cohesion.

Measures include implementation of Travel Plans and provision of adequate bicycle parking and End-of-Trip Facilities.

4.2.2 Implementation at Subject Site

A framework GTP (refer to Appendix C) has been prepared to inform future site-specific travel plans, expected to be implemented for each of the warehouse sites within the Estate. Each of the end users within the Estate will have slightly different travel characteristics and therefore individual travel plans will be prepared to address the specific needs of the occupier.

A travel plan is a package of measures to assist in managing the transport needs of an organisation. It promotes the uptake of realistic choices of sustainable travel modes to and from a site, thereby reducing reliance upon single occupancy car travel. The travel plans will set; targets, a series of measures to meet these targets and the process for monitoring and reviewing the travel plan, including the allocation of a Travel Plan Coordinator.

Each of the end users within the Estate will have slightly different travel characteristics and therefore individual travel plans will be prepared by the future occupiers on site to address their own specific needs.

5 Parking Compliance

5.1 Draft Mamre DCP Parking Rates

Forming part of the MRP, the Site is subject to the controls as outlined in the Draft Mamre DCP as approved by TfNSW and DPIE. Applicable parking rates to the development are provided in the below table.

TABLE 7: PARKING RATES

Source	Land Use	Parking Rate (Minimum)
Mamre Road Precinct Draft Development Control Plan (November 2020)	Industries	1 space per 200 m ² of gross floor area, or 1 space per 2 employees, whichever is the greater
	Warehouses or Distribution Centres	1 space per 300 m ² of gross floor area, or 1 space per 4 employees, whichever is the greater.
	Ancillary Office Space	1 space per 40 m ² of gross floor area
	Other Uses	In accordance with RMS Guidelines or if there are no parking guidelines for a specific use, then a site specific car parking analysis will be required. This may require the applicant to submit a car parking report from a suitably qualified traffic consultant.
	Neighbourhood shops	1 space per 40 m ² of gross leasable area
	Accessible Parking	Accessible car spaces should be in accordance with the Access to Premises Standards, Building Code of Australia and AS2890.
	Bicycle Parking	Bicycle parking in accordance with the suggested bicycle parking provision rates for different land use types in the document 'Planning Guidelines for Walking and Cycling' (NSW Government 2004). Bicycle parking spaces should comply with AS2890.3:1993 Bicycle Parking Facilities.

Assessment of the proposed parking spaces for both Stage 1 is provided below.

5.2 Stage 1 Car Parking

5.2.1 Overall Requirement and Provision

Having regard for the proposal, the below table demonstrates the provision of proposed parking spaces for Lot 2 against the outlined Draft Mamre DCP rates in Table 7.

TABLE 8: MASTER PLAN PARKING ASSESSMENT

	Lot	Typology	WH Area	Office Area	Retail Area	Parking Provision	Draft DCP Req.	Difference
Stage 1	Lot 2	Warehouse	35,800	2,000	-	170	169	+ 1

It is therefore evident that the proposed Lot 2 parking provisions readily satisfy DCP requirements. With reference the master plan, it is anticipated that future development of the individual lots will readily comply with the parking provisions outlined in the DCP.

5.2.2 Accessible Parking

The Draft Mamre DCP refers to accessible parking provision in line with the National Building Code of Australia (BCA). In this regard, the *NCC 2019 Building Code of Australia – Volume One* highlights the following requirements for buildings characterizes as 5, 7, 8 or 9c –

1 space for every 100 carparking spaces or part thereof.

Accordingly, the proposed parking provisions indicate that each Lot within the master plan readily satisfies this requirement, with 2 accessible spaces being provided for Lot 2 and 1 for every subsequent lot.

5.3 Bicycle Parking

The Draft Mamre DCP references bicycle parking provision in line with the *Planning Guidelines for Walking and Cycling (2014)* document from NSW Government. In this regard, the following requirements are indicated as relevant for the development.

TABLE 9: BICYCLE PARKING RATES

Source	Land-Use Type	Staff Requirements (Long-term use)	Customer/Visitor (Short-term use)
Planning Guidelines for Walking and Cycling 2004	Industrial and warehousing	3-5% of Staff (JTW Trips)	5-10% of Staff

Staff numbers are unknown at this stage. Notwithstanding, it is considered that adequate provision of bicycle parking spaces can readily be provided at a later stage of development.

Reference is also made to the accompanying GTP in relation to suitable levels of bicycle facilities.

6 Operational Impacts (with Proposal)

With consideration for ongoing developments of the wider MRP, it should be noted that precinct-wide modelling is currently being undertaken by Ason Group on behalf of the Land Owners Group (LOG) for TfNSW and DPIE. Accordingly, the traffic generation assessment for the proposed master plan refers to two separate modelling components:

- 2026 Interim intersection modelling for the proposed master plan development at the Mamre Road / Mirvac Access intersection; and
- A snapshot of the wider Mamre Road modelling in relation to the master plan, captured as part of sub-precinct H.

6.1 Mamre Road Precinct Transport Assessment

The Client - Altis Property Partners - and the 884-928 Mamre Road Site form part of the MRP, to which Ason Group is currently undertaking transport network modelling for. As part of the captured modelling studies, the Site forms part of the sub-precinct H envelope as defined in **Figure 12**. It is noted that the 884-928 Mamre Road site does not capture the full extent of sub-precinct H, with a separate parcel of land to the Sites south excluded from the submission and accounts for approximately 33% of the sub precincts' total land area.

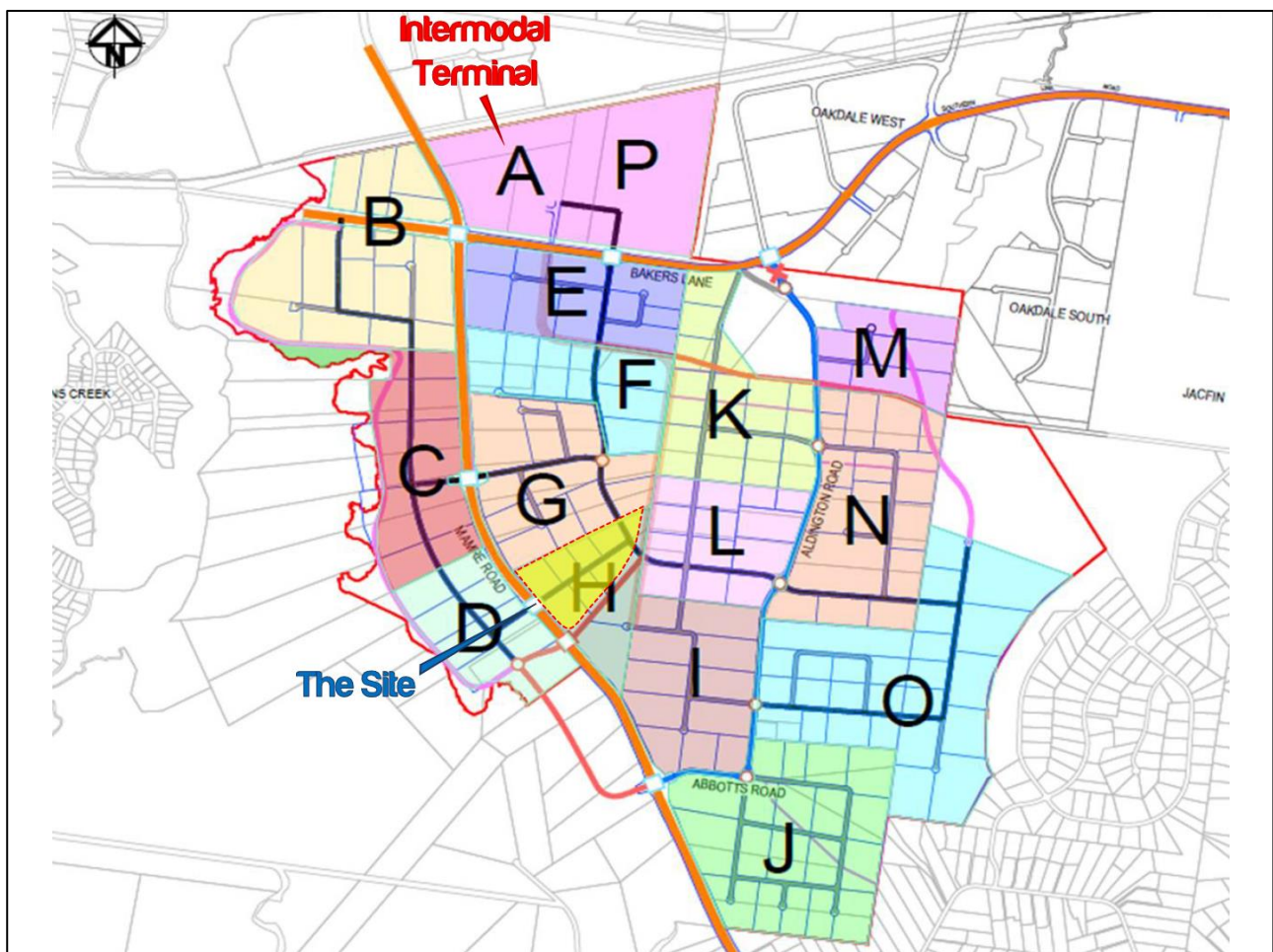


Figure 12: Mamre Road Precinct

6.1.1 Western Sydney Intermodal Terminal and Integrated Freight network

With reference to section 3.3, the Draft Mamre DCP proposes serviceability to Lots within the Precinct via an integrated freight network. This freight network is expected to link key sub-precincts with the Intermodal located in sub-precinct A (identified in Figure 12). Under this scheme, sub-precinct H has been earmarked for direct access to the intermodal, described as a 'co-located' warehouse.

Due to this accessibility, co-located warehouses demonstrate a reduction in heavy vehicle movements to and from the road network, therefore accounting for a lower proportion of vehicle traffic as demonstrated in Section 6.2.

Notwithstanding, the MRP has accounted for modelling scenarios with and without the integrated freight network. This modelling demonstrates that the Precinct operates in a similar capacity without a freight network, albeit with only slight increases to delay and network speeds.

6.2 Traffic Generation

The MRP Transport Modelling refers to a series of trip rates which have been adopted and supported by TfNSW. These rates have been developed from several studies and includes data from existing documents including the RMS Guide, TfNSW Case Studies, and independent traffic surveys of existing Sites (both within the Mamre Road Precinct and broader WSEA), with additional contingencies above average surveyed rates applied. The trip rates applicable to the development are provided below.

TABLE 10: TFNSW APPROVED TRIP RATES

Source	Land Use	Period	Trip Rate
Mamre Road Precinct Traffic Study	General Warehouse	AM	0.23 per 100 m ² GFA
		PM	0.24 per 100 m ² GFA
		Site Peak	0.26 per 100 m ² GFA
		Total Daily	2.91 per 100 m ² GFA
		Total Daily (Co-located)	1.15 per 100 m ² GFA

The proposed Site has been earmarked with direct access to the freight network for travel between the Site and the future IMEX terminal, there is merit in adopting the total daily trip rate for the co-located developments – noting for the reduction in heavy vehicle traffic generation on the road network.

Notwithstanding, the IMEX terminal is not expected to be fully operation until 2036. Therefore it is important to note the general warehousing trip generation rates prior to the implementation of co-located warehousing. Application of these trip rates to the proposed master plan and Stage 1 developments have been undertaken and outlined below.

TABLE 11: SITE TRAFFIC GENERATION						
Staging	Lots	Total Building Area	AM Peak	PM Peak	Site Peak	Total Daily
Stage 1 (General)	Lot 2	37,600 m ²	87	91	98	1,100
Stage 1 (Co-located)	Lot 2	37,600 m ²	87	91	98	432
Full Master plan (Total) (General)	Lots 1 – 16	98,551 m ²	227	237	257	2,874
Full Master plan (Total) (Co-located)	Lots 1 - 16	98,551 m ²	227	237	257	1,136

As part of the abovementioned trip rate assessments, the surveys also captured vehicle typologies for traffic associated with the developments. Accordingly, the assessed warehouses and industrial lots typically demonstrated a vehicle type split of 73% light vehicles, and 27% heavy vehicles during the AM and PM Peaks. Application of the abovementioned split to the development during the AM and PM Peaks are identified in the table below.

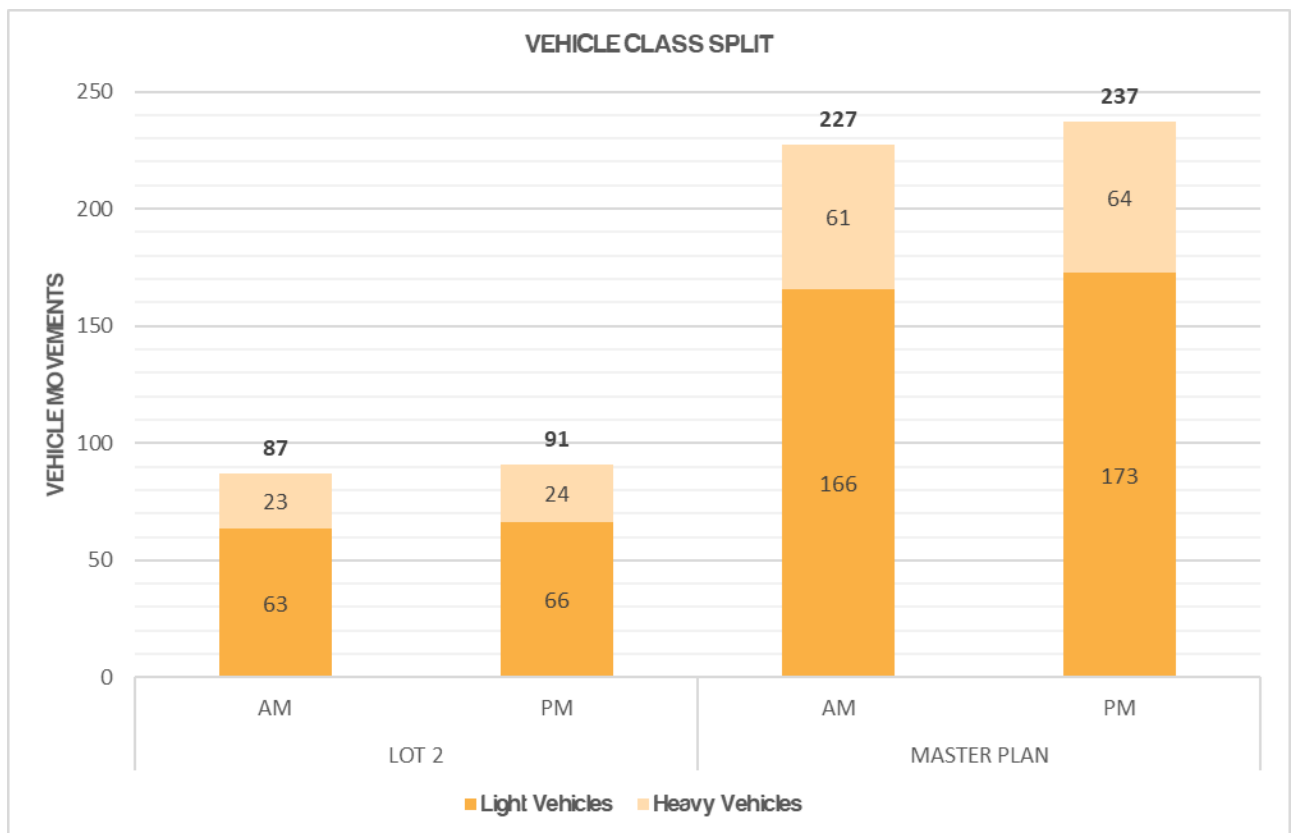


Figure 13: Vehicle Class Split

6.3 Trip Distribution

For the purposes of the interim modelling scenario, the trip distribution for the proposed master plan assumes that the total traffic generation of the Site will be accessing the Mamre Road / Mirvac Site Access intersection the north, via the internal road connection. While it is recognised that a proportion of vehicle movements from the Site would utilise the Left-in / Left-out junction accompanying the proposal, loading of the full master plan onto the Mirvac Access Intersection ensures a comprehensive assessment of its' performance.

The following standard trip distributions have been adopted for the interim modelling:

- Directional Split:
 - Light & Heavy Vehicles: 50% north, 50% south
- Access and Egress Split:
 - Light Vehicles: 80% in / 20% out during AM Peak, 20% in / 80% out during PM Peak
 - Heavy Vehicles: 50% in and out during AM and PM Peak.

6.4 Interim Modelling

At time of submission, it is acknowledged that a separate SSD application has been lodged for the development of the Aspect Industrial Estate (AIE), situated to the north of the proposed master plan. As part of that submission, the scope refers to the implementation of a signalised intersection on Mamre Road providing connectivity to the internal road network and the proposed masterplan. The SIDRA layout for the proposed intersection captured as an interim layout adopted as part of the ongoing MRP-wide traffic modelling is provided below.

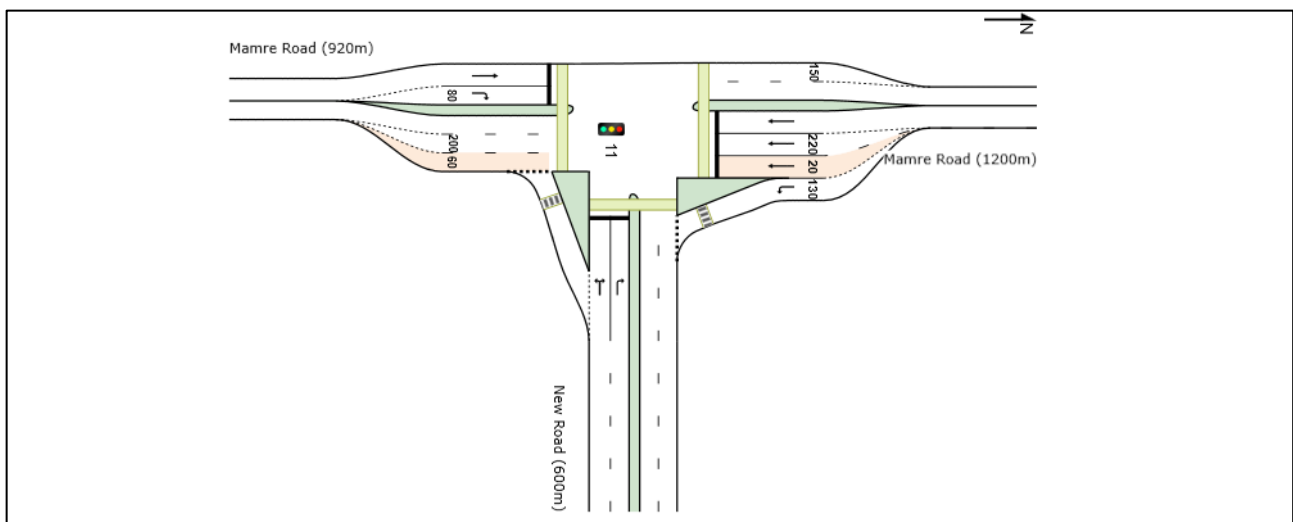


Figure 14: Interim Mamre Road / Mirvac Access intersection Layout

To ensure the development of a comprehensive baseline scenario, the cumulative impacts of both the Aspect Industrial Estate and the proposed master plan have been undertaken for 2026. The interim modelling scenarios and captured inputs are summarised in the below table:

TABLE 12: INTERIM MODELLING SCENARIOS

Scenario	Name	Captured	Assessed Periods	Intersection
1	Staged Development	Warehouse 1 & Warehouse 3 of Aspect Industrial Estate; Warehouse 2 of proposed master plan	AM, PM	Interim Signallised Layout
2	Full Development	Full extents of AIE and proposed master plan	AM, PM	Interim Signallised Layout

6.4.1 Interim Modelling Results

The modelling results for Scenario 1 based on the implementation of Staged developments of both the AIE and master plan are provided in the below table. Reference should be made to the full sidra modelling results in Appendix A.

TABLE 13: STAGED DEVELOPMENT MODELLING RESULTS

Intersection	Period	Level of Service	Average Delay (sec)
Mamre Road / Mirvac Access	AM	LoS A	9.4
	PM	LoS A	9.4

The above results demonstrate satisfactory performance for the intersection with a LoS of A for both the AM and PM periods, indicating that the new intersection contains adequate capacity for the staged developments of both industrial precincts.

To ensure comprehensive capacity testing for the intersection, the following modelling results for Scenario 2 capture the full scope of development planned for both precincts. Reference should be made to the full sidra modelling results in Appendix A.

TABLE 14 FULL DEVELOPMENT MODELLING RESULTS

Intersection	Period	Level of Service	Average Delay (sec)
Mamre Road / Mirvac Access	AM	LoS B	25.2
	PM	LoS C	36.8

While the results from scenario 2 indicate worsening intersection performance, the level of service during both AM and PM Peaks still remain operating at satisfactory levels, performing at a LoS C or better. This demonstrates that the interim signalised layout provides sufficient capacity to provide for both developments in 2026, and that the extents of the proposed masterplan are not anticipated to have any adverse impacts to performance on Mamre Road and the wider road network beyond expectation.

6.5 Mamre Road Modelling

SIDRA modelling for the master plan has been extracted from the MRP Transport Assessment report undertaken by Ason Group, which has been formally lodged in June 2021. Reference should be made to this submission for comprehensive modelling undertaken for the wider MRP, which captures the proposed master plan as part of sub-precinct H.

Key intersections in proximity of the Site have been included to account for the wider network of traffic movements for future years' 2026 and 2036. This includes the MRP modelling of the Mamre Road / Mirvac Access Intersection modelled in the above assessment.

It is noted that the draft Mamre Road DCP had originally earmarked a signalised intersection location at the Sites' frontage. However, in line with recommendations made as part of the MRP modelling, this intersection is likely to not progress with signalisation. As a result, the junction is anticipated to be restricted to a left-in / left-out movements, with dedicated slip lanes in both directions.

Accordingly, the modelling results for the following intersections are provided below relating to the Site –

- Mamre Road / Southern Link Road future intersection,
- Mamre Road / Abbotts Road Intersection; and
- Mamre Road / Mirvac Access Intersection.

6.5.1 Precinct H Traffic Generation

Sub-precinct H has been assessed as part of the MRP modelling having regard for a total indicative site area of 301,375 m², and developable building area of 134,759 m² GFA, which was originally intended to capture the extents of both the proposed masterplan as well as the available lot to the south-east.

It should be considered that currently, the building area of the proposed masterplan captures a site area of 202,470 m² and an indicative building area of 84,605 m² GFA, capturing approximately:

- 67% of the sub-precinct H's Site area; and
- 63% of sub-precinct H's building area.

This represents a disparity of 4%, indicating that the proposed masterplan is providing a lower proportion developable building GFA in comparison to that assumed as part of the MRP modelling.

Based on the above, the remaining site area of sub-precinct H accounts for 98,905 m², or 33% of the total Site area. Accordingly, the remaining 37% of allowable building GFA indicates a surplus over the site area allocation and demonstrates that the developable building area assessed for sub-precinct H readily captures both the proposed master plan as well as the development of the land area south of the Site.

Traffic generation for sub-precinct H as part of the MRP modelling is presented below.

TABLE 15: SUB-PRECINCT H TRAFFIC GENERATION

Land	Site Area	Building Area (GFA)	Daily Traffic
sub-precinct H	301,375 m ²	134,759 m ² GFA	1,556 veh/day

6.5.2 2026 Modelling Assumptions and Results

The precinct-wide modelling demonstrates staged delivery of road infrastructure upgrades and captured development yields. Accordingly, the following assumptions have been captured;

- 75% of development for sub-precincts by 2026 (including sub-precinct H).
- Southern Link Connection to Mamre Road
- Implementation of interim Mamre Road / Mirvac Site intersection
- Interim Abbots Road Intersection layout

The modelled intersection configurations are provided below.

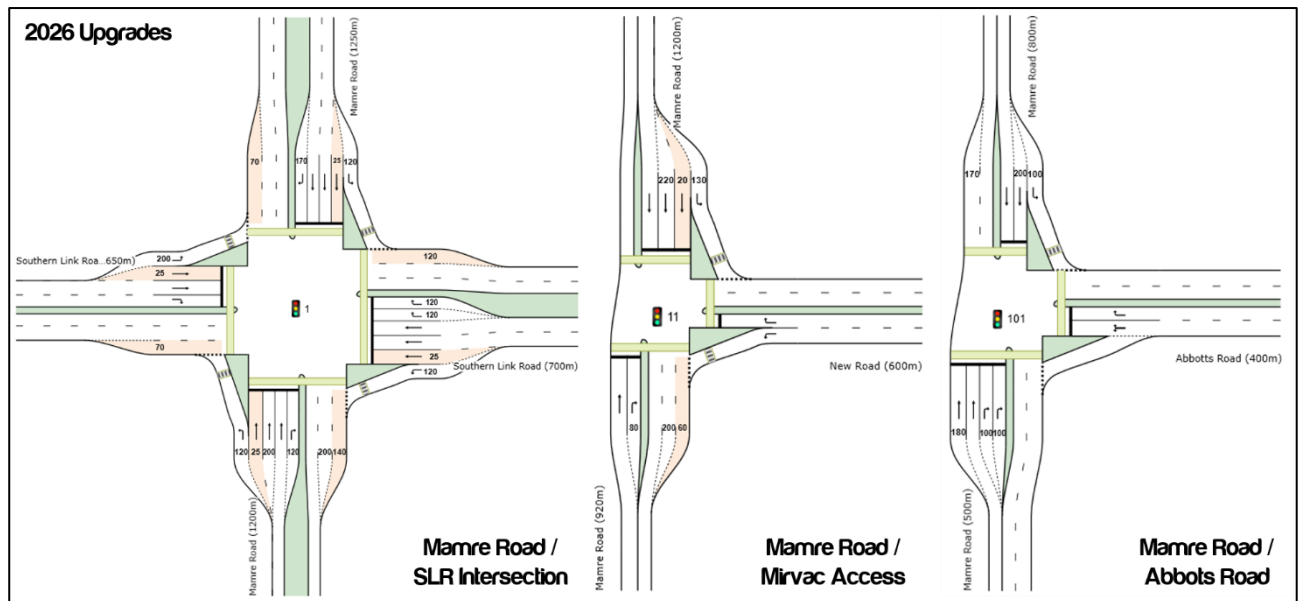


Figure 15: 2026 SIDRA Intersections

The modelling results for the 2026 case are provided below.

TABLE 16: 2026 MODELLING RESULTS			
Intersection	Period	Average Delay	Level of Service
Mamre Road / Southern Link Road	AM	49.6	D
	PM	47.3	D
Mamre Road / Mirvac Access	AM	11.3	A
	PM	20.2	B
Mamre Road / Abbotts Road	AM	10.3	A
	PM	25.1	B

6.5.3 2036 Modelling

The MRP Transport Assessment has undergone a series of options testing for the 2036 future to determine several outcomes based on different parameters. Final endorsement of that study is still pending. However, reference is made to Option 7, which has been nominated by Ason Group and the LOG as the preferred network.

Under this option, upgrades for the Precinct include the following:

- Full development of sub-precincts
- Mamre Road Southbound (3-laning upgrade)
- Aldington Road Southbound Extension
- Full implementation of integrated freight network
- Extension of Abbotts Road

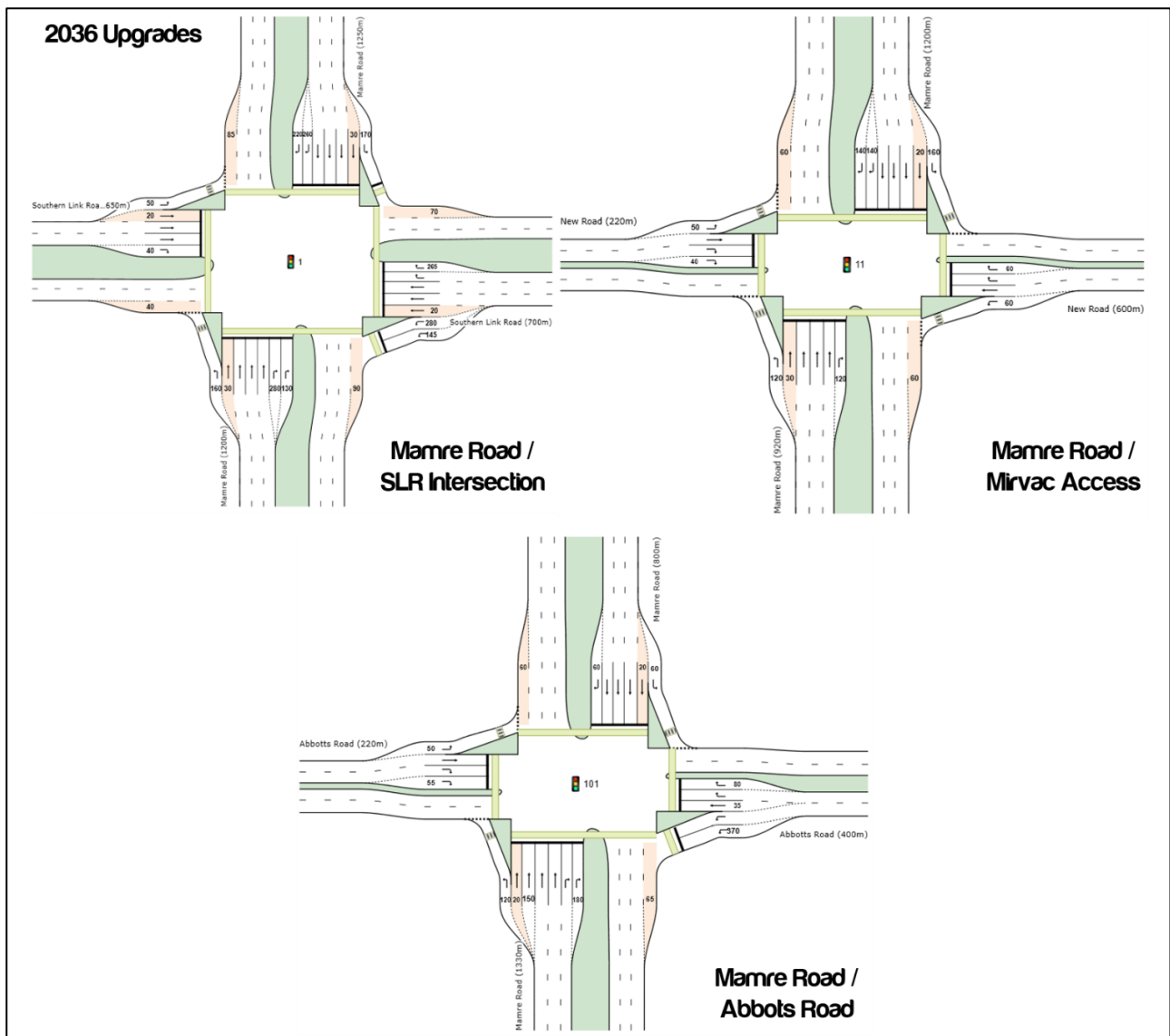


Figure 16: 2036 SIDRA Intersections (Option 7)

The modelled performance of these intersections is summarised in the MRP Transport Assessment provided separately to Council and TfNSW.

6.6 Summary of Traffic Generation Findings

Summarising the key points of the operational assessment:

- With consideration for ongoing developments of the wider MRP, it should be noted that precinct-wide modelling is currently being undertaken by Ason Group on behalf of the Land Owners Group (LOG) for TfNSW and DPIE. Accordingly, the traffic generation assessment for the proposed master plan refers to two separate modelling components:
 - 2026 Interim intersection modelling for the proposed master plan development at the Mamre Road / Mirvac Access intersection; and
 - A snapshot of the wider Mamre Road modelling in relation to the master plan, captured as part of sub-precinct H.
- The 2026 Interim modelling captures the development extents of the proposed masterplan, as well as the Aspect Industrial Estate. The results demonstrate that the 2026 interim signals perform at a satisfactory level, performing at LoS C or better.
- As part of the MR precinct-wide modelling, some 134,759 m² of GFA is assumed for sub-precinct H. The undertaken traffic modelling for 2026 for the three assessed intersections generally perform at satisfactory levels, performing at LoS D or better. The Mirvac Access intersection performs at LoS B or better.

Accordingly, it is envisaged that the planned future upgrades for the Mamre Precinct capture traffic impacts associated with the development for precinct-wide modelling. As such, the impacts of the development have readily been considered in the determination of the precinct-wide upgrades deemed necessary to support the broader MRP.

7 Design Commentary

7.1 Design Standards

Stage 1 of the master plans' access, car park and loading areas have been designed with reference to the following Australian Standards:

- AS2890.1:2004 for car parking areas;
- AS2890.2:2018 for commercial vehicle loading areas; and
- AS2890.6:2009 for accessible (disabled) parking.

As development of the master plan moves forward, it is expected that further lots are designed in compliance with these Standards. In addition to the above, it has been proposed that the Master plans' internal road network has been provided in accordance with the Road Network, Hierarchy and Design controls as referred in Section 3.4.1 of the Draft MRP DCP.

7.2 Master Plan Road Network

It is envisaged that the internal access roads will take the form of a Collector and Industrial Roads, as outlined within the Draft MRP DCP. The design of this road reserve has been reproduced below.

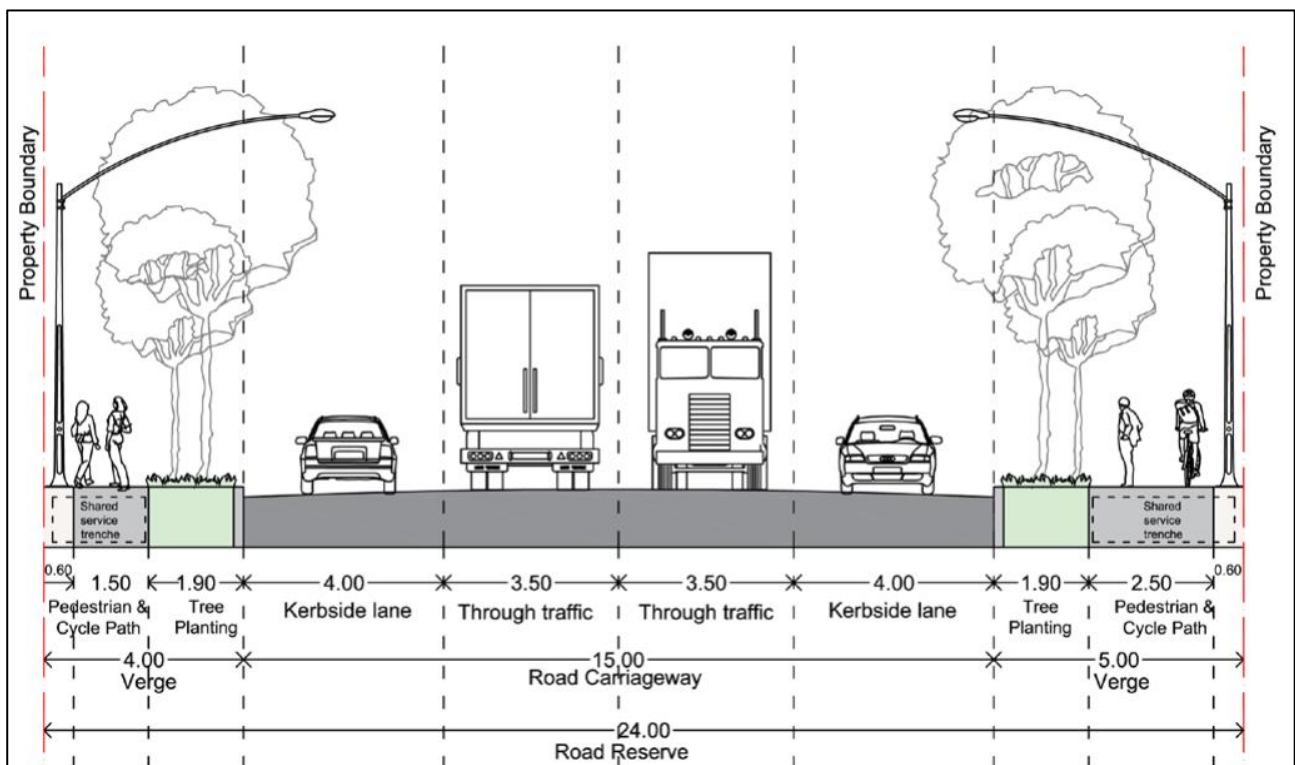


Figure 17: Typical Industrial Road (Type 1)

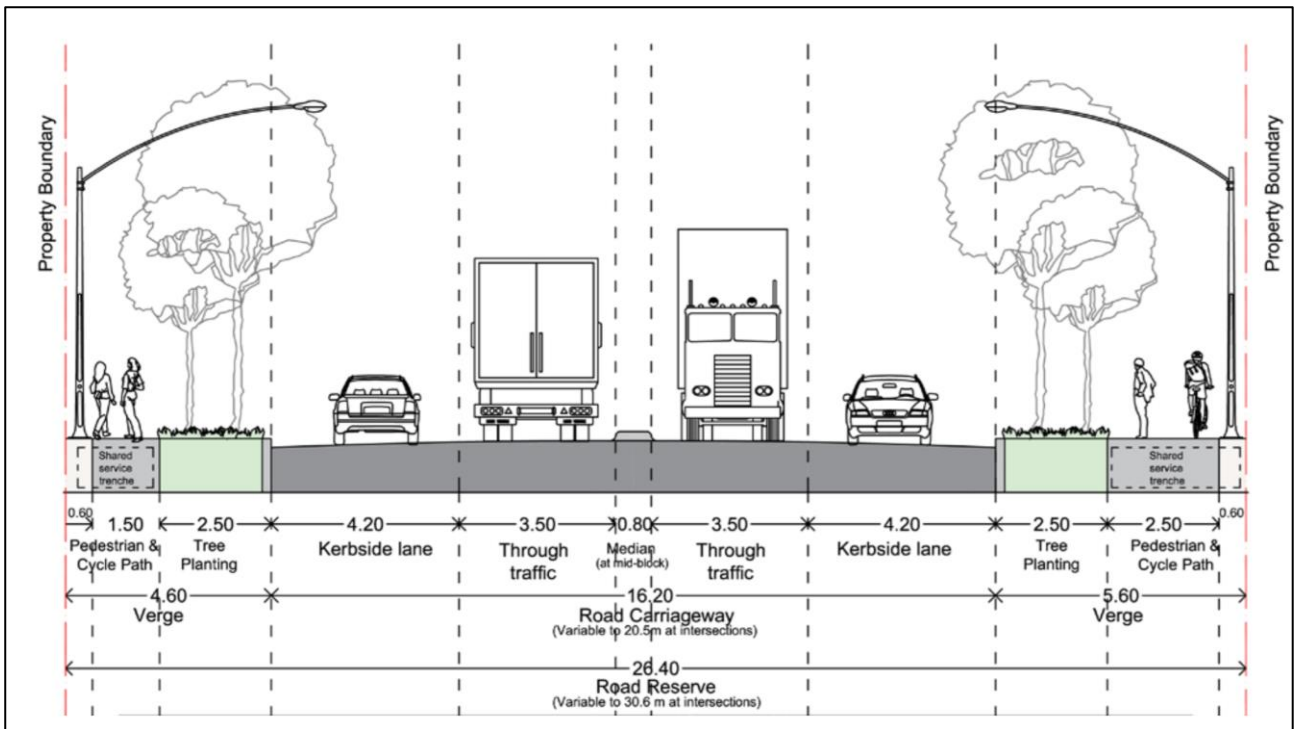


Figure 18: Typical Distributor/Collector Road

7.3 Access Driveways

All access driveways (to the internal road network) are to be designed with reference to AS2890.1 and AS2890.2, with service driveways to provide for vehicles up to and including a 30m PBS 2B vehicle. It is anticipated that full access driveway design compliance with AS 2890.1 and AS 2890.2 would form a standard Condition of Consent further to approval.

7.4 Parking Areas

All parking areas, including access aisles and parking modules, are to be designed with reference to AS2890.1 and AS2890.6. It is anticipated that full parking area design compliance with the relevant standards would form a standard Condition of Consent further to approval.

7.5 Service Areas

All service areas are to be designed with reference to AS 2890.2, and again provide for the movement of vehicles up to and including a 30m PBS 2B vehicle. It is anticipated that service area design compliance with AS 2890.2 would form a standard Condition of Consent further to approval.

The Lot 2 warehouse service area can readily accommodate up to 28x 20m Articulated Vehicles (AV's) and a single 12.5m HRV in rear loading positions, as shown in the below configuration.

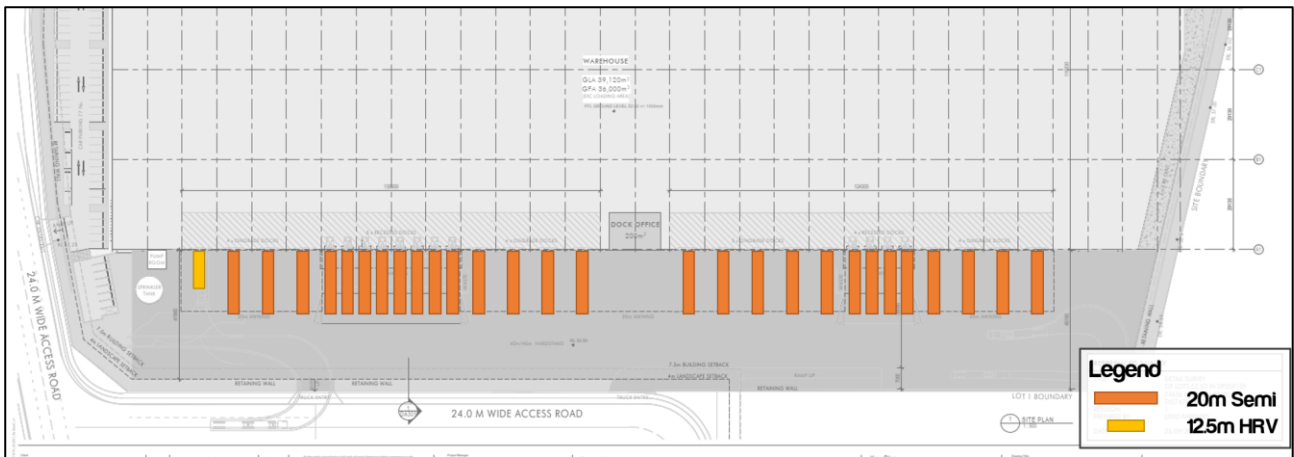


Figure 19: Rear Loading Configuration

In addition to the above, the Lot readily accommodates up to 2x 30m PBS 2B vehicles in side-loading positions adjacent the RSDs, as shown in below configuration.

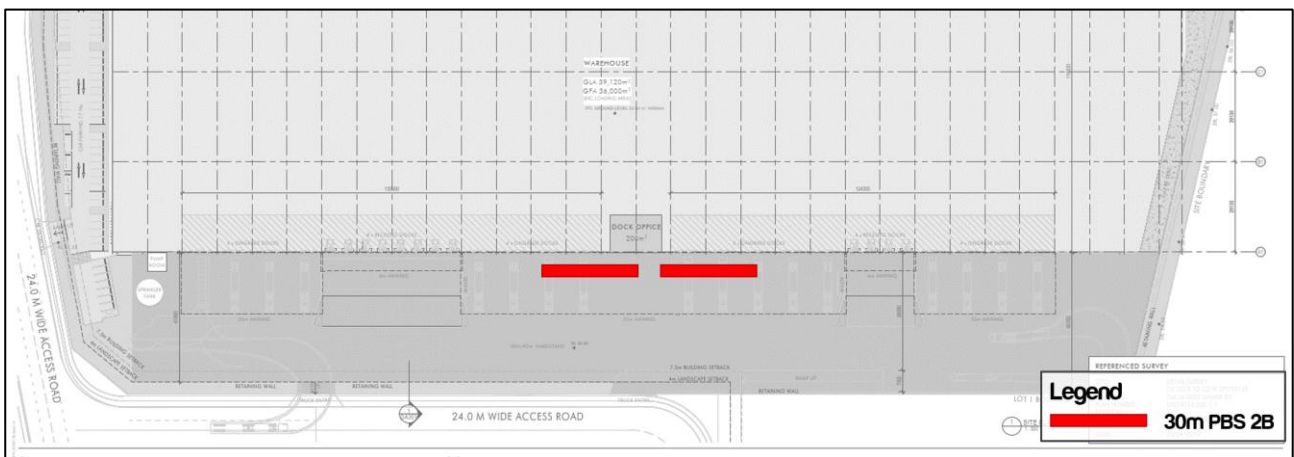


Figure 20: Side Loading Configuration

Reference should be made to the swept path assessment for Site Access, internal hardstand movements and RSD access in Appendix B.

7.6 Design Summary

As part of Stage 1, Lot 2 of the Site (including light and heavy vehicular access, servicing areas and car parking) has been designed having regard for the requirements of the relevant Australian Standards (AS2890.1, AS2890.2 and AS2890.6). As development of the master plan moves forward, it is expected that further lots are designed in compliance with these Standards.

8 Summary & Recommendations

8.1 Key Findings

The key findings of the transport assessment undertaken from this TAMP are summarised below:

- The SSDA relates to the master plan development of the 884-928 Mamre Road, Kemps Creek site, situated within the Mamre Road Precinct. The site is situated within the Penrith City Council LGA, however is subject to controls specified within the Draft Mamre Road Precinct Development Control Plan.
- Specifically, the application relates to the approval for the Master plan, and the construction works of stage 1, including demolition and bulk earthworks, construction and operation of the internal master plan road network, and full development of Warehouse 2 in Lot 2. A summary of the proposed yields are provided below.

MASTER PLAN SUMMARY

Element	Yield
Site Area	202,470 m ²
Total Developable Area	160,806 m ²
Total Building Area (GFA)	98,751m ²
Lots	16 lots (13 development lots + 3 services lot)

LOT 2 SUMMARY

Element	Yield
Lot 2 Site Area	66,109 m ²
Warehouse Area	35,800 m ² GFA
Office Area	2,000 m ²
Total Building Area (GFA)	37,800 m ²
Parking Provision	170 (including 2 accessible spaces)

- Existing context for the Site typically demonstrates a high dependency for the region on private vehicle usage, and lower dependency on public transport reflecting the current availability of services in the locale. Notwithstanding, it is understood that improved public transport accessibility is anticipated to accompany several major transport developments in the area, namely the Mamre Road upgrades, as well as future link roads in the region.
- The Master Plan broadly seeks to adopt the parking rates indicated within the Draft MRP DCP.
- A total of 170 spaces are provided for Lot 2, readily satisfying the draft DCP requirement (169 spaces).
- It has been considered that the Site forms part of the wider Mamre Road Precinct, to which Ason Group is currently undertaking network modelling on behalf of DPIE, TfNSW and the Land Owners Group / Council. As such, reference is made to that separate body of work in relation to the impacts of cumulative LOG development and necessary infrastructure.

- The subject site forms part of sub-precinct H of that study which envisages a co-located warehouse development with direct access to the Western Sydney Intermodal Terminal. In this regard, the traffic assessment for the Site has confirmed that the Master Plan yields proposed are readily considered within the sub-precinct H assumptions, with additional contingency for the land parcel south of the site included within the ultimate 2036 modelling for that sub-precinct.
- The interim 2026 modelling captures the cumulative impacts of both the proposed master plan, as well as Mirvac's Aspect Industrial Estate to the north. Accordingly, the modelled impacts on the Mamre Road / Mirvac access intersection demonstrate satisfactory performance, performing at LoS D or better.
- The wider MRP modelling demonstrates staged delivery of road infrastructure upgrades and industrial developments and includes future year modelling for 2026.
 - 2026 Future year modelling captures 75% of development for sub-precincts, as well as key upgrades at the Southern Link Road, Abbots Road and Mirvac Site Access. Accordingly, the results for key intersections in proximity of the development demonstrate performance at LoS D or better.
 - Modelling for 2036 is anticipated to capture the full extents of the precinct development as well as further upgrades to the road network in line with the preferred Option 7 configuration. Final endorsement of that study is still pending; notwithstanding, reference should be made to the MRP Transport Assessment provided separately to Council and TfNSW for the full scope of modelling assessment for the MRP.

8.2 Conclusions

In summary, the warehouse development is deemed supportable on traffic planning ground and is not expected to result in any adverse impacts on the surrounding road network. Infrastructure planning and staging for the broader precinct has incorporated the subject development.

Appendix A. SIDRA Results

MOVEMENT SUMMARY

Site: 11 [[2026] AM_Mamre Road x Site Access_Stage 1 (Site Folder: New Folder)]

Site: 11
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 140 seconds (Site User-Given Cycle Time)
Variable Sequence Analysis applied. The results are given for the selected output sequence.

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES [Total HV] veh/h veh/h		DEMAND FLOWS [Total HV] veh/h %		Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. Dist] veh m		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Mamre Road (920m)														
2	T1	1090	177	1147	16.2	* 0.886	2.8	LOS A	13.1	110.1	0.17	0.17	0.18	77.9
3	R2	57	23	60	40.4	0.528	76.3	LOS F	4.1	47.6	0.99	0.78	0.99	34.1
Approach		1147	200	1207	17.4	0.886	6.5	LOS A	13.1	110.1	0.21	0.20	0.22	74.4
East: New Road (600m)														
4	L2	32	17	34	53.1	0.208	31.6	LOS C	1.6	24.0	0.72	0.69	0.72	44.8
6	R2	37	22	39	59.5	* 0.241	55.6	LOS D	1.8	28.6	0.87	0.72	0.87	39.6
Approach		69	39	73	56.5	0.241	44.6	LOS D	1.8	28.6	0.80	0.71	0.80	41.6
North: Mamre Road (1200m)														
7	L2	69	35	73	50.7	0.081	9.7	LOS A	0.5	7.6	0.17	0.64	0.17	60.8
8	T1	1074	168	1131	15.6	0.535	10.2	LOS A	12.2	100.9	0.35	0.32	0.35	73.2
Approach		1143	203	1203	17.8	0.535	10.2	LOS A	12.2	100.9	0.34	0.34	0.34	72.5
All Vehicles		2359	442	2483	18.7	0.886	9.4	LOS A	13.1	110.1	0.29	0.28	0.29	72.1

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Queue Model: SIDRA Standard.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)



MOVEMENT SUMMARY

 Site: 11 [[2026] PM_Mamre Road x Site Access_Stage 1 (Site Folder: New Folder)]

Site: 11
Site Category: (None)
Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 140 seconds (Site User-Given Cycle Time)
Variable Sequence Analysis applied. The results are given for the selected output sequence.

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES [Total HV] veh/h veh/h		DEMAND FLOWS [Total HV] veh/h %		Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. Dist] veh m		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Mamre Road (920m)														
2	T1	980	151	1032	15.4	* 0.783	1.4	LOS A	5.9	48.9	0.09	0.09	0.09	79.2
3	R2	41	19	43	46.3	0.534	80.6	LOS F	3.1	36.4	1.00	0.77	1.02	32.8
Approach		1021	170	1075	16.7	0.783	4.6	LOS A	5.9	48.9	0.13	0.12	0.13	76.0
East: New Road (600m)														
4	L2	92	31	97	33.7	0.382	29.0	LOS C	3.9	41.5	0.71	0.73	0.71	47.2
6	R2	90	29	95	32.2	* 0.443	59.4	LOS E	5.0	51.6	0.92	0.77	0.92	39.5
Approach		182	60	192	33.0	0.443	44.0	LOS D	5.0	51.6	0.81	0.75	0.81	42.7
North: Mamre Road (1200m)														
7	L2	50	28	53	56.0	0.060	9.1	LOS A	0.3	4.7	0.15	0.62	0.15	59.8
8	T1	1086	172	1143	15.8	0.519	8.1	LOS A	9.8	81.7	0.28	0.25	0.28	74.9
Approach		1136	200	1196	17.6	0.519	8.1	LOS A	9.8	81.7	0.27	0.27	0.27	74.2
All Vehicles		2339	430	2462	18.4	0.783	9.4	LOS A	9.8	81.7	0.25	0.24	0.25	71.7

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).
Vehicle movement LOS values are based on average delay per movement.
Intersection and Approach LOS values are based on average delay for all vehicle movements.
Delay Model: SIDRA Standard (Geometric Delay is included).
Queue Model: SIDRA Standard.
Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).
HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)



MOVEMENT SUMMARY

 Site: 11 [[2026] AM_Mamre Road x Site Access_Masterplan (Site Folder: New Folder)]

Site: 11

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 140 seconds (Site User-Given Cycle Time)

Variable Sequence Analysis applied. The results are given for the selected output sequence.

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES [Total HV] veh/h veh/h		DEMAND FLOWS [Total HV] veh/h %		Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. Dist] veh m		Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Mamre Road (920m)														
2	T1	1090	177	1147	16.2	* 0.886	3.7	LOS A	13.1	110.1	0.17	0.17	0.18	77.9
3	R2	283	79	298	27.9	0.820	44.6	LOS D	15.0	136.4	1.00	0.90	1.13	42.1
Approach		1373	256	1445	18.6	0.886	12.1	LOS A	15.0	136.4	0.34	0.32	0.37	68.7
East: New Road (600m)														
4	L2	125	48	132	38.4	0.521	35.1	LOS C	6.4	66.9	0.90	0.80	0.90	44.9
6	R2	130	53	137	40.8	* 0.603	58.7	LOS E	6.7	72.7	0.97	0.81	0.98	39.7
Approach		255	101	268	39.6	0.603	47.2	LOS D	6.7	72.7	0.94	0.81	0.94	41.9
North: Mamre Road (1200m)														
7	L2	295	91	311	30.8	0.307	13.8	LOS A	6.7	65.2	0.40	0.70	0.40	57.7
8	T1	1074	168	1131	15.6	0.836	39.9	LOS C	34.8	288.4	0.88	0.83	0.93	57.2
Approach		1369	259	1441	18.9	0.836	34.3	LOS C	34.8	288.4	0.78	0.80	0.81	57.3
All Vehicles		2997	616	3155	20.6	0.886	25.2	LOS B	34.8	288.4	0.59	0.58	0.62	60.3

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Queue Model: SIDRA Standard.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

* Critical Movement (Signal Timing)



MOVEMENT SUMMARY

 Site: 11 [[2026] PM_Mamre Road x Site Access_Masterplan (Site Folder: New Folder)]

Site: 11

Site Category: (None)

Signals - EQUISAT (Fixed-Time/SCATS) Coordinated Cycle Time = 140 seconds (Site User-Given Cycle Time)

Variable Sequence Analysis applied. The results are given for the selected output sequence.

Vehicle Movement Performance														
Mov ID	Turn	INPUT VOLUMES [Total veh/h	HV] veh/h	DEMAND FLOWS [Total veh/h	HV] %	Deg. Satn v/c	Aver. Delay sec	Level of Service	95% BACK OF QUEUE [Veh. veh	Dist] m	Prop. Que	Effective Stop Rate	Aver. No. Cycles	Aver. Speed km/h
South: Mamre Road (920m)														
2	T1	980	151	1032	15.4	* 0.965	34.9	LOS C	42.6	350.9	0.36	0.49	0.55	59.8
3	R2	126	45	133	35.7	0.738	47.0	LOS D	6.4	62.4	1.00	0.85	1.13	41.3
Approach		1106	196	1164	17.7	0.965	36.3	LOS C	42.6	350.9	0.43	0.53	0.61	57.6
East: New Road (600m)														
4	L2	295	83	311	28.1	0.770	45.3	LOS D	15.3	139.7	0.95	0.97	1.00	42.5
6	R2	293	81	308	27.6	* 0.892	73.0	LOS F	19.8	180.0	0.99	1.00	1.25	36.9
Approach		588	164	619	27.9	0.892	59.1	LOS E	19.8	180.0	0.97	0.99	1.12	39.2
North: Mamre Road (1200m)														
7	L2	135	54	142	40.0	0.132	9.9	LOS A	1.6	16.8	0.23	0.65	0.23	59.7
8	T1	1086	172	1143	15.8	0.718	28.7	LOS C	26.4	219.7	0.74	0.67	0.74	62.8
Approach		1221	226	1285	18.5	0.718	26.6	LOS B	26.4	219.7	0.68	0.67	0.68	62.5
All Vehicles		2915	586	3068	20.1	0.965	36.8	LOS C	42.6	350.9	0.65	0.68	0.75	55.2

Site Level of Service (LOS) Method: Delay (RTA NSW). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Vehicle movement LOS values are based on average delay per movement.

Intersection and Approach LOS values are based on average delay for all vehicle movements.

Delay Model: SIDRA Standard (Geometric Delay is included).

Queue Model: SIDRA Standard.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

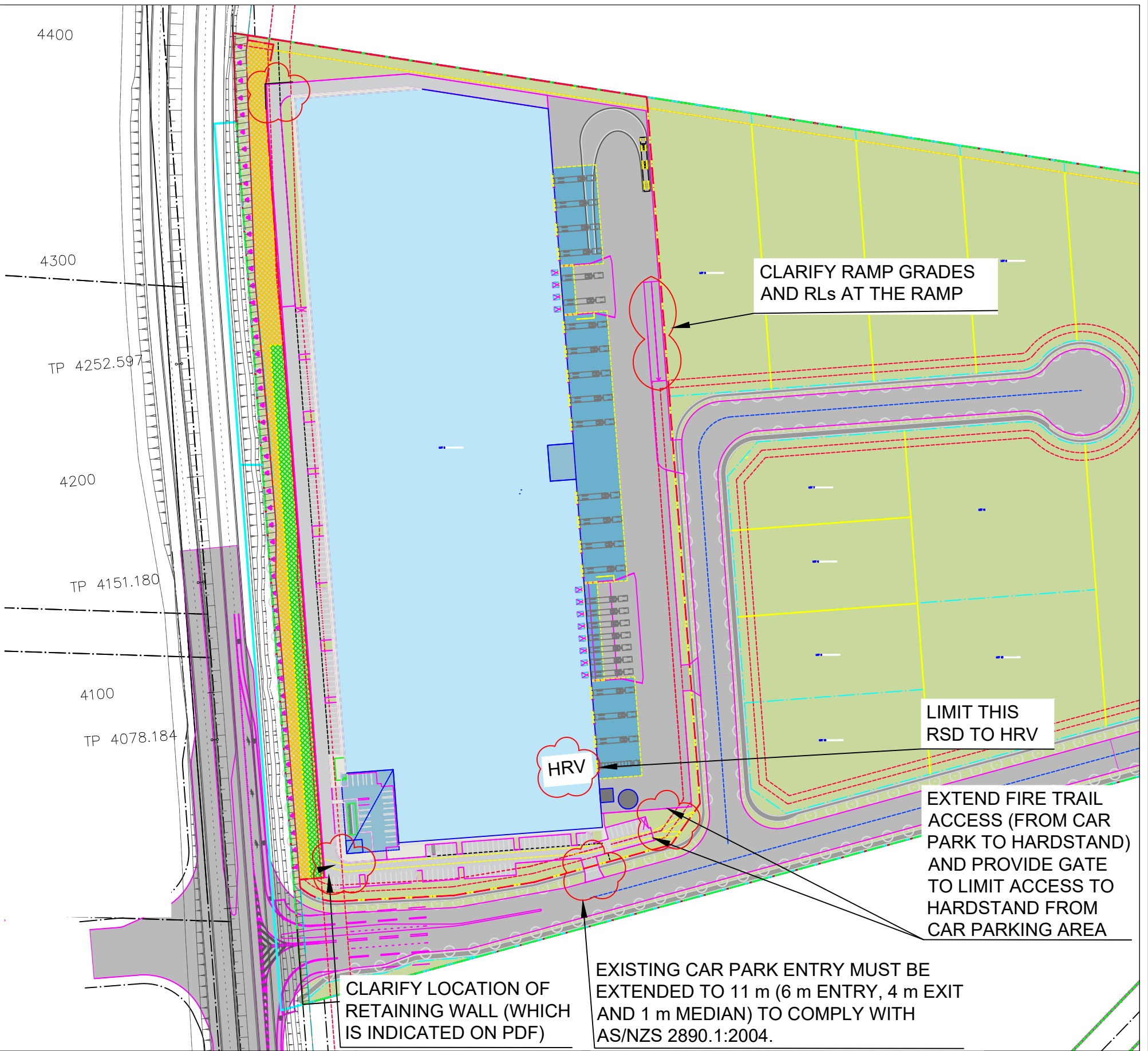
* Critical Movement (Signal Timing)



Appendix B. Design Advice & Swept Paths

NOTE:

- ALL ACCESS POINTS HAVE BEEN ASSESSED AS PER THE REQUIREMENTS OF AS/NZS 2890.1:2004 AND AS2890.2:2018.
- THE CAR ENTRY/EXIT POINT (INDICATED ON THIS PAGE) MUST HAVE A WIDTH OF 10 m WITH A 1 m MEDIAN AS IT HAS A FRONTAGE TO A HIGH ORDER ROAD (CLASSIFIED AS AN ARTERIAL ROAD IN THE FUTURE) AND
- IT IS IMPORTANT TO PROVIDE THE GRADES AND RL OF THE TRUCK ENTRY RAMP. THE GRADIENT OF THIS RAMP MUST BE DESIGNED TO THE REQUIREMENTS OF AS2890.2:2018.
- THE PROPOSED CAR PARKING SPACES (USER CLASS 1/1A) HAVE BEEN ASSESSED AS PER AS/NZS 2890.1:2004 AND AS/NZS 2890.6:2009.
- B-DOUBLES WILL ONLY BE ALLOWED TO SIDE LOAD INTO THE RSDS.
- THE RSD INDICATED ON THIS PLAN MUST BE LIMITED TO A HRV.
- AVS AND HRVS HAVE BEEN TESTED FOR REAR LOADING.
- IN ORDER TO PROVIDE FIRE TRUCK ACCESS (SUBJECT TO FIRE CONSULTANTS), THE FOLLOWING AMENDMENTS ARE REQUIRED:
 - AMENDMENTS AT THE NORTHERN PART OF THE FIRE TRUCK ACCESS.
 - AMENDMENTS AT THE SOUTHERN PART OF THE SITE (WITHIN THE PROPOSED CAR PARK) AND
 - A PROPOSED FIRE ACCESS EXTENSION (FROM THE HARDSTAND) TO THE CAR PARK (WITH A GATE).



Notes:

Plans assessed were provided by Project Strategy on 17.05.2021.
All swept paths were completed at 10 km/h with 300 mm clearances.

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Document Info:
Drawn by: O HASHMI
File name: 1509-02-v02.dwg

Client:
ALTIS PROPERTY

Project:
1509
884-928 MAMRE ROAD, KEMPS CREEK

Drawing Title:
SITE PLAN

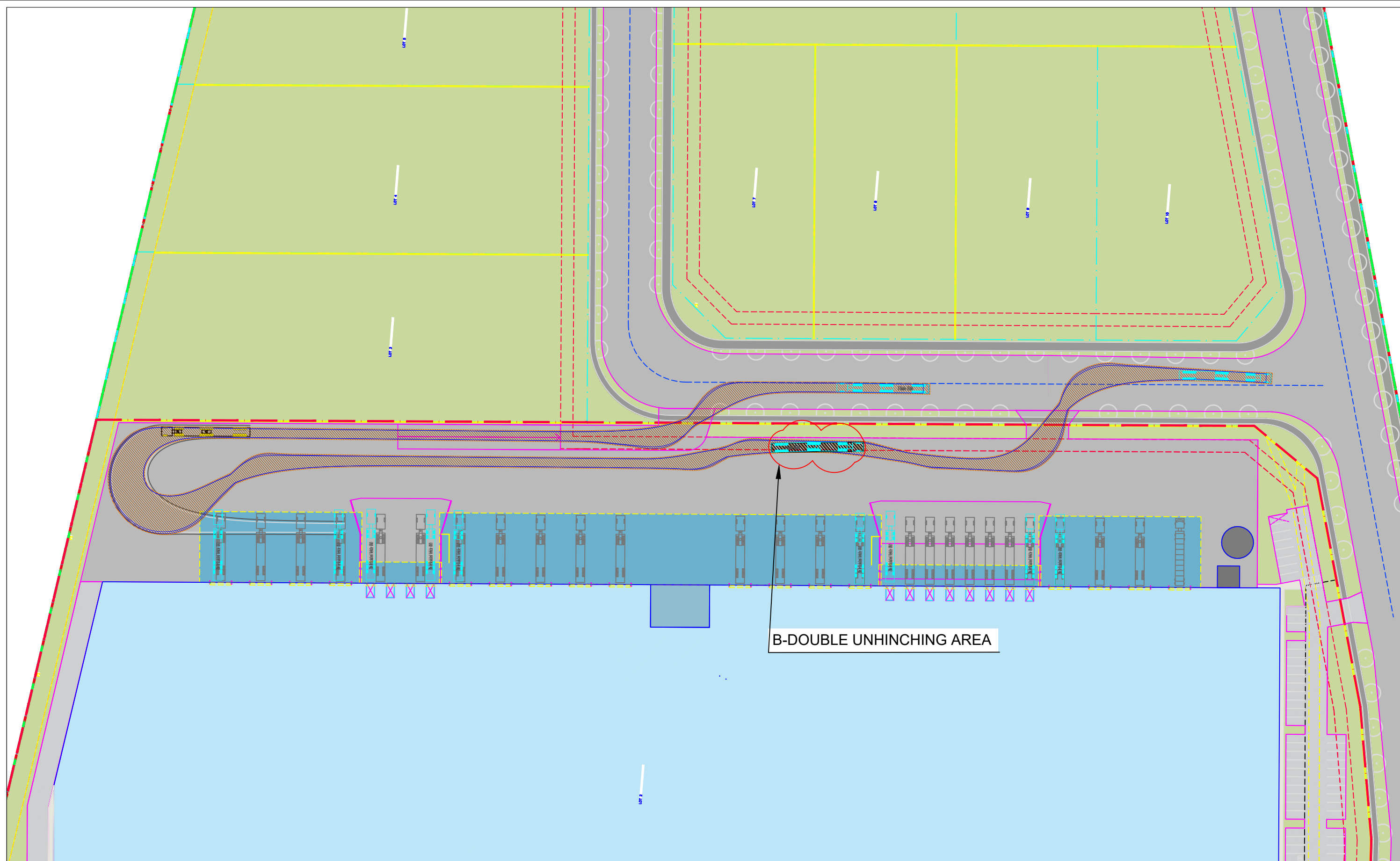
Date:
19-Jul-21

Scale @ A3:
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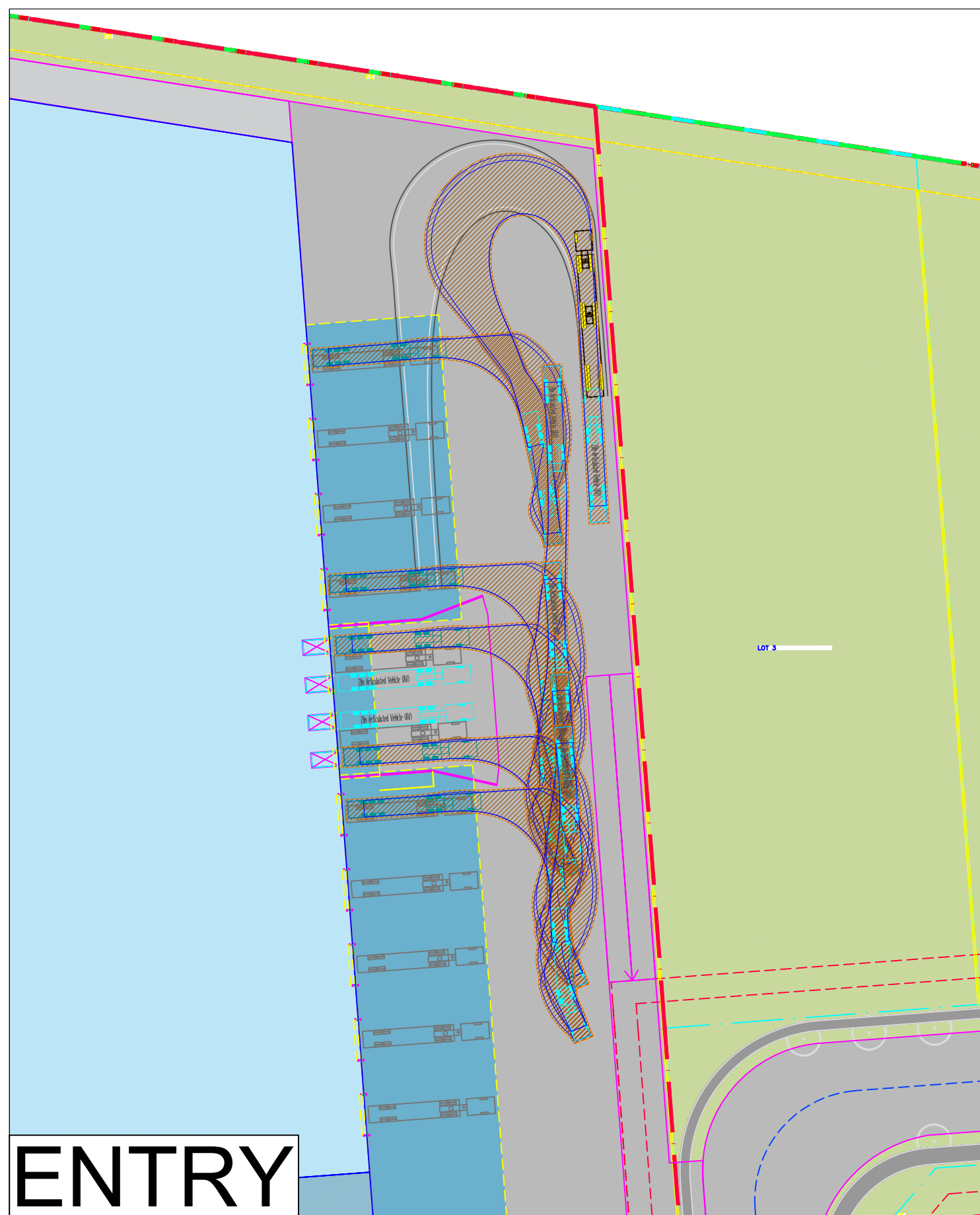
Drawing Number:
AG01

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ENTRY

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File name: 1509-02-v02.dwg

Client:

ALTIS PROPERTY

Project:

1509
884-928 MAMRE ROAD, KEMPS CREEK

Drawing Title:

SWEPT PATH ASSESSMENT
20.0 m AV

Date:

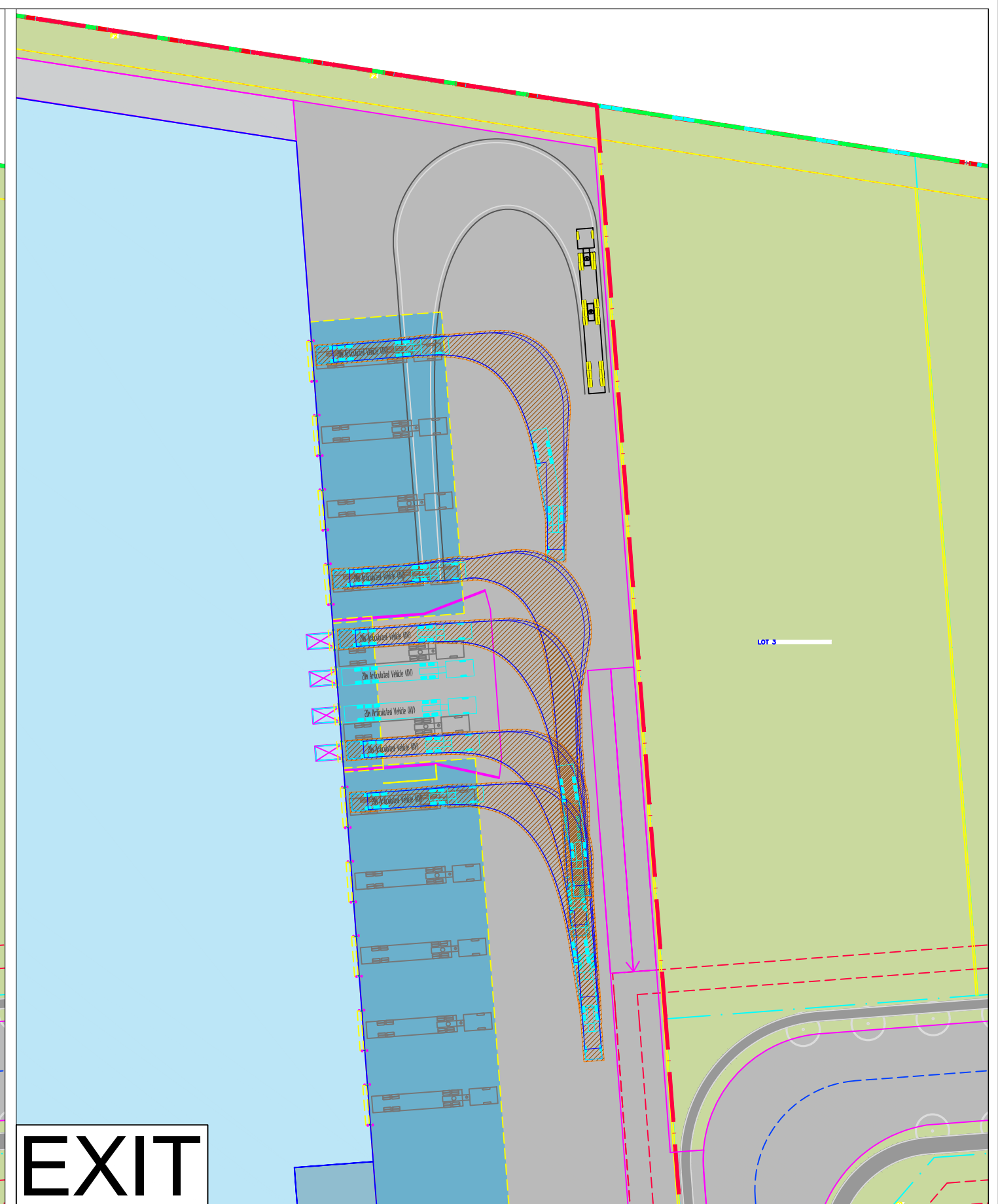
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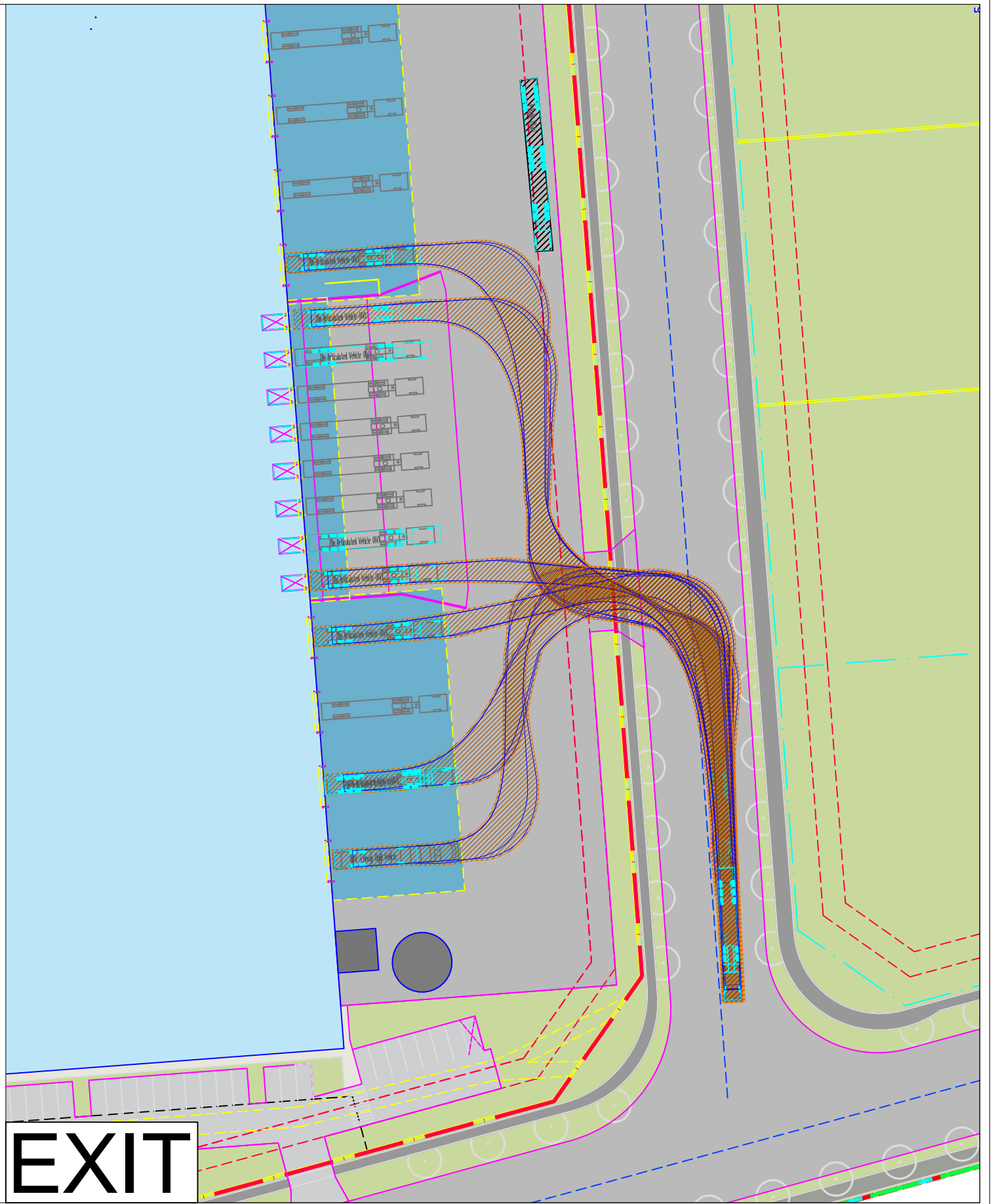
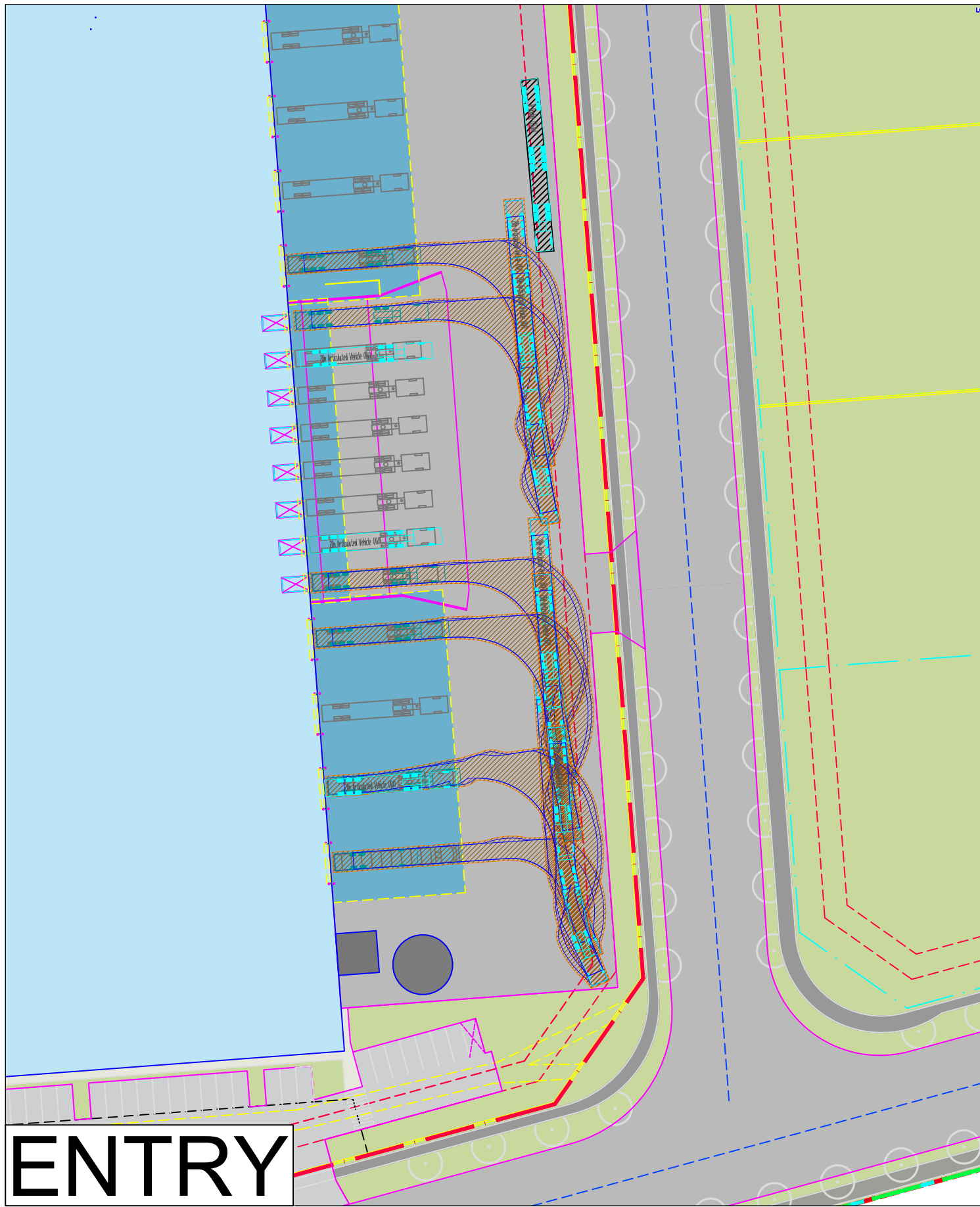


EXIT

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Project:
1509
884-928 MAMRE ROAD, KEMPS CREEK

Drawing Title:
SWEPT PATH ASSESSMENT
20.0 m AV AND 12.5 m HRV

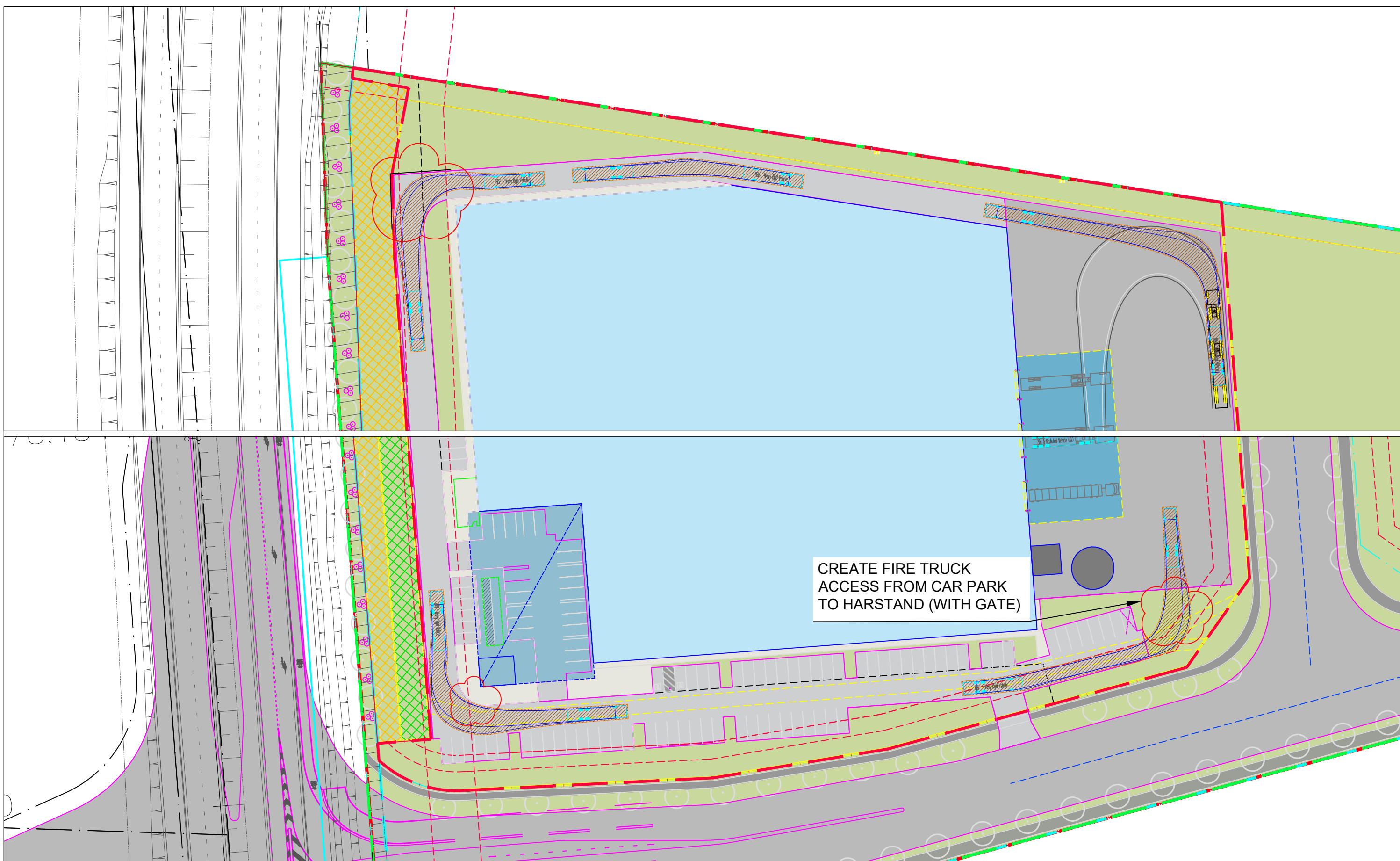
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19-Jul-21

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Drawing Number:
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Project:

1509
884-928 MAMRE ROAD, KEMPS CREEK

Drawing Title:

SWEPT PATH ASSESSMENT
FIRE TRUCK (12.5 m HRV)

Date:

19-Jul-21

Scale @ A3:

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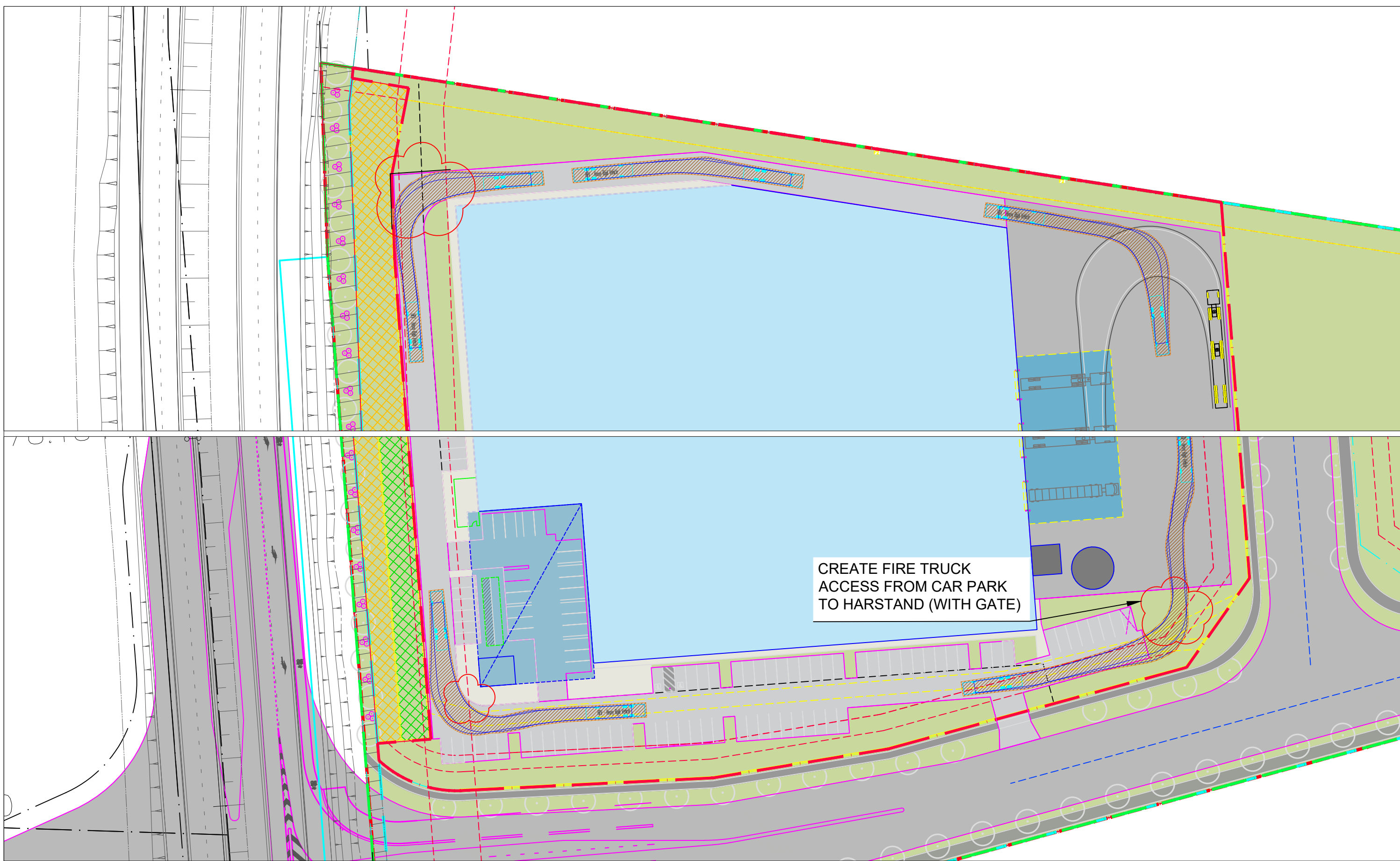
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Client:

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Project:

1509
884-928 MAMRE ROAD, KEMPS CREEK

Drawing Title:

SWEPT PATH ASSESSMENT
FIRE TRUCK (12.5 m HRV)

Date:

19-Jul-21

Scale @ A3:

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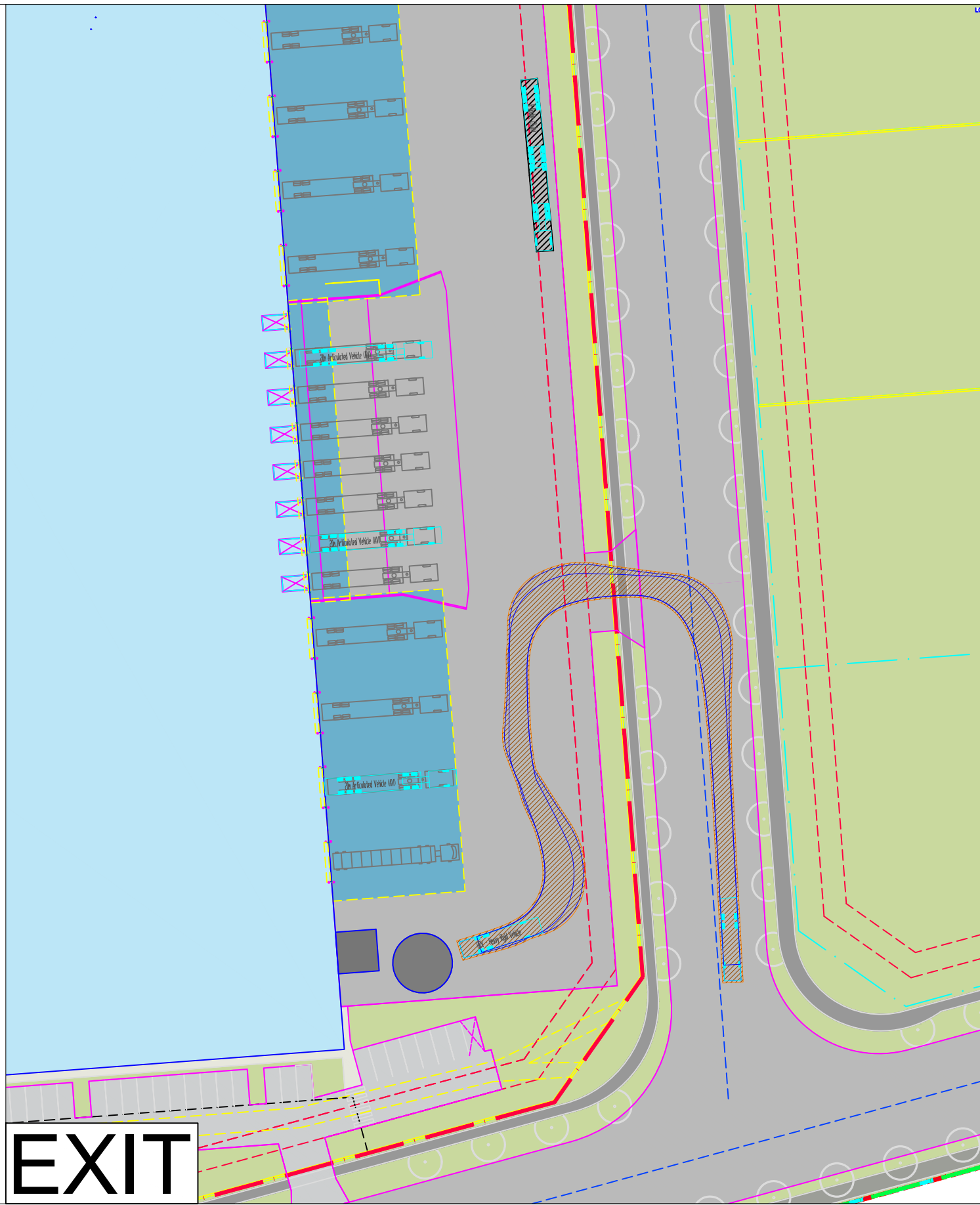
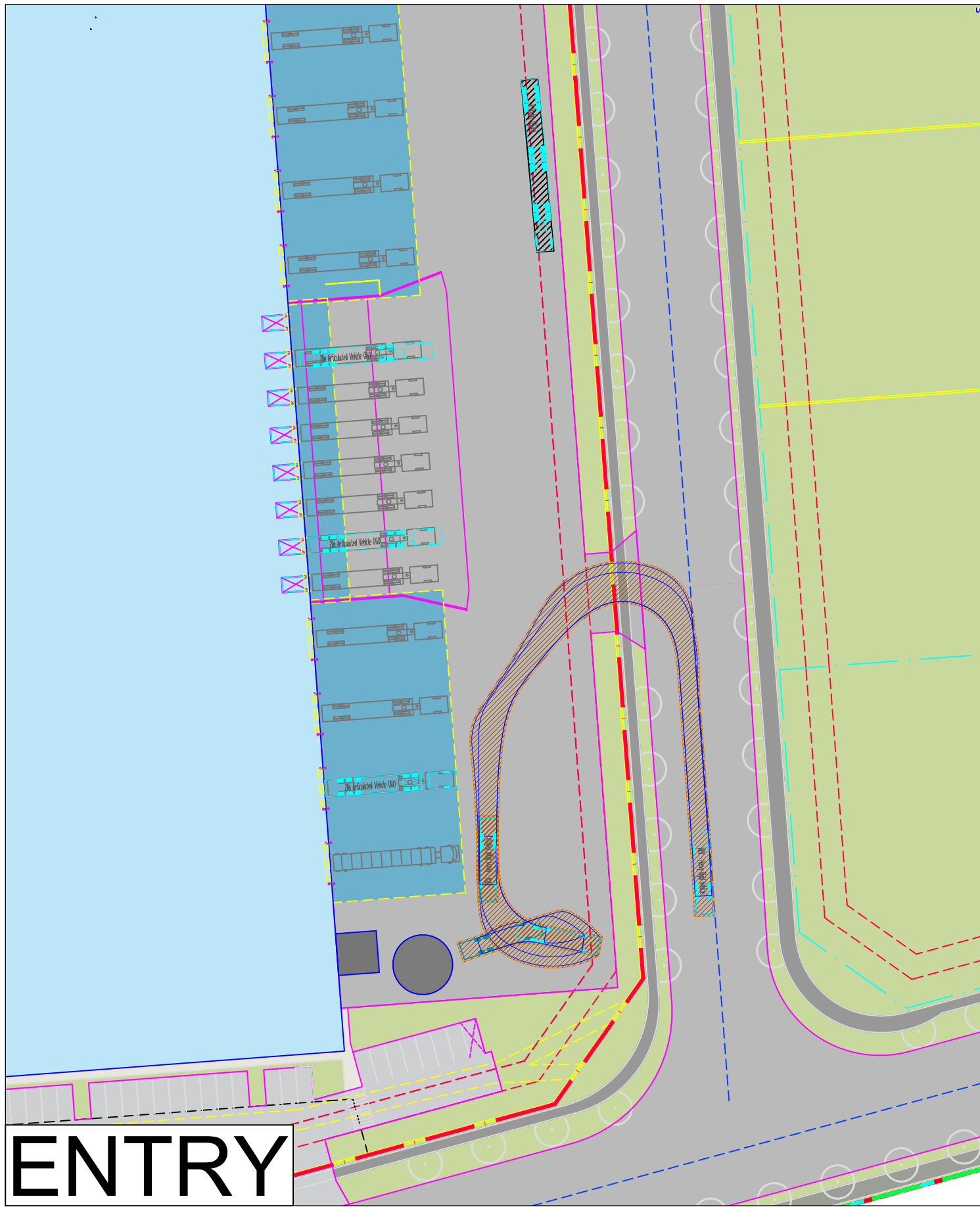
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AG06

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Drawn by: O HASHMI
File name: 1509-02-v02.dwg

Client:
ALTIS PROPERTY

Project:
1509
884-928 MAMRE ROAD, KEMPS CREEK

Drawing Title:
SWEPT PATH ASSESSMENT
FIRE TRUCK PUMP LOADING (12.5 m HRV)

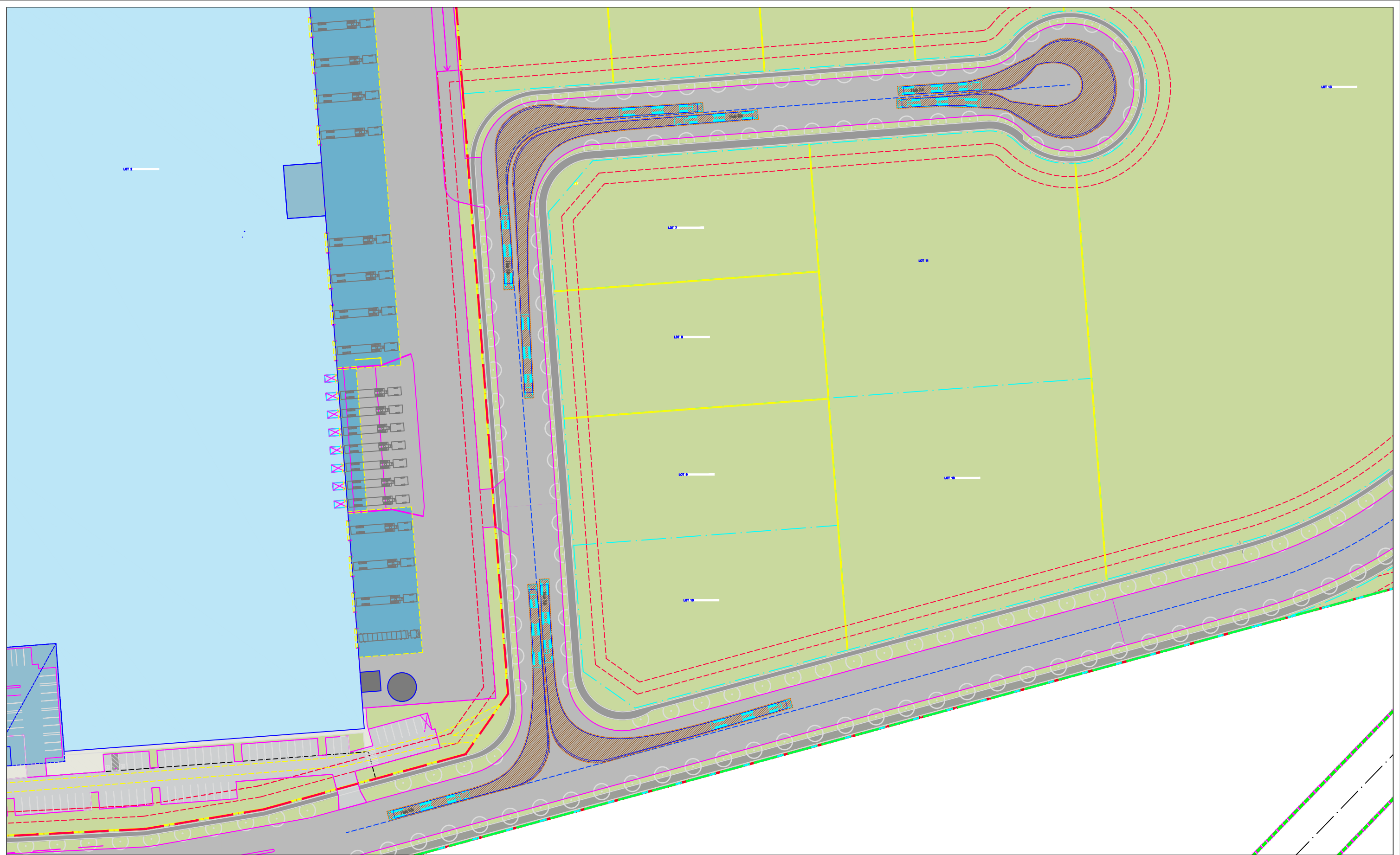
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19-Jul-21

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	Client: ALTIS PROPERTY	Drawing Title: SWEPT PATH ASSESSMENT 26.0 m B-DOUBLES	Scale @ A3: 1:1100 Drawing Number: AG08

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Appendix C. Preliminary Construction Traffic Management Plan



Access Logistics Park – Preliminary CTMP

884-928 Mamre Road, Kemps Creek

19/07/2021

P1509r04



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Document Control

Project No	P1509
Project	884-928 Mamre Road, Kemps Creek – Early Works Development Application
Client	Altis Property Partners
File Reference	P1509r04 CTMP_884-928 Mamre Rd, Kemps Creek

Revision History

Revision No.	Date	Details	Author	Approved by
-	28/06/2021	Draft	J. Laidler	J. Laidler
Issue I	19/07/2021	Final	J. Laidler	J. Laidler

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APPENDICES

Appendix A. Drivers Code of Conduct

Appendix B. Traffic Guidance Scheme

Glossary

Acronym	Description
AGRD	Austroads Guide to Road Design
AGTM	Austroads Guide to Traffic Management
CC	Construction Certificate
Council	Penrith City Council
DA	Development Application
DCP	Development Control Plan
DoS	Degree of Saturation
DPIE	Department of Planning, Industry and Environment
FSR	Floor space ratio
GFA	Gross Floor Area
HRV	Heavy Rigid Vehicle (as defined by AS2890.2:2018)
LEP	Local Environmental Plan
LGA	Local Government Area
LoS	Level of Service
MOD	Section 4.55 Modification (also referred as a S4.55)
MRV	Medium Rigid Vehicle (as defined by AS2890.2:2018)
NHVR	National Heavy Vehicle Regulator
OC	Occupation Certificate
RMS Guide	Transport for NSW (formerly Roads and Traffic Authority), Guide to Traffic Generating Developments, 2002
S4.55	Section 4.55 Modification (also referenced as MOD)
S96	Section 96 Modification (former process terminology for an S4.55)
SRV	Small Rigid Vehicle (as defined by AS2890.2:2018)
TDT 2013/04a	TfNSW Technical Direction, Guide to Traffic Generating Developments – Updated traffic surveys, August 2013
TfNSW	Transport for New South Wales
TGS	Traffic Guidance Scheme (Formally Traffic Control Plan)
TIA	Transport Impact Assessment
TIS	Transport Impact Statement
veh/hr	Vehicle movements per hour (1 vehicle in & out = 2 movements)

1 Introduction

1.1 Overview

Ason Group has been engaged by Altis Property Partners to prepare a Preliminary Construction Traffic Management Plan (CTMP) for an Early Works Development Application at 884-928 Mamre Road, Kemps Creek—Lot 53 in DP259135 (the Site). This CTMP has been prepared to support a development application (DA) for early works to prepare the site for future use in accordance with the zoning of the land.

This preliminary CTMP has been prepared in advance of development approval and, as such, relevant conditions of consent have not yet been provided. Notwithstanding, as is standard practice, it is expected that the final CTMP shall demonstrate the proposed management of the impact in relation to construction traffic addressing the following:

- a) Assessment of cumulative impacts associated with other construction activities (if any).
- b) Assessment of road safety at key intersections and locations to be subject to heavy vehicle construction traffic movements and high pedestrian activity,
- c) Details of construction program detailing the anticipated construction duration and highlighting significant and milestone stages and events during the construction process,
- d) Anticipated peak hour and daily construction vehicle movements to and from the site,
- e) On-site car parking and access arrangements of construction vehicles, construction workers to and from the site, emergency vehicles and service vehicle; and
- f) Details of temporary cycling and pedestrian access during construction.

Having regard for the above, the purpose of this report is to establish the broad traffic principles for construction that would minimise traffic impacts on the surrounding road network, ensure safety and efficiency for workers, pedestrians and road users, and provide information regarding construction vehicle access routes and any changed road conditions (if applicable).

It is expected that this plan will be updated should any necessary changes to the currently proposed arrangements arise in the future. Any special events (if required) would be subject to a separate request for a specific permit not covered by this report.

Please note, Ason Group is responsible for the preparation of this CTMP only and not for its implementation, which is the responsibility of the Contractor.

This report has been prepared by consultants who hold the TfNSW prepare a Work Zone Traffic Management Plan certification. Details of the accredited personnel are provided below:

- James Laidler Certification No. 0052158569

1.2 Authority Requirements

Following approval of future applications relation to the Site, it is expected that this CTMP shall be updated to include a comprehensive list of requirements for later stages of construction.

1.3 Project Representatives & Stakeholders

Through the preparation of this CTMP, the project representatives and stakeholders for this project are as follows:

- Altis Property Group
 - Hugo Hannah (Client Liaison)
 - Stephen O'Connor (Client Liaison)
- Ason Group
 - Tim Lewis (Principal Lead)
 - James Laidler (Senior Traffic Engineer)
 - Matthew Tangonan (Traffic Engineer)
- Project Strategy
 - Anthony Murr (Senior Project Manager)

1.4 Site Location

The Site is located within Kemps Creek, forming part of the Penrith City Council LGA. It is neighboured by several (future) significant industrial developments as part of the Greater Western Sydney Employment Area. The broader precinct will include the following Lot numbers:

- 884-902 Mamre Road, Kemps Creek (Lot 53 DP 259135 – this Lot includes the Site)
- 904-928 Mamre Road, Kemps Creek (Lot 52 DP 259135).

A site context plan is presented in Figure 1 which provides an appreciation of the Site and the existing road network condition. The Site is bounded by Mamre Road to the west and predominantly rural properties to the east, north and west.

In line with the WSEA SEPP, the Site is classified within an IN1 General Industrial zone. Currently, the Site is used for rural purposes, with few structures and low traffic generation.

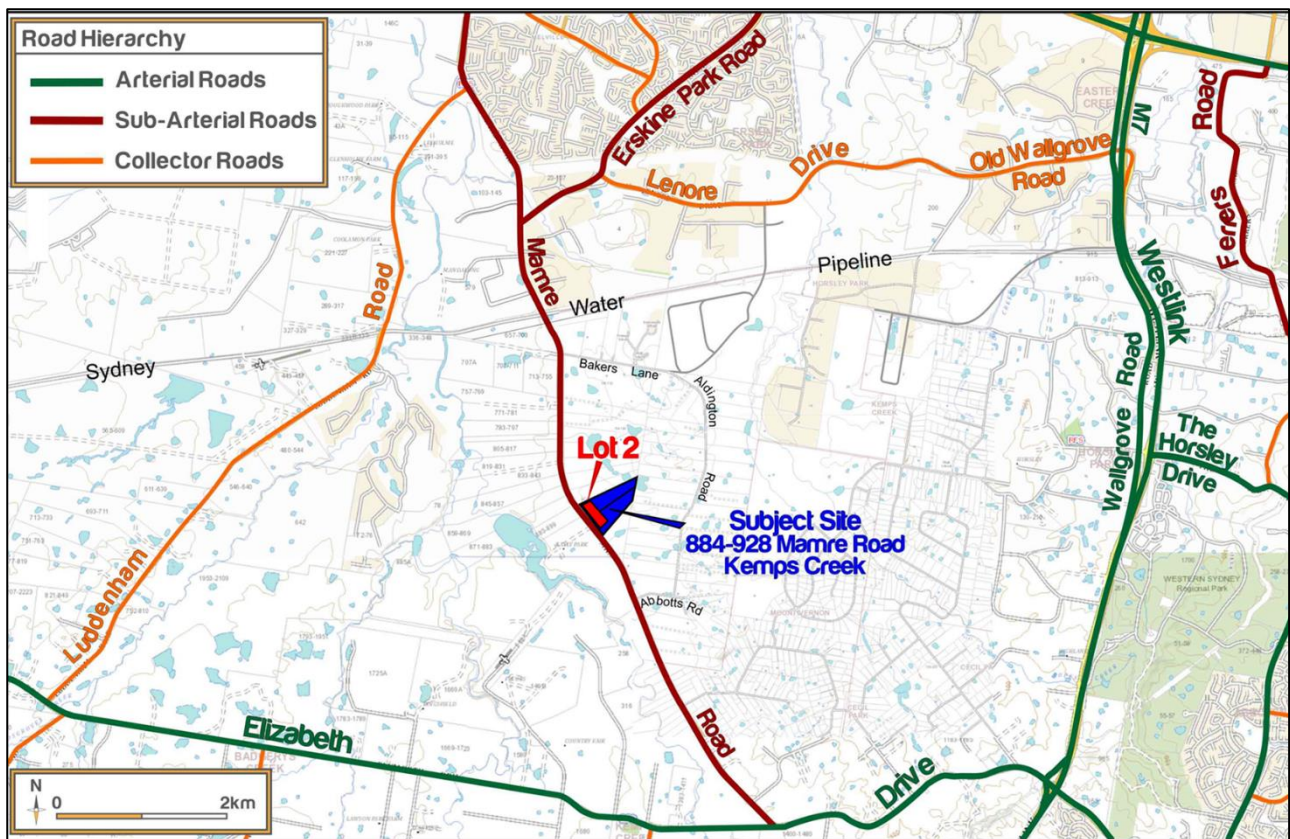


Figure 1: Site Context

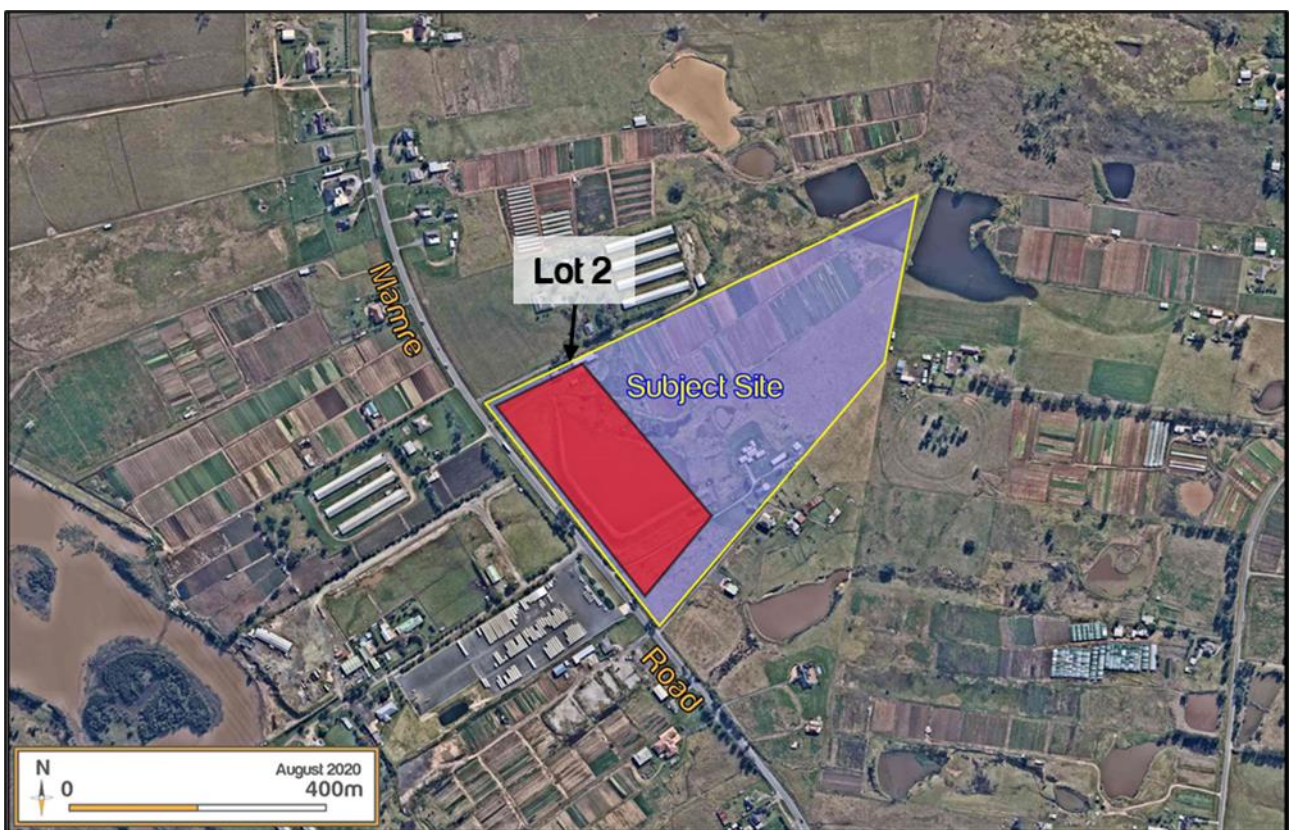


Figure 2: Site Plan

1.5 Road Hierarchy

Key roads in the vicinity of the Site are shown in Figure 2, and include:

- **Westlink M7 Motorway:** M7 Motorway is a high capacity road link of state significance and was built to accommodate future traffic growth in the Western Sydney region. It provides a key north-south link between the M2 Motorway to the north and the M5 Motorway to the south as part of the Sydney orbital road network. A major interchange between the M7 Motorway and M4 Western Motorway is located approximately 3.5 km north-east of the Site, which connects the Sydney CBD and western Sydney suburbs. The M7 Motorway provides 4 lanes (2 lanes per direction, divided carriageway) and has a posted speed limit of 100 km/h.
- **Wallgrove Road:** Wallgrove Road is an arterial road that runs in a north-south direction to the east of the Site and parallel (to the west of) the M7, functioning as a major service road. Wallgrove Road provides a link between the Great Western Highway to the north and Elizabeth Drive to the south. As with the M7, Wallgrove Road connects to the M4 motorway approximately 2.5 kilometres to the north of the Site.
- **Elizabeth Drive:** A TfNSW classified main road (MR 535) that runs in an east-west direction to the south of the site. Elizabeth Drive in the vicinity of the site generally provides 2 lanes (1 lane per direction) and has a posted speed limit of 80km/h. This road provides a vital link between Westlink M7 Motorway and The Northern Road.
- **The Northern Road:** The Northern Road is TfNSW classified main road (MR 154) that runs in a north-south direction to the west of the site. The Northern Road section near the vicinity of the site generally provides 3 lanes (1 to 2 lanes per direction) and has a posted speed limit of 80km/h.
- **Mamre Road:** Mamre Road is an arterial road servicing traffic between the Great Western Highway and M4 to the north and Elizabeth Drive to the south. In the vicinity of the Site, Mamre Road generally provides 2 lanes for two-way traffic, with additional through movement and turning infrastructure at key intersections to the north through the Erskine Park and Mamre West industrial precincts, and at Elizabeth Drive to the south. Mamre Road has a posted speed limit of 80km/h in the vicinity of the Site.

Further to the above, it is clear that the Site is well located in regard to immediate access to the local and sub-regional road network, as shown in Figure 3 with specific reference to TfNSW Restricted Access Vehicle (RAV) routes, which allow for up to 25m/26m B-Double combinations.

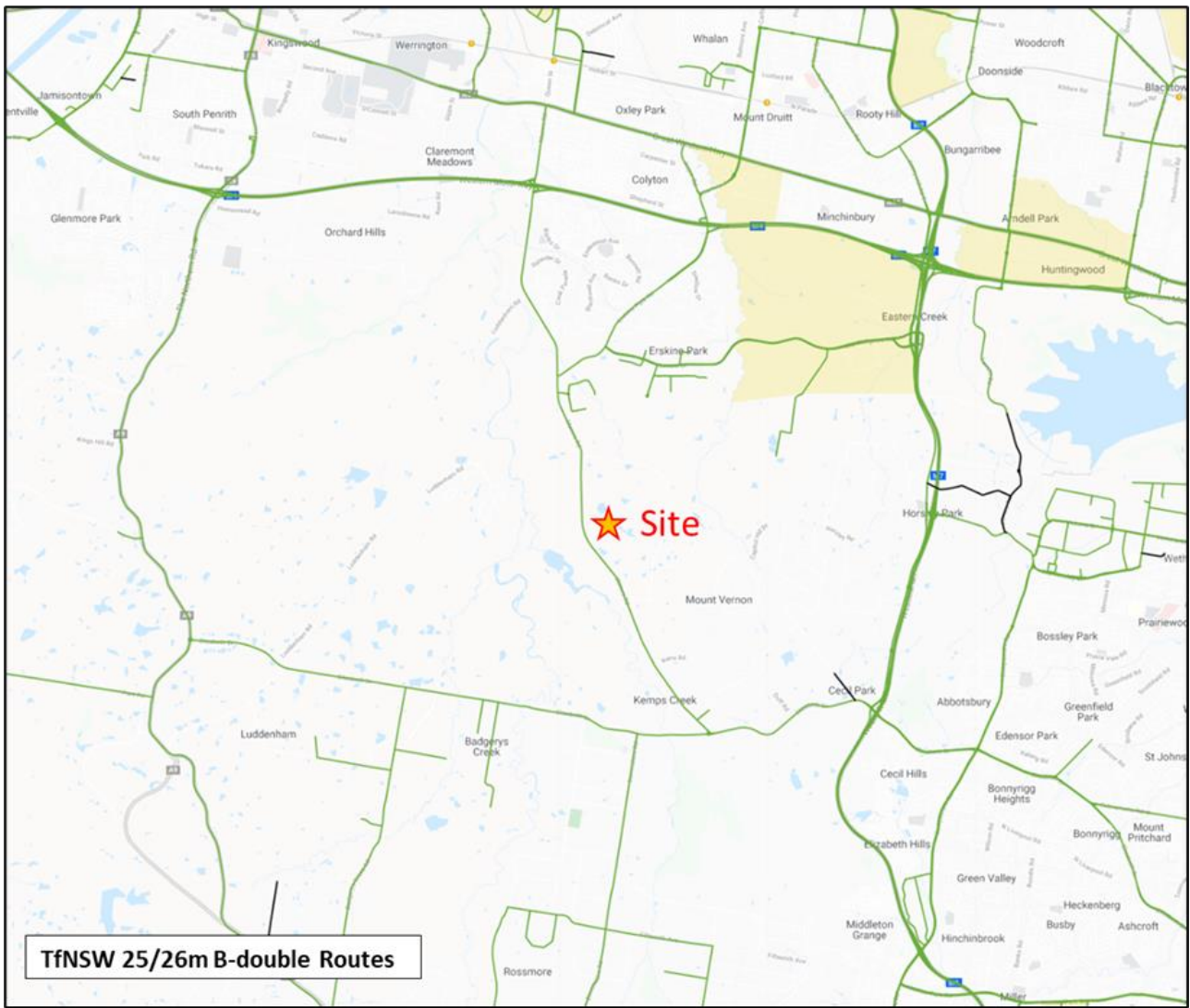


Figure 3: TfNSW Approved 25/26m B-Double Routes

2 Overview of Works

2.1 Staging and Duration of Work

Recognising that this CTMP has been prepared to support a development application for early works to prepare the Site for the future use there is currently no detailed construction staging. Detailed construction staging and the duration of each stage of works will be provided post approval and part of the CC phase.

2.2 Hours of Operation

The type of work being undertaken may vary depending on the phase of construction and associated activities and includes both construction and design personnel. However, all works will be in accordance with standard construction working hours, which are likely to be as follows:

- Monday to Friday (other than Public Holidays): 7:00AM – 6:00PM.
- Saturday: 8:00AM – 1:00PM.
- Sunday and Public Holidays: No works to be undertaken.

Any work to be undertaken outside of the standard construction hours will be required to obtain an Out of Hours (OOH) approval. Any such works would necessarily be undertaken in accordance with the appropriate OOH protocols and approval processes.

2.3 Proposed Site Access

2.3.1 General Access

Access to the estate is proposed to have a left-in / left-out access to Mamre Road and through-fare connectivity to the proposed road network east of Mamre Road. The left-in, left-out intersection intends to accommodate all heavy vehicles (up to and including b-doubles). A preliminary sketch of the intersection is provided in Figure 4 at a reduced scale for reference.

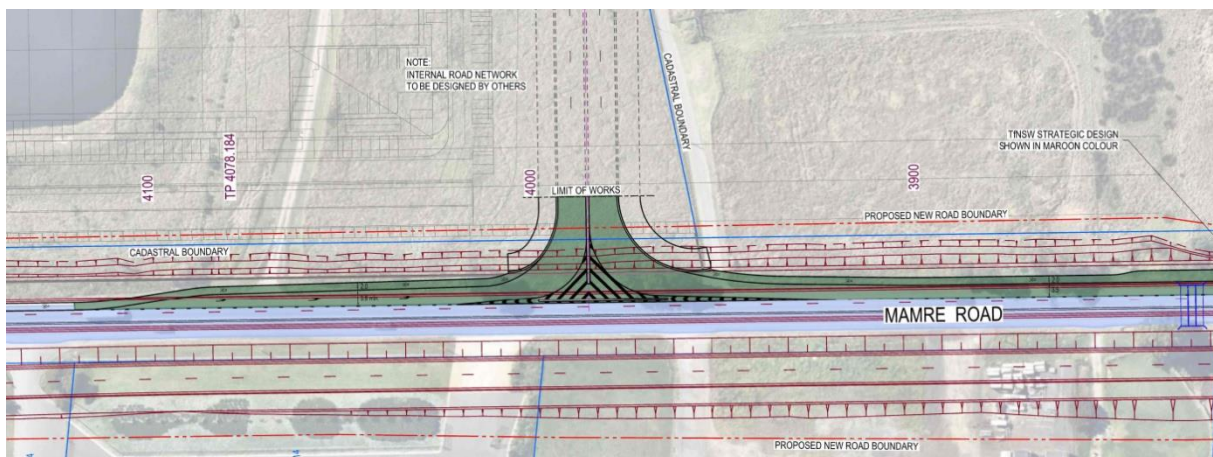


Figure 4: Interim Intersection Design (TO BE UPDATED)

2.3.2 Construction Vehicle Access Routes

During future stages of construction, there is potential for access via the future Mamre Road signals provided as part of the Aspect Industrial Estate¹. However, that development has (at the time of this preliminary CTMP) not been approved or constructed. As such, initial construction access contemplated under this Plan is proposed via a temporary left-in, left-out access to Mamre Road. This will then revert to the formalised left-in, left-out intersection once completed, with supplementary access via the Aspect signals when available in the future.

It is proposed that all construction vehicles shall enter the site via a left-in movement and exit the site via a left-out movement as demonstrated in Figure 5. Consideration should be made for construction and operational heavy vehicles is maintained. The routes shown are to be utilised by all construction vehicles travelling to and from the site and represents the shortest route between the local and regional road network, minimising the impacts of the construction. An on-site turning area shall be provided within the future car park area so that movement to/from the site is undertaken in a forward direction, at all times.



Figure 5: Construction Vehicle Routes

In the event that construction traffic requires access to the site from the south, or construction traffic requires egress to the north, Figure 6 demonstrates turning opportunities to enable these movement should occur should they be required. Notwithstanding, it should be made clear that the arrangement is deemed less preferable to the route arrangement in Figure 5.

¹ <https://www.planningportal.nsw.gov.au/major-projects/project/30521>

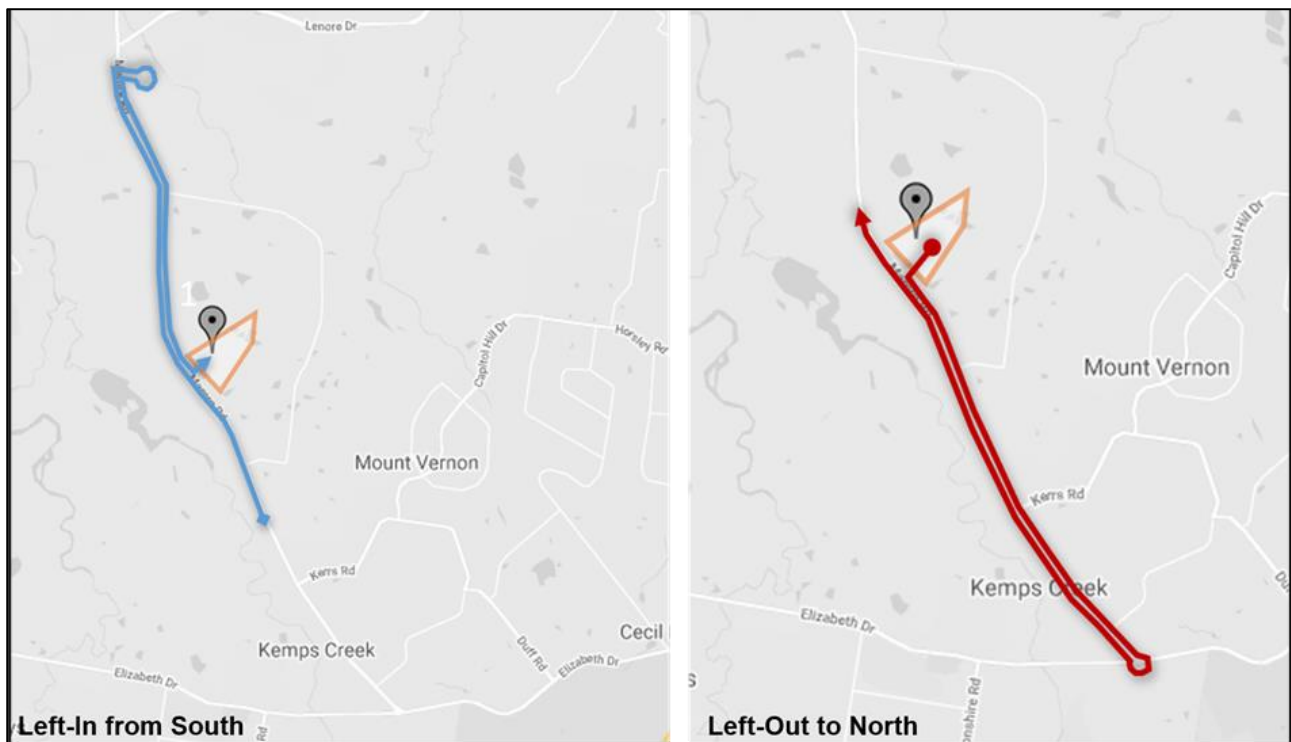


Figure 6: Alternative Construction Vehicle Routes

Any vehicles required to access the Site that do not comply with the mass, dimension or operating requirements as specified by the National Heavy Vehicle Regulator (NHVR) will need to apply for a class 1 Oversize Over-mass (OSOM) permit. Permits may be issued with conditional restrictions that limit the time and days that these vehicles are allowed to access the Site. Additionally, specific TCPs may be required to facilitate safe manoeuvring of these vehicles.

2.3.3 Emergency Vehicle Access

Emergency vehicle access to and from the Site will be available at all times while the Site is occupied by construction workers. This process would be implemented through emergency protocols on the site which will be developed by the Contractor.

2.4 Fencing Requirements

Temporary exclusion fencing (chain mesh fencing) will be erected along the entire boundary of the Site and will be maintained for the duration of the construction program.

The fencing is to ensure unauthorised persons are kept out of the Site. Site access gates would be provided within Mamre Road and will be closed at all times outside of the permitted construction hours.

Any control points—operational during work hours—shall be sufficiently setback so that no queuing will occur on-street.

2.5 Materials Handling

Handling of all materials throughout the construction shall adhere to the following;

- It is proposed that all material loading will occur within the construction site boundary.
- No loading is proposed to occur outside of the provisioned areas.
- Equipment, materials and waste will be kept within the construction site boundary.

During latter stages of construction, tie in works will be required within the kerbside of Mamre Road. All materials handling shall be undertaken off public roadways, however in the event materials handling is required from a public roadway, then prior approval shall be sought and obtained from the relevant Authorities. If required Works Zones may be required.

3 Assessment of Traffic Impacts

3.1 Background

The traffic report (Ason Group Ref: P1509r03) supporting the SSDA submission, outlined the following relevant figures with regard to future operational traffic volumes associated with the Site.

- AM Peak 195 movements per hour (movements, in & out combined)
- PM Peak 203 movements per hour (movements, in & out combined)
- Daily 973 movements per day (movements, in & out combined)

For the purpose of this report, 1 truck delivery is equal to 1 inbound movement plus 1 outbound movement which equals to a total of 2 movements.

Construction traffic generation is not expected to exceed the operational traffic generation of the proposed project, however further discussion is outlined below.

3.2 Construction Vehicle Traffic Generation

Noting that construction staging has not been addressed within this Preliminary CTMP, construction vehicle traffic generation can also not be assessed in detail at this time. Notwithstanding the anticipated vehicle movements generated by the early construction stages of the Site has been estimated following a review of similar sites within the Mamre Road Precinct.

3.2.1 Light Vehicle Traffic Generation:

Light vehicle traffic generation would generally be associated with staff movements to and from the Site. Staff would be comprised of project managers, various trades, and general construction employees. Light vehicle construction trips are expected to arrive in the morning and depart in the evening, and the number of trips is estimated based on the workforce numbers which is a maximum of 50 people. Therefore, the forecast light vehicle trip generation during peak hours is 50 trips per hour. Noting the work hours, this peak is likely to occur outside of traditional road network peak periods.

3.2.2 Heavy Vehicle Traffic Generation:

The anticipated heavy vehicle movements generated by the construction of the Site has been estimated having consideration of the likely requirements for construction plant, equipment, and haulage. The estimated heavy vehicle movements (in & out combined) for the construction works which is as follows:

- Site Establishment (earlier stages of the construction work)
 - Between 6am – 7am: 10 heavy vehicle movements per hour
 - From 7am – 7pm: 6 heavy vehicle movements per hour
 - Daily: 82 heavy vehicle movements per day

3.2.3 Combined Heavy and Light Vehicle Movements

Accordingly, the maximum construction peak hour traffic generation (combined light and heavy vehicles) are as follows:

- 60 veh/hr during Site Establishment (50 light plus 10 heavy vehicle movements),

Volumes outlined above have been given consideration to the likely requirements for construction staff, plant, equipment and haulage. These traffic volumes occur outside road network peak periods and will likely be updated once a contractor has been appointed.

It is expected that construction traffic will be substantially less than the future operational traffic and will therefore not have any unacceptable impacts on the surrounding road network more broadly. In the event that construction volume are in excess of the figures outlined in Section 3.1, then a separate impact assessment shall be undertaken.

3.3 Road Safety

It is noted that there will be an increased number of heavy vehicles along Mamre Road during the construction period. However, the heavy vehicles will be travelling along approved RAV routes which would mitigate road safety impacts along local roads and heavily pedestrianised areas. Traffic control plans at the site access will be designed to minimise vehicle, pedestrian and cyclists impacts along Mamre Road, as far as practicable.

3.4 Vehicle Management Principles

All vehicles transporting loose materials will have the entire load covered and/or secured to prevent any large items, excess dust or dirt particles depositing onto the roadway during travel to and from the site. Drivers are to be familiar with the Driver Code of Conduct before attending the Site. A copy of the Code is included in Appendix A.

All subcontractors must be inducted by the Contractor to ensure that the procedures are met for all vehicles entering and exiting the construction site. The Head Contractor will monitor the roads leading to and from the site and take all necessary steps to rectify any road deposits caused by site vehicles.

Vehicle movements to, from and within the Site shall do so in a manner, which does not create unreasonable or unnecessary noise or vibration.

No tracked vehicles will be permitted or required on any paved roads. Public roads and access points shall not be obstructed by any materials, vehicles, refuse skips or the like, under any circumstances.

3.5 Construction Staff Parking

The location of Contractor parking is expected to change as construction continues and encompasses various portions of the Site.

Contractors are also encouraged to carpool (or utilise public transport service within the area, should improved services be available at the time of construction), thereby further reducing the minimal parking demand. The Site's accessibility to public and active transport is discussed in Sections 3.5 and 3.6.

3.6 Pedestrian and Cyclist Access

Figure 7 shows that there are currently no pedestrian amenities or footpaths along Mamre Road adjacent to the Site. However, the grassed verge on both sides of the road remains usable for any pedestrian that may wish to walk along Mamre Road. However, experience in the area suggest that general demands for pedestrians along the frontage are negligible.

Further, while there is no expectation of pedestrians crossing the future construction access road (at Mamre Road), pedestrian safety will be managed through the provision of appropriate signage and pedestrian barriers. Construction personnel will also be able to access the Site by foot via a secure access gate along the temporary access road, though with all construction staff (and vehicle) parking to be provided within the Site there is again little potential for such pedestrian demand.

3.7 Public Transport

Figure 7 shows that there is minimal existing public transport on surrounding roads.

The construction activities are moderate in scale and will have no impact on the existing public transport services with all bus services to continue as is.

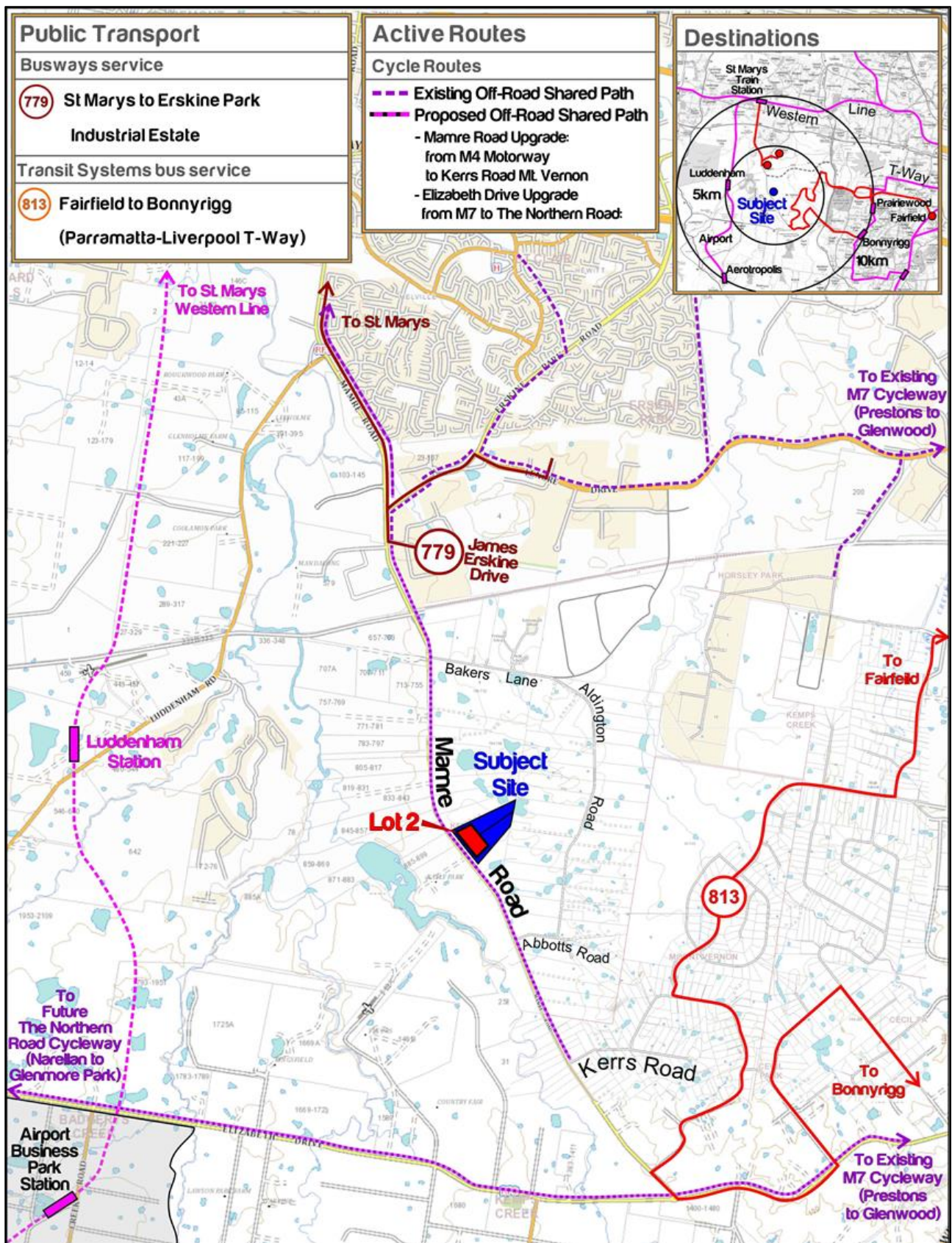


Figure 7: Active and Public Transport

4 Traffic Control

4.1 Traffic Guidance Schemes

Any Traffic Guidance Scheme (TGS's), associated risk assessment, consultation schedules, TGS verification checklist, and inspection checklists shall be prepared by an accredited person, in accordance with the TfNSW Traffic Control at Worksites Manual (Issue 6.0) and AS1742.3:2019.

All TGSs involving signage or impacts to public roads shall be approved by the Traffic Management Centre (TMC), prior to the works for which they relate. These TGSs shall be updated to respond to any changes to prevailing traffic conditions throughout the life of the works.

With regard to the proposed temporary access road, a site-specific TGS (as shown in Appendix B) would be implemented for the duration of the works. A copy of all approved TGSs shall be kept on-site for reference at all times.

4.2 Authorised Traffic Controller

An authorised Traffic Controller is to be present on-site throughout the construction stage of the project. Responsibilities include:

- Supervision of all construction vehicle movements into and out of site at all times,
- Supervision of all loading and unloading of construction materials during the deliveries in the construction phase of the project, and
- Pedestrian management, to ensure that adverse conflicts between vehicle movements and pedestrians do not occur, while maintaining radio communication with construction vehicles at all times.

4.3 Road Occupancy

The works are not expected to require extensive occupation or obstruction of traffic on Mamre Road. However, there may be a need for some works within the public road for tie in works.

At all times, two-way traffic shall be maintained along Mamre Road. Any works within or affecting (e.g., signage within) Mamre Road shall only be undertaken in accordance with relevant TGS developed by an accredited person that has relevant Prepare Work Zone Traffic Management Plan accreditation.

All TGS shall be approved by TfNSW prior to commencement of any works. The Contractor shall adhere to any restrictions imposed by TfNSW (or Council) in the granting of those Road Occupancy Licenses (ROLs).

5 Monitoring & Communication Strategies

5.1 Development of Monitoring Program

The development of a program to monitor the effectiveness of this CTMP shall be established by the lead contractor. It is not anticipated that the monitoring of the processes will have any material cost implications.

This CTMP shall be subject to ongoing review and will be updated accordingly. Regular reviews will be undertaken by the on-site coordinator. As a minimum, review of the CTMP shall occur monthly, however a weekly review would be preferred.

- All and any reviews undertaken should be documented, however key considerations regarding the review of the CTMP shall be:
- Tracking deliveries against the estimated volumes.
- To identify any shortfalls and develop an updated action plan to address issues that may arise during construction (Parking and access issues)
- To ensure TGS are updated (if necessary) by "Prepare a Work Zone Traffic Management Plan" card holders to ensure they remain consistent with the set-up on-site.
- Regular checks undertaken to ensure all loads are leaving site covered as outlined within this CTMP.

5.2 Communications Strategy

A communications strategy shall be prepared by the Head Contractor and will outline the most effective communication methods to ensure adequate information within the community and assist the project team to deliver the traffic changes with minimal disruption to the road network.

Surrounding resident and landowners shall be notified of any work that is deemed disruptive to the surrounding network prior to commencement. Ongoing communication is also proposed so that all key stakeholders are kept up to date of works and potential impacts.

Nearby property owners that may be affected directly by the construction works shall be included within the communications strategy.

The contractor is to notify the community liaison representative when traffic is expected to exceed the parameters set within "Condition Green" of Table 2. Notwithstanding, Table 1 outlines an indicative communication strategy to ensure that adequate communication with key stakeholders have been met.

TABLE 1: COMMUNICATION STRATEGY

Risk	Impact	Comms Channel
Wider Traffic Specific Disruption	Ensure construction crews use traffic routes identified in the Traffic Management Plan, Ensure residents in area are notified in advance to any traffic changes that may affect them	Stakeholder meetings Stakeholder emails

6 Plan Administration

6.1 Monitoring Program

This CTMP shall be subject to ongoing review and will be updated accordingly. Regular reviews will be undertaken by the on-site coordinator. As a minimum, review of the CTMP shall occur monthly. All and any reviews undertaken should be documented, with key considerations of the review of this CTMP shall be:

- Tracking deliveries against the volumes outlined within report. Deliveries will be tracked against approved volumes and will keep a vehicle log - including rego & time of entry - for the purpose of assessing the effectiveness of these monitoring programs.
- To identify any shortfalls and develop an updated action plan to address issues that may arise during construction (Parking and access issues)
- To ensure TGSs are updated (if necessary) by "Prepare a Work Zone Traffic Management Plan" card holders to ensure they remain consistent with the set-up on-site.
- Regular checks undertaken to ensure all loads are entering and leaving site covered.
- A Dilapidation Report shall be undertaken every periodically to assess the condition of the road and note whether there has been any reduction in quality of the road as result of construction vehicles.

The development of a program to monitor the effectiveness of this CTMP shall be established by the Contractor. This process is expected to form part of the monitoring plan required to be included as part of the overarching Construction Environmental Management Plan (CEMP), of which this CTMP forms a part.

6.2 Contingency Plan

A contingency plan shall be established by the Contractor and is to be included in the overarching CEMP. Notwithstanding, Table 2 outlines an indicative plan to be undertaken by the builder in the event that the monitoring program identifies the management plan is not effective in managing the construction impacts.

TABLE 2: CONTINGENCY PLAN

Risk		Condition Green	Condition Amber	Condition Red
Construction Movements	Trigger	Construction traffic volume is in accordance with permissible and programmed volume and time constraints	Construction traffic volumes exceeds programmed volume but is within permissible volume constraints	Construction traffic volumes exceeds permissible volume and time constraints
	Response	No response required	Review and investigate construction activities, and where appropriate, implement additional remediation measures such as: • Review CTMP and update where necessary • Provide additional training.	As with Condition Amber, plus; • If it is concluded that construction activities were directly responsible for the exceedance, submit an incident report to government agencies. • Stop all transportation into

				and out of the site until rectified.
Queuing	Trigger	No queuing identified	Queuing identified within site	Queuing identified on the public road
	Response	No response required Continue monitoring program	Review the delivery schedule prepared by the builder. If drivers are not following the correct schedule, then they should be provided with additional training and an extra copy of the Driver Code of Conduct	As with Condition Amber, plus - Review and investigate construction activities. - If it is concluded that construction activities were directly responsible for the exceedance, submit an incident report to government agencies. - Temporary halting of activities and resuming when conditions have improved. - Stop all transportation into and out of the site. - Review CTMP and update where necessary, provide additional training.
Noise	Trigger	Noise levels do not exceed imposed noise constraints	Noise levels in minor excess of imposed noise constraints	Noise levels greatly in excess of imposed noise constraints
	Response	No response required	Undertake all feasible and reasonable mitigation and management measures to minimise noise impacts.	As with Condition Amber If noise levels cannot be kept below applicable limits, then a different construction methods or equipment must be utilised.
Traffic Control Plans	Trigger	No observable issues	Minor inconsistencies with TCP to onsite operations	Near miss or incident occurring regardless of / as a result of the TCP being implemented
	Response	No response required	Traffic Controller to amend TCP on site and to keep a log of all changes	Stop work until an investigation has been undertaken into the incident. There are to be changes made to the TCP to ensure that the safety of all workers, students and civilians are catered for.
Dust	Trigger	No observable dust	Minor quantities of dust in the air and tracking on to the road	Large quantities of dust in the air and tracking on to the road

	Response	No response required	Review and investigate construction activities and respective control measures, where appropriate. Implement additional remedial measures, such as: • Deployment of additional water sprays • Relocation or modification of dust-generating sources • Check condition of vibrating grids to ensure they are functioning correctly. • Temporary halting of activities and resuming when conditions have improved	As with Condition Amber. • If it is concluded that construction activities were directly responsible for the exceedance, submit an incident report to government agencies. • Implement relevant responses and undertake immediate review to avoid such occurrence in future.
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It is therefore proposed to incorporate the above items within the communications strategy. The contingency plan outlines the most effective methods to ensure that each item identified within the Monitoring Program is adhered to, resulting in the impacts to the wider community being minimised. It also represents the efforts.

Appendix A. Drivers Code of Conduct

Driver Code of Conduct

Drivers Code of Conduct

Safe Driving Policy for construction of 884-928 Mamre Road, Kemps Creek.

Objectives of the Drivers Code of conduct

- To minimise the impact of earthworks and construction on the local and regional road network;
- Minimise conflict with other road users;
- Minimise road traffic noise; and
- Ensure truck drivers use specified routes.

Code of Conduct

All vehicle operators accessing the site must:

- Take reasonable care for his or her own personal health and safety.
- Not adversely, by way of actions or otherwise, impact on the health and safety of other persons.
- Notify their employer if they are not fit for duty prior to commencing their shift.
- Obey all applicable road rules and laws at all times.
- In the event an emergency vehicle behind your vehicle, pull over and allow the emergency vehicle to pass immediately.
- Obey the applicable driving hours in accordance with legislation and take all reasonable steps to manage their fatigue and not drive with high levels of drowsiness.
- Obey all on-site signposted speed limits and comply with directions of traffic control supervisors in relation to movements in and around temporary or fixed work areas.
- Ensure all loads are safely restrained, as necessary.
- Drive over cattle grids – located at the Site's access – to vibrate off any loose material attached to construction vehicles.
- Operate their vehicles in a safe and professional manner, with consideration for all other road users.
- Hold a current Australian State or Territory issued driver's licence.
- Notify their employer or operator immediately should the status or conditions of their driver's license change in any way.
- Comply with other applicable workplace policies, including a zero tolerance of driving while under the influence of alcohol and/or illicit drugs.
- Not use mobile phones when driving a vehicle or operating equipment. If the use of a mobile device is required, the driver shall pull over in a safe and legal location prior to the use of any mobile device.
- Advise management of any situations in which you know, or think may, present a threat to workplace health and safety.
- Drive according to prevailing conditions (such as during inclement weather) and reduce speed, if necessary.
- Have necessary identification documentation at hand and ready to present to security staff on entry and departure from the site, as necessary, to avoid unnecessary delays to other vehicles.

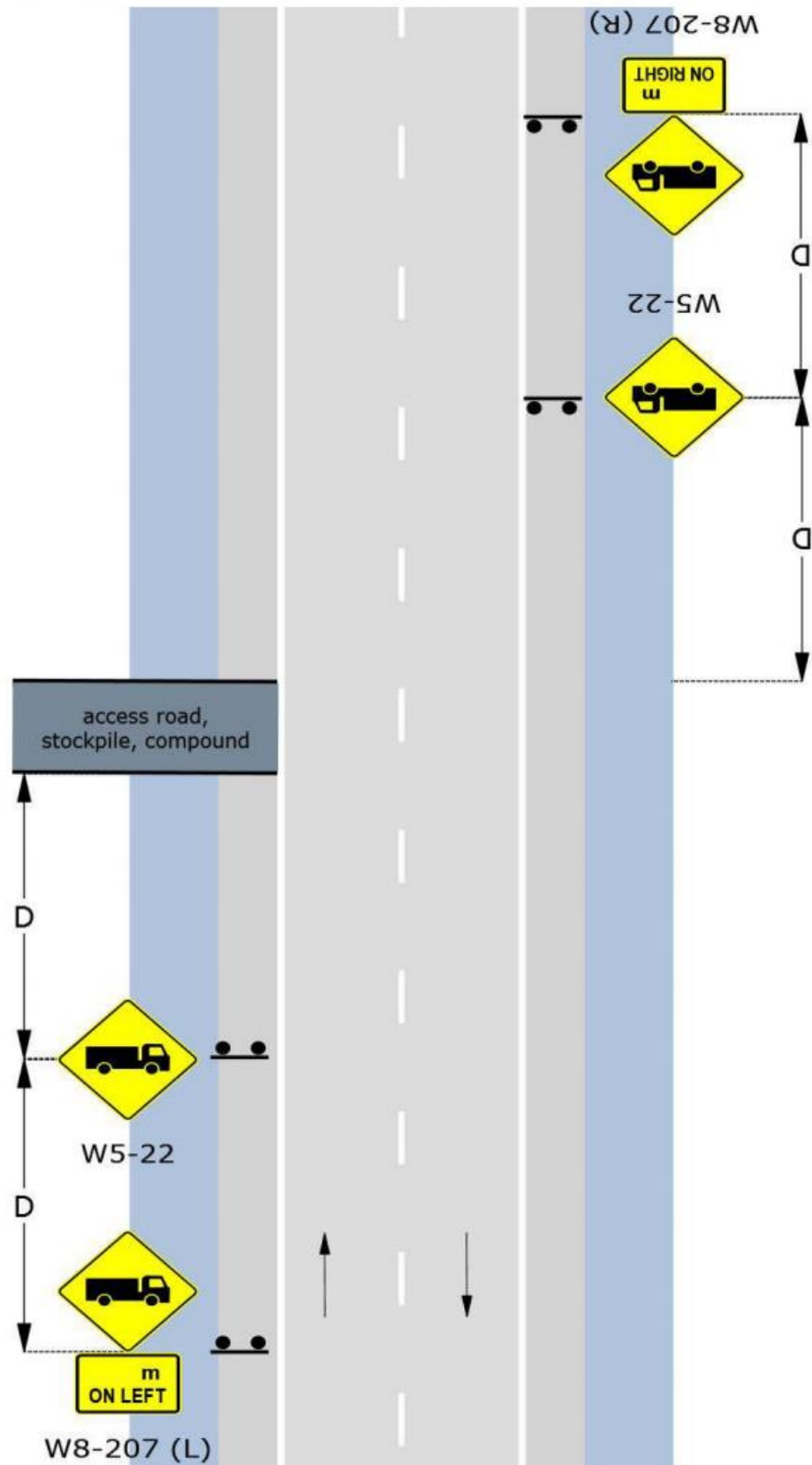
Crash or Incident Procedure

- Stop your vehicle as close to it as possible to the scene, making sure you are not hindering traffic. Ensure your own safety first, then help any injured people and seek assistance immediately if required.
- Ensure the following information is noted:
 - Details of the other vehicles and registration numbers
 - Names and addresses of the other vehicle drivers.
 - Names and addresses of witnesses.
 - Insurers details
- Give the following information to the involved parties:
 - Name, address and company details
- If the damaged vehicle is not occupied, provide a note with your contact details for the owner to contact the company.
- Ensure that the police are contacted should the following circumstances occur:
 - If there is a disagreement over the cause of the crash.
 - If there are injuries.
 - If you damage property other than your own.
- As soon as reasonably practical, report all details gathered to your manager.

Appendix B. Traffic Guidance Scheme

D.4.7

Static: Access to depot, stockpile, quarry, gravel pit etc. all roads (formerly TCP 195)



Appendix D. Green Travel Plan



Framework Sustainable Travel Plan

884-928 Mamre Road, Kemps Creek

13/08/2021

P1509r05



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Document Control

Project No	1509
Project	884-928 Mamre Road, Kemps Creek – Framework Sustainable Travel Plan
Client	Altis Property Partners
File Reference	P1509r05v2 FSTP_884-928 Mamre Rd, Kemps Creek

Revision History

Revision No.	Date	Details	Author	Approved by
-	28/06/2021	Draft	T. Lewis	J Laidler
Issue I	19/07/2021	Issue I	J. Laidler	J. Laidler
Issue II	13/08/2021	Issue II	M. Tangonan	

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APPENDICES

Appendix A. Travel Access Guide

Appendix B. Sample Questionnaire

1 Introduction

1.1 Context

This Framework Sustainable Travel Plan (FSTP) has been developed to support the application in relation to State Significant Development (SSD-17647189¹) for the Access Logistics Park. The SSD relates to a proposed industrial development at the 884-928 Mamre Road, Kemps Creek (the Site), which is located to the east of Mamre Road, within the Penrith Local Government Area (LGA).

The Site sits within (what has been termed) the Mamre Road Precinct (MRP), which has recently been rezoned by the Department of Planning, Industry and Environment (DPIE) for industrial land uses. The MRP provides about 850 hectares of industrial land which could accommodate up to 17,000 ongoing jobs when fully developed. The MRP Structure Plan was finalised in June 2020, followed by the release of the MRP Draft Development Control Plan (DCP), the exhibition period for which has recently been completed.

The land which forms the MRP is largely made up of rural residential properties, as well as small scale agricultural industry businesses, at present. Consequently, the Site itself is therefore not well connected by travel modes other than the private vehicle. However, the Draft DCP outlines a number of objectives to ensure that, as the MRP develops, an integrated public and active transport network also develops to service future development such as the subject site.

While not specifically required by the Draft DCP, the purpose of this FSTP is therefore to complement the intent of the future DCP, by outlining the overarching requirements for a future Sustainable / Green Travel Plan package for the Estate. This FSTP will inform the future site-specific Plans, expected to be implemented as part of a Condition of Consent relating to any detailed development approval.

1.2 Background

MRP forms one of the initial precincts of the broader Western Sydney Aerotropolis. However, as the land has already been rezoned and incorporated into the controls of the WSEA SEPP, it is not covered by the State Environmental Planning Policy (Western Sydney Aerotropolis) 2020 or the background policy which establishes the strategic direction for the Aerotropolis.

Nevertheless, the background studies provide some context with regards to travel demand management, specifically the following report:

- AECOM *Western Sydney Aerotropolis Transport Planning and Modelling Stage 2 Report*, October 2020 (AECOM Report).

The AECOM Report is one of the technical reports supporting the delivery of the Draft Aerotropolis Precinct Plan (November 2020), which is currently on exhibition. One of the key “enablers” detailed in the AECOM Report includes *the implementation of transport policies and strategies which foster a mode shift to sustainable transport*: and recommends the inclusion of Travel Plans for new development applications within the future Aerotropolis Development Control Plan.

¹ <https://www.planningportal.nsw.gov.au/major-projects/project/41731>

As detailed in the AECOM report Travel Plans should include the following:

- Baseline travel data on the existing modal share.
- Targets.
- Action plan to achieve targets.
- Commitment to on-going review of the Travel Plan.
- Monitoring and review strategy.

Of particular relevance to this FSTP, are the mode share targets set by the AECOM Report for each of the Aerotropolis precincts, the most comparable precinct to the MRP being the Badgerys Creek and Agribusiness Precincts. Of the 5 Aerotropolis Precincts covered, Badgerys Creek and Agribusiness have the lowest sustainable mode share targets (by 2056) of 20% and 18% respectively (the Badgerys Creek Precinct is shown by **Figure 1**).

This reflects the planned land uses, which are anticipated to support warehousing and logistic uses, as noted by the AECOM Report. Notably, the Agribusiness precinct will not be served by rail, but a number of bus services are planned. These targets are long-term target, with an internet to be ambitious but achievable based on the policy framework, actions, initiatives, infrastructure and services defined through the precinct planning process. On this basis, the targets of the Badgerys Creek Precinct have informed the targets for this FSTP.

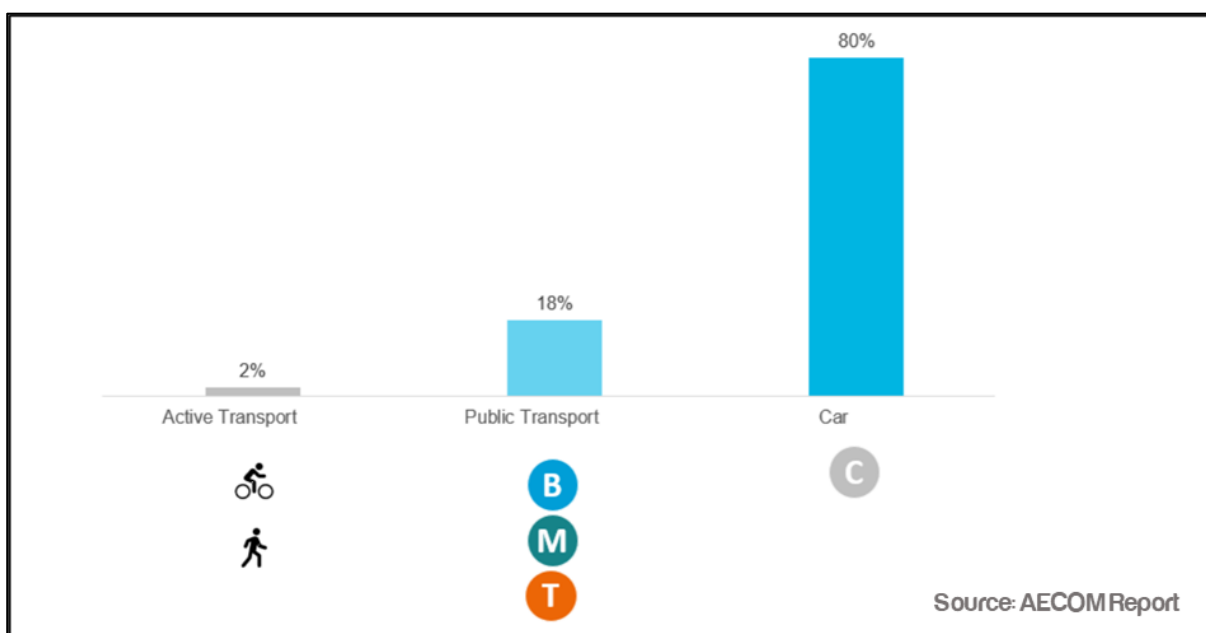


Figure 1: 2056 Badgerys Creek Mode Share Targets

1.3 Goals

This FSTP has specifically been prepared to achieve the following key goals:

1. Identify objectives and modes share targets (i.e., site and land use specific, measurable and achievable and timeframes for implementation) to define the direction and purpose of the future site-specific Plans;
2. Suggest specific tools and actions to help achieve the objectives and mode share targets;
3. (Suggest measures to promote and support the implementation of the plan, including financial and human resource requirements, roles and responsibilities for relevant employees involved in the implementation of the future site-specific Plans;
4. Suggest a methodology and monitoring/review program to measure the effectiveness of the objectives and mode share targets of the future STP, including the frequency of monitoring and the requirement for travel surveys to identify travel behaviours at appropriate times.

1.4 Objectives

Underpinning this FSTP comprises a package of measures which could be adopted and designed to address the specific travel needs of the Site. In this regard, the overall intention is to encourage and facilitate the use of alternative and sustainable modes of transport and to reduce single-occupancy car travel for journeys to and from the Site.

The primary objectives of the FSTP will be to:

- Reduce the environmental footprint of the Estate.
- Set future staff travel mode share targets.
- Improve access, amenity, convenience, and safety of sustainable transport modes to/from the Site.
- Promote the use of 'active transport' modes such as walking and cycling, particularly for short-medium distance journeys.
- Reduce reliance on the use of private vehicles for all journeys.
- Encourage a healthier, happier and more active & public transport use culture.

2 Site Audit

2.1 Introduction

An audit of the Site is required to determine the existing facilities in the area and review existing transport choices. This section will need to be updated prior to implementation of any site-specific Plan, and at appropriate times as the MRP developed, during period of review. The audit should consider the following:

- Site conditions, once the Estate is complete;
- Public transport services in the area, including proximity to the Site, frequency of services and accessibility;
- Bicycle and pedestrian facilities, including accessibility, connectivity and safety; and
- Mode-split data for the Site and local area.

2.2 Development Site

2.2.1 Location & Description

The Site is located within Kemps Creek, forming part of the Penrith City Council LGA. It is neighboured by several significant industrial developments as part of the Greater Western Sydney Employment Area. The broader precinct will include the following Lot numbers:

- 884-902 Mamre Road, Kemps Creek (Lot 53 DP 259135 – this Lot includes the Site)
- 904-928 Mamre Road, Kemps Creek (Lot 52 DP 259135).

A Site context plan is presented in **Figure 2** which provides an appreciation of the Site and the existing road network condition. The Site is bounded by Mamre Road to the west and predominantly rural properties to the east, north and west.

In line with the WSEA SEPP, the Site is classified within an IN1 General Industrial zone. Currently, the Site is used for rural purposes, with few structures and low traffic generation.

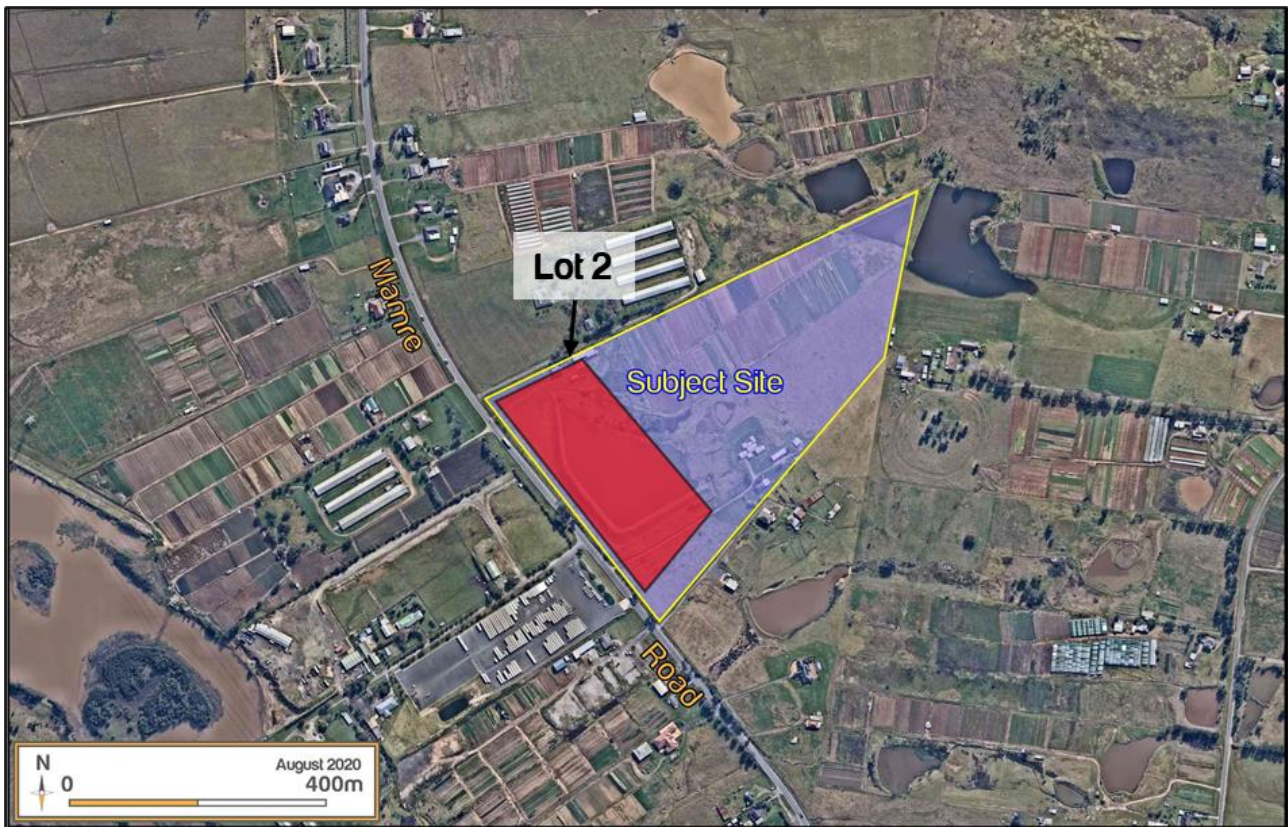


Figure 2: Site Context Plan

2.2.2 Proposed Development

This SSDA Master Plan relates to development of a proposed industrial estate located in the Mamre Road Precinct. The below table summarises the key aspects of the master plan.

TABLE 1: MASTER PLAN YIELD	
Element	Yield
Site Area	202,470 m ²
Total Developable Area	161,721 m ²
Indicative Total Building Area (GFA)	84,605 m ²
Lots	14 lots ¹

Notes) 1. Nominally 14 discrete Lots; however, Lot 1 refers to the western portion of the masterplan reserved water and biological retention basins and ancillary supporting infrastructure. As such, there are 13 lots earmarked for future development.



Figure 3: Master plan

2.3 Public & Active Transport Opportunities

2.3.1 Introduction

The Site is limited with the current public transport service offering, as shown in **Figure 4**. Therefore, for this Site Audit, the public & active transport opportunities have been identified, noting that there are a number of projects and plans which relate to the strategic development of the MRP and more broadly the Western Sydney Employment Area (WSEA) and Broader Western Sydney Employment Area (BWSEA).

One such project is the Mamre Road Upgrade Project, which will see Mamre Road upgraded between the M4 Motorway and Kerrs Road (south of the Site, and north of Elizabeth Drive). The upgrade specifically provides for new bus stops along its entire route, with bus jump lanes at intersections also included in the strategic design.

This section will need to be updated prior to the finalisation of any future STP, and accordingly as part of the review process, as the wider area develops.

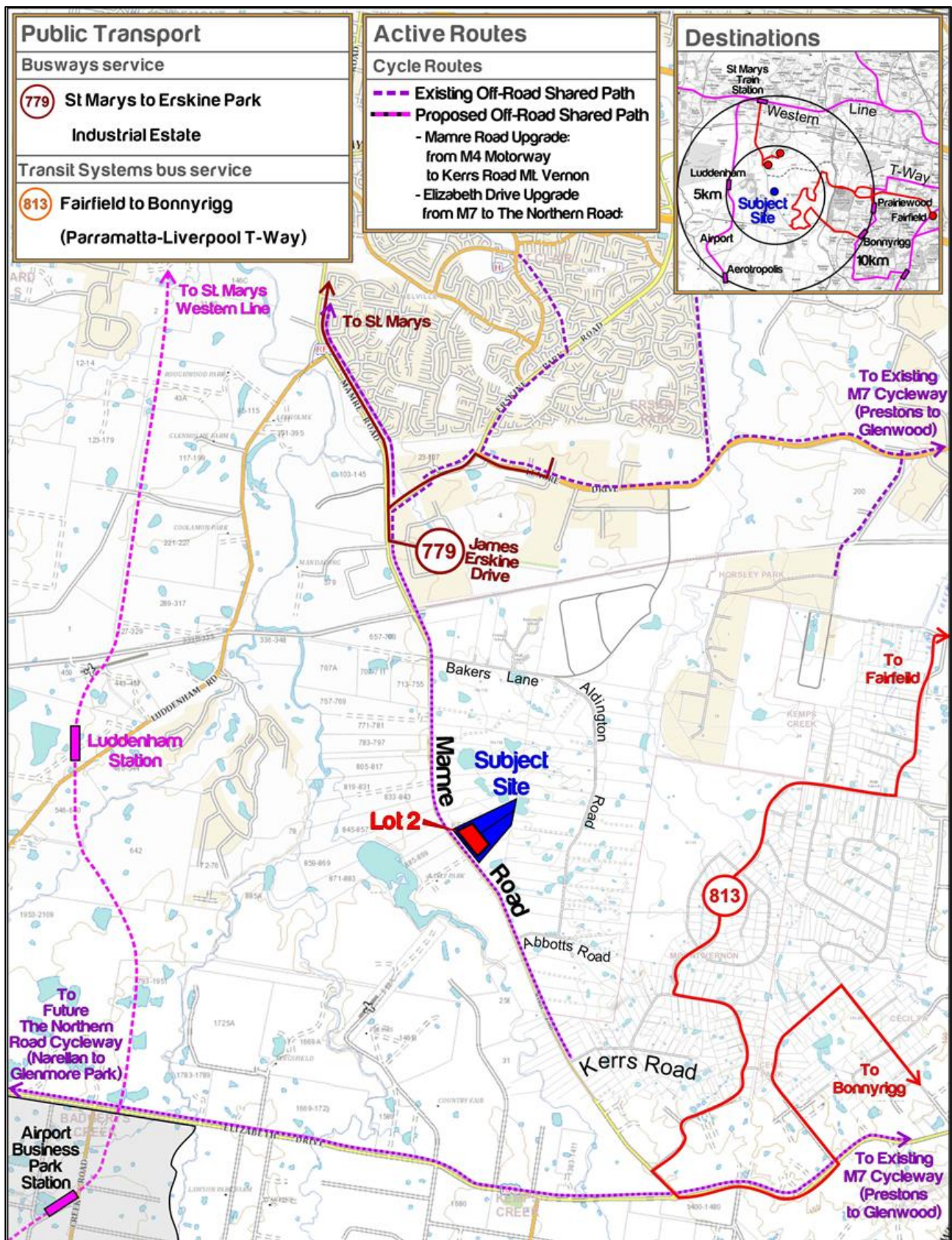


Figure 4: Public Transport Network

2.3.2 Bus Services

The planning of bus services in Sydney is governed by the NSW Service Planning Guidelines, which aim to establish Strategic Transport Corridors and a hierarchy of bus route types that:

- Link to regional centres (such as Penrith and Mt Druitt);
- Pass through patronage generators such as district centres, TAFE colleges, hospitals and universities;
- Connect with other transport modes (trains, ferries and other buses);
- Are multifunctional (serving journeys to work, education, shopping and recreation);
- Are direct and frequent; and
- Meet the network planning principles.

It is also the case that the establishment of public transport services as early as possible in the development stages of the MR Precinct is important to achieve a culture of public transport use from the outset. To make public transport a viable choice in the study area, the services will ideally:

- Integrate with existing bus services in the area;
- Connect to regional centres of Penrith, Mt Druitt and Blacktown; and
- In the long term, connect to areas such as Leppington in the South West Growth Centre, Prairiewood and the Liverpool to Parramatta T-Way.

While the internal MRP road network is still to be finalised as part of the DCP, it is clear from the intent of the objectives contained within the Draft DCP that a connected bus network will be provided. As per the Draft DCP, as all internal roads will accommodate heavy vehicles, they would also be capable of accommodating bus services (although no allowance has been provided at this time). Therefore, there are significant opportunities to provide sub-regional services along Mamre Road and Aldington Road, as well as services within the internal MRP road network to maximise the number of sites that lie within 400m of a viable bus service.

Noting that TfNSW Guidelines state that bus services influence the travel mode choices of sites within 400m (approximately 5 minutes' walk) of a bus stop, access to bus services will be a key factor in influencing travel behaviour.

Key bus routes identified in the BWSEA Structure Plan are shown in **Figure 5**. It is acknowledged that these routes will require updates following finalisation of the MRP and network planning for the Aerotropolis Precincts more broadly.

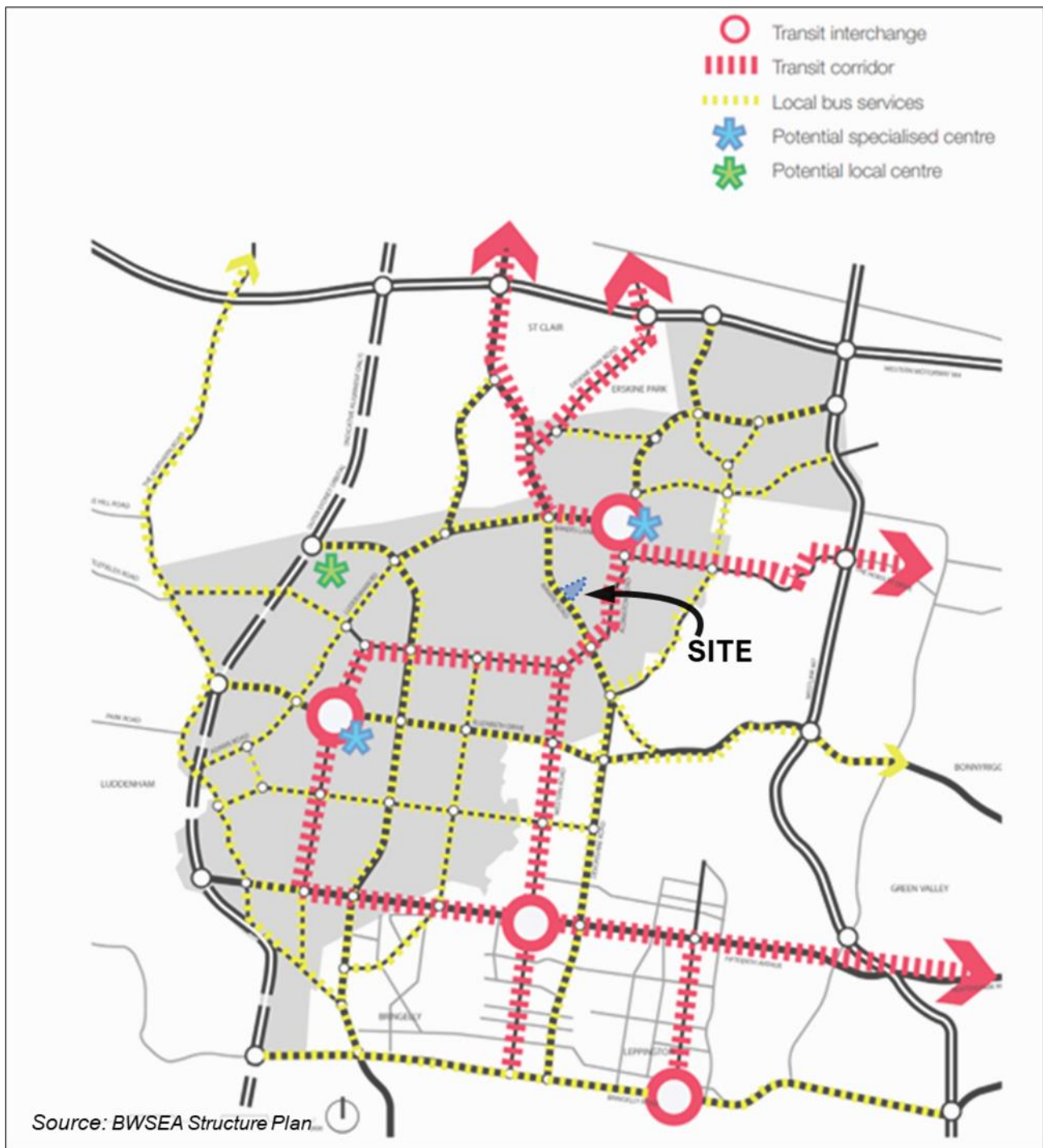


Figure 5: BWSEA Public Transport Structure

2.3.3 Train Services – Metro Western Sydney Airport

The closest train station to the Site is currently some 10 kilometres away. However, the Metro Western Sydney Airport will provide 23 kilometres of new railway to link residential areas with jobs hubs and the rest of Sydney's public transport network.

The alignment of the Metro is shown by **Figure 6**. While the closest station to the Site will likely be Luddenham Station, located approximately 4km west of the Site, it will undoubtedly improve public transport

accessibility to the wider area. This provides an opportunity for bus services to combine with the Metro to improve connectivity to/from the residential areas to the north of the Site.

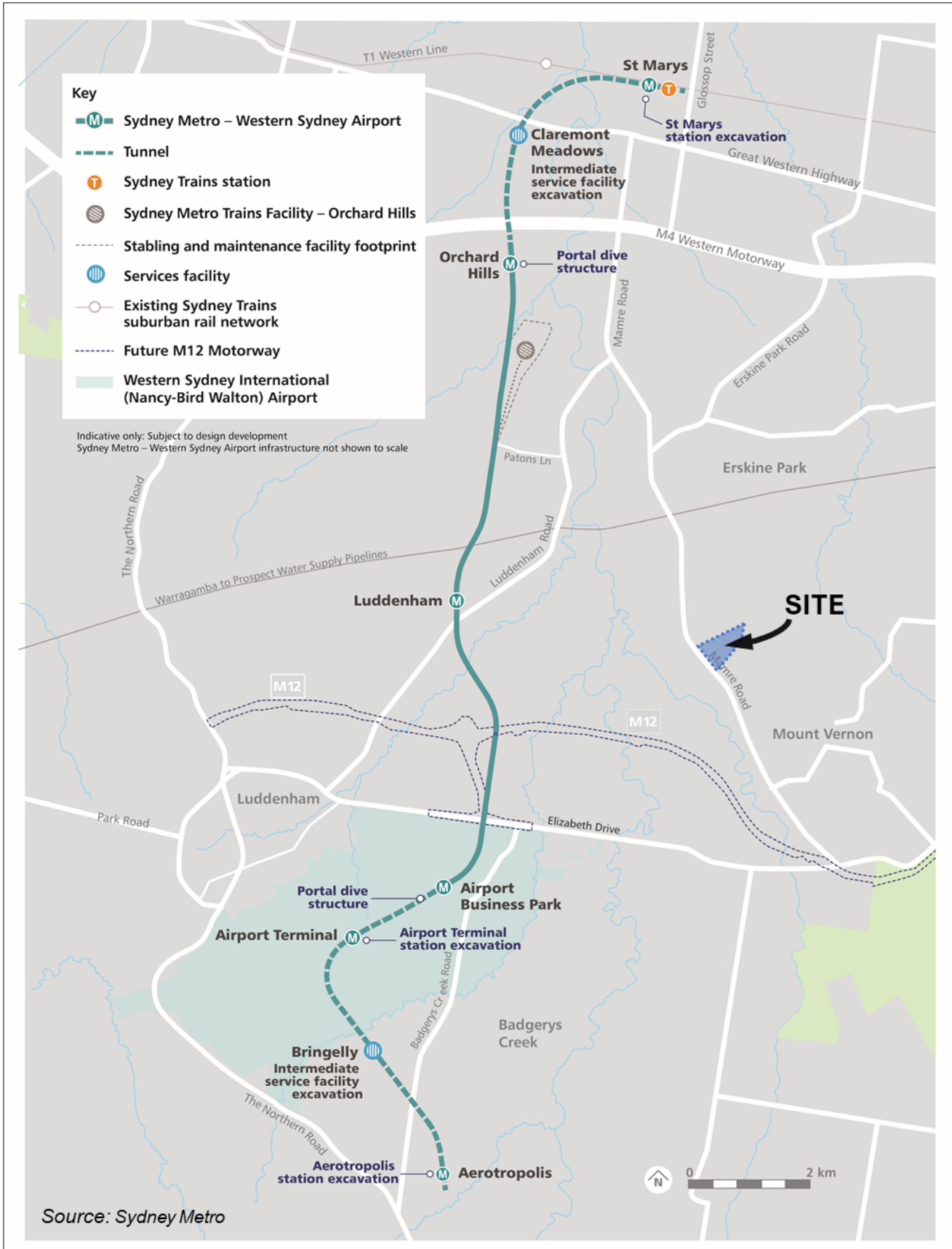


Figure 6: Metro Western Sydney Airport Alignment

2.3.4 Bicycle Network

At present, shared paths (pedestrian and cycle) are provided along Erskine Park Road and sections of Mamre Road to the north of the Site, but there is little cycling (or pedestrian) infrastructure around the Site itself.

The BWSEA Structure Plan provides a detailed outline of future active transport objectives and strategies, acknowledging that the provision of such will be essential to encourage the use of active transport from the outset. In this regard, the BWSEA provides the following key objectives:

-
- ⇒ *Provide quality pedestrian and cycling environments around transit corridors and facilities.*
 - ⇒ *Understand the key walking and cycling needs in the region and the need for the separation of pedestrians and cyclists from motor vehicle traffic.*
 - ⇒ *Recognise that all trips involve walking at either the beginning or end of the journey, resulting in the need for connections between parking and public transport areas and destinations.*
 - ⇒ *Recognise that walking and cycling paths can form key routes between destinations.*
 - ⇒ *Understand that walking and cycling trips perform a variety of functions, not only travel from an origin to a destination, but such trips are also undertaken for recreation and/or health benefits, which can be influenced by the amenity of the route.*
-

Key active transport routes identified in the BWSEA Structure Plan are shown in **Figure 7**, noting again that the Mamre Road Upgrade project will provide shared paths along at least one side of the road for its entire length, once complete.

2.3.5 Pedestrian Connectivity

Due to the current largely undeveloped nature of the land immediately surrounding the Site, pedestrian infrastructure is currently non-existent. Key pedestrian desire lines in the vicinity of the Site would be triggered by connections to future public transport infrastructure, noting the nature of the area being largely industrial and therefore not representing key destinations and attractions for people to walk to.

In this regard, it is noted that the upgraded Mamre Road will include shared cycle and pedestrian pathways along its length. Further, the Draft DCP requires internal roads to provide a footpath of 1.5m on one side (minimum) and shared path of 2.5m (minimum) on the opposing side of the road. It also requires roads to be provided with shared cycle and footpaths.

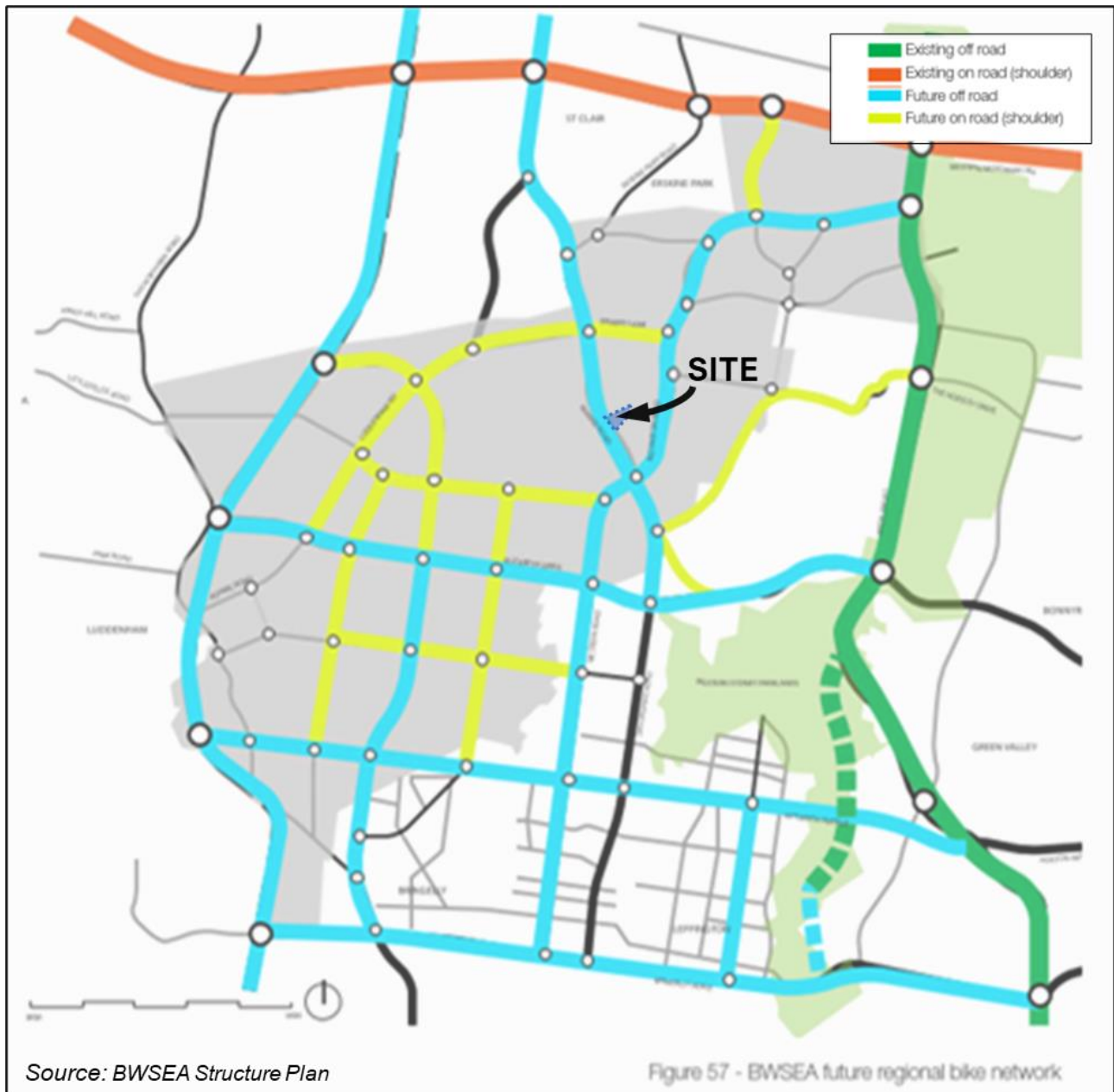


Figure 7: BWSEA Cycle Routes

2.4 On Demand Services

2.4.1 Car Share

Car sharing has emerged as a cost effective, flexible alternative to private vehicle ownership. Provision of car share in the area could facilitate intermittent work trips that may need to be made by car such that staff can commute by other modes.

As a future industrial area, it is not anticipated that car shares such as GoGet would be particularly successful, particularly in the early stages of development. Nonetheless, given the benefits to reducing the need for a private vehicle, it will be worth considering its appropriateness as the area develops.

Prior to the commencement of car share providers such as GoGet, it is proposed to consider schemes such as provision of car share priority parking spaces, to actively encourage car sharing amongst staff.

2.5 Existing Travel Patterns

2.5.1 Journey to Work Data Analysis

Journey-to-Work (JTW) data from the Australian Bureau of Statistics (ABS) 2016 Census and specifically aggregated Destination Zones (DZ) has been referenced to understand the baseline travel characteristics of the Site. This data informs the initial targets and should be refined and updated as part of the monitoring process.

A summary of key travel modes for those travelling to the locality for work have been reviewed with regard for the surrounding Destination Zone 115184210, within the Horsley Park – Kemps Creek statistical area.

The travel modes are presented in **Table 2**.

TABLE 2: EXISTING TRAVEL MODE SUMMARY (JOURNEY TO WORK)

Travel Mode	Mode Share of Employees
Car as driver	92%
Train	0%
Bus	2%
Walked only	1%
Car as passenger	3%
Motorbike/Scooter	0%
Bicycle	0%
Taxi	1%
Other Modes	1%

With reference to Table 2, it is evident that the private vehicle (car) is the overwhelming preferred mode of choice for commuters travelling to work in the area. The data indicates that 95% travel to work by car with 92% as the driver and 3% as passenger i.e., car-pooling.

3 Development, Scope & Implementation of the Plan

3.1 Introduction

This section sets out in broad terms how the FSTP will be developed into site-specific STPs and the scope of the FSTP.

3.2 Responsibility

The responsibility for the future Travel Plans will lie with site management and should form part of organisational policies. Future STPs should include a statement on company policy in relation to travel and should be endorsed by senior management.

3.3 FSTP Scope

The future STP address the following types of travel generated by the development:

- Commuter journeys by staff;
- Visitor journeys;
- Business travel; and
- Site related deliveries from contractors etc.

The future STPs are expected to have most effect on commuter journeys by staff. While the operator will aim to encourage sustainable travel by visitors, ultimately staff travel is easier to influence.

The aim is to develop practical measures that are effective in reducing car use for all journeys to the Site.

3.4 Implementation

A Travel Plan Coordinator (TPC) should be appointed to act as the primary point of contact for enquiries relating to the progress of the future Plans. It is recommended that a consistent TPC be appointed for the Estate so as to achieve a coordinated approach across the Site. However, as the individual sites will be responsible for implementing their own STPs, this will be at the discretion of site management. The TPC will manage all aspects of the STP, including the co-ordination and joint working practices between those on-site.

The TPC will promote participation in and commitment to the future STP from site tenants and will work in partnership with all stakeholders to deliver the strategies and actions.

The TPC should be appointed before the Site becomes occupied, or within 1 month of the site becoming occupied. Contact details for the TPC should be provided in the implemented Plan.

The main duties of the TPC are envisaged to be:

- Overseeing final development and implementation of the STP.
- Internal liaison to promote awareness of the STP amongst businesses and staff within the Estate.
- Liaison with outside bodies, such as Penrith City Council (Council) and local bus operators, as required regarding the operation of the STP.
- Providing updated travel information to staff and visitors, as necessary.
- Monitoring, review and (if necessary) updates to the STP.

3.5 Consultation

It is essential that any parties that may play a part in the future of STP's and their actions are aware and have an opportunity to discuss. This would enable equitable input and feedback as well maximising their overall efficacy. For this reason, a coordinated approach to STPs across the Estate should be implemented (subject to individual tenant participation) to assist in the consultation with the relevant parties, which could include the following:

- Council Traffic & Transport Department and Traffic Committee
- Local Bus Operators
- Transport for New South Wales

Other organisations may be added to this list as the Plans evolve.

3.6 Travel Mode Targets

3.6.1 Introduction

Based on the existing travel mode splits identified in Section 2.5, the Site and the surrounding areas are considered to have a low dependency on public and active transport. This is reflective of the current nature of the area, which accommodates rural residential properties and agricultural businesses.

However, noting the future land use of the Site as industrial in nature, it is expected that the JTW data accurately reflects the current trends for travel to places of work at industrial sites. The RMS Guide to Traffic Generating Developments – Updated Traffic Surveys itself provides details in relation to the principal mode of travel used by staff at the Erskine Park and Eastern Creek warehouses surveyed by TfNSW. These surveys indicate that 90% of all workers would travel via private vehicles with 8% travelling as passengers.

This section therefore sets out the targets for the reduction in car journeys associated with the Site, with consideration to the future land use in the area. Targets are the means of measuring the achievement of the objectives. They need to be clear, directly linked to the objectives, monitored and reviewed.

Questionnaire surveys will be conducted in the future that will form the updated travel mode baseline to further develop site-specific targets. The first surveys will be undertaken shortly after occupation. These surveys will be repeated at a suitable time to assess the effectiveness of the implemented Travel Plan; the targets are to be reviewed to align with the most up-to-date information.

The implemented STPs are to be in place for the lifetime of the development. The initial timeframe in which targets need to be monitored and reviewed will be reviewed every 1-2 years, for a minimum of 5 years.

3.6.2 Mode Share Targets

It is essential that Mode Share targets be achievable with consideration for the public transport, walking and cycling opportunities available within proximity to the Site. Targets should also be factoring in what future transport options could reasonably be used to access the Site, and also the nature of the development itself.

As per Section 1.2, the AECOM Report provides a mode share target for public & active transport of 20% and by car of 80% by 2056 for the nearby Badgerys Creek Precinct. Sites within the MRP should reflect a similar target. While at least maintaining the existing carpooling mode share of 3% (Table 2), this represents a decrease in travel by car (as a driver) by 15% by 2056.

Further, it should be recognised that during the earlier stages in development of the MRP, it would be anticipated that change in travel behaviour will be slower than in other areas, while the public and active transport networks are still being integrated.

The targets should therefore be revisited and updated after the opening of the relevant development as part of the monitoring process. The preliminary targets are nominated in **Table 3**, which represents a 5-year target to coincide with the minimum 5 years of monitoring and review.

TABLE 3: PRELIMINARY 2026 MODE SHARE TARGETS

Travel Mode	Mode Share of Employees	Proposed Targets	Relative Change
Car as driver	92%	88%	-4%
Train	0%	0%	-
Bus	2%	4%	-
Walked only	1%	1%	+2%
Car as passenger	3%	3%	-
Motorbike/Scooter	0%	1%	+1%
Bicycle	0%	1%	-
Taxi	1%	1%	+1%
Other Modes	1%	1%	-

4 Measures and Action Strategies

4.1 Measures

The below is a range of measures which could achieve the objectives of this FSTP. It is critical to note that these are suggested measures and are not necessarily likely to be applicable in the early stages of development in the MRP.

This section needs to be reviewed and confirmed prior to implementation of any future Plan.

- An introduction to the GTP for all staff, setting out its purpose and objectives.
- Provision of public transport travel information for staff, customers and visitors.
- Encouragement of car sharing, both amongst staff on site and in the wider context.
- Provision of car share spaces (future potential measure) and / or provision of a business “pool car” while public car share operators are limited in the area.
- Assisted cycle purchase schemes.
- Interest free loans to assist with cycle purchase, cycle equipment purchase etc.
- A transport section on the company website with links to local bus operator sites, to ensure that travel information is always up to date.
- The provision of transport information for visitors to the Site.

4.2 Strategies

Six main strategies are identified, and the actions required for each are detailed in Table 3. The table details specific actions that could be implemented as part of a future site-specific STP (subject to tenant requirements) and the party responsible for implementing each action.

These actions must be reviewed at regular intervals to ensure that the mode split targets are being met. By that principle, this document is classed as a living document and subject to regular review. It is important to note, that the actions should not be taken as mandatory but rather potential options that should be investigated and implemented by future inhabitants of the development.

TABLE 4: PROPOSED STP ACTION STRATEGIES

STRATEGY	HOW IT WORKS	RESOURCES / RESPONSIBILITY	TIMELINE	FUNDING
1 Travel Planning and Demand Management				
1.1 Green / Sustainable Travel Plans	- Develop a STP to provide information for Travel Access Guide (TAG) (See Appendix A) - Management of STPs. - Promotion of STPs.	Building Manager to be responsible for overall implementation of final STP and providing annual reporting on STP outcomes to Council. Tenant to develop Company specific travel plan based on Final STP prior to the commencement of a new lease/sale of property. Company/Staff/Visitors shall be responsible for ongoing implementation of Company assigned actions and participation in annual monitoring and reporting process to Council	Upon completion of the development and ongoing annual STP events	Tenant / Business Owner
1.2 Travel Information Points	- Establish locations such as travel information points where staff and visitors and others can access travel information via interactive platforms. - Promotion of STPs - Provision of travel and transport information options	Tenant / Business Owner	Subject to employer preference.	Tenant / Business Owner
1.3 Flexible Working hours	Allow employees the flexibility to commute outside peak periods to reduce overall congestion and travel time.	Tenant / Business Owner	Subject to employer preference. Action to be considered by employers / Visitors as part of an Employer specific STP to be developed and forwarded to Council prior to building occupation.	Tenant / Business Owner
1.4 Teleworking	Provide the option to work remotely (where possible) to reduce the number of vehicles travelling to the development and encourage teleconferencing rather than travelling to meetings.	Tenant / Business Owner	Subject to employer preference. Action to be considered by employers / visitors	Tenant / Business Owner

STRATEGY	HOW IT WORKS	RESOURCES / RESPONSIBILITY	TIMELINE	FUNDING
2 Promoting Public Transport				
2.1 Opal Card Loan Schemes / Subsidising schemes for public transport travel through pre-paid credit cards	Company may consider subsidising staff public transport travel. Alternatively, staff can pay for their own Opal Cards / pre-paid travel card through their salary, spreading the cost over the year to make it more affordable.	Tenant / Business Owner / TPC	Subject to employer. Can be implemented at building occupation	Tenant / Business Owner
2.2 Maximise Bus Service Frequency	- Meet or exceed Transport NSW bus planning guidelines. - Decrease headway where possible, especially during peak periods. - Report back to Transport for NSW on perception of bus service adequacy	TfNSW	Developer to hold on-going discussions with TfNSW after each annual review of STP and report on relevant findings	TfNSW
2.3 Provide bus stops with shelter facilities	Ensuring provision of bus stops suitable for waiting areas for commuters – Developer to recommend improvements to the proposed / implemented bus stops along Aldington Road to TfNSW.	TfNSW	Subject to discretion of TfNSW. Advisable to be prior to the opening of the development	TfNSW
2.4 Public Transport for work travel	The company and the TPC can promote public transport as one of the main preferences for work travel. This should be supported by all users and visitors to development having access to Opal Cards.	TPC	Subject to employer. Can be implemented at building occupation	Tenant / Business Owner
2.5 Lobby for Precinct wide shuttle service	Shuttle service initiative that would transport staff to / from the MRP to the Railway Station.	TPC to lobby Estate Manager / Owner	Ongoing in the workplace. Updates can be made to organisation as appropriate	Estate Owner / Manager
3 Promoting Carpooling				
3.1 Open Car Sharing	Where anyone in a defined geographical area can join a ride sharing scheme. This involves no input from the employer and should be on the onus of staff to schedule.	Staff	Ongoing in the workplace	Fuel costs can be arranged and split equitably by those involved
3.2 Closed Car Sharing	The company / department sets up an in-house car-matching scheme	Company, TPC	Ongoing in the workplace. Updates can be made to organisation as appropriate	Tenant / Business Owner

STRATEGY	HOW IT WORKS	RESOURCES / RESPONSIBILITY	TIMELINE	FUNDING
3.3 Third-party Car Sharing Program	Companies such as Liftshare are an online service that facilitates journey sharing between individual users, as well as providing separate services for businesses, organisations and events.	Staff – encouraged by TPC	Ongoing in the workplace	Staff
3.4 Carpool week	Arrange for a dedicated carpool campaign week to promote the benefits of carpooling.	Tenant / Business Owner	One week per calendar year	Tenant / Business Owner
4 Promoting Cycling				
4.1 Create a Bicycle Users Group (BUG)	BUGs are local groups of like-minded bike riders who get together generally for social riding in their area. For the purposes of the workplace, this can be adapted as a way of creating a social and healthy aspect of travelling to work. As a minimum, the establishment of the BUGs should be promoted as Precinct wide initiative.	Tenant / Business Owner, TPC	Ongoing in the workplace	Tenant / Business Owner
4.2 Providing & Maintaining End of Trip Facilities	Providing facilities such as showers, change rooms, lockers. For the initial stages of development, it is recommended to provide facilities compliant with the relevant controls, and as the Site develops further, they should be reviewed as part of the STP monitoring process to meet any increase in demand.	Developer / Estate &/or warehouse Owner / Manager	To be provided at sports complex completion	Developer / Estate &/or warehouse Owner / Manager
4.3 Promote Bicycle Initiatives	Promotion of bicycle initiatives – NSW bicycle week, Ride to Work etc.	TPC	To be promoted annually	Developer / Estate &/or warehouse Owner / Manager
4.4 Advertise Bicycle Routes	Promotion of bike lanes through the TAG.	TPC	To be promoted and provided at communal areas such as key information kiosks within facility	Tenant / Business Owner
5 Promoting Walking				
5.1 Providing End of Journey Facilities	Provision of sufficient end of trip facilities such as showers, change rooms, lockers etc	Developer	To be provided at completion of development	Tenant / Business Owner

STRATEGY	HOW IT WORKS	RESOURCES / RESPONSIBILITY	TIMELINE	FUNDING
	to maximise pedestrian activity throughout the site and the wider precinct.			
5.2 Walking routes	Incentivise travelling by foot by highlighting possible routes particularly those to nearest bus stops	Tenant / Business Owner	To be promoted and provided at communal areas such as key information kiosks within facility	Tenant / Business Owner
5.3 Promote walking initiatives	Promotion of walking initiatives: walk to game / training day, pedometers / step challenge / gamification of walking / reward programs based on steps to elevate pedestrian activity throughout site and to / from public transport points.	Tenant / Business Owner, TPC	To be implemented monthly or as appropriate throughout the calendar year.	Tenant / Business Owner
7 Influencing Travel Behaviour				
7.1 Provision of Sustainable Travel Packs to employees and visitors	Introduces employees and visitors alike to the STP and provides information on walking and cycling routes, and travel by bus & train, timetables, and access routes. This would include a TAG.	Tenant / Business Owner, TPC	Travel Packs to be provided upon occupancy of building to employees.	Tenant / Business Owner

4.3 Communications Strategy

4.3.1 Welcome Packs

New staff shall be provided with a 'welcome pack' as part of the on-site induction process which includes a STP Pamphlet and other information in relation to sustainable transport choices. This pack shall include copy of the STP, and a Travel Access guide (TAG) as provided in **Appendix A**, as well as general information regarding the health and social benefits of active transport and advice on where to seek further information. It is recommended that an electric copy of the welcome pack be created and made available to staff.

4.3.2 Accurate Transport Information

In addition to these 'welcome packs', a copy of the TAG (Appendix A) shall be clearly displayed in communal areas of the site including (but not limited to):

- Staff lunch room
- Lift lobby area and entrances to buildings
- Any marketing material associated with the Site, such as websites and newsletters.

5 Monitoring Strategy

5.1 Plan Maintenance

This Plan shall be subject to ongoing reviews and will be updated accordingly. Regular reviews will be undertaken by the TPC. As a minimum, a review of the STP would occur every 1-2 years.

The key considerations when reviewing or monitoring the STP are as follows:

Update baseline conditions to reflect any changes to the transport environment in the vicinity of the Site such as changes to bus services, new cycle routes etc.

- Track progress against target travel mode targets.
- Identify any shortfalls and develop an updated action plan to address issues.
- Ensure travel modes targets are updated (if necessary) to ensure they are realistic and remain ambitious.

5.2 Monitoring

So as to record the overall success, as well as the effectiveness of the individual measures, monitoring and review of the STP is to be conducted at regular intervals. The TPC will act as the primary point of contact for all enquiries relating to the STP's progress.

The STP will be monitored around every 1-2 years, with the first survey being carried out shortly after first occupation of the Development. Travel mode surveys would determine the proportion of persons travelling to/from the Site by each transport mode. This will be in the form of annual travel mode questionnaire surveys to be completed by all persons attending the site, as far as practicable. A sample of a typical travel mode questionnaire form is included in Appendix B.

If targets are not met at the end of the initial period of monitoring, the STP will be reviewed, new measures introduced and would be reassessed at the next monitoring stage.

Appendix A. Travel Access Guide

Travel Access Guide

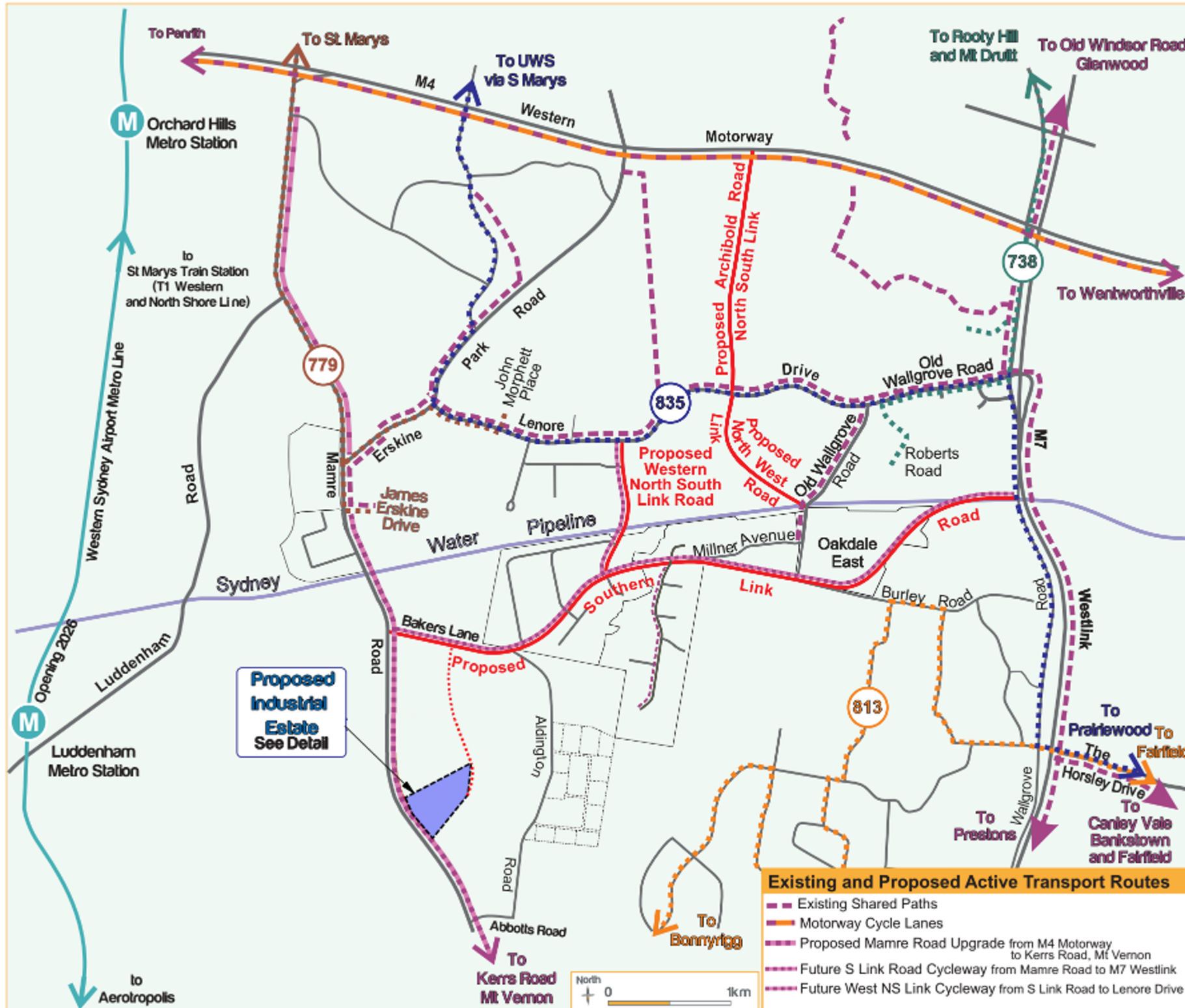
884 928 Mamre Rd
Kemps Creek



Kemp's Creek
2178



Access			
●	Car Park Entry / Exit		
●	Truck Entry / Exit		
Warehouse No. Parking Spaces			
1 -	5.20	9.9	13.17
2 170	6.18	10.9	14.20
3 -	7.17	11.9	15.80
4 -	8.15	12.10	16.18



Appendix B. Sample Questionnaire